2016 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.
2016 Annual Report

Presented to the General Meeting of Shareholders held on 29 March 2017.

Central bank and prudential supervisor of financial institutions

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The cut-off date for this Report was 16 March 2017.

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: Job Swank, Klaas Knot, Frank Elderson and Jan Sijbrand

At the adoption of the 2016 financial statements, the Governing Board, Supervisory Board, Bank Council and Employees Council of De Nederlandsche Bank, and its governance, were 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; Chairman for Prudential Supervision)

Executive Director: Frank Elderson (1970, NL; Dutch law, end of first term: 2018; Executive Director of Supervision, Legal Services and Resolution)

Executive Director: Job Swank (1955, NL; economics, end of first term: 2018; Executive Director of Monetary Affairs, Financial Stability and Payments)

Secretary-Director: Nicole Stolk (1969, NL; history and Dutch law; Internal Operations)

Company Secretary: (vacancy)

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

Marry de Gaay Fortman joined the Supervisory Board on 1 July 2016, succeeding Bert van Delden, who resigned from the Supervisory Board on 30 October 2016 on completing his third and last term. Feike Sijbesma and Kees Goudswaard were reappointed as members of the Supervisory Board for a second term of four years as of 1 September 2016 and 1 October 2016, respectively. On 1 March 2017, Menno Deurloo stepped down as Company Secretary.

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.

(vacancy)
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.

Michaël van Straalen
Chair of Royal Association MKB-Nederland.

Representative of the Ministry of Finance:
Hans Vijlbrief, Treasurer General.

The Supervisory Board appointed Kees Goudswaard as member of the Bank Council as of 1 November 2016 as successor to Bert van Delden, who resigned on 30 October 2016. Ton Heerts, resigned as member of the Bank Council in his capacity of Chair of FNV as of 1 July 2016. Harry Garretsen was reappointed as member of the Bank Council for a second term of four years as of 15 September 2016, as independent expert from the academic world. Albert Jan Maat resigned as member of the Bank Council in his capacity of Chair of LTO Nederland as of 1 October 2016. Marc Calon was appointed as member of the Bank Council as of 1 January 2017, in his capacity as Chair of LTO Nederland.

Employees Council

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

DNB’s 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 supervisory authority and resolution authority, DNB is an independent public body.

The Governing Board of DNB is responsible for its management. The Governing Board 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. As such he holds primary responsibility for supervisory policies and also acts as the primary external contact for subjects relating to DNB’s supervisory tasks. This Executive Director is also a member of the ECB’s Supervisory Board on DNB’s behalf. Within the framework of the Single Supervisory Mechanism (SSM), decision-making on the supervision of significant banks within the euro area takes place under the auspices of the ECB’s Supervisory Board. DNB set up 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. A Resolution Council, chaired by the Executive Director for Resolution, was established to support DNB in its 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 and 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, payment systems and DNB’s task of issuing economic advice. 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 DNB-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 significant powers, including approval of the budget and of certain Governing Board decisions. It consists of at least seven and at most ten members, one of whom is appointed by the Minister of Finance.

The Bank Council functions as a sounding board for the Governing Board. The President 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 website on its implementation of the Code.

Introduction by the President

Introduction by the President

Economy unruffled by international developments

The world economy passed remarkably smoothly through the turmoil of 2016. It proved itself more resilient than envisaged, particularly in the light of a series of political events considered beforehand as a risk to political stability, investment and demand, and international trade. However, the vote for Brexit, the US presidential elections, the Italian constitutional referendum, and the ongoing geopolitical unrest in the Middle East, North Africa and The Crimea barely affected global economic growth and financial market stability.

The outlook for 2017 is up to now also positive. The recovery of the worldwide economy has so far been robust. The IMF has forecast that the global growth path will even increase to around 3.5% in 2017 and 2018. Emerging economies recovered somewhat in 2016 and China seems to be on course to maintain growth above 6%. The turbulence at the beginning of 2016, which raised fears of a hard landing for the Chinese economy, slowly subsided. Growth expectations for developed economies are also higher. Japan and the United Kingdom have performed substantially better than expected, and US public spending is likely to gain an added impulse under the new government. Growth in the euro area remains stable at around 1.6%. This is disappointing, as various Member States such as Ireland, the Netherlands and Spain, have proved that higher growth is possible.

Political uncertainty, renewed protectionism and resistance to globalisation do however present long-term risks. The new US President's policy is based on protectionism and an anti-immigration agenda. Brexit has been interpreted as a vote of no confidence in Brussels, posing fundamental questions about the European project. The complex ratification of the trade agreement between the European Union (EU) and Canada (CETA), the breakdown in negotiations over an adjusted trade deal between the EU and the United States (TTIP) and the US rejection of the Trans-Pacific Partnership (TPP) also emphasise a tendency towards protectionism. As a small, open economy, the Netherlands is vulnerable to this shift.

These trends are accompanied by already low growth in world trade. While long-term average trade growth stood at 7% in 1983-2007, it has fallen to around 3% since 2012, in what is a largely structural trend. Growth in global value chains has slowed, partly because of increased labour costs in emerging economies and businesses' reassessment of the risks of long supply chains. Furthermore, there seem to be limited opportunities to further reduce the transport costs and import tariffs.

Persistently high debt levels are another cause for concern. Worldwide debt has reached unprecedented levels: according to IMF estimates, the non-financial sector's global debt has increased to 225% of world GDP (EUR 135,000 billion), of which over two-thirds comprises private sector debt. Including the financial sector, total global debt has risen to as much as

325% of GDP. The main concern in this respect is the vulnerability of businesses in emerging economies, due to excessive dollar-denominated debt on their balance sheets. A hike in US interest rates and increasing protectionism, leading to capital outflows or an appreciation of the dollar, could hit these businesses hard.

Various European countries also have higher debts than before the crisis. At the end of 2016, average public debt in the euro area still stood at over 90% of GDP, more than 25 percentage points above average pre-crisis debt levels and 30 percentage points above the Maastricht ceiling. It is also concerning how long it has taken to arrest the trend of rising public debt. Since 2007 public debt has increased virtually every year in most countries, with only a slight decrease in the last year. There are high levels of both private and public debt in several European countries, including Belgium, Cyprus, France, Greece, Italy, Spain and Portugal. Structural reform, including of the national banking sectors, is particularly vital for stimulating growth in these countries. In its absence, manageability of the debt dynamic will deteriorate alarmingly quickly when interest rates start to rise.

Incentives for excessive debt financing must be removed. The current accommodative monetary policy reduces the costs of debt financing, and phasing it out will be a first important step in removing incentives for accumulating debt. Fiscal policy also contributes towards debt accumulation, as only the costs of borrowed capital are tax deductible. In the financial sector, these fiscal stimuli and supervisory requirements have a counteractive effect. Supervision rules are precisely intended to increase the proportion of an institution's own funds in its financing structure. This calls for fiscal reforms that lead to a more equal tax treatment of equity and debt capital, in order to remove the incentives for excessive debt financing.

Euro area: the time has come to phase out unconventional monetary policy

The recovery of the euro area has been partly supported by the accommodative monetary policy. Due to this policy, bank lending rates have markedly fallen since June 2014, taking lending rates for the European SME sector with them. Corporate bond yields have also fallen. These more favourable financing conditions support consumption and investment. However, the influence of the euro exchange rate has been the primary conduit through which monetary policy has supported the economy in the euro area.

Nonetheless, the time has come to gradually rein in the euro area's accommodative monetary policy. The tail risk identified two years ago at the start of the asset purchase programme – involving a downward price spiral by which consumers delay spending in anticipation of lower prices – has since subsided. There is a discernible rise in the rate of inflation. The euro area has embarked on a path of catch-up growth since mid-2014.

More generally, growth scenarios in recent years faced downside risks, while the growth forecast now also takes upside risks into account. The labour market in Europe is picking up faster than expected, and the spending boost may be limited in the light of elections in various major countries. The new US government also appears to be inclined towards providing fiscal stimulus. In December the US Federal Reserve already raised interest rates in anticipation of economic developments, and is expected to do so again several times in 2017. Insofar as this leads to a lower exchange rate for the euro, it will further bolster the price level in the euro area as a result of import inflation and pressure on production capacity due to rising exports. In this climate of rising growth and inflation, unconventional monetary policy in the form of the asset purchase programme is overkill. Under these circumstances, conventional instruments are more suited for safeguarding price stability.

Sustained unconventional monetary policy is also becoming increasingly less effective. In view of the high volumes of liquidity in circulation and the extremely low interest rates, introducing even more liquidity or lowering interest rates even further is of increasingly limited value as the positive effect on lending, investment and consumption is barely discernible. In a situation where savings targets are under extreme pressure from low rates of interest, people nonetheless continue to have an incentive to save, and therefore to spend less. This effect is stronger in countries with financial structures that are more conducive to saving. These include countries with a system underpinned by pension commitments such as the Netherlands, which is based on a fixed level of benefits. Sustained unconventional monetary policy is also less effectively transmitted through the channel of portfolio substitution, whereby investors adjust the composition of their investment basket based on changes in the risk-return profile. This mechanism becomes less effective the further risk premiums fall. Additional returns that can be generated by taking risks compensate to an increasingly lesser extent for the underlying risks.

The undesired side-effects of unconventional monetary policy are also increasing. The side-effects of this policy primarily undermine the operation of the financial markets. The large-scale purchase programmes and the flood of liquid assets has set the risk compass in financial markets spinning, with misallocations as a result. This is reflected in higher correlations between asset classes, diminishing market liquidity and inconsistent risk pricing. Current monetary policy creates an unhealthy search for yield. Partly as a result, prices on certain asset markets, such as real estate and bonds, may diverge from their fundamental values. Secondly, this fuels the risk that households, businesses and governments will be overindulged by the low interest rates. They will lose the incentive to clean up their balance sheets, push through structural reform and thus develop resilience to a higher interest rate environment. The continuing presence of zombie banks and businesses, or rather the lack of creative destruction, damages the European economy's growth potential. Thirdly, the prolonged period of low interest rates erodes the position of financial institutions, particularly life insurers and pension funds.

Unconventional monetary policy must be phased out gradually. The end of the European Central Bank's asset purchase programme is ultimately inevitable, not only due to the improving economic outlook, but also to the legal and institutional boundaries that have been placed on it. That does not mean an abrupt halt to accommodative monetary policy; monetary conditions will remain accommodative for some time yet due to the Eurosystem's reinvestment strategy. Even if monthly asset purchases decline or stop, the Eurosystem balance sheet will continue to have high levels of government paper for a long time still. Normalisation of monetary policy must be announced well in advance to ensure markets are not taken by surprise.

Europe: although it has become stronger in recent years, the EMU is still inadequate

The stalled convergence process in Europe erodes support for far-reaching integration. For a long time, the advantages of European integration were almost incontestable, partly because integration fuelled greater prosperity. The creation of the Single Market in 1992 and the accession to the EU of countries from the former Eastern Bloc following the fall of the Berlin wall gave a strong impulse to Economic and Monetary Union (EMU). This reinvigorated growth in intra-EU trade, with less prosperous countries' income growing towards the level of the more prosperous Member States. However, this convergence process has stalled. Of the twelve original EMU nations, those countries with a relatively low GDP per capita – particularly Greece, Italy and Portugal – have since 1999 diverged further from the EMU average.

EMU Member States would benefit from further adjustments. Three stand out in particular.

A reduction in the structural differences between countries, including those related to institutional quality and competitiveness. This would boost growth potential and resilience to shocks. The EMU's strength ultimately lies in the collective strength of its Member States. Every country in the world, irrespective of whether it is a member of a monetary union, must continually adapt to global developments to maintain levels of competitiveness and prosperity. A failure to implement reform simply means that the EMU will not realise its full potential. As exchange rate realignment is not possible within a monetary union, a Member State that lags behind will be hit particularly hard if alternative adjustment mechanisms are insufficiently developed.

A better balance between risk sharing and risk mitigation. Post-crisis reforms, such as the creation of the European Stability Mechanism (ESM) and the banking union, have resulted in greater risk-sharing among taxpayers in Member States, while the enforcement of rules to mitigate these risks has fallen behind. In countries like Germany and the Netherlands, the danger of this leading to an uncontrolled "transfer union" undermines confidence in the European project.

Improved private-sector risk sharing through the financial markets. Private capital flows have so far contributed to increasing, rather than reducing, imbalances between Member States. Partly as a result of this, public safety nets were stretched during the crisis. Greater private-sector risk sharing would relieve pressure on public finances, cushion the impact of shocks and contribute to ensuring that risks affect those areas from which they originate.

Furthermore, reversing integration is less straightforward than sometimes thought. After all, several minimum requirements must be in place for a stable monetary union. For example, some kind of permanent lender of last resort for governments is necessary. A full return to the no bail-out clause would leave EMU countries too vulnerable to self-fulfilling liquidity crises, contagion, capital flight and overshooting financial markets. A smoothly functioning and therefore a complete banking union is also necessary to break the sovereign-bank nexus. Lastly, there will always be a need for enforceable budgetary and macroeconomic rules.

Small steps can already make a major difference. Great strides forward in European integration are not easily conceivable at present. However, neither is preserving the status quo desirable. Instead of a quantum leap, the combination of the following small steps can strengthen stability and prosperity in the EMU, which will boost confidence in Europe. Far-reaching political and budgetary integration can return to the agenda only once these efforts have started to bear fruit.

Deepen and expand the single market. This is essential in increasing EMU countries' adaptability and capacity for growth. A more effective implementation of the Services Directive alone would increase EU GDP by some one and a half percent.

Enforce, simplify and strengthen the fiscal rules of the Stability and Growth Pact (SGP) and the economic rules of the macroeconomic imbalance procedure (MIP). In this respect, the newly-created competitiveness boards and the European Fiscal Board, as proposed in the Five Presidents' Report. This would ensure better compliance with rules and avert future problems. Member States' primarily seem to comply well with SGP rules when the economy is in bad shape. In other words, recommendations aimed at correcting excessive deficits are normally quite well implemented. However, in times of buoyant economic growth there is virtually no adherence to "preventive" recommendations. As a result, countries later face excessive deficit procedures needlessly often, and have to impose austerity measures during economic downturns. In this respect it would help to focus on the debt rather than on the deficit. There are now more countries in the euro area with levels of debt above 100% than there are below the Maastricht ceiling of 60% GDP. There has in practice been little compliance with the agreements to reduce debt to below the Maastricht ceiling. It is significant that Member States have largely used the advantages of low interest rates to allow increases in public spending, rather than to curb public debt.

Introduce a restructuring mechanism for public debt. In the future, Member States must clearly demonstrate that they have sustainable levels of public debt before they are granted access to the ESM. Bondholders should first share in the risk before European taxpayers step in. It is necessary to restore market discipline, as the effectiveness of policy coordination has proved to have its limits.

Regulate government bond portfolios on banks' balance sheets. This reduces the nexus between banks and sovereigns and also more effectively facilitates the restructuring mechanism. To date, the supervisory framework assumes that sovereign bonds are free of risk. This assumption belies what we have learned from the European sovereign debt crisis. A possible solution would be to introduce minimum risk weightings and concentration limits. Hybrid forms, with a risk rating for higher concentrations, are also conceivable, and international consultations on this subject are currently under way.

Stimulate private risk sharing through more robust forms of financial integration. In this respect, Europe lags far behind the United States, where private risk-sharing also plays a much more prominent role than public risk-sharing. A European capital market union is a vital prerequisite for more effective financial integration and greater private risk-sharing, and also offers a transparent and uniform market for bank paper that qualifies for bail-in.

Strengthen the banking union through the introduction of a European deposit insurance scheme (EDIS). To limit differences in risks between Member States, the scheme must have sufficient supporting measures, including enforcement of the European resolution regime and enhanced bank resolvability. The recent instances of state aid to banks demonstrates there is still a road ahead. Reform and harmonisation of insolvency legislation for faster resolution of non-performing loans and banks is also required. In that respect, a sensible first step would be to base EDIS on liquidity sharing, without automatic loss-sharing. Such a system would provide national deposit guarantee schemes with European-wide coverage to meet the high funding needs of a payout, where liquidity support is subsequently repaid with the sale of the liquidated assets.

Economic recovery continues in the Netherlands

There is a clear increase in economic growth. 2016 saw growth exceed 2% for the first time in many years, with real GDP per capita once again reaching 2008 levels. The Netherlands also performed well compared to other European countries in 2016, with even slightly higher growth forecast for 2017. The introduced reforms are starting to bear fruit, and coupled with a new government should provide motivation and an opportunity to continue making the necessary reforms to the economic structure in the Netherlands.

Domestic spending is the driving force behind the recovery. Exports now fuel economic recovery to a lesser extent than they once did. While we observe a slowdown in world trade growth, which drives this, there is also a strong increase in domestic demand in terms of both consumption and investment. Real wage increases in combination with the recovery of the labour and the housing market have played a role in boosting consumption.

The housing market is a decisive factor for growth. The asset and confidence effects of rampant house price growth in the years prior to 2008 boosted consumer spending while supporting construction sector activity. The fall in house prices during the period 2008-2013 had the opposite effect, exerting downwards pressure on spending. House prices have picked up again since June 2013, notably in the major cities. Although this trend is set to continue, it is expected to be less vigorous than in previous years, partly due to tentatively rising interest rates. This is expected to temper the upward effect on the real economy, which is partly the basis for more modest growth projections for 2018. The housing market recovery is not nationwide: in several regions outside the Randstad there has been almost no recovery in house prices to speak of, with a still oversupplied market.

Investment is also back on track. The level of investment was already reasonable in previous years, with producer confidence, increased profitability and restored production key factors in its recovery. Investment in ICT has been particularly high. Partly due to falling house prices and economic headwinds housing market investment initially failed to keep pace, although this now seems to be at an end. However, scarce building space has resulted in a lack of supply in the west of the Netherlands, limiting investment in construction. This is particularly the case in the major cities.

The sharp decline in unemployment reflects a robust economic recovery. The labour market traditionally lags behind other cyclical developments. However, the upswing in growth is this time rapidly driving up employment and pushing down unemployment, which despite being too high at around 500,000, is still considerably lower than its peak level of almost 700,000 during the period 2012-2014. Labour participation has also increased in the same period, with phenomena such as secular stagnation and jobless growth failing to materialise in the Netherlands.

Inflation was at historically low levels in 2016, and is expected to rise in 2017. HICP inflation fell to 0.1%, its lowest level since 1987. The subdued development in the price of raw materials was a significant cause. Inflation is expected to pick up to approximately 1.5% in 2017. Given the rise in negotiated wage rates, the low rate of inflation will have a positive effect on purchasing power and will further support domestic spending. These developments, which are also occurring elsewhere in Europe, should be carefully monitored in the light of the still strongly accommodative monetary policy.

Public finances are moving towards balance. Here we also see a clear effect of the economic upswing. While several years ago there was a serious budgetary deficit as a result of the crisis, 2016 saw a slight surplus according to the provisional figures from the Ministry of Finance. The combination of a strongly expansionary monetary policy, and the temporarily higher public deficit has strongly mitigated the negative effects of the crisis, without any consequences for the sustainability of public finances. This has contributed to very low, or even negative borrowing costs for the government, which has supported the recovery. The government has however been required to make severe cuts to meet the agreed budget rules. As a result, automatic stabilisers were unable to work freely. To prevent this from happening again in the future, and to reduce the procyclicality of fiscal policy, it is important that the government strives for a budget surplus in economically favourable times. In the Netherlands, the cyclical movements in the deficit are fairly substantial at between 3% and 4% of GDP. On this basis, in economically favourable times a surplus of around 1% GDP is required to provide a sufficient safety margin to avoid exceeding the European deficit ceiling of 3%.

There is a good starting position for taking further steps

The world is rapidly changing and the Netherlands must use the recovery to change with it. The Netherlands is well-positioned on several fronts, and has pushed through key reforms in recent years, primarily relating to the pension system, the housing market and the labour market. Although the Netherlands have largely left the crisis behind, the world does not stand still, and further reform is necessary to prepare the Dutch economy for the future. The main points are:

- A sustainable economy based on an effective energy transition
- A balanced housing market
- A new and sustainable pension system
- A tax system that offers the right incentives
- An efficient and fair labour market
- A stable and ethical financial sector.

Real economy: policy focussed on sustainability

Further economic sustainability is essential. Sustainability is a key underlying theme of all reforms. Sustainable means “capable of being sustained in the long term” or “resilient”. Sustainable prosperity therefore simply means prosperity that can be sustained in the long term. Prosperity that causes major ecological damage, which harms the social fabric of a country or which is based on financial bubbles, cannot be sustained in the long-term and is therefore unsustainable.

The Paris Agreement implies a transition to a carbon-neutral economy. This transition must be accomplished well before the turn of this century, which is well within the expected service life of the homes, offices and infrastructure we are building today. Better pricing of carbon emissions is essential for accelerating green investment, and to prepare a long-term vision of the required transition paths for the different sectors.

DNB has embedded sustainability in its core tasks and operational management as far as possible. This means we approach our work not only with an eye for the economic dimension but also for social and ecological aspects. In this respect, in 2016 we conducted a study of sustainable investments by pension funds, and into the transition to a carbon-neutral economy in the report "Time for Transition". We have also called for the legislative incorporation of ESG (environmental, social and governance) criteria for banks and insurers. In addition to increasing emphasis on the ESG criteria of our own investments, we are also focussing more on the physical aspects of sustainability in our own business operations, such as the production and transportation of banknotes and energy consumption.

Adjustments are required to create a balanced housing market. The imbalances in the Dutch housing market are due to mortgage interest tax relief for owner-occupied dwellings and the subsidised rental of social housing. As a result, the middle segment of the rental market is underdeveloped, obstructing housing market mobility. Due to the waiting lists for social housing, first-time buyers are forced onto the market when they are young, and become heavily indebted as a result. Partly as a result of this, household debt is exceptionally high, which makes the Dutch economy particularly vulnerable to shocks. The first and foremost step in increasing the resilience of households and the Dutch economy, is to accelerate the process of phasing out mortgage interest tax relief to curb tax-induced debt accumulation. Furthermore, the LTV limit (the maximum ratio of a loan's size to the value of the property) in the Netherlands must be gradually lowered to 90%, to bring it more into line with limits in other countries. Both measures will help protect households and financial institutions against falling house prices. The standards issued by the National Institute for Family Finance Information (Nibud) will continue to remain important, preventing the strengthening of the credit cycle and shielding households against financial risks. Furthermore, it is necessary to increase the housing supply in areas facing shortages, such as in the middle segment of the rental market.

Pension scheme members' expectations about guaranteed benefits that safeguard their purchasing power are not being met. The current pension system does not adequately protect older persons against the risk of benefit curtailments, whereas insufficient investment risks are sometimes assumed for younger pension scheme members, resulting in bleaker pension prospects. The pension system also results in opaque and difficult to justify intergenerational transfers, partly as a result of flat-rate contributions, that undermine support for the system.

The pension system is therefore due for a fundamental overhaul. In recent years we have taken two important steps in developing a more sustainable pension system. The Dutch state pension age has been increased and been linked to life expectancy and the Financial Assessment Framework has been adjusted. It is now important to make progress with the contents of the actual pension contract. We have identified two important elements for a new pension contract. Firstly, personal pension assets. This provides certainty about accrued pension rights and obviates the need for debates between generations about who is entitled to what. Moreover, if members change pension fund, their accumulated pension assets are easier to transfer. One conceivable option in this respect is risk-sharing based on buffers, provided they are positive. The second element is an age-related investment policy. This provides pensioners with better protection against benefit curtailments while offering younger people the prospect of higher future benefits. In this respect, it is important that pension fund members are promptly provided with adequate information on assets accumulated and the concomitant risks.

Excessive disparity between permanent and flexible employment obstructs the efficient operation of the labour market. Recent years have seen strong increases in the numbers of self-employed and flex workers in the labour force. This growth is partly driven by differences in the tax treatment of self-employed individuals and employees, the requirement for employers to make mandatory pension and work incapacity contributions, and different employment protection rights for workers on permanent and temporary contracts. Reducing the differences between employees on permanent contracts, flex workers and the self-employed can strengthen the labour market resilience. This will stimulate labour market mobility and investment in training, ensuring people will more quickly arrive in a position that does full justice to their knowledge and expertise.

There is scope for differentiated wage growth. The labour-to-income ratio is at an historically low level, partly because in recent years wages have not kept pace with developments in labour productivity and inflation. Although they did catch up in 2016, on the macroeconomic level there is still scope for a differentiated increase in wages, depending on private sector profit development. This supports spending, and therefore also growth.

An efficient tax system provides the right incentives, and thereby contributes to improving the sustainability of the economy, a balanced housing market, an efficient labour market and a sustainable pension system. The basis of the current tax system dates back to 2001. Since then, a large number of rules have been introduced to the system focussed on strengthening the position of certain sections of the population. As a result, the system has become needlessly complex and distortionary. Reform of the tax system can strengthen the Dutch economy's growth potential and can create more prosperity and jobs. A more neutral tax treatment of assets can contribute to this. The high level of subsidies on home-ownership and pension savings distorts households' investment choices and withholds revenue from the Treasury, placing an unnecessarily heavy tax burden on labour income. Broadening of the income tax base combined with lowering the tax rate can have positive effects on employment.

Financial sector: emphasis on sustainability and resilience

Sustainable prosperity requires a sustainable financial sector. This is however no easy task, which is why we want to play a facilitating and catalysing role within the financial sector. We have also brought the importance of sustainability in the financial sector to the attention of the international community, including through the Financial Stability Board (FSB) and the International Monetary Funds (IMF), and we have also called for its inclusion in the IMF's Financial Sector Assessment Program (FSAP), for example. The Sustainable Finance Platform was set up in 2016 as an important consultative body on issues of sustainability.

The IMF gives a positive assessment of the Dutch banking sector's resilience and financial supervision. As part of the IMF's five-yearly Financial Sector Assessment Program (FSAP), a team visited the Netherlands twice in 2016. The FSAP team conducted a comprehensive analysis of the Dutch financial sector, particularly its resilience to shocks based on stress tests, and on the quality of its supervision and crisis management framework. One of the IMF's preliminary findings is that the Dutch banking sector is well-capitalised; banks demonstrated their resilience in the examination. According to the IMF, this reflects the authorities' response to the financial crisis. The IMF does comment, however, that the leverage in the sector is still relatively high and it calls for a continuation of the leverage ratio strengthening process that was already started.

Macroprudential analysis and policy are gaining ground. Knowledge about the relationships between financial markets, financial institutions and the macroeconomy are becoming increasingly important in identifying risks early on and being able to mitigate them. The key instrument in this respect is the stress test, which measures financial institutions' sensitivity to market shocks and movements in the economy. The European Banking Authority (EBA), the ECB, and the IMF regularly conducted stress tests in 2016. In addition, the European Insurance and Occupational Pensions Authority (EIOPA) conducted a comprehensive stress test for the insurers and pension funds. We have also taken some important steps ourselves in this area in recent years, developing a stress test that provides an insight into how financial institutions are affected by the energy transition.

Macroprudential policy extends beyond the banking sector. There are two important trends in this respect. Firstly, non-banks will now also be subject to prudential requirements such as with regard to liquidity and leverage. EU authorities now also have the option of imposing leverage limits on alternative investment institutions under the Alternative Investment Fund Managers Directive (AIFMD). Secondly, specific requirements are now applied to activities, instead of a particular type of institution. These include rules for loan-to-value (LTV) and loan-to-income (LTI), in the case of mortgage loans. The European Systemic Risk Board (ESBR) and the FSB in particular have sought measures of this nature, with the support of DNB.

Forward-looking supervision of business models, behaviour, culture and integrity will gain increasing importance. One important lesson from the crisis is that supervision which focusses solely on institutions' capital and liquidity is no longer adequate. A strong need has also arisen for more forward-looking supervision, which does not substitute but complements traditional supervision. More forward-looking forms of supervision are focussed on aspects such as the business models and strategies of financial institutions, integrity, behaviour and culture in the financial sector, and the governance of financial institutions. We are also pressing for these forms of supervision to be included under European supervision (SSM). Assessments play another important role in this respect. A recent external evaluation of the assessment process conducted by the DNB and the Netherlands Authority for the Financial Markets (AFM) clearly demonstrates the added value of the assessments and the adequate fulfilment of statutory tasks. In addition to financial knowledge, other types of expertise and skills are becoming increasingly important. In this respect, DNB and the AFM emphasise the importance of sufficient diversity in the boardroom.

DNB strives towards the orderly resolution of failing institutions, whether under resolution or in bankruptcy. Particularly in the case of banks, steps have been taken to ensure the continuation of their critical functions for the financial system or the economy when they unexpectedly run into difficulties: resolution. It should be emphasised that not every failing bank needs to be placed under resolution. A failing bank without any critical functions can be resolved in liquidation in an orderly manner, with the deposit guarantee system protecting savers. This decision must be made when the bank fails based on a public interest test, but insight into the outcome of this test is of course also required to undertake the necessary preparations for a possible resolution. We attach importance to the consistent application of this public interest test at European level, and the Single Resolution Board is currently preparing a framework for this purpose.

A stronger resolution regime is also desirable for Dutch insurers. We must be able to place insurers under resolution while as far as possible limiting the consequences for policy holders and for financial stability, which is why the legislature has since decided to expand the framework for the recovery and resolution of insurance companies. The new framework is expected to enter into force in 2018. It is important that other European countries also adopt this Dutch national initiative, and in this respect we support the work of EIOPA and the ESRB.

The financial sector is witnessing sweeping changes.

The application of technological innovation in the financial sector (FinTech) is rapidly accelerating. New and established market parties are increasingly seeking to apply FinTech innovation in response to consumer demand for financial services that are quick, efficient, transparent and mobile. A growing number of FinTech firms have succeeded in reaching a considerable size. These businesses are primarily active in the payment services sector, which also sees the highest levels of investment. On the other hand, established parties such as banks and insurers are increasingly seeking collaboration with FinTech firms. There are also joint initiatives between financial institutions, for instance in the area of distributed ledger technology, which mainly sees cooperation between major banks and third parties (open banking).

We do not wish to obstruct opportunities for technological innovation in the financial sector, but mitigate potential risks. Initiatives such as the InnovationHub and the Regulatory Sandbox contribute in this respect, and we are working in close cooperation with the AFM in this area. We are also studying possibilities for involving the Authority for Consumers & Markets and the Dutch Data Protection Authority in these activities, as well as conducting examinations into the potential risks resulting from FinTech, such as cybercrime, the threat to banks' and insurers' existing business models, procyclicality and undesirable FinTech monopolies. In addition, we are committed to expanding and sharing our knowledge about technological innovation with stakeholders in the Netherlands and abroad.

The prevailing low interest rates pose a serious risk to the financial sector. The sector is currently exposed to a variety of risks, although the most significant is the extremely low rate of interest. This has a direct impact on the financial position of pension funds and insurers through the liabilities side of the balance sheet, while a prolonged period of low interest also affects banks' profits. Although interest rates have increased slightly since the autumn of 2016, they remain at historically low levels, partly due to structural factors such as demographics and limited growth in productivity. In this environment, any movement in interest rates has a far-reaching effect on the valuations of assets and liabilities in the balance sheets and results of the financial sector.

Political uncertainty and developments in supervision call upon the sector's capacity for change. Doubtfulness surrounding the outcomes of key elections in Europe (France, Germany and the Netherlands), how Brexit plays out and the approach of the new US government contribute to this climate of uncertainty. There is also the continued threat of terrorism, and risks in the area of terrorist financing and money laundering. Regulations in the financial sector have also become more complex in recent years. There have been good reasons for this, such as the need to bring order to the financial sector following the crisis. Nonetheless, the interaction between rules can have unintended consequences and encourage new forms of high-risk behaviour.

Challenges for banks, insurers and pension funds

Banks may become subject to stricter international requirements. At the time of writing, intensive international negotiations are still under way concerning the Basel 3.5 framework, which is focussed on internationally reducing unwarranted variability of risk-weighted assets across institutions. The discussions have been ongoing for several years and progress has been slow. Differences between the United States and Europe regarding the introduction of an output floor have been a major factor in this respect. In these discussions we have called for a risk-based and proportional approach, particularly regarding mortgage loans. If an agreement is reached, it is likely that Dutch banks could see considerable rises in risk weightings, and therefore declines in reported capital ratios. The final regulation, based on a Basel accord will in any case only be established at a later date in Brussels as an update to the European Capital Requirements Directive and Regulation (CRD IV/CRR).

Insurers should adapt to the rapidly-changing environment. Dutch insurers were well-prepared for the introduction of the new supervisory framework, Solvency II, and the transition has proceeded according to plan. The sector is undergoing structural changes, due to a combination of persistently low interest rates, technological innovation, and changing customer behaviour, partly due to concerns over investment-linked insurance policies. This requires insurers, supervisors and policymakers to step up efforts aimed at safeguarding a stable, sustainable and efficient sector that also serves society in the future. These developments present challenges, but also opportunities, for both established and new parties in the industry. Insurers which strengthen their capacity for change and innovate successfully will be able to expand their market share and increase their profitability. Those which fail to do so will have to seek alternatives, such as mergers or acquisitions, or scaling back operations. We can consider the acquisitions of Vivat by Anbang, and of Delta Lloyd by Nationale-Nederlanden in this light.

We will continue to closely monitor the resilience of the insurance sector. Due to adverse market conditions, life and non-life insurers have to contend with declining premium income. Recent years have seen negative results on a regular basis, and life insurers' profitability is under pressure, especially as a result of the low interest rates. A recent stress test by EIOPA also revealed a high level of interest rate sensitivity, and profitability in the non-life business is currently low or even negative. The performance of motor vehicle insurers is particularly concerning, but other market segments have also been loss-making over the past years. In view of the current low interest rate environment, it is difficult to offset this with sufficient investment gains. We are therefore closely monitoring resilience, while in terms of liabilities we are also looking at the impact of the ultimate forward rate (UFR) on solvency. The UFR has in recent years diverged increasingly from the term structure of interest rates on markets, and in Europe we call for a more realistic yield curve to limit distortion.

Professionalism in the pensions sector is growing. The pension sector has in recent years undergone major changes in terms of new legislation, demographic and societal shifts and financial and economic developments. The industry has responded by increasing professionalism and cost efficiency. The number of pension funds engaging in sustainable investment is on the rise. Consolidation in the sector continues and a new type of vehicle which allows the implementation of multiple pension plans within a single scheme – the general pension fund (Algemeen Pensioenfonds or APF) – is gaining ground.

The financial position of pension funds is however still under pressure. In 2010 pension funds were obliged to take the unprecedented step of curtailing accrued pension rights. Although further curtailments for a large number of pension funds were threatened for 2017, they were ultimately not necessary due to developments on the financial markets, particularly the higher interest rates and rising equity prices. Nonetheless, this situation emphasises the current system's vulnerability.

Final remarks

Standing still is a step backwards. The current upswing in the economy offers a prime opportunity for making the structural changes that are required for sustainable economic development. The coming months will be centred on the formation of a new government and a coalition agreement. This is certainly no easy task, but it is important for the future of our economy and financial sector. Uncertainties surrounding the international economic outlook will persist, but the good news is that the Dutch economy's resilience has increased. This creates the necessary scope for making the required structural adjustments to our economy that will improve our long-term capacity for sustainable growth. However, we must make use of this opportunity now, to ensure sustainable economic growth in the longer term that benefits all sections of society.

Towards broad-based growth

1 Towards broad-based growth

1.1 Introduction

The Dutch economy showed a strong performance in 2016. At 2.1%, economic growth was amply above potential growth for the second year in a row, unemployment showed its sharpest fall in ten years' time and households saw their real disposable income rise. While the economy is increasingly growing under its own steam, the ongoing accommodative monetary conditions are also making a contribution. Policies that foster broadly-felt prosperity growth may also further underpin economic dynamics. In addition, targeted public investments may enhance the economy's production capacity in the longer term. However, the economic upswing cannot serve as an excuse to forget the lessons learned from the crisis. It continues to be important to boost the resilience of the economy to new crises. Hence, procyclical fiscal policies should be avoided, and incentives for excessive debt financing must be removed. Macroprudential policies and adjustments to the tax treatment of debt financing may contribute towards this. This chapter of the annual report details DNB's vision on these issues in four separate sections.

Section 1.2 describes Dutch household income trends, paying particular attention to income differences between households. Section 1.3 discusses private investment trends and the remaining financing constraints, and public investment and the areas that would benefit from additional investments. Section 1.4 of this chapter discusses monetary developments in the euro area. Against the backdrop of subdued inflation dynamics, monetary policy will remain accommodative for the time being, despite its waning effectiveness. Lastly, Section 1.5 depicts the growing use of macroprudential instruments in the European Union (EU). These instruments are proving to be effective in bolstering the financial system's shock resilience.

1.2 The income position of households

After a prolonged period of stagnation, households have seen their income position improve substantially in the past few years. The ongoing labour market recovery translated into pay rises for employed persons. Although income distribution in the Netherlands is relatively stable from an international perspective, not all labour market groups are benefiting from the recovery to the same extent. Targeted pay rises, a narrowing of the gap between permanent and flexible working relations, and good access to education and schooling contribute towards balanced income growth, and may also benefit economic dynamics.

1.2.1 Favourable income trends

Following a prolonged period of stagnation, real disposable income of households has been rising again since 2015. Annualised growth amounted to over 2% on average over the past two years. This was first of all attributable to the labour market recovery. Employment has been accelerating since 2015. The number of employed persons in 2016 rose by 109,000, whereas unemployment fell to 5.3% in January 2017, from its peak of 7.9% in early 2014. The number of unfilled vacancies also continued to climb steadily. Rising labour market tension and increased labour market productivity have translated into slightly bigger pay rises. In 2016, corporate sector negotiated wages rose 1.7%, relative to 1.3% on average between 2010 and 2015. As inflation was also lower than in the preceding years, household purchasing power accelerated in the past year.

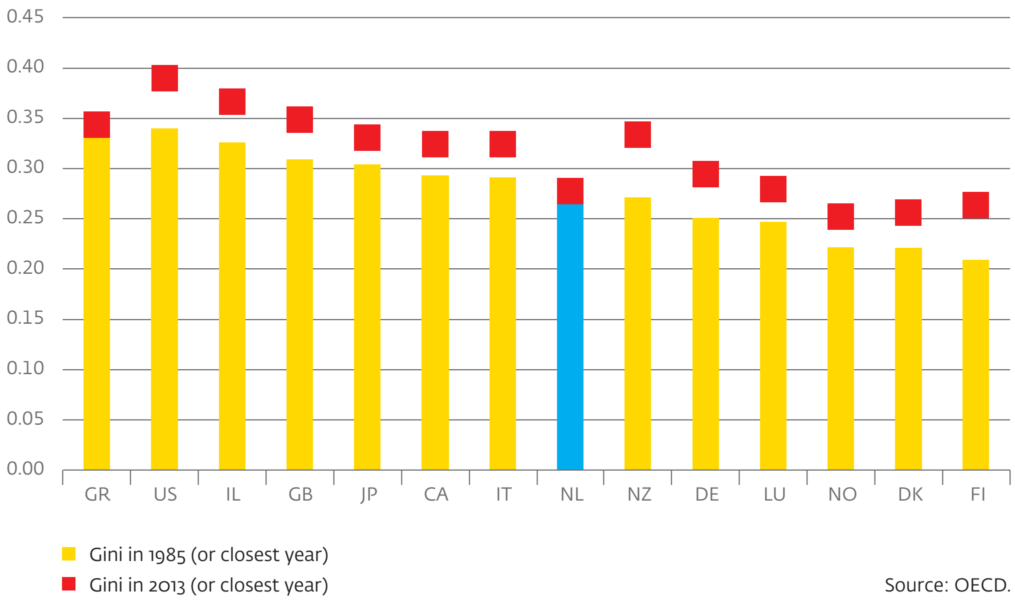
Policy measures have also made a positive contribution to the income trend. Whereas in the aftermath of the crisis, disposable household income was under pressure from rising pension contributions and tax hikes, in the past two years it actually profited from two other developments: lower pension contributions, owing to the adjusted rules on tax relief for pension contributions (Witteveen framework) and the 2016 tax cuts (5-billion package).

1.2.2 Income variances between households

In many Western countries, income inequality increased in the past decades (see Chart 1.1). This is attributable to a whole range of causes, the individual contribution of which is difficult to quantify. An often-mentioned explanation for this is the character of the current technological progress. The growing use of computer and related technologies has enabled automation of routine tasks, which are often found in the classic middling jobs, like production-line and clerical work. Job tasks at the high end of the labour market (team leader, marketing expert) or the low end (waiter, cleaner) are much less easy to fill by computers. As a result of this "job polarisation" the value of high-level education has grown relative to that of middle-level education. Globalisation is also frequently mentioned as one of the most important drivers of the changing occupational structure of employment. Improved ICT tools and lower transport costs are facilitating outsourcing and offshoring of jobs with lower levels of education. In addition to these international external trends, labour market institutions are also playing an important role. In several countries the declining role of labour unions, lower marginal top tax rates on income from employment and lagging minimum wages have contributed towards growing labour market inequality.

Chart 1.1 Trend of inequality in industrialised countries

Net incomes



Source: OECD.

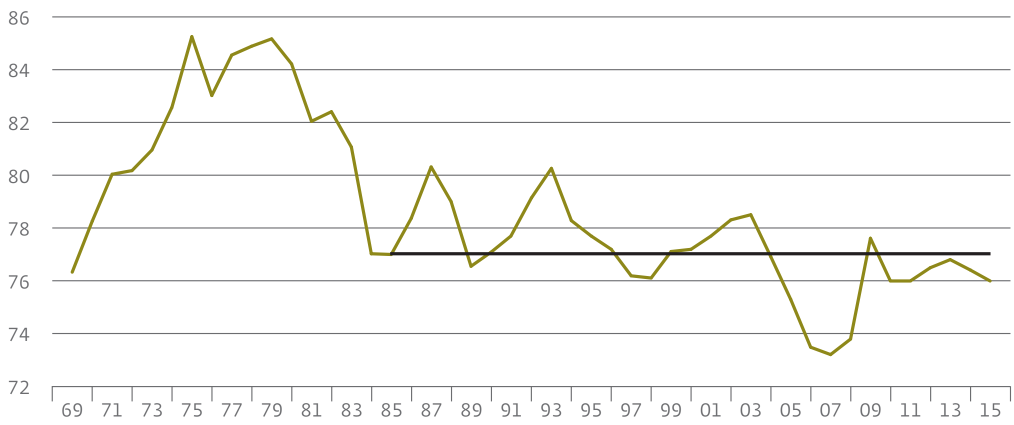
Note: The Gini coefficient is often used to measure inequality. It ranges between 0 and 1, with 0 representing full equality (equal pay for everyone) and 1 full inequality (1 person earns all income). Net income is income after income transfers and taxation.

The Netherlands occupies an exceptional position in Chart 1.1 as inequality has remained stable over the past decades. Despite the relatively stable aggregated figures, there are signs that the Netherlands is not immune either to the global trends depicted above.

First of all, remuneration for the labour factor relative to the capital factor (the labour income share) in the Netherlands has fallen over the past decades (see Chart 1.2). This trend-based decline is also discernible in other Western countries. The weakened negotiating position of the employed is also often mentioned as a major cause of this gradual decline. This is among other things attributable to ongoing globalisation, decreasing levels of trade union membership and the growing share in employment of workers on temporary contracts and the self-employed.

Chart 1.2 Labour income ratio total economy 1969-2015

Percentages



Note: The black line shows the long-term average over the period 1985-2015.
The chart uses the new definition of the labour income share, where the labour income of the self-employed is approximated using total income from self-employment. Statistics Netherlands will use this new definition from June 2017 onwards (for more information on the review of the labour income share, see Butler et al., 2016).

Source: Statistics Netherlands.

Secondly, inequalities within the labour factor are increasing. This is first of all relevant for contract types. While the average income of the employed continued to rise during the crisis, the growing group self-employed people saw their income stagnate. The remuneration of temporary workers also lagged that of those in permanent employment, and in the Netherlands, too, there are indications of job polarisation. Over the past decades, demand for higher-educated staff has outpaced supply, due to which the relative remuneration of the higher educated has increased. In 2017, DNB will be examining how these trends relate to the relatively stable income distribution.

1.2.3 Economic significance of balanced income development

On the whole, households have seen their income position improve over the past years, which allowed them to loosen their purse strings again, having been being forced to keep their wallets closed in the preceding years. As in 2015, private consumption in 2016 made a solid contribution to economic recovery in the Netherlands. Nevertheless, not all households benefited from growing prosperity to the same extent. There are various strategies of balancing income growth and bolstering economic dynamics at the same time.

Firstly, the level of the labour income share relative to other corporate sector financial and economic indicators suggests that there is scope for further wage rises for the employed and the self-employed. However, the scope is not equally big across sectors, as there are also industrial sectors and businesses where the financial and economic conditions do not allow wage rises at present. On the whole, the scope for wage rises is concentrated in domestically-oriented sectors like trade and hospitality.

Secondly, investments in education may secure that as many people as possible will be given the opportunity to benefit from and contribute to rising prosperity. The Dutch educational system is of a high standard, but it could be strengthened by investing more in the development of young children, in particular those growing up in vulnerable social and economic environments. Investing in young children will yield more lasting returns, will make it easier to develop new knowledge and skills later, and contributes towards reducing social deprivation.

Thirdly, the employed can strengthen their resilience if they continue to invest in their employability by means of training and retraining. This makes them less vulnerable to the effects of global trends like digitalisation. The government may facilitate and encourage this by making adult educational course offerings more accessible and attractive.

And finally, decreasing the institutional differences between persons in permanent employment, flex workers, and the self-employed will foster more balanced income growth. Reducing labour market segmentation may also enhance economic dynamics as labour market allocation will be driven more by people's talents rather than by tax and legal aspects.

1.3 Public and private investment

Having a sufficient level of investment is important to economic growth. Additional public investment in the Netherlands is particularly welcome in the fields of education, research and development (R&D), energy transition and infrastructure. Where private investment is concerned, there are funding constraints in particular in the SME sector and in sustainable investment. Policies should be directed at remedying information barriers and increasing competition in the banking sector.

1.3.1 Investement and its effect on economic growth

From an economic perspective, it is important that investment is not left at too low a level for too long, as in the longer term it can increase an economy's production capacity.

Relative to its pre-crisis level, public investment as a percentage of GDP has taken a dive particularly in crisis countries (see Chart 1.3). At only 0.1 percentage points, the decline in the Netherlands is very modest, and the level of investment is also well above the EU average. Private investment fell virtually across the board, although the decline was the most pronounced in the crisis countries again (see Chart 1.4). In the Netherlands, private investment is around three percentage points lower than before the crisis, due to declining housing investment in particular. The picture for corporate investment is more even. The recovery of

Chart 1.3 Public investment

Percentage of GDP

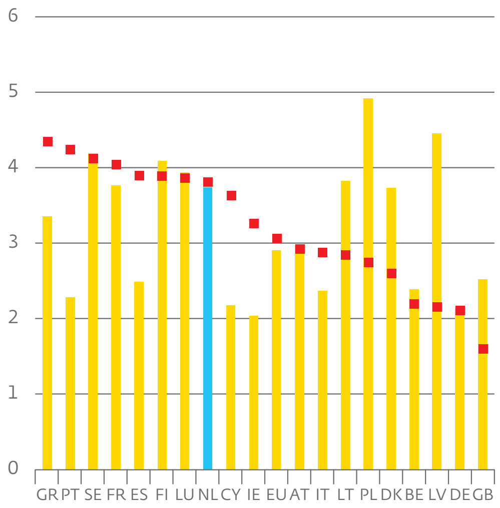
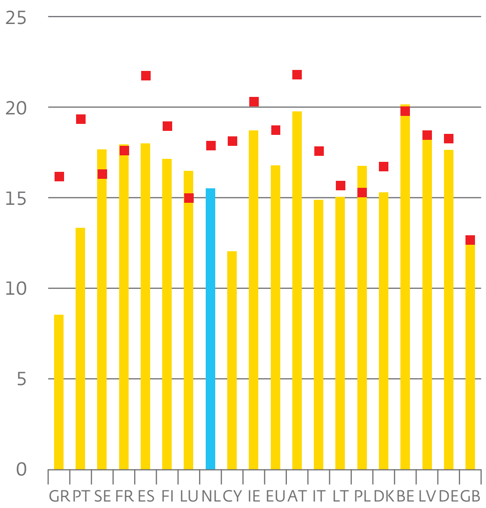


Chart 1.4 Private investment

Percentage of GDP



Average 2012-2015
Average 1995-2007

Source: EC Ameco.

Note: Countries classified according to pre-crisis averages of public investment.

the real corporate investment ratio in the Netherlands is comparable to the recovery seen after previous crises and is also high in a historical perspective.

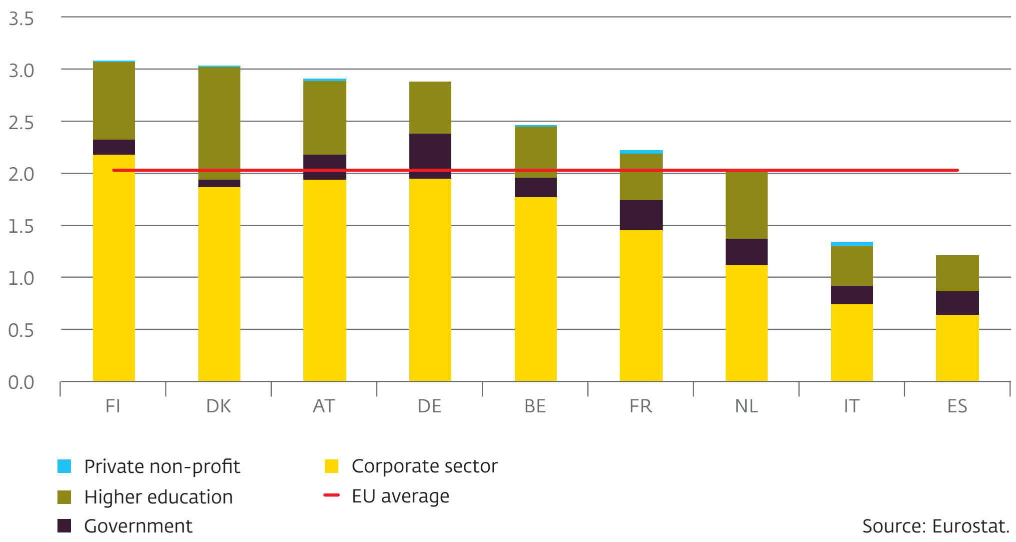
1.3.2 Necessity and scope for public investment

Public investment may be an effective instrument for expanding the economic growth potential, providing it meets two conditions. Firstly, public investment must be driven by a positive outcome of the total impact assessment. Secondly, additional investments should not induce procyclical budgetary policies. Budgetary policy in the Netherlands is often procyclical anyway, despite the relatively solid budgetary system. Between 1996 and 2014, the Netherlands recorded the lowest number of years with countercyclical budgetary policies after Italy, France and Spain. Even in times of economic tailwinds, the Netherlands did not succeed once in pursuing a countercyclical budgetary policy. The importance of countercyclical budgetary policies is even bigger for the Netherlands, due to the country's long household balance sheets. The high level of mortgage debt on the one hand, and the large but illiquid pension savings on the other make households vulnerable to asset price shocks. This fuels the cyclicality of the economy. Due to the high level of mortgage debt, a fall in house prices is likely to lead to additional household savings. At the same time, the low level of interest rates that is often accompanied by a recession is putting pensions under pressure, which may lead to pension curtailments and/or increases in pension contributions.

There are several policy areas in the Netherlands that stand to benefit significantly from additional investments. Firstly, it is important to make additional investments in education, specifically in pre-school education and in bolstering the resilience of employed people (see Section 1.2). A second area where public investment ought to be stepped up is R&D. Corporate sector R&D investments are relatively low (see Chart 1.5) and EC projections show that public R&D spending as a percentage of GDP will also fall in the next few years, which complicates achieving the European R&D spending targets. Thirdly, public and private sustainable investment must be accelerated in order to achieve the emission reduction target for the Netherlands under the Paris climate change agreement. Investments will among other things have to be targeted at the energy infrastructure, in order to better align management and transport of energy to the changing requirements, and to promote energy research and innovation, e.g. in the area of alternative energy sources. Finally, to counter the increasing road congestion, the government also needs to continue investing in infrastructure, not only in hard infrastructure, but also and especially in technological developments, such as intelligent transport systems.

Chart 1.5 R&D spending in 2015

Percentage of GDP



Source: Eurostat.

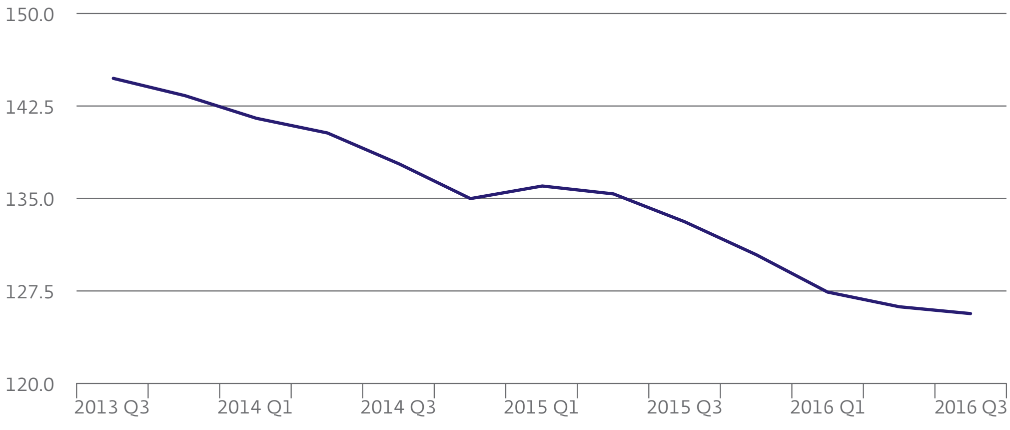
1.3.3 Constraints in private investment

Outstanding SME loans have been falling since DNB started recording them in the third quarter of 2013 (see Chart 1.6), which is causing concerns about the funding pressures experienced by SMEs, especially the small ones. These funding problems are among other factors caused by information constraints, which are making it difficult to assess the risks related to investment projects. This is deterring potential lenders as it is often not worth the trouble to make comprehensive risk analyses for small loans. In addition, SMEs have few alternative funding sources if their bank rejects their loan applications, due to the dependence on bank funding and the concentrated banking sector. There is also a limited availability of risk-bearing capital. If businesses have low levels of risk-bearing capital, banks are more reluctant to provide loans, especially in view of the relatively high risks that they associate with SME loans, because of the information constraints referred to above.

If we look at which type of investment is experiencing funding problems, rather than which parties are having difficulties obtaining finance, sustainable investment is proving to be a problem area. Firstly, the external effects of carbon emissions are not being priced adequately at present, which is undermining the attractiveness of sustainable investment. In addition, returns on sustainable investment often depend on government policies that are uncertain in the long term. A third constraint is that green investment often requires relatively high investment costs, which only provide returns in the long term, exposing lenders to liquidity risk. The lack of clearly defined standards and definitions, e.g. for measuring carbon levels,

Chart 1.6 SME lending

EUR billion



Source: DNB.

is also making it difficult for financial institutions to assess the sustainability level of specific investment. For small-scale projects this means that it is often not worth investors' while to make thorough risk analyses, for the same reasons as in the SME sector. Lastly, in comparison with the United States, there is relatively little venture capital available in Europe, and there are indications that compared with other European countries, relatively many green start-ups fail in the Netherlands.

1.3.4 Initiatives to facilitate private investment

As there already are a large number of initiatives targeted at removing the obstacles to SME financing, some restraint in developing new funding schemes is warranted. There are several schemes and guarantee schemes in place, and there are funds and regional development companies for risk-bearing capital. In addition, initiatives have been launched to remove information constraints through standardisation and centralisation of information.

In order to bolster lending to the SME sector further, the Social and Economic Council of the Netherlands (SER) and the OECD have argued in favour of establishing a credit register in the Netherlands, as has been done in several other countries. Establishing a credit register would lower information costs by centralising information sources on the credit status of businesses, alleviating the information problems in the SME sector. The desirability of establishing a credit register is, however, not clear-cut, as it demands a great deal from the stakeholders, which means that substantial costs are involved. Banks will for instance have to adapt their systems and a legal framework must be developed to define data treatment. Increasing competition in the banking sector may also help expand funding options. Lastly, besides lowering the barriers to entry for new providers, including providers of alternative finance, product standardisation and financing instruments may be considered, making securitisation easier, which will benefit the marketability of SME loans.

In order to encourage sustainable investment, higher carbon prices are necessary to begin with, and more certainty about the government's long-term policies. Although some of the funding constraints underlying sustainable investment can be partly removed by enlarging the role played by institutional investors, lack of scale is often at issue here. This implies a potential role for the government to facilitate and fund (the costs of) pooling and standardisation, but it should be wary of politically motivated risk assessments and taking on risks that should lie with private investors. In addition, there are subsidies and tax incentives available to both businesses and consumers. Uniform international standards in the area of sustainability and environmental pollution may facilitate better risk assessment. Lastly, sustainable investment may also profit from increased competition in the banking sector.

1.4 Inflation and monetary policy in the euro area

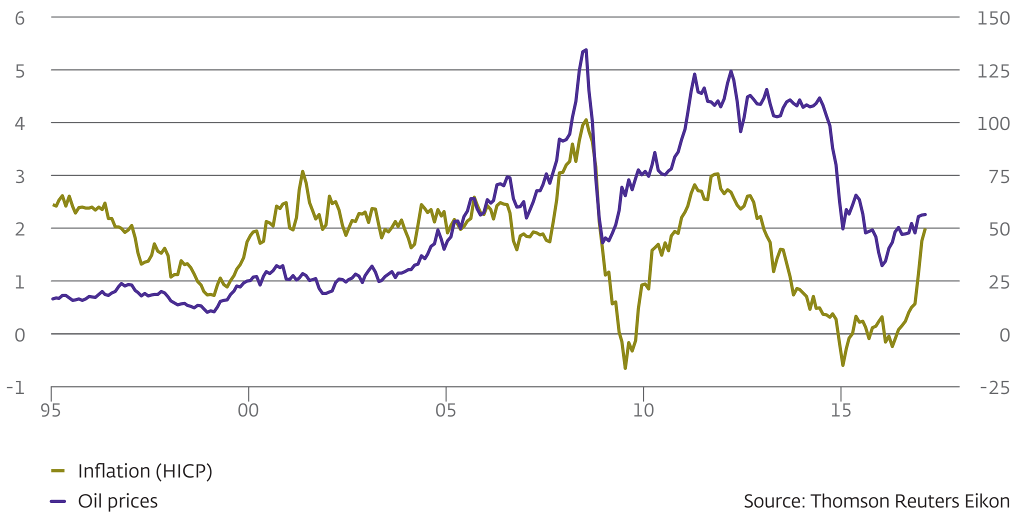
Inflation dynamics in the euro area have been subdued for some time. A sustained return of the inflation rate towards its target is being hampered by both cyclical and structural factors. The policy of monetary easing is therefore being continued, but transmission channels have become less effective. The expansive monetary policy is also being accompanied by unwanted side-effects.

1.4.1 Cyclical factors are depressing inflation

Inflation in the euro area recently edged up, having been below the target of below, but close to 2% for some considerable time (see Chart 1.7). Headline inflation edged up to +2.0% in February 2017, from minus 0.6% in January 2015. This means that the risk of deflation has almost disappeared, but there is no question of a sustained adjustment of inflation towards the target rate. At about 0.9%, core inflation excluding food and energy prices is still at a modest level. The observed inflation dynamics are largely explained by the trend of oil prices, which fell sharply from 2014, and have been recovering slightly since the start of 2016 (see Chart 1.7). Basically, lower oil prices influence inflation through three channels. Initially, the direct effects are reflected in the energy component of inflation. After that, indirect effects on the prices of other goods and services begin to emerge in the form of lower prices for heating and transport for instance. Lastly, the drop in oil prices leads to second-round effects through lower inflation expectations and a very subdued development of nominal wages. Rising energy prices will in the longer term make for further upward pressure on inflation through the above channels.

Chart 1.7 Inflation in the euro area and oil prices

Annual percentage changes (left), dollars per barrel (right)



Source: Thomson Reuters Eikon

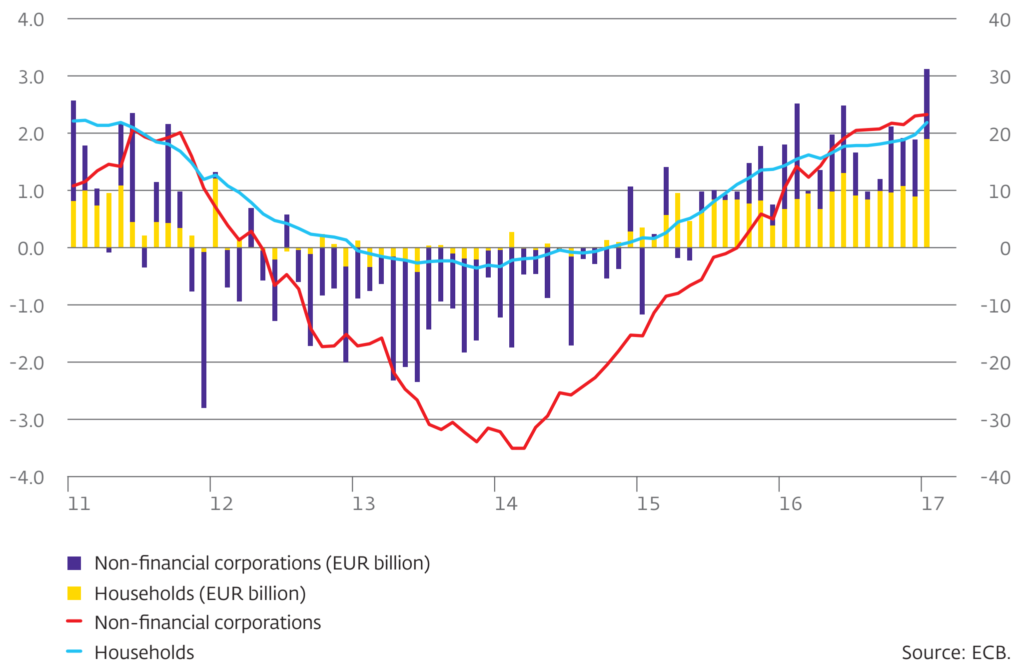
As raw material prices are on the rise again, the downward pressure on inflation has abated, but the remaining slack in the euro area economy is still contributing to subdued inflation. Although the negative output gap is narrowing, the economy is still not running at full potential. Despite the economic recovery that started in 2014, unemployment in the euro area is still fairly high at 9.6%. This, and modest economic growth has caused wages to edge up only marginally in the euro area in the past years. In 2016, wage costs per employee climbed 1.3%, but wage rises are expected to accelerate this year, owing to the labour market pick-up.

1.4.2 Structural factors are also reducing inflationary pressure

The private sector balance sheet adjustments have also held economic growth and inflation down. Economic recovery following a financial crisis usually takes more time to materialise than it does after a non-financial downturn. This is most often reflected in a sharp deceleration of lending, as was clearly visible in the euro area during the crisis (see Chart 1.8). Banks that had strongly expanded their lending operations before the crisis, have been working on repairing their balance sheets and underpinning their capital positions. At the same time, households and non-financial companies improved their debt position. Debt ratios nevertheless continue to be high from a historical perspective, partly due to modest write-downs on non-performing loans.

Chart 1.8 Lending to households and non-financial corporations in the euro area

Annual percentage changes, adjusted for securitisations and cash pooling (left), EUR billion (right)



Source: ECB.

High debt levels combined with sluggish structural reforms are dragging down potential economic growth. The low trend growth is also explained by demographic developments and productivity growth trends. Populations are ageing all over the world, which is accompanied by accumulation of wealth and savings. Combined with decreasing population growth, the ageing population in the euro area is narrowing the supply of labour, which is depressing potential economic growth. Estimates of potential growth show that this will remain below pre-crisis levels in the euro area for some time to come. This is reflected in equilibrium interest rates, which are assumed to be lower in the euro area than before the crisis. This limits the effectiveness of monetary policy and underlines the importance of structural reforms to boost growth potential. Higher productivity growth leads to higher equilibrium interest rates, which increases the scope for monetary stimuli and the effectiveness of monetary policies.

1.4.3 Monetary easing has its limits

Monetary policy has remained very accommodative, due to the persistently low level of inflation. Policy rates have been at 0% since December 2015. In December 2016, the Eurosystem decided to extend its asset purchase programme (APP) by another nine months, buying up bonds up to a net monthly amount of EUR 60 billion between March and December 2017 (EUR 20 billion less than before). In addition to government and covered bonds, the Eurosystem has also been buying corporate bonds under the APP since June 2016. This is done by means of the corporate sector purchase programme (CSPP). Monetary easing has contributed towards the substantial fall in bond yields and risk premiums. Bank lending rates have been falling since June 2014. Lending has been recovering gradually since the start of 2014 (see Chart 1.8). The favourable financing conditions for businesses and households in the euro area as a whole will give a further boost to private consumption and investments. This development is further underpinned by the depreciation of the euro as a result of the introduction of the APP.

Despite the very accommodative financial conditions, the transmission of monetary policy to the economy has become less effective. Falling bond yields have reduced the incentive to change liquidity into long-term assets (the liquidity trap). In addition, due to the lower credit risk premiums, the additional returns that can be achieved by taking risks are proving to be less and less of a compensation for the underlying risks. Demand for safe assets has also increased, both from supervised institutions as a result of new rules and regulations and from investors who are looking to shed their excess liquidity. This is putting the brakes on portfolio rebalancing as a result of the ECB's asset purchases. Portfolio rebalancing was mostly attributable to euro-area residents buying foreign bonds and non-residents selling euro-denominated bonds, which caused the euro to depreciate.

From a macroeconomic perspective, monetary easing will become less and less effective as the period of low interest rates is prolonged further. Normally speaking, low interest rates stimulate households and businesses to convert their savings into spending. Alternatively, low interest rates may induce increased savings in order to compensate for lower returns. The relevance of the second effect depends on an economy's financial structure. To date, there have not been any indications in the euro area of the negative effects of low interest rates dominating the positive ones. There are as yet no indications of increasing private savings in the Netherlands either, even though the Dutch economy is relatively vulnerable to possible negative effects of low interest rates on spending, due to the large share of pension funds and life insurance companies. The low level of long-term interest rates is having a detrimental effect on the financial position of these institutions, which may induce a rise in pension contributions and fuel uncertainty about possible curtailments. This may work against the stimulating effect of monetary easing.

Monetary policy transmission to the real economy through the banking sector is also showing diminishing returns. There is a limit to how low retail deposit interest rates can go in practice, so from a certain level banks will find it increasingly difficult to pass on falling market interest rates to their deposit rates. This puts their interest rate margins and profitability under pressure. Prolonged low interest rates may on the other hand have a positive effect on the credit risks that banks are exposed to, as default risks also diminish. There is a risk, however, that low interest rates are keeping non-profitable enterprises in business, and keep new loans from being issued. If loans to these businesses are rolled over, reallocation of capital to more productive activities is delayed, which will have an adverse effect on productivity growth. There are empirical indications that low interest rates are fuelling misallocation of production factors in various countries. Specifically in interest-sensitive sectors like the housing market, low interest rates may contribute towards unbalanced asset price developments (see Section 1.5).

1.4.4 Increasing market disruptions

The policy of monetary easing is increasingly being accompanied by undesirable side-effects that are disrupting market mechanisms. The dominant position of central banks in the financial markets has caused the correlation between the price formation of different assets to increase, as market participants are now more sensitive to central bank policies than before. This inhibits the market's disciplining function and may disjoin the relation between market prices and fundamental developments. The narrowing interest margins on credit spreads on European corporate bonds after the launch of the CSPP are not justified by lower default levels for instance. The dependence on central bank policies also fuels the risk of sudden volatility outliers following changes in the prevailing market vision, which may be amplified by decreasing market liquidity.

Various indicators are indeed pointing towards decreasing bond market liquidity. This is among other things being caused by the diminishing market-making role played by banks deriving from increasing balance sheet costs and the reconsideration of the risk/return profile of market making. The APP has also contributed to diminishing market liquidity. The bonds purchased are on the Eurosystem's balance sheet, reducing the volume of marketable government bonds, meaning that the purchased bonds are accounting for an ever growing part of total trading volumes, in particular for less liquid paper.

The large volumes involved in the purchase programmes are distorting consistent pricing of financial market risks. Comparable risks are priced lower in markets where central banks are active than in markets where they are not. Another indication of distorted risk pricing is the divergence between required returns on corporate bonds and equities, immediately following the launch of the CSPP. This decoupling may give market participants the wrong incentives. A large discrepancy between the costs of debt and equity capital may entice businesses to increase their debt ratios by issuing debt for share repurchases rather than investments. The undesirable side-effects on market mechanisms will not wane for some time to come, due to the extension of the APP.

1.5 Effectiveness of macroprudential policies

Macroprudential policies are deployed used primarily to strengthen the resilience of systemically important banks and to alleviate real estate risks. The effectiveness of such policies benefits from consistent application in different countries and different sectors of the financial system. Coordination with other policy areas is also necessary, for instance to curtail incentives for excessive debt financing and to remedy bottlenecks on the supply side of the housing market.

1.5.1 Deployment of macroprudential instruments

An increasing number of EU countries is making use of macroprudential instruments. The most frequently used instruments are systemic buffers for banks, loan-to-value (LTV) and loan-to-income (LTI) limits, repayment obligations and higher risk weights. These instruments are also being deployed in the Netherlands. DNB has for instance imposed extra capital buffer requirements on systemically important banks (3% for ING Bank, Rabobank and ABN AMRO; 1% for SNS Bank and BNG Bank). The LTV limit for mortgage loans is currently at 101%, and will be further reduced to 100% in 2018. This is still significantly above the levels seen in other countries. A further reduction of the LTV limit to 90% in the long run is therefore necessary in order to increase the financial resilience of young home owners in particular, and to increase the stability of the housing market and the economy. In most countries, including the Netherlands, the countercyclical capital buffer (CCyB) is currently at 0%, in line with the subdued development of total lending. The buffer has been set above 0% only in the Czech Repulbic, Norway, Slovakia and Sweden. This means that banks are required to maintain additional buffers for exposures to these countries.

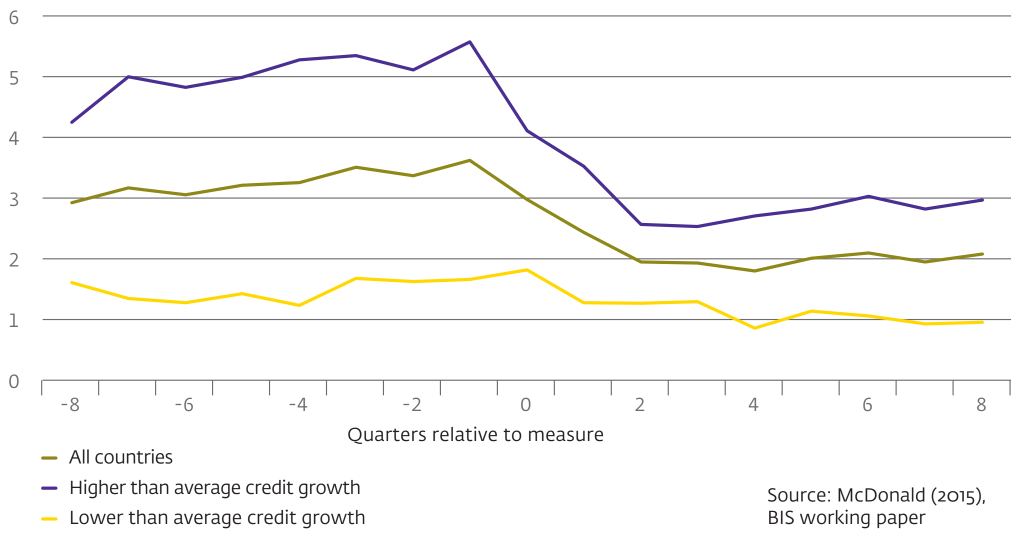
The deployment of macroprudential instruments varies sharply between countries. This is partly attributable to the differences in risks to the financial system, and partly to the different ways in which countries deploy these instruments. Some countries are showing increasing imbalances in their real estate markets, which explains why many countries are taking measures directed at risks evolving in housing markets. Recently, the European Systemic Risk Board (ESRB) has, however, warned a number of countries, including the Netherlands, that these measures do not go far enough and that the risks are not being sufficiently addressed. Buffers for systemic banks are very low, too, in some countries (e.g. Italy and Spain), or have even been set at 0%. As these banks play a central role in the financial system, it is all the more important for them to have sufficient capital buffers in place. This is why the ECB will gradually introduce a floor for this buffer requirement from 2019 forwards, forcing national authorities to implement buffers for systemically important banks with a minimum of 0.25%–1%, depending on their degree of relevance to the financial system.

1.5.2 Effectiveness and leakages

The use of macroprudential instruments has enhanced the shock resilience of the financial system. In the Netherlands, systemic buffers have reinforced the resilience of the relevant banks and of the financial system as a whole. The LTV and LTI limits and the mandatory repayments of mortgage loans boost the resilience of Dutch households. They also reduce the likelihood of a large number of households getting underwater again following a possible future drop in house prices. There are also indications that macroprudential instruments can dampen excessive growth of asset prices or lending. International research (see Chart 1.9) suggests that the expansion of mortgage debt slows down significantly following the implementation of LTV and LTI limits, and house prices also show decelerating growth. Limitations to the maximum permitted level of debt relative to income, or stricter requirements for the amount of own capital that must be contributed, are particularly effective in times of soaring mortgage debt.

Chart 1.9 Average growth of mortgage debt after tightening of borrowing limits

Percentage



Source: McDonald (2015), BIS working paper

Note: Countries with higher (lower) than average credit growth had higher (lower) credit growth than the sample average prior to the measure being taken.

Differences in regulatory and legislative requirements between countries and components of the financial system may undermine the effectiveness of macroprudential policies. As macroprudential measures are currently primarily targeted at domestic banks, they may be circumvented by foreign banks and non-banks (leakages). There are for instance indications that foreign banks are expanding their activities in countries that are tightening prudential rules for domestic banks. This move may be explained by the fact that the capital requirements do not apply to foreign bank branches and cross-border lending operations. Other studies have shown that bank lending on average declines in quarters following macroprudential measures, while non-bank lending volumes in fact increase. A proportion of lending therefore seems to be shifting to non-bank institutions.

Potential leakages are particularly relevant in the commercial real estate market, as lending is increasingly shifting in the direction of non-banks. Before the crisis, banks accounted for over 90% of lending volumes to the European real estate sector, whereas currently private equity funds, debt funds, insurance companies and pension funds account for over 40% of outstanding loans. At the same time, the proportion of debt funding in the real estate sector has declined in favour of equity funding. This shift towards non-bank lending is also visible in the Netherlands: whereas lending activities in the real estate market have been increasing for several years, Dutch banks are scaling back their real estate loans. Due to this shift in lending to the real estate sector towards non-banks, measures aimed at banks to mitigate possible risk are becoming less effective.

To bolster the effectiveness of macroprudential policies, measures should also be targeted at non-banks. The LTV and LTI standards in the Netherlands, which apply to all providers of mortgage loans, are a case in point. The ESRB recently identified a number of important macroprudential instruments for non-banks. For investment funds for instance, limits are in place for leverage ratios and the level of liquid assets that these funds are required to uphold. On the whole, investment fund assets are significantly less liquid than their liabilities. If investors withdraw from these funds, this may force the funds to sell assets at sharp discounts, which may amplify price falls on the financial markets. The Financial Stability Board (FSB) recently issued recommendations on the approach of risks emanating from these vulnerabilities at fund managers. In addition, insurance companies and central counterparties (CCPs) are required to draw up recovery and resolution plans, limiting the likelihood and impact of bankruptcy on the financial system.

Cross border leakages can be countered by means of harmonised European rules and reciprocity. Reciprocity means that the authorities apply measures implemented by other countries to the activities of their own banks in these countries. DNB is for instance doing this with the recent Belgian measures to apply higher risk weights to mortgage loans. This ensures that Dutch banks active in the Belgian mortgage lending market are subjected to the same rules as their Belgian counterparts.

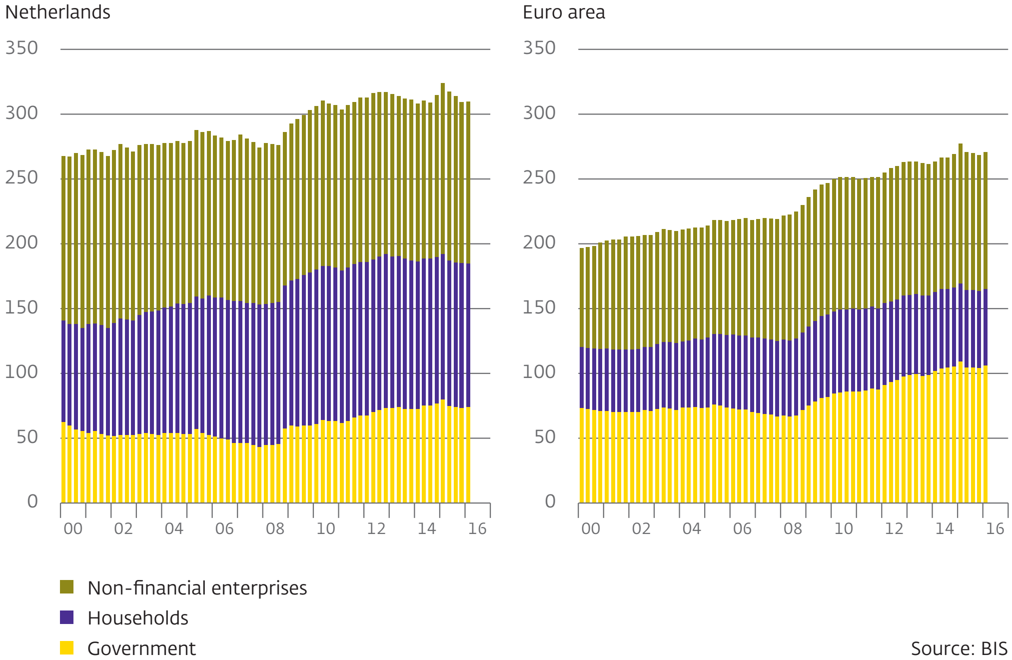
1.5.3 Interaction with other policy areas

Macroprudential measures may mitigate the risks to the financial system as a whole, but their effectiveness is curbed if these risks are largely rooted in other policy areas. Macroprudential policies can never provide a complete counterweight to incentives stemming from monetary and tax policies. The current excessively accommodative monetary policy makes debt financing very cheap and fuels the accumulation of excessive debt levels. Tax policies also include implicit subsidies on debt financing, such as mortgage interest tax relief and deductibility of interest expenses in the corporate sector.

Partly due to this, debt levels in the Netherlands and the euro area are at least as high as they were before the crisis (see Chart 1.10). Although private debt in the Netherlands and the euro area has been modestly reduced since the crisis, this reduction is more than offset by new public debt issues. Total debt in the Netherlands (public sector, households and non-financial enterprises) amounts to more than three times GDP, putting it well above the euro-area average. Worldwide, household debt ratios have been rising since 2015, lifting total debt in the developed countries to almost three times GDP at present.

Chart 1.10 Debt levels, total and by sector

Percentage of GDP



Source: BIS

The high debt levels and leverage make governments, businesses and households vulnerable to economic shocks. This may threaten financial stability. Macroprudential instruments may boost the resilience of the financial sector and households, but they cannot remove the existing incentives for excessive debt financing. Phasing out the current monetary policy will be a major step towards mitigating these incentives (see also Section 1.4). In addition, accelerated reduction of mortgage interest tax relief, and more equal treatment of debt and equity capital of businesses is needed. These reforms may structurally reduce the incentives for debt accumulation, so that policy makers do not have to lean on macroprudential policies only when mitigating the risks associated with high debt levels.

In the housing market in the Netherlands, risks are also influenced by other policy areas than macroprudential policies. House prices are soaring in the Netherlands, especially in the large cities, where the housing market is overheating. These price rises are currently not being accompanied by accelerating mortgage debt, nor by an increase in excessive lending behaviour, as measured by LTI and LTV ratios. The overheating is primarily due to pricing of scarcity: homes in the big cities are in great demand, and supply is limited. Rental housing in the middle segment is especially scarce. Contrary to rent-controlled properties and owner-occupied housing, this segment of the market is not subsidised by rent allowances or mortgage interest tax relief. Home seekers in the middle segment of the rental market are often not eligible for social housing based on their income, and are having difficulties in finding a home to buy in the currently tight market. If young households are being forced to buy a home and become shackled by high mortgage debt, they become vulnerable to declining house prices and their labour mobility may be curbed. This means that there is an urgent need for more suitable rental accommodation in the middle segment. DNB plans to publish a study on the housing market in the large cities later this spring.

Supervision: new developments demand flexibility from the financial sector and alertness from supervisory authorities

2 Supervision: new developments demand flexibility from the financial sector and alertness from supervisory authorities

2.1 Introduction

Almost ten years after the financial crisis erupted, financial rules and supervision have been fundamentally overhauled. Financial buffers have been strengthened across the sector and the quality of management and business practices and culture has been raised. However, this has failed to remove all concerns about the state of the financial sector. Low interest rates, a rapidly changing environment, shifting customer needs, technological innovation and regulatory and legislative requirements are putting business models (i.e. the ways in which institutions earn their income) under pressure in virtually all parts of the sector and are placing huge demands on financial institutions' capacity for change. The insurance and pensions sectors in particular are facing significant structural challenges. The management of risks related to terrorist financing and sanctions legislation also requires ongoing attention from financial institutions, partly in view of geopolitical risks. Hence, we see every reason to remain alert in supervision.

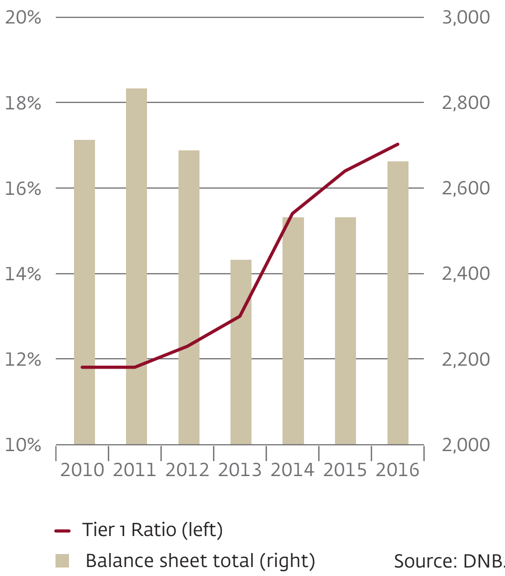
The independent public body (ZBO) report, which is published simultaneously with this Annual Report, reviews our execution of supervisory duties in the past year. This chapter describes DNB's view of the main trends, challenges and risks facing the financial sector. Section 2.2 highlights the developments in the banking sector, focusing on the consequences of low interest rates and new rules and regulations (Basel 3.5). Box 2.1 discusses the situation on the convertible bonds market. Section 2.3 addresses the insurance sector, with special attention to profitability and shifts in the insurance market. Section 2.4 focuses on the vulnerable position that pension funds are in and the need to reform the pension system. Section 2.5 highlights terrorist financing risks and sanctions legislation. Section 2.6 describes potential future risks ensuing from legislation and regulations.

2.2 Banks: resilience improved, Basel 3.5 approaching

Over the past few years, the banking sector has improved its resilience. Capital positions have been strengthened over time, and the banks' migration to the Basel 3 standards is well on track (see Chart 2.1). Banks are anticipating on the minimum capital requirements for resolution purposes that will be set in 2017 (see Chapter 3). Compared to banks elsewhere in Europe, Dutch banks have relatively low volumes of non-performing loans (NPLs). Losses on mortgage loan portfolios have also been relatively small, despite the financial crisis and the steep drop in house prices. The outcomes of the mid-2016 EBA stress test and the IMF's FSAP stress test confirm that Dutch banks are able to withstand considerable stress and remain sufficiently capitalised even in seriously adverse macroeconomic scenarios.

Chart 2.1 Bank capital positions

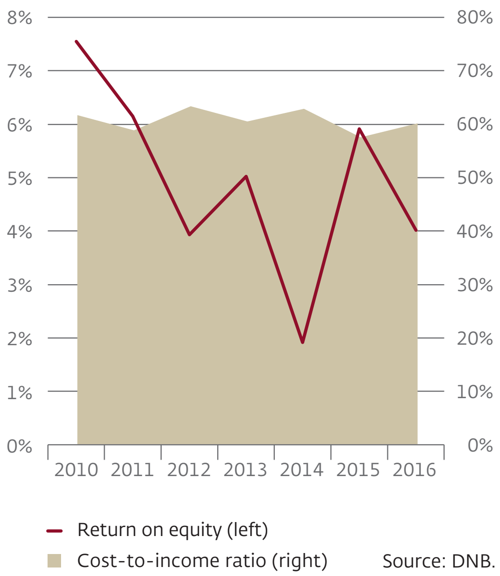
Balance sheet total in EUR billion



Source: DNB.

Chart 2.2 Bank profitability

Percentages



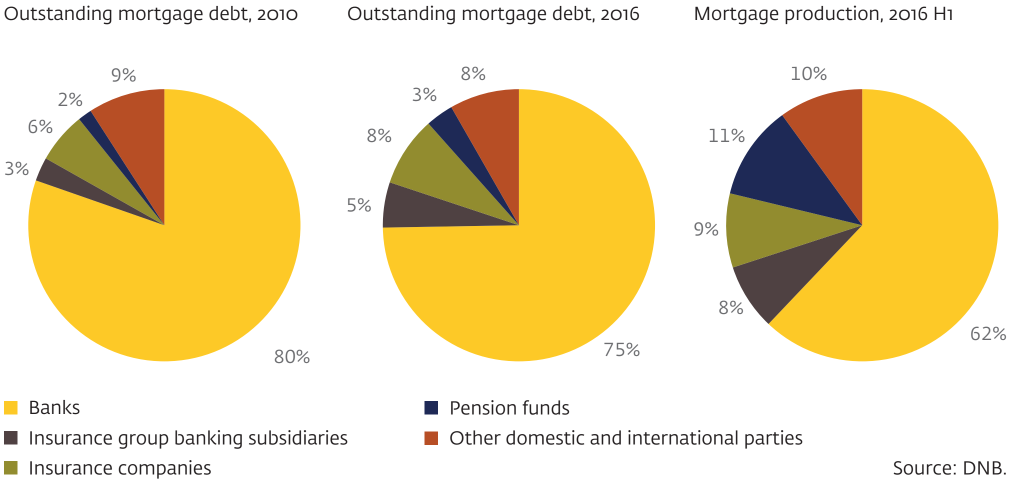
Source: DNB.

However, banks are less profitable than before the crisis (see Chart 2.2), partly because regulations for banks have been tightened. For example, the Basel 3 accord requires banks to increase both the quantity and quality of their capital. This allows banks to absorb larger losses, but also depresses their return on equity – which is a common measure of profitability.

However, the changing and uncertain economic environment also plays a role. A scenario of prolonged low interest rates combined with a flat yield curve would particularly undermine the profitability of Dutch banks. With interest rates on savings deposits approaching zero, banks are reluctant to pass on further decreases, causing their margins to shrink or even turn negative. If this situation continues, it may put pressure on bank business models. Even under favourable economic circumstances, banks will need to make a substantial effort to maintain their profitability at the current level. To do so, they must make sizeable cost savings and pass on part of their additional costs to higher margins without losing too much market share. A more strategically oriented business model review is therefore essential.

From a historical and international perspective, the Dutch banking sector is highly concentrated and relatively large. A positive development, given this high concentration, is that we have issued authorisations to new credit institutions for the first time in years. The increasing role that non-bank providers are playing in the lending market is also having a positive impact on diversity and competition in credit supply. The rise of pension funds and insurance companies in the mortgage loans market in particular is a boost to the financial system (see Chart 2.3).

Chart 2.3 Shift in mortgage debt and mortgage production



Source: DNB.

This shift in the market contributes towards more balanced funding of long-term loans using premium contributions for the longer term. Despite the larger role that Dutch pension funds, insurance companies and financial markets are playing, banks will continue to occupy a key position in the mortgage and corporate loans markets.

Technological innovations are also challenging bank business models. Competition ensuing from technological innovation is making it harder for established market participants to continue offering financial services at profitable rates. As new innovative providers, e.g. payment service providers, often specialise in a single financial technology based product or service, with which they compete with established players, they are undercutting the operations of many financial institutions that offer a complete range of products and services. The extent to which these innovative market players intend to cooperate or compete with established providers is an important question. On the other hand, technological innovation is also offering banks opportunities to better respond to changing customer behaviour, provide more specialised services and achieve cost savings.

Harmonisation of European banking supervision is well underway. The procedure for determining institution-specific capital and liquidity requirements in the SSM was worked out in more detail in 2016. Recent trends in the convertible bonds market show that financial stability stands to benefit from clarity about the capitalisation requirements for banks (see Box 2.1). In 2016, a large number of national discretionary powers were harmonised, which has led to a more uniform application of supervisory rules by national supervisory authorities.

The deteriorating credit quality of loans to businesses and households in several SSM countries is a source of concern, however. That is why the SSM published a harmonised approach to non-performing loans, targeted at banks with elevated exposure levels. Last but not least, the SSM developed a harmonised approach to fit and proper assessments of board members of banks. The new methodology incorporates key elements of Dutch supervisory practice, such as interviews with prospective board members and weighing a candidate's level of education and experience within the board as a whole.

Box 2.1 The CoCo market stands to benefit from clarity

The European market for contingent convertible bonds (CoCos) is a young and, developing market. CoCos are bonds that banks issue in order to comply with their capital and leverage ratio requirements. CoCos carry specific risks for investors, because they are converted into shares or written off if a bank's capital ratios fall below a predetermined level. In addition to this, a second trigger mechanism applies to these instruments: the maximum distributable amount (MDA). The MDA trigger caps coupon payments on CoCos if banks are no longer able to meet their combined buffer requirements. The MDA level and the gap between banks' capitalisation and the MDA are crucial to market pricing.

In December 2015, the European Banking Authority (EBA) published an opinion to clarify how the MDA trigger level is determined: it is set on top of the capital requirements ensuing from Pillars 1 and 2 and the combined buffer requirements.

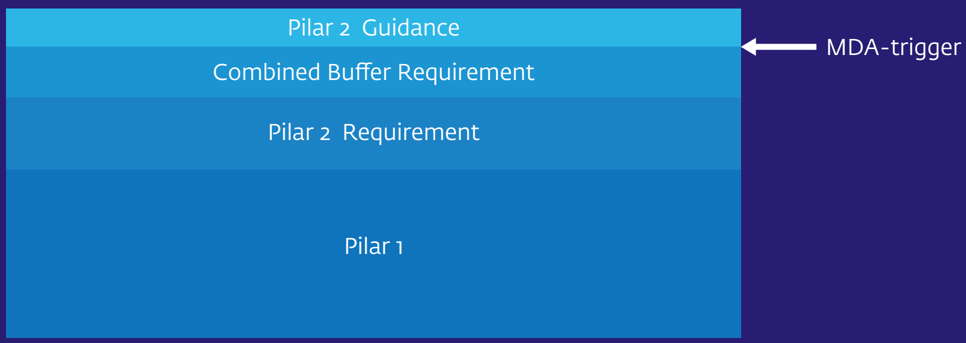
The publication initially triggered a negative price response in the financial markets (see Chart 2.4). The ECB then introduced Pillar 2 guidance (P2G) as a new requirement without MDA relevance (see Figure 2.1), allowing the ECB to impose additional capital requirements without touching the MDA trigger. The market then recovered, also supported by waning concerns about bank profitability.

Chart 2.4 Price trends of CoCo bank shares and senior bank bonds

Trend January 2015 = 100

Source: Bloomberg.

Figure 2.1 MDA trigger level



CoCo market trends in 2016 showed that the market stands to benefit from clarity, so that this instrument and the CoCo market as a whole can fulfil their role in safeguarding financial stability in the EU. It is interesting to note that European CoCos have gained a relatively large investor base outside the euro area. Potentially, this could lead to more volatility, but it also limits the interdependence between banks and other financial actors in the EU.

That said, supervision legislation for banks is under constant development. The Basel Committee made progress in finalising the Basel 3.5 framework, which was developed to complete the package of reforms for banks after the crisis and focuses on internal models, operating risk and the standardised approach. The introduction of an output floor to limit discretionary powers in the use of internal models remains controversial, and opinions differ on its calibration. Negotiations are still under way, and DNB is committed to minimising unjustified differences in risk weighting, while ensuring that the risk weighting system continues to be based on differences in bank risk profiles. The aim of these reviews is not to increase capital requirements, but it may be one of the consequences for individual Dutch banks.

Finally, the European Commission put forward proposals to amend the European capital requirements directive and regulation (CRD IV/CRR) for banks. Proportionality and simplification are key points for attention, but they must not lead to easing of supervisory requirements, however. On 1 January 2018, the new international financial reporting standards, IFRS 9, will enter into effect. This will mainly affect the calculation of bank provisions.

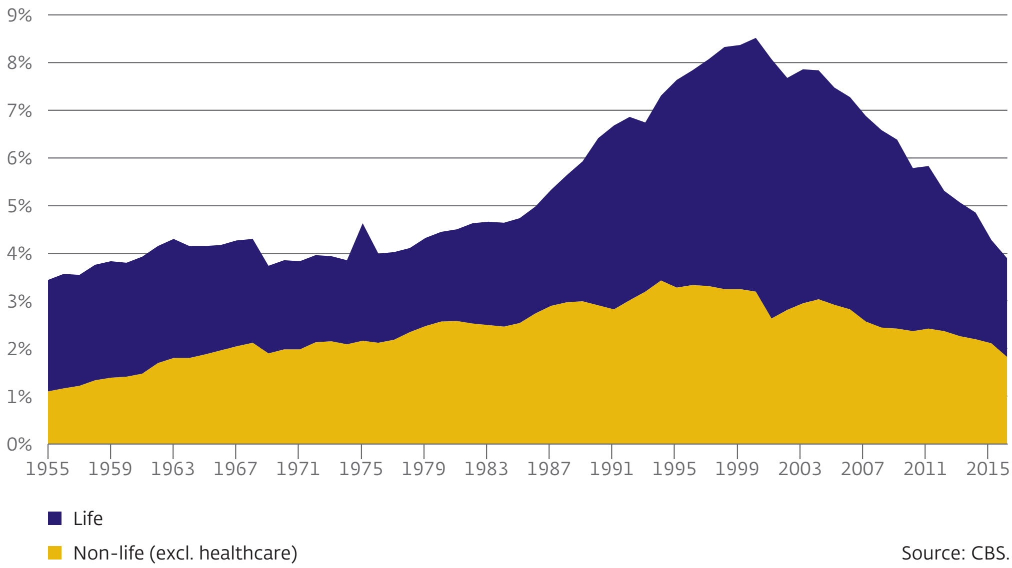
2.3 Insurance companies are facing fundamental choices

The insurance sector will change fundamentally in the years ahead. The sector is facing a plethora of changes in terms of technology, society, economic developments, customer behaviour and legislation. This requires insurers, supervisors and policymakers to step up their efforts aimed at safeguarding a sustainable, stable and efficient insurance sector that will continue to serve society in the future. At the same time, these developments provide opportunities for established and new parties alike. Insurance companies able to strengthen their capacity for change and innovate successfully will also be able to offer their products with a competitive edge, expand their market shares and increase their profitability. Those that do not succeed in doing this will need to look for alternatives, i.e. consider an acquisition or scale back operations. Consolidation is a key theme in the sector, as can be seen from Anbang's takeover of Vivat and Nationale Nederlanden's imminent takeover of Delta Lloyd in the Netherlands.

Life and non-life insurance companies are contending with adverse market conditions and declining profitability (see Chart 2.5), forcing life insurers to scale back their staff numbers and cut costs, adapt their business models and consolidate where needed. Such action is necessary to achieve a viable and sustainable individual life insurance sector. In the non-life market, technological innovation may cause total premium volumes to shrink substantially, mainly driven by expected cost reductions and declining claims burden. Insurers failing to bring their costs in line with market levels may face lower profitability. In the non-life insurance sector, profitability is already under severe pressure. Non-life insurance companies must also be prepared to reconsider their business models, consolidate where necessary and seize new opportunities.

Chart 2.5 Premium income of life and non-life insurers

(Annual figures as a percentage of GDP)



Source: CBS.

We expect to see increased competition from new entrants to the life and non-life insurance markets, fuelled by technological developments and societal trends. Newcomers will leverage the opportunities offered by big data and mobile communications and shifts in consumer demand. At the same time, innovative technologies may contribute to increased efficiency and a broader range of socially relevant products. The Dutch non-life insurance market, in particular, is expected to face increasing competition from foreign companies. The introduction of the European Solvency II Directive has further harmonised prudential supervision in Europe. Large international players may benefit from economies of scale by investing in new technologies for instance. Competition from foreign insurance companies may improve efficiency and provide a fresh impetus to the insurance sector's social responsibility. At the same time, Dutch insurance companies will see opportunities to expand their activities abroad to leverage economies of scale and spread risks internationally. Consequently, it will be important to eliminate unnecessary barriers to internationalisation as much as possible.

The financial position of insurance companies remains a source of concern, however. Over the past few years, results for their major product groups have frequently been negative. Profitability in the life insurance sector is under extreme pressure, especially as a result of low interest rates. The interest rate sensitivity of Dutch insurance companies has also been revealed by the results of the recent stress test performed by the European Insurance and Occupational Pensions Authority (EIOPA). The results highlight the need for insurers to step up their efforts to develop future-proof business models and to consider the impact of a prolonged period of low interest rates on their capital and dividend policies. Likewise, profitability is low or even negative in the non-life insurance sector. The ratio of claims payments and costs to premium income (adjusted for reinsured claims) has been negative for a number of years now in the main segments of the market. The market for motor vehicle third-party liability insurance is particularly worrying, but other market segments have also been loss-making over the past years. To post positive results, insurance companies depend on sufficiently positive investment results, which are exceedingly difficult to achieve in the current low interest rate environment.

We will continue to monitor the resilience of the insurance sector closely. At insurance companies with long-term commitments, we will also look at the effect of the ultimate forward rate (UFR) on solvency figures. This is necessary since the actual yield curve and the yield curve applied under Solvency II to discount liabilities have been increasingly diverging in the past few years.

Although prudential supervision seeks to ensure solid financial institutions that are able to meet their commitments and obligations, it is no guarantee that institutions will never run into financial difficulties. It is important to protect the interests of policyholders as much as possible. This calls for supplementation of the current array of instruments, which is why the cabinet plans to expand the framework for the recovery and resolution of insurance companies. The new framework is expected to enter into force in 2018. We are actively promoting this important national initiative in Europe.

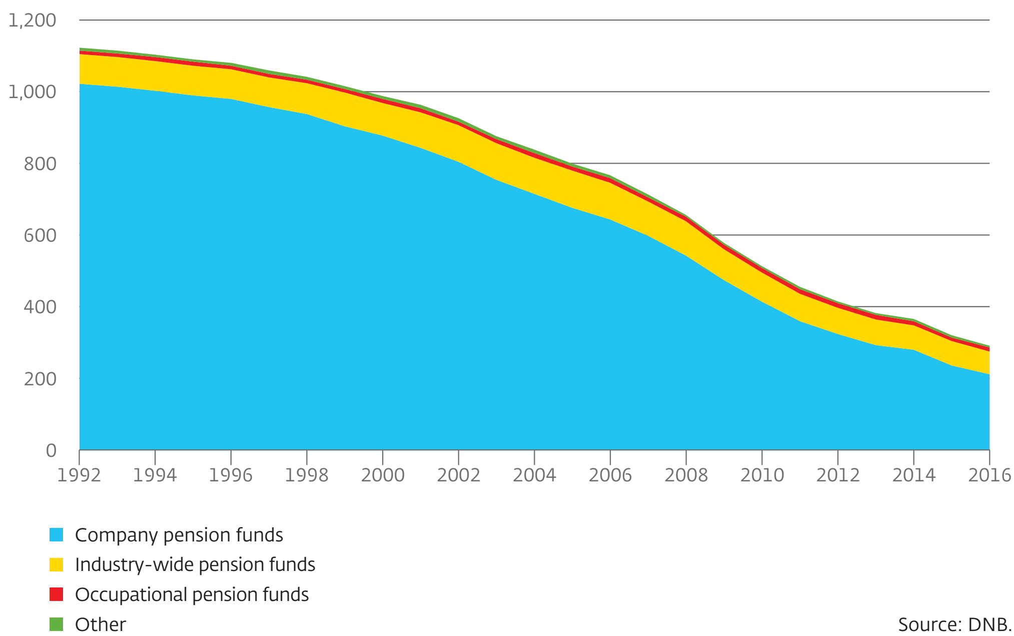
2.4 Pension funds: the sector needs a future-proof system, now more than ever

The vulnerable financial position that many pension funds are finding themselves in, combined with new legislation and demographic and social changes, are putting the pensions sector under pressure. It has taken steps in the right direction, such as strengthening the quality of its governing boards and improving consultation with and accountability towards stakeholders, but these will remain points for attention for the year to come. The number of pension funds engaging in sustainable investment is on the rise, as are the various strategies for incorporating sustainability in their investment policies. Consolidation in the pensions sector is continuing (see Chart 2.6), and a new type of institution for pension accrual has emerged. The second half of 2016 saw the first transfers of pension rights to these general pension funds (Algemeen pensioenfonds – APF). The sector's capacity for change will continue to be challenged in the future.

The financial position of many pension funds is still under pressure (see Chart 2.7). This emerged from the report that we drafted in May 2016 at the request of the State Secretary for Social Affairs and Employment, and from the recovery plans submitted by pension funds. Our November 2016 update of the report confirmed this picture. Thanks to the recovery of the

Chart 2.6 Consolidation in the pensions sector

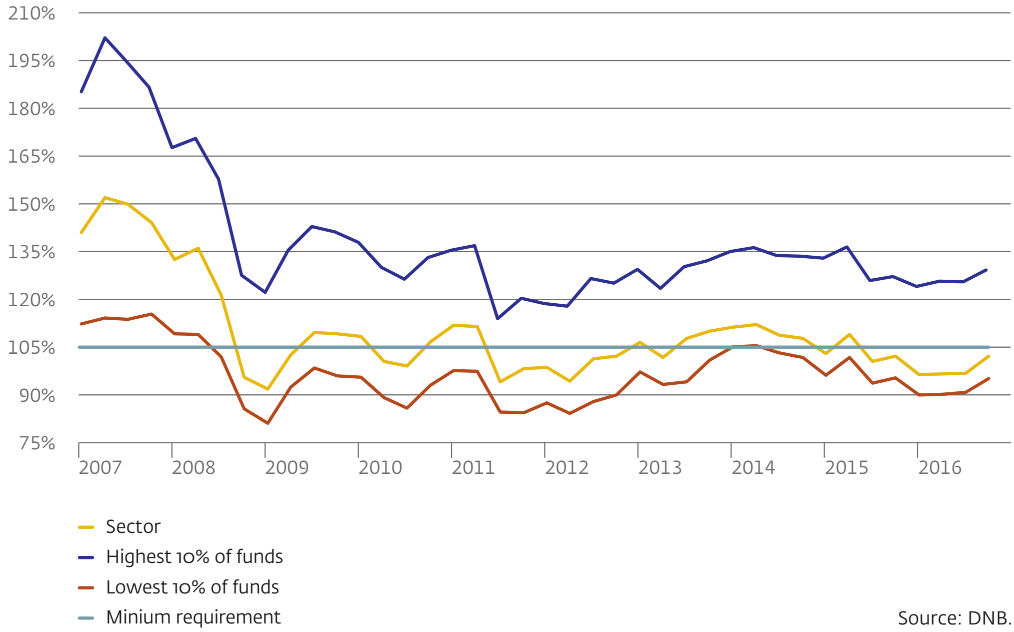
Number of pension funds in the Netherlands



Source: DNB.

Chart 2.7 Pension funds' funding ratios

Percentages



Source: DNB.

financial markets in the final months of the year, only a very limited number of pension funds actually had to apply benefit reductions. However, as long as pension funds' financial positions continue to be fragile, the threat of unconditional and substantial benefit reductions remains.

The financial vulnerability of many pension funds demonstrates that a fundamental overhaul of the pensions system is inevitable, especially given the prolonged low interest environment. As a supervisory authority and central bank, we are committed to achieving a sustainable pension system. The transition to a new system is complex and calls for careful analysis and decision-making.

In the context of the above, we already identified five features of a sustainable pensions system.

First of all, a sustainable system must ensure clear and unambiguous ownership rights for all members. Ownership rights are claims on a pension fund's financial assets, and include predetermined agreements on the adjustment of those claims in the event of financial shocks and changes to the average life expectancy. The value of claims may change as the value of the underlying investments changes, and as a result of the agreements made on who is responsible for absorbing which risks. Transparency regarding ownership rights may prevent unintended transfer of pension rights, or obscure adjustments in dealing with the consequences of financial shocks. Clear and unambiguous ownership rights and effective communications about pensions will help members obtain a more realistic view of the pension benefits they can expect, and of the associated risks. This increases the involvement of members and enables them to arrange adequate financial planning.

Secondly, a sustainable system must provide for balanced risk sharing between generations. On average, members are better off sharing individual longevity risks collectively, and by then spreading investment risk, pensions will be better matched to the differences in members' risk bearing capacity. It is crucial to achieve balanced risk sharing, however, meaning that the system should not put one generation at a structural disadvantage over another. Regardless of the transfer of pension rights between generations, this also entails the risk of discontinuity of the system, as some generations may wish to withdraw from the collective scheme. That is why limited collective buffers to spread shocks are acceptable, provided they do not turn negative. An important example of more balanced risk sharing between generations is the replacement of the average contribution calculation system by an actuarially correct system with a balanced relationship between contributions and accrual of pension rights.

Thirdly, a sustainable system should be tailored better to the risk bearing capacity and other characteristics of different groups of members. One way of achieving this is to tailor members' risk exposure to their risk bearing capacity at the various stages of their lives. Younger members have a long-term investment horizon and a relatively large earning capacity on the labour market. Older members, on the other hand, have fewer years to go until retirement and therefore have a shorter investment horizon. A second way to take differences between members into account is to differentiate pension ambition levels, i.e. the contribution amounts. High-income members often have relatively high education levels, they own their own homes, have substantial private assets and have better employment prospects at an older age. Conversely, lower-income members have lower or no private assets, often have lower levels of education and, consequently, have worse labour market prospects. If ambition levels and contributions gradually decline in tandem with income, people on higher incomes consequently have to bear more individual responsibility in making provisions for their retirement.

Fourthly, a sustainable system must contribute to macroeconomic stability. A key point for attention is how the system absorbs financial shocks. In the event of negative shocks, the group of members collectively bears the burden of inevitable adjustments in the form of lower entitlements or higher contributions. Lower pension entitlements and curtailments will depress consumer spending, while higher contributions negatively impact a country's competitive position if they translate into higher labour costs. A less favourable competitive position hampers exports and may lead to declining employment and a rising likelihood of unemployment for active members. By gradually and evenly adjusting benefits and entitlements, a sustainable system will prevent as much as possible cyclical movements from becoming too pronounced as a result of absorbing financial shocks.

Finally, the modern labour market requires broader mandatory pension saving. Employees not participating in a pension scheme and the self-employed fall outside of the scope of the current mandatory pension saving. We propose investigating whether mandatory pension saving can be broadened as this would contribute towards limiting the risk for future taxpayers. Broader mandatory pension saving would have the potential benefit of having less of a distorting effect on people's choice to work in paid employment or being self-employed. Hybrid variants are also an option. Firstly, it is possible to take into account the need of the self-employed for higher liquid financial buffers (given their volatile income) in building up pension provisions. Secondly, a distinction must be made between people who are self-employed out of sheer necessity and those who opted for self-employment. Although this element of a sustainable pension system definitely deserves further consideration, priority lies with the five characteristics discussed above, given that the system overhaul should preferably proceed in stages.

2.5 Prevention of financial and economic crime demands ongoing attention

Risk management in the areas of terrorist financing, sanctions legislation and money laundering in the financial sector demands our ongoing attention, in order to prevent Dutch financial institutions from (unintentionally) playing a facilitating role in financial and economic crime, and to prevent deterioration of confidence in the sector. Although the importance of integrity to sustain a healthy financial sector is broadly recognised, management these risks is still insufficient across the sector.

The financial sector plays a crucial statutory role as a gatekeeper in detecting and countering terrorist financing. We therefore expect financial institutions to take this role seriously and to pro-actively take up their duty to perform customer due diligence, monitor transactions and train their staff adequately. Practical evidence shows that analysing transactions helps to detect terrorist financing. This will also help to prevent future terrorist attacks, which is important to national security. Under the Sanctions Act, financial institutions have the duty to screen their customers and business relations against the most recent national terrorism lists. By freezing the funds of the individuals and entities on these lists, the financial sector can help prevent terrorist attacks from being prepared.

Combating terrorist financing continues to be one of the focal points of our integrity supervision. Our examinations have revealed that supervised institutions still insufficiently control the risk of becoming involved in terrorist financing. This is why we will address combating of terrorist financing in two targeted cross-sectoral examinations in 2017. We plan to conduct a targeted examination into institutions' transaction monitoring on possible involvement in terrorist financing. In addition, we will examine compliance with the Sanctions Act to establish whether institutions are performing the appropriate checks. As a partner in the Dutch Financial Expertise Centre (FEC), we also actively take part in a project to combat terrorist financing.

The Panama Papers revealed that banks and trust offices are involved in facilitating financial constructions intended to keep individuals and business out of sight of government authorities. The revelations have dented confidence in financial institutions and in the sector as a whole. Institutions should be aware that public and political tolerance for facilitating aggressive tax planning and customer anonymity is wearing thin. Institutions also face financial risks in the form of fines, retrospective tax levies or criminal prosecution charges. In 2017, we will continue our examinations into financial institutions' involvement in such financial constructions.
Our intended effect is that financial institutions no longer initiate aggressive tax planning activities (and phase out existing activities) that would detrimentally affect confidence in the financial sector. If we observe institutions indeed conducting such activities, we want to ensure that their systematic integrity risk assessment (SIRA) includes the appropriate risk analyses, that they bring their risk management up to standard and review their activities and customer portfolios where necessary.

The trust sector continues to face considerable challenges in 2017. Last year, we called the sector to account about its responsibility as gatekeeper of an ethical financial industry.
In our view, the sector still has difficulties meeting the basic requirements of the Act on the Supervision of Trust Offices (Wet toezicht trustkantoren – Wtt), e.g. in the area of identification and verification of ultimate beneficial owners (UBOs). Customer due diligence performed by trust offices also requires improvement. Their due diligence analyses should not only concentrate on risks of money laundering and terrorist financing , but also on other risks including tax risks. Trust offices must adequately address the risks associated with the services they provide, by determining beforehand if these risks are not excessively high and whether they are in line with their risk appetite and can be sufficiently mitigated. The findings from our supervisory examinations have prompted the Ministry of Finance to prepare a proposal for a comprehensive review of the Wtt. This review should lead to a higher professional level of operational management, which curbs the highest inherent integrity risks in the areas of terrorist financing, sanctions legislation and money laundering.

2.6 Examination into new risks ensuing from the regulatory regime

In 2017, we will take a closer look at possible unintended effects of the regulatory regime. Our examination aims to identify at an early stage new micro- and macroprudential risks ensuing from regulations.

Since the crisis, the requirements, scope and intensity of financial regulations have increased dramatically. This concerned urgent renovation measures to catch up with the trends in the sector and the wider economic environment. Thanks to the new requirements, capital and liquidity buffers were raised and the quality of own funds improved. Moreover, the regulatory regime was expanded to cover institutions and instruments that were previously outside or hardly within scope. The new rules and regulations require intensified supervision. Financial institutions are now facing various supervisory authorities at the national and supranational level. The aim of the new rules and regulations is to improve institutions' financial soundness and the resilience of the financial system as a whole.

It is impossible to predict exactly how financial institutions will react and respond to this comprehensive package of new rules and regulations, as they are facing different, mutually interacting regulatory frameworks imposed by different national and international authorities. Financial institutions are being faced with changing sectoral market and accounting rules that also interact with each other. As a result, unintended effects may occur at the institutional, sectoral or systemic level. We will examine these effects in 2017.

Orderly approach to failing banks on track

3 Orderly approach to failing banks on track

3.1 Introduction

In its capacity of resolution authority, and responsible for the recently reviewed deposit guarantee scheme (DGS), DNB monitors the orderly approach to failing banks. While resolution planning activities for Dutch institutions are well under way, policy development also remains in a state of flux. In 2017, we will focus on further operationalisation of the resolution instruments and the DGS in the Netherlands. To this end, we are closely involved at the international level in policy discussions within the European Single Resolution Board (SRB), the review of European resolution legislation and proposals for a European DGS: the European deposit insurance scheme (EDIS).

3.2 Frameworks for resolution planning and execution

DNB has been the designated resolution authority for two years now, and we have made significant progress in structuring and implementing our resolution task at a national and European level. The focus has shifted more towards actual resolution planning, while the statutory framework also continues to develop.

In 2016, the resolution plans for the Dutch significant institutions were further elaborated and approved. The SRB has determined a provisional approach to resolution using the bail-in instrument and the conditions for resolvability. The SRB has not yet reached a formal decision on a number of important issues, such as the minimum required own funds and eligible liabilities (MREL). Significant institutions (SIs) have been issued with informative MREL targets instead, allowing them to initiate migration towards the future requirements. The first formal decisions on MREL and resolvability measures are expected in 2017.

We also expanded the number of plans for less significant institutions (LSIs). In the event of resolution, these will come under our direct responsibility, with the exception of cross-border LSIs. We have set up a provisional framework to determine if and to what extent resolution planning is necessary for these institutions (see section 3.3). In addition, we managed to take major steps in operationalising the resolution toolbox, including bail-in, transfer and bridge bank instruments, as well as an effective DGS. Briefly put, bail-in entails writing down and transferring capital and specific types of debt in order to absorb losses and recapitalise a bank. This means that shareholders and creditors bear the cost of bank failure, contrary to bail-out, where the government pays the bill. The transfer instrument transfers assets and liabilities to a market party, preventing the services involved from being interrupted in the event of failure. The resolution authority may also decide to transfer a bank partially or wholly to a bridge bank, allowing the activities involved to be sold at a later stage. Resolution plans increasingly lay down the actions institutions must take in order to be able to apply these instruments.

The resolution model is now finding its way to other parts of the financial sector, and a recovery and resolution regime for central counterparties (CCPs) and insurance companies is being developed (see sections 4.3.1 and 2.3, respectively).

3.3 Not all failing banks need to be resolved by applying resolution instruments

Failing banks must be resolved in an orderly fashion through liquidation or by applying resolution instruments. The decision whether to apply resolution or liquidation is taken at the moment of failure , but as resolution requires preparation, it is essential to make an ex ante estimation. For LSIs, DNB looks at the balance sheet size, the amount of DGS-covered deposits and the number of payment accounts.

3.3.1 Short time frame between planning and execution

Under the Bank Recovery and Resolution Directive (BRRD), failing banks must in principle be unwound according to a standard insolvency procedure. Resolution is applied only if this is in the public interest, for instance if an abrupt termination of the bank's services would have a disruptive effect on the financial system or on the economy (public interest test). When a bank fails, DNB must decide at short notice whether to opt for liquidation or resolution. Moreover, it must be able to execute the selected strategy at short notice.. Especially in the event of resolution, thorough preparations are essential. This is why an ex ante estimation must be made of the effects of failure, even if the bank involved has not yet run into difficulties. If the expected effects are significant, resolution is the best solution.

The ex ante estimation of the public interest test is a serious exercise. On the one hand, it determines the risk appetite in the approach to bank failure. On the other, a detailed plan is needed for the anticipated strategy and its related requirements. Opting for resolution may have consequences for the bank's organisation, financing structure and business model. If there are any doubts about which strategy to choose, a detailed resolution plan will be drafted for safety's sake. At the same time, drafting a resolution plan does not necessarily exclude liquidation at a later stage.

3.3.2 Indicators

For the public interest test, DNB looks at an institution's balance sheet size, DGS-covered deposits and the number of payment accounts. DGS-covered deposits include the savings and payment instruments of households and small businesses. If the proportion of DGS-covered deposits is relatively large, it is regarded as a critical function that the BRRD seeks to protect. The social consequences of bank failure are potentially significant if large numbers of customers suddenly no longer have access to their money. Moreover, the DGS has a limited resilience. If the DGS fund, which is planned to reach EUR 3.8 billion in 2024, is insufficient to cover the costs, the remaining amount must be divided over the other banks. This consists of pre-funding of the DGS payments and potential deficit, i.e. the part that the DGS fund cannot recover from the insolvent estate. This is a potential contamination threat to the financial system. If a bank with a large number of payment accounts fails, a large number of account holders will temporarily lose access to payment services. Given the potential adverse effects on confidence and the real economy, this warrants special attention in the public interest test.

3.3.3 Consequences

Based on the current insights, a resolution plan will have to be drafted for about a quarter of Dutch LSIs. Where resolution planning for SIs will focus on a bail-in strategy, planning for LSIs will generally aim for continuation of the institution's critical services, while the remainder will be resolved in liquidation.

Resolution planning requires close cooperation with the bank, which is required to provide the resolution authority with all required information. The resolution plan may also provide for institution-specific measures aimed at data requirements and operationalisation of the resolution strategy. Simplified plans will be drafted for the part of the banking sector for which resolution is not expected. The plans will contribute to quick and correct DGS payouts and other measures, depending on the type of services provided by the bank.

3.4 Proposals for MREL review

On 23 November 2016, the European Commission presented a package of legislative proposals in the context of completing the European banking union. The proposals link risk reduction to further risk sharing within the banking union, with a special focus on decision-making on EDIS (see also section 3.3.2) and a European backup structure for the single resolution fund (SRF). For resolution, the proposals highlight implementation of the internationally agreed total loss absorbing capacity (TLAC) standard for global systemically important banks (G-SIBs).

DNB is in favour of full implementation of the global TLAC standard in European legislation, The Commission's proposal adopts some of the key elements, including the condition of subordinated instruments. At the same time, the essence of MREL must be maintained, allowing the resolution authority to tailor this requirement to the level of individual institutions. We believe it is essential for the larger European banks in particular to hold sufficient MREL in order to apply credible bail-in strategies.

Moreover, in order for MREL instruments to actually be bail-inable, the resolution authority must have the competence to impose sufficient subordination requirements with respect to operational liabilities. In this respect, we welcome the Commission's proposal to harmonise national insolvency legislation for banks to a certain degree. We propose that member states create a new layer in national legislation between subordinated instruments that are part of an institution's capital, and regular claims. This new unsecured layer is subject to bail-in in resolution after capital instruments have been written down or converted, but before other liabilities such as unsecured deposits can be called upon. The proposal only applies to new bank funding and does not affect existing debt instruments and their priority in liquidation situations.

Recent experiences with problem banks in the euro area, in particular in Italy, stress the importance of stepping up the implementation of the above proposals. Adequate complementary policies are necessary to prevent banks from investing in each others' MREL instruments or to prevent these instruments from falling into the hands of investors incapable of bearing the risks.

3.5 The revised DGS, building on confidence

In 2016, the Dutch deposit guarantee fund (DGS fund) collected the first contributions towards the proposed target amount of EUR 3.8 billion in 2024. DNB is currently working on a new system to enable DGS payouts within seven business days. European DGS (EDIS) negotiations are progressing slowly. A system principally based on liquidity sharing may help to boost the process.

3.5.1 New regulations in practice

DNB is responsible for the execution of the DGS and works in concert with the DGS fund, a legally independent entity outside DNB funding the DGS. In 2016, the fund collected the first risk-weighted quarterly contributions. At end-2016, the fund had acquired almost EUR 450 million, which approximately equals 0.1% of guaranteed deposits. The DGS fund is on track to achieve its target size of 0.8% of guaranteed deposits in 2024, which approximately equals EUR 3.8 billion.

The DGS will be strengthened further by gradually reducing the payout period for deposit holders to seven business days. To this end, we are working on a new digital payout system, that allows deposit holders to see their balances online through a web interface. A reduced payout period requires that banks are able to provide DNB with uniform data on all deposit holders. We will hold a consultation round on the requirements for this single customer view (SCV) in early 2017, with the aim of operationalising the policy rule later that year.

The supply of information to deposit holders has also been improved as part of the revised DGS regulations. Banks now inform deposit holders periodically about the DGS, for example through information leaflets. We are currently evaluating the first experiences with the new information requirements and the extent to which deposit holders actually need supplementary information from DNB and their banks.

3.5.2 Working towards a European DGS to complete the banking union

A European DGS, the European deposit insurance scheme (EDIS) will help to further anchor confidence in the banking union. The year under review saw the start of negotiations on EDIS, based on a European Commission proposal. The idea underlying the proposal is that implementation of the DGS remains a national responsibility, while its funding will increasingly be arranged at banking union level. That way, EDIS may help curb the risk of contagion between member states.

The Commission's proposal aspired to have EDIS enter into force in 2017, but negotiations need more time, mainly because reducing risk differentials between member states is regarded as a prerequisite for risk sharing in a common DGS. In June 2016, the Council of Ministers agreed that the negotiations on EDIS will be launched at a political level once sufficient progress has been made with respect to risk reduction.

We are in favour of linking risk sharing to risk reduction, but we also want to mention the option of setting up a provisional EDIS based on liquidity sharing. Such a scheme could temporarily cushion the liquidity shock of large payments by national DGSs. The liquidity support provided could then be paid back with priority, mainly from the sale of liquidated assets. Moreover, this kind of system could benefit from the preferential position of guaranteed deposits in the creditor hierarchy introduced by the BRRD. The European Commission also recognised in 2016 that liquidity sharing is essential towards improving the robustness of national DGSs.

Many innovations in payments

4 Many innovations in payments

4.1 Introduction

Smoothly functioning payments are essential to a dynamic economy. Consumers, companies and governments expect their payments to be processed securely, reliably and efficiently. At the same time, payment systems and their underlying infrastructure are undergoing fundamental changes. Risks inherent in those changes must be mitigated, which is where central banks come in.

Payment and securities systems in the Netherlands are developing steadily. This applies equally to the payment behaviour of end users and to transaction processing in the payments chain. Innovations are driven by combined demand and supply factors, technical developments and regulations.

Section 4.2 below describes how Dutch consumers increasingly favour debit card, contactless and smartphone payments. Further innovations are on the horizon, such as digital wallets, innovative payment services and instant transaction processing – i.e. literally within seconds. Against this background, the share of cash payments is expected to decline further. Cash nevertheless still plays a major role as a means of payment, which requires it to be universally accepted and the cash payment chain to function smoothly.

Section 4.3 discusses a number of developments in terms of infrastructure. Central counterparties are gaining importance in the settlement of securities and derivatives transactions. A disorderly bankruptcy of such institutions creates risks and must be prevented. For this reason, an international framework for the orderly resolution of central counterparties is under development. Cyber attacks on financial institutions also pose a threat. International guidelines aimed at bolstering the cyber resilience of financial market infrastructures should strengthen the financial system, and institutions in the Netherlands are being tested for their cyber resilience.

Lastly, section 4.4 addresses distributed ledger technology, a specific example of which is blockchain technology. Expectations are high, and many financial institutions are studying its use for a range of purposes. We are also involved in its research, as we acknowledge the technology's potential. Improvements are needed, however, particularly if distributed ledger technology is to be applied on a large scale, for example in domestic or cross-border payments.

4.2 Debit card payments are advancing, but cash remains

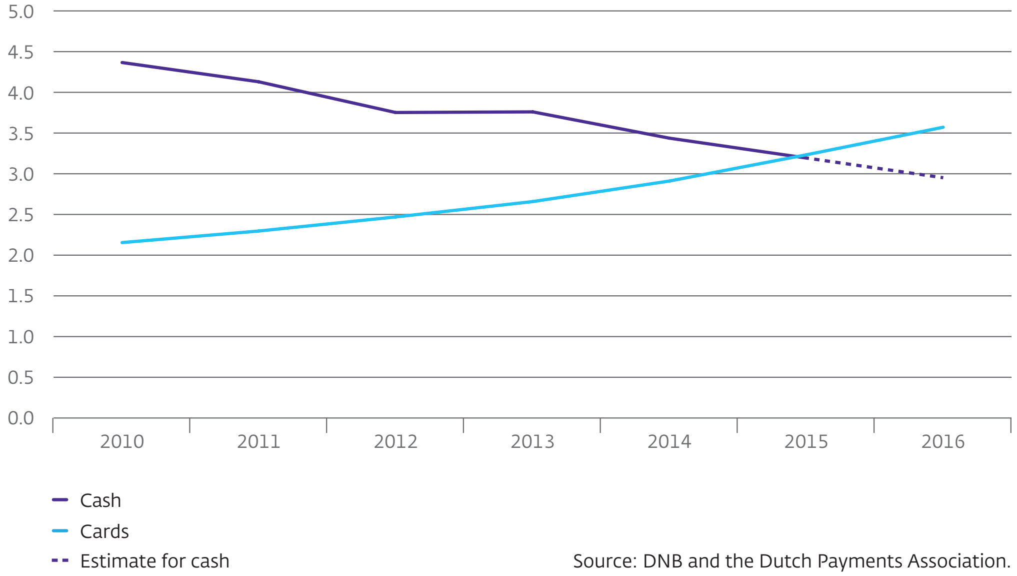
Dutch consumers increasingly prefer to make their payments electronically – not just online, but also at points of sale. Banks and retailers explicitly seek to promote this, and payment innovations will undoubtedly fuel this trend in the not too distant future. Cash nevertheless continues to meet a need felt in society.

4.2.1 Payments in 2016

Electronic payments are gaining ground in the Netherlands. In the summer of 2014, retailers and banks agreed on arrangements aimed at promoting card payments, and a milestone was reached in 2016, when the number of card payments by Dutch consumers exceeded the number of cash payments for the first time (see Chart 4.1). If this trend continues at the same rate, banks and retailers will achieve their target figure of 60% card payments versus 40% cash payments in 2018. A promoting factor will be the convenience of contactless payments, in which consumers can use their card or smartphone to pay small amounts without the need to enter a PIN. The number of contactless payments has surged since the technology was introduced in early 2014, and by December 2016 almost one in four card payments was contactless. Likewise, mobile banking is steadily on the rise, with transactions in 2016 being 31% up from 2015. 20% of all funds transfers were made using a smartphone or tablet. Online purchases and payments are also on the increase, with online consumer spending at

Chart 4.1 Debit card payments have outstripped cash payments

Total number of payments per year (billions)



Source: DNB and the Dutch Payments Association.

EUR 20.2 billion in 2016, 23% up on 2015. More than half of all purchases made online were paid for using iDEAL.

Our studies provide more insight into consumers' payment behaviour at points of sale. Their choice between cash and card depends not only on a payment instrument's rational characteristics, such as speed and safety, but also on social and psychological factors, such as emotions and the payment behaviour which consumers deem appropriate. Habit also play a role – a significant proportion of consumers who prefer card payments actually pay for most of their purchases in cash out of habit. Our studies also show that payment behaviour can be influenced by improving the characteristics of means of payment or nudging the public with information based on social and psychological factors. In the area of security, Dutch banks have been remarkably successful at combating fraud in non-cash payments, achieving a substantial reduction from almost EUR 82 million in 2012 to less than EUR 5 million in the first half of 2016. In this respect, information campaigns, transaction monitoring by banks and collaboration with the police and prosecution authorities have paid off. Fraud likewise declined in cash payments. In 2016, over 47,000 counterfeit banknotes were identified, a drop of 29% compared to 2015. To combat counterfeiting, the Eurosystem continually modernises euro banknotes and their security features. The new 50 euro banknote will start circulating on 4 April 2017.

4.2.2 Payments in the future

In the not too distant future, payments and payment behaviour in the Netherlands and Europe will further change due to innovative technology and new regulations. Payments will be increasingly initiated digitally, through the mobile channel, and processed faster. A concrete example is the digital wallet, a payment app for smartphones. Digital wallets enable consumers to store payment card details, which they can then use to make point-of-sale payments and, in some cases, online payments. Although their use is not yet very widespread in the Netherlands, this may well change in the near future. Major banks, telecom operators and technology firms are already offering this means of payment abroad.

A second development is the emergence of payment initiation services, as an alternative for online iDEAL and credit card payments. They are regulated by the revised European Payment Services Directive (PSD2), which entered into effect in early 2016 and will be transposed into Dutch law. PSD2 imposes supervision on the providers of payment initiation services and account information services. The latter can aggregate data from a customer's bank accounts to provide that customer with a comprehensive overview of their payments. In addition, PSD2 obliges banks to provide these parties with access to their customers' bank accounts, provided the latter consent. PSD2 also encourages banks to work actively alongside third parties, such as fintech firms or software developers, which will allow them to use these parties' expertise and apps to offer novel services. Conversely, non-financial players, such as major webstores, may use the payment apps provided by banks under PSD2 and integrate them in their mobile propositions.

A further development is the acceleration of non-cash payments. Effective May 2019, mobile and online payments made in the Netherlands will be processed instantly and continuously, around the clock and around the year. This means payees will have immediate access to their money. Instant payments provide benefits where payment is time-critical or where completion of a transaction depends on the actual receipt of money. They will also simplify payments between consumers, particularly through the mobile channel. Over time, the Dutch banks will be able in principle to process all payment orders immediately, including standing orders and direct debits. The ECB is also committed to facilitating instant payments, pressing for at least one pan-European payment infrastructure to be available by year-end 2017. However, only if banks join that infrastructure and offers instant payments will their users be able to benefit from it.

4.2.3 Cash will still be needed

Notwithstanding the shift to electronic payments, cash continues to play an important role in society, with billions of cash payments made every year. Some categories of consumers prefer to use cash for specific reasons, for example because of a physical handicap or to maintain strict control over their budget. In addition, cash serves as a fallback option should electronic payment fail. It is therefore essential for the cash payment chain to continue to function adequately. There are two aspects to this, the first of which is access to ATMs and banknote and coin deposit facilities. The Accessibility Monitor 2016, published by the National Forum on the Payment System (NFPS), which we chair, has found that access to cash is still adequate, but the distance retailers need to travel to reach deposit facilities hosted by their own bank is gradually increasing. The second aspect is universal acceptance of cash. According to the Accessibility Monitor 2016, nearly all retailers accept cash. There are instances, however, in which cash is not accepted. This is especially problematic in situations of a local monopoly, in which no other provider of a similar product or service is available in practice. For instance, a number of municipal services have done away with cash payments at their desks. The NFPS believes such payment situations are unacceptable. Consumers should be at liberty to use the payment option of their choice. Government services should lead by example in offering vulnerable population groups the possibility to pay in cash.

4.3 The settlement infrastructure is being strengthened further

Payment and securities transactions are settled through financial market infrastructures, which are needed to ensure a reliable and efficient payment system and financial stability. To this end, these infrastructures are continuously strengthened. Many of the infrastructures for high-value transactions in the Dutch financial sector are located outside the Netherlands.

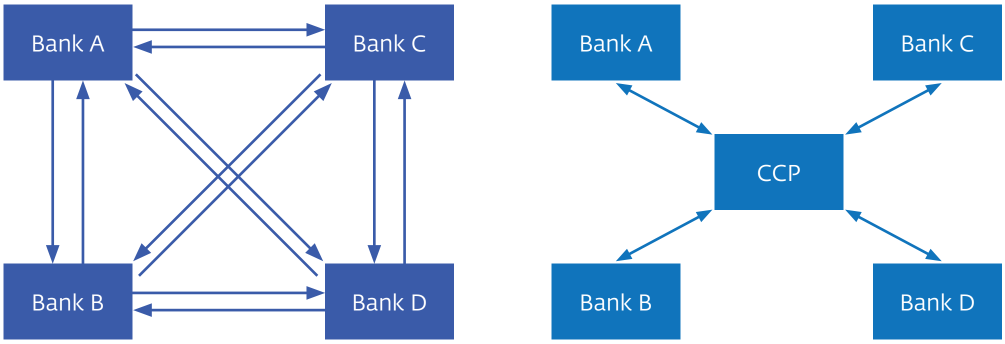
4.3.1 A separate resolution framework is needed for central counterparties

Central counterparties (CCPs) are key players in financial markets which administer, net and guarantee settlement of securities and derivatives transactions of market operators (see Figure 4.1). They limit the likelihood of the bankruptcy of a single market operator endangering financial stability. During the financial crisis, CCPs proved capable of absorbing financial shocks adequately, and the G-20 political leaders decided in 2009 that the use of CCPs was to be encouraged. In the Netherlands, EuroCCP and ICE Clear Netherlands provide clearing services for transactions in European shares and specific equity derivatives, respectively. Dutch market operators use the services of major foreign CCPs for transactions in other financial securities, such as interest or exchange rate derivatives, non-European shares or repos. In aggregate, the services contracts of the Dutch financial sector are worth hundreds of millions euros, which is why we attach great importance to adequate arrangements for CCPs.

Figure 4.1 Central counterparties are key elements in financial markets

Market without ...

... and with a central counterparty



Note: In a market without a CCP, banks settle their mutual securities or derivatives transactions themselves, whereas in a market with a CCP, that CCP settles them. This reduces the volumes of claims and liabilities and the number of transactions, thereby mitigating credit and operational risks, respectively. Moreover, the banks' liquidity requirements and counterparty risks are lower, as the CCP guarantees the transactions.

The likelihood of a CCP failing is extremely small. International standards require that CCPs hold adequate buffers and have recovery plans in place should they get into difficulties. However, a bankruptcy will have severe ramifications, also due to the high market concentration. This is why a separate resolution framework for CCPs is needed. The Financial Stability Board (FSB) published a discussion note on this subject in August 2016, and the European Commission issued a proposal concerning CCP recovery and resolution in November 2016. A CCP's resolution aims to secure the continuation of critical functions, thereby safeguarding financial stability without the need for governments to absorb potential losses. Resolution planning should ensure that all outstanding losses are covered, a CCP's buffers are restored to levels in compliance with supervisory requirements, and non-critical functions are discontinued.

If a CCP gets into difficulties, its recovery plan is first activated. To cover outstanding losses, a CCP can request additional contributions from its direct participants or retain some of its own or its customers' profits. A recovery plan also contains instruments to close outstanding positions, such as auctions, and clauses to dissolve some or all contracts. We call for arrangements under which the relevant supervisory authority notifies the resolution authority, particularly if a CCP in recovery intends to withhold profits or dissolve contracts. After all, such measures affect not only participants, but also their customers. Especially customers with large unilateral positions, such as Dutch pension funds, could be significantly impacted.

If the CCP's implementation of its recovery plan threatens to fail or if financial stability is at stake, the resolution authority assumes control. Resolving a CCP involves costs. After all, its operations must be kept afloat, uncovered losses must be absorbed and the CCP must be given the means to meet its liquidity needs and comply with supervisory requirements. When allocating losses and closing positions, a resolution authority uses the same instruments as the CCP in recovery. A further instrument available to the resolution authority is its right to request a pre-defined financial contribution from the CCP's participants. This has the benefit that a reserve earmarked for resolution is available, while participants have certainty about their situation. As a last resort, the resolution authority may use public funds on a temporary basis, provided that the costs can be recovered from market operators at a later stage.

A CCP's resolution plan is drawn up by the resolution authority of the country in which the CCP's registered office is located. It does so in consultation with a Crisis Management Group (CMG) in which representatives of various other authorities, such as the supervisors of the CCP's participants or central banks, also participate. The involvement of a CMG is mandatory for CCPs that are systemically important in more than one country. The CMG also plays a role when it comes to the actual resolution of a CCP. It must be able to act decisively, so there is international consensus that only countries of material importance to the relevant CCP's resolution should be represented in the CMG. We advocate that account is taken of the interests of and insights contributed by countries not represented in a CMG for a CCP that is of systemic importance to them. Under the prevailing arrangements, a resolution authority must at least adequately inform such countries about the resolution plan and involve them in crisis communications where possible. We propose arrangements that go further. Smaller countries must be asked for input to the resolution plan. We also believe market operators should be able to anticipate events should a CCP that is important to them goes into resolution. Lastly, we have pressed for periodical crisis management drills to test the practical feasibility of a resolution plan and learn lessons.

4.3.2 Cyber resilience of Dutch financial institutions to be tested

As fraud in retail payments is declining, new dangers lie ahead. Across the globe, financial institutions find themselves increasingly at the receiving end of cyber attacks, through a variety of means and for various motives. Attackers may be activists, criminals or state parties seeking to disrupt a system, make financial gains or search for confidential information. Targeted cyber attacks may bring down an individual institution's system or cause disruption across a nation's financial system.

Given the potential systemic risks involved, an international working group issued guidelines for the market infrastructures in June 2016 aimed at bolstering their cyber resilience. The guidelines stress that the management of a financial institution is responsible for controlling these risks and adopting an integrated approach to cyber risks: management must be able to identify the risks, protect its systems and processes, rapidly localise suspicious activity and respond adequately. Each institution should design and test its own critical processes in such a manner that it can safely execute them within two hours of a disruption. Likewise, a plan must be in place for the market infrastructures, to cover situations in which the recovery period lasts longer. This plan must have been tested. The international guidelines aim to strengthen not only the cyber resilience of individual institutions, but also that of the financial system as a whole. This is because the mutual interdependencies between institutions require that collective aspects are considered, such as joint scenario planning, coordinated continuity plans and testing of shared processes. As a case in point, we are currently developing a framework for security tests – threat intelligence-based ethical red teaming (TIBER) – in tandem with other institutions in the Dutch financial core infrastructure.

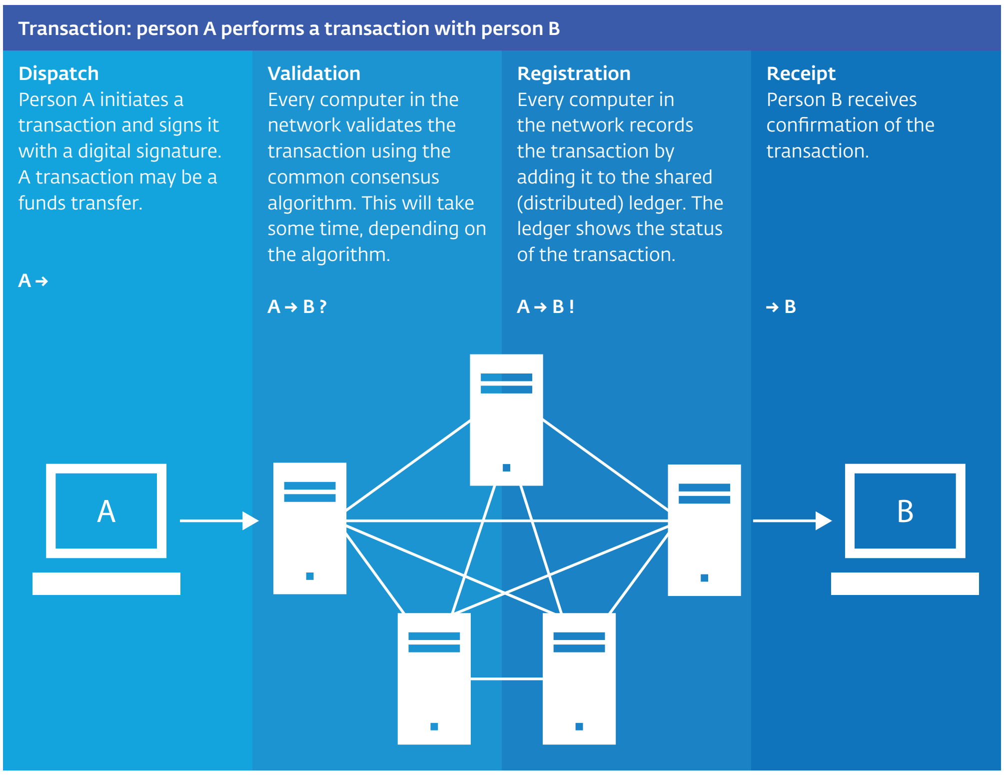
The institutions' mutual interdependencies mean that TIBER is based on the fundamental premise that each party will benefit from the other parties' resilience.
Formally launched in late June 2016, TIBER has at its core what are known as red teaming tests: based on up to date threat intelligence, accredited firms perform controlled cyber attacks on institutions' vital systems. The results of these tests can be used to bolster their cyber resilience. The framework is expected to be finalised over the course of 2017, but pilot projects will be run with several institutions before completion. The National Cyber Security Centre is closely involved in the realisation of TIBER, as it may serve as an example for strengthening the cyber resilience of other vital sectors in society.

4.4 Distributed ledger technology looks promising but requires more study

An innovation that has potentially far-reaching implications, including for payments and securities systems, is distributed ledger technology, a specific example of which is blockchain technology. Many institutions, including DNB, are currently considering its potential.

Distributed ledger technology is a method used to account for transactions and balances digitally in a network (see Figure 4.2). In traditional accounting, a central party keeps a ledger, whereas in distributed ledger technology, all participants keep a common ledger in their own decentralised computers. Transactions are validated by what is termed a consensus algorithm and subsequently recorded by all computers in the network, so that all ledger versions are identical and a distributed ledger is effectively created. As all transactions are recorded, the ownership of each item can be verified at all times. Various applications may call for different distributed ledger designs. For example, a ledger may be publicly accessible, or access may be restricted to authorised parties. The consensus algorithm is a key element, because it safeguards trust in the ledger. In an open system, such as the bitcoin blockchain, participants approve transactions by solving a cryptographic problem (proof of work), but this is an energy and time consuming procedure. In a closed system, the algorithm may consist of identification of the participants and the condition that a qualified majority approve the transaction.

Figure 4.2 Distributed ledger technology, stylised model of transaction processing



Distributed ledger technology has many potential benefits. Transactions can be effected directly between the originator and the recipient, without intermediaries and at low cost. The technology is fast and always available, allowing transactions to be processed almost in real-time and continuously. Distributed ledger technology will enable cross-border funds transfers, which are currently very time-consuming, to be completed within seconds, or a few minutes at most, depending on the speed at which the network approves them. The data are reliable, because all transactions are verified decentrally. Moreover, distributed ledgers are more resilient to cyber attacks, as data are stored in multiple locations across the network.

The new technology also has a number of drawbacks, or at least for now. The first is governance. The network's decentralised nature obfuscates its members' responsibilities, meaning that none of them can be held accountable in the event of mishaps. Adequate governance is key to long-term trust in this technology. Furthermore, it has not yet fully matured. Further standardisation is needed to ensure interoperability of new systems. If the traditional financial institutions or transaction processors were to introduce a distributed ledger, operational risks would emerge in terms of robustness, security and interoperability.

End users may lose faith in this technology if problems should arise, which is why it must be improved before it can be applied on a large scale.

Against this background, many banks and other financial institutions study the use of distributed ledger technology for a range of purposes, including for domestic and cross-border payments and for securities and derivatives transactions. In the latter area, in particular, the new technology may well obviate the need for intermediaries, thereby making markets more efficient and resulting in cost savings. Several market operators have already taken a blockchain network into use, but on a limited scale. All in all, we acknowledge the potential which distributed ledger technology offers. Its introduction in the financial sector will also require adjustments on the part of central banks and supervisory authorities. Central banks may choose to issue digital currencies; in fact, some foreign central banks are already looking into this, and into consequences for the effectiveness of monetary policy. Also, the financial authorities will need to prepare themselves for regulation of non-traditional parties, different governance structures, the assessment and control of newly emerging risks, and other types of reporting. We have built a test network based on blockchain technology for study purposes and to gain practical experience. We are also involved in a test in which a Dutch bank keeps prudential data in a blockchain network, which permits its supervisors to have access to current information at all times.

In sum, it is as yet unclear how and where in the financial sector distributed ledger technology will be introduced. What is clear, however, is that new technologies constantly drive innovation in payments and securities transactions.

Accountability

5 Accountability

5.1 Introduction

In this chapter, DNB reports on the main results achieved in 2016, taking DNB's mission and ambitions as principal starting points. This chapter also sets out the key role sustainability and corporate social responsibility play in DNB's core tasks and operational management. In addition, this chapter describes risk management in the past year and reports on DNB's costs and financial position.

5.2 Mission and ambitions

DNB's targets and activities are determined by its mission and ambitions.

DNB's mission

Working on trust
DNB seeks to safeguard financial stability and thus contributes to sustainable prosperity in the Netherlands. To this end, DNB operates as an independent central bank, supervisor and resolution authority with European partners to ensure:

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

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

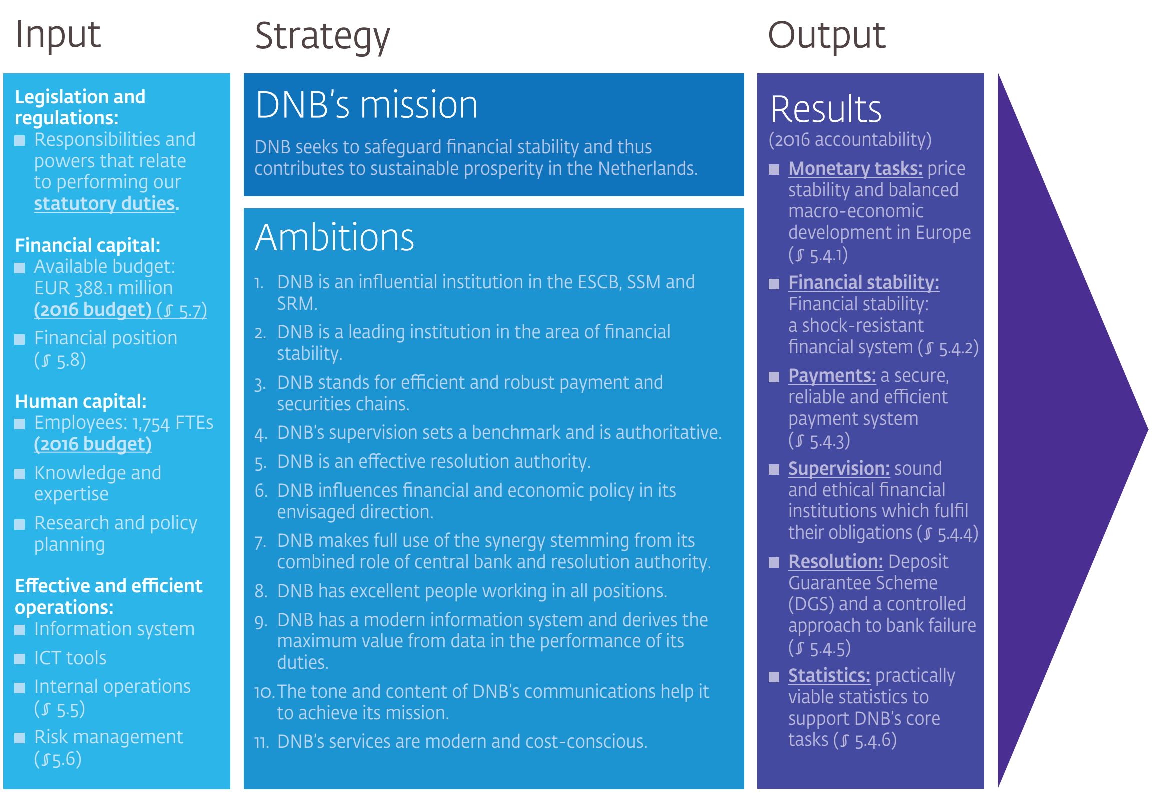
This mission has been fleshed out to produce 11 ambitions relating to the exercise of its core tasks and the support functions (see Figure 5.1). These ambitions were reviewed in 2016 to put arrangements in place for significant external and internal developments, such as the introduction of the Single Supervisory Mechanism (SSM), the establishment of the national resolution authority within DNB, and the reconfiguration of DNB's internal operations. Following on from its mission and ambitions, DNB has also defined the four following core values to guide its day-to-day activities: committed, open, dependable and alert.

The fulfilment of DNB's mission and its 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.

Together, the mission and ambitions give substance to how DNB creates value for society. DNB integrates and anchors sustainability, to the fullest extent possible, into its operational management and in performing its tasks. Our CSR policy focuses on the further integration of corporate social responsibility into our core tasks, sustainable operational management, 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



Corporate social responsibility (CSR) plays a prominent role at DNB. The process by which CSR has been shaped at DNB is described in Section 5.3. This is followed by an explanation of the results achieved in relation to the core tasks (Section 5.4) and internal operations (Section 5.5). The various CSR priorities are explained in further detail in those sections. In addition, this chapter describes risk management (Section 5.6) at DNB and provides information on DNB's costs (Section 5.7). Finally, Section 5.8 reports on DNB's financial position.

5.3 Vision on corporate social responsibility

Corporate social responsibility (CSR) ties in seamlessly with DNB's mission of pursuing financial stability and sustainable prosperity. It is reflected in all our core tasks and therefore also in how we arrive at our strategic ambitions.

Sustainable prosperity means sustainable economic growth that is achieved without harmful effects on the environment and without systematically putting certain individuals, groups or generations at an advantage or disadvantage. Sustainability also includes financial aspects. Inadequate financial buffers held by financial institutions, businesses, public authorities and households form an impediment to sustainable economic development.

Price stability and financial stability are important preconditions for businesses and households to invest in their future with certainty and confidence. Imbalanced developments, such as boom-bust cycles in the financial sector, hamper this decision-making and may result in economic and financial damage to society at large. Moreover, major fluctuations of this kind may result in the non-sustainable use of financial resources. Financial stability contributes to the retention of economic and human capital and hence to current and future prosperity in the Netherlands and the euro area.

Over the past year, DNB has developed a broader vision and approach for CSR, expanding the focus to include sustainability in its primary tasks as well as in internal operations. In addition, the CSR policy is coordinated by the CSR Committee.

Box 5.1 CSR Committee

DNB's CSR Committee was set up in mid-2015. The Committee is made up of a number of division directors from DNB's core tasks and internal operations. The task of the CSR Committee is to update the CSR policy annually, to promote its integration into DNB's core tasks, and to oversee its implementation. The Committee is supported by a network of contacts within the organisation. The remit, composition and working methods of the Committee are laid down in a charter.

Within DNB, the CSR Committee acts as a driving force in the area of sustainability. The individual divisions within DNB remain responsible for implementation, and progress is monitored in the regular planning and control cycle. Once a year, the Governing Board adopts the CSR policy and the account rendered. The Supervisory Board keeps track of the progress of the CSR policy by means of, for instance, periodic reports.

5.3.1 Stakeholder dialogue on CSR

To gain a better understanding of what stakeholders expect from DNB in the area of CSR, DNB held five roundtable sessions with stakeholders in early 2016 to discuss the importance of CSR in five areas: supervision, monetary policy, reserve management, payments and internal operations. These sessions were attended by representatives of financial institutions, sector associations, government agencies (ministries and the Netherlands Court of Audit), consumer organisations and academics. The sessions were led by the CSR Committee and focused on translating DNB's mission and strategy into specific policy areas in which DNB can give substance to its ambitions related to CSR.

Stakeholders endorse the focus on embedding CSR in DNB's core tasks, and expect DNB to set an example in its own operations. In addition, our discussion partners believe that DNB has an even greater impact on CSR through its core tasks. A number of stakeholders prefer to see DNB as a catalyst for a sustainable financial sector. One way in which this is achieved is through the Sustainable Finance Platform that was set up in 2016 (see Box 5.2).

Box 5.2 Stakeholder management relating to CSR and the Sustainable Finance Platform

Stakeholder management is important to DNB because it provides us with key input from external sources on how DNB could deal with CSR. Conversely, dialogue with stakeholders increases awareness of CSR and sustainability within the financial sector.

In order to gain a better understanding of what our stakeholders expect from us, DNB organised a number of dialogues with stakeholders, the results of which are described in this section. Additionally, in 2016, DNB held consultations with various NGOs and participated actively in a number of external meetings on sustainability and climate risks, for example by serving as a panel member at the National Climate Change Conference and giving presentations at various ministries and at the Netherlands Economists Day. DNB also promotes awareness of CSR within its own organisation by holding internal meetings.

The Sustainable Finance Platform in particular will play a key role. The platform was set up in 2016 at the initiative of DNB. 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 the Environment, and the Sustainable Finance Lab.

The platform was set up with the object of promoting and increasing awareness of sustainable funding 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. This provides a positive impetus for sustainability in a broad sense, and focuses on all environmental, social and governance (ESG) aspects of funding. The platform's members meet twice a year to discuss sustainability initiatives in the Dutch financial sector.
In addition, working groups are set up to flesh out specific topics or initiatives. Up-to-date information can be found on DNB's website

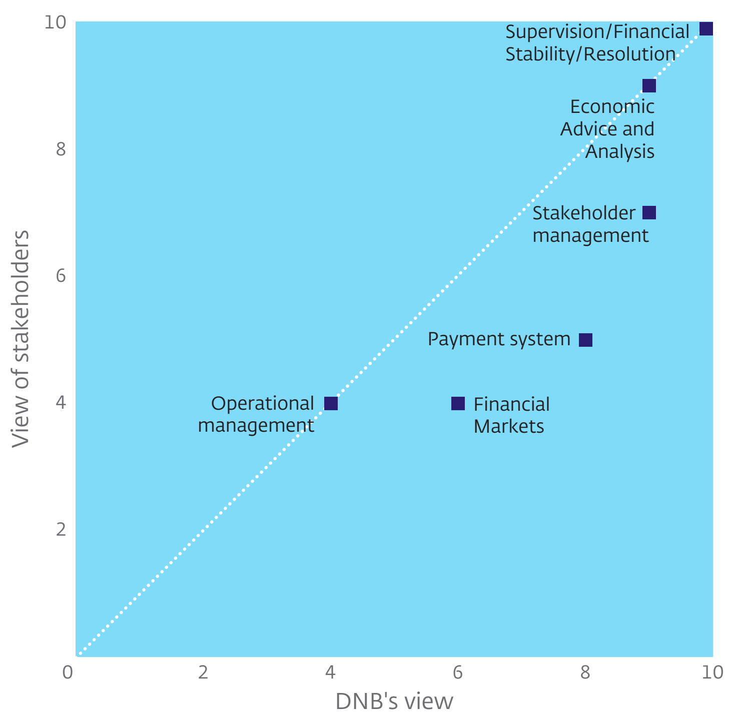
At the same time, several warning notes were also sounded: if DNB plays too much of a steering role without this being enshrined in a clear legislative mandate, this could cause confusion and have an unwelcome influence on the effectiveness of the existing supervisory relationship or on DNB's reputation. The stakeholders used a rating system to indicate how they perceive the importance of CSR in DNB's core tasks and operations and the efforts they expect DNB to make in this regard. Based on this, the CSR Committee prepared a materiality analysis.

5.3.2 CSR materiality analysis

A CSR materiality analysis helps determine the strategic goals for CSR. The analysis identifies the aspects of our organisation relating to CSR that stakeholders and DNB consider to be material in view of their importance and impact. The materiality analysis involved taking stock of existing initiatives, holding a brainstorming session with a broad-based representation of DNB employees, and the aforementioned stakeholder dialogues on CSR.

The vertical axis shows the level of social importance that our stakeholders attach to various aspects of DNB's work. The horizontal axis provides the same information from DNB's perspective. As the figure demonstrates, stakeholders and DNB both consider DNB's supervisory task to be the most important aspect from a CSR perspective. DNB's impact in the

Figure 5.2 CSR materiality analysis



area of economic advice and analysis is also considered to be highly material. Furthermore, DNB attaches relatively more importance than its stakeholders to CSR in its own investments and the payment system. The results were discussed by the CSR Committee and were used to produce the 2016 CSR plan.

5.3.3 CSR priorities

Specific CSR objectives are set every year. DNB asks all divisions to include CSR objectives wherever possible when preparing their annual plans. Based on these plans, the CSR Committee outlines a CSR plan, which takes into account the materiality analysis and the stakeholder dialogue.

In this context, DNB has identified six policy areas: i) supervision, resolution and financial stability, ii) economic advice and analysis, iii) the payment systems iv) financial markets, v) operational management and support divisions, and vi) stakeholder management.

DNB's CSR plan is based on the division's annual plans, which are supplemented and refined by the CSR Committee. Twice a year, the CSR Committee reviews the progress of the CSR plan. In addition, the external auditor reviews DNB's CSR reporting once a year at DNB's request. The report contained in this chapter focuses on these material policy areas that have been identified. The most important and relevant results relating to CSR in each material policy area in 2016 are described below under "CSR". A more detailed summary of each CSR policy area can be found in Annex 1.

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, DNB contributes to the development 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 2016

Despite a gradual economic recovery in the euro area, inflation and inflation expectations remained at low levels in 2016 (see Section 1.4). Inflation is projected to remain below target in the medium term. Given this, the Eurosystem is carrying out a programme of large-scale bond purchases (see Section 5.8 and the Financial Statements). In March 2016 it was also decided to lower the deposit facility rate to -0.4%. Section 1.4 of this Annual Report discusses the monetary policy measures and the effectiveness and side-effects of those measures in further detail.

Ensuring that monetary policy dovetails smoothly with other policy domains in the Netherlands and Europe demands transparency about the monetary policy pursued, both vis-à-vis stakeholders and the wider public. For this reason, the ECB publishes the minutes of its meetings. Moreover, DNB also referred to and highlighted the social impact of the monetary measures in 2016 in interviews, speeches and external presentations. DNB's 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, DNB 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 its core tasks, DNB plays an advisory role in key national and international economic discussions. In 2016, DNB fulfilled this role for instance by actively contributing to two notable official opinions.

First, DNB participated in the Study Group on the Budget Margin. This is an independent official committee that traditionally provides advice on fiscal policy for the coming years to the next government in the run-up to a general election. This committee recommended that the next government should not continue to seek cuts, but should not increase spending either. The growing budget surplus can be used to create adequate buffers, making it possible to withstand a future economic downturn without immediate additional cuts being required. This will result in a more stable growth rate in the Dutch economy.

The second official opinion to which DNB contributed is the report of the Study Group on Sustainable Growth, which was set up at the request of the Lower House of Dutch Parliament in order to investigate promising proposals for reforms and investments for the next government with the aim of promoting sustainable economic growth. The matters to which the proposals relate include reducing imbalances in the housing market, the labour market and the tax system, investing in education, training and sustainability, promoting innovation and encouraging businesses to respond to technological and other changes.

Besides contributing to both these official opinions, in 2016, as in previous years, DNB played an active role in the discussion on reforming the pension system. This took the form of participating in the Social and Economic Council of the Netherlands (SER), in departmental consultations and in the public debate on policy.

Box 5.3 Dilemma regarding sustainable pension system based on solidarity

Over the past few years, the vulnerabilities of the current pension system have been exposed. Pension fund members' expectations of a secure index-linked pension have not been fulfilled in recent years. Older people are not adequately protected against cuts in their pension benefits. For younger people, however, the problem is often that insufficient risk is taken, as a result of which the expected pension is lower. In addition, the redistribution between generations is opaque and difficult to explain, which undermines support for our pension system. The weakened financial position of pension funds illustrates the necessity of redesigning the new pension system and pension contracts.

DNB contributes significantly to the debate on the reform of pension contracts and to the careful consideration of interests with the aim of ensuring a sustainable pension system based on solidarity. Section 2.4 of the Annual Report discusses DNB's view on a new pension system.

Research and models

DNB carries out research into topics that are of relevance to its core tasks. Through its research activities, DNB contributes to high-quality policy advice and decision-making on monetary policy. In addition, DNB presents its Economic Developments and Outlook twice a year.

In 2016, DNB conducted research into financial cycle modelling, the future of monetary policy and the unintended side-effects of unconventional monetary policy. In 2016, the topic of DNB's Annual Research Conference was inflation. A workshop on measuring financial cycles was also organised.

Research contributes significantly to the maintenance and development of econometric models. One such model is the DELFI model, which DNB uses to make forecasts and perform scenario analyses relating to the Dutch economy. In 2016, efforts were made to complete a partial model of the banking sector that will be integrated in DELFI, which will result in a better reflection of the interaction between the financial sector and the real economy. In addition, an interactive DELFI model web tool was launched on the website, allowing a wide group of people who are interested in macroeconomics to calculate the impact of economic shocks or policy measures for themselves. In addition, DNB maintains and develops smaller econometric models for short-term economic cycle and inflation forecasts.

In April 2016, a DNBulletin was published on an alternative definition of the labour income share (LIS), which provides a better reflection of the actual downward trend in the labour income of employees and self-employed persons as a proportion of total earned income. Statistics Netherlands (CBS), the Netherlands Bureau for Economic Policy Analysis (CPB) and DNB have decided by agreement that they will use this alternative definition in future.

CSR priorities

In March 2016, DNB drew attention to the economic consequences of the energy transition that needs to take place in order to fulfil the obligations under the Paris climate change agreement. In its report entitled "Time for Transition", DNB examined what the energy transition will mean for the Dutch economy and the extent to which this could lead to risks to financial stability. Recommendations focus on matters such as developing a long-term policy, efficient carbon pricing and improving the identification of climate risks. In addition, developments in markets for sustainable investment instruments are monitored regularly.

In December 2016, DNB published a study on long-term trends in economic growth. Trends such as globalisation, population ageing, technology and the growing importance of the service sector are changing the nature of the Dutch economy. In that context, in order to promote growth, it is essential to focus on training, making the economy more adaptable and ensuring a dynamic labour market.

5.4.2 Financial stability: a shock-resistant financial system

DNB is responsible for overseeing financial stability in the Netherlands as an essential precondition for balanced economic development. DNB can make policy recommendations and has various macroprudential instruments at its disposal for addressing systemic risks and safeguarding financial stability. With respect to banks, for example, DNB has the ability to impose higher capital buffers on systemically important banks, introducing a countercyclical capital buffer and raising sectoral risk weightings.

Main activities and outcomes in 2016

In 2016, DNB kept the systemic risk buffers imposed on ING Bank, Rabobank and ABN AMRO Bank at 3% of risk-weighted assets, while those imposed on SNS Bank and BNG Bank were kept at 1%. Additionally, as from 2016, DNB has taken a decision each quarter on the size of the countercyclical capital buffer. This is an additional capital buffer that banks have to build up if there is an increase in macro-financial risks, for example if lending as a percentage of GDP is not in keeping with the long-term trend. Although the economy is clearly recovering and the housing market has picked up, growth in lending continues to be below trend. Furthermore, other indicators, such as trends in the average prices of residential and commercial real estate, do not yet show signs of excessive increases. The overheating seen in several large cities is driven not so much by lending but by price rises due to a housing shortage. In view of this, DNB maintained the countercyclical capital buffer at 0%. Moreover, DNB prepared a framework in 2016 to apply macroprudential measures taken by foreign authorities also on the activities of Dutch banks in the respective countries. Such reciprocity enhances the effectiveness of macroprudential measures.

In its biannual Financial Stability Report (FSR), DNB outlines the principal risks that could disrupt the Dutch financial system and the economy. In 2016, special attention was paid to the consequences of low interest rates for banks, households and businesses and on technological innovation. In addition, the FSR looked at general external risks, such as growing uncertainty in the global economy, due in part to Brexit, and the problem of non-performing loans in some European countries. Based on the risk assessment in the FSR, supervisors focus on the macro-micro link and determine which mitigating actions are required at individual institutions. DNB also brings its assessments to the attention of the Single Supervisory Mechanism. A study on the return of equity (RoE) of banks was published in September 2016. Banks will be less profitable on a structural basis than they were prior to the crisis owing to various factors, such as tighter capital requirements, and so two-digit returns can no longer be counted on.

Principal risks to financial stability are also discussed in the Financial Stability Committee (FSC), in which DNB, the AFM and the Ministry of Finance are represented, under the chairmanship of DNB's President Klaas Knot. In 2016, the FSC's main focus areas were the consequences of climate risks for the financial sector, opportunities presented and threats posed by technological innovation in the financial sector, and recent developments in the housing market. The most important findings can be found in the accounts of the FSC meetings, which are available (in Dutch) on the FSC's website. The Minister of Finance presented the accounts of these meetings to the Lower House of Dutch Parliament.

On an international level, in 2016, DNB actively worked on the implementation and further development of macroprudential policy. At a global level, the Financial Stability Board (FSB) is working on rules and regulations to mitigate systemic risks. DNB has a seat on the FSB's board and is represented in various committees and working groups, including the Standing Committee on Assessment of Vulnerabilities (SCAV), of which DNB's President Klaas Knot took chairmanship in 2016. In 2016, the FSB published a number of studies into aspects related to shadow banking and financial innovations.

Macroprudential policy is primarily a national task, owing to the fact that countries have diverging financial cycles and different structural risks, but it has a strong European dimension. For example, the ECB may impose supplementary measures to tighten national regulations. European countries work together in the European Systemic Risk Board (ESRB). DNB also sits on the General Board of the ESRB. DNB played a leading role in the strategy report on the development of macroprudential instruments for non-banks. Within the ESRB and FSB, DNB contributed actively to the development of leverage and liquidity requirements for investment funds. The ESRB exercised its power to issue an official warning for the first time in 2016. Eight European countries, including the Netherlands, received a warning about the build-up of risks in the real estate sector.

IMF FSAP assessment

In 2016, the IMF conducted an extensive examination of the stability and soundness of the financial sector in the Netherlands, its resilience – assessed on the basis of stress tests – the quality of supervision and the crisis management framework. This examination was carried out as part of the Financial Sector Assessment Program (FSAP), which is mandatory every five years for the 25 countries that have a systemically important financial sector. The Dutch FSAP process was coordinated by DNB on behalf of the Dutch authorities. One of the IMF's preliminary findings was that the banking sector's capital buffers were in order. The Dutch banking sector is well-capitalised and the investigation revealed that it is resilient. The IMF notes however, that the sector's financial leverage is still relatively high, and for that reason recommends to continue the process of further strengthening the leverage ratios. In addition, the IMF believes that the current low interest rates and ongoing reliance on wholesale funding are challenges for the sector. In addition, the low interest rates are a point of concern when it comes to the insurance sector's profitability and solvency. To lessen financial vulnerabilities in the Dutch household sector, one of the points advocated by the IMF is accelerating reductions in mortgage interest relief and further reductions in the maximum LTV for mortgage loans. DNB also raised the importance of sustainability in the financial sector and advocated including this issue in the FSAP. In response, the IMF stated that it would like to work on this issue with DNB.

CSR priorities

The aforementioned "Time for Transition" contained an initial assessment of the implications of climate change for financial stability. As a follow-up to this, DNB will develop a stress test in 2017 that can be used to form a more detailed picture of the impact of transitional risk on financial institutions in further detail. Transitional risks are risks relating to the economic and financial consequences of the process of transitioning to a sustainable economy, which include the potential bursting of a 'carbon bubble'.

5.4.3 Payment system: a secure, reliable and efficient payment system

DNB promotes a smoothly functioning payment system by means of efficient and robust payment and securities chains. To achieve this in practice, DNB performs three tasks.

Main activities and outcomes in 2016

First, DNB encourages providers of payment services to innovate and make improvements. DNB is the chair of the National Forum on the Payment System, which brings together 15 organisations representing providers and users of payment services. Through the Forum, DNB encourages banks to develop a system of instant payments in the Netherlands. In 2016, a number studies on bank account number portability (i.e. the possibility of retaining one's bank account number when switching banks) were carried out under the auspices of the Forum. Additionally, social partners receive information through the Forum concerning the impact of new developments, such as the emergence of FinTech companies and forthcoming European regulations, such as the revised European Payment Services Directive.

Furthermore, the National Forum on the Payment System stresses the importance of availability and accessibility of payment methods, especially for older people and people with a functional impairment. It has been found that ATMs continue to be highly accessible in the Netherlands. One concern is that some authorities do not accept cash, yet their customers are unable to go elsewhere. In addition, the Forum supports Pay-Able, a European platform that strives for barrier-free access to payment terminals for all. Besides fulfilling its role in the Forum, DNB carries out independent research into technological developments, such as distributed ledger technology, and the strategic responses of market participants to such developments. Moreover, DNB is actively involved in the drafting of international agreements on the resolution of central counterparties (CCPs).

Second, DNB exercises oversight of settlement agents, which process debit card transactions and payment instructions among other things. Oversight is aimed at managing infrastructural systemic risk and preventing serious disruptions in the payment and securities systems, with a particular focus on retail payments. In addition, DNB supervises the payment services activities of banks, which have to satisfy criteria relating to security and continuity, and it also supervises institutions that settle securities transactions. Furthermore, DNB is working to bolster the cyber resilience of institutions that are part of the financial key infrastructure. A framework for testing has been developed for this purpose, for instance.

Third, DNB plays an operational role in the systems of cashless transactions and cash payments. DNB handles the settlement of large-value cashless transactions between banks using Target2. We are also responsible for the distribution of banknotes within the Netherlands. 2016 saw the completion of a programme to enable banks, cash handlers and other market participants to recirculate banknotes that are fit for purpose themselves. Two sample periods in 2016 revealed that the proportion of banknotes destroyed by DNB was approximately half that of other central banks in the euro area. This is due to investments in sorting technology and improvements made. In addition, DNB supervises cash handlers, ensuring that members of the public can continue to count on the authenticity and fitness of banknotes.

Box 5.4 Relocation of DNB's gold vaults and banknote activities

In 2016, DNB decided to relocate its banknote activities and gold vaults to Camp New Amsterdam in the municipality of Zeist. This decision was taken because the presence of the banknote activities and gold vaults demand very tight security measures, which affect accessibility to the office to an increasing degree. In addition, regularly transporting cash to and from the centre of Amsterdam is a complex matter. Camp New Amsterdam was chosen because it has the best facilities for guaranteeing security. Among other things, the site serves as the base for units of the Royal Netherlands Marechaussee, which plays a key role in securing cash transports.

DNB will build a new cash centre, which is scheduled to be opened early in 2022. The cash centre will have several functions: (i) storage, sorting and distribution of banknotes, (ii) storage of gold and coins, (iii) centre for the registration and analysis of counterfeits, (iv) test centre for research into the sustainable use of banknotes.

CSR priorities

DNB has launched a long-term study into the sustainability of the payment system. The aim of this study is to assess the ecological costs and benefits of different payment products by means of a life-cycle analysis that examines the environmental impact of a process or system as a whole as well as the contribution of individual elements. Research conducted in 2016 revealed that the environmental impact of all debit card payments made in 2015 corresponded to approximately 12,000 tonnes of CO_2, i.e. 0.006% of total CO_2 emissions in the Netherlands. The environmental impact of debit card payments can be reduced by using renewable energy for data centres and payment terminals, reducing standby time and extending the life of debit cards. At the end of 2016, DNB launched a similar project for cash payments. A study of the sustainability of non-cash payment products, such as credit transfers and direct debits, will be launched in 2017.

DNB also strives for sustainability in banknote production. Following instructions from DNB, the proportion of sustainable cotton in the main material used by the printers of banknotes amounted to 74% in 2016. The goal is to increase this percentage to 100% in 2019. To achieve this goal, the number of sustainable cotton labels used for DNB's orders is being increased. Moreover, DNB requires that printers of banknotes introduce an anti-corruption system that complies with international standards.

DNB ensures that members of the public can continue to rely on the authenticity and fitness of banknotes. It also wants to minimise the number of banknotes that are rejected and destroyed.

Following the introduction of new banknotes, DNB and other Dutch market participants continued to recirculate notes of the previous model that were still fit for re-use. For example, since the new €20 banknote was introduced on 25 November 2015, DNB has put nearly 46.5 million banknotes of the previous series back into circulation. The example set by DNB is followed by other central banks in the system.

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

As a supervisor, DNB seeks to help bring about sound and ethical financial institutions that fulfil their obligations and commitments. The main developments and outlook with respect to supervision are explained in Chapter 2 of this Annual Report and the Independent Public Body Report (ZBO report).

Main activities and outcomes in 2016

In 2016, banking supervision focused on the impact of low interest rates and the introduction of new regulations. The stress testing exercise of the European Banking Authority (EBA) and the in-depth examination of the quality of mortgage portfolios held by banks confirmed that Dutch banks are resilient to substantial stress. That said, on-site examinations revealed that, in the long term, low interest rates put interest margins under pressure. This can encourage banks to raise their risk profile, as was revealed by research carried out by DNB in 2016. DNB is asking banks to respond by adjusting their risk management and capital policy accordingly. With respect to regulations, the focus in 2016 was on the continued development of international agreements on capital requirements, and the technical details and revision of European legislation.

Box 5.5 Creation of new capital requirements framework: Basel 3.5

The Basel Committee on Banking Supervision is a forum for international negotiations on the banking supervision framework. DNB is in favour of global, uniform arrangements. The Basel 3.5 package marks the completion of the post-crisis Basel 3 agenda and is aimed at improving the way in which the risk weightings of assets – which form the basis for the risk-weighted capital requirements imposed on banks – are determined, and enabling better comparisons between banks in this regard.

At the same time, DNB believes that another solution needs to be found for a number of aspects. The extent to which account needs to be taken of differences in portfolio risk profiles between countries and between individual banks is a matter for particular debate. So far, the negotiations on this matter have not resulted in an agreement.

Working with the insurance sector, DNB made major efforts to bring about the full implementation of Solvency II. In its vision of the future of the Dutch insurance sector published in December 2016, DNB drew attention to a number of technological, social and economic developments that are putting the business model of insurers under pressure. The EIOPA stress test revealed that Dutch life insurers in particular are vulnerable to prolonged periods of low interest rates. Based on this, DNB urges insurers to make their capital policy and possible recovery measures more specific. In 2016, insurers made progress on adjusting their business models, although this was not sufficient to put them on a sustainable path. Finally, DNB contributed to the creation of a national recovery and resolution framework for insurers. Within EIOPA, DNB champions the development of a European framework.

In May and November 2016, DNB compiled reports on the financial position of pension funds at the request of the State Secretary for Social Affairs and Employment. DNB was also closely involved in the drafting of the Defined Contribution Scheme (Improvements) Act (Wet verbeterde premieregeling), which came into effect on 1 September 2016. In recent months, DNB drew the pension funds' attention to the challenges that implementing the act presents. In 2016, DNB continued its ongoing examination of the sustainability of business models. The process of consolidation in the sector was continued, and the first transfers of accrued benefits were made to general pension funds, seven of which obtained authorisations during 2016.

In 2016, DNB stepped up its supervision of the trust office sector by strengthening its analysis and boosting its capacity. The revision of the Act on the Supervision of Trust Offices (Wet toezicht trustkantoren) is designed to enhance the level of professionalism in operational management and mitigate the largest inherent integrity risks. In 2016, the supervision of investment firms and managers of investment funds focused largely on the maintenance of adequate capital buffers and healthy operational management, while the supervision of payment institutions focused on the sustainability of business models.

DNB identified various weaknesses in the area of transaction monitoring at banks, payment institutions and trust offices. The examination led to formal measures being imposed on a number of institutions examined. DNB discussed the results of its examination with the sector at various meetings to help the sector implement rectifying measures. It is also working on further recommendations that will be published in 2017.

DNB made a number of tangible improvements to its assessment process. An action plan was implemented in response to earlier feedback from the sector, which revealed a need for a more open, personal approach to candidates, more insight into the contents and progress of individual assessment processes, greater clarity about the process and the possibilities for objections and appeals, and the involvement of senior staff. By way of a follow-up, an external, independent evaluation committee chaired by Professor Annetje Ottow conducted a study of the fit and proper assessment process for managing and supervisory directors in the financial sector, as used at DNB and the AFM. The report found that the objective and importance of the assessments enjoy broad support, and established that the existing design and the resulting procedures at DNB and the AFM provide for the adequate fulfilment of their statutory duties. At the same time, the committee recommended a number of improvements to the assessment process. DNB and the AFM have taken heed of these recommendations and have identified the next steps to put the committee's recommendations into practice.

In 2016, DNB devoted a great deal of attention to the emergence of technological innovations in the financial sector, for instance in its report entitled "Technological innovation and the Dutch financial sector". In addition, DNB, working closely with the AFM, explored the possibilities for accommodating innovation, in particular through the establishment of the InnovationHub and the publication of a discussion document. Furthermore, in its report on the credit markets entitled "Kredietmarkten in beweging", DNB described the shifts taking place in the mortgage market and business loan market.

Box 5.6 InnovationHub

The InnovationHub was set up on 9 June 2016 by DNB in collaboration with the AFM. Market participants can contact the InnovationHub if they have questions concerning the supervision of innovative financial products or services. This enables them to gain a clear picture at an early stage, and can reduce the innovation's time to market. In addition, these questions help DNB to gain an understanding of current trends and influence the market at an early stage.

The crux of the new "regulatory sandbox" approach is that, in the case of innovative concepts, the underlying objective of the policy, legislation or regulations is always considered carefully. If an innovation is not in keeping with the letter of the law but does comply with the underlying object of the law, DNB and the AFM will make use of the room for discretion provided by the law. In this way, we intend, as a supervisory authority, to accommodate the opportunities that innovation brings without losing sight of risks.

CSR priorities

DNB considers energy transition to be one of the main challenges the economy faces in the long term. A transition to a climate-neutral energy system is required if we are to achieve the climate targets agreed in Paris and therefore limit global warming to below 2 degrees Celsius. Achieving this energy transition will require great skill. It is by no means certain that the transition will take place in a controlled manner. In its report entitled "Time for Transition", DNB concluded that a sudden transition to a carbon-neutral energy system may harm economic growth and affect financial stability due to the write-off of existing assets. A timely, predictable government policy and improved sharing of information on climate risks are crucial for limiting the risk that a carbon bubble will burst. There has also been a sharp increase in the amount of international attention for the financial risks associated with climate change and the transition to a climate-neutral energy system. DNB is a member of the G20 Green Finance Study Group, and through the Sustainable Banking Network it shared the experiences of its work in the area of climate risk with supervisory authorities from 28 emerging economies. Furthermore, the FSB formulated recommendations for greater openness in the area of climate risks, so that the financial sector is better informed when making investments and providing funding, and stakeholders have a better understanding of the sector's exposures to carbon-intensive assets and physical climate risks.

At the end of September, DNB concluded its study of sustainable investing at pension funds. DNB sees positive developments in the pension sector and wants to increase awareness of sustainable funding and sustainability in the long term. We believe that a similar transparency requirement for insurers and banks would provide added value and we are discussing this with the Ministry of Finance. The results of the study were shared with the sector at conferences and seminars. DNB has identified five follow-up activities that could contribute to stable growth in sustainable investment. These follow-up actions focus on matters such as increasing cooperation and transparency with respect to sustainable investment, and integrating sustainability in the investment portfolio's risk management.

5.4.5 Resolution: 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 a resolution authority, DNB seeks to ensure the critical functions of banks are safeguarded to the greatest possible extent, with non-viable institutions or parts of institutions being resolved in an orderly manner.

Main activities and outcomes in 2016

The further structuring of the Single Resolution Mechanism (SRM) continued to demand a great deal of attention in 2016. The emphasis was on shaping and developing cooperation between the Single Resolution Board (SRB) and the national resolution authorities (NRAs). This resulted in a cooperation framework that was laid down in June 2016.

In 2016, the SRB devoted more capacity to its resolution planning role and decision-making related to the resolution plans for Dutch banks under its direct responsibility. DNB took on much of the work involved in drafting these plans and delivered a total of six resolution plans. Furthermore, within the SRM, DNB has championed the development of policy frameworks that apply to the entire euro area. In 2016, a resolution planning manual was developed at SRM level, and more detailed instructions were drafted for the bridge bank tool and for the operation of the bail-in tool. In addition, the SRB provided an initial calculation of the minimum level of loss-absorbing capacity that SRB banks need to maintain. This is not yet binding, and will need to be defined in more detail in the form of institution-specific requirements.

During the year under review, the SRB successfully collected the first contributions for the Single Resolution Fund through the national resolution authorities. The current level of the fund is nearly EUR 11 billion, of which more than EUR 950 million has been allocated to the Dutch compartment.

DNB continued to operationalise the resolution tools. The way in which DNB intends to apply the bail-in instrument has been fleshed out and public consultations have been held on this matter. Internal policy frameworks in the area of resolution crisis management were also worked out in more detail. In addition, DNB and the Ministry of Finance took steps to improve legislation and strengthen the available tools. The ministry is preparing a bill that improves the statutory basis for the possibility of a DGS (Deposit Guarantee Scheme) contribution for the transfer of covered deposits during a resolution. Two resolution plans have been drafted for the banks for which DNB is directly responsible, and these plans have been agreed with the SRB. In addition, a resolution strategy was determined for two institutions. This will serve as a basis for working out the resolution plan in further detail. DNB will also have resolution tasks relating to the insurance sector as soon as the bill on the recovery and resolution of insurers becomes law.

In an international context, DNB made an active contribution, through the FSB, in the area of clarifying the requirements for internal loss-absorbing capacity, liquidity and operationalising the bail-in tool.

The IMF assessed the Dutch resolution framework as part of its FSAP program (see also Section 5.4.2). Its provisional findings show that DNB is on the right track as a resolution and DGS authority, specifically in the area of resolution planning. The report is expected to be published in March 2017.

5.4.6 Statistics: viable statistics to support DNB's core tasks

The statistics division handles the receipt, processing, analysis and disclosure of information for the purposes of supervision and macro-economic statistics. Consequently, it acts as a key link in the performance of DNB's national and European duties in the areas of monetary policy, financial stability, supervision and the payments system. The importance of data on all these areas continues to grow.

Main activities and outcomes in 2016

In 2016, we reached an important milestone with the launch of a state-of-the-art data platform for processing and disclosing data efficiently and effectively to provide better support for more data-driven ways of working. Two sizeable international supervisory reports (CRD IV and Solvency II) were successfully migrated to this platform.

In addition, in 2016 we started revising the process by which our macro-economic statistics are produced. This includes stepping up cooperation between DNB and Statistics Netherlands, a working relationship that is unique in Europe. In the new, joint statistics chain, DNB will be responsible for the observations related to financial sector and securities statistics, and for preparing the Dutch balance of payments and international investment position. Statistics Netherlands will be responsible for the observations related to other sectors and will prepare the national accounts. This statistics chain will further enhance the quality and consistency of figures on the Dutch economy. Moreover, it will end the current situation in which differences may arise between the figures reported in the balance of payments (DNB) and the national accounts (Statistics Netherlands). The programme also provides for the replacement of existing systems used for macro-economic statistics at DNB.

Developments in supervision, financial stability and monetary policy continue to lead to more, increasingly complex reporting requirements. In 2016, DNB complied with its reporting obligations towards the ESCB, SSM, ESAs, BIS and IMF, and also with the requirements arising under national legislation and regulations. In addition, the entry into force of Solvency II on 1 January 2016 implemented a brand-new, harmonised European reporting framework for insurers. The Solvency II reports were successfully received, processed, assessed and made available to EIOPA, Following the introduction of Solvency II, we published three new sets of statistics concerning the balance sheets, premiums and solvency ratios of Dutch insurers on our website.

The bank reports focused on data quality. In a European peer review of the reporting process and the quality of CRD IV data, the EBA established that DNB was ranked in the top European banking supervisors category for data and reports, and that DNB satisfied the criteria for all aspects included in the review.

2016 also saw the introduction of the reporting framework for general pension funds (GPFs), and the first general pension funds were granted authorisation. By the end of 2016, a total of four general pension funds were subject to reporting requirements. DNB also paid a great deal of attention to improving the quality of data gathered from investment funds under the EU Alternative Investment Fund Managers Directive (AIFMD). Based on this, DNB and the ECB are exploring the possibility of setting limits on the leverage of investment funds.

More detailed, granular data is becoming increasingly important for both European and national policy. One key granular report is the Securities Holdings Statistics report, in which all holdings of securities are reported at certificate level. In addition, the AnaCredit statistics are designed to providing more specific information on bank lending. In 2016, a start was made on national preparations to enable the submission of the first full reports as from the first quarter of 2019. At a national level, DNB paid a great deal of attention to granular data on mortgages and real estate. Besides information from banks, we also requested detailed information on mortgage loans from a small number of pension funds, insurers and investment firms. This contributed to “Kredietmarkten in beweging”, a report on the credit markets.

During 2016, DNB started to publish the key financial data on individual banks in the Netherlands, thus putting into practice its aim of providing greater transparency. The data of individual pension funds were also supplemented to include asset management expenses, transaction costs and administration costs as well as the real funding ratio. Furthermore, the publication of statistics on securitisation vehicles was expanded to include offering a breakdown by type of placement and asset type on an annual basis. This provides information on the extent to which securitisations are used to attract internal and, in particular external funding. Finally, in 2016 DNB launched a project to overhaul the statistics section of its website. The main aims of this project are to make data easier to locate and increase the use of appealing data visualisation. The first version of the revamped website will be published in the spring of 2017.

5.5 Internal operational management results

The internal operations consist of the support services within the organisation that enable DNB to fulfil its mission and core tasks effectively.

Review of internal operations

In 2016, internal operations were reviewed to ensure they will continue to provide cost-conscious, modern services in future. To this end, a long-term plan was developed for organising DNB’s services in the most efficient and effective way possible, in the light of technological innovations and other developments. This will lead to improved services and a structural reduction in the costs of internal operations by 20% compared to 2015 levels by 2020.

Table 5.1 Key HR figures

	2016	2015
Number of employees	**1,849**	**1,853**
- Central bank (divisions: Financial Stability, Financial Markets, and Economics and Research)*	195	170
- Payment systems (division: Cash and Payment Systems)*	231	250
- Supervision (divisions: Supervision Policy, European Banks Supervision, National Institutions Supervision, On-Site Supervision and Banking Expertise, Insurance Supervision, Pension Supervision, and Horizontal Functions and Integrity Supervision)	588	581
- Resolution (division: Resolution)	26	16
- Statistics (division: Statistics and Information)	151	144
- Other (including Governing Board, Legal Services division, Internal Audit Department and internal operations)	658	692
Average number of FTEs	1,703	1,707
Training costs – actual (EUR million)	5.52	6.50
Training costs – budgeted (EUR million)	6.58	6.72

* The difference between 2015 and 2016 is mostly attributable to the transfer of the Investment Operations department from the Cash and Payment Systems division to the Financial Markets division.

5.5.1 Staffing

DNB's aim is to have excellent staff working in all positions. With this in mind, when filling positions we seek to achieve the best possible match.

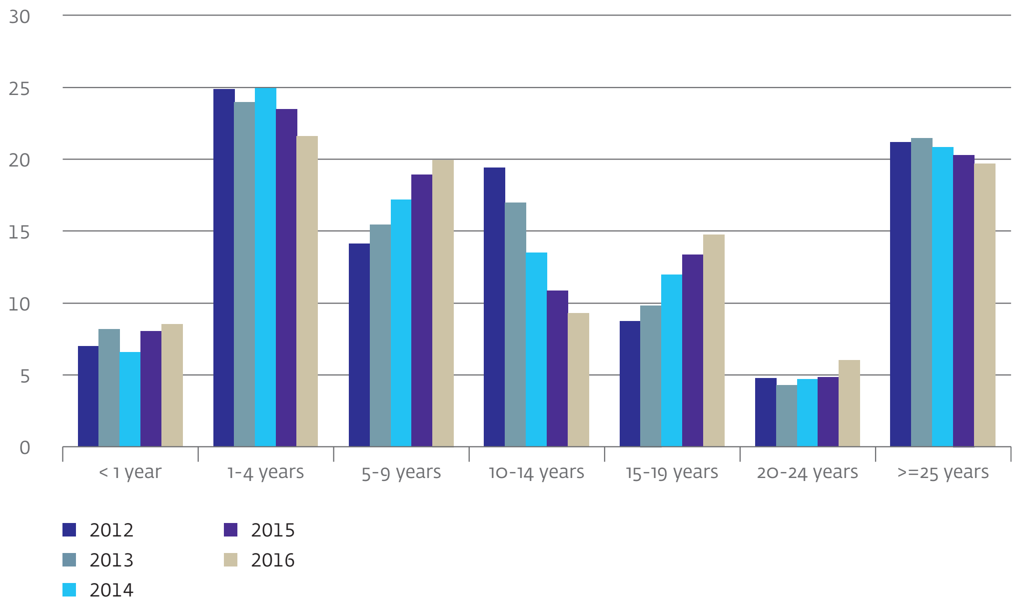
Main activities and outcomes in 2016

DNB devotes a great deal of attention to the selection, recruitment, retention and development of highly qualified staff. In 2016, DNB was awarded 'Top Employer' certification once again. This accreditation is awarded to companies that apply the highest standards with respect to terms of employment and that lead the way in staff development. DNB guarantees that, based on the principle of equality, it does not discriminate between employees on the basis of gender, ethnic background, religion, sexual orientation or other characteristics.

Rationalisation of remuneration policy

In 2016, the Governing Board decided to revise the pay structure at DNB, as part of which the benchmark will be changed to the general market. This level of pay is in keeping with DNB's aim of prudent remuneration at a level that is socially justifiable. A new pay structure that is on average 5% lower applies for new employees with effect from 1 January 2014. The collective

Chart 5.1 Percentage of staff by years of service



wage increase is linked to contractual wage rises in the general market. Arrangements have been made for the pay structure of existing employees to converge with the new pay structure.

Inflow, internal transfers and outflow of personnel

A total of 257 vacancies were filled in 2016. External candidates filled 159 (62%) of these positions, including three managers, one division director and the secretary-director. The inflow of new employees ensures that DNB has a healthy outside perspective, and is essential for ensuring we remain sharply focused. The other 98 vacancies were filled internally. These internal transfers contribute to staff development and enhance the synergy between different areas of expertise within DNB.

Table 5.2 Influx (including distinction by gender) and internal flow of staff

	2016	
Total number of vacancies	**257**	
Influx from outside	159	
of which female	64	(40.3%)
of which male	95	(59.7%)
Internally filled vacancies	98	

With respect to its employees, DNB promotes mobility and development. This is reflected in active recruitment practices, the encouragement of internal transfers, and employees following national and/or international courses. Within our organisation we also emphasise the strategic importance of sharing knowledge and experience by offering opportunities for secondments. In 2016, 83 employees were seconded, 66 of whom went abroad on international placements or strategic secondments at various European bodies and at the FSB, the FED and the IMF. Conversely, 29 employees from these organisations came to work at DNB on a temporary basis. These exchanges form part of our strategic staff policy and are crucial to ensuring DNB is, and remains, an influential player in the international bodies in question. Moreover, in 2016, we took on approximately 96 interns, thus providing a learning environment for new entrants to the labour market and potentially giving them a leg-up to a starter's job.

In 2016, 163 employees left DNB. In most cases, they left to continue their careers at other organisations.

Table 5.3 Reasons for leaving

	2016	
Own request	84	
Termination of contract	14	
End of temporary employment contract	34	
Retirement and early retirement	25	
Restructuring	2	
Occupational disability	1	
Death	3	
Total	**163**	
of which female	71	(43.6%)
of which male	92	(56.4%)

Diversity

By signing the Talent to the Top Charter, DNB has committed to a target of ensuring that at least 32% of management positions are held by women. This percentage was 29.7% in 2015. This had increased to 32% by the end of 2016. DNB is pleased with this result and believes that diversity in management teams provides added value.

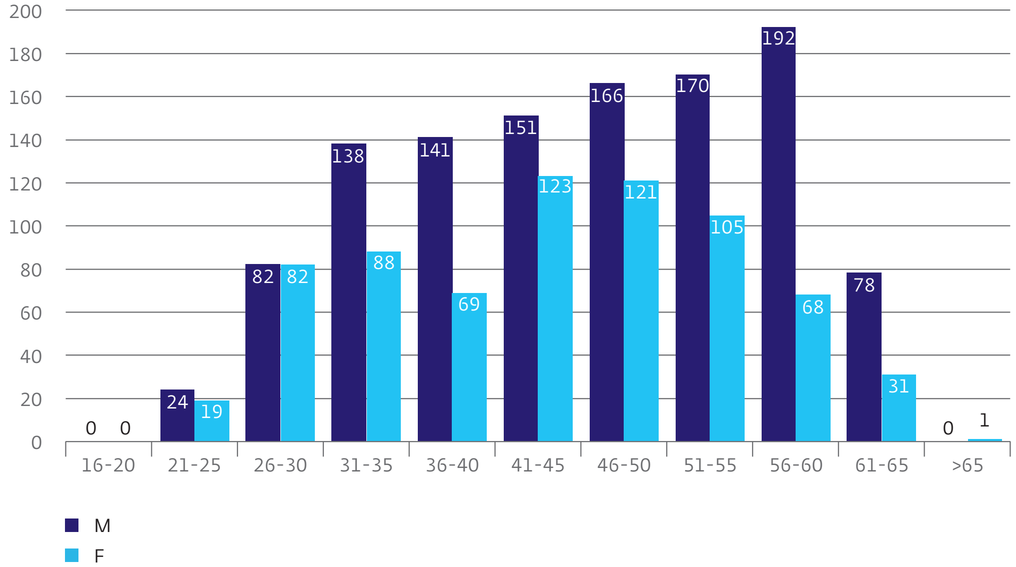
Table 5.4 Percentage of women at DNB

	2016	2015
Total DNB	**38.2%**	**38.5%**
Management	**32.0%**	**29.7%**
Governing Board	0%	0%
Secretary-Director*	100%	-
Division directors	14.3%	25.0%
Heads of department	34.1%	29.3%
Heads of section	38.1%	39.1%
Staff	**38.7%**	**39.1%**

* Reported separately with effect from 2016.

Having sufficient numbers of people in-house who are potentially able to take over key roles is a precondition for achieving this target. For this reason, in 2016, DNB continued to take active steps to increase the number of women participating in the in-house leadership development programme. Women are also encouraged to display their talents and express their ambitions through the internal Female Capital network, the external Women in Financial Services network and the Put your Talents in the Spotlight (Zet je talenten in de spotlights) training course.

Chart 5.2 Number of male and female employees by age group



In 2016, five young, talented women formed the latest group of participants in the Diversity & Inclusion Cross-Mentoring Programme. In addition, two men participated in the Mixed Mentoring programme to gain an awareness of gender issues in the workplace. Besides gender issues, other matters to which we pay ongoing attention are the GayNB network and our work with refugee students through the Foundation for Refugee Students (UAF). In 2016, we also formulated a policy for implementing the Participation Act (Participatiewet). To this end, a pilot project aimed at providing jobs at DNB to people with an occupational disability or who are at a distance from the labour market was launched in collaboration with Randstad Participatie. The external examination of unwritten rules on talent development at DNB that was carried out in 2015 was concluded with a seminar in 2016. The results of this examination will be included in a new perspective on diversity policy at DNB.

Staff development

The HR policy focuses on ensuring sustainable employability both within and outside DNB. As a knowledge institute, DNB offers above-average training and development opportunities by encouraging internships, secondments and participation in training programmes. Records are kept of the points awarded for continuing professional training to enable DNB to monitor participation in training programmes.

DNB stresses the importance of external learning and learning with people from outside the organisation. Taking this focus as our starting point, in 2016, we revised the DNB Academy's course offering and set up learning pathways for target groups that also include national and international courses from partners. By setting up learning pathways, we gained a clear picture of the knowledge and skills that beginning and advanced employees need to have in the first years of their career in order to perform their role well. Employees at expert level make use of the course offerings of external parties.

Strategic succession planning

Further steps were taken to reduce the span of control within the organisation. These have helped improve management, raise output quality and increase the amount of attention paid to the development of employees. Management career paths were mapped out once again in 2016, providing information spanning several years on how management will develop and enabling strategic roles within DNB to be filled effectively.

In 2016, the programme for new managers was offered once more, with 13 high-potential new managers participating. In addition, a range of master classes and external training courses were offered to the current management, to which a continuing professional learning system applies.

Occupational health and safety

The average number of times employees reported sick (1.00) and the average sick leave percentage (2.83%) remained low in 2016, although they were up slightly compared with 2015.

This increase was mostly attributable to long-term sick leave (6-52 weeks) owing to physical complaints defined by multiple factors and a higher number of employees with chronic or other physical illnesses.

Active steps were taken in the area of individual prevention, in connection with which the occupational health surgery held by the company doctor and staff welfare officer was made more accessible. In addition, DNB organises preventative group activities, such as vitality days to promote a healthy lifestyle, ensure sustainable employability and raise energy levels. These include physical tests and activities aimed at promoting relaxation and preventing stress. This will be supplemented by a periodic medical examination for all employees.

All statutory duties under the occupational health and safety policy are properly provided for and recorded in a single document. The occupational health and safety service is also involved with various ergonomic aspects related to the workplace, such as the developments concerning the design of the Cash Centre and the building where it will be located.

5.5.2 Compliance and integrity

DNB attaches great value to integrity. Ethical conduct helps to create trust, both in DNB as an organisation and in the social and economic sphere. To promote ethical conduct and an ethical culture within the organisation, DNB has a Compliance & Integrity department (C&I), which provides the organisation with support relating to awareness and risk management, and provides advice in the areas of compliance, integrity and privacy. C&I also investigates reports of integrity incidents and monitors compliance with the integrity policy. In addition, DNB has confidential advisers, a whistle-blower scheme and a complaints committee that handles internal and external complaints.

Main activities and outcomes in 2016

2016 saw the creation of an enhanced awareness programme on the careful handling of confidential information at DNB. One of the key elements is the e-learning module on treating information with due care (Bewust & Alert met Informatie) that all DNB staff, including insourced staff, have to complete successfully every year. Management completed a self-assessment and workshop on information security, which paid particular attention to how managers serve as role models. Fraud risk management was strengthened further by means of a ten-point improvement plan that identified the main fraud risks and the measures available to DNB.

Compliance with integrity regulations: reports and requests for advice

C&I also monitor compliance with DNB's code of conduct and integrity regulations. DNB employees must be able to perform their roles completely independently at all times. DNB's own employees and insourced staff must therefore also comply with DNB's 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 interest must be reported to the Compliance Officer.

Table 5.5 Reports and requests for advice relating to integrity regulations

	2016	2015
Independence (gifts and invitations, outside activities, job switch)	485	205
Private portfolio investment transactions	163	908
Requests for advice	628	583

With effect from 2016, employees have been asked to declare once a year that they have complied with the rules and principles of the integrity policy. C&I uses the completed declarations to carry out a risk-based check to determine whether privately held investments comply with the private portfolio investment transactions regulations. The department also checks whether all relevant subsidiary activities, other relevant activities and benefits have been declared.

By drawing additional attention to this reporting requirement, demanding declarations from all staff has resulted in a sharp increase in reports of outside activities in particular. On 1 February 2016, the requirement that insiders report all their private portfolio investment transactions was replaced by the annual general reporting requirement. This explains the decline in the number of reports as shown in the table.

In the context of the Independence Regulation, action was taken to prevent conflicts of interest in 110 cases. Specific arrangements were made, such as not accepting a gift or invitation or building in a cooling-off period after leaving the organisation.

Wherever an incident potentially brings the integrity of an employee into question, a special investigation or preliminary investigation is initiated. Four such investigations were initiated in 2016. None of these investigations found that an infringement of integrity had taken place. Three internal complaints were dealt with in 2016. The two complaints that related to restructuring decisions were upheld in part. One internal complaint regarding compensation is still being dealt with. Two external complaints were received. After additional information was obtained, it was decided that the complaint concerning the lack of a response to questions would not be handled. The complaint concerning dissatisfaction about DNB's role in the interpretation of legislation is still being dealt with. No whistle-blower reports were received in 2016.

Table 5.6 Integrity incidents, investigations and complaints

	2016	2015
Integrity incidents (total)	**33**	**28**
of which:		
- improper use of information	24	16
- Regulation on private portfolio investment transactions	5	4
- company property/fraud	0	4
- other	4	4
Complaints		
- internal	3	1
- external	2	2
Whistle-blower reports	0	1

5.5.3 Environment

Main activities and outcomes in 2016

DNB achieved its ambitious environmental objectives in 2016. It constantly looks for opportunities to reduce existing and future emissions where possible. DNB purchases green electricity and offsets all of its remaining CO_2 emissions through the purchase of Gold Standard carbon credits in order to become carbon-neutral.

Environmental care in 2016

DNB's environmental objectives are aimed at complying with legislation and regulations, managing environmental risks and improving our organisation's environmental performance on an ongoing basis.

DNB operates an ISO 14001-certified environmental management system for the Facilities Management, Cash Operations and Security & Transport departments. In 2016, DNB's environmental care system obtained certification once again, this time in accordance with the new ISO 14001:2015 standard, and the accreditation was continued. This demonstrated that DNB has embedded environmental protection in its operations for these departments in a professional manner.

Furthermore, as from 2016, DNB's residual waste has been compacted using a compacting waste container and is transported from Amsterdam by electric boat, resulting in almost no emissions. This arrangement reduces transport movements and minimises emissions.

Energy consumption in 2016

DNB uses electricity, natural gas and diesel for its energy supply. All electricity purchased by DNB is green electricity. When performing building maintenance, renovation and conversion work, DNB looks for possibilities to cut CO_2 emissions by reducing energy consumption. Moreover, we arranged for a number of energy saving studies to be carried out in 2016.

CO_2 emissions

Thanks to the purchase of green electricity and the offsetting of the remaining CO_2 emissions, DNB was carbon-neutral in 2016. 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 calendar year.

Table 5.7 G4-EN15 Measured environmental data and explanation of policy and activities

CO2 emissions in tonnes

Meetgegevens*	2016**	2015***
Energy	1,847	2,335
- Purchased green electricity****	0	0
- Natural gas for heating	1,788	2,287
- Diesel for energy supply	58	48
Commuting	2,047	2,168
- Public transport	800	799
- Passenger vehicles	1,246	1,387
Business travel	1,813	1,997
- Passenger vehicles	363	376
- Air travel	1,413	1,585
- International train travel	37	36
Goods and passenger transport	30	39
- Passenger vehicles for passenger transport	21	28
- Lorries for goods transport	9	11
Total CO2	**5,737**	**6,559**
Offset through purchase of carbon credits	5,737	6,559
Total CO2	**0**	**0**
Number of FTEs	1,703	1,707
CO2 per FTE	**0**	**0**

* DNB uses the emission conversion factors published online at www.co2emissiefactoren.nl (in Dutch) to determine the material CO2 emissions.
** The 2016 reporting period runs from 1 October 2015 to 30 September 2016, inclusive.
*** The 2015 reporting period runs from 1 October 2014 to 30 September 2015, inclusive.
**** Conversion factor is 0.

2016 saw an improvement in CO_2 emissions in absolute terms. The amount of CO_2 emissions to be offset fell by 822 tonnes of CO_2 compared to the 2015 reporting period. Based on a factor of EUR 50 per tonne of CO_2, as used by the Dutch government and calculated by CE Delft, this corresponds to savings of EUR 41,100 in social costs. This decline is largely due to lower consumption of natural gas and a reduction in the amount of air travel. In addition, the energy efficient visitor centre was brought into use in 2015. The emissions per person amounted to 3.37 tonnes of CO_2 per FTE, compared to 3.84 tonnes per FTE in 2015.

5.5.4 Sustainable procurement
DNB takes account of the social consequences in its procurement of goods, services and labour. This relates to the social, environmental and economic consequences for society in general and for DNB, its suppliers and their staff in particular. DNB's procurement policy includes an ongoing commitment to apply the social criteria and environmental criteria of the Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland – RVO) whenever this is possible. Cases in which our codes are not complied with are reported to the Compliance & Integrity department. 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 compensation is provided for any damage. In extreme cases, the contract with the party in question is terminated.

In 2016, 29 European procurement projects and multiple private tenders (valued at more than EUR 50,000) were carried out. RVO criteria were available for three product groups and were applied in all cases. In addition, DNB included additional measures related to sustainability in the tendering procedure for banknotes, for which there were no RVO criteria.

In 2017, DNB will consider whether additional sustainability aspects that are not prescribed by RVO can also be included in all procurement projects and tendering procedures, and whether the social criteria can be applied. DNB's code of conduct and integrity regulations that apply to its own employees and insourced staff help prevent conflicts of interest and bribery.

5.5.5 Social commitment

Contributions and donations
DNB supports various activities that touch upon its core tasks. We also support charities active in the areas of health, society and culture by making donations. The contribution budget stood at EUR 624,000 in 2016, the same as in 2015, while the donation budget was EUR 250,000, again unchanged from the previous year. A sum of EUR 722,154 of the total amount of EUR 874,000, was spent. All applications for support are assessed centrally 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 DNB plays a supervisory or advisory role, or organisations jointly established by DNB, 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

Traditionally, DNB provides financial education by informing the public about DNB's core tasks and the workings of the economy. DNB has a new visitor centre that celebrated its first anniversary on 22 September 2016, where schoolchildren, students and other target groups can learn about these topics privately or through organised tours. In 2016, DNB welcomed a total of 22,485 visitors. The visitor centre features interactive exhibitions about the workings of the economy and the scope of DNB's activities, and what this means for individual citizens. DNB also offers educational materials on its website. This offering is currently being streamlined and updated.

DNB participates in the Money Wise platform, which is an initiative of the Ministry of Finance. More than 40 organisations from the financial sector, academia, education and consumer organisations work together on this platform to educate consumers and increase their financial awareness. DNB is one of the four sponsors of this initiative.

As in previous years, in 2016, DNB took part in the national Money Week organised by this platform. DNB staff members teach guest classes at primary schools to educate school children on how to manage money. During Money Week, 60 DNB employees taught more than 75 guest classes at 60 schools. DNB also supports Child and Youth Finance International (CYFI), a global organisation that helps children in more than 100 countries to develop financial awareness and financial skills and that is the deviser and driving force behind Global Money Week. DNB is one of CYFI's Board Observers. In addition, DNB established a Youth Council in 2016. This is an initiative of the Missing Chapter Foundation, which was founded by Princess Laurentien of the Netherlands and which has a large number of corporate partners. The Youth Council is made up of older primary school pupils who provide advice on a relevant, as-yet undecided matter within the organisation from their own perspective.

Technical cooperation

DNB invests in technical cooperation at an international level. This serves two purposes. First, it strengthens the institutional and staffing capacity of sister institutions abroad. Second, it strengthens the cohesion and long-term sustainability of the constituency representing countries including the Netherlands and Belgium in the IMF, which is the focus of most of DNB's technical cooperation. This constituency currently includes 15 countries besides the Netherlands. These countries are Armenia, Belgium, Bosnia-Herzegovina, Bulgaria, Cyprus, Georgia, Israel, Luxembourg, Macedonia, Moldova, Montenegro, Romania and Ukraine. A constituency in which ties are close is essential for ensuring the Netherlands and Belgium are able to retain their shared seat in the IMF's executive board. DNB also provides technical assistance to the central banks of countries such as Aruba and Indonesia.

In 2016, DNB deployed 5.7 FTEs for technical cooperation activities, ranging from bilateral support in research to organising international seminars. This concerned a total of 90 large and small activities that reached over 1,000 participants. One project of particular note was the Moldovan Twinning programme, aimed at familiarising the National Bank of Moldova with the most important parts of Basel 3 so that it could enhance its banking supervision. This is also a condition of the Moldova-EU Association Agreement. In the spring of 2016, DNB organised a conference on central bank and supervisory governance for the presidents of the central banks of the constituent countries. This conference forms part of a fixed cycle of high-level conferences that DNB and the Nationale Bank van België/Banque Nationale de Belgique take turns in organising, which also increases cohesion within the constituency.

Volunteer projects

Under the heading of Building Together (Samen Bouwen), DNB employees can take part in organised voluntary work projects. In 2016, about 250 DNB employees took part in a total of 15 projects. There are two general categories of voluntary work.

First, there is the type where staff organise activities for or together with clients of a care institution, such as the annual summer party at the 's Heeren Loo care facility and the 'Make the dream come true' (Maak de droom waar) project of the Dutch Foundation for the Mental and Social Welfare of People with Disabilities. DNB employees also do odd jobs, such as gardening or painting, for organisations such as the Fronik farm in Zaandam and Amsterdam's animal shelter. In addition, organised activities, such as cooking for homeless people in Amsterdam and sea fishing with a group of people from Cordaan.

The second category encompasses transferring knowledge, for example by teaching guest classes in primary schools during the annual, national Money Week, or by providing job application training, internships and coaching programmes for schoolchildren. To illustrate, primary and secondary school children aged up to 14 years can spend part of a day at DNB, seeing how the different departments operate and what activities are carried out. For the fifth year running, DNB also teamed up with JINC to help pupils at various pre-vocational secondary schools choose what course to take next. DNB also participated in the JINC projects "How to plan your homework" (Plannen doe je zo) for secondary school children and a job application training course.

Finally, in 2016, DNB relaunched the "Learning Pathway Conference" (Leerwegconferentie). Some 100 companies that help people with a disability to find work and provide them with further assistance are invited to this event, which is hosted by DNB on behalf of Stichting Cordaan, and the best business is presented with the 'Egg of Columbus' award.

5.6 Risk management

DNB has a risk management framework and integrated policy for the early identification and management of DNB's principal risks.

5.6.1 Risk management model

In 2016, arrangements were made to further reinforce the risk management model used within DNB. DNB had established that the structure and effectiveness of the risk management function at DNB could be improved, as there were areas of overlap, roles were not adhered to sufficiently, and the reporting, monitoring and adjustment of risk were not given enough attention. The steps to reinforce the model that were agreed in 2016 will help create a comprehensive system for managing all of DNB's risks that contains clear arrangements concerning the division of duties and cooperation.

The risk management model is based on the principle of three lines of defence. This model is commonly used in the financial sector and is based on international standards issued by organisations such as the EBA, the Basel Committee on Banking Supervision and the ECB. The first line is formed by the divisions that have day-to-day responsibility for identifying, avoiding and reducing risks when performing their activities. The second line consists of various independently operating departments or functions that are responsible for monitoring non-financial risks. This second line advises on new developments and risks, and develops the related policy frameworks. DNB has opted not to combine the various second-line functions centrally, and instead has selected targeted positions within the organisation so that the monitoring line is close to the content. The third line consists of the Internal Audit Department, which investigates whether policy and processes are applied consistently.

These three lines of defence operate under their own responsibility. Each department involved has a clearly recognisable task and performs activities that are in keeping with that role. In addition, an efficient, simple structure has been agreed to ensure that the lines naturally reinforce each other. To this end, harmonisation between the various departments and persons involved is achieved by means of regular, structured discussions. The Governing Board has overarching responsibility. Once every quarter, the Finance department reports to the Governing Board and Supervisory Board.

5.6.2 Risk categories

DNB distinguishes between strategic, financial and operational risks. The strategic risks relate to DNB's core tasks and are an integral part of the Governing Board's decision-making. Financial risks are coordinated by the Risk Management Committee (RMC). The RMC monitors the balance sheet risks, controls and related financial buffers, and, based on developments in the balance sheet risks, assesses whether the risk framework requires adjusting. Financial risk management is described in Section 5.8.

Operational risks are monitored by the Operational Risk Board (ORB), a decision-making body within DNB that is chaired by the Secretary-Director. The ORB coordinates the management of all non-financial risks relating to processes, people, systems or external events that could undermine the effectiveness of DNB. We have identified various operational risks in our organisation. In 2016, significant progress was made on further strengthening the analysis of operational risk management through a regular cycle of integrated monitoring and reporting. In 2017, this will be followed by the establishment of a separate risk department, in accordance with agreements that have been reached.

5.6.3 Main operational risks

DNB has identified a number of operational risks that could affect its tasks. The principal operational risks are identified by means of a bottom-up process. These risks are subsequently assessed by the ORB and prioritised, and adjustments are made where necessary.

During 2016, DNB devoted a great deal of attention to ensuring a reliable, modern information system. DNB is rolling out a bank-wide programme to prevent the leaking of information to third parties, and to ensure information is reliable and available. Particular attention is being paid to cyberattacks originating from outside the organisation and a targeted approach for internal systems and staff. Targeted projects are carried out with the aim of protecting and using data more effectively. In addition, DNB organises training courses to raise awareness in the area of information security and enhancing conduct and culture.

In addition, a number of scenarios that could undermine the continuity of services were mapped out in 2016. These scenarios mainly concern the effectiveness of ICT systems, but could also result from risks relating to the building, its surroundings and the availability of the right employees. DNB has taken steps to minimise disruption. More detailed arrangements on reinforcing physical security were also made.

Furthermore, DNB continues to be increasingly aware of the treat of cyberattacks on financial institutions and the payment system that DNB manages. To avoid disruptions to the payment system, DNB monitors the cyber resilience of Dutch financial institutions and ensures a highly secure payment system. DNB also makes constant efforts to improve the technical infrastructure and strengthen its internal processes.

In addition, in 2016, DNB devoted a great deal of attention to preparations for, and timely compliance with, new legislation and regulations. This concerned in particular the Assessment of Employment Relationships (Deregulation) Act (Wet deregulering beoordeling arbeidsrelaties – DBA), the Open Government Act (Wet open overheid – Woo) and the EU General Data Protection Regulation. These projects require substantial changes to DNB's procedures and systems. Preparations for these changes must be made on time.

5.6.4 In control statement concerning financial reporting risks

Based on its evaluation, DNB's Governing Board declares that, with regard to the financial reporting risks in 2016, the internal risk management and control systems provide reasonable assurance that the financial reporting is free of material misstatement. The internal risk management and control systems in respect of the financial reporting risks operated satisfactorily in 2016.

5.7 Report on costs

The costs allocated to DNB's core tasks in 2016 amounted to EUR 377.5 million. This corresponded to a budget underspend of EUR 10.6 million. The underspend was largely due to a EUR 16,6 million decline in staff costs, which was due to understaffing, lower pension contributions and a conscious focus on reducing support costs. Against this, depreciation charges on tangible fixed assets were EUR 4.9 million higher than budgeted owing to the accelerated depreciation of the Westeinde building in the context of DNB's long-term programme on accommodation Huisvesting DNB.

The costs for each core task are set out in Table 5.8 The material differences for each core task are explained in further detail.

Table 5.8 Core task costs

EUR million

	Actual 2016	Budget 2016	Difference	Actual 2015	Actual 2014
Core task					
Financial stability	15.6	17.7	-2.1	12.6	17.0
Monetary policy and economic advice	57.3	59.0	-1.7	54.4	52.1
Payments	114.7	115.3	-0.6	85.7	95.0
Supervision	145.0	153.4	-8.3	144.0	182.3
FEC	1.2	1.2	0.0	1.2	1.0
Statistics	39.1	36.4	2.7	30.5	29.0
Resolution	4.6	5.1	-0.5	3.6	
Total	**377.5**	**388.1**	**-10.6**	**332.0**	**376.4**

Spending on the core task Financial Stability was EUR 2.1 million under budget in 2016. This was due to an increase in capitalised hours for the DGS programme and to an underspend on staff costs and outsourcing.

The costs for the core task Monetary Stability and Economic Advice were EUR 1.7 million lower than budgeted, owing to understaffing and cutbacks in support costs.

Spending on the core task Supervision was EUR 8.3 million under budget in 2016. This was due to an underspend in staff costs and cutbacks in support costs and outsourcing.

The overspend on the core task Statistics was EUR 2.7 million. This was due to an increase in the use of IT for statistics systems.

5.8 Financial position of DNB

The risks on DNB's balance sheet continue to increase as a consequence of the accommodative monetary policy. In addition, profit for the year was down compared to 2015, and DNB's future profitability will come under pressure due to negative interest rates. The Governing Board has deemed it necessary to continue to strengthen the buffers and has decided to add a further EUR 500 million to the provision for credit and interest rate risk. This is a provision that DNB can use in a negative scenario to absorb financial losses resulting from quantitative easing (QE). Within the Eurosystem, provisions of this kind are referred to as a general risk provision (GRP).

The exposures and risks on DNB's balance sheet stem from the joint monetary policy of the Eurosystem on the one hand and from its own investments on the other. DNB's monetary exposures largely dictate DNB's risk profile. These exposures continued to grow sharply in 2016 owing to the purchases made under the existing expanded asset purchase programme (APP). A considerable portion of the resulting risks and proceeds are shared by the central banks in the Eurosystem using a capital key in which DNB's share is approximately 5.69%. Purchases totalling EUR 1,654 billion have been made in the Eurosystem (year-end 2015: EUR 803 billion). These led to an increase of approximately EUR 43 billion in DNB's monetary exposures in 2016. As monetary policy is decided jointly in the Eurosystem, DNB has limited control over its balance sheet risk.

The extended APP entails the large-scale purchase of long-term assets, which means that DNB's interest income will be fixed at a low level for a prolonged period. The surplus liquidity arising from these purchases will be held by credit institutions at central banks in the Eurosystem in the form of deposits that will command deposit interest. The accommodative monetary policy exposes DNB to credit and interest rate risks (see Box 5.7).

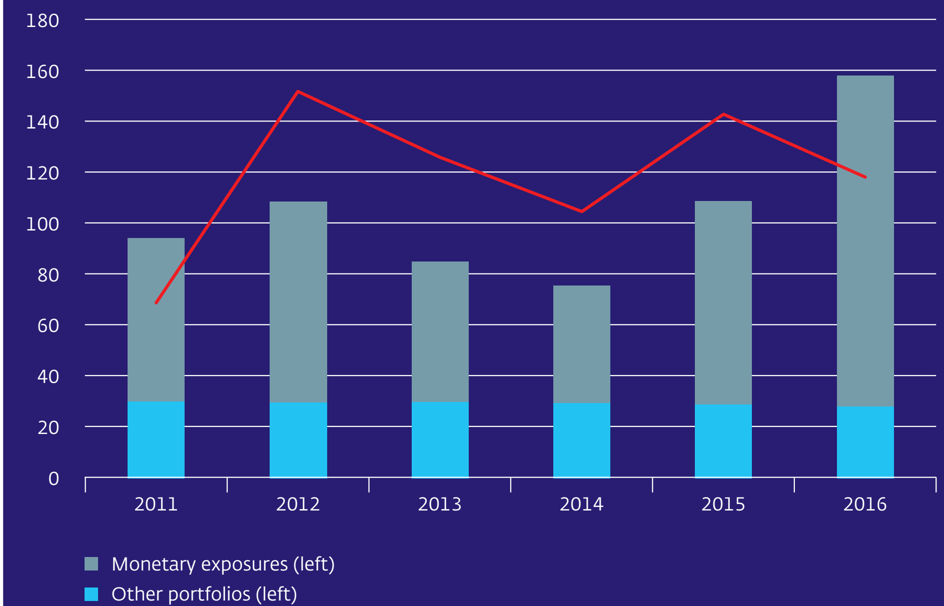
Box 5.7 Credit risks and interest rate risks resulting from QE

The interest rate risk will be manifested if key interest rates are raised significantly and rapidly. The level of interest rate risk is sensitive to changes in market interest rates and potential adjustments to the expanded APP because these affect future interest income. The continuation of the expanded APP will lead to higher balance sheet risks in the future, and these risks will be prolonged due to the long maturities.

The credit risk resulting from QE continued to increase owing to the purchases of corporate bonds under the new CSPP. Against this, Greek institutions made less use of central bank funding, leading to a significant reduction in peripheral risks. In addition, DNB revised its risk models in 2016, which led to a net downward adjustment of its risk estimate.

Chart 5.3 DNB's total exposures and risks

EUR billion



Source: DNB.

Three different methods have been used to determine DNB's total risk. First, the credit and interest rate risks on the asset purchase programmes and own-account investments are determined using an expected shortfall method based on the 99th percentile of the loss distribution over one year. Next, deterministic credit risk scenarios are used for some countries on the periphery of the euro area. Finally, the interest rate risk for DNB's entire balance sheet is determined using a customised scenario analysis for trends in the balance sheet and interest rates.

The models used to determine DNB's balance sheet risks were revised in accordance with internal guidelines in 2016. The models' documentation, methodology, data quality and implementation were checked, and the assumptions made were updated. Following revision, the risk models underwent external validation and were judged to be adequate. Despite the sharp increase in exposures, total risk fell EUR 2.2 billion on balance to EUR 10.5 billion in 2016 owing to the revision of the risk models.

Table 5.9 Total exposures of DNB

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

	31-12-2016	31-12-2015	Difference
Total exposures	151.5	108.9	42.4
Monetary exposures	123.0	79.9	43.1
Own investments and other portfolios	28.5	29.0	-0.7
Total risk	10.5	12.7	-2.2
Expanded APP risk (GRP)*	3.7	2.4	1.3
Risk under guarantee**	5.4	8.1	-2.7
Own investments and other asset risks***	1.4	2.2	-0.8
Risk buffer	8.9	8.4	0.5
Capital and reserves	7.9	7.9	0.0
Provision for credit and interest rate risks	1.0	0.5	0.5

* The expanded 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 countries on the periphery of the euro area amounts to EUR 5.7 billion. This guarantee will remain in place until at least March 2018.

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

5.8.1 Monetary exposures

In March 2016, the Eurosystem's asset purchase programme (APP) was further expanded to include the corporate sector purchase programme (CSPP), which supplements the asset-backed securities purchase programme (ABSPP), the third covered bond purchase programme (CBPP3) and the public-sector purchase programme (PSPP). Under the CSPP, purchases are made of investment grade corporate bonds. DNB's largest monetary exposures are to purchases made under the PSPP, and these contribute significantly to interest rate risk.

In March 2016, the monthly purchase volume was increased to EUR 80 billion. In December 2016, the ECB's Governing Council extended the expanded APP to 31 December 2017, and agreed that the monthly purchase volume would be reduced to EUR 60 billion with effect from April 2017. To avoid a shortage of securities eligible for purchase, restrictions on the maturities and real yields of the purchased securities have been relaxed.

Table 5.10 Monetary exposures

EUR billion, the exposures where DNB incurs a risk are reported.

	Open Market Operations (OMO)	Securities Markets Programme (SMP)	Covered Bonds Purchase Programmes (CBPP 1-3)	Public Sector Purchase Programme (PSPP)	Corporate sector purchase programme (CSPP)	Total
Netherlands	0.9	0.0	1.1	61.2	0.9	64.2
Italy	11.6	2.8	1.3	0.0	0.3	16.0
Spain	8.3	1.1	3.0	0.0	0.2	12.5
France	4.0	0.0	2.9	0.0	0.9	7.9
Germany	3.7	0.0	2.2	0.0	0.3	6.3
Greece	1.3	0.5	0.0	0.0	0.0	1.8
Portugal	1.3	0.4	0.2	0.0	0.0	1.9
Other	2.7	0.3	1.0	8.0	0.3	12.3
Total*	**33.9**	**5.2**	**11.7**	**69.3**	**2.9**	**123.0**
Difference relative to Dec. 2015	2.1	-1.5	2.2	42.6	2.9	**

* The total may differ from the sum of the exposures for each country and each programme due to rounding differences.

** The ABSPP exposures shown in the table in the 2015 Annual Report have not been included here (or in the total difference relative to December 2015) as they are formally for the account and risk of the ECB and consequently can only indirectly give rise to losses.

As of June 2016, banks have had the possibility of obtaining funding for a four-year period by means of the second series of targeted longer-term refinancing operations (TLTRO II) as part of the Eurosystem's open market operations. The interest rate applied to TLTRO II is between 0.0% and 0.4%, and depends on the extent to which the bank in question lends to the real economy.

Greek institutions made less use of central bank funding in 2016, leading to a reduction in peripheral risks. These risks are also covered by the state guarantee of exposures to countries on the periphery of the euro area dating from 2013, and amount to a maximum of EUR 5.7 billion.

5.8.2 Own-account investments

DNB's 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 liquidity and solvency of the investments. Forward exchange contracts are used to hedge the currency risk. The currency risk on the IMF receivable, which is based on a basket of international currencies (Special Drawing Rights – SDRs), is also hedged.

A positive return was achieved on the bond portfolio in 2016. Given that market rates are currently negative, however, a negative return cannot be ruled out in future. The USD and AUD exposures were reduced in 2016 owing to negative returns on these currencies, which were due to the high costs of hedging the currency risk. In 2017, DNB will replace some of its own-account investments in government bonds with corporate bonds (up to a maximum amount of EUR 1.35 billion). This is expected to lead to a higher return on own-account investments while maintaining a similar risk profile. As well as its fixed-income portfolios, DNB also has investments in equities that are managed by two external asset managers. The equity portfolio amounts to EUR 1.4 billion and tracks the MSCI World Benchmark through a passive investment policy.

DNB has integrated environmental, social and governance (ESG) aspects in the implementation of its investment policy and believes that targets for returns on investment should go hand in hand with socially responsible investment. In this context, DNB seeks to improve ESG aspects within its own investments. Based on that perspective, a portion (approximately 7%, or EUR 1.9 billion) of the fixed-income portfolio in DNB's own-account investments consists of bonds issued by development banks such as the World Bank, the European Investment Bank and the Asian Development Bank. In addition, DNB invests in green bonds issued by supra-national institutions and semi-government bodies (approximately 1%, or EUR 0.2 billion, of the fixed income portfolio). The proceeds from these issuances are used to invest in green projects, for example in the area of renewable energy. In 2017, DNB will continue to put socially responsible investment into practice.

The external managers of DNB's equity investments adhere to international standards such as the United Nations Principles for Responsible Investment (UN PRI) and the UN Global Compact's Ten Principles. The initial 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. As a result of this screening, 4% of the investment universe is excluded. The annual evaluation of the external managers includes CSR as one of our assessment categories. The CSR category is assessed by means of a questionnaire sent to the external managers. This looked at, among other things, the criteria used to exclude socially irresponsible investments and the extent to which the issue of corporate social responsibility is emphasised during meetings with shareholders. In addition, DNB carried out a review of the external managers and their environmental and social policies. The Investment Committee was informed of the outcome of this review, and it issued a positive recommendation on refining the CSR objectives for the external managers. Further steps were taken in 2017 to enhance the monitoring of external managers, in keeping with the CSR objectives relating to own-account investments.

Table 5.11 Composition of own-account investment portfolio

EUR billion

	31-12-2016	31-12-2015	Difference
Euro investment portfolio	20.0	17.8	2.2
Dutch government	3.6	3.6	0.0
Other EU government	13.7	11.0	2.7
Semi-government/supra-national	2.3	2.6	-0.3
Covered bonds	0.1	0.3	-0.2
Reverse repo/deposit	0.2	0.3	-0.1
USD investment portfolio	6.3	7.2	-0.9
Government	4.1	5.9	-1.8
Semi-government/supra-national	1.9	1.1	0.8
Reverse repo/deposit	0.4	0.1	0.3
AUD investment portfolio	0.0	1.0	-1.0
Government	0.0	0.6	-0.6
Semi-government/supra-national	0.0	0.4	-0.4
Reverse repo/deposit	0.0	0.0	0.0
	26.3	**26.0**	**0.3**
IMF claims	1.1	1.9	-0.8
Equities	1.4	1.3	0.1
Market value of currency hedging	-0.3	-0.1	-0.2
	28.5	**29.1**	**-0.6**

* The maximum level of the state guarantee amounts to EUR 5.7 billion. This guarantee will remain in place until at least March 2018.

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

5.8.3 Result

The result for the full year 2016 stood at EUR 43 million, a reduction compared with the previous year.

Chart 5.4 Trend in DNB's results

EUR million

Source: DNB.

The main reason for the lower profits was a decline in the result on the equity portfolio. In contrast to 2015, no gains were achieved on the sale of investments. The EUR 110 million increase in the value of the equity portfolio in 2016 is reflected in the level of the revaluation reserve. Moreover, DNB's operating expenses increased in 2016, chiefly as a result of larger orders for bank notes, which led to a EUR 23 million rise in manufacturing costs.

The lower profit on the equity portfolio and the increase in operating expenses were only partially offset by higher income from the monetary operations. During the year under review, the adjustments to the expanded asset purchase programme (APP) had a limited impact on income from monetary operations. The purchases made only a small contribution to results on account of the low market interest rates. In addition, interest income was down compared to previous years due to redemptions in the high-income, expiring crisis bond portfolios (SMP and CBPP 1-2). Despite this, the growing volume of deposits, which result from the purchases made under the expanded APP, led to an increase in monetary income thanks to the negative interest rate on bank deposits.

Profitability is expected to remain low in the next few years, and profits will largely be used to bolster the provision for credit and interest rate risk.

Table 5.12 Breakdown of DNB's results

EUR million

	2016	2015	Difference
Monetary operations			
OMO	-35	28	-63
CBPP 1 and 2	36	48	-12
CBPP 3	47	23	24
SMP	332	395	-63
CSPP	4	0	4
PSPP	22	12	10
Other*	199	46	153
Total monetary operations	**605**	**552**	**53**
Foreign reserves and euro investments			
Euro investments	95	103	-8
USD investments	-27	-11	-16
JPY, AUD and SDR investments	-5	-14	9
Equity investments	5	171	-166
Results of ECB and BIS participating interests	75	60	15
Total foreign reserves and euro investments	**143**	**310**	**-167**
Sundry (including expenses)	-205	-178	-27
Addition to provision for credit and interest rate risk	-500	-500	0
Total	**43**	**183**	**-140**

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

5.9 CSR accountability

The table below summarises the objectives and results achieved in the material CSR policy areas. Priorities are set on the basis of DNB's mission and ambitions (Section 5.2), which are then translated into a vision on CSR (Section 5.3). Structured policy is pursued, under the direction of the CSR Committee, with the aim of integrating and promoting the vision on CSR in DNB's core tasks.

The information reported in Chapter 5 is structured along the lines of DNB's core tasks. As explained in Section 5.3, sustainability is an integrated part of all our core tasks. Section 5.4 describes in specific terms the CSR priorities set by DNB in the various policy areas. DNB will investigate possible ways to enhance the accessibility of the CSR information contained in the Annual Report, for example by using a different structure, based on the relevant CSR policy areas, to report the information.

Annex 1 Overview of CSR objectives and results

Material CSR policy area	Objective for 2016	Actions and results achieved	Objective for 2017	Reference to AR
Supervision/ Financial stability/ Resolution	■ Anchor CSR in operational supervision. ■ Include CSR risk in our risk assessments of institutions. ■ Explore possibility of conducting climate risk stress tests. ■ Examine impact of climate on insurers' obligations. ■ Build up knowledge network, seek closer ties with fellow supervisory authorities in other countries, and make efforts to draw attention to CSR risks within the SSM/EIOPA	■ Ensured CSR is further anchored in operational supervision, by: – including risks related to sustainability in the Supervision Outlook and the State of Supervision. – including carbon bubble-related risks in the macro register, and presenting institution-specific information on this matter to supervisors. ■ Published report on sustainable investing at pension funds (this report was widely disseminated in the media and in the pension sector). This encouraged pension funds to develop their thinking and behaviour in the area of sustainable investing. ■ A memorandum was produced that outlined the latest developments concerning climate risks and proposed the development of transition stress tests. ■ DNB joined the G20 Green Finance Study Group. ■ Participated in Springtij '16.	■ Operationalise climate risk in operational supervision activities (all operational supervision divisions). ■ Ensure operational supervision pays attention to the sustainability of business models. ■ 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. ■ Carry out follow-up study on sustainable investment at Pension Supervision. This study will continue to monitor and provide information on developments in the area of sustainability. ■ Work to ensure ESG risks receive international attention. ■ Further to the IMF FSAP mission, in which DNB drew attention to the theme of sustainability, the IMF intends to work with DNB in this area. ■ 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. ■ Ensure transparency on how financial institutions handle ESG aspects are further anchored in legislation.	5.4.2 5.4.4

Material CSR policy area	Objective for 2016	Actions and results achieved	Objective for 2017	Reference to AR
			■ Through its screening process, DNB ensures the fitness and propriety of managing and supervisory directors. DNB's objective is that less than 0.5% of reassessments performed within two years following an initial assessment result in a negative opinion.	
Economic Advice and Analysis	■ Carry out study on the Dutch economy's capacity for growth. ■ Form vision on the emergence of the sharing economy. ■ Assess extent to which developing energy transition scenarios would be useful and feasible. ■ Analyse impact of climate change.	■ Published Occasional Study on the Dutch economy's ability to grow in the long term. Thematic memoranda on an evaluation of the Dutch healthcare system and bankruptcy law for natural persons were also produced. Nibud's LTI standards now based on four-year averaging. ■ Launched project to formulate a vision on the emergence of the sharing economy, which will continue in 2017. ■ Published "Time for Transition" Occasional Study. ■ Carried out regular monitoring of developments in markets for sustainable investment instruments. ■ DNB participated in the High-Level Expert Group on Sustainable Finance as an observer.	■ Monetary policy is aimed at price stability, which is defined as inflation below but close to 2% over the medium term. ■ Carry out study into global trend of declining relevance of the middle classes. ■ Ascertain economic consequences of energy transition and its funding for the Netherlands.	5.4.1
Stakeholder management	■ Use our strength as a convening power by establishing and chairing the Sustainable Finance Platform. ■ Organise DNB Meet the Experts sessions on our relevant studies. ■ Include a module on CSR in the basic supervision (BOT) and basic central banking (BCB) courses. ■ Achieve further improvement in DNB's reputation score among financial citizens, closer to the 70 mark. Increase transparency towards financial citizens on the part of DNB.	■ Established Sustainable Funding Platform. This is facilitated and chaired by DNB. The platform has five working groups: Impediments and Incentives, Education, SDG Impact Measurement, Climate Risk, and Circular Economy. ■ Although no DNB Meet the Experts sessions have been organised in the area of sustainability, a large number of presentations on relevant studies were given to stakeholders. ■ Held frequent meetings with a number of NGOs. ■ CSR was not part of the BOT/BCB courses in 2016, but it will be included in 2017. ■ DNB's average reputation score for 2016 was 70.3.	■ Ensure a structured dialogue with relevant stakeholders (Communications department). ■ Improve structure of Chapter 5 of the Annual Report, enabling stakeholders to extract information from the chapter more easily. ■ Implement initial results of the Sustainable Finance Platform's working groups in the sector.	Box: Sustainable Finance Platform

Material CSR policy area	Objective for 2016	Actions and results achieved	Objective for 2017	Reference to AR
Payment system	■ Test the sustainability of payment products. ■ Make banknotes and the cash chain even more sustainable. ■ Recycle money containers. ■ Take the interests of vulnerable groups into account through the National Forum on the Payment System.	■ Tested sustainability of debit card payments and started tests relating to cash. ■ Sustainable cotton made up 74% of the main material used for banknotes. ■ Reduced cash in transit by means of matching. Number of banknotes received by DNB down 32% compared with 2015. ■ The Accessibility Monitor revealed that consumers and businesses are satisfied with the availability and accessibility of payment services. In total, 99.8% of people in the Netherlands live within five kilometres of an ATM. ■ Two sample periods in 2016 revealed that the proportion of banknotes destroyed by DNB was approximately half that of other central banks in the euro area. This was due to investments in the latest sorting technology. ■ In 2016, some 7,000 money containers and some 1,300 lids were returned to the manufacturer. ■ Kept the topic of accessibility on the agenda of the European Retail Payments Board (ERPB), and joined forces with Age Europe to write an issue note on the accessibility of payment services. ■ The consequences of climate risks for business continuity (derived from the memorandum on the identification of climate risks) were discussed by the Financial Sector Critical Infrastructure Business Continuity Platform (BC VIF).	■ Put sustainability on the agendas of meetings with institutions. ■ Take the interests of vulnerable groups into account in the National Forum on the Payment System. ■ Assess the sustainability of payment products (cash, remote payments) by performing a life-cycle analysis and entering into talks on this matter with stakeholders. ■ Draw attention to CSR aspects of banknotes in European forums. ■ Promote the matching of market surpluses and shortages of banknotes that are fit for circulation. ■ Set an example for the rest of Europe in reducing the number of banknotes that are rejected unnecessarily. ■ Continue efforts to make banknote production more sustainable while working towards the target of using 100% sustainable cotton in 2019. ■ Make banknotes and the cash chain as sustainable as possible by means of stepping up exchanges/sales of coins. ■ 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. ■ Work towards paperless process design, carrying out a study of paperless invoicing, and making legal documentation available in a digital format only.	5.4.3
Own-account investments	■ DNB's investment policy will focus on investing in accordance with ESG criteria; there is a specific proposal to follow this up by encouraging external fund managers to make their investment policies more sustainable. ■ Develop framework for monitoring the quality and governance of the activities of external fund managers.	■ Prepared and discussed a proposal for socially responsible investment guidelines. Based on this discussion, the implementation of these guidelines is now being studied in detail. ■ Drew up monitoring framework for external managers. CSR is included as a category in this framework. ■ Sent questionnaire to external equity managers for the purposes of CSR monitoring. The evaluation of the results was discussed by the Investment Committee.	■ 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 managers, which are also regularly assessed on the basis of the standards. ■ Perform periodic analyses of developments in the markets for green funding products.	5.8.2

Material CSR policy area	Objective for 2016	Actions and results achieved	Objective for 2017	Reference to AR
Operational management	■ Anchor CSR in the planning and control cycle. ■ Map out DNB's value chains and identifying potential improve-ments. ■ Enhance sustainable procurement by including the RVO criteria in European procurement projects for relevant product groups and also applying social criteria where possible. ■ Increase diversity and ensuring employees are permanently employa-ble, for example by putting the Talent to the Top charter into practice (at least 32% of management positions held by women), and maintain a low sick leave percentage. ■ Contribute to the financial education of people in the Netherlands by participating in the Mo-ney Week, increasing the number of visitors to DNB's visitor centre and stepping up cooperation with Child Youth Finance International. ■ Comply with CSR criteria in areas such as the environment and energy saving, and contribute to the DNB-wide CSR policy by, among other things, keeping DNB's in-house emergency response plans up-to-date, ensu-ring DNB is clima-te-neutral, maintaining ISO 14001 certification, arranging for residual waste to be removed by clean, quiet vessels, and launching at least two IT projects aimed in part at reducing DNB's environmental impact.	■ CSR has been embedded in the planning and control cycle as the CSR objectives are reported on twice a year. When drafting the objectives for 2017, CSR aspects were checked as part of the planning and control cycle. ■ Potential improvements based on the value chains were not identified. This has now been incorporated into the goals for 2017. ■ Drew up RVO criteria for four of the 29 European procurement projects and multiple private tenders (above EUR 50,000) completed in 2016. These criteria were also applied in all four cases. No social criteria were applicable to these tender procedures. ■ Explored the topic of circular procurement. ■ Women held 32% of mana-gement positions. ■ The sick leave percentage for 2016 stood at 2.83%. ■ Contributed to financial education by providing 75 guest lessons during Money Week. ■ 22,485 people visited the visitor centre. ■ DNB was represented on Child Youth Finance International's board. ■ DNB's in-house emergency response plans were updated. ■ DNB was climate-neutral owing to the fact it offset its remaining CO_2 emissions. ■ ISO 14001 certification was maintained. ■ Emission-free, electric cargo vessels transported residual waste from the Amsterdam premises to a processing site within Amsterdam, where the waste was used to produce a new, certified product in the form of high-grade pellet fuel. ■ Three projects with environ-mental impact reduction targets have been started. ■ All employees completed the 'Bewust & Alert met informatie' ('Treating information carefully') e-learning course. ■ The operational compliance approach was continued with satisfactory results.	■ HR will develop the diversity policy and monitor its implemen-tation, including the achievement of targets in the area of participation (people with disabilities) and the implemen-tation of the Talent to the Top charter (32% of management positions held by women). ■ 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 DNB are able to perform their work in a healthy and safe environment. ■ DNB's programme on accommo-dation and ICT will specifically take sustainability and conserving energy into account when developing proposals for future accommodation and partial outsourcing. ■ As part of the "Work Differently" ("Anders werken") project, a new working environment is being developed that pays specific attention to the sustainability and reusability of materials and to reducing the environmental impact of using single use products. ■ Streamline and upgrade DNB's offering of financial education tools/teaching materials (in the context of financial education). ■ IAD will devote attention to embedding CSR processes in the organisation by means of audits. ■ RMS will devote attention to embedding CSR processes by means of QA activities. ■ Make efforts to develop virtual meetings and cooperation at DNB and within the system (introduction of Skype for business purposes, expansion of videoconferencing).	

Material CSR policy area	Objective for 2016	Actions and results achieved	Objective for 2017	Reference to AR
	■ Continue improvement programmes in the area of information security and fraud risk management. ■ Continue the operational compliance approach in an effective manner.			5.5

Annex 2 Stakeholder dialogue with DNB

Stakeholders	Form of dialogue	Outcomes	Follow-up by DNB
Employees	Information sessions, discussion meetings, lunches with Governing Board members, Employees Council.	The Governing Board presented and discussed important changes (strategy, reconfiguration of internal operations, pay structure redesign) at bank-wide sessions.	Employees and management are constantly invited to provide input and share their thoughts on developments relating to DNB.
Public	Reputation measurement among financial citizens (quarterly).	The average reputation score for 2016 was 70.3. This is a clear improvement on the score of 66.2 in 2015.	Reputation measurement will be continued by a different party (following a tender procedure).
External stakeholders	Talks were held with a diverse group of external experts, including members of management boards, academics, politicians, journalists and supervisors at other institutions, for the purpose of reviewing the strategy. The results of these talks were discussed with the Governing Board and division directors at an off-site meeting.	Talks with outside parties provided a basis for identifying the main trends and developments and for determining how DNB needs to adjust its strategy and policy in response.	DNB's mission has been communicated widely and forms the starting point for policy-making, DNB's budget and the division's annual plans.
Providers and users of payment systems	The National Forum on the Payment System meets twice a year and includes a number of working groups.	Through the National Forum on the Payment System, DNB promoted the development of a system of instant payments. Research was carried out into bank account number portability, and the consequences of new technological developments were discussed.	DNB pays constant attention to the availability and accessibility of payment methods and continues 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.	The sector believes DNB is well-informed about relevant developments, engages well in dialogue, and is persistent. Attention needs to be paid to increasing transparency and to cooperation between supervisors within DNB.	Feedback concerning the follow-up is given to stakeholders that participated in the annual stakeholder analysis and provided through DNB's 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 with responsibility 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 announced. There was a controlled rise in supervision costs.	The feedback from the sector is taken into consideration when drawing up and interpreting legislation and regulations, and helps ensure cooperation with the sector is effective and efficient.
Bank Council	The Bank Council meets four times a year, in 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 pursued by DNB. The members of the Bank Council may also place items on the agenda.	The Bank Council acts as a sounding board for the Governing Board. The Bank Council may advise the Governing Board. The discussions that take place provide DNB with input for strategic decision-making.
All	Round tables on CSR dialogue. A member of DNB's Governing Board attended a number of external meetings with NGOs, for instance as a panel member, to discuss sustainability and climate issues.	Materiality analysis. Identification of material topics and areas where DNB can provide added value.	Prioritisation of CSR issues. DNB plays a role in promoting sustainability in the financial sector.

Annex 3: Data on energy consumption

Measured data	Unit	2016[1]	2015[2]	CO_2- parameter[3]
Energy				
Purchased green electricity	kWh	12,731,136	13,456,477	0 kg CO_2/kWh
Natural gas	m^3	949,266	1,214,142	1,884 kg CO_2/m3 gas
Diesel for energy supply	litres	17,994	14,984	3.23 kg CO_2/litre diesel
Commuting				
Public transport	km	13,117,563	13,103,326	0.061 kg CO_2/km
Passenger vehicles (private)	km	4,388,503	6,304,774	0.22 kg CO_2/km
Lease cars, petrol[4]	litres of petrol	48,287	N/A	2.74 kg CO_2/litre
Lease cars, diesel[4]	litres of diesel	46,151	N/A	3.23 kg CO_2/litre
Business travel				
Passenger vehicles (business mileage, private vehicles)	km	568,017	560,269	0.220 kg CO_2/km
Passenger vehicles (lease cars, petrol)	litres of petrol	40,457	47,136	2.74 kg CO_2/litre
Passenger vehicles (lease cars, diesel)	litres of diesel	38. 667	38,230	3.23 kg CO_2/litre
Passenger vehicles (lease cars, electric)	kWh	4,228	1,067	0.526 kg CO_2/kWh
Air travel, regional (< 700 km)	km	1,345,022	1,484,521	0.297 kg CO_2/ passenger km
Air travel, European (< 2,500 km)	km	1,576,718	1,741,696	0.200 kg CO_2/ passenger km
Air travel, global (> 2,500 km)	km	4,754,967	5,413,929	0.147 kg CO_2/ passenger km
International train travel	km	940,952	921,030	0.039 kg CO_2/ passenger km
Goods and passenger transport				
Passenger vehicles for passenger transport	litres of petrol	4,713	6,010	2.74 kg CO_2/litre
Passenger vehicles for passenger transport	litres of diesel	2,524	3,534	3.23 kg CO_2/litre
Lorries for goods transport	litres of diesel	2,689	3,495	3.23 kg CO_2/litre

1 The 2015 reporting period runs from 1 October 2014 to 30 September 2015, inclusive.
2 The 2016 reporting period runs from 1 October 2015 to 30 September 2016, inclusive.
3 Source: www.co2emissiefactoren.nl (in Dutch).
4 These figures have been included for the first time. Past calculations were based on kilometres travelled. As from 2016, litres of petrol and diesel may be reported.

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		De Nederlandsche Bank N.V.
G4-4	Primary products and/or services	www.dnb.nl under 'About DNB', 'Duties'	
G4-5	Location of the organisation's headquarters		Amsterdam
G4-6	Countries where the organisation operates	www.dnb.nl under 'About DNB', ' Organisation'	
G4-7	Legal form		Public limited liability company (naamloze vennootschap), Dutch State is sole shareholder.
G4-8	Markets served and types	www.dnb.nl under 'About DNB', 'Duties'	
G4-9	Scale of the organisation	AR Table 5.1	
G4-10	Total number of employees	AR Table 5.1	
G4-11	Percentage of total employees covered by collective labour agreement		All employees are covered by the collective labour agreement.
G4-12	Organisation's supply chain	AR 5.2, figures 5.1 and 5.4.4	
G4-13	Significant changes		No significant changes in the organisation's ownership structure had occurred as at 31 December 2016.
G4-14	Explanation of the application of the precautionary principle by the reporting organisation	AR 5.7	
G4-15	Externally developed economic, environmental and social charters and principles which the organisation endorses	- Talent to the Top Charter - ISO 14001:2015 - RVO criteria - UN Principles for Responsible Investment - UN Global Compact	
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 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 5.3.2	
G4-20	Scope of material aspects within the organisation	AR 5.3.2	

GRI G4 Reference:	Description	Reference to AR or website	Direct response:
G4-21	Scope of material aspects outside the organisation	AR 5.3.2	
G4-22	Effect of any restatements of information provided in previous reports, and the reasons for such restatements	AR 5.3 Review of the ambitions that implement the mission. Figure 5.1. *Adjustment of value creation model.*	
G4-23	Significant changes from previous reporting periods in the scope and aspect boundaries	AR 5.3.3 Reformulation of material topics based on outcomes of stakeholder dialogue, CSR plan and inclusion of material topics in planning and control cycle. Design of GRI G4 table and summary of CSR table based on this reformulation, and introduction of own indicators for material topics. No new indicators have been introduced in the area of business operations.	
Stakeholder engagement			
G4-24	List of stakeholders	Annex 2 *Stakeholder dialogue*	
G4-25	Selection of stakeholders	AR 5.3.1	DNB's stakeholders are people and organisations that DNB works with or that attach importance to the work, role and influence of DNB as a public body with a social mission. The stakeholders with whom DNB has engaged in dialogue were chosen by performing an analysis to identify the parties liable to be positively or negatively affected by DNB's core tasks.
G4-26	Approach to stakeholder engagement	AR 5.3.1	
G4-27	Topics raised by stakeholders	Annex 2 *Stakeholder dialogue*	
Report profile			
G4-28	Reporting period		1 January 2016 - 31 December 2016
G4-29	Date of most recent previous report		24 March 2016
G4-30	Reporting cycle		Annual
G4-31	Contact point		mvo@dnb.nl
G4-32	'In accordance' option		Core
G4-33	External assurance	*Annex 5, under Assurance report*	Moderate degree of assurance

GRI G4 Reference:	Description	Reference to AR or website	Direct response:
Governance			
G4-34	CSR governance structure	AR Box headed CSR Committee and general section on governance	
Ethics and integrity			
G4-56	Compliance and integrity programme	AR 5.5.2	
DMA		AR 5.3, Box headed CSR *Committee*, Annex 1 and Annex 5	
Specific material indicators reported by DNB in accordance with GRI			
Material aspect: Business operations			
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 4	
Indicator: G4- EN32	Sustainable procurement	AR 5.5.4	Checks are performed in all procurement projects and tender procedures to determine whether RVO criteria are available. If this is the case, the criteria are applied.
Financial education			
Indicator: G4 Product and service labelling		AR 5.5.5	
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, DNB does not discriminate between employees on the basis of gender, ethnic background, religion, sexual orientation or other characteristics.
Indicator: G4-LA10	Training and education	AR 5.5.1	
Integrity			
Indicator: G4-HR3	Integrity breaches	AR 5.5.2 and table 5.6	

GRI G4 Reference:	Description	Reference to AR or website	Direct response:
Material aspect: Payment systems			
G4-EN30	Transport of banknotes	AR 5.4.3, paragraph headed *Sustainability*	
G4-FS14	Accessibility of payment terminals	AR 5.3.3, paragraph headed *Main activities and outcomes in 2016*	
DNB 1: Use of sustainable cotton	Percentage of sustainable cotton	AR 5.3.3, paragraph headed *Sustainability*	
Material aspect: Financial Markets			
G4-FS11	Assets subject to screening	AR 5.8.2	
Material aspect: Supervision			
DNB 2: Support sustainability based on supervisory role	Support sustainability based on supervisory role	AR 5.4.4	
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 5.3.1, section headed *Advisory role in economic policies*	
Material aspect: Stakeholder management			
DNB 4: Organising stakeholder holder management to promote sustainable funding.	Sustainable Finance Platform and launch of working groups	AR 5.3.1 vision on *CSR stakeholder dialogue and* AR Box headed *Sustainable Finance Platform*	
DNB 5: Reputation score from Prof. van Riel (stakeholder management KPI)	Reputation score	CSR table and Annex 2 *Stakeholder dialogue*	

Aspect boundaries

This report has been prepared 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. DNB's material activities were selected on the basis of a stakeholder dialogue and materiality analysis (see Section 5.3). DNB reports on its material activities in Annex 4. Coordination is handled by the CSR Committee with the direct involvement of 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), DNB aims to further integrate reporting on sustainability in its 2017 Annual Report.

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

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

With respect to all policy areas, the mission and the eleven ambitions (see Section 5.1) are safeguarded in an integrated planning and control cycle, in which the long-term ambitions are translated into annual priorities. The objectives in each policy area are also laid down in division plans and SMART objectives for employees. Progress is monitored 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 (RMS) department ensure the reported progress is challenged. Based on this input, the Governing Board is reported to once a quarter. 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.

Annex 5 Method of management and evaluation

Policy area	Definition	Why is the topic material?	Scope	Line manager	Method of management and evaluation
Supervision (§ 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.	Supervision is considered to be a material area by both DNB and stakeholders, as DNB, in its supervisory role, is able to raise and promote awareness of sustainability and CSR throughout the financial sector.	Internal and external impact: ■ Employees working in the area of Supervision ■ Supervised institutions	Supervision Policy Division Director Directors of operational supervision divisions Financial Stability Division Director	See main text at the top of this Annex; passage on method of management and evaluation.

Policy area	Definition	Why is the topic material?	Scope	Line manager	Method of management and evaluation
Economic Advice and Analysis (§ 5.4.1)	Socially responsible fulfilment of the advisory and analysing role.	Economic advice and analysis is considered to be a material area by both DNB and stakeholders, as DNB, in its economic advisory role, can influence Dutch society.	External: influencing Dutch society.	Economics and Research Division Director	See main text at the top of this Annex; passage on 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).	This topic is considered to be a material area by both DNB and stakeholders, as DNB can play a key role in promoting awareness of sustainability and CSR	Impact within and outside the organisation: see Annex 2 on Stakeholder Dialogue	Chair of CSR Committee Head of Communications Department	The Sustainable Finance Platform (see Box 5.2) was set up with the object of promoting and increasing awareness of sustainable funding 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. Each of these working groups is sponsored by a director of a financial institution, who is the face of the working group. The working groups present their findings to the platform. The platform may then provide feedback to each working group. DNB's reputation is measured by the Corporate Communication Centre. The survey is carried out among financial citizens, i.e. residents of the Netherlands whose interest in, and knowledge of, the financial world is above average.

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, DNB considers 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.	Impact within and outside the organisation ■ DNB employees ■ Suppliers of banknotes (as regards the use of sustainable materials) ■ Dutch society (as regards the accessibility of the payment system)	Cash and Payment Systems Division Director	See main text at the top of this Annex; passage on method of management and evaluation.
Financial markets (§ 5.8)	Include CSR aspects in investment policy and communicate this externally.	Although stakeholders consider this area to be less high-impact, DNB considers it to be material as both DNB and the stakeholders are of the opinion that DNB must set a good example with its own investments.	Impact within the organisation	Financial Markets Division Director	Socially responsible investment goes hand in hand with achieving the targets for returns on investment. DNB will go way beyond the legal requirements wherever possible. Currently, negative screening is applied to the equity portfolio, on the basis of which equities issued by companies that are screened out (e.g. manufacturers of controversial weapons) are excluded from the portfolio. With regard to the existing bond portfolio, ESG factors are taken into consideration indirectly when setting limits. In addition, DNB invests in development banks and also green bonds where possible.

Policy area	Definition	Why is the topic material?	Scope	Line manager	Method of management and evaluation
Business operations and support divisions (§ 5.5)	Socially responsible operations.	Although stakeholders consider this area to be less high-impact, DNB considers it to be material as both it and the stakeholders are of the opinion that DNB must set a good example in its own operations.	Impact within and outside the organisation	Secretary-Director Head of Facility Management Head of Finance Head of Communications Head of Security & Transport Head of Compliance & Integrity	See main text at the top of this Annex; passage on method of management and evaluation. Moreover, a number of specific measures and/or facilities are used for the elements relating to business operations: ■ A risk inventory and evaluation (RI&E) is used for the theme of occupational health. ■ The DNB Environmental Management system is used for the theme of environment. The related manual. ■ With regard to the theme of diversity, DNB focuses on increasing the number of women participating in the in-house leadership programme. ■ 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, DNB has confidential advisers, a whistle-blower scheme and a complaints committee that handles internal and external complaints.

Structure of annual report

As explained in Section 5.3, corporate social responsibility follows on directly from DNB's mission and it has been integrated in all core tasks. This is because DNB is an organisation under public law that is dedicated to the public interest of 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, DNB's core tasks. In these chapters, DNB takes a look ahead and describes how it is responding to the most important risks and challenges. Chapter 5 reflects on the activities in 2016 and the results that were achieved. 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 and the central control of the Economic Policy and Research division and the Communications department, with input provided by the CSR Committee. The IAD and the external auditor verified the Annual Report. DNB 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.

DNB's vision on, and approach to, CSR has been strengthened further since the previous annual report. By setting up the CSR Committee and establishing a Charter, DNB gave substance to its CSR priorities in a more structural manner. Moreover, by placing the emphasis on sustainability in its primary tasks and not solely on internal operations, DNB expanded its focus and objectives. Annex 1 provides a more detailed explanation of the objectives for the past year and the year ahead in the material policy areas.

No changes have been made to definitions and measurement methods, with the exception of the carbon consumption of lease cars, which was calculated on the basis of kilometres travelled in 2015 and on the basis of litres of petrol and diesel in 2016.

Moreover, many of DNB's 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 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 DNB's CO_2 emissions as shown in Table 5.7.

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

G20 Green Finance Study Group: G20 working group that conducts research into barriers to green finance and analyses options for enhancing the ability of the financial system to mobilise private green investment.

InnovationHub: a help desk that enables entrepreneurs and existing market participants wanting to launch innovative financial services or products to put questions concerning regulation 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.

Reputation score: the score for DNB's reputation, which is measured once a month by Erasmus University Rotterdam (Prof. van Riel). The score is based on a sample of residents of the Netherlands whose interest in, and knowledge of, the financial world is above average (financial citizens).

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

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

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

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

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

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.

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

Time for Transition: a DNB study looking at the consequences of energy transition for the Dutch economy.

Scope and aspect boundaries

The information in the CSR reporting relates to the 2016 reporting year (1 January to 31 December), with the exception of the environmental data, for which the reporting period is the fourth quarter of 2015 to the third quarter of 2016, inclusive. Chapter 5 is therefore the fulfilment of DNB's obligation to account to external stakeholders for sustainability in the past year. In Chapters 1 to 4, DNB looks ahead and describes the main developments and risks identified by DNB and their consequences for policy, including in the area of CSR where applicable.

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

DNB's reputation is measured once a quarter by Erasmus University Rotterdam. In 2016, DNB achieved its highest reputation score since 2011, when this measurement started. DNB's score of 69.2 in the fourth quarter brought the average score for the year to 70.3. In 2017, DNB's reputation will be measured by a different party.

Chart 5.5 Reputation score (Prof. van Riel)

In addition, every year, DNB takes part in the Ministry of Economic Affairs' Transparency Benchmark on CSR reporting. The Ministry of Economic Affairs defines the benchmark criteria and arranges the annual benchmarking in order to learn about the transparency of CSR reporting by the Netherlands' largest enterprises. The table below shows DNB's score in the transparency benchmark and its ranking compared to other organisations. The assessment of this Annual Report will take place in the second half of 2017, and the results of this assessment will be published online.

Table 5.13 DNB's score in Transparency

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

www.transparantiebenchmark.nl

Verification

To ensure an objective and independent assessment, DNB asked Deloitte Accountants B.V. to review its CSR reporting in the 2016 Annual Report. The purpose of the exercise was to obtain a moderate degree of assurance that the CSR report and the accompanying notes and disclosures are free from material misstatements and have been prepared in accordance with GRI G4 guidelines. Deloitte Accountants B.V. has issued an assurance report stating that nothing has come to their notice that would cause them to conclude that the information in the CSR report, in all material aspects, is not a reliable and accurate reflection of DNB's policy. The assurance report has been included on page 154.

Independent auditor's assurance report

To the Governing Board, the Supervisory Board and the General Meeting of Shareholders of De Nederlandsche Bank N.V. and other stakeholders.

Our conclusion

We have reviewed the CSR information as presented in Chapter 5 of the 2016 Annual Report of De Nederlandsche Bank N.V. in Amsterdam, examining the paragraphs "CRS priorities" in Sections 5.4.1, 5.4.3 and 5.4.4, Sections 5.5.1 through 5.5.5, 5.6.1., 5.8.2, and CSR Annexes 1 and 4 to the Annual Report. 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 2016

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 2016

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 "Our responsibilities for the review of the CSR information" section of our report.

We are independent of De Nederlandsche Bank N.V. in accordance with the Code of Ethics for Professional Accountants (Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten – ViO) and other relevant independence regulations in the Netherlands. 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 skepticism throughout the audit, in accordance with Dutch Standard 3810N, ethical requirements and independence requirements.

Amsterdam, 29 March 2017

Deloitte Accountants B.V.

Ronald Spijker

Report of the Supervisory Board

6 Report of the Supervisory Board

6.1 Introduction

In 2016, 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). The Supervisory Board was also involved in the transformation of DNB's internal organisation. DNB's supervision focused on its policy and processes regarding the fit and proper assessment of executive and supervisory board members in the financial sector. The Supervisory Board welcomed the growing prominence and broader incorporation of sustainability in all DNB's activities. These and other topics fostered the Supervisory Board's involvement in the work undertaken by the Governing Board in 2016, contributing to the effectiveness of the former's internal supervisory role.

6.2 Composition and appointments

The composition of the Governing Board remained unchanged in 2016. The composition of the Supervisory Board changed as follows. The shareholder appointed Marry de Gaay Fortman as member as of 1 July 2016, succeeding Bert van Delden, who resigned from the Supervisory Board on 30 October 2016 on completing his third term. The shareholder appointed Feike Sijbesma and Kees Goudswaard as members of the Supervisory Board for a second term of four years as of 1 September and 1 October 2016, respectively.

The Supervisory Board welcomes Marry de Gaay Fortman to its ranks and is equally grateful to Feike Sijbesma and Kees Goudswaard for their continued commitment to its work. The Supervisory Board owes Bert van Delden a great debt of gratitude for his valuable contribution to its work for twelve years, with which he undeniably added to the functioning of DNB and its pivotal role in the national and international social system.

As there were no appointments or reappointments to the Governing Board in the year under review, the Governing Board diversity remained unchanged. The male/female mix on the Supervisory Board changed as a result of the appointment of Marry de Gaay Fortman and the resignation of Bert van Delden. 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, competencies and personality.

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 2016 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. Aiming to comprise a number of members deemed suitable for the current situation, the Supervisory Board continues to seek the accession of an eighth member, preferably a candidate with a background in the financial sector.

The participation of Supervisory Board members in the Bank Council changed in 2016. Annemieke Nijhof continued her membership of the Bank Council in her capacity as government-appointed Supervisory Board member throughout 2016. Bert van Delden, who had been designated by the Supervisory Board as Bank Council member, resigned from the Bank Council on 30 October 2016. The Supervisory Board appointed Kees Goudswaard as member of the Bank Council as of 1 November 2016.

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 Supervisory and Governing Board and the other positions that their members hold can be found on DNB's website.

6.3 Activities

During the year under review, the Supervisory Board held nine plenary meetings. The Governing Board was not present at part of each of these meetings. The average attendance rate of its members was almost 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. The activities of the Supervisory Board's 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 2016 in the Audit Committee and in its plenary meetings. These discussions were based on the Accounting and Financial Markets 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 2016 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 2016, as is evident from the ECB's decision in December 2016 for another extension of the purchase of government bonds under the expanded asset purchase programme (APP). 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 2016 financial year to add another EUR 500 million to the provision for credit and interest rate risk. The net profit for 2016 came to EUR 43 million (2015: EUR 183 million), and the distribution to the Dutch State amounted to EUR 41 million. DNB again refrained from distributing an interim dividend for the 2016 financial year. No gold sales took place in 2016. From time to time, the Supervisory Board discusses the Governing Board's considerations concerning the gold stock.

The Supervisory Board discussed the 2016 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 of shareholders. On 29 March 2017, 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 2017, including the Independent Public Body Budget, on 18 November 2016 and approved it. The Supervisory Board established that the internal operational and control instruments, such as the planning and control cycle and the risk management and control system, operated effectively and welcomed the Governing Board's attention to ongoing further strengthening.

At the Supervisory Board's request, and bearing in mind DNB's special position as a central bank, supervisory authority and resolution authority, the Governing Board designated the Secretary-Director as the first point of contact for balance sheet-related issues of the DNB organisation.

Having been discussed by the Supervisory Board and the Governing Board, the Independent Public Body Budget was reviewed 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 budget agreements on supervision costs include a new multi-annual financial framework for 2017-2020, which the Minister of Finance approved on 8 July 2016. It contains a 1.75% target for 2017, rising to 7% in total by 2020. The Supervisory Board is pleased to see that DNB exercises its supervision within the agreed framework and that the Governing Board advocates cushioning the retrenchments by means of internal cost-cutting measures and prioritisation.

The Supervisory Board devoted particular attention to DNB's internal organisation in 2016. On taking office as Secretary-Director on 1 February 2016, Nicole Stolk embarked on the reconfiguration of DNB's internal operations based on a dedicated strategic plan for 2016-2020 (Meerjarenplan Intern Bedrijf 2016-2020), striving for the provision of state-of-the-art and cost-effective services. In 2016, DNB also redefined its mission statement "Working on trust" and the ambitions and core values based on it: committed, open, dependable and alert. On the subject of DNB's long-term housing policy, the Supervisory Board adopted the proposed decision to relocate its gold vaults and banknote activities. On 20 December 2016 agreement was reached on a new collective labour agreement effective from 1 January 2017, implementing a new pay structure consistent with the general labour market median. The Supervisory Board welcomes this step. Given the Governing Board's responsibility to tie the pay structure in with DNB's demands and current labour market conditions, the Supervisory Board is convinced that the new pay structure will enable DNB to continue recruiting excellent staff.

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. Of the subjects addressed elsewhere in this report about which the Supervisory Board was advised or informed by its three committees, the Supervisory Board repeatedly discussed the pay structure redesign, DNB's long-term housing policy, reinforcement of DNB's policy and processes regarding the fit and proper assessment of executive and supervisory board members in the financial sector, and realignment of its policy and processes regarding the fit and proper assessment of new Governing Board and Supervisory Board members.

In the context of its three continuing professional training sessions in 2016, the Supervisory Board engaged in dialogue with representatives from the banking, insurance and pensions sectors, also comprising in-depth presentations on topics including the exploratory study by the Social and Economic Council of the Netherlands of personal pension assets with collective risk sharing. At a separate meeting with the Governing Board, the Supervisory Board discussed DNB's strategic challenges, zooming in on DNB's position in a changing Europe, market environment and society, and the conditions for DNB to continue operating effectively. By being in contact with management and staff more frequently, the Supervisory Board members obtain a better view of DNB's corporate culture and dynamics. The Supervisory Board and the Governing Board discuss how DNB's corporate culture contribute to the desired behaviour and actions of the organisation.

The Supervisory Board member appointed in 2016 participated in an orientation programme. 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 Supervisory Board designated Marry de Gaay Fortman as the first point of contact for the Employees Council. The Supervisory Board's regular plenary meeting with the Employees Council was held on 18 November 2016. In addition, members of the Supervisory Board paid working visits to various DNB divisions without the Governing Board being present. The Chair of the Supervisory Board and the Chair of the Audit Committee meet with the Head of the Compliance and 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 early 2016.

The Supervisory Board assessed its own performance in 2016 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

Until 1 October 2016, the Audit Committee consisted of Kees Goudswaard (Chair), Wim Kuijken and Margot Scheltema. Wim Kuijken resigned from the Audit Committee on the same date. There are no vacancies. The Audit Committee met four times in 2016. 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 committee advised the Supervisory Board to adopt the 2016 financial statements and to approve the Independent Public Body Report for 2016. When discussing the 2017 budget, the Audit Committee concluded that the budget is transparent and sound. It therefore advised the Supervisory Board to approve the 2017 DNB budget and the 2017 Independent Public Body Budget. In 2016, 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. It also confers about such updates on payments and statistics, the quarterly reports issued by the Compliance and Integrity Department, and the Accounting and Financial Markets reports. Other subjects on which the Audit Committee advised the Supervisory Board included the proposed relocation of the gold vaults and banknote activities and adjustments to the charter of DNB's Risk Management Committee. Having addressed the proposed amendments to the Corporate Governance Code applied by DNB on a voluntary basis at one of its earlier continuing professional training sessions, the Audit Committee endorsed DNB's detailed response to these amendments.
The Supervisory Board concurs with the Audit Committee that the former's members should increase their knowledge of new technologies and business models. The Audit Committee and the Secretary-Director discussed reinforcing DNB's internal operational risk management framework. The committee advocates firmly anchoring the internal audit function to the internal organisation, supporting the strategic reorientation of the IAD.

The Audit Committee regularly meets with the 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) and Wim Kuijken, with Marry de Gaay Fortman joining as of 1 September 2016. There are no vacancies. The Remuneration and Appointments Committee met eight times in 2016. Each meeting was attended by all members, and by the President.

The committee paid attention to the composition of the Supervisory Board, including the vacant financial sector profile position, and aspects concerning remuneration of the Governing Board. It spoke with the President about his performance and that of the other Governing Board members, following the Supervisory Board's annual evaluation. As laid down in the 2010 action plan for a change in the conduct of supervision, the Remuneration and Appointments Committee regularly assesses the Governing Board for its effectiveness and dynamics. The Supervisory Board's role in compliance matters, for instance assessing the compatibility of secondary posts, also comprises periodic meetings with the shareholder, which the Remuneration and Appointments Committee also discussed. The committee also advised the Supervisory Board on the latter's realignment in 2016 of its policy and processes regarding the fit and proper assessment of new Governing Board and Supervisory Board members.

6.6 Supervision Committee

Until 1 November 2016, the Supervision Committee consisted of Jaap van Manen (Chair), Bert van Delden, Annemieke Nijhof and Margot Scheltema, when Bert van Delden resigned from the committee and Marry de Gaay Fortman joined the committee as a member. There are no vacancies. The Supervision Committee met five times in 2016. Each meeting was attended by all members, DNB's two Executive Directors of Supervision and a number of internal officers from the relevant areas. The committee's agenda is based in part on an annual agenda and in part on current events. In 2016, the meetings again focused on a combination of practical cases, current policy issues and building a deeper understanding of various supervisory topics including reinforcement of DNB's policy and processes regarding the fit and proper assessment of executive and supervisory board members in the financial sector, in which context the committee paid particular attention to the report of the Ottow Committee, which met with Supervisory Board members for the purpose of its report. The Supervisory Board will continue to call for attention to this topic at its plenary meetings. The Supervision Committee met with the Executive Directors of Supervision to discuss the future of the Dutch insurance sector, supervision of trust offices, integrity supervision, improvement of market access to the banking sector and shifts in the activities of the financial sector. In part in response to an in-depth Supervision Committee session on the impact of technological innovation on the financial sector, the Supervisory Board discussed the related opportunities and risks with the Governing Board. The Supervision Committee continued to enquire into the experiences with the SSM in 2016. The Chair of the Supervision Committee met with staff of the Netherlands Court of Audit (Algemene Rekenkamer) to discuss the latter's examination at the Ministry of Finance and DNB into prudential supervision of less significant banks in the Netherlands. 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. In preparation for the Independent Public Body Budget for 2017, the Supervision Committee took account of the Supervision Outlook. It also reviewed the Independent Public Body Report. The Supervision Committee, like the Audit Committee, advised the Supervisory Board to approve the Independent Public Body Budget for 2017 and the Independent Public Body Report for 2016. With the Executive Directors of Supervision, the Supervision Committee assessed the evaluation of the Prudential Supervision Council's decision-making and of specific supervision cases, 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 2016. This was driven not only by external developments, such as changes in the global playing field, pressure on the Economic and Monetary Union, and growing Euroscepticism and populism. The internal organisation was confronted with changes as well, including the pay structure redesign, the implementation of the dedicated strategic plan for 2016-2020, and the proposed relocation of the gold vaults and banknote activities. The Supervisory Board would like to take this opportunity to express its appreciation for the commitment and dedication of DNB's staff and its Governing Board, and confidently looks forward to its continued cooperation with the Governing Board in 2017.

Amsterdam, 29 March 2017

The Supervisory Board of
De Nederlandsche Bank N.V.

Wim Kuijken, Chair

Financial statements

Balance sheet as at 31 December 2016 (before appropriation of profit)

Millions

		31 December 2016	31 December 2015
	Assets	EUR	EUR
1	Gold and gold receivables	21,622	19,164
2	Claims on non-euro area residents denominated in foreign currency	12,872	15,993
2.1	Receivables from the International Monetary Fund (IMF)	7,235	8,042
2.2	Balances with banks and security investments, external loans and other external assets	5,637	7,951
3	Claims on euro area residents denominated in foreign currency	672	231
4	Claims on non-euro area residents denominated in euro	1,013	359
5	Lending to euro area credit institutions related to monetary policy operations denominated in euro	16,552	13,000
5.1	Main refinancing operations	20	315
5.2	Longer-term refinancing operations	16,532	12,685
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	302	240
7	Securities of euro area residents denominated in euro	97,100	56,527
7.1	Securities held for monetary policy purposes	77,891	39,517
7.2	Other securities	19,209	17,010
8	Intra-Eurosystem claims	136,801	102,139
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 instruments	0	0
8.4	Net claims related to the allocation of euro banknotes within the Eurosystem	47,449	44,729
8.5	Other intra-Eurosystem claims (net)	86,550	54,608
9	Other assets	3,392	2,783
9.1	Euro area coins	0	10
9.2	Tangible and intangible fixed assets	238	262
9.3	Other financial assets	1,713	1,584
9.4	Off-balance sheet instruments revaluation differences	0	0
9.5	Accruals and prepaid expenses	1,424	887
9.6	Sundry	17	40
	Total assets	**290,326**	**210,436**

Amsterdam, 29 March 2017
The Governing Board of De Nederlandsche Bank N.V.

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

		31 December 2016	31 December 2015
	Liabilities	EUR	EUR
1	Banknotes in circulation	58,929	56,690
2	Liabilities to euro area credit institutions related to monetary policy operations denominated in euro	170,959	114,399
2.1	Current accounts (covering the minimum reserve system)	143,171	98,260
2.2	Deposit facility	27,788	16,139
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	145	0
4	Liabilities to other euro area residents denominated in euro	1,898	1,360
4.1	General government	1,366	85
4.2	Other liabilities	532	1,275
5	Liabilities to non-euro area residents denominated in euro	21,172	4,062
6	Liabilities to euro area residents denominated in foreign currency	0	0
7	Liabilities to non-euro area residents denominated in foreign currency	107	0
8	Counterpart of special drawing rights allocated by the IMF	6,165	6,156
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	618	348
10.1	Off-balance sheet instruments revaluation differences	313	208
10.2	Accruals and income collected in advance	81	69
10.3	Sundry	224	71
11	Provisions	1,016	516
12	Revaluation accounts	21,347	18,804
13	Capital and reserves	7,927	7,918
13.1	Issued capital	500	500
13.2	General reserve	7,392	7,381
13.3	Statutory reserve	35	37
14	Profit for the year	43	183
	Total liabilities	**290,326**	**210,436**

Amsterdam, 29 March 2017

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 2016

Millions

		2016	2015
		EUR	EUR
1	Interest income	1,230	882
2	Interest expense	(139)	(75)
	Net interest income	1,091	807
3	Realised gains/(losses) from financial operations	102	181
4	Write-downs on financial assets and positions	(20)	(25)
5	Reclassified to [and from] provision for credit and interest rate risks	(500)	(500)
	Net result from financial operations and write-downs	(418)	(344)
6	Fees and commissions income	8	8
7	Fees and commissions expense	(8)	(7)
	Net fees and commissions income/(expense)	0	1
8	Income from equity shares and participating interests	79	63
9	Net result of monetary income pooling	(505)	(166)
10	Other income	175	157
	Total net income	422	518
11	Staff costs	(204)	(204)
12	Other administrative costs	(92)	(86)
13	Depreciation and amortisation of tangible and intangible fixed assets	(49)	(35)
14	Banknote production costs	(39)	(16)
15	Other costs	0	0
16	Capitalised software costs	5	6
17	Corporate income taks	0	-
	Profit for the year	**43**	**183**

Amsterdam, 29 March 2017
The Governing Board of De Nederlandsche Bank N.V.

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

Amsterdam, 29 March 2017
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 2016 and the profit and loss account for the year 2016

1. Accounting policies

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

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

a. unrealised gains from assets and liabilities measured at revalued amounts are recognised as set out under 'General' below;
b. no cash flow statement is included; and
c. a provision for foreign exchange rate, interest rate, credit and gold price risks[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 three respects. The balance sheet item 'Other liabilities to euro area credit institutions denominated in euro' is new compared with the preceding year. The subsequent balance sheet items were renumbered as a result. In addition, the presentation of interest income and interest expense relating to monetary operations changed compared with the preceding year. With effect from the 2016 financial statements, they are presented on a net basis. Both changes are in line with the ESCB accounting policies. Furthermore, the presentation of audit fees changed compared with the preceding year. With effect from 2016, audit fees relate to audit fees paid for the financial year under audit.[2] Audit fees were previously attributed to the financial year in which the services were provided.

Where applicable, comparative figures for 2015 have been restated to facilitate comparison.

De Nederlandsche Bank N.V. (DNB) has been liable to pay corporate income tax since 1 January 2016 due to the introduction of the corporate income tax liability for government enterprises. The tasks assigned to DNB by law are exempt from corporate income tax, however.

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).
2 This change is in line with the method recommended in Dutch Accounting Standard 390.3.

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.

The valuation of securities, other than securities held for monetary policy purposes, is based on data that result in realistic and representative market values. Securities held for monetary policy purposes are accounted for at amortised cost, subject to impairment. Marketable securities held for other than monetary policy purposes (including equity index investments) are valued at the market value prevailing at the end of the reporting period. Price revaluations take place 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 obligations 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 collateral received is not recognised in the balance sheet and does 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[3] 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'.

3 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.[4] 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[5]. 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 interest-bearing claims[6] or liabilities are presented under 'Intra-Eurosystem claims/liabilities' ('Net claims/liabilities related to the allocation of euro banknotes within the Eurosystem').

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4 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.
5 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.
6 Decision of the ECB of 3 November 2016 on the allocation of monetary income of the national central banks of Member States whose currency is the euro (recast) (ECB/2016/36), OJ L 347 of 20 December 2016, p. 26.

For the five years following the year of the cash changeover[7], the intra-Eurosystem positions arising from the allocation of euro banknotes are adjusted in order to prevent significant 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[8] 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 Eesti Pank in 2011, Latvijas Banka in 2014 and Lietuvos bankas in 2015. The adjustment period for Eesti Pank ended on 31 December 2016. For Latvijas Banka it 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[9]. 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.

7 The year of cash changeover is the year in which the Member State concerned introduced euro banknotes as legal tender.
8 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.
9 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.

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 2016 stood at EUR 1,098.05 (31 December 2015: EUR 973.23) per fine troy ounce. The euro value of this item was higher at year-end 2016 compared with year-end 2015 due to an increase in the euro market price of gold.

Millions

	EUR
Balance as at 31 December 2014	19,450
Revaluation 2015	-286
Balance as at 31 December 2015	19,164
Revaluation 2016	2,458
Balance as at 31 December 2016	**21,622**

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

As at 31 December 2016, these claims totalled EUR 12,872 million (31 December 2015: EUR 15,993 million) and can be broken down as follows:

- 2.1 Receivables from the International Monetary Fund (IMF)

On the last business day of the financial year, the receivables totalled EUR 7,235 million (31 December 2015: EUR 8,042 million), The EUR/SDR exchange rate as at 31 December 2016 stood at EUR 0.7846 (31 December 2015: EUR/SDR 0.7857).

Millions

	31 December 2016		31 December 2015	
	SDR	EUR	SDR	EUR
Special drawing rights	4,486	5,718	4,716	6,003
Reserve tranche position	476	607	556	707
Loans	714	910	1,046	1,332
Total	**5,676**	**7,235**	**6,318**	**8,042**

Special drawing rights

As at 31 December 2016, DNB's special drawing rights amounted to EUR 5,718 million (31 December 2015: EUR 6,003 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 6,165 million (31 December 2015: EUR 6,156 million).

Reserve tranche position

The reserve tranche position stood at EUR 607 million as at 31 December 2016 (31 December 2015: EUR 707 million). The Dutch quota was increased from SDR 5,162 million to SDR 8,737 million in February 2016 as part of the 14th quota review. IMF Member Countries are required to make at least 25% of their quotas available in the form of gold or convertible currencies. DNB provided its share in euros. Member States 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. In 2016, several drawings resulted in a net decrease of this position compared with 2015.

Loans

The loans, standing at EUR 910 million as at 31 December 2016 (31 December 2015: EUR 1,332 million), consist of loans to the Poverty Reduction and Growth Trust (PRGT) and the New Arrangements to Borrow (NAB).

Millions

	31 December 2016		31 December 2015	
	SDR	EUR	SDR	EUR
PRGT	124	158	180	229
NAB	590	752	866	1,103
Total	**714**	**910**	**1,046**	**1,332**

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 147 million (31 December 2015: EUR 218 million) and the General Loan Account (GLA) of EUR 11 million (unchanged from 31 December 2015).

The Netherlands pledged SDR 500 million to the GLA and increased this amount to SDR 1,000 million in 2016. SDR 450 million was made available for the ECF, which has since been taken up in full and repaid in part.

The NAB is a credit line which DNB has made available to the IMF as part of the Dutch participation in the IMF. The quota increase in early 2016 also involved a lowering of the NAB limit from SDR 9,044 million to SDR 4,595 million. 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 2016, this item stood at EUR 5,637 million (31 December 2015: EUR 7,951 million).

The table below provides a breakdown of this item:

Millions

	31 December 2016			31 December 2015		
	Foreign currency	EUR	Exchange rate	Foreign currency	EUR	Exchange rate
USD	4,641	4,403	1.0541	7,233	6,644	1.0887
JPY	152,152	1,233	123.40	44,171	337	131.07
AUD	0	0	1.4596	1,445	970	1.4897
Other currencies	0	1		0	0	
Total		**5,637**			**7,951**	

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

Millions

	31 December 2016	31 December 2015
	EUR	EUR
Fixed-income securities	5,412	7,587
Reverse repos	222	361
Nostro accounts	3	3
Total	**5,637**	**7,951**

The table below sets out the maturities of the fixed-income securities:

Millions

	Residual maturity* 31 December 2016				Residual maturity* 31 December 2015			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
USD	**4,179**	1,843	1,176	1,160	**6,301**	3,172	1,948	1,181
JPY	**1,233**	1,233	-	-	**336**	336	-	-
AUD	**-**	-	-	-	**950**	464	231	255
Total	**5,412**	**3,076**	**1,176**	**1,160**	**7,587**	**3,972**	**2,179**	**1,436**

* 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 2016, this item stood at EUR 672 million (31 December 2015: EUR 231 million). It comprises EUR 482 million in USD-denominated fixed-income securities and EUR 190 million in reverse repos.

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

Millions

	Residual maturity* 31 December 2016				Residual maturity* 31 December 2015			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
USD	**482**	360	122	-	**184**	69	115	-
AUD	**-**	-	-	-	**47**	40	7	-
Total	**482**	**360**	**122**	**-**	**231**	**109**	**122**	**-**

* 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 2016, this item stood at EUR 1,013 million (31 December 2015: EUR 359 million), consisting of EUR 371 million in fixed-income securities (31 December 2015: EUR 254 million), EUR 584 million in reverse repos (31 December 2015: EUR 40 million) and EUR 58 million in nostro accounts (31 December 2015: EUR 65 million).

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

Millions

	Residual maturity* 31 December 2016				Residual maturity* 31 December 2015			
	Total	0 - 1 year	1 - 2 years	> 2 years	Total	0 - 1 year	1 - 2 years	> 2 years
EUR	**371**	150	-	221	**254**	-	151	103

* 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 2016, the Eurosystem's claim arising from the item 'Lending to euro area credit institutions related to monetary policy operations denominated in euro' totalled EUR 595,873 million (31 December 2015: EUR 558,989 million). Of this total, lending by DNB to Dutch-based credit institutions amounted to EUR 16,552 million as at 31 December 2016 (31 December 2015: EUR 13,000 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 made by the ECB, including the collateral eligibility criteria. Losses occur only if the counterparty defaults on the repayment and, in addition, the sale of the collateral fails to cover the debt. NCBs may temporarily accept supplementary collateral that fails to meet the eligibility standards. Any losses on such collateral will not be shared across the ESCB. As in 2015 DNB did not have reason to accept supplementary collateral in 2016.

The main refinancing rate was reduced from 0.05% to 0.00% on 16 March 2016 and the deposit rate was also reduced, from -0.30% to -0.40%, on the same date.

- 5.1 Main refinancing operations

Main refinancing operations, amounting to EUR 20 million as at 31 December 2016 (31 December 2015: EUR 315 million), 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. The interest rate is the main refinancing rate adopted by the ECB Governing Council.

- 5.2 Longer-term refinancing operations

Longer-term refinancing operations, amounting to EUR 16,532 million as at 31 December 2016 (31 December 2015: EUR 12,685 million), provide longer-term liquidity. They are usually conducted on a monthly basis, with maturities of 3 to 48 months.

In March 2016 the Governing Council introduced a new series of four targeted longer-term refinancing operations (TLTRO II). These operations have a four-year maturity, with a possibility of repayment after two years. The applicable interest rate for TLTRO II operations depends on the individual lending benchmark of the respective counterparty between the date of allotment and January 2018. The actual rate will be set in 2018 and will be between the MRO rate and the deposit facility rate at the time of the allotment. Given that the actual rate is only known in 2018 and a reliable estimate is not possible at this juncture, the deposit facility rate has been used for calculating the TLTRO II interest for 2016, as this is deemed a prudent approach.

- 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 2015, they were not conducted in 2016.

- 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 2015, no such operations were conducted in 2016.

- 5.5 Marginal lending facility

Counterparties may use this facility (amount outstanding nil at both year-end 2016 and 2015), to obtain overnight liquidity from NCBs at the marginal lending rate against the usual collateral. In 2016, as in 2015, 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 2016, as in 2015, no credits related to margin calls were extended.

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

As at 31 December 2016, this item stood at EUR 302 million (31 December 2015: EUR 240 million) and, as in 2015, it consisted entirely of short-term reverse repos.

7. Securities of euro area residents denominated in euro

As at 31 December 2016, this item stood at EUR 97,100 million (31 December 2015: EUR 56,527 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)[10], the securities markets programme (SMP)[11,12] and the public sector purchase programme (PSPP)[13].

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 2016 the Eurosystem programmes constituting the expanded asset purchase programme (APP), i.e. the third covered bond purchase programme (CBPP3), the ABSPP[14] and PSPP, were supplemented with the corporate sector purchase programme (CSPP)[15] as a fourth component. DNB does not execute the ABSPP and CSPP programmes. From April 2016 until March 2017, the combined monthly APP purchases by the NCBs and the ECB increased from EUR 60 billion to EUR 80 billion on average. In December 2016, the Governing Council decided to continue the net APP purchases after March 2017 at a monthly pace of EUR 60 billion until the end of December 2017 or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its inflation aim. If, in the meantime, the outlook becomes less favourable, or if financial conditions become inconsistent with further progress towards a sustained adjustment of the path of inflation, the Governing Council intends to increase the programme in terms of size and/or duration. The net purchases will be made alongside reinvestments of the principal payments from maturing securities purchased under the APP.

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10 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.

11 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.

12 To hedge against credit and interest rate risks, the Dutch State has extended a guarantee Buffers for crisis-related assets and monetary policy operations (see page 202).

13 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 2016, 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.

14 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.

15 Decision of the ECB of 1 June 2016 on the implementation of the programme for the purchase of investment grade euro-denominated securities issued by non-banking organisations located in the euro area (ECB/2015/10) OJ L 121 of 14 May 2016, p. 20.

As at 31 December 2016, the amounts held by the Eurosystem NCBs under these programmes totalled EUR 1,654 billion (31 December 2015: EUR 803 billion). Of this amount, DNB held EUR 77,891 million (31 December 2015: EUR 39,517 million). The securities purchased under these programmes are valued at amortised cost less any accumulated impairment losses. The amortised cost and market value[16] of the securities held by DNB are as follows:

Millions

	31 December 2016		31 December 2015	
	Amortised cost	Market value	Amortised cost	Market value
	EUR	EUR	EUR	EUR
Covered bond purchase programme	650	675	920	971
Covered bond purchase programme 2	258	270	334	352
Covered bond purchase programme 3	10,692	10,862	7,907	7,913
Securities markets programme	6,087	6,855	7,237	8,233
Public sector purchase programme	60,204	60,755	23,119	23,110
Total	**77,891**	**79,417**	**39,517**	**40,579**

16 Market values are indications derived from market quotations. Where market quotations were unavailable, estimates based on internal Eurosystem models were 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: 185

Millions

	Residual maturity* 31 December 2016				Residual maturity* 31 December 2015			
	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	**650**	415	128	107	**920**	266	417	237
Covered bond purchase programme 2	**258**	145	29	84	**334**	75	145	114
Covered bond purchase programme 3	**10,692**	1,099	1,022	8,571	**7,907**	251	1,119	6,537
Securities markets programme	**6,087**	690	1,487	3,910	**7,237**	1,201	685	5,351
Public sector purchase programme	**60,204**	1,762	3,248	55,194	**23,119**	-	1,817	21,302
Total	**77,891**	**4,111**	**5,914**	**67,866**	**39,517**	**1,793**	**4,183**	**33,541**

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

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

In accordance with Article 32.4 of the ESCB and ECB Statute, all risks relating to the CBPP, SMP, PSPP (in respect of the international or supranational portion), CSPP and ABSPP 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 incurred. The impairment tests of the securities purchased under the programmes described above did not result in the recognition of any impairment losses. Nevertheless, considerable risks owing to the debt crisis remain and may still give rise to losses. Section 5.8 of the Annual Report provides a more detailed discussion of various risks, including the risks to which these portfolios are exposed.

- 7.2 Other securities

As at 31 December 2016, this item stood at EUR 19,209 million (31 December 2015: EUR 17,010 million) and consisted, as in 2015, entirely of fixed-income securities, which are valued at market value.

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

Millions

	Residual maturity* 31 December 2016				Residual maturity* 31 December 2015			
	Total	0-1 year	1-2 years	> 2 years	Total	0-1 year	1-2 years	> 2 years
EUR	**19,209**	9,904	4,880	4,425	**17,010**	4,589	5,574	6,847

* 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 2016, intra-Eurosystem claims totalled EUR 136,801 million (31 December 2015: EUR 102,139 million).

- 8.1 Participating interest in the ECB

This item represents DNB's participating interest in the ECB of EUR 482 million (unchanged from 2015), including EUR 49 million in additional paid up capital.

Pursuant to Article 28 of the ESCB 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 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	Paid-up capital
	%	%	EUR	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	7,621	7,621
Bulgarian National Bank	-	0.8590	93	3
Česká národní banka	-	1.6075	174	7
Danmarks Nationalbank	-	1.4873	161	6
Hrvatska narodna banka	-	0.6023	65	2
Magyar Nemzeti Bank	-	1.3798	149	6
Narodowy Bank Polski	-	5.1230	555	21
Banca Națională a României	-	2.6024	282	11
Sveriges Riksbank	-	2.2729	246	9
Bank of England	-	13.6743	1,480	56
Total non-euro area NCBs	-	29.6085	3,205	120
Total euro area and non-euro area NCBs	**-**	**100.0000**	**10,826**	**7,741**

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

As at 31 December 2016, these claims – arising from the transfer of foreign reserve assets to the ECB – totalled EUR 2,320 million (unchanged from 31 December 2015). 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 47,449 million (31 December 2015: EUR 44,729 million), consists of a net claim of DNB on the Eurosystem relating to the reallocation of euro banknotes (see 'Intra-ESCB and intra-Eurosystem claims and liabilities' and 'Banknotes in circulation' under 'Accounting policies'). 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 2016	31 December 2015
	EUR	EUR
Claims on ECB in respect of TARGET2	87,000	54,728
Due to/from ECB in respect of monetary income	(505)	(166)
Due from ECB in respect of the ECB interim profit distribution	55	46
Total	**86,550**	**54,608**

As at 31 December 2016, this net claim amounts to EUR 86,550 million (31 December 2015: EUR 54,608 million), comprising three components.

The first component concerns a TARGET2 claim on the ECB of EUR 87,000 million (31 December 2015: EUR 54,728 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 credit balance of EUR 505 million at the end of the year (31 December 2015: EUR (166) 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 2016, the Governing Council of the ECB decided to distribute interim profits of EUR 966 million to the euro area NCBs. As at 31 December 2016, the amount allocated to DNB totalled EUR 55 million (31 December 2015: EUR 46 million).

9. Other assets

As at 31 December 2016, this item stood at EUR 3,392 million (31 December 2015: EUR 2,783 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 2016	**262**	225	160	36	29	37	37
Movements:							
Reclassification	**0**	0	5	20	(25)	0	0
Additions	**25**	14	0	8	6	11	11
Disposals	**(1)**	(1)	0	(1)	0	0	0
Depreciation and amortisation	**(48)**	(35)	(18)	(17)	0	(13)	(13)
Impairment losses	**0**	0	0	0	0	0	0
Book value as at 31 December 2016	**238**	203	147	46	10	35	35
Cost	**626**	549	395	144	10	77	77
Accumulated deprecia-tion and amortisation	**(388)**	(346)	(248)	(98)	0	(42)	(42)
Book value as at 31 December 2016	**238**	**203**	**147**	**46**	**10**	**35**	**35**

Further to a decision by the Governing Board, DNB's banknote activities and gold stocks will be relocated to a newly built location in Zeist, and its office building at Westeinde 1 will be renovated starting in 2020. Accordingly, accelerated depreciation was applied to the relevant tangible fixed assets, in the amount of EUR 7 million in 2016. Furthermore, two properties were reclassified from 'properties for own use' to 'retired properties'. They will no longer be depreciated.

- 9.3 Other financial assets

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

Millions

	31 December 2016	31 December 2015
	EUR	EUR
EUR	365	370
USD	1,348	1,214
Total	**1,713**	**1,584**

The table below sets out the sub-categories of 'Other financial assets':

Millions

	31 December 2016	31 December 2015
	EUR	EUR
Participating interests	61	61
Equities	1,438	1,299
Other receivables	214	224
Total	**1,713**	**1,584**

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 2015. The BIS shares are 25% paid-up. As in 2015, 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 2016	31 December 2015
			EUR	EUR	EUR
BIS	3.10	Basel (Switzerland)	22,745	52	52
SWIFT scrl	0.04	La Hulpe (Belgium)	388	0	0
SBN	100	Amsterdam	9	9	9
Total				**61**	**61**

* Shareholders' equity of SWIFT scrl and SBN is based on the 2015 annual financial statements.
Shareholders' equity of the BIS is based on the 2016 annual financial statements (financial year from 1 April 2015 through 31 March 2016).

Equities

Equities consist of equity index investments. As at 31 December 2016, they stood at EUR 1,438 million (31 December 2015: EUR 1,299 million). The equity indexes reported under 'Other financial assets' are equity index funds with a corporate social responsibility (CSR) exclusion policy. These funds follow the MSCI index, but exclude companies that do not comply with the UN Global Compact principles. These principles are aimed at preventing malpractice in the areas of human rights, the environment, labour and corruption.

Other receivables

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

- 9.5 Accruals and prepaid expenses

As at 31 December 2016, this item stood at EUR 1,424 million (31 December 2015: EUR 887 million) consisting almost entirely of accrued interest and unamortised forward results.
The table below provides a breakdown of the unamortised results.

Millions

	31 December 2016	31 December 2015
	EUR	EUR
Currency swaps	94	63
Currency forwards	(1)	(2)
Total	**93**	**61**

Liabilities

1. Banknotes in circulation

This item represents DNB's share in the total euro banknotes circulated by the Eurosystem (see 'Banknotes in circulation' under 'Accounting policies' above).

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

Millions

	31 December 2016		31 December 2015	
	Number	EUR	Number	EUR
EUR 5	(138)	(690)	(122)	(609)
EUR 10	(143)	(1,432)	(123)	(1,229)
EUR 20	(514)	(10,287)	(489)	(9,780)
EUR 50	482	24,075	447	22,372
EUR 100	(16)	(1,596)	(14)	(1,415)
EUR 200	32	6,308	31	6,217
EUR 500	(10)	(4,898)	(7)	(3,595)
Total euro banknotes circulated by DNB		11,480		11,961
Reallocation of euro banknotes in circulation	52,573		49,659	
Euro banknotes allocated to the ECB (8% of 11,480 + 52,573)	(5,124)		(4,930)	
		47,449		44,729
Total		**58,929**		**56,690**

In 2016 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 58,929 million at year-end 2016 (31 December 2015: EUR 56,690 million). The value of the banknotes actually issued by DNB decreased by 4%, from EUR 11,961 million to EUR 11,480 million. The difference of EUR 47,449 million between the reallocated amount and the total amount of euro banknotes issued by 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 due to 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 overnight from 30 December to 31 December 2016: EUR 460 million (31 December 2015: EUR 313 million). The banknotes given on consignment are processed on the first business day after the year-end.

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

This item relates to interest-bearing liabilities to credit institutions arising from DNB's money market policy conducted on behalf of the Eurosystem. As at 31 December 2016, it stood at EUR 170,959 million (31 December 2015: EUR 114,399 million).

As at 31 December 2016, 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 143,171 million as at 31 December 2016 (2015: EUR 98,260 million) relate to amounts held by banks in accounts with DNB, including amounts held in order to meet their minimum reserve requirements. Interest is paid on these mandatory reserve holdings at a rate corresponding to the marginal rate in the main refinancing operations during the reserve maintenance period. Since June 2014, commercial banks have been charged interest at a rate corresponding to the deposit rate on amounts they deposited with DNB in excess of the reserve requirement.

- 2.2 Deposit facility

This permanent facility, amounting to EUR 27,788 million as at 31 December 2016 (31 December 2015: EUR 16,139 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 2015, no bids were made in 2016.

- 2.4 'Fine-tuning reverse operations

These are monetary policy operations intended to tighten liquidity. As in 2015, no such operations were conducted in 2016.

- 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 2016, as in 2015, no deposits related to margin calls were held.

3. Other liabilities to euro area credit institutions denominated in euro
This item stood at EUR 145 million (31 December 2015: nil) and consisted entirely of euro-denominated repos.

4. Liabilities to other euro area residents denominated in euro
This item, amounting to EUR 1,898 million (31 December 2015: EUR 1,360 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 21,172 million (31 December 2015: EUR 4,062 million), consists mainly of liabilities to non-euro area financial institutions amounting to EUR 19,381 million (31 December 2015: EUR 4,062 million) and repo transactions amounting to EUR 681 million (31 December 2015: nil).

7. Liabilities to non-euro area residents denominated in foreign currency
This item, amounting to EUR 107 million (31 December 2015: nil), consists entirely of liabilities to non-euro area financial institutions denominated in foreign currency.

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 2016, this item stood at EUR 618 million (31 December 2015: EUR 348 million).

- 10.1 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 2016, the currency revaluation differences stood at EUR 313 million (31 December 2015: EUR 208 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 201.

11. Provisions

Provisions can be broken down as follows:

Millions

	Total	Provision for credit and interest rate risks	Provision for employee benefits	Other provisions
	EUR	EUR	EUR	EUR
Balance as at 31 December 2014	**22**	-	13	9
Withdrawal	**(7)**	0	0	(7)
Release	**(2)**	0	(1)	(1)
Addition	**503**	500	0	3
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**

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. It decided in December 2015 to extend this programme by at least six months and in December 2016 to extend it up to and including December 2017 as a minimum. These decisions result in heightened risks of a longer duration, which is why DNB's Governing Board has deemed it necessary to build a provision for credit and interest rate risks. The expected shortfall (ES99%) method and scenario analyses were used to measure the risks. Section 5.8 of the Annual Report provides a more detailed discussion of the risks to which these portfolios are exposed.

As in 2015, EUR 500 million was added to the 'Provision for credit and interest rate risks'. As at 31 December 2016, this item stood at EUR 1,000 million (2015: EUR 500 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 the DNB Pension Fund's financial position allows this. DNB Pension Fund's funding ratio stood at 115.3% at 31 December 2016, which means it was not underfunded and therefore partial indexation was applied in 2016. 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:

	31 December 2016	31 December 2015
Discount rate for other employee benefits	Scheme-dependent (anniversaries: 1.30% other: 1.30%)	Scheme-dependent (anniversaries: 1.80% other: 1.80%)
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: 66 years	Assumption for all participants: 66 years
Mortality outlook	AG 2016 mortality table + mortality experience	AG 2014 mortality table + mortality experience

12. Revaluation accounts

As at 31 December 2016, this item totalled EUR 21,347 million (31 December 2015: EUR 18,804 million). The table below sets out the components of and net movements in the revaluation accounts:

Millions

	Total	Gold	Foreign currency	Securities and other financial instruments
	EUR	EUR	EUR	EUR
Balance as at 31 December 2014	**19,135**	18,324	54	757
Net revaluation movements	**(331)**	(286)	79	(124)
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**

The increase in the aggregate amount for the revaluation accounts of EUR 2,543 million can be almost entirely ascribed to the gold price increase seen in 2016.

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 EUR	Issued capital EUR	General reserve EUR	Statutory reserve EUR
Balance as at 31 December 2014	**7,870**	500	7,335	35
Profit for the year 2014	**951**			
Dividend	**(903)**			
Addition of 2014 net profit*	**48**		48	
Movement in statutory reserve	**-**		(2)	2
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	**-**		2	(2)
Balance as at 31 December 2016	**7,927**	**500**	**7,392**	**35**

* Addition of net profit concerns profit after dividend payment.

14. Profit for the year and appropriation of profit

The profit for the 2016 financial year was EUR 43 million (2015: EUR 183 million).

With due observance of the provisions of the Articles of Association and the mandate of the Shareholder, the appropriation of profit is set out below.

Millions

	2016 EUR	2015 EUR
Addition to the general reserve	2	9
Distribution to the State	41	174
Profit for the year	**43**	**183**

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 2016, the euro equivalent of the total sum of assets denominated in foreign currency (included in asset items 2, 3 and 9.3) amounted to EUR 14,892 million (31 December 2015: EUR 17,438 million). As at 31 December 2016, the euro equivalent of the total sum of liabilities denominated in foreign currency (included in liability items 6, 7 and 8) amounted to EUR 6,272 million (31 December 2015: EUR 6,156 million).

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

Millions

	31 December 2016							31 December 2015						
	Total	EUR	USD	JPY	GBP	AUD	SDR	Total	EUR	USD	JPY	GBP	AUD	SDR
Currency swaps														
Receivables	**8,501**	7,122	1,379	-	-	-	-	**10,236**	9,901	335	-	-	-	-
Payables	**(8,807)**	-	(6,428)	(1,232)	-	-	(1,147)	**(10,446)**	-	(7,301)	(346)	(15)	(1,034)	(1,750)
	(306)	7,122	(5,049)	(1,232)	-	-	(1,147)	**(210)**	9,901	(6,966)	(346)	(15)	(1,034)	(1,750)
Currency forwards														
Receivables	**2,839**	1,360	1,224	-	-	-	255	**2,158**	1,040	1,118	-	-	-	-
Payables	**(2,846)**	(1,371)	(1,284)	-	-	-	(191)	**(2,156)**	(1,034)	(1,122)	-	-	-	-
	(7)	(11)	(60)	-	-	-	64	**2**	6	(4)	-	-	-	-
Total	**(313)**	**7,111**	**(5,109)**	**(1,232)**	**-**	**-**	**(1,083)**	**(208)**	**9,907**	**(6,970)**	**(346)**	**(15)**	**(1,034)**	**(1,750)**

The above instruments are used to hedge currency risks. The total of EUR (313) million (31 December 2015: EUR (208) million) represents the net balance of currency revaluation differences on these instruments, reported as a liability 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 for crisis-related assets and monetary policy operations

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 2016. The financial risk (excluding gold) as at 31 December 2016 was determined at EUR 10.5 billion (31 December 2015: EUR 12.7 billion). DNB uses the expected shortfall (ES99%) method to measure and manage its financial risks, with various scenarios being played out. The resulting estimated risk exceeds DNB's total capital and reserves of EUR 7.9 billion. In March 2013, given the risks arising from the debt crisis, the Minister of Finance issued a free and 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.[17] As in 2015, EUR 500 million was added to the provision for credit and interest rate risks. As at 31 December 2016, this item stood at EUR 1,000 million (31 December 2015: EUR 500 million).

Events after the balance sheet date

No events after the balance sheet date had a material impact on the 2016 financial data.

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

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.

Receivers in the bankruptcy of DSB Bank and several interest groups

In November 2013, the receivers in the bankruptcy of DSB Bank and several interest groups of account holders at DSB Bank instituted legal proceedings against DNB before the Amsterdam District Court. In sum, the claimants asked the court to find that DNB had acted unlawfully and is therefore liable to pay damages for losses arising from the bankruptcy of DSB Bank. In April 2015, the court ruled that DNB could not be held liable for any losses suffered by the DSB Bank estate and the joint creditors arising from DSB Bank's bankruptcy, dismissing the claims. The receivers and the interest groups appealed from this decision, but withdrew their appeal in 2016, which means the proceedings have ended.

Stichting Pensioenfonds Vereenigde Glasfabrieken

DNB instructed this pension fund to mitigate or reduce its sizeable investments in gold. This decision, which was upheld in the objection procedure, was rejected by the District Court. In September 2013, the Appeals Board for Trade and Industry rejected DNB's appeal against the nullification and retraction of DNB's decisions by the district court. Following the rejection, the District Court continued the proceedings to determine the size of any damages. The pension fund claimed it had sustained a loss of approximately EUR 9.5 million caused by the reduction of its gold investment. The District Court ordered DNB in December 2014 to pay damages of EUR 4.8 million, plus statutory interest. Following DNB's appeal, the Trade and Industry Appeals Tribunal rejected the pension fund's claim in April 2016, which it deemed insufficiently substantiated. The EUR 4.8 million in damages which DNB had paid have been repaid, and the proceedings have ended. DNB has, however claimed additional interest compensation, which has not yet been paid.

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.

Director of an investment fund and two claim foundations

In April 2015, an investment fund director and two claim foundations (claimants) instituted legal proceedings in Canada against various parties, including DNB, the Netherlands Authority for the Financial Markets (AFM), the Dutch State and the Tax and Customs Administration. The claimants assert that various parties, including the AFM and DNB, did everything they could to force the relevant director to give up his positions and his control over the investment fund and to force the fund to leave the Netherlands. They further assert that DNB and the AFM unjustly blocked a restructuring of the investment fund. Arguing that DNB and other parties acted unlawfully, they claim damages for resulting losses. The court in Canada held in 2016 that DNB and the other defendants enjoyed immunity under the Canadian State Immunity Act, meaning that the court did not have competence to hear the case. The claimants appealed from the ruling late 2016.

Foundation and its managing director/DNB

In September 2016, a foundation which had previously operated as an insurer without authorisation 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 has been referred to the District Court.

3. Notes to the profit and loss account

Operating income

1 and 2 Net interest income

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

The table below provides a breakdown of interest income:

Millions

	2016 EUR	2015 EUR
Investments	105	166
Money market lending	0	15
Money market liabilities	650	161
Monetary portfolios	462	495
Eurosystem claims/liabilities	13	45
Total	**1,230**	**882**

Interest income went up primarily as a result of the negative interest rate on amounts held in excess of the minimum reserve requirement and the increasing volume of the deposit facility.

The table below sets out the components of interest expense:

Millions

	2016 EUR	2015 EUR
Money market lending	(16)	0
Other	(123)	(75)
Total	**(139)**	**(75)**

3. Realised gains/(losses) from financial operations

Millions

	2016	2015
	EUR	EUR
Net realised exchange rate gains/(losses)	0	(2)
Net realised price gains on fixed-income securities	101	16
Net realised price gains on equities	1	167
Total	**102**	**181**

4. Write-downs on financial assets and positions

The write-downs of EUR 20 million (2015: EUR 25 million) consisted 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 (2015: EUR 500 million).

8. Income from equity shares and participating interests

In 2016, this item amounted to EUR 79 million and mainly included income from DNB's participating interest in the ECB (EUR 70 million). In 2015, this item stood at EUR 63 million, with the largest individual item likewise being income from the participating interest in the ECB (EUR 55 million).

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 is derived 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[18] and securities issued by central governments and agencies[19] 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

	2016	2015
	EUR	EUR
Monetary income accruing to DNB	563	511
Monetary income earned by DNB	(1,068)	(677)
Result of monetary income pooling	(505)	(166)
Adjustment of monetary income pooling from preceding years	0	0
Net result of monetary income pooling	**(505)**	**(166)**

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 (505) million (2015: EUR (166) million) arises from the difference between the monetary income pooled by DNB, amounting to EUR 1,068 million, and the monetary income reallocated to DNB based on the capital key, amounting to EUR 563 million.

18 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.

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

10. Other income

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

Millions

	2016	2015
	EUR	EUR
Fees from supervised institutions	149	147
Government contribution	2	2
Other	24	8
Total	**175**	**157**

Operating costs

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

Millions

	2016 EUR	2015 EUR
Staff costs	(204)	(204)
Other administrative costs	(92)	(86)
Depreciation and amortisation of tangible and intangible fixed assets	(49)	(35)
Banknote production costs	(39)	(16)
Other costs	0	0
Capitalised software costs	5	6
Total	**(379)**	**(335)**

11. Staff costs

The average number of employees, expressed as full-time equivalents (FTEs), amounted to 1,703 in 2016, versus 1,707 in 2015.

The table below provides a breakdown of 'Staff costs' in 2016 and 2015:

Millions

	2016 EUR	2015 EUR
Wages and salaries	(143)	(138)
Social insurance contributions	(16)	(16)
Pension costs	(32)	(32)
Other staff costs	(13)	(18)
Total	**(204)**	**(204)**

The annual pension scheme costs of EUR 32 million for 2016 are included under 'Pension costs'. They equal total pension contributions paid (EUR 37 million) less employee-paid contributions (EUR 5 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, apart from the remuneration of Governing Board and Supervisory Board members under Part 9 of Book 2 of the Dutch Civil Code (BW2), the remuneration of other staff exceeding the ceiling referred to in the Act. The remuneration ceiling under the WNT for the financial year 2016 amounts to EUR 179,000. A transitional regime under the WNT applies. 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 2016, as fixed by the Minister of Finance, included holiday allowance and an extra month's pay and do not include variable remuneration. The pension scheme for the members of the Governing Board is in accordance with the agreements made with the Minister of Finance in 2005, and has been aligned with the statutory provisions at 1 January 2015. Like other staff, the members of the Governing Board contribute to their pension premiums.

The table below specifies the salaries, employer's social insurance contributions, other compensation and employer's pension contributions per member of the Governing Board:

Disclosure under	WNT		BW2 + WNT		BW2 + WNT		BW2 + WNT		WNT	
	Total remuneration		Salary		Employer's social insurance contributions and other compensation**		Employer's pension contributions		Taxable variable expense allowance	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Klaas Knot*	435,875	421,145	393,128	378,646	17,937	18,067	24,809	24,432	-	-
Jan Sijbrand	396,399	406,151	347,286	347,596	20,825	26,153	24,809	24,432	3,479	7,970
Frank Elderson*	362,430	359,081	321,149	318,155	16,472	16,494	24,809	24,432	-	-
Job Swank*	361,190	359,081	319,910	318,155	16,472	16,494	24,809	24,432	-	-
Total	**1,555,894**	**1,545,458**	**1,381,473**	**1,362,552**	**71,706**	**77,208**	**99,236**	**97,728**	**3,479**	**7,970**

* Remuneration and salaries went up because discounts granted on mortgage loans provided at staff terms must be added to salaries and subjected to wage tax with effect from 2016.

** 'Employer's contributions' disclosed pursuant to Book 2 of the Dutch Civil Code. In each case, the maximum employer's contribution for 2016 of EUR 9,201 applies (2015: EUR 9,267). 'Other compensation items' are disclosed pursuant to Book 2 of the Dutch Civil Code and the WNT.

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

	Principal outstanding 31 December 2016
	EUR
Frank Elderson	302,361
Klaas Knot	774,516
Total	**1,076,877**

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 EUR 179,000 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 2016 and 2015, the members of the Supervisory Board were paid the following fees:

	2016	2015
	EUR	EUR
Wim Kuijken (Chair)	26,850	31,688
Jaap van Manen (Vice-Chair)	17,900	17,800
Bert van Delden [1, 5]	26,939	32,225
Annemieke Nijhof [6]	17,900	10,383
Feike Sijbesma [2]	27,518	32,225
Kees Goudswaard [3, 7]	28,720	32,225
Margot Scheltema	17,900	5,933
Annemiek Fentener van Vlissingen	-	13,427
Marry de Gaay Fortman [4]	8,950	-
Alexander Rinnooy Kan	-	18,798
Total	**172,677**	**194,704**

These amounts are disclosed pursuant to Book 2 of the Dutch Civil Code and the WNT.

1 Bert van Delden's term expired on 1 November 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 Bert van Delden is also a member of the Bank Council, for which he was paid a EUR 2,617 fee (2015: EUR 3,140), which is not included here.
6 Annemieke Nijhof is also a member of the Bank Council. for which she was paid a EUR 3,140 fee (2015: EUR 3,140), which is not included here.
7 Kees Goudswaard has also been a member of the Bank Council since 1 November 2016, for which he was paid a EUR 523 fee, 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 of EUR 179,000 (2015: EUR 178,000). 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 55 to 43 compared with 2015. For some of them, remuneration and salaries went up because discounts granted on mortgage loans provided at staff terms must be added to salaries and subjected to wage tax with effect from 2016.

	Total remuneration		Average number of hours a week		Compensation		Taxable fixed and variable expenses		Deferred remuneration	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Position in 2016	EUR	EUR			EUR	EUR	EUR	EUR	EUR	EUR
Division Director	306,629	309,226	38.5	38.5	279,013	282,697	2,414	2,400	25,201	24,129
Division Director[1,3]	287,987	255,576	38.5	38.5	271,818	229,047	1,443	2,400	14,726	24,129
Division Director[1,2]	277,927	286,231	38.5	38.5	250,326	259,678	2,400	2,424	25,201	24,129
Division Director[1]	260,199	266,719	38.5	38.5	232,597	240,095	2,400	2,495	25,201	24,129
Division Director	253,487	257,911	38.5	38.5	225,885	231,383	2,400	2,400	25,201	24,129
Division Director	253,590	246,311	38.5	38.5	225,989	219,782	2,400	2,400	25,201	24,129
Division Director[1]	249,078	246,684	38.5	38.5	220,415	219,657	3,462	2,898	25,201	24,129
Division Director	248,924	246,898	38.5	38.5	221,251	220,329	2,472	2,441	25,201	24,129
Division Director[1]	245,350	246,082	38.5	38.5	217,748	219,480	2,400	2,473	25,201	24,129
Division Director[1]	240,424	228,614	38.5	38.5	212,371	201,636	2,852	2,849	25,201	24,129
Division Director[1]	222,960	229,590	36	36	195,459	202,284	2,693	2,875	24,809	24,432
Division Director[1,4]	218,027	233,997	36	36	195,353	207,164	2,000	2,400	20,674	24,432
Division Director[1]	204,994	203,983	36	36	177,513	177,083	2,672	2,468	24,809	24,432
Division Director	202,799	198,313	36	36	175,536	171,481	2,453	2,400	24,809	24,432
Division Director[9]	188,423	74,047	36	36	161,858	60,976	2,730	1,013	23,835	12,058
Division Director[1,6]	157,975	260,065	38.5	38.5	157,066	233,537	248	2,400	661	24,129
Division Director[10]	32,806	-	36	-	28,402	-	418	-	3,986	-
Head of Department	214,262	202,767	40	40	186,986	177,021	1,839	1,800	25,437	23,947
Head of Department	210,534	205,422	36	36	182,188	177,940	3,536	3,050	24,809	24,432
Head of Department[1]	206,070	204,807	38.8	40	178,890	179,030	1,800	1,800	25,379	23,977
Head of Department[1]	204,635	201,995	38.5	38.5	177,634	175,969	1,800	1,898	25,201	24,129
Head of Department[1]	196,241	207,091	40	40	168,364	180,854	2,440	2,290	25,437	23,947
Head of Department[1]	195,135	187,324	40	40	167,898	161,577	1,800	1,800	25,437	23,947
Head of Department[1]	193,843	184,877	36	36	167,234	158,614	1,800	1,831	24,809	24,432
Head of Department[1]	192,803	196,894	38.5	38.5	165,802	170,960	1,800	1,805	25,201	24,129
Head of Department[1]	192,556	199,757	37.8	39	165,520	173,869	1,800	1,800	25,236	24,088
Head of Department[1]	192,071	197,523	36	36	165,430	171,291	1,833	1,800	24,809	24,432
Head of Department[1]	191,348	190,312	36	36	164,739	164,074	1,800	1,806	24,809	24,432
Head of Department	189,953	182,743	36	36	163,344	156,511	1,800	1,800	24,809	24,432
Head of Department[1]	190,254	202,672	36	38	163,168	176,597	1,999	1,885	25,087	24,189
Head of Department[1]	187,628	190,770	36	36	160,987	163,926	1,833	2,411	24,809	24,432
Head of Department[1]	182,047	197,131	36	36	155,322	170,829	1,917	1,870	24,809	24,432
Head of Department[1]	181,041	184,717	36	36	154,023	158,194	2,210	2,092	24,809	24,432
Head of Department[1,7]	180,101	178,775	36	36	152,804	152,125	2,488	2,218	24,809	24,432
Head of Department[1]	183,642	184,091	36	36	156,714	157,649	2,119	2,011	24,809	24,432
Head of Section[5,7]	203,157	149,206	36	36	178,672	122,861	1,783	1,913	22,702	24,432
Information Manager[7]	180,361	180,310	36	36	153,706	154,074	1,800	1,845	24,855	24,392
Expert[1]	200,980	197,983	38.5	38.5	173,591	172,055	2,188	1,800	25,201	24,129
Expert	200,036	195,140	38.5	38.5	173,019	169,195	1,816	1,816	25,201	24,129
Expert	194,689	172,876	38.5	38.5	168,287	147,503	1,200	1,244	25,201	24,129
Expert	183,750	181,136	40	40	156,414	155,359	1,899	1,830	25,437	23,947
Expert[1,2]	180,090	184,074	38.5	38.5	153,688	158,478	1,200	1,468	25,201	24,129
Expert[8]	160,642	128,199	32	32	138,040	105,174	1,200	1,281	21,402	21,744

1 The comparative figures for 2015 are restated upwards from those reported in 2015 because staff contributions for lease cars had been incorrectly processed.
2 As under 1, due to incorrect allocation of an anniversary bonus.
3 Resigned effective 8 August 2016, Remuneration in 2016 includes payment of accrued holiday hours.
4 Resigned effective 1 November 2016.
5 Resigned effective 1 December 2016.
6 Passed away on 7 February 2016. Remuneration in 2016 includes payment of accrued holiday hours.
7 Including conversion of holiday hours, due to which remuneration exceeds the WNT standard.
8 Including conversion of lease car entitlement.
9 Joined 1 August 2015.
10 Joined 1 November 2016.

12. Other administrative expenses

The table below specifies 'Other administrative expenses':

Millions

	2016	2015
	EUR	EUR
Temporary staff and outsourcing	(42)	(39)
Travel and accommodation expenses	(5)	(5)
Accommodation	(8)	(7)
Office equipment, software and office expenses	(27)	(24)
General expenses	(10)	(11)
Total	**(92)**	**(86)**

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

	2016	2015
	EUR	EUR
Audit of the financial statements	521,087	475,629
Other audit services	106,178	106,178
Tax consultancy services	0	0
Other non-audit services	0	599
Total	**627,265**	**582,406**

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, irrespective of whether the independent auditor and the audit firm already performed these services during that financial year.

17. Corporate income tax

DNB's corporate income tax liability is limited to duties not assigned by law. This position is of such minor significance that it can be considered nil due to rounding effects.

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 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 2016	Budget 2016	Actual 2015
	EUR	EUR	EUR
Banks*	61	68	62
Pension funds	28	29	27
Insurers**	41	41	41
Other institutions and Sanctions Act	15	15	14
Total costs of regular supervision	145	153	144
Resolution	5	5	4
Total costs of duties as a ZBO	**150**	**158**	**148**

* Banks including other credit institutions.
** Including the costs for health care insurers totalling EUR 4.2 million (budgeted: EUR 4.5 million).

For detailed notes, the reader is referred to DNB's (Dutch-language) ZBO report on its public duties in 2016.

Amsterdam, 29 March 2017
Governing Board of De Nederlandsche Bank N.V.

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

Amsterdam, 29 March 2017
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 Shareholders of De Nederlandsche Bank N.V.

Report on the financial statements for 2016 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 2016 as set out in this Annual Report on pages 167 to 215.

In our opinion, the 2016 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 2016;
2 the profit and loss account for the year then ended; and
3 the notes, comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing and the Audit Protocol under the Public and Semi-public Sector Executives Remuneration (Standards) Act (Wet normering bezoldiging topfunctionarissen publieke en semipublieke sector – WNT). Our responsibilities under those standards are further described in the "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 auditor's report thereon, the Annual Report contains other information that consists of:

- The Governing Board's report set out on pages 5 to 165; 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 165 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, 29 March 2017

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 of shareholders.