

# Financial Report 2018

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# Financial Report 2018 of NRW.BANK

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This is an unofficial translation of the Finanzbericht 2018 (German Financial Report 2018) and is provided for convenience purposes only. In the event of any ambiguity, the German text will prevail.

# The Promotional Business of NRW.BANK

## 1 Overview

As the promotional bank and main promotional platform of North Rhine-Westphalia, NRW.BANK supports its owner and guarantor, the State of North-Rhine Westphalia, in the fulfilment of its structural and economic policy tasks and in the efficient implementation of promotional programmes in North Rhine-Westphalia with a view to minimising the impact of these activities on the state budget. To meet its promotional mission, NRW.BANK draws on the full range of available promotional instruments and, in particular, contributes its lending expertise to the promotional process.

The chargeless facilitating of monetary and non-monetary resources for the promotional business – referred to as “Förderleistung” – is an integral element of the Bank’s promotional strategy. Interest waivers are a central component of NRW.BANK’s “Förderleistung”. On the one hand, it reduces a borrower’s interest expenses by subsidising the interest rate for the final borrower, resulting in a below-market interest rate. On the other hand, NRW.BANK refrains from putting its equity capital in alternative investments yielding higher interest and, hence, income by using this capital to finance promotional loans granted at interest rates that are lower than the market rate. Other components of the “Förderleistung” include risk assumptions and services such as advisory services for companies and customers. Especially, the supply of the “Förderleistung” enables NRW.BANK to make available attractive promotional products to the respective target groups.

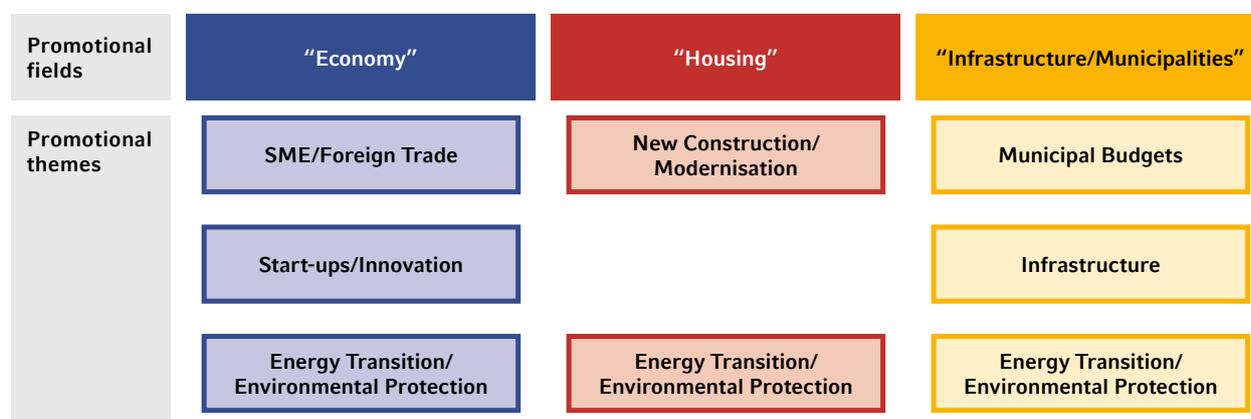
NRW.BANK takes into account the existing offers by the Federal Institutes in the arrangement of its promotion and supports the sizable use of Federal and EU promotional funds in the State of North Rhine-Westphalia. The Bank serves as a conduit for the federal promotional programmes of KfW Bankengruppe and Landwirtschaftliche Rentenbank in its capacity as the central institution of the North Rhine-Westphalian savings banks. To refinance its promotional activities, NRW.BANK also uses funds made available to it by KfW Bankengruppe, Landwirtschaftliche Rentenbank, the European Investment Bank (EIB) as well as the Council of Europe Development Bank (CEB).

NRW.BANK’s promotional offerings and their further development are driven by the promotional policy principles adopted by the Board of Guarantors as well as by NRW.BANK’s promotional strategy, which is based thereon.

When developing and refining the contents of its promotional offerings, NRW.BANK regularly takes into account current challenges, e.g. the growing digitisation pressure faced by small and medium-sized enterprises. Against this background, NRW.BANK launched a new promotional programme in September 2018, which adds a new, special service for the promotion of SME digitisation projects to its existing range of solutions for the promotion of innovation. This new NRW.BANK financing solution effectively complements the digitisation drive initiated by the State of North Rhine-Westphalia. Clean air is another current challenge faced by cities and communities in North Rhine-Westphalia. To avoid diesel bans and improve air quality, NRW.BANK introduced a separate promotional sub-programme with particularly favourable conditions for clean air measures as part of its promotional programme for municipal investments and improved its existing promotional offerings for electromobility. Moreover, a new programme was added to our range of promotion programmes for homeowners’ associations in 2018.

In terms of contents, NRW.BANK’s promotional offerings are divided into three different promotional fields denoting the target areas where the promotional activities are to take effect. These promotional fields are “Economy”, “Housing” and “Infrastructure/Municipalities”, and they are divided into different promotional themes. Each promotional product is assigned to a specific promotional theme. The implementation of the energy transition and the consideration of environmental protection relate to all three promotional fields of NRW.BANK, albeit with different facets.

## Promotional architecture of NRW.BANK



In 2018, NRW.BANK recorded a volume of new commitments of € 10.3 billion (2017: € 11.6 billion), of which approx. 17% related to on-lending.

The table below shows a breakdown of the volume of new commitments by promotional fields:

### Volume of new commitments

#### Breakdown by promotional fields

	Dec. 31, 2018	Dec. 31, 2017	Change
	€ millions	€ millions	€ millions
Economy	3,592	3,667	-75
Housing	2,215	2,609	-394
Infrastructure/Municipalities	4,487	5,359	-872
<b>Total</b>	<b>10,294</b>	<b>11,635</b>	<b>-1,341</b>

### 2 Promotional field "Economy"

NRW.BANK's economic promotion activities comprise a wide range of financing instruments such as low-interest promotional loans, risk assumption as well as equity strengthening solutions. The various promotional solutions in this promotional field allow NRW.BANK to cover the entire lifecycle of a company. The Bank's economic promotion offerings are complemented by advisory services.

NRW.BANK's comprehensive range of economic promotion products and services helps to lay the basis for a prospering economy, for creativity as well as for a

spirit of optimism and dynamism. In doing so, the Bank acts as a reliable partner to both businesses and the federal state.

Besides the general promotion of SMEs, a focus of NRW.BANK's activities in the promotional field "Economy" lies on the funding of start-up and innovation projects. NRW.BANK thus acknowledges the fact that business start-ups and innovations play a key role for the dynamic development of the North Rhine-Westphalian economy. Moreover, investments in the protection of resources and in increased energy efficiency have become increasingly important for the corporate sector in recent years.

The corresponding offerings have therefore been pooled in a separate promotional theme.

#### **Promotional theme “SME/Foreign Trade”**

This promotional theme comprises the two anchor products of NRW.BANK in the field of economic promotion, i.e. the NRW.BANK.Universalkredit and the NRW.BANK.Mittelstandskredit. These two programmes offer small and medium-sized enterprises low-interest loans for working capital requirements and investments that can be used for a broad range of purposes. Subject to certain conditions, optional liability releases of 50% for the on-lending house banks may be applied for as an additional promotional component. The two anchor products account for the biggest portion of the volume of new commitments in this promotional theme. In addition, NRW.BANK’s low-interest global loans offer banks and savings banks favourable refinancing loans to fund their own SME lending activity. NRW.BANK also joins syndicates extending loans for small and mid-sized companies.

Established SMEs are offered mezzanine capital or equity investments to strengthen their equity capital. In addition, NRW.BANK supports the provision of equity for restructuring efforts via a separate fund by acting as a co-investor for capital investment companies

Advisory services are available to SMEs both with regard to the full range of NRW.BANK’s promotional products and regarding the support offered by other institutions. NRW.BANK additionally supports small and medium-sized enterprises in change processes by way of individual advice for the optimisation of their financing structures using public funds.

NRW.BANK’s foreign trade promotion products and services include, on the one hand, low-interest loans for foreign investments and back-up guarantees to banks underwriting export guarantees for small and medium-sized enterprises and, on the other hand,

advice on the use of public promotional and development funds in international projects.

#### **Promotional theme “Start-ups/Innovation”**

The highest-volume programme in this promotional theme offers interest-subsidised loans for start-up and consolidation financing. These loans are partly combinable with liability releases for the on-lending house bank depending on the age of the company. In addition, micro start-ups with credit requirements of up to € 25,000 benefit from a separate NRW.BANK programme, under which not only low interest rates are offered but also no collateral is required. Applications for promotional funds under this programme are channelled through the STARTERCENTERS in North Rhine-Westphalia.

The special needs of start-up projects in innovative sectors are met by NRW.BANK through a fund-of-funds initiative for seed financings. To stimulate seed investments, this initiative acts as a fund investor providing regional seed funds in North Rhine-Westphalia with capital. For many start-ups it is difficult to raise follow-up finance once a project loan expires. NRW.BANK therefore offers newly established companies which previously received funding under the state programme “START-UP-Hochschul-Ausgründungen NRW” the possibility to raise the necessary follow-up funds to finance their business via convertible bonds. NRW.BANK’s offerings for the promotion of innovation also include an in-house advisory centre for technologically oriented up-and-coming business founders from universities and research institutions as well as new innovative start-ups. In addition, NRW.BANK’s advisory, support and mediation activities effectively support investments by business angels, i.e. high net worth individuals with a proven entrepreneurial background, in innovative start-ups.

For several years, a promotional programme with attractive conditions has been available to support small and medium-sized companies’ investments in

adding new, technologically advanced products to their product ranges or in the adoption of high-tech production processes. As outlined above, this proven programme was expanded in 2018, when NRW.BANK added a new product with particularly favourable interest rates to promote SME digitisation projects. A lack of available collateral often makes it difficult for fast-growing and/or innovative SMEs to raise loans. NRW.BANK therefore supports this target group via a separate complementary offering. Apart from favourable terms and conditions, this programme offers a 70% liability release for the on-lending house banks. NRW.BANK additionally acts as co-investor in venture capital financings to support young innovative enterprises.

Companies in the creative sector are characterised by special promotional requirements. NRW.BANK's portfolio therefore includes a promotional programme for individuals and businesses in the creative sector, offering low-interest, collateral-free advance finance for orders received or project work. Applications for this programme may be submitted directly to NRW.BANK. Start-ups and newly established companies in the digital sector benefit from effective support in the form of convertible bonds or equity investments which are granted in addition to investments by business angels.

#### **Promotional theme "Energy Transition/Environmental Protection"**

The aim of the German energy transition is to improve the energy efficiency and reduce the energy consumption of companies. NRW.BANK supports companies' efforts in this respect through a promotional programme with especially favourable conditions. To qualify for funds under this programme, applicants must fulfil certain minimum requirements in terms of energy savings or efficiency. Enterprises may also receive low-interest financing for research and development projects falling under the "Masterplan Elektromobilität Nordrhein-Westfalen" (North Rhine-Westphalia's Electromobility Masterplan). To make North Rhine-Westphalia the lead-

ing federal state in terms of electromobility and to encourage decisions in favour of clean vehicles, the number of eligible businesses was expanded and the interest advantage of this offering was increased significantly in 2018.

#### **3 Promotional field "Housing"**

The activities of NRW.BANK in this promotional field are designed to improve housing and living standards as well as the urban environment. NRW.BANK's products help enhance the housing supply in North Rhine-Westphalia by promoting the construction of new housing as well as the modernisation of the existing housing stock. Its promotional offerings also support efforts aimed at increasing energy efficiency and implementing environmental and climate protection targets in residential properties.

Social housing promotion remains an indispensable element to realise these objectives and is designed to ensure affordable quality housing in North Rhine-Westphalia. The relevant promotional loans of NRW.BANK are applied for with the local governments and disbursed directly to the recipients. The promotional activities reflect the State of North Rhine-Westphalia's housing promotional programme (Wohnraumförderungsprogramm, WoFP) as well as the respective development guidelines.

#### **Promotional theme "New Construction/Modernisation"**

NRW.BANK's social housing promotional programmes are designed to support, in particular, the creation of affordable, high-quality housing for households that are unable to obtain adequate housing in the market. In this context, the programme for the promotion of rent-controlled and occupancy-controlled housing construction and the support in the construction, acquisition or modernisation of owner-occupied housing for this target group plays an important role. In the field of social housing promotion, NRW.BANK additionally promotes the removal of barriers in owner-occupied and rented residential buildings and encourages investors to build

student dorms. To create additional incentives for investors in social housing promotion also in 2018, the Bank continued to offer the publicly funded debt relief scheme under which a pro-rated part of the principal repayment is waived subject to certain conditions.

Promotional products for home owners of privately used buildings complement NRW.BANK's offerings in the field of social housing promotion. Low-interest loans are granted, for instance, to finance the replacement of heating systems, structural measures for flood protection, the modernisation of sanitary installations or measures for the elimination of barriers or for burglary protection. NRW.BANK's promotional offerings also take into account that more than one in five flats in North Rhine-Westphalia are owned by homeowners' associations. A special programme for these associations offers not only favourable conditions but also a 50% liability release for the on-lending house bank. With a view to the ageing society, NRW.BANK additionally offers low-interest loans to support investments in care and nursing homes and the construction of new care and nursing homes.

#### **Promotional theme "Energy Transition/Environmental Protection"**

Energy savings and improved energy efficiency are also relevant for housing promotion. NRW.BANK supports the corresponding efforts in the construction of social housing and effectively promotes the modernisation of private sewer pipes of owner-occupied homes.

#### **4 Promotional field "Infrastructure/Municipalities"**

A functioning infrastructure is an important precondition for economic growth in individual regions of North Rhine-Westphalia. The expansion of the educational infrastructure, which is a key success factor for the future development in North Rhine-Westphalia, and the active implementation of the energy transition with the help of appropriate measures are of special importance

for society. NRW.BANK therefore supports projects designed to improve the technical and social infrastructure both publicly and privately.

#### **Promotional theme "Municipal Budgets"**

NRW.BANK is aware that a functioning community relies on solidly funded municipalities and therefore provides the municipalities in North Rhine-Westphalia with municipal loans and liquidity loans. Promotional funds totalling € 2.7 billion were made available to North Rhine-Westphalian municipalities in 2018.

In addition to its financial offerings, NRW.BANK provides the North Rhine-Westphalian municipalities with advisory services regarding promotional offerings as well as economic and financial issues. The latter comprise both financial management support for municipalities and advice on projects, e.g. for the development and implementation of municipal action plans or public private partnership projects.

#### **Promotional theme "Infrastructure"**

In the context of its infrastructure promotion activities, NRW.BANK offers the North Rhine-Westphalian municipalities, their enterprises and municipal cooperatives low-interest and long-term investment loans, which are extended directly. As outlined above, a separate promotional sub-programme with particularly favourable interest rates has been introduced to promote municipal clean air measures. Projects eligible for promotion under this sub-programme include the conversion of municipal vehicle fleets to vehicles without combustion engines, municipal infrastructure improvement projects or urban development measures, such as the installation of bicycle stations, that benefit air pollution control.

The investments needed to maintain and expand North Rhine-Westphalia's infrastructure require not only public funds but increasingly also private capital. NRW.BANK therefore offers favourable terms and conditions to

encourage corporate investment in social and public infrastructure projects. The Bank additionally supports infrastructure projects by way of customised corporate and project loans in the context of syndicates with other banks.

These broad-based promotional offerings are complemented by a number of special programmes with especially attractive terms for selected objectives and investment projects, respectively, to provide stimulation in certain infrastructure sub-segments. Examples include special offerings for the promotion of broadband expansion in North Rhine-Westphalia, for the maintenance and refurbishment of buildings listed as public monuments or for the promotion of sports facilities. In addition, there is a special promotional programme comprising low-interest loans and optional liability releases to support urban development projects that make an effective contribution to the sustainable economic and social revitalisation of urban neighbourhoods. Projects which are consistent with an integration action plan of the respective municipalities are eligible for promotion under this programme. NRW.BANK supports the public sector's efforts in this area by promoting and supporting private investment as well as by conducting economic feasibility studies comparing different forms of funding and realisation.

NRW.BANK offers municipal school operators and municipal school associations in North Rhine-Westphalia long-term loans at highly attractive terms with maturities of up to 30 years for the construction and refurbishing of school buildings. To additionally support the urgently needed investments in schools, NRW.BANK makes available an amount of € 500 million per year and subsidises interest payments in a joint campaign with the federal state scheduled to run until the end of 2020. The federal state takes care of the due interest and principal payments.

#### **Promotional theme "Energy Transition/Environmental Protection"**

NRW.BANK supports investments in the energy infrastructure by way of both low-interest promotional programme loans and customised company and project financings within the framework of syndicates with other banks. The Bank thus promotes investments in power generation plants, the construction of energy storage capacities and the construction and maintenance of networks.

Special promotional solutions for flood management and other selected water management measures as well as for investments in the resource-efficient disposal of waste water primarily serve to advance environmental protection in the context of infrastructure promotion. The range of products and services is complemented by a special programme for the promotion of energy-efficient district heating and cooling networks.

# Report on Public Corporate Governance in the Year 2018

## 1 General Information

Since 2006, NRW.BANK has reported annually on the corporate governance efforts undertaken by NRW.BANK on the basis of its own Public Corporate Governance Code (PCGK), which reflects the specific requirements of the Bank. Since its amendment in 2014, it has been based on the Code of the State of North Rhine-Westphalia but also takes into account the specific public mission and the particularities of a competition-neutral public-law promotional bank, which is almost budget independent. Besides legal and statutory provisions, it also includes recommendations and suggestions that go beyond the legal and statutory requirements.

For the fiscal year, the Managing Board and the Supervisory Board declare that the Bank has largely complied with the recommendations of the Code. In accordance with Section 29 Para. 8 of NRW.BANK's Statutes as well as Clauses 1.3.5 and 1.4 of the Public Corporate Governance Code, the few deviations from these recommendations are disclosed and explained in the following Declaration of Conformity.

## 2 Guarantor and Board of Guarantors

The State of North Rhine-Westphalia is the guarantor of NRW.BANK. The State has assumed permanent institutional and guarantor liability for NRW.BANK and has issued the Bank with an explicit refinancing guarantee.

The State of North Rhine-Westphalia exercises its rights in line with its legal powers at the Board of Guarantors, where it exercises its voting right. The Board of Guarantors is composed of five members. The Board of Guarantors is chaired by the State Minister for Economics. The voting right is exercised unanimously by the "voting agent", i.e. a member of the Board of Guarantors appointed by the guarantor. For the composition of the Board of Guarantors, please refer to page 108.

The Board of Guarantors performed the tasks imposed on it by the Act on NRW.BANK and its Statutes and discussed, among other things, the strategy of NRW.BANK for the years 2019 to 2022 presented by the Managing Board and adopted the principles of the business, promotional and risk policy contained therein at the recommendation of the Supervisory Board. In the report-

ing year, the Board of Guarantors also resolved to renew the existing directors' and officers' liability insurance policy (D&O insurance) for the members of the Managing Board, the Supervisory Board and the Board of Guarantors for 2019. The agreed deductible amounts to 10% of each damage for each body but to no more than 1.5 times the fixed annual remuneration.

Increasing requirements in the banking environment and constant amendments of the regulatory conditions require continuous further training. For this purpose, NRW.BANK constantly refines the training concept for the members of the bodies. A training budget is available to the members of NRW.BANK's bodies, which may be used in consultation with the Public Corporate Governance Adviser of NRW.BANK.

## 3 Managing Board

The Managing Board is responsible for independently managing NRW.BANK according to commercial principles taking the public benefit into account.

The Managing Board of NRW.BANK is composed of four members, one of whom is appointed Chairman. One fourth of the Managing Board members are women, while three fourths are men. In the reporting year, the term of office of Michael Stölting as member of the Managing Board was renewed by another five years. For the composition and the allocation of powers and responsibilities, please refer to the organisational chart on page 128 et seq.

When filling management positions at NRW.BANK, the Managing Board aims for diversity and an appropriate consideration of both genders. As at December 31, 2018, 33.1% of the management positions at the second to fifth level of the Bank were held by women, while 66.9% were held by men (2017: 31.3% women vs. 68.7% men).

As in the previous years, the evaluation of the Managing Board carried out in the fiscal year by the Supervisory Board in accordance with Section 25d Para. 11 No. 3 and 4 KWG was supported by an external consulting firm.

The Managing Board was evaluated with regard to the knowledge, skills and experience of its individual members and the body as a whole as well as with regard to

its structure, size, composition and performance. The evaluation confirmed the good evaluation results of the previous year.

The members of the Managing Board are committed to the interest of the Bank and fulfil their tasks in virtue of their office in an independent, unbiased and selfless manner. No member of the Managing Board pursued personal interests when making decisions; no gifts, other benefits or promises thereof were solicited or accepted neither personally nor on behalf of third parties. No conflicts of interest occurred during the fiscal year. Potential conflicts of interest that may occur in the context of other mandates are managed in a forward-looking manner in the meaning of the Public Corporate Governance Code (PCGK).

Secondary activities on Supervisory Boards or comparable controlling bodies of enterprises are performed only after they have been approved by the Supervisory Board. The respective approvals of the Supervisory Board for the existing mandates have been obtained. The remuneration received has been disclosed to the Bank and is shown in the Financial Report.

NRW.BANK granted no individual loans to Managing Board members or their relatives. There was no need to obtain any approval of the Risk Committee for permissible promotional loans made available in connection with programmes of NRW.BANK.

The Managing Board is committed to ongoing further training, especially in the field of regulatory amendments and requirements in the banking environment; Managing Board members undertake appropriate further training measures at their own initiative.

#### **4 Supervisory Board**

The Supervisory Board of NRW.BANK oversees the management activities of the Managing Board of NRW.BANK, also with respect to regulatory requirements.

As a general rule, the Supervisory Board is composed of 15 members as well as three permanent representatives. The Supervisory Board ensured at an early stage that a position that became vacant as of December 31,

2018 was filled again. The Supervisory Board is chaired by the Minister for Economics. For the composition of the Supervisory Board, please refer to page 108 et seq. In addition, the current brief CVs of the members of the Supervisory Board as well as the permanent representatives can be found on the website of NRW.BANK.

In order to ensure an efficient division of labour and to obtain advice and support in the performance of its tasks, the Supervisory Board forms committees from among its members, which focus on discussing and debating committee-specific issues. The members were appointed to the individual committees based on their personal expertise as well as committee-specific requirements.

The Supervisory Board and its committees performed the tasks imposed on them by the Statutes and the applicable rules of procedure. The number and the duration of the meetings held by the Supervisory Board and the committees in the fiscal year were in line with the Bank's requirements. No member of the Supervisory Board attended less than half of the meetings held during his or her respective term of office.

In analogy to the evaluation of the Managing Board, the Supervisory Board also carried out a self-evaluation in the fiscal year. The good overall result of the previous year was confirmed. The Supervisory Board also addressed the recommendations adopted as a result of the evaluations carried out in 2016 and 2017, which were implemented in full. In addition, the Supervisory Board identified new recommendations, which are mostly of a processual nature.

No relevant conflicts of interest were disclosed to the Supervisory Board in the fiscal year. No member of the Supervisory Board pursued personal interests when making decisions. The members of the Supervisory Board ensured that they had enough time to fulfil their mandates. The limits for the number of permissible mandates and chairs on supervisory bodies pursuant to the Public Corporate Governance Code were met by the members.

NRW.BANK granted no individual loans to Supervisory Board members or their relatives. There was no need to

obtain any approval of the Risk Committee for permissible promotional loans made available in connection with programmes of NRW.BANK.

No business or personal relations that give rise to a material and no temporary conflict of interest exist between the members of the Supervisory Board and NRW.BANK. Potential conflicts of interest that may occur in the context of other mandates are managed in a forward-looking manner in the meaning of the Public Corporate Governance Code (PCGK).

The members of the Supervisory Board undergo regular training in order to ensure that they have the expert knowledge required under statutory regulations as well as under the Bank's own governance principles. NRW.BANK considers it its duty to support the members of the Bank's bodies through constant improvement of its training concept. A training budget is available to the members of NRW.BANK's bodies, which may be used in consultation with the Public Corporate Governance Adviser of NRW.BANK.

### 5 Cooperation between the Managing Board and the Supervisory Board

The Managing Board and the Supervisory Board cooperate closely to the benefit of the Bank. In this context, the regular communication of detailed information by the Managing Board to the Supervisory Board – either at meetings or in the form of written reports – on all relevant issues and changes regarding the business development, planning, the risk situation, risk management, compliance and the economic environment plays an important role. This is complemented by an ongoing exchange, especially between the Chairmen of the Managing Board and the Supervisory Board but also between the Managing Board and the Chairmen of the committees.

Against the background of the implementation of the requirements of the EBA/ESMA Guidelines for the assessment of the suitability of management body members and key function holders (EBA/GL/2017/12), the Supervisory Board and the Managing Board jointly adopted policies for the Managing Board and the Supervisory Board of NRW.BANK on "Induction and

Training", "Diversity" and "Suitability Assessment", which were enforced as of December 3, 2018.

### 6 Transparency

NRW.BANK attaches great importance to creating transparency towards the public, the guarantor, the supervisory body, investors, customers and employees. Transparent and open communication forms the basis for trusting cooperation and sustainable corporate governance with the aim to promote the State of North Rhine-Westphalia.

The Financial Report, the Disclosure Report and the financial calendar are published on the website of NRW.BANK. In the context of its investor relations activities, the Bank regularly reports the latest corporate news with a focus on the capital market. Press releases and further publications supplement the comprehensive range of information offered by the Bank.

The Report on Public Corporate Governance as well as the Declaration of Conformity are published both as part of the Financial Report and as a separate document on the website of NRW.BANK.

### 7 Accounting

The annual financial statements and the management report of NRW.BANK were prepared by the Managing Board and audited by the auditor in accordance with the provisions of the German Commercial Code (HGB), the Ordinance Regarding Accounting for Banks and Financial Services Institutions (RechKredV), the Act on NRW.BANK and the Statutes of NRW.BANK. The obligations regarding immediate notification in accordance with the Public Corporate Governance Code have been agreed with the auditor. The Audit Committee as well as the Supervisory Board discuss the results of the audit with the auditor. The Board of Guarantors resolves on the approval of the annual financial statements, formulates a profit appropriation proposal and appoints an auditor. At the recommendation of the Audit Committee and the proposal of the Supervisory Board and in consultation with the North Rhine-Westphalian Court of Audit, the Board of Guarantors appointed Ernst & Young GmbH, Wirtschaftsprüfungsgesellschaft, as auditors of NRW.BANK's financial statements for the

period ended December 31, 2018. The auditor’s statement of independence has been submitted and filed.

**8 Remuneration Report**

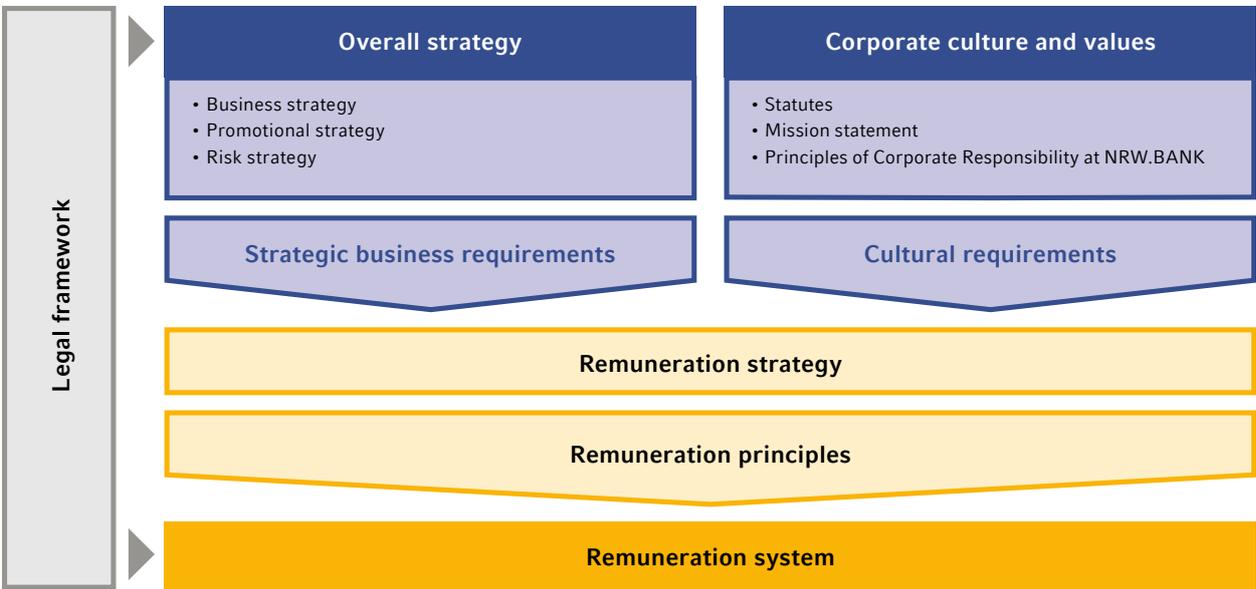
NRW.BANK reports on the key elements of the remuneration systems for its executive and controlling bodies and its employees. This report is in keeping with the requirements of the Bank’s internal Public Corporate Governance Code, the North Rhine-Westphalian Transparency Act, the Management Remuneration Act and the Remuneration Ordinance for Institutions (InstitutsVergV) of December 16, 2013 and July 25, 2017, respectively, in conjunction with Article 450 of Regulation (EU) No. 575/2013.

Against the background of the draft Interpretation Guide to the Remuneration Ordinance for Institutions (InstitutsVergV) published on February 15, 2018, NRW.BANK changed its variable remuneration into a purely fixed remuneration in consultation with its Joint Supervisory Team (JST), the ECB and the representa-

tives of its owner in 2017. Only the vested portions of the variable remuneration determined and deferred up to 2016 were and will be paid out in the years 2018 to 2022.

**8.1 Remuneration Strategy and Control**

The State of North Rhine-Westphalia is the sole owner of NRW.BANK. Every year, the Bank’s Board of Guarantors adopts the principles of the business, promotional and risk policy within the meaning of Section 10 No. 9 of its Statutes. These principles form the basis of the strategic orientation of NRW.BANK in its capacity as the promotional bank for North Rhine-Westphalia and, together with the business, promotional and risk strategy derived from them, constitute the overall strategy including the strategic business requirements. The remuneration strategy is derived from the above as well as from the corporate culture and values of NRW.BANK. It formulates the remuneration principles of NRW.BANK and defines measures for their implementation. The remuneration strategy thus provides the basis for NRW.BANK’s remuneration system.



The above sources result in the following principles for NRW.BANK's remuneration strategy, which serve to secure the Bank's sustainable performance:

■ **Target-oriented incentives implementing the strategy**

The remuneration system supports the implementation of the targets and objectives defined in the overall strategy. Incentives that help achieve the targets are supported, while those that are opposed to the targets are prevented.

■ **Risk orientation**

The remuneration system supports NRW.BANK's consistent conservative risk policy and does not encourage undesirable risk-taking.

■ **Resource efficiency**

Being the central promotional platform, NRW.BANK's main task consists in designing the promotional products efficiently and with a minimum impact on the state budget. In the context of its conservative investment strategy, NRW.BANK generates surpluses which are mainly used for the promotional business and to secure the Bank's performance. The remuneration system considers these principles of a cautiously operating public-law promotional bank. At the same time, NRW.BANK is subject to all banking-specific requirements and requires employees with the corresponding qualifications.

■ **Long-term motivation**

NRW.BANK pursues a long-term, sustainable business model and is a future-oriented public-law employer acting in a socially responsible manner. The Bank aims to strengthen the ties with its employees as well as to support their health, their ability to work and their motivation. NRW.BANK is particularly committed to a responsible human resources policy and fair dealings with each other. The motto "internal promotion is preferable to external hiring" underlines the Bank's sustainable and respectful human resources policy. The remuneration system supports this human resources policy, which is aimed at trusting, long-lasting cooperation and creates incentives for the necessary long-term motivation of the workforce.

These strategic requirements derived from the overall strategy form the framework for NRW.BANK's remuneration strategy, taking the corporate culture and values into account. This results in the following remuneration principles:

■ All elements of NRW.BANK's remuneration system must meet the requirements of the conservative remuneration policy of a competition-neutral promotional bank whose primary objective is not the generation of profits.

■ A total remuneration geared to the respective requirements and market environment forms the basis of NRW.BANK's remuneration system to secure the livelihood of its employees and ensure that NRW.BANK remains staffed with qualified employees to meet its bank-specific requirements at all times.

■ NRW.BANK's remuneration system comprises consistent and transparent remuneration rules.

These remuneration principles must be fulfilled by all components of NRW.BANK's remuneration system. Amendments to NRW.BANK's remuneration system and their implementation are agreed with an in-house "Remuneration Commission" once a year as well as on special occasions. This Commission is composed of the Heads of Internal Audit, Human Resources, Credit Management (back office) and Risk Control, Compliance as well as the "Remuneration Officer" as defined in Section 23 of the Remuneration Ordinance for Institutions (InstitutsVergV). To review the Bank's remuneration policy, the meetings of the Remuneration Commission are additionally attended by the Heads of the Legal and Strategy/Communications/Board Office units. The Head of Finance and two representatives of the overall Staff Council complement the Remuneration Commission as guests. The tasks and the composition function of the Remuneration Commission have been laid down in NRW.BANK's internal written instructions.

Based on the statement by the Remuneration Commission, the Managing Board decides on amendments to the remuneration system for the Bank's employees. No external advisory services were used in the definition of NRW.BANK's remuneration policy.

The Supervisory Board of NRW.BANK is the responsible main controlling body with regard to the remuneration systems. It decides on the contents and the appropriateness of the remuneration systems for the members of the Managing Board based on a review and recommendation by the Remuneration Committee, which, in turn, is supported by the Remuneration Officer. The same applies to the supervision of the appropriateness of the remuneration systems for the Bank's employees and to the assessment of the effects of the remuneration systems on the Bank's risk, capital and liquidity situation.

At its March 2018 meeting, the Supervisory Board addressed remuneration-related issues. The same applies to the Remuneration Committee as defined in Section 15 InstitutsVergV and Section 25d Para. 12 KWG. As of December 31, 2018, this committee was composed of the following members:

- Minister Prof. Dr. Andreas Pinkwart (Chairman), Ministry for Economic Affairs, Digitisation, Innovation and Energy of the State of North Rhine-Westphalia
- Minister Lutz Lienenkämper (Deputy Chairman), Ministry of Finance of the State of North Rhine-Westphalia
- Minister Ina Scharrenbach (Deputy Chairwoman), Ministry of Health, Equalities, Care and Ageing of the State of North Rhine-Westphalia
- Authorised officer (Prokurist) Matthias Elzinga (representative of the employees of NRW.BANK)
- Director Frank Lill (representative of the employees of NRW.BANK)

In accordance with Section 12 Para. 2 of the Statutes, the above ministers may appoint one permanent representative each and invite the latter to take part in the meetings. As of December 31, 2018, the following permanent representatives had been appointed:

- Senior Principal Dr. Johannes Velling, Ministry for Economic Affairs, Innovation, Digitisation and Energy of the State of North Rhine-Westphalia

- Assistant Secretary Gerhard Heilgenberg, Ministry of Finance of the State of North Rhine-Westphalia
- Senior Principal Dr. Christian von Kraack, Ministry of Home Affairs, Municipal Affairs, Construction and Equality of the State of North Rhine-Westphalia

In accordance with Section 20 Para. 1 Letter c) of the Statutes, another member was appointed by the Guarantor and invited to the meetings:

- Dr. Birgit Roos, Chairwoman of the Managing Board of Sparkasse Krefeld

## 8.2 General Conditions for Appropriate Remuneration

Ever since its inception, NRW.BANK has, in agreement with its guarantor, geared its remuneration systems and remuneration parameters towards its promotional tasks and has based its remuneration structure exclusively on regionally and/or nationally used remuneration parameters to ensure that the amounts of its remuneration do not exceed the market level for comparable positions. This is examined applying external standards:

- The fixed salary for employees under collective agreements is based on the "Manteltarifvertrag für das private Bankgewerbe und die öffentlichen Banken" (basic collective agreement for private sector and public-sector banks). Two consecutive wage groups are allocated to each position under collective agreement. The lower group represents the entry into the position, while the upper group represents the final target position. In addition, individualised extra pay is possible for each position, which is capped at 1 euro below the next higher group. This means that in individual cases, the fixed remuneration may be up to approx. 10% above the respective collective wage group.
- For positions not covered by collective agreements, remuneration comparisons of two consultancy firms, Willis Towers Watson, Frankfurt am Main, and hkp, Frankfurt am Main, are used to determine market indicators for NRW.BANK, which supply benchmarks for the remuneration possibilities. These benchmarks are based on the median of a peer group of German banks previously defined by the Managing Board. The market data obtained are adjusted for obvious extremes, checked against comparable positions within the Bank and

reviewed for adequate differentiation from the next higher and lower reporting levels. Salary increases may be decided by the managers only within the limits of these benchmarks. Salaries exceeding these limits are decided by the Managing Board on a case-to-case basis. In accordance with NRW.BANK's Company Car Directive, business unit and department heads of the Bank may be granted a company car (also for private use in compliance with applicable tax regulations).

The variable component last paid for the fiscal year 2016 has been replaced by an "annual fixed allowance" which is paid out on April 1 of the following fiscal year. The annual fixed allowance is not linked to collective agreements and does not increase the recipient's pension entitlement. Sustainable developments (seniority, expertise, skills and work experience) are a precondition for the first-time granting and any future increases of the annual fixed allowance. Outstanding individual achievements are exclusively recognised within the – non-monetary – motivation concept developed in parallel by NRW.BANK, which focuses on the following three fields of action: promote autonomy, permit development and give recognition. For this purpose, the Bank has implemented diverse measures, e.g. special development policies and a new planning and assessment instrument (PUR), whose main purpose is to initiate improvements in the "development" and "autonomy" fields of action.

Just like the previous instrument, this process is a central component of NRW.BANK's internal management system. A consistent top-down process ensures that the corporate objectives are communicated to employees at the downstream levels. For this purpose, the objectives of the Bank are initially laid down in the "Objectives agreement and results assessment" between the Supervisory Board and the Managing Board. The Managing Board translates these objectives to the individual business units of the Bank using a special planning and results assessment procedure. The business unit heads and all senior managers are responsible for transferring these strategic objectives to the employees in an adequate manner using the above-described PUR system.

### 8.3 Deferrals and Conditions for the Payment of Variable Remuneration Components

For the fiscal years 2013 to 2016, NRW.BANK has deferred variable remuneration components until April 2022 and successively reviews their conditions for payment when they become due. For the principles laid down in this respect in accordance with Sections 18 et seq. of the Ordinance on the Supervisory Requirements for Institutions' Remuneration Systems (InstitutsVergV), please refer to the reports of the past years. The deferred remuneration components that were up for review in April 2018 were paid out in full as all relevant criteria were fully met.

### 8.4 Composition of the Managing Board Remuneration

The remuneration of the Managing Board is regularly reviewed for appropriateness. For this purpose, NRW.BANK participates in an annual comparison of Managing Board salaries performed by an external remuneration consulting firm. This comparison covers the market data of Germany's top 30 banks, with the data of the banks directly participating in the remuneration comparison complemented by additional information taken from the annual and remuneration reports. Based on the total remuneration received by the Managing Board members of this peer group, the remuneration received by the Managing Board of NRW.BANK is clearly below the median. Compared to other large promotional banks the Managing Board remuneration of NRW.BANK is at a medium level.

Since the fiscal year 2017, all Managing Board members of NRW.BANK have exclusively received fixed remuneration. However, variable remuneration components that have been deferred in accordance with Section 20 InstitutsVergV may still have to be paid out if they are approved.

The partial amounts of the variable remuneration for the fiscal years 2013 to 2016 that were subject to the sustainability and malus arrangement reserve and due in April 2018 were approved for payment following the respective review by the responsible bodies on March 19, 2018. For a detailed presentation of the remuneration received by the individual Managing Board members, refer to page 93 in the notes.

In addition, the Supervisory Board carried out the contractually agreed review of the appropriateness of the remuneration of Mr Suhlrie, which is to be performed at least every three years, with regard to potential inflation losses. A corresponding adjustment of his salary was agreed with effect from June 1, 2018.

In September 2018, the Supervisory Board also decided to reappoint Mr Stölting as member of the Managing Board with effect from July 1, 2019 for another five years and to sign a follow-up contract at unchanged conditions.

In the event of an inability to work caused by an accident or illness, all four Managing Board members are entitled to their fixed annual salary for an indefinite period but no longer than up to the end of their employment. Thereafter, a benefit for invalidity will be paid depending on the individual pension commitment for the respective member. The members of the Managing Board are not entitled to pension if the Bank terminates the employment relationship for reasons attributable to the Managing Board members.

In case of a premature resignation without serious cause, the total payments to Mr Forst and Ms Pantring including potential fringe benefits are limited to the remaining contractual term and to a maximum of two annual remunerations respectively.

If the contract of Mr Forst is not renewed before he turns 62 and this is not his fault and he is still able to work, he may apply for early retirement benefits after having reached the age of 62, whose payment will end once he receives his statutory pension but no later than after having reached the age of 66 plus two months.

After the end of the employment relationship, Mr Stölting and Mr Suhlrie will receive a life-long pension, in analogy to the pension granted in the event of invalidity.

All members of the Managing Board are entitled to pension benefits as they reach the age of retirement or in case of invalidity. In the event of their death their dependants are also entitled to benefits. All commitments are contractually unforfeitable or unforfeitable by law

because of the number of years served. Mr Forst, Mr Suhlrie and Ms Pantring benefit from a contribution-linked pension commitment. In the context of this pension commitment, personal pension accounts, some with a starting component, have been set up for them, into which annual pension components are brought in. The pension component is calculated at an individual contribution rate on the basis of 69% of the fixed annual salary (equivalent to the fixed remuneration less annual fixed allowance, benefits in money's worth and benefits in kind). Each pension account carries an individual interest rate. At the time the insured event occurs, the pension capital built-up in the account – in the event of invalidity, plus additional components, if applicable – is actuarially converted into a pension.

Mr Stölting benefits from a pension commitment pursuant to the German Civil Servant's Pension Act (Beamtenversorgungsgesetz) as amended from time to time. Depending on the number of pensionable service years, the maximum pension entitlement is 71.75% of the pensionable salary reachable at the age of 65. The pensionable salary is 69% of the fixed annual salary. The amount of the pension in the event of invalidity depends on the entitlement achieved as well as on the additionally agreed attributable period credited at the time the insured event occurs. In the case of Mr Stölting, the pension from the statutory pension insurance and the pension from additional pension insurance will be deducted from the pension from the time they are granted.

After the death of a Managing Board member, their dependants receive a reduced pension (up to 60% of the pension). Children are entitled to 20% of the pension if they are orphans and to 12% if they are half-orphans.

While the pension benefits paid out to Mr Forst, Mr Suhlrie and Ms Pantring will be increased by 2.0% p. a., the pension paid to Mr Stölting will be adjusted in accordance with the linear changes applicable to pensions paid by the state of North Rhine-Westphalia. As Mr Stölting benefits from commitments that are similar to those for civil servants, he is exempted from statutory pension insurance but will receive benefits as defined in the North Rhine-Westphalian "Beihilfenverordnung" in the

event of illness. Ms Pantring will receive benefits in the event of illness on the same basis.

The expenses for the pensions of the Managing Board members and the present values of the obligations are shown in the notes on page 94.

### 8.5 Remuneration of the Members of the Supervisory Board

The remuneration paid to the members of the Supervisory Board is based on a general resolution by the Board of Guarantors and is paid regardless of the business performance. This remuneration structure very well reflects the underlying idea according to which the generation of profits is not the primary business objective. The remuneration of the Supervisory Board and its committees consists of a work remuneration that is unrelated to the meetings held depending on committee membership and an additional meeting-related fee. No distinction is made between a member, the vice chairperson or the chairperson. Besides this remuneration, travel expenses incurred by mandate holders are adequately refunded. The payment of value added tax depends on the respective tax status of the individual members. Besides the remuneration paid to the members of the Supervisory Board, the members of the Board of Guarantors, the

Advisory Board for Housing Promotion, the Advisory Board of NRW.BANK and the Parliamentary Advisory Board also receive individual remuneration on the basis of the resolution passed by the Board of Guarantors. The respective remuneration complies with the principles above, but the absolute amount varies based on the different tasks and specific responsibilities. An itemised disclosure of the remuneration received by the individual members of the Supervisory Board, the Board of Guarantors and the Advisory Board can be found in the notes to the Financial Report (page 95 et seq.).

### 8.6 Disclosure pursuant to Section 16 InstitutsVergV of July 25, 2017 in conjunction with Art. 450 of Regulation (EU) No 575/2013 No. 1g et seq.

Since the fiscal year 2017, all employees of NRW.BANK, including the Managing Board, have exclusively received fixed remuneration components. The total fixed compensation is paid in cash and, on a small scale, in the form of benefits in money's worth (e.g. for the private use of company cars). There is no compensation in the form of shares or similar instruments.

#### 8.6.1 Quantitative Information Regarding the Remuneration of the Risk Takers on the Managing Board

### Composition of the Remuneration for the Year 2018

Fixed remuneration <sup>1)</sup>	Other benefits <sup>2)</sup>	Total remuneration	Remuneration for mandates <sup>3)</sup>	Number of risk takers
€ 2,509,744	€ 1,284,745	€ 3,794,489	€ 106,669	4

<sup>1)</sup> Incl. benefits in money's worth and benefits in kind.

<sup>2)</sup> Employer contributions to social security insurance, benefits in the event of illness and allocations to the provision for old-age pensions incl. interest expenses.

<sup>3)</sup> Remuneration received in 2018 for mandates/shown incl. VAT

## Complementary Information Regarding Deferred Variable Remuneration Components from Previous Years

	Amount <sup>1)</sup>	Number of risk takers
Deferred variable amounts from the years 2013 – 2016	€ 697,800	5
– thereof vested by 2018 and paid out in 2018	€ 225,975	5
– thereof vested in 2018 but not paid out because of sustainability arrangement	€ 100,575	5
– thereof not yet vested in 2018	€ 371,250	4
– thereof reduced in 2018	€ –	0

<sup>1)</sup> Including variable remuneration for Managing Board members who have resigned from the organisation.

## Information Regarding Other Remuneration Benefits

	Amount <sup>1)</sup>	Number of risk takers
Guaranteed payments pursuant to Section 5 Para 5 IVV made in 2018 <sup>1)</sup>	€ –	0
Severance payments made in 2018	€ –	0
– thereof single highest amount	€ –	0
Persons whose remuneration in 2018 exceeded € 1.0 million	€ 2,332,446	2

<sup>1)</sup> Included in the above information regarding the variable remuneration.

For a breakdown of the payments to the Managing Board members by names, please refer to page 93 of the notes.

## 8.6.2 Quantitative Information Regarding the Remuneration of All Employees below the Managing Board

### Composition of the Remuneration for the Year 2018

	Number <sup>1)</sup>	Fixed remuneration <sup>2)</sup>	Other benefits <sup>3)</sup>	Total remuneration	Remuneration for mandates <sup>4)</sup>
<b>Programme-based Promotion</b>	<b>583</b>	<b>€ 37,727,122</b>	<b>€ 23,435,638</b>	<b>€ 61,162,760</b>	<b>€ 131,376</b>
– risk taker	18	€ 3,004,369	€ 1,302,118	€ 4,306,487	€ 7,401
– no risk taker	565	€ 34,722,753	€ 22,133,520	€ 56,856,273	€ 123,975
<b>Other Promotion/Liquidity Management</b>	<b>56</b>	<b>€ 6,611,529</b>	<b>€ 3,003,577</b>	<b>€ 9,615,106</b>	<b>€ 0</b>
– risk taker	27	€ 4,531,665	€ 1,919,076	€ 6,450,741	–
– no risk taker	28	€ 2,079,864	€ 1,084,501	€ 3,164,365	–
<b>Staff/Services</b>	<b>881</b>	<b>€ 60,383,010</b>	<b>€ 30,120,590</b>	<b>€ 90,503,600</b>	<b>€ 600</b>
– risk taker	38	€ 7,062,607	€ 3,364,376	€ 10,426,983	–
– no risk taker	843	€ 53,320,403	€ 26,756,214	€ 80,076,617	€ 600
<b>Total</b>	<b>1,520</b>	<b>€ 104,721,661</b>	<b>€ 56,559,805</b>	<b>€ 161,281,466</b>	<b>€ 131,976</b>

<sup>1)</sup> Incl. employees who departed in the course of the year (pro-rated remuneration for the term of employment); apprentices/trainees are included in the data for Staff/Services.

<sup>2)</sup> Incl. benefits in money's worth and benefits in kind.

<sup>3)</sup> Employer contributions to social security insurance, benefits in the event of illness and allocations to the provision for old-age pensions incl. interest expenses.

<sup>4)</sup> Incl. VAT.

### Complementary Information Regarding Deferred Variable Remuneration Components from Previous Years

	Amount <sup>1)</sup>	Number of risk takers
Deferred variable amounts from the years 2013 – 2016	€ 2,626,173	37
– thereof vested by 2018 and paid out in 2018	€ 959,446	37
– thereof vested in 2018 but not paid out because of sustainability arrangement	€ 537,020	36
– thereof not yet vested in 2018	€ 1,129,707	36
– thereof reduced in 2018	€ –	0

<sup>1)</sup> Including deferred amounts for risk takers who have resigned or retired from the organisation.

### Information Regarding Other Remuneration Benefits

	Amount	Number of risk takers
Hiring bonuses paid or guaranteed payments made in 2018	€ –	0
Severance payments made in 2018	€ –	0
– thereof single highest amount	€ –	0
Persons whose remuneration in 2018 exceeded € 1.0 million	€ –	0

### 8.6.3 Quantitative Information Regarding the Remuneration of the Risk Takers on the Supervisory Board

#### Composition of the Remuneration for the Year 2018 for Persons Identified as Risk Takers on Account of Their Membership of the Supervisory Board

	Non-performance-linked remuneration	Performance-linked variable remuneration <sup>1)</sup>	Total remuneration <sup>1)</sup>	Number of risk takers <sup>2)</sup>
Members of the Supervisory Board pursuant to Section 12 Para. 1 Letters a – d, Para. 2 of the Statutes	€ 247,000	€ –	€ 247,000	12
Members of the Supervisory Board pursuant to Section 12 Para. 1 Letter e of the Statutes (staff representatives)	€ 91,600		€ 91,600	5

<sup>1)</sup> Including remuneration for risk takers on the Supervisory Board who resigned during the course of the year

<sup>2)</sup> Number of risk takers on the Supervisory Board as of December 31, 2018

Where staff representatives have been identified as risk takers, the remuneration they receive for this activity is shown in the tables under point 8.6.2. For a breakdown of the remuneration by names, please refer to the Notes, page 95.

# Declaration of Conformity

The Managing Board and the Supervisory Board of NRW.BANK jointly declare that the Bank essentially complied with the recommendations of the Public Corporate Governance Code of NRW.BANK in 2018. Necessary deviations from the recommendations are made transparent and justified below in accordance with Clauses 1.3.5 and 1.4 of the Code.

## Reappointment to the Managing Board

When reappointing Mr Stölting as member of the Managing Board, a follow-up contract at unchanged conditions was signed, given that his former employment contract had been limited in time. The new contract does not contain a provision regarding a severance payment cap as defined in Clause 3.4.2, as such a provision was not contained in the previous contract. For more information on the contractual agreements, please refer to Chapter 8.4 "Composition of the Managing Board Remuneration" in the Report on Public Corporate Governance.

## Diversity in the composition of the Supervisory Board

Because of new appointments in the course of the year, the 40% minimum recommendation for both genders on the Supervisory Board stipulated in Clause 4.5.1 was not met as of December 31, 2018.

As of the reporting date, the Supervisory Board was composed of 14 members, 35.7% of whom were women and 64.3% were men.

In accordance with the strategy adopted in 2015 to promote the representation of the underrepresented gender on the Supervisory Board, the Supervisory Board aims to comply with this recommendation of the Public Corporate Governance Code. Against this background, the Supervisory Board pays special attention to considering the underrepresented gender when proposing candidates for appointment to the Supervisory Board to the guarantor. When identifying women and men with equal qualifications for Supervisory Board membership, it recommends giving preference

to women until the target is reached. The Supervisory Board furthermore asks NRW.BANK's staff council to consider the PCGK target when exercising its right to propose members who are to be elected to the Supervisory Board by the workforce. Nevertheless, the accomplishment of this target depends on the intervals at which new members are to be elected and continues to be jeopardised by the fact that certain members of the Supervisory Board automatically accede to their positions by virtue of holding public offices outside NRW.BANK's sphere of influence while the appointment of other members is dependent on the composition of the elected employee representative body.

## Submission of Resolution Proposals to the Supervisory Board

Contrary to Clause 5.1.5, documents required for decisions were, in exceptional cases, submitted to the members of the Supervisory Board less than 14 days prior to the meeting. This was due to current developments. Thanks to the availability of the Managing Board for answering questions, the preparation of the Supervisory Board meetings by the Executive and Nomination Committee and the possibility for extensive consultations at the meetings, it is nevertheless ensured that all issues are addressed in sufficient detail.

The Managing Board and the Supervisory Board of NRW.BANK remain committed to the Public Corporate Governance Code and intend to comply with its recommendations also in future unless transparent and justified exceptions appear sensible and necessary.

NRW.BANK  
March 2019

The Managing Board  
The Supervisory Board

# Report of the Supervisory Board

In compliance with the tasks imposed on it by the law, the Statutes and the Public Corporate Governance Code, the Supervisory Board monitored the proper conduct of the business and obtained regular reports on the latest business developments and the risk situation in the fiscal year 2018. It discussed and approved all transactions requiring its approval in accordance with legal or statutory provisions and addressed important matters of business policy in detail. In addition, the Supervisory Board repeatedly addressed digitisation issues as well as their effects on the Bank and the measures taken in this regard.

The Executive and Nomination Committee prepared the meetings of the Supervisory Board and the Board of Guarantors. In cooperation with the Managing Board, it developed and adopted a policy for long-term succession planning in accordance with Clause 5.1.8 of the Public Corporate Governance Code. It furthermore decided on the budget for the Bank's corporate citizenship activities.

The Remuneration Committee primarily supervised the appropriateness of the remuneration systems for the Managing Board and the employees of NRW.BANK.

The Risk Committee mainly assisted the Supervisory Board in monitoring the Bank's risk situation.

The Promotional Committee primarily addressed various aspects of the promotional policy and the promotional business.

In accordance with regulatory requirements and the provisions in the Statutes, the Supervisory Board addressed the business, promotional and risk strategy for the years 2019 to 2022, which had previously been discussed by the Promotional Committee and the Risk Committee. The principles of the business, promotional and risk policies were submitted for approval to the

Board of Guarantors, which is the competent body under the Bank's Statutes. At its meeting on December 3, 2018, the Board of Guarantors approved the proposed strategy.

The Audit Committee mainly supervised the accounting process, the effectiveness of the risk management system and the performance of audit as well as the independence of the auditor. It also approved the non-audit services.

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft carried out the audit of the financial statements for 2018 and the management report and issued an unqualified audit opinion.

The Supervisory Board and the Audit Committee formed from among its members discussed in detail the financial statements of NRW.BANK and the report of the external auditors on the results of their audits. Following the final result of the audit, they raised no objections.

At its meeting on March 18, 2019, the Supervisory Board approved the financial statements and the management report established by the Managing Board and proposed that the Board of Guarantors approve the financial statements for the year 2018.

The Non-Financial Report 2018 was submitted to a voluntary review by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft and deemed lawful and appropriate in light of the result of the audit. As in the previous years, no consolidated financial statements were prepared for the year 2018, as the Bank is not obliged to do so under commercial law.

The Supervisory Board held four meetings in the fiscal year. Another 15 meetings were held by the Committees composed of the members of the Supervisory Board; the Executive and Nomination Committee held four meetings, the Risk Committee held four meetings, the Audit Committee held two meetings, the Promotional Committee held four meetings and the Remuneration Committee held one meeting. In exceptional cases, resolutions were passed by way of written votes.

Government control over NRW.BANK continues to be exercised by the Ministry of the Interior of the State of North Rhine-Westphalia. In the area of social housing promotion, this is done in cooperation with the Ministry responsible for Housing. The purpose of this control was to ensure the lawfulness of the activities of NRW.BANK. The European Central Bank (ECB) continued to exercise direct control over NRW.BANK. As in the previous years, the ECB was supported by the Federal Financial Supervisory Authority and Deutsche Bundesbank.

Düsseldorf/Münster, March 2019



Prof. Dr. Andreas Pinkwart  
Chairman of the Supervisory Board



# Management Report

## of NRW.BANK for the Fiscal Year 2018

### 1 Fundamental Information about NRW.BANK as the Promotional Bank of North Rhine-Westphalia

NRW.BANK is the promotional bank of North Rhine-Westphalia (NRW). It has the public mission to support its owner and guarantor, the State of North Rhine-Westphalia, in the completion of its structural and economic policy tasks. NRW.BANK conducts its activities in accordance with commercial principles, taking into account the public welfare on a non-competitive and non-profit-oriented basis. To meet its promotional mission, NRW.BANK draws on the full range of available promotional instruments and, in particular, contributes its lending expertise to the promotional process.

#### 1.1 Business Model

NRW.BANK's business model is that of a largely budget-independent promotional bank and supports the sustained fulfilment of its public promotional mission. According to the "Act on NRW.BANK", it is a legally independent promotional bank engaging in competition-neutral promotional business which permanently benefits from institutional and guarantor liability as well as from an explicit statutory refinancing guarantee from its guarantor. This enables NRW.BANK to make available the required liquidity at short notice at any time. To complete its mission, NRW.BANK uses the resulting possibilities for funding in the international capital market, where the Bank has established itself as a reliable

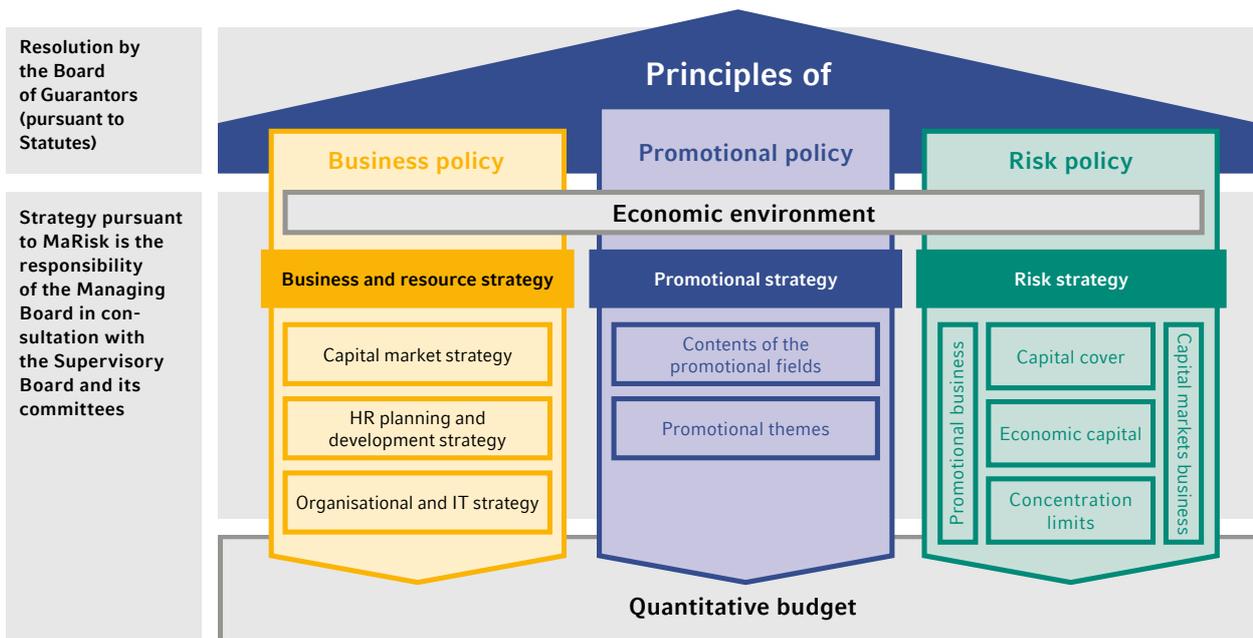
market participant. NRW.BANK generates its own income within the parameters of its conservative investment strategy. This income is used to finance the promotional business, to secure the viability of the Bank, also with regard to the creation of its own, non-interest-bearing provisions and reserves, and to finance the banking operations. The use of own resources, e.g. to reduce the interest rates on promotional loans, is a key aspect of NRW.BANK's business model. Its promotional instruments primarily include promotional loans, equity finance as well as advisory services. NRW.BANK takes into account the existing offers by the Federal Government, the North Rhine-Westphalian government and the European Union in the arrangement of its promotion.

#### 1.2 Objectives and Strategies

The Bank's activities are geared towards sustainability. Details are laid down in NRW.BANK's Sustainability Guidelines.

The Managing Board of NRW.BANK liaises closely and constantly with the Bank's executive bodies and ensures the appropriate degree of transparency in implementing and refining its tasks and strategy.

The overall bank strategy is composed of the principles adopted by the Board of Guarantors according to the



Statutes and of the strategy defined by the Managing Board pursuant to the Minimum Requirements on Risk Management (MaRisk). The principles of the business, promotional and risk policy define the framework of strategic action. The business, promotional and risk strategy puts the strategic positioning of the Bank which is defined in the principles into more concrete terms and leads to a multi-year quantitative budget.

Heart of the overall bank strategy is the promotional strategy reflecting the special importance of the promotional business. The business/resource strategy defines the capital market strategy as well as its sub-strategies, i.e. treasury strategy, funding strategy and investment/trading strategy, as well as resource-related aspects such as human resources and IT. The risk strategy addresses the risk-relevant aspects of the strategy and is closely linked with the promotional and business strategies.

The overall bank strategy is geared to NRW.BANK's public mission to support the State of North Rhine-Westphalia and its local and regional governments in completing their tasks. Material business activities as defined in the Minimum Requirements on Risk Management (MaRisk) are the promotional business and the capital market business, which supports the promotional activities.

NRW.BANK's promotional business is qualitative and theme-oriented. The promotional services are provided in the three promotional fields "Economy", "Housing" as well as "Infrastructure/Municipalities", which, in turn, are divided into individual promotional themes. Objectives and measures defined for each of these promotional themes are put into practice using specific promotional offers.

Theme-specific objectives and measures include the promotion of corporate investments, the promotion of corporate innovation and digitisation efforts, social housing promotion as well as promotional activities to the benefit of the technical and social infrastructure. Besides this, supporting the North Rhine-Westphalian municipalities in maintaining, expanding and modernising the educational infrastructure is a key objective of NRW.BANK. Measures addressing the energy transition and the protection of the environment are anchored in all three promotional fields.

In this context, NRW.BANK remains committed to constantly refining its promotional products and processes with a view to increasing the efficiency and effectiveness of its promotional activities.

NRW.BANK's Non-financial Report is available at <https://www.nrwbank.com/en/press/publications.html>

In this context, please also refer to the Bank's Sustainability Report, which will be published by mid-June 2019.

### **1.3 Internal Management System**

For its internal management, NRW.BANK generally uses controlling concepts and methods which have proven their worth and are commonly used in the banking sector. NRW.BANK's objectives are primarily geared to providing its guarantor, the State of North Rhine-Westphalia, with long-term support in performing its structural and economic tasks.

The preservation of the Bank's net asset value has been designated as a key condition for the Bank's internal management. NRW.BANK defines the net asset value as the equity capital shown in the balance sheet with all its components plus allowance reserves.

Reflecting the public promotional mission, the volume of new commitments represents a key performance indicator used for controlling purposes. Other banking performance indicators include operating income, administrative expenses, total assets and the business volume as well as economic capital in the context of the risk-bearing capacity calculation. For all key performance indicators, there are defined budget values which are regularly subjected to plan/actual comparisons as well as scenario and forecast analyses in order to provide appropriate control stimuli.

The volume of new commitments comprises the commitments for promotional funds made in the current fiscal year. Operating income comprises net interest income and net commission income as well as net income from trading operations and the other operating result. Administrative expenses comprise personnel expenses as well as operating expenditure. The business volume comprises total assets, contingent liabilities, other commitments as well as administered funds.

Being subject to the Capital Requirements Regulation (CRR), NRW.BANK is obliged to disclose its return on investment, which is calculated as the quotient of net profit and total assets, in accordance with Section 26a Para. 1 Sentence 4 KWG (German Banking Act). As of December 31, 2018, NRW.BANK's return on investment was 0%; this ratio does not play a decisive role for NRW.BANK as due to its status as a promotional bank profit generation is not the key objective of NRW.BANK. Any income generated is used for promotional purposes, the maintenance of the bank operations and the creation of allowance reserves.

Bank-wide limits are defined for economic capital as determined in the context of the calculation of the risk-bearing capacity.

## 2 Report on Economic Position

### 2.1 Economic Climate

#### 2.1.1 The German Economy

In the first six months of 2018, the economy showed a robust trend, with quarterly growth rates around the 0.4% mark. By contrast, the third quarter saw the gross domestic product (GDP) contract. The recovery towards the end of the year was insufficient to offset the previous dent in growth. As a result and also because of a number of extraordinary factors, GDP increased by only 1.5% in 2018, down 0.7 percentage points on the previous year's growth rate. While this means that the German economy expanded for the ninth consecutive year, economic growth was less dynamic.

The marked slowdown was primarily due to the performance of Germany's automotive industry, which encountered problems in the registration of new vehicles according to the new exhaust gas testing method as of the third quarter. The resulting production cuts were not offset in the fourth quarter. Extraordinary burdens in 2018 also resulted from a flu wave and from extensive collective bargaining disputes (e.g. in the metals and electrical industry) at the beginning of the year. Moreover, the summer months were unusually hot and dry, which not only affected consumers' spending mood but also significantly reduced the transport capacity on inland waterways in the autumn months, which had a clearly adverse impact on the mineral oil industry, in particular, as well as the primary industries.

But even without considering the above extraordinary factors, the economy lost momentum in the course of

the year and the economic cycle of the industrial sector seems to have passed its peak. The expectation component of the Ifo Business Climate Indicator for the manufacturing sector dropped sharply. Export expectations deteriorated particularly strongly in view of the weaker world economy and the introduction of protectionist trade policies.

Although the global environment deteriorated, exports remained a main driver of the economy in 2018 but clearly lost importance compared to the previous year. Imports rose sharply at the same time, resulting in negative net exports. Concerns that the foreign trade risks would have a seriously adverse impact on the German economy have not come true (yet). But the domestic economic forces were the main drivers of the economy.

Gross capital formation in machinery and equipment rose sharply in 2018. According to Bundesbank's Bank Lending Survey, increased investment activity was lately the most important driver of corporate demand for lending. Spending on plant and equipment was supported by high capacity utilisation and by well-filled order books. The positive trend of the previous year thus continued. Construction spending also picked up sharply. The strong increase in housing construction spending reflects the high demand resulting from the tight housing supply, especially in the densely populated areas. But construction spending was also driven by the government, which implemented numerous infrastructure projects. In the Ifo Business Climate Survey, the construction sector has never rated its business situation more favourably since the start of the series in 1991.

Economic growth was supported not only by spending on plant and equipment but also by private consumption. In the course of the year, however, the latter expanded increasingly slowly, although the conditions for growth were excellent. On an annual average, some 44.8 million people were gainfully employed in Germany in 2018, 1.3% more than in the previous year. The number of people subject to social insurance contributions also remained on the increase and the unemployment rate dropped to 5.2%. At the same time, (effective) wages increased. Moreover, the latest collective wage agreements showed much higher pay rises than in the two previous years, albeit with longer contractual terms. The above-mentioned extraordinary factors had a clearly dampening effect. The weather conditions had an adverse impact on retailers, and the hospitality

sector was hardly able to grow, either. In particular, car sales had a dampening effect in the second half of the year. Apart from delivery problems, this is probably attributable to diesel bans. The declining momentum was also very much due to increased inflation, which amounted to 1.9% on an annual average.

The fact that inflation exceeded the previous years' level is mainly attributable to the sharp rise in the oil price. This effect was further intensified by the exchange rate gain of the dollar against the euro in the second half of the year. The sharp drop in the oil price seen since October suggests that the situation will ease, though.

### 2.1.2 The North Rhine-Westphalian Economy

North Rhine-Westphalia is not only by far the most populous German state but also holds a leading economic position in the country, as reflected in a contribution of 21.2% to GDP and 21.3% to employment.

After the dynamic year 2017, when growth reached 1.7%, 2018 saw the economy – both in NRW and in Germany as a whole – return to normal. In the first six months of the year, GDP growth came to 1.5%, according to preliminary figures. The economy then calmed down further in the second half of the year. This was primarily due to the development of the industrial sector. While industrial production was still strong in the spring, this pace could not be maintained as the global economy and, in particular, the European economy slowed down. In addition, there were extraordinary factors such as the low water level of the River Rhine, which confronted many industrial operations with logistic challenges. Whereas mechanical engineering firms and manufacturers of IT and electronic equipment reported noticeable increases in production compared to 2017, production in the chemicals and food industries as well as the metals sectors stagnated. Total industrial output was only slightly higher than in 2017, although foreign sales were quite dynamic in several sectors.

The conventional energy sector proved to be another obstacle, as the output declined noticeably both in the coal mining industry and the energy utility sector. The last two hard coal mines in Bottrop and Ibbenbüren closed at the end of the year. This marked the end of a formative era for North Rhine-Westphalia. But lignite-fired power generation in the Rhineland region is also facing a dramatic upheaval. Over the course of the year, the "Growth, Structural Change and Regional Develop-

ment" Commission installed by the federal government developed proposals for proactive and socially compatible structural change.

The construction industry was in a boom phase in 2018. Capacities were heavily utilised throughout the year and the output was increased significantly. As in the previous years, housing construction was the main driver. The sector continues to benefit from favourable financing conditions, low rates of return of alternative investments and high demand, especially along the Rhine. Nevertheless, new housing construction, especially along the Rhine and in NRW's university cities, is still clearly below the estimated demand for new housing. Rents and property prices picked up again and the supply of affordable housing declined. The federal state's social housing promotion activities ensured that part of the new housing construction activity took place in the low-price segment. Numerous government infrastructure projects additionally fuelled economic activity. The road building industry reported a sharp increase in production, and the public building construction sector – which also comprises schools and hospitals – also expanded dynamically. Commercial building construction was the only sector to fall slightly below the prior year level, according to preliminary data. The high capacity utilisation probably prevented even higher construction output. Both the construction sector and the Federal Employment Agency reported problems in filling vacant positions. A lack of planning capacity and a shortage of materials also had a dampening effect.

Over the past years, the services sectors made a constant contribution to economic growth in North Rhine-Westphalia. This was again the case in 2018, when revenues in the corporate services sector rose sharply and in sync with Germany-wide revenues. The information and communications sector recorded strong growth. While retail sales were solid, they no longer reached the momentum of 2017, as sales of food and clothing, among others, were slow. A stronger increase was probably prevented not only by rising inflation but also by the economic uncertainties and declining migration.

Continued employment growth is the main reason for the very good overall domestic economic activity. While some signs of an economic slowdown became visible in the labour market at the end of the year, demand for labour remained high. New jobs subject to social insurance contributions were created mainly in the services sectors. But the labour market trend was extremely good

also in the manufacturing industry and the construction sector. Consequently, the average annual jobless rate dropped by 0.6 percentage points to 6.8%. NRW.BANK's "Regionalwirtschaftliche Profile" (regional economic profiles) show that some regions of the Münsterland and Southern Westphalia have full employment. In other regions – especially in the Ruhr area but also in cities on the Lower Rhine and the "Bergische city triangle" – the fight against unemployment and the integration of low-skilled workers into the labour market remain a challenge. The positive overall economic trend and the continued low interest rates also helped improve the public sector budget in North Rhine-Westphalia. According to preliminary data, NRW's debts declined from about € 176 billion in the previous year to € 171 billion. The municipalities reduced the debts of their core and extra budgets from € 54 billion to € 52 billion.

### 2.1.3 Financial Markets

In the first half of the year, the international financial markets were still influenced by robust economic growth, which differed between the individual currency areas, though. At the end of June 2018, however, the global economic momentum began to slow down somewhat and the downside risks to the economy increased. As the year progressed, geopolitical tensions increased, existing trade conflicts intensified, and at the end of the year it was still unclear if and on what terms the United Kingdom will leave the EU in 2019.

The phase of extremely low interest rates seemed to end at the beginning of 2018. Against the background of a solid overall economic trend, government bond yields picked up. The yield on ten-year Bunds reached its high of the year already in early February, when it stood at close to 0.81%. This trend continued primarily in the dynamically growing USA, with US yields hitting its annual high of 3.26% in early October. In the eurozone, increased risk premiums for individual countries played an important role. This applied to Italy, in particular, where investors shunned government bonds in view of the debate about the government budget. This was reflected in clearly higher yields. In this market

environment, demand for safe investments such as federal securities picked up gradually. Towards the end of the year, the markets became increasingly concerned about the future economic trend. In the wake of declining US yields, the yield on ten-year Bunds dropped to approx. 0.15% at the turn of the year, which marked the lowest level since 2017.

In terms of monetary policy, the differences between the USA and the eurozone widened. The US Federal Reserve Bank (Fed) largely acted as expected by market participants and maintained its careful tightening policy, lifting the Fed Funds Rate at three-month intervals in 2018, i.e. four times, by 25 basis points each to a range of 2.25% to 2.50%. This means that the Fed increased interest rates by a total of nine times in three years. At the same time, it reduced its portfolio of US Treasuries and mortgage bonds by roughly US\$ 300 billion.

By contrast, the European Central Bank (ECB) generally maintained its expansionary monetary policy in 2018. It did not raise interest rates and initially continued its asset purchase programme. Starting October, the monthly net purchases in the amount of € 30 billion were halved to € 15 billion, and in mid-December the ECB decided to cease them entirely with effect from the end of the year. This marked the end of an era of almost four years in the eurozone. The ECB launched the broad-based purchase programme in March 2015; by the end of 2018, it had reached a volume of almost € 2.6 trillion, of which € 2 trillion relate to government securities.

But this decision did not really end the asset purchase programme. Instead, the ECB Council decided to reinvest the proceeds from interest and principal payments from maturing securities. These "reinvestments" are to be continued for an extended period of time following the first increase in interest rates, which, according to the Forward Guidance, will remain unchanged at least through summer 2019.

## 2.2 Course of Business

2018 was a good fiscal year for NRW.BANK.

In the new promotional business, NRW.BANK recorded a volume of new commitments of € 10.3 billion (2017: € 11.6 billion).

At € 2.4 billion (2017: € 2.7 billion), the Bank's standardised credit programmes for economic promotion, which are extended in accordance with the house bank principle (NRW.BANK.Universalkredit, NRW.BANK.Mittelstandskredit and NRW.BANK.Gründungskredit), remained in high demand.

The volume of new commitments under the housing promotion programme amounted to € 923 million (2017: € 907 million).

Funds totalling € 507 million (2017: € 223 million) were committed and numerous projects implemented under the NRW.BANK.Gute Schule promotional programme. In this context, the municipalities drew all existing contingents of the year 2017 that would otherwise have expired after the end of 2018.

Funds totalling € 1.6 billion (2017: € 2.2 billion) were committed for the promotional theme "Energy Transition/Environmental Protection", which covers all promotional fields.

The continued low interest rates again prompted many North Rhine-Westphalian municipalities to raise longer-term loans in the reporting year. Compared to the previous year, however, demand declined.

As of December 31, 2018, total assets amounted to € 149.1 billion (2017: € 147.6 billion). The business volume stood at € 167.9 billion (2017: € 166.5 billion). These figures were in line with expectations.

Thanks to its good creditworthiness and active investor service NRW.BANK was able to issue its bonds at favourable conditions.

At € 445.4 million (2017: € 613.9 million), operating income was much lower than in the previous year, primarily due to higher expenses for old age pension obligations and an increased "Förderleistung".

NRW.BANK generated an operating result before risk provisions/valuation adjustments in the amount of € 196.1 million (2017: € 395.4 million) in the fiscal year 2018 and was able to further increase not only its regulatory equity capital and its risk-bearing capacity but also its future promotional capability by establishing allowance reserves.

The table below shows NRW.BANK's results of operations from January 1 to December 31, 2018 broken down by segments:

	Programme-based Promotion		Other Promotion/ Liquidity Management		Staff/Services		NRW.BANK Total	
	2018	2017	2018	2017	2018	2017	2018	2017
	€ millions	€ millions	€ millions	€ millions	€ millions	€ millions	€ millions	€ millions
Net interest income	203.3	241.0	317.8	297.0	97.9	96.8	619.0	634.8
Net commission income	16.4	17.3	64.6	72.5	-2.2	-2.0	78.8	87.8
Net result from trading operations	0.0	0.0	0.4	-1.2	0.0	0.0	0.4	-1.2
Other operating result	5.1	4.9	-15.9	-12.8	-242.0	-99.6	-252.8	-107.5
<b>Operating income</b>	<b>224.8</b>	<b>263.2</b>	<b>366.9</b>	<b>355.5</b>	<b>-146.3</b>	<b>-4.8</b>	<b>445.4</b>	<b>613.9</b>
- Personnel expenses	-41.1	-40.7	-7.0	-6.8	-100.4	-78.7	-148.5	-126.2
- Operating expenditure	-43.1	-40.7	-26.0	-25.1	-31.7	-26.5	-100.8	-92.3
<b>Administrative expenses</b>	<b>-84.2</b>	<b>-81.4</b>	<b>-33.0</b>	<b>-31.9</b>	<b>-132.1</b>	<b>-105.2</b>	<b>-249.3</b>	<b>-218.5</b>
<b>Operating result before risk provisions/revaluation adjustments</b>	<b>140.6</b>	<b>181.8</b>	<b>333.9</b>	<b>323.6</b>	<b>-278.4</b>	<b>-110.0</b>	<b>196.1</b>	<b>395.4</b>
Risk provisions/ revaluation adjustments	-54.3	-64.9	-49.7	-39.2	-76.3	-273.3	-180.3	-377.4
thereof: allocation to fund for general banking risks	-50.0	-50.0	0.0	0.0	0.0	0.0	-50.0	-50.0
Taxes on income and revenues	-1.0	-1.6	-0.2	-1.1	-5.5	-5.1	-6.7	-7.8
<b>Net income/ loss for the year</b>	<b>85.3</b>	<b>115.3</b>	<b>284.0</b>	<b>283.3</b>	<b>-360.2</b>	<b>-388.4</b>	<b>9.1</b>	<b>10.2</b>
<b>Number of employees*</b>	<b>547</b>	<b>547</b>	<b>55</b>	<b>52</b>	<b>795</b>	<b>749</b>	<b>1,397</b>	<b>1,348</b>

\* Excl. Managing Board, trainees, apprentices, interns and employees on parental leave and similar leave.

The Programme-based Promotion segment comprises the business units Housing Promotion, Promotion Programmes, Special Finance, Equity Finance as well as Promotion Programme Advisory Services & Customer Service.

The Staff/Services segment comprises the Service and Staff business units such as IT/Organisation/Internal Services, Risk Control and Finance as well as Strategy/Communications/Board Office including the participations in the public interest.

The Other Promotion/Liquidity Management segment consists of Capital Markets including municipal direct loans.

## 2.3 Net Assets, Financial Position and Results of Operations

### 2.3.1 Results of Operations

#### Net Interest Income

At € 619.0 million, NRW.BANK's net interest income was slightly below the previous year's € 634.8 million, primarily because of increased expenses for the "Förderleistung".

#### Net Commission Income

Net commission income in the total amount of € 78.8 million (2017: € 87.8 million) mainly comprised income from surrogate loan transactions, where NRW.BANK mostly acts as hedge provider (seller). The previous year's net commission income was the last to include a positive income effect of € 6.3 million from the release of a deferred item which resulted from an accounting change that became effective as of December 31, 2013.

#### Net Result from Trading Operations

NRW.BANK's trading book contains short-term trading transactions with interest rate products. In the fiscal year 2018, this resulted in net income from trading operations of € 0.4 million (2017: € -1.2 million).

#### Other Operating Result

The other operating result amounted to € -252.8 million (2017: € -107.5 million) and primarily comprises interest effects from provisions for pensions, provisions for additional benefits and other personnel provisions totalling € -198.7 million (2017: € -123.7 million).

In addition, non-interest expenses for provisions for pensions and additional benefits for employees of Portigon AG increased. This is due, on the one hand, to the unexpected adjustment on July 20, 2018 of the "Heubeck tables" for the valuation of pension obligations, which were updated to reflect the latest statistical developments, especially with regard to life expectancy. On the other hand, two collective pay rises and an increase in average additional benefit expenses led to a further allocation to provisions.

Pursuant to the notification received from the Financial Market Stabilisation Authority (FMSA) dated April 23, 2018, NRW.BANK's annual contribution to the Restructuring Fund was set at € 18.5 million (2017: € 16.0 million),

of which € 2.8 million (2017: € 2.4 million) was paid in the form of a fully secured payment obligation. An amount of € -15.7 million (2017: € -13.6 million) was consequently recognised in profit/loss. The corresponding cash security is recognised under the balance sheet item "Other assets".

#### Administrative Expenses

At € -249.3 million (2017: € -218.5 million), NRW.BANK's administrative expenses were higher than in the previous year.

Personnel expenses amounted to € -148.5 million (2017: € -126.2 million). The increase is primarily attributable to higher non-interest expenses for pensions of NRW.BANK employees. These were primarily influenced by the adjusted "Heubeck tables" as well as the collective pay rises of the current year and an increase in average additional benefit expenses.

As expected, operating expenditure increased by € -8.5 million to € -100.8 million (2017: € -92.3 million), mainly because of higher project expenses for external consulting services than in the previous year.

#### Risk Provisions/Revaluation Adjustments

Risk provisions/revaluation adjustments amounted to € -180.3 million in the fiscal year 2018 (2017: € -377.4 million). In the lending and equity investment business, a positive result of € 14.4 million (2017: € 16.8 million) was recorded again primarily because of the net release of individual allowances in the Housing Promotion business unit and income from exposures that had been written off.

A net income of € -10.4 million (2017: € 7.0 million) related to the results of sales and revaluations in the securities and derivatives business.

As in the previous years, NRW.BANK used its operating result to allocate an amount of € 184.3 million (2017: € 401.2 million) to allowance reserves. This included € 50.0 million for the fund for general banking risks.

#### Net Income

NRW.BANK posted net income of € 9.1 million (2017: € 10.2 million) in the fiscal year 2018. As in the previous years, net income is exactly identical with the federal

interest expenses pursuant to Section 14 of the Act on NRW.BANK.

### Segment Results

Net interest income in the Programme-based Promotion segment comprises the results of the promotional business units and declined to € 203.3 million (2017: € 241.0 million).

As in the previous year, the Housing Promotion business unit again accounted for the biggest portion of net interest income, at € 205.2 million (2017: € 215.5 million). In view of the long phase of low interest rates, many borrowers took advantage of their contractual right to repay their loans in full or in part at any time without having to pay a prepayment penalty. These unscheduled repayments led to reduced receivables and, consequently, to reduced interest income.

Net interest income in the promotional programmes business declined in line with expectations, as a higher "Förderleistung" was made available in the form of reduced interest rates for the new "NRW.BANK.Gute Schule 2020" programme launched in 2017. No promotional loans with negative interest rates were granted.

At € 16.4 million (2017: € 17.3 million), net commission income was slightly lower than in the previous year.

The segment's risk provisions/revaluation adjustments amounted to € -54.3 million (2017: € -64.9 million). At € 9.4 million the lending and equity investment business again posted positive net income (2017: € 14.2 million). Individual allowances were no longer required, especially in the Housing Promotion business unit, and were therefore released.

In 2018, NRW.BANK allocated a total amount of € -64.2 million (2017: € -80.0 million) to allowance reserves for the promotional business units.

Net interest income in the Other Promotion/Liquidity Management segment climbed to € 317.8 million (2017: € 297.0 million), mainly due to the fact that funding conditions remained favourable as well as to higher margins.

Net commission income declined by € 7.9 million to € 64.6 million (2017: € 72.5 million) due to lower income from surrogate loan transactions. The previous year's item was the last to include a positive effect in the amount of € 6.3 million resulting from the release of a deferred item in conjunction with the changed accounting practice for structured collateralised debt obligations (CDO) introduced as of December 31, 2013. The underlying CDO exposures were fully repaid in 2017.

The other operating result of € -15.9 million (2017: € -12.8 million) essentially comprises the bank levy for the year 2018 in the amount of € -15.7 million (2017: € -13.6 million).

Risk provisions/revaluation adjustments in this segment amounted to € -49.7 million (2017: € -39.2 million).

The withdrawal and the termination of own issues resulted in net losses of € -89.4 million (2017: € -169.2 million). The voluntary repurchases of own issues is exclusively made at the request of the investor. Reasons for investors to return the securities include, for instance, the desire to change their maturity profiles and nominal interest rates as well as to optimise existing lines. In the long term, this will improve the Bank's funding base and strengthen its profitability, as the Bank may make new issues at current conditions.

By contrast, the management of the overall portfolio resulted in net gains of € 81.7 million (2017: € 107.8 million). In the previous year, extraordinary income in the total amount of € 67.6 million was generated from the sale of the bonds of Kärntner Ausgleichsfonds (Heta).

The application of the strict lower of cost or market principle for securities held in the liquidity reserve resulted in revaluation adjustments of € -3.2 million from market fluctuations.

In 2018, NRW.BANK established allowance reserves as defined in Section 340f HGB in the amount of € -38.8 million (2017: € -45.4 million) for credit risks in the Other Promotion/Liquidity Management segment based on statistical assumptions. The reduced allocation resulted from an improvement in credit quality, which,

in turn, was due to maturities of poorly rated exposures, rating improvements and reinvestments in better rating classes.

At € 97.9 million, net interest income in the Staff/Services segment was more or less on a par with the previous year (2017: € 96.8 million) and essentially comprises profit contributions from participations in the public interest and income from the investment of pension provisions. The lower other operating result in the amount of € –242.0 million (2017: € –99.6 million) is primarily attributable to higher interest expenses and increased non-interest expenses in conjunction with the valuation of old age pension obligations. Risk provisions/revaluation adjustments in the Staff/Services segment in the amount of € –76.3 million (2017: € –273.3 million) almost exclusively related to allocations to the allowance reserves for general banking risks.

### 2.3.2 Financial Position

Being the state’s promotional bank and benefiting from institutional liability, guarantor liability and an explicit refinancing guarantee from its guarantor, NRW.BANK shares the same excellent rating with the State of North Rhine-Westphalia.

As every year, rating agencies Fitch Ratings, Moody’s and Standard & Poor’s reviewed NRW.BANK’s credit-worthiness. In March 2018, Standard & Poor’s rated the outlook for North Rhine-Westphalia and, subsequently, for NRW.BANK as “positive” in view of the good budget situation of the guarantor.

The three agencies again affirmed NRW.BANK’s good ratings.

#### List of current ratings

	Fitch Ratings	Moody’s	Standard & Poor’s
Long-term rating	AAA	Aa1	AA–
Short-term rating	F1+	P–1	A–1+
Outlook	stable	stable	positive

The Other Promotion/Liquidity Management segment is responsible for the funding of NRW.BANK. The Bank continued to experience strong demand for its debt in the fiscal year. NRW.BANK catered to investors’ need for state-guaranteed, liquid bonds and again consolidated its market presence with further benchmark issues. In 2018, the Bank issued a EUR benchmark bond in the amount of € 1.0 billion, a USD benchmark bond in the amount of \$ 1.0 billion and two GBP bonds in the total amount of GBP 0.5 billion. Overall demand from investors for the foreign currency bonds was very high. NRW.BANK also issued another Green Bond in 2018. The € 500 million 10-year bond met with high demand. The net funding volume totalled € 13.7 billion (2017: € 13.8 billion), with the euro (63.2%) and the US-dollar (29.2%) being the most important currencies.

The funding transactions with domestic investors are dominated by bearer bonds, note loans and registered bonds. Due to the regulatory requirements, there is a trend towards syndicated and liquid transactions.

NRW.BANK also used its international funding programmes for its funding operations. These programmes essentially include the Debt Issuance Programme and the Australian and New Zealand Medium Term Note Programme (Kangaroo/Kauri Programme) for medium-term to long-term maturities as well as the Global Commercial Paper (GCP) Programme for maturities of up to twelve months. As in the previous years, the GCP Programme was a particularly favourable and very stable source of funding for NRW.BANK throughout the fiscal year.

Other promotional institutions such as KfW Bankengruppe exclusively drew programme-based funds in 2018, which are additionally sponsored by NRW.BANK.

As of December 31, 2018, the Liquidity Coverage Ratio (LCR), which is to be determined in accordance with the Europe-wide Capital Requirements Regulation (CRR) and for which a minimum requirement of 100% has been defined, stood at 262.2%.

### 2.3.3 Net Assets

As of December 31, 2018, NRW.BANK's total assets amounted to € 149.1 billion (2017: € 147.6 billion).

The two tables below show the condensed balance sheet.

## Assets

	Dec. 31, 2018	Dec. 31, 2017
	€ billions	€ billions
Receivables from banks	42.9	41.4
Receivables from customers	58.0	58.2
Bonds and other interest-bearing securities	40.5	38.8
Investments in non-affiliated and affiliated companies	2.5	2.5
Other assets	5.2	6.7
<b>Total assets</b>	<b>149.1</b>	<b>147.6</b>

Receivables from banks increased by € 1.5 billion to € 42.9 billion (2017: € 41.4 billion). The portfolio of promotional loans extended according to the house bank principle rose to € 32.6 billion (2017: € 31.5 billion) and reflects the high demand for the Bank's standardised credit programmes such as the flexible NRW.BANK. Universalkredit, in particular. Under the house bank procedure, customers file an application for promotional funds with the house bank, which passes it on to NRW.BANK. NRW.BANK then makes the funds available to the customer through their house bank. The portfolio of registered instruments and note loans amounted to € 5.4 billion (2017: € 4.5 billion).

Totalling € 58.0 billion, receivables from customers remained at the previous year's level (2017: € 58.2 billion). The promotional business was characterised by contrary developments. On the one hand, the portfolio

of promotional loans in the Housing Promotion unit declined to € 16.2 billion (2017: € 16.9 billion), mainly due to unscheduled repayments. On the other hand, receivables in the other promotional segments increased to € 19.5 billion (2017: € 18.4 billion), primarily due to the NRW.BANK.Gute Schule 2020 programme. In the securities business, the portfolio of registered instruments and the portfolio of note loans declined to € 7.5 billion (2017: € 7.7 billion) and € 10.3 billion (2017: € 11.2 billion), respectively.

At € 40.5 billion, bonds and other interest-bearing securities exceeded the previous year's € 38.8 billion.

The book values of NRW.BANK's equity investments and equity investments in affiliated companies remained almost unchanged at € 2.5 billion (2017: € 2.5 billion).

## Liabilities

	Dec. 31, 2018	Dec. 31, 2017
	€ billions	€ billions
Liabilities to banks	37.1	41.0
Liabilities to customers	14.5	15.6
Certificated liabilities	70.8	64.0
Provisions	2.7	2.4
Subordinated liabilities	1.8	1.8
Fund for general banking risks	0.9	0.9
Equity capital	18.0	18.0
Other liabilities	3.3	3.9
<b>Total liabilities</b>	<b>149.1</b>	<b>147.6</b>
Contingent liabilities	14.4	14.2
Other commitments	4.4	4.7
<b>Business volume</b>	<b>167.9</b>	<b>166.5</b>

Liabilities to banks declined by a total of € 3.9 billion to € 37.1 billion (2017: € 41.0 billion). € 21.7 billion of this amount (2017: € 21.9 billion) related to promotional loans funded through KfW Bankengruppe or Landwirtschaftliche Rentenbank, which are paid out on the assets side according to the house bank principle. This balance sheet item also comprises note loans in the amount of € 5.1 billion (2017: € 5.9 billion), mostly of KfW Bankengruppe and, on a small scale, of the European Investment Bank (EIB), Landwirtschaftliche Rentenbank, and the Council of Europe Development Bank (CEB), for special-purpose refinancing.

Liabilities to customers decreased by a total of € 1.1 billion to € 14.5 billion (2017: € 15.6 billion). This item primarily comprises registered instruments, which declined to € 12.8 billion (2017: € 13.6 billion).

The “certificated liabilities” item rose to € 70.8 billion (2017: € 64.0 billion), as the portfolio of money-market instruments in the form of medium term notes and commercial papers rose to € 52.9 billion (2017: € 47.9 billion) and the portfolio of bearer bonds increased to € 17.7 billion (2017: € 15.9 billion).

Equity capital as defined in the German Commercial Code (HGB) remained unchanged at € 18.0 billion.

The table below shows the risk positions and capital ratios under the CRR as of December 31, 2018:

### Risk exposure amounts and capital ratios

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Risk weighted exposure amounts (standardised approach)	42,248.0	42,467.9
Risk exposure amount for position and foreign exchange risks	5.8	27.9
Operational risk (basic indicator approach)	1,289.6	1,192.8
Risk exposure amount for credit valuation adjustment	753.9	878.3
<b>Total risk weighted assets</b>	<b>44,297.3</b>	<b>44,566.9</b>
Common Equity Tier 1 capital	18,408.5	18,424.2
CET1 capital ratio	41.56%	41.34%
Own funds	19,962.9	20,015.8
Total capital ratio	45.07%	44.91%

The regulatory capital requirements were complied with at all times in the fiscal year 2018. The CET1 capital ratio reflects the Bank's high capitalisation, which mainly serves to fund the promotional loans and is therefore necessary for the promotional business. In the context of the Supervisory Review and Evaluation Process (SREP), the ECB stipulates minimum capital ratios for the banks it supervises. As a result of the SREP conducted in 2018, the ECB has stipulated a minimum CET1 ratio of 9.29% for NRW.BANK in 2019. This minimum ratio is composed of 4.50% minimum core tier one ratio pursuant to Art. 92 CRR, 1.75% SREP equity requirement (Pillar 2 Requirement – P2R) as well as 3.04% capital buffer requirement pursuant to Sections 10c, 10d, 10g KWG. NRW.BANK's capitalisation exceeds these requirements by a wide margin.

### 3 Report on Post-Balance Sheet Date Events

No events of special importance occurred after the end of the fiscal year.

### 4 Report on Expected Developments

#### 4.1 General Information

This Report of Expected Developments contains forward-looking statements relating to the overall economic environment as well as to NRW.BANK's business, net assets, financial and earnings position. Such statements are based on expectations and assumptions derived from information available at the time of preparation. As such they involve risks and uncertainties beyond the

control of NRW.BANK including, in particular, the development of the general economic environment and the situation in the financial markets. This means that the actual events occurring in the future may deviate from these statements, expectations and assumptions.

### 4.2 Development of the Economic Environment

#### 4.2.1 The German Economy

While the solid growth in the German economy is expected to continue, the high momentum of early 2018 will probably not be reached again. Exports are likely to put a damper on economic growth. Experience has shown that weak foreign trade also has an adverse effect on capital spending in Germany. By contrast, private consumption should grow a bit more strongly again after the recent phase of weakness. Despite the existing capacity restrictions, the construction sector should also stimulate the domestic economy, as demand in the residential construction sector and for public infrastructure measures is expected to remain high. Against this background, NRW.BANK projects real GDP growth (not adjusted for the number of working days) close to the production potential of 1.5% for 2019.

German exports will probably be adversely affected by only moderate world trade growth. There have been no signs of a noticeable improvement so far, as the existing uncertainty about increasing global trade protectionism is likely to persist in 2019. What is more, the economic prospects for the eurozone have deteriorated further.

The outlook for the two large economies, Italy and France, are only moderate. The Brexit process – regardless of its outcome – is also weighing on German exports to Great Britain. The strengthening domestic economic forces suggest that imports will grow relatively dynamically and push net exports into negative territory.

Although the forecast for the world economy is somewhat subdued, a noticeable downturn in the German industry is not expected as order books are well filled and capacity utilisation in many sectors is above average. By contrast, companies' spending propensity may well be adversely affected by the global environment, although the continued low interest rates and favourable financing conditions should encourage investments. They are the result of an expansionary monetary policy and fierce competition between banks. At the bottom line, corporate spending is expected to be somewhat lower than in 2018.

The good financing situation is also felt in the housing market, which should again see high demand in 2019. It is likely, however, that the highly utilised capacities in the construction sector cannot be further increased due to the shortage of skilled labour and that the excess demand will again lead to noticeable price increases as was already the case in 2018. Nevertheless, investment capacity is likely to remain stable in the next years, as the housing market should remain tight, especially in the densely populated areas. In the medium term, however, the pressure on the demand side should tend to subside due to the low influx from abroad and because of demographic effects. By contrast, demand for energy-efficiency upgrades and reconstruction measures for the elderly is likely to remain high in the long term.

Private consumption is also likely to support the economy in 2019. While the labour market situation will probably remain good, the increase in the number of people subject to social insurance contributions will be much lower than in the previous year due to the limited supply of labour. Collective wages are expected to rise sharply thanks to the high demand for labour. Moreover, noticeable fiscal impulses will increase the disposable income.

The inflationary effects of the high oil and food prices will probably not be repeated, as both components clearly lost momentum towards the end of 2018. Moreover, the slightly weaker world economy suggests that demand for crude oil will decline in 2019. Economic policy decisions, e.g. a reduction in output, may lead to unexpected

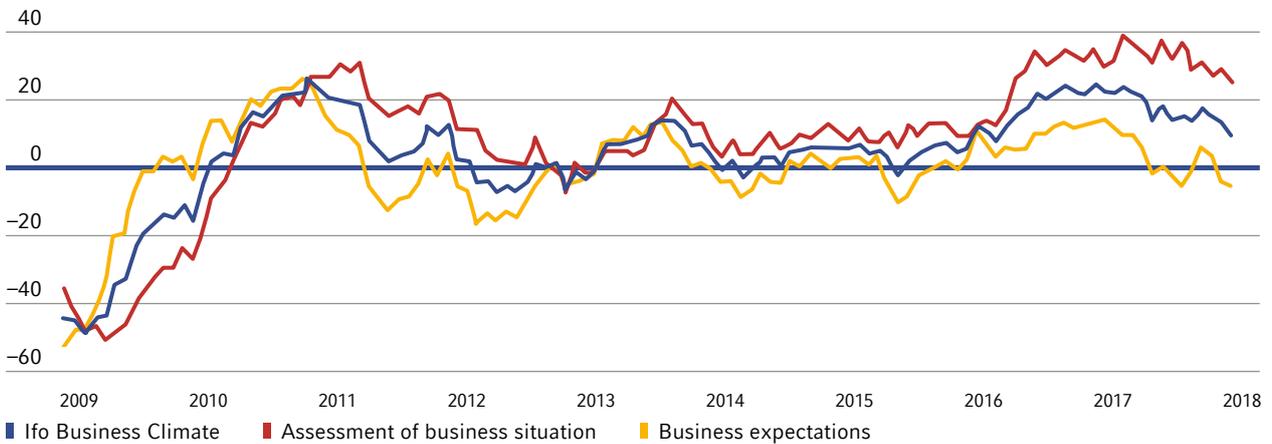
price increases, though. At the bottom line, inflation is expected to reach 1.9% in 2019, which would be on a par with the previous year.

Compared to 2018, the downside risks to the forecast have increased against the background of the economic slowdown, as the economic trend as a whole seems to be more susceptible to political imponderables.

#### **4.2.2 The North Rhine-Westphalian Economy**

While the economic signs for 2019 are solid, the North Rhine-Westphalian economy is subject to great uncertainty, just like the German economy as a whole. As in the previous year, industrial growth is expected to be moderate. The world economy has passed its peak for the time being and the sentiment in the North Rhine-Westphalian corporate sector has recently deteriorated at a high level. While the participants in the NRW.BANK.ifo Business Climate Survey for trade and industry continue to rate their current business situation positively, the expectations for the next six months are meanwhile mostly pessimistic. This applies in particular to Germany's key sectors, i.e. chemicals, metals and mechanical engineering. The domestic and international order intake has been declining recently. The high backlog of orders has consequently been reduced noticeably. This explains why only few industrial players in North Rhine-Westphalia describe their export expectations and production plans for the coming months as optimistic and expansionary.

Trade and Industry in North Rhine-Westphalia Ifo Business Survey, December 2018, Balances, seasonally adjusted



\* Manufacturing, construction, wholesaling and retailing.

Source: Ifo Business Survey, December 2018

Moreover, certain sectors of the North Rhine-Westphalian economy continue to face structural challenges. The steel industry, which is of great importance for Germany as a whole, has been struggling with global overcapacities, high price pressure and the demands made on low-emission production for many years already. The sea change in the conventional energy sector is also accelerating. After the end of hard coal mining, a fundamental long-term change is also faced by the lignite mining sector as a consequence of climate change and the resulting need for an energy transition. All told, the North Rhine-Westphalian industry will thus provide only little stimulation for growth in 2019.

By contrast, the North Rhine-Westphalian construction sector will continue to grow. Both the building construction industry and the civil engineering sector reported high order backlogs at the end of 2018, which have to be worked off in 2019. Moreover, 2018 saw more housing construction permits being granted than in the previous year, which suggests that many more orders will be received. Interest rates are also having an expansionary effect. Although interest rates on building loans have picked up slightly since the end of 2016, they are still at a very low level. Numerous public sector projects will also support construction activity in NRW. Most importantly, there is the Federal Transport Infrastructure Plan, which provides for the modernisation of many bridges, roads and railways in North Rhine-Westphalia.

A high need for modernisation and a slightly improved budget suggest that municipal spending – e.g. on schools, broadband or sports facilities – should also have an expansionary effect. Consequently, most construction companies plan to expand production in early 2019. Difficulties in finding the right labour and a lack of planning capacities should have a dampening effect, though.

Solid growth is projected for the services sector. Health-care, education and logistics have been among North Rhine-Westphalia’s fast-growing industries for many years, driven by factors such as the ageing society as well as the ongoing expansion of child care services and e-commerce. These trends will remain in place in 2019.

As a result of the solid overall economic trend, employment growth is likely to continue. The resulting employment alternatives should provide little encouragement for setting up a business in the federal state. However, the decline in unemployment and employment growth are expected to slow down. Several large North Rhine-Westphalian companies have announced efficiency programmes and/or mergers for 2019, which are likely to result in job cuts. But the lower momentum is only partly attributable to declining demand for labour. What is more, the unused labour potential – especially with regard to highly qualified labour – is becoming

smaller and therefore limiting employment growth on the supply side. On the other hand, the existing shortage of labour is stimulating economic activity, as it suggests that real incomes will continue to grow. Besides the expansionary fiscal policy measures, this supports private consumption, which remains a central pillar of state-wide economic growth.

At the bottom line, North Rhine-Westphalia's gross domestic product in 2019 will grow at a somewhat lower rate than all-German GDP.

#### 4.2.3 Financial Markets

The financial markets remain under the influence of the turn in central banks' monetary policies and the ongoing (trade and) political tensions.

Both the US Fed and the European Central Bank (ECB) continue to pursue their announced plans to give up their ultra-expansionary monetary policies. But especially the US central bank will have to perform a tight-rope act in 2019 by withdrawing excess liquidity from the market without making its monetary policy too restrictive. The debate about how this can be achieved is in full swing. Having increased interest rates by a total of nine times, the Fed has already made good progress in normalising its monetary policy, and the recently practised automatism of interest rate hikes at three-month intervals is now probably a thing of the past. In view of the recent slowdown in inflation – primarily because of declining oil prices – and the fact that the US economy has been growing somewhat less dynamically, the Fed's monetary policy-makers indicated the end of the automatic interest rate hikes in late December 2018. Going forward, they intend to take a very close look at global economic and financial market developments and increasingly decide about further interest rate hikes on the basis of current economic data. This means that the Fed is ultimately keeping all options open. In their December 2018 projections, the members of the Federal Open Market Committee (FOMC) on average expect two interest rate moves for 2019 and one for 2020 as well as unchanged interest rates for 2021.

What is more, since the end of last year, the yield curve of US Treasuries has not only become flatter but partly even inverted. The spread between yields on ten-year and two-year US Treasuries has narrowed significantly, while

the spread between five-year and two-year Treasuries even turned negative. This has put a full inversion of the US yield curve on the cards. A yield curve is considered normal when short-term interest rates are lower than long-term rates. But if the curve turns and becomes inverted, this is generally regarded as an early warning sign of a potential recession. While such a phase has not always resulted in a downturn, the recent trend will probably not leave the Fed cold in its further interest rate decisions.

European monetary policy is lagging years behind its US counterpart. While the Fed stopped making net new purchases already in late 2014, the ECB initiated the turn in monetary policy last year and stopped making net asset purchases at the turn of 2018/2019. The ECB is thus giving up its expansionary monetary policy very slowly, and there is a lot to suggest that it will continue to proceed very moderately and carefully – all the more so as the weaker eurozone economy will prompt the central bank to tighten monetary policy as gently as possible. The Fed itself used the words "continuing confidence with increasing caution" in December.

It is possible that the ECB will, in fact, end the era of historically low interest rates in September 2019. The deposit facility may be increased from  $-0.40\%$  to  $-0.25\%$ . A further step is possible in December, with the deposit facility lifted to zero and the refinancing rate to  $0.25\%$ . However, the current slow economic growth in the eurozone may further postpone the increase in the refinancing rate. Generally speaking, the ECB is unlikely to raise interest rates quickly over time in the sense of a classic cycle of interest rate hikes. Instead, the ECB's communication is likely to remain very cautious, suggesting that the ECB will proceed as moderately as the Fed did when it started raising US interest rates.

Although interest rates are expected to pick up moderately, interest rates as a whole will remain low and thus continue to determine the situation of the international financial system. Ten-year yields reflect the changed monetary and economic environment and, hence, the missing prospect of a real cycle of interest rate hikes. Both in the USA and in the eurozone, ten-year yields are tending much lower than in the past.

In such an environment, the yield on ten-year Bunds should embark on a moderate upward trend in 2019. While the discontinuation of the asset purchase programme will clearly reduce the central bank support that massively distorted the European bond market in the past years and increase the possibility of rising yields, the ECB is far from giving up its purchase programme completely. To prevent the portfolio from melting, the ECB plans to fully reinvest the proceeds from interest and principal payments even after the end of the net purchases and beyond the time of a possible interest rate hike.

With regard to financial stability, the growing protectionism remains one of the main risks. The trade conflict between the USA and China has been expanded to more and more product categories over the past months and threatens to escalate further. But other economic areas are also affected by the US administration's protectionist measures. Most countries have responded by raising tariffs on US imports. Should the intensification of the trade conflicts lead to an economic downturn or intensify such a downturn, this would also have an impact on the financial system.

The Brexit process, including the risk of a no-deal Brexit, is also adding to the general uncertainty. The British economic and financial system is closely intertwined with the other EU member states. Consequently, there is generally a risk that the abolition of the current legal framework will lead to frictions. At this stage, it is not certain whether the provisions necessary for an orderly transition will become effective in time. Moreover, it is safe to assume that not all issues that may arise in the future can be foreseen today.

#### 4.3 Development of the Bank

By developing and marketing demand-oriented solutions for all promotional themes, NRW.BANK will continue to play a key role in supporting the economic and structural development of North Rhine-Westphalia and combine financing and advisory services in a target-oriented manner.

Complementing NRW.BANK's focus on specific promotional fields, the promotional strategy will additionally provide central guidelines for the Bank's promotional business starting 2019. These guidelines contain selected aspects to secure the effectiveness and efficiency of

promotion which cover all promotional fields. At this stage, the promotional strategy comprises three guidelines: "European Promotion", "Digital Promotion" and "Networked Promotion". In analogy to the promotional themes, the specific objectives and measures have been defined for the new guidelines.

The "European Promotion" guideline is designed to ensure that the potential opened up by the new EU promotional period (2021-2027) is leveraged. As such, it is primarily aimed at obtaining (additional) EU funds for promotion projects in North Rhine-Westphalia and at exploring additional promotional potential for NRW.BANK. The "Digital Promotion" guideline explicitly addresses the growing demands made on promotional banks to further digitise their promotional business. The "Networked Promotion" guideline describes NRW.BANK's efforts to realise new and integrated ideas in the further development of its promotional products and services. Important aspects in this context are to intensify NRW.BANK's networking within the promotional landscape and to integrate its own financing and advisory services more effectively.

Objectives and measures defined for each of the promotional themes are put into practice using specific promotional offers and taking the new guidelines into account. The "NRW.BANK.Gute Schule 2020" programme is a good example of how the State of North Rhine-Westphalia and NRW.BANK cooperate in developing tailor-made promotional solutions. Under this programme, NRW.BANK will provide the municipalities with a total of € 2.0 billion for refurbishment and modernisation measures as well as for the digital infrastructure and equipment of schools between 2017 and 2020. The State of North Rhine-Westphalia assumes all principal payments as well as interest incurred above and beyond the "Förderleistung" contribution of the Bank. A fixed maximum amount is available to every municipality per year. NRW.BANK expects the available amounts to be called in full.

In the projected economic environment, the volume of new commitments should reach a similar level as in 2018.

NRW.BANK continues to expect total assets and the business volume to remain constant in line with the business trend.

Operating income is expected to decline sharply in 2019. This will probably mainly be due to the further reduction in the average discount rate for personnel provisions. Moreover, the Bank's plans are based on the expectation of less favourable capital market conditions than in the reporting year.

The "NRW.BANK.Gute Schule 2020" programme will be heavily subsidised in order to push down the interest costs for the municipalities, thereby weighing on the Bank's bottom line.

Moreover, the Programme-based Promotion segment will generate lower interest income due to the continued decline in the receivables portfolio of the Housing Promotion business unit, which is attributable to high unscheduled repayments by borrowers.

As a result of the political agreement reached in the trilogue negotiations on the "Proposal for a directive of the European Parliament and of the Council amending Directive 2013/36/EU as regards exempted entities, financial holding companies, mixed financial holding companies, remuneration, supervisory measures and powers and capital conservation measures", NRW.BANK is expected to no longer fall under the scope of application of Directive 2013/36/EU as of 2019. At this stage, it is impossible to estimate the specific effects on the Bank's result for the year 2019.

NRW.BANK expects administrative expenses to increase moderately in 2019 primarily because of investments in the digital infrastructure. This will be reflected in personnel expenses as a result of the planned headcount increase as well as in operating expenses resulting from projects induced in this context. Ongoing measures aimed at identifying and leveraging potential for efficiency increases will have a dampening effect on costs.

NRW.BANK therefore expects its operating income before risk provisions/revaluation adjustments in 2019 to be much lower than in the past fiscal year.

In 2019, risk provisions/revaluation adjustments should again be influenced by the allocation of general allowance reserves.

As a result of an amendment of the State Budget Law that became effective on January 1, 2019, the conditions for

NRW.BANK's equity-supporting promotional measures will be relieved considerably. In this context, the legally independent investment companies of NRW.BANK will be dissolved and the equity investments, profit participation rights and convertible loans of the promotional business will be transferred to the Bank's balance sheet at their carrying amounts to ensure that the resulting possibilities for processual and cost-related improvements will be used in the promotional business. This process is expected to have a methodological effect on the bottom line of around € -20 million.

Pursuant to Section 14 of the Act on NRW.BANK, only the interest amounts to be paid by the state due to the utilisation of loans from the federal government for the promotion of housing construction and modernisation (subsidies pursuant to Article 104a, Para. 4 of the German Constitution in the version effective until August 31, 2006) which become due in the year following the respective fiscal year must be paid directly to the federal government from the net income for the year of NRW.BANK upon request by the state government. The potentially remaining net income for the year will be allocated to the reserves. Further profit distributions are not permitted under NRW.BANK's Statutes.

NRW.BANK expects the Bank-wide limits for economic capital to be met also in 2019.

### 5 Risk and Opportunity Report

Due to its specialised business model as a promotional bank, NRW.BANK does not engage in all lines of banking business. The Bank takes on risks only within clearly delineated bounds. As a state promotional bank, NRW.BANK is nevertheless subject to all regulatory risk management requirements.

NRW.BANK uses a comprehensive set of risk monitoring and management tools to manage the risks to which it is exposed. The Bank has implemented a framework of guidelines, organisational structures and processes which ensure that risks are identified, measured, aggregated and managed in accordance with the Bank's risk-bearing capacity.

#### 5.1 Organisation of Risk Management

The Managing Board of NRW.BANK is responsible for the risk management system. This includes, in particular, the proper organisation of risk management, the risk

strategy, the risk-bearing capacity concept as well as risk monitoring. In the context of the general reporting process, the Managing Board is regularly informed about the Bank-wide risk situation.

The Supervisory Board monitors the Managing Board's conduct of the Bank's affairs. The Risk Committee, a committee of the Supervisory Board, regularly addresses the Bank's risk situation. The committee receives reports on the risk profile for the various risk categories on a quarterly basis minimum.

The Board of Guarantors decides, among other things, on the principles of the business, promotional and risk policies and on the release of liability of the members of the Supervisory Board and the Managing Board.

The Asset Liability Committee (ALCO) is responsible for the Bank's asset/liability management. This includes, in particular, responsibility for the Bank-wide allocation of

### Organisational Structure of Bank Steering



financial resources to the Bank's operating units as well as Bank-wide risk management. The ALCO's tasks include market risk and liquidity risk management, Bank-wide risk management, profit management as well as balance sheet structure management.

There is one Credit Committee each for the promotional business and the capital market business. They prepare credit decisions to be made by the Managing Board and take their own credit decisions based on predefined levels of competence. In addition, they address issues of a general nature relating to credit risks as well as current macroeconomic, political and regulatory developments and their potential effects on individual exposures.

The management circle, which is composed of the Managing Board and all business unit Heads, addresses issues of strategic relevance. The main focus is on the further development of the overall Bank strategy and on assessing its consistency with the principles of the business, promotional and risk policies and the overall components of the promotional policy objectives of the federal state.

In accordance with the MaRisk requirements, risk monitoring and risk reporting are managed independently of the front-office business units. While the front-office business units are responsible for managing risks within the defined limits, Risk Control is in charge of risk monitoring, especially compliance with the limits defined by the Managing Board. Functional separation between the business units is ensured up to Board level.

The Bank has entrusted the Head of Risk Control with the risk control function as defined by the MaRisk. He participates in all important management decisions relating to the risk policy, especially through his involvement in the ALCO and other committees.

The Risk Control business unit performs all tasks of the risk control function. These primarily include the development of the risk strategy, the determination of the risk-bearing capacity (incl. Bank-wide stress tests), the monitoring of limits, the risk reporting, the daily valuation of trades, the management of the rating procedures, the responsibility for compliance and money

laundering prevention as well as the coordination of the processes for the launch of new products.

The Credit Management business unit is one of the back-office units and is mainly in charge of voting, loan processing and ongoing monitoring in the promotional and capital market business as well as the preparation of the watchlist (for high-risk exposures). In addition, the Credit Management business unit is responsible for coordinating the meetings of the Credit Committee.

The effectiveness and appropriateness of the risk management structures and processes are subject to regular reviews by Internal Audit, which acts as an independent body on behalf of the Managing Board.

On balance, NRW.BANK's risk management instruments and processes again proved their worth in the past fiscal year.

## 5.2 Risk Policy and Strategy

Being a promotional bank, NRW.BANK has a focused business model whose risks are strictly limited. According to its risk strategy, the promotional business takes precedence over the capital market business when it comes to the allocation of risk capital. Avoiding defaults takes precedence over profit generation in all capital market activities undertaken to support the promotional business. New business with a sub-investment grade rating is permitted only in the promotional business.

Together with the promotional and business strategy, the risk strategy is part of the overall strategy of NRW.BANK. It builds on the promotional and business strategies and aims to ensure balanced risk management within NRW.BANK. It puts the risk policy principles adopted by the Board of Guarantors into more concrete terms by way of adequate limits as part of the operational controlling process. It covers a planning period of four years.

The Managing Board of NRW.BANK defines the strategy and submits it to the responsible bodies. The Risk Committee consults on the risk strategy, which is finally discussed at the year-end meetings of the Supervisory Board and the Board of Guarantors.

### 5.3 Risk Inventory

Effective risk management and monitoring hinge on the precise identification and assessment of risks. In the context of Bank-wide risk inventory taking, NRW.BANK systematically examines whether the overall risk profile fully reflects all risks which may potentially influence the net worth, earnings or liquidity position. This is done at a Bank-wide level on an annual basis and whenever required on special occasions. On this basis, risks are classified as material or non-material, respectively.

The material risks identified are the credit and the market risk as well as the liquidity, operational and pension risk. The three latter risk types contribute less to the Bank-wide risk and therefore rank behind the credit and the market risk.

Complemental to the risk inventory, new products to be added to the product portfolio of NRW.BANK are subjected to a cross-divisional process for the introduction of new products. This ensures that the risks of new products are identified, measured and limited.

### 5.4 Risk-bearing Capacity

Economic capital is the relevant risk management parameter of NRW.BANK across all risk types and business units. It forms the basis on which risks are comprised into a Bank-wide figure using a consistent methodology.

The going concern perspective is taken for the direct management of the risk-bearing capacity. It is based on the German Commercial Code (HGB) in accordance with the Bank's accounting policy. The focus is on avoiding losses in the balance sheet in order to protect creditors and owners. Accordingly, those risks that could adversely affect a balance sheet under HGB are considered in economic capital.

Risk-bearing capacity is additionally analysed from a gone concern perspective. Against the background of the liability instruments "institutional liability", "guarantor liability" and "explicit refinancing guarantee" granted to NRW.BANK by the guarantor to perform its promotional tasks, this is merely a fictitious analysis, though.

Under both perspectives, the risk-mitigating effects of the above liability instruments are not taken into consideration.

The risk-bearing capacity concept has been defined in accordance with regulatory requirements. It reflects the risks identified as material according to the risk inventory as well as the business and cost risk.

NRW.BANK uses a value-at-risk (VaR) concept covering a risk horizon of one year to quantify the individual risks and aggregate them into an overall ratio. The choice of the confidence level depends on the perspective taken (99% under the going concern perspective; 99.96% in the gone concern perspective).

The credit risk is a Bank-wide key risk. Differences between the going concern and the gone concern perspective primarily result from the confidence level used in the Credit VaR model.

Under the going concern perspective, the market risk is determined on the basis of a "HGB-VaR". In this context, the market risks that may have an adverse impact on the income statement prepared according to HGB are taken into account. By contrast, the gone concern perspective addresses the market risks on a mark-to-market basis.

The liquidity risk under the going concern perspective takes into account changes in NRW.BANK's funding spread that are relevant for the HGB income statement, as an increase in funding costs leads to higher expenses. Liquidity risks are not part of the gone concern perspective but are limited by the amount of the available liquid funds (liquidity buffer).

Economic capital for the operational risk is determined based on the Basle basic indicator approach. Differences between the going concern and the gone concern perspective result exclusively from scaling to the confidence level used in the gone concern perspective.

The pension risk is determined by means of a scenario analysis, which takes into account changes in the statistical assumptions regarding invalidity and mortality which could lead to an increase in pension obligations. Differences between the going concern and the gone concern perspective result exclusively from different interest rates used to discount the cash flows. Interest rate risks relating to pension obligations are incorporated into the market risk.

For the business and cost risk, a general risk amount is determined on the basis of a simplified method. Differences between the going concern perspective and the gone concern perspective result from the scaling to the confidence level used.

More detailed information on the individual risk types and the methods used for their calculation is provided on the following pages of the risk and opportunity report.

Under the going concern perspective and the gone concern perspective, Bank-wide economic capital is

determined by way of a simple addition of the economic capital of the risk types without taking diversification effects into account.

The table below shows the composition of economic capital from the going concern perspective.

#### Bank-wide economic capital under the going concern perspective in € millions

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Credit risk	835	819
Market risk	145	78
Liquidity risk	13	11
Operational risk	105	100
Pension risk	70	60
Business and cost risk	50	50
<b>Total economic capital</b>	<b>1,219</b>	<b>1,118</b>

In the credit risk, a methodological adjustment in the consideration of concentrations (concentration surcharge) led to a moderate increase in the economic capital. In the going concern perspective, market risks arise from dispositive peaks in operational interest rate and liquidity management, which remain at a low level despite the increase. As of the reporting date, economic capital under the gone concern perspective amounted to € 9,969 million (2017: € 10,346 million).

The economic capital is compared with the maximum capital cover that is available to cover risks. Just like the economic capital, the capital cover is calculated in accordance with the respective perspective taking into account regulatory and balance sheet equity components, adjusted for specific corrections. Under the going concern perspective, for instance, the capital components tied up in accordance with the Capital Requirements Regulation (CRR) are deducted, with the minimum capital ratio defined by the ECB in the context of the

Supervisory Review and Evaluation Process (SREP) also taken into consideration. Under the gone concern perspective, hidden charges and reserves, in particular from securities, are deducted if they are negative when balanced. Positive own credit risk effects are not accepted as mitigating factors on the liabilities side. As of the reporting date, the capital cover amounts to € 15.7 billion (2017: € 15.6 billion) under the going concern perspective and to € 21.2 billion (2017: € 20.8 billion) under the gone concern perspective. These amounts include the allocations to allowance reserves made in the fiscal year, which strengthen the capital cover in both perspectives. A further increase in the capital cover in the gone concern perspective results from changes in the market value.

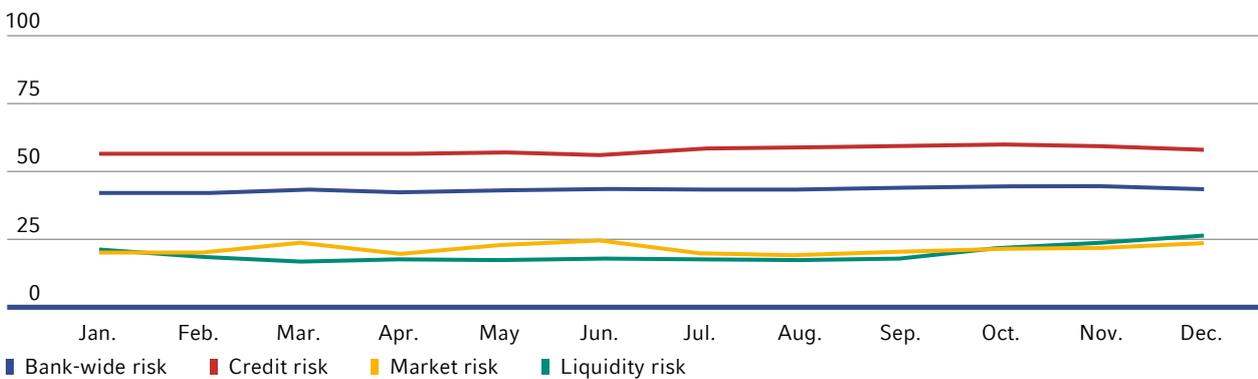
For the direct management of risks under the going concern perspective, a Bank-wide economic capital limit is defined, which is much lower than the available capital cover. In the complementary gone concern perspective, the capital cover forms the limit for Bank-wide

economic capital. Under both perspectives, the Bank-wide limit is allocated to the key business units. This ensures that sufficient risk capital is available to achieve the planned income and that the risks are limited at the same time. Utilisation of the limits is determined daily (for the individual risk types) and monthly (across all risk types) on the basis of the economic capital.

for the credit, market and liquidity risk in the course of the year. Economic capital for the operational risk, the business and cost risk and the pension risk is determined once a year. I.e. it remains constant throughout the year and the Bank makes no distinction between limit and utilisation. Therefore, the mentioned risk types are not shown in the chart.

The chart below shows the limit utilisation for purposes of direct control under the going concern perspective

**Limit utilisation under the going concern perspective in the course of 2018 in %**



The risk types and the overall bank risk stayed within the limits at all times. The Bank’s risk-bearing capacity was intact at all times throughout the fiscal year.

In addition, the regulatory equity requirements were met at all times. NRW.BANK has very comfortable capital ratios. For information on the regulatory equity requirements, the equity capital and the capital ratios, please refer to paragraph 2.3.3 Net Assets.

In order to minimise the uncertainties resulting from the statistical processes of the value-at-risk approach, NRW.BANK takes various measures to validate the data used as well as the risk results that are determined. In addition, regular stress tests are performed.

**5.5 Stress Tests**

The risk management concept is complemented by Bank-wide stress and scenario analyses. The Bank takes an integrated approach which takes into account effects on the material risk types, the HGB income statement, the capital cover as well as the regulatory capital ratios.

The stress tests are performed at a Bank-wide level on a quarterly basis and due to single events occurring. Similar to the risk-bearing capacity concept, stress tests are performed under the going concern perspective and the gone concern perspective on the basis of uniform – historical and hypothetical – scenarios.

Historical scenarios translate past crises to the current portfolio. Examples include a scenario reflecting the height of the financial crisis at the time of the Lehman bankruptcy in 2008.

Hypothetical scenarios are developed by the Bank on the basis of market analyses and expert estimates. For instance, a scenario entitled "Deterioration of the sovereign and financial institution crisis" assumes an increase in the risk factors that are relevant for the sovereign portfolio.

The stress scenarios examine the combined effects of a deterioration in exposures (increases in probabilities of default and loss given default) and of changes in market data (interest rates, credit spreads). Pension and operational risks are additionally taken into consideration.

In addition, inverse stress tests are performed on a regular basis. Inverse stress tests examine which events could potentially jeopardise the Bank's ability to survive.

Under the going concern perspective, the stress tests are dominated by changes in the field of credit risks. The assumed defaults of borrowers and rating migrations lead to a reduction in the capital cover and/or to an increase in the economic capital for credit risks.

Under the gone concern perspective, credit risks and market risks play an equally important role in the stress tests. Under this perspective, the capital cover reacts much more sensitively to changes in market data under stress.

The stress tests confirm the adequacy of the capital situation under the going concern perspective.

As in 2014 and 2016, the European Banking Authority (EBA) and the European Central Bank (ECB) subjected European banks to a stress test. NRW.BANK again passed the EBA/ECB stress test successfully in both scenarios in 2018. The Bank's equity remained largely constant even under stress assumptions. The sum total of the risk positions increased because of simulated rating downgrades and/or defaults. The CET1 capital

ratio (baseline scenario: 39.9%; adverse scenario: 34.0%) stayed far above the existing regulatory minimums in both scenarios. Accordingly NRW.BANK was one of the most resilient European banks although in the 2018 stress test.

## 5.6 Credit Risk

### 5.6.1 Definition

The credit risk describes the risk of a counterparty being partly or fully unable to meet their contractual obligations towards NRW.BANK. There is the risk of a loss or reduced profit resulting from the full or partial default of a counterparty. This comprises the credit risk from loans, issuers, counterparty, country risks, risks resulting from equity holdings and migration risks.

NRW.BANK defines the credit risk from loans as the risk of a contractual partner failing to meet its obligations to repay liquid funds (e.g. loans or money market transactions).

The issuer risk describes the risk of payment inability of an issuer (e.g. in the case of securities) or a reference counterparty (e.g. credit derivatives).

Counterparty risk means that the default of a contractual partner under a derivatives contract makes it impossible for the Bank to realise an unrealised gain from pending transactions (i.e. up to contractual maturity) if the market conditions have changed in the meantime or that the Bank will face increased replacement costs.

In NRW.BANK's view, a country risk exists where the Bank has an exposure to customers headquartered outside Germany. This definition covers all aspects of the country risk (creditworthiness, transfer and economic risks).

The risk from equity holdings results from the risk of incurring losses from the provision of equity capital to enterprises. NRW.BANK's equity holdings comprise investments which are primarily held in the public interest and were essentially transferred to the Bank upon its inception as well as investments entered into as part of the Bank's mission as a promotional bank.

The migration risk shows potential value losses resulting from a deterioration in the creditworthiness of a debtor/counterparty. The migration risk partly overlaps with the credit spread risk, which forms part of the market risk.

### 5.6.2 Methods

Factors playing a key role in the calculation of the credit risk include the amount of the exposure, the probability of default and the loss given default of each debtor. These parameters form the basis for managing the risk at the level of each individual exposure and at a Bank-wide level.

- The amount of the exposure is the sum total of all relevant amounts that are subject to a risk of default. In the case of loans, this is the remaining capital plus binding payment obligations; in the case of securities, it is the higher of the amortised cost price and the nominal value. Credit equivalents are recognised to calculate counterparty risks from derivatives, taking netting and collateral pursuant to standardised framework agreements into account. In addition, credit derivatives are recognised at their nominal value; thereby the purchase of protection reduces the exposure of the respective reference counterparty, while the sale of protection increases it. The total exposure (the credit risk-related amount of the exposure) thus differs from the business volume.
- The probability of default is derived from the debtor's internal rating. For this purpose, NRW.BANK uses differentiated risk classification methods. The portfolios of corporates, financials and real estate clients are classified using rating procedures meeting the requirements of the internal rating based (IRB) approach of the CRR. The ratings for exposures to foreign governments are determined on the basis of external agency ratings and structured internal plausibilisation. In view of the joint liability scheme and the fiscal equalisation scheme, uniform ratings are used in particular for savings banks and domestic municipalities, respectively. Simplified internal risk classification methods are used for smaller portfolios. Depending on the type of debtor, each rating

is assigned a probability of default based on a 26-step scale, so that all debtors are included as risk-relevant in the calculation of the economic capital on a staggered basis.

- The loss given default (LGD) describes the portion of the exposure which would irrecoverably be lost in the case of insolvency proceedings after realisation of potential collateral. Differentiated LGDs are assigned to the exposures depending on the type of debtor. They are determined for housing promotional exposures based on an analysis of own historical data. For other asset classes, they are primarily determined on the basis of external data sources, as there is no statistically significant number of defaults in the Bank's portfolio.

NRW.BANK determines the economic capital for the credit risk on the basis of a credit value-at-risk. The risk horizon is one year, the confidence level is 99% under the going concern perspective and 99.96% under the gone concern perspective.

The credit value-at-risk is calculated according to the formula of the IRB approach under the CRR. Initially, there is only a methodological difference made between the treatment of defaulted and non-defaulted debtors. Through an additional maturities adjustment rating migrations that may lead to additional capital requirements are then also taken into account.

As the IRB approach is based on the assumption of an indefinitely granular portfolio, an additional concentration surcharge is determined on the basis of a simulation process and reflected in the economic capital. As a result, high exposures which either exist separately or are composed of different exposures within an economic grouping make a disproportionate contribution to the risk, which means that the surcharge takes concentrations into account.

In order to further limit concentrations – not only with regard to risks but also regarding income – single name concentration limits at Group level and cross-borrower concentration limits at country level are defined for the amount of the exposure.

Besides the economic capital (unexpected loss), standard risk costs (expected loss) are generally taken into account when defining the terms and conditions. This way, it is ensured that the expected losses are compensated by corresponding income.

In the context of the Bank-wide stress tests, various historical and hypothetical scenarios are analysed, which assume deteriorations in the rating quality that are differentiated by asset classes.

The above risk management methods allow NRW.BANK to appropriately monitor credit risks, to identify unbalanced portfolio developments and risk concentrations and to take any measures that may be required at an early stage.

### 5.6.3 Validation

The ratings and probabilities of default as well as the loss given defaults are validated at least once per year. For the social housing promotional portfolio, which is the biggest portfolio of NRW.BANK in terms of number of individual exposures, differentiated analyses are performed for individual segments such as investors and owner-occupiers.

In addition, the methodological assumptions that serve as the basis for the calculation of economic capital are also reviewed annually. For instance, the maturity adjustments implemented to reflect rating migrations are checked for plausibility.

The reviews serve to ensure that the risk calculation remains adequately conservative.

### 5.6.4 Risk Assessment and Limitation

NRW.BANK uses suitable limits and processes to ensure that the credit risk is limited. On the one hand, there are concentration limits which limit the exposures, especially at individual debtor level, Group level and at country level as well as sub-portfolio level. The respective limit utilisation is determined by the amount of the exposure, with new transactions being immediately counted against the limits. On the other hand, there is a Bank-wide and a business unit-specific limitation of the

economic capital under the going concern perspective. The limits take into account both the Bank's risk-bearing capacity and the budgets prepared by the individual business units as part of the strategy process.

Key elements used to monitor the credit risk:

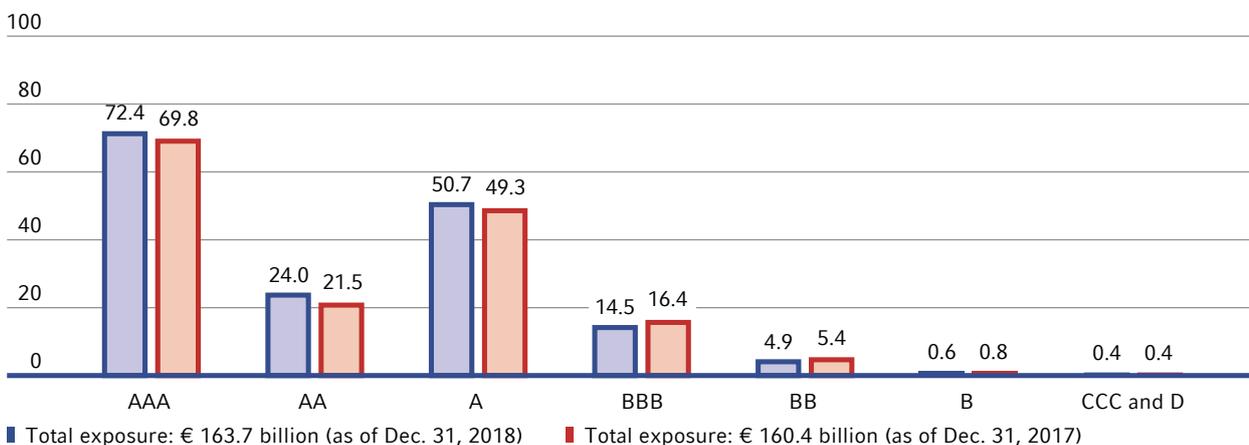
- Event-related bad news process including immediate analysis and decision on individual measures (e. g. rating review, limit adjustments)
- Daily monitoring of single name, group, country and economic capital limits
- Daily monitoring of capital market investments in the context of an early warning system (e. g. changes in credit spreads and ratings)
- At least annual monitoring of individual credit exposures
- Ongoing monitoring of the exposures on the watch-list, which contains intensive care and problem exposures

Suitable escalation processes have been defined for cases where limits are exceeded.

The promotional funds extended by NRW.BANK are either secured or granted according to the house bank principle, which means that the respective portfolio is a low-risk portfolio. Sub-investment-grade exposures may be entered into only if this is required by the public promotional mission, e. g. in the promotion of small and medium enterprises and social housing promotion.

In addition, the Bank holds a portfolio of securities/receivables and loans and engages in money market transactions. Derivative contracts are concluded with counterparties with good credit ratings on the basis of standard contracts. New business in this portfolio must always be of investment-grade quality (this corresponds to internal rating AAA to BBB).

**Total exposure by internal rating classes incl. derivatives, in € billions**



NRW.BANK's total exposure amounts to € 167.5 billion, which represents an increase by € 3.8 billion from the previous year's € 163.7 billion.

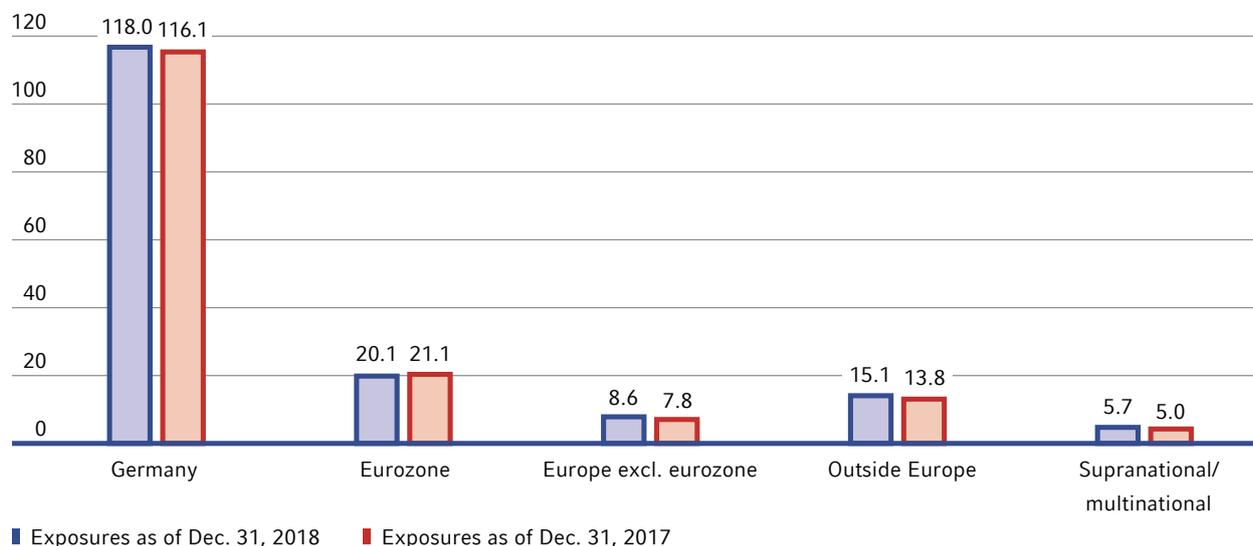
Due to the high proportion of government and domestic municipal loans, most of the ratings remain within the internal rating class AAA. 96.5% of the portfolio (2017: 95.9%) are investment grade exposures.

At € 118.0 billion (2017: € 116.1 billion) exposures in Germany account for the biggest portion of the portfolio (70.5% of the total exposure; 2017: 70.9%). Of this amount, € 77.4 billion (2017: € 76.2 billion) relates to North Rhine-Westphalia; this amount includes direct exposures to municipalities of € 17.8 billion (2017: € 16.4 billion). This concentration is the result of the public promotional mission, because of which the Bank has a special responsibility towards the municipalities and provides them with reliable funding.

As a largely independent promotional bank, NRW.BANK uses the income from its international exposures to fulfil its promotional mission. The international exposure totals € 49.5 billion (29.5% of the total exposure; 2017: € 47.7 billion) and is composed of exposures to European countries in the amount of € 28.7 billion (2017: € 28.9 billion) and of exposures to non-European countries as well as supranational organisations in the amount of € 20.7 billion (2017: € 18.8 billion). The international exposure is focused exclusively (2017: 99.9%) on investment-grade countries.

The European exposure comprises investments in the eurozone in the amount of € 20.1 billion (2017: € 21.1 billion) and investments outside the eurozone of € 8.6 billion (2017: € 7.8 billion). The non-European exposures focus on North America with € 8.1 billion (2017: € 7.9 billion), Australia / New Zealand with € 3.5 billion (2017: € 2.7 billion) and Asia with € 3.0 billion (2017: 2.9 billion). Supranational organisations account for a total of € 5.7 billion (2017: € 5.0 billion).

## Geographic breakdown of exposures incl. derivatives, in € billions



There are no sub-investment-grade country exposures. As a general rule, no new capital investments are made in these rating classes. The total exposure in countries with lower investment grade ratings (BBB) declined in the course of the fiscal year; the largest exposure in this rating category is Italy (€ 2.1 billion; 2017: € 3.0 billion). New burdens faced by the governments or a more pronounced economic slowdown could put the ratings under renewed pressure.

As of the balance sheet date, the securitisation exposures – mostly of investment-grade quality – amounted to 4.1 billion (2017: € 4.2 billion). A major portion of the portfolio (68.2%) additionally benefits from a comprehensive state guarantee (e. g. from the US Department of Education). NRW.BANK constantly monitors the credit risk associated with the underlying reference pools of securitisation exposures.

The equity investment business comprises participations in the public interest which are primarily held on behalf of the Federal State of North Rhine-Westphalia and were essentially transferred to the Bank upon its inception as well as investments entered into as part of the Bank's promotional mission. The credit risks arising from the

investments are largely based on strategic and operational risks, which are primarily analysed using the corporate data made available for investment controlling purposes. Controlling for these companies includes continuous monitoring of profits and losses and of conformity to projections. In the case of major equity holdings, the quarterly report also includes a review of risk-relevant developments. As such, risk management is a systematic and continuous process that enables rapid adaptation to changing conditions. At some of these investments, the Bank is represented through mandates on bodies such as advisory councils, supervisory boards or investment committees. Moreover, the investment contracts usually contain regulations which reserve a veto/approval right for NRW.BANK in specific cases.

For some equity investments, the credit risk is reduced due to a strong involvement of the public sector. In the case of ten participation funds in the promotional business with a total exposure of € 199.1 million (2017: € 176.8 million) the credit risk is reduced by a guarantee from the Federal State of North Rhine-Westphalia which covers 49% of the respective fund's total investment.

The € 2.2 billion book value of the investment in Portigon AG, which is held on behalf of the Federal State of North Rhine-Westphalia, is secured by a guarantee from the federal state.

Equity investment exposures are included in economic capital management and reflected in the credit risk.

#### 5.6.5 Economic Capital

As of the reporting date, the economic capital set aside for credit risks amounts to € 0.8 billion (2017: € 0.8 billion) under the going concern perspective and to € 3.6 billion (2017: € 3.7 billion) under the gone concern perspective. Differences between the two perspectives are primarily attributable to the confidence level used.

#### 5.6.6 Risk Provisions

Defined criteria are used to determine whether risk provisions need to be established for credit claims. Where they are needed, the amount of the required individual allowances is determined in a timely manner in the course of the year. Thereby, existing collateral is taken into account. In evaluating collateral, the usual methods applied for the valuation of real estate are used for social housing promotional loans. The result is reduced by a discount calculated on the basis of historical data. By contrast, generalised individual allowances are established in social housing promotion as part of managing the Bank's exposure to non-performing loans in the owner-occupier segment (remaining capital of less than € 750 thousand). A general allowance is formed for latent credit risks. The amount of this allowance is based on historical averages for default rates and loss given defaults.

In the securities business, the risk provision is calculated on the basis of market information, mathematical models and individual creditworthiness estimates.

Equity investments of NRW.BANK are also regularly checked for the need to establish risk provisions. Where these are required, the book value is written down.

#### 5.6.7 Opportunities

In accordance with its business model and the risk strategy principles, NRW.BANK takes risks only within clearly defined limits. This means that unexpected opportunities arising from potential future developments or events which may lead to a positive deviation from forecasts or targets exist only to a very limited extent. The positive business trend anticipated in the context of the business model is incorporated into the annual strategic planning process.

Opportunities arise, for instance, from rating upgrades of the exposures, which means that less rating-related economic capital needs to be set aside for credit risks. This opens up further investment opportunities with additional income potential.

NRW.BANK determines anticipated losses on the basis of probabilities of default and loss given default and incorporates them in the planning and extrapolation for its result under HGB. There is a possibility that the actual defaults are lower than the anticipated losses. In these cases higher allocations to reserves may be made – as in the previous years – which helps to strengthen the capital cover and the risk-bearing capacity.

### 5.7 Market Risk

#### 5.7.1 Definition

The market risk refers to a potential loss resulting from unfavourable changes in market prices or price-influencing parameters. This definition covers interest rate, foreign exchange rate and option risks. The Bank does not take equity and commodity risks. As far as the interest rate risk is concerned, a distinction is made between the general and the specific interest rate risk. It comprises both changes in general interest rates and changes in the credit spread of issuer classes and changes in the credit spread of individual issuers (residual risk).

### 5.7.2 Methods

The Bank controls and monitors its market risk using a value-at-risk (VaR) methodology. VaR is calculated for daily management at a 95% confidence level for a one-day holding period and takes into account all risk factors relevant for the portfolio, such as interest rates, foreign exchange rates, implicit volatilities and credit spreads.

Under the going concern perspective, market risks are primarily measured on the basis of a VaR concept (net-interest-income approach). Under this approach, all market risks which may influence the HGB income statement are taken into account. In the investment portfolio, this may include interest or foreign exchange rate risks resulting from assets and liabilities with different fixed interest periods or currencies which still have to be hedged on a nominal value basis in the context of asset/liability management. For the trading portfolio and the liquidity reserve, all relevant risks types are additionally measured on a mark-to-market basis. Accordingly, temporary market value changes, e. g. from specific interest rate risks (credit spreads), are counted under the HGB perspective for the trading portfolio and the liquidity reserve. Due to the strategic objective of hedging most of the interest and rate and currency risks, the correspondingly conservative limitation as well as active management, only low market risks exist in the investment and trading portfolios under the going concern perspective. The HGB-VaR calculation is based on the sensitivity of the HGB income statement towards changes in market prices ("HGB sensitivities"). In contrast to a mark-to-market VaR concept, the focus is not on the mark-to-market sensitivities but on the sensitivity of the HGB result. The HGB-VaR is calculated for the current and for the next two fiscal years as well as generally for all future periods.

Under the gone concern perspective, the VaR is additionally examined on a mark-to-market VaR basis (economic value of equity). The (mark-to-market) sensitivities used

to calculate the VaR take into account general and specific interest rate risks, exchange rate risks and volatility risks. Under this approach, the general interest rate risks from the largely equity-funded social housing promotional business as well as the specific interest rate risks (credit spreads) are considered in the investment portfolio.

The volatilities and correlations needed to determine the VaR figures are identical for both perspectives. The historical observation period is 250 days, with a greater weight placed on incidents in the more recent past.

The daily management is based on a VaR with stressed correlations and volatilities (variance-covariance approach). In particular, the Lehman crisis of 2008 and the EU government finance crisis of 2011 are used as stress histories. This way, the Bank ensures that unfavourable market phases are also taken into consideration. In the investment book, the stressed VaR is monitored across all levels from the Bank as a whole down to individual sub-portfolios. In the trading book, the unstressed VaR is limited, as the consideration of current market data makes sense against the background of short-term management. The VaR for the trading book is calculated on the basis of a Monte Carlo simulation. Non-linear products are taken into account via new valuation.

Above and beyond this day-to-day management of the interest-bearing business, strategic interest rate risks from pension obligations (incl. benefit obligations) and participations in the public interest are also considered. Strategic interest rate risks from pension obligations result from the Bank's strategic decisions regarding the capital investment of pension provisions in cases where the maturity of the investment does not exactly match the payment profile. There is a risk that the provisions and the interest income generated from the investment need to be complemented by other operating income to meet all pension obligations. In addition, strategic interest

rate risks include – on a small scale – risks from participations in the public interest if the term of the refinancing differs from the assumed term of the investment.

The calculation of the VaR is supplemented with daily stress scenario computations. In this context, hypothetical scenarios are considered for interest rates, foreign exchange rates, implicit volatilities and credit spreads. In addition, the effects of changes in interest rates and credit spreads are examined for the identified historical scenarios. The standardised stress scenarios are supplemented if needed with individual, situational considerations tailored to the risk structure of the Bank's portfolio. Moreover, the analysis of the sensitivities and risk concentrations from the above risk factors is an integral element of daily market risk measurement.

### 5.7.3 Validation

Daily backtesting is used to check the quality of the VaR projection. In this context, the losses projected by the VaR model are compared with the changes in the result. The Bank performs clean backtesting without ageing, which means that only changes resulting from changes in the market data are taken into account. In accordance with the two perspectives, backtesting is performed for both HGB losses and mark-to-market losses.

When the backtesting approach for internal market price risk models accepted by the regulatory authorities pursuant to the CRR is applied to NRW.BANK's backtesting, the model for both perspectives (going concern and gone concern) is generally within the statistically expected range. An increased number of statistical backtesting outliers was temporarily observed in 2018

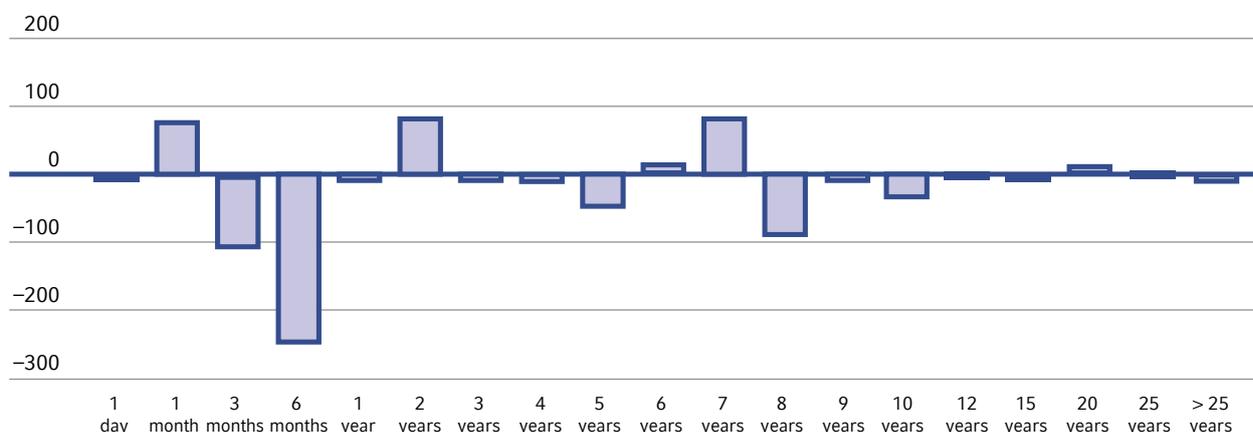
in the going concern perspective. A more detailed analysis was therefore carried out. This analysis and the regular daily, monthly and annual processes conducted to review the parameters and assumptions confirmed the validity of the model. Nevertheless, a conservative 10% premium on the VaR was introduced for the going concern perspective as of September 2018.

### 5.7.4 Risk Assessment and Limitation

The focus of the market risk under the gone concern perspective is on general and specific interest rate risks in the investment portfolio. The resulting market value fluctuations are not reflected in profit/loss under the HGB-oriented going concern perspective, provided there is no permanent impairment. As investments in the investment portfolio are made with the intention of being held to maturity permanently, the hedges used by the Bank relate to the nominal value at maturity. Accordingly, there are only minor fixed-interest-period and currency mismatches under the HGB-oriented going concern perspective, which are limited by the HGB-VaR for the risks of all future fiscal years as well as for the current and the next two fiscal years. This is complemented by mark-to-market VaR limitation under the gone concern perspective. The Bank also has minor active positions in the trading portfolio. These are limited by a separate limit for the trading portfolio. Compliance with the limits is monitored on a daily basis; all limits were met at all times in the fiscal year.

Due to the hedges in place, there are no material fixed-interest-period mismatches at Bank-wide level under the HGB-oriented going concern perspective (the following graph shows sensitivities of max. € 79 thousand and min. € -243 thousand).

**HGB interest rate sensitivities (excl. strategic interest rate risks) under the going concern perspective (all periods) to a 1 bp interest rate hike in € thousands as of Dec. 31, 2018**



In addition, HGB interest rate sensitivities from strategic interest rate risks for pension obligations and participations in the public interest for the current and the next fiscal year as well as business policy-driven interest rate commitments in the promotional programme business in the amount of € 63 thousand were considered in the risk measurement as of December 31, 2018.

Currency risks also play only a minor role under the HGB-oriented going concern perspective. They are

extensively hedged using derivatives, which means the HGB result is essentially exposed only to the currency risk on the interest margin generated.

Reflecting the low interest rate and exchange rate risks, the HGB-VaR for market risks for all future fiscal years amounted to € 6.5 million as of December 31, 2018 (2017: € 3.5 million). The daily management is based on a VaR with stressed correlations and volatilities (variance-covariance approach).

**HGB-VaR under the going concern perspective (all periods) in € millions**



The average (all periods) HGB-VaR for market risks in the fiscal year was € 6.0 million (2017: € 5.2 million). The minimum was € 5.0 million on October 15, 2018 and the maximum was € 8.0 million on July 13, 2018.

The allocation of the HGB-VaR to the risk types confirms the relatively low overall market risks taken, which, as described above, are largely closed by hedges and limited additionally.

### HGB-VaR under the going concern perspective (all periods)

	Dec. 31, 2018	Sep. 30, 2018	Jun. 30, 2018	Mar. 31, 2018
	€ millions	€ millions	€ millions	€ millions
Interest rate risk	5.1	5.0	6.0	6.0
Foreign exchange rate risk	3.1	2.8	2.8	2.4
Credit spread risk	0.0	0.1	0.0	0.1
Interest rate volatility risk	0.0	0.0	0.0	0.0
Diversification	-1.9	-2.4	-1.9	-1.9
<b>Total VaR</b>	<b>6.3</b>	<b>5.4</b>	<b>7.0</b>	<b>6.6</b>

No material positions were held in the trading portfolio in the fiscal year. Accordingly, the maximum VaR in the fiscal year was € 0.3 million (2017: € 0.3 million).

#### 5.7.5 Economic Capital

For the strategic management of economic capital, the Bank uses a confidence level of 99% under the going concern perspective and of 99.96% under the gone concern perspective. A risk horizon of one year with a shorter holding period of 125 days is considered under the gone concern perspective, which results from the differentiated analysis of different holding periods per asset and liquidity class. The latter reflects the possibility to take risk management measures, e.g. by reducing risk positions in the event of an unfavourable market trend. A holding period of one year is used under the going concern perspective. The economic capital for market risks is determined from a stress VaR with stressed correlations and volatilities. This way, the Bank ensures that the calculation of economic capital also reflects unfavourable market phases. Accordingly, the economic capital remains relatively constant.

Under the going concern perspective, the economic capital for market risks including strategic interest rate risks amounted to € 145.4 million (2017: € 77.9 million). An amount of € 38.6 million (2017: € 28.3 million) related to strategic interest rate risks.

The economic capital for market risks under the gone concern perspective primarily includes general interest rate risks from the social housing promotional loans. These are primarily funded with own equity funds. To comply with MaRisk, the own equity funds used to fund housing promotional loans may not be taken into account in the risk calculation. The MaRisk thus imply that housing promotional loans are funded fully mismatched with overnight deposits. This results in a high assumption based interest position. In addition, economic capital includes all mark-to-market strategic interest rate rates and all credit spread risks of the investment portfolio, although any resulting fluctuations in the market value are usually not recognised in profit/loss in NRW.BANK's HGB income statement. As of the reporting date, the economic capital set aside for market risk amounted to € 6.0 billion (2017: € 6.4 billion).

### 5.7.6 KWG Interest Rate Shock

The potential effect of a sudden and unexpected interest rate change in the investment book defined by BaFin circular 9/2018 – currently +/-200 basis points – is dominated by the above-mentioned assumption based interest position of the housing promotional loans. As of December 31, 2018, the negative change in the present value of the Bank's investment book resulting from an assumed +200 bp interest rate shock amounted to 18.2% of the regulatory equity capital (2017: 17.8%). The interest rate sensitivity of the housing promotional loans results from the fact that they are funded with equity. When assessing the Bank's potential sensitivity to the postulated KWG interest rate shock, equity funds must be modelled as maturity mismatched refinancing funds payable on demand according to regulatory requirements.

Besides calculating the effects of the KWG interest rate shock on the present value, the Bank also calculates the effects of interest rate changes on the HGB result under the going concern perspective. In contrast to the above-described particularities of housing promotion under the mark-to-market perspective, interest rate risks under the going concern perspective are negligible. As the positions in the Bank's investment portfolio fall under the buy-and-hold strategy, this perspective is in accordance with the Bank's primary risk management approach.

### 5.7.7 Opportunities

The aim of NRW.BANK's asset/liability management is to generate a fixed interest and commission margin with regard to the HGB income statement. This entails low market risks, which limit the respective opportunities in the investment portfolio. The biggest opportunities therefore lie in the development of the rates for future new business on the asset and the liability side and not in additional gains from mismatched interest and currency positions. In the trading portfolio, further opportunities are also ruled out due to the existing limit. This means that opportunities for generating additional HGB income from market risk positions play only a minor role. From a mark-to-market point of view, market price fluctuations lead to changes in unrealised profit and losses. In the investment portfolio, these are regarded as temporary value fluctuations – provided that they are not permanently impaired. Realised net gains in the investment

portfolio exclusively result from portfolio-enhancing measures.

## 5.8 Liquidity Risk

### 5.8.1 Definition

The liquidity risk includes, in particular:

- the risk of being unable to meet payment obligations at maturity (liquidity risk in the narrower sense)
- the risk of being unable to provide sufficient liquidity at the anticipated conditions (funding risk) when needed and
- the risk of being unable to unwind or liquidate transactions or to do so only at a loss because of insufficient market depth or market disruptions (market liquidity risk)

### 5.8.2 Methods

The liquidity risk is managed centrally at NRW.BANK to ensure liquidity across the entire Bank at all times.

The risk of insolvency and the funding risk are monitored daily on the basis of a liquidity gap analysis and its limitation. The liquidity gap analysis (in EUR and foreign currency) is prepared and analysed each day independently of trading units. It reflects the contractually agreed (deterministic) inflows and outflows of cash for each day until the final cash flow occurs (incl. interest cash flow and off balance sheet transactions).

For optional (stochastic) cash flows (e. g. termination rights or early redemption), conservative assumptions are made in such a way that negative effects are assumed for NRW.BANK. Moreover, no (fictitious) new business is reflected or modelled in the liquidity gap analysis; e.g. there is no prolongation of unsecured and secured funding.

The funding risk, as the income risk for the HGB result, is determined on the basis of the planned issuance volume of the next twelve months and the volatility of the own fund spread and limited in the context of the risk-bearing capacity in the going concern perspective. In addition, the funding base is diversified in terms of investor groups, regions and products, which helps to minimise the funding risk.

The market liquidity risk is of minor importance for NRW.BANK, as the investment portfolio only consists of positions held in accordance with the buy-and-hold strategy. Accordingly, temporary market liquidity fluctuations are not relevant for the HGB income statement, as the focus is not on short-term profit generation by way of a sale. Sales of investments held in the investment portfolio serve to optimise the portfolio in the context of portfolio management and are not directly related to the generation of liquidity.

The market liquidity risk from securities held in the liquidity reserve and the trading portfolio is not material, as the securities holdings are relatively small.

An analysis of the market liquidity risk that goes beyond the analysis of the market risk is performed in the form of a regular analysis of the short-term liquidity to be generated from the securities portfolio. In addition, it is reflected in the liquidity risk limitation in the form of haircuts on the calculated liquidity potential.

### 5.8.3 Risk Assessment and Limitation

Because of the explicit funding guarantee extended by NRW.BANK's guarantor and its correspondingly good rating, the Bank can generate the required liquidity at short notice at any time. The Bank usually funds itself in the money and capital markets. NRW.BANK continues to benefit from a very favourable funding environment.

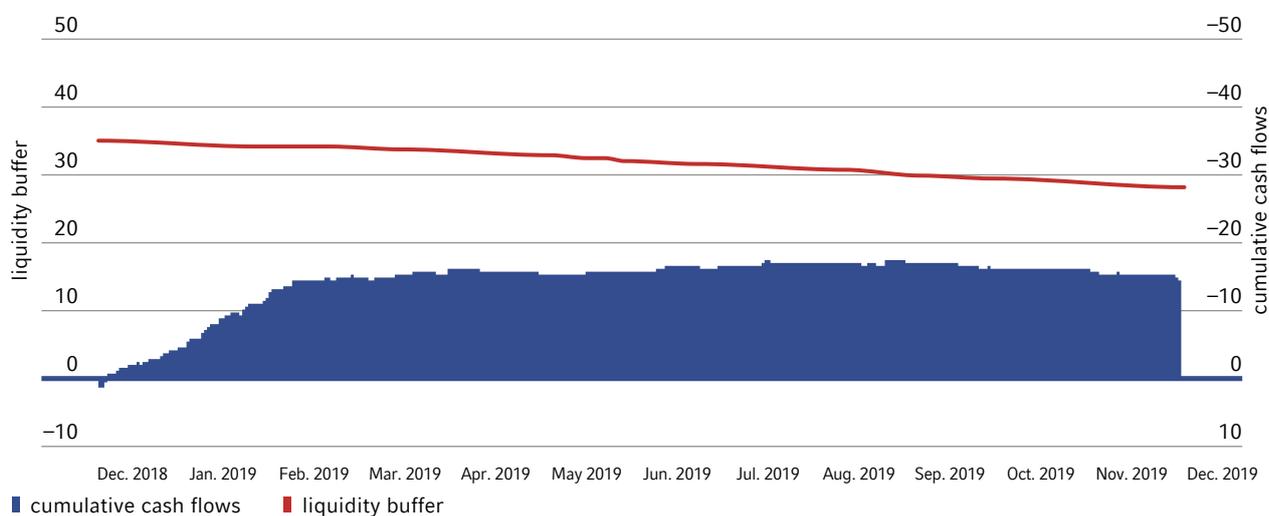
To ensure it is able to meet its payment obligations at all times, the Bank additionally holds a substantial portfolio

of liquid ECB/repo-eligible securities as well as ECB-eligible credit receivables. Regardless of the buy-and-hold strategy, the securities may be used in the repo market or for ECB open-market transactions with a view to generating liquidity. Sales of securities in the investment portfolio are therefore not required for this purpose.

To limit liquidity gaps, a limit system graded according to maturities is in place, which is based on the MaRisk requirements for assets to be held as liquidity buffer even in a stress scenario (up to one week: highly liquid securities that can be liquidated in private markets without significant losses at any time and that are ECB-eligible; up to one month: unencumbered ECB-eligible securities and unencumbered securities deposited with the Bundesbank). The limit system also requires liquid securities for observation periods of more than one month. The liquidity buffer is thus an important element of the system for liquidity gap limitation. In addition, there are further funding possibilities of the money and capital markets, which are reflected in the limit system in a second step, with haircuts being applied.

Due to the above-mentioned limit system, NRW.BANK's ability to meet its payment obligations is secured by the freely available portfolio of ECB-eligible receivables and the unused ECB line even without external capital market funding. Netted with cash inflows and outflows, there is a significant liquidity surplus for the 1-year period that is most relevant for risk management.

## Liquidity gap analysis of NRW.BANK in € billions



The limit system ensures that liquidity gaps are at all times covered by the liquidity buffer, especially in the short-term segment.

Idiosyncratic, market-wide and combined stress tests are also performed in the context of liquidity management. These stress tests take into account crisis-specific effects on payments, the liquidity buffer maintained by the Bank as well as the limit utilisation. The following is simulated in the context of the stress tests:

- defaults of material borrowers,
- outflows under collateralisation agreements,
- reduced liquidity potential from ECB-eligible securities due to rating changes and
- reduction in the collateral value of ECB-eligible securities and credit receivables.

The results are analysed at least on a monthly basis. Even assuming these stress scenarios, NRW.BANK is able to meet its payment obligations at all times. In addition, the HGB result is subjected to stress tests in the form of rising costs from USD exchange rate hedges.

Liquidity risk management also incorporates compliance both with the German Liquidity Regulation and with the regulatory requirements regarding the minimum reserve. These conditions were met at all times in the fiscal year.

### 5.8.4 Economic Capital

As of the reporting date, the economic capital for liquidity risks under the going concern perspective (income risks of the HGB result for the issuance volume planned for the next twelve months) was € 12.8 million (2017: € 10.5 million).

In addition, the parameters and assumptions of the model are reviewed regularly in the context of various daily, monthly and annual processes.

### 5.8.5 Funding Structure

As a state-guaranteed promotional Bank, NRW.BANK continued to experience strong demand for its debt in the fiscal year. NRW.BANK catered to investors' need for state-guaranteed, liquid bonds and again consolidated its market presence with further benchmark issues. The issues were subscribed by a broad investor base.

The funding transactions with domestic investors are dominated by bearer bonds, note loans and registered bonds.

NRW.BANK also used is international funding programmes for its funding operations. These essentially comprise the Debt Issuance Programme, which covers medium and long-term maturities, and the Global Commercial Paper Programme, which covers maturities of up to twelve months. The GCP Programme constituted a particularly favourable source of funding for NRW.BANK throughout the fiscal year.

#### 5.8.6 Opportunities

NRW.BANK continues to attract strong demand from investors thanks to its status as a promotional bank and the funding guarantee granted by the Federal State of North Rhine-Westphalia. This is reflected in a favourable funding environment for the Bank; NRW.BANK will therefore expand the long-term funding volume moderately in 2019. Additional opportunities may arise for the coverage of short-term liquidity, which may take place in different money market segments, depending on the financial markets.

### 5.9 Operational risk

#### 5.9.1 Definition

Operational risk comprises risks in systems or processes, specifically resulting from human or technical failure, external events or legal risks resulting from contractual agreements or applicable law.

#### 5.9.2 Methods

The framework for operational risk management at NRW.BANK incorporates both qualitative and quantitative aspects. Quantitative management of the economic capital is based on the basic indicator approach, while qualitative management is based on the MaRisk requirements.

By using a combination of decentralised and centralised risk management and risk monitoring, the Bank ensures that management can respond promptly as needed, and that the Managing Board can simultaneously take the necessary decisions based on the Bank's overall risk profile.

Since 2004, NRW.BANK has collected information on losses and loss-free risk events in a central risk event database and categorised them in accordance with the Basle event categories. The data collection serves as the basis for the assessment of operational risks at NRW.BANK. The results of the annual forward-looking self-assessments and the findings resulting from scenario analyses and from the monitoring of risk indicators are also included in the overall assessment of the risk situation.

Comprehensive, business-process-oriented emergency plans exist for particularly mission-critical events such as a major loss of staff, breakdown of a bank building or a computing centre. The contingency plans cover all areas and are designed to prevent high financial and reputational risks.

The Bank's insurance cover is reviewed regularly to ensure that it is appropriate.

NRW.BANK uses standardised contracts to minimise legal risks from transactions. Deviations from standardised contracts and individual transactions are approved by the Legal business unit. The Bank is currently not involved in any significant pending proceedings.

Operational risks are mitigated by, among other things, the instructions in the written orders as defined in the internal control system (ICS). These comprise all processes, methods and control measures ordered by the Managing Board which serve to ensure the proper and safe functioning of the operational processes. The ICS

comprises general principles and requirements for working and behavioural practices, e.g. the four-eye principle, but also specific process-related instructions. In the event of material changes in the structural and operational organisation as well as in the IT systems, the business units involved in the downstream work-flows as well as the Risk Control function, the Compliance function and Internal Audit analyse the effects on the control procedures and the intensity of control.

Human resources risks are initially managed in the context of regular human resources planning. HR-related measures are implemented in close consultation between the respective business units and the Human Resources business unit. As part of the observation of risk indicators, indicators, e. g. regarding staff turnover or further training, are monitored in order to respond to undesirable developments at an early stage.

Operational risks in NRW.BANK's IT environment are managed on the basis of the IT strategy. The written instructions include rules for the use, procurement and development of hardware and software, with the main emphasis on compliance with the necessary security standards and business continuity. Appropriate authorisation concepts and processes additionally have a risk-mitigating effect. Contingency plans exist for the breakdown of all critical IT systems. In addition, extensive security measures are in place to protect the Bank against cyber risks, i.e. the unauthorised access to computers or network systems (e.g. hacking, data theft, virus attacks).

Risks that may result from the outsourcing of material business activities are mitigated by an established audit and monitoring process, which primarily consists of a detailed risk analysis as the basis for a possible outsourcing decision to limit outsourcing risks.

In addition, the Bank effectively mitigates potential risks related to (MaRisk and WpHG) compliance, money laundering and financing terrorism as well as other criminal acts. Bank-wide security procedures, processes

for the reporting of suspicions, regular risk analyses as well as self-assessments serve to manage and limit the potential risks arising in conjunction with these topics.

### **5.9.3 Risk Assessment and Limitation**

In the context of the identification and assessment of risks, all losses and risk events are analysed for their causes (including the observation of early warning indicators). Regardless of the current amount of the risk or the risk potential, this is done to ensure that countermeasures can be taken at an early stage if similar events occur.

NRW.BANK performs self-assessments of all operational risks to which the Bank may be exposed. Risks are assessed separately for relevance (probability of occurrence) and frequency.

Neither the operational risk losses and loss-free risk events identified in the reporting year nor the findings from the self-assessments and the observation of early warning indicators have revealed any risks that could jeopardise the existence of the Bank.

The economic capital for operational risks is determined annually in accordance with the basic indicator approach. As the economic capital allocated to cover potential losses thus remains constant throughout the year, no distinction is made between limit and utilisation.

### **5.9.4 Economic Capital**

With regard to the economic capital for operational risks derived from the regulatory basic indicator approach, differences between the going concern perspective and the gone concern perspective result exclusively from scaling to the respective confidence level under the gone concern perspective. As of the reporting date, the economic capital set aside for operational risks amounted to € 105 million (2017: € 100 million) under the going concern perspective and to € 145 million (2017: € 130 million) under the gone concern perspective.

## 5.10 Pension risk

### 5.10.1 Definition

Pension risk relates to the risk that there is a need to increase the pension provisions.

Pension obligations may increase primarily as a result of changes in the statistical assumptions regarding invalidity and mortality. This is considered as the pension risk in the calculation of economic capital. Strategic interest rate risks related to pension obligations are included in the market risk. In addition, risks resulting from a change in interest rates are considered in the capital cover.

### 5.10.2 Methods

The calculation of the pension provisions requires the actuarial determination of cash flows reflecting future changes in payment obligations over time.

With regard to the period during which pensions are received, invalidity and death must be modelled in the cash flows. This is done on the basis of actuarial mortality tables (acc. to Heubeck), which are generally accepted for Germany and approved by the tax authorities.

For the mortality tables, no historical changes covering sufficiently long periods are available from which the volatilities required for a VaR model can be derived. This is why the risk of changes in the statistical assumptions regarding invalidity and death is quantified using a scenario analysis in which the cash flows increase based on the assumption of a growing life expectancy. In addition, the probabilities of invalidity are modified as well. To quantify the risk, the scenario showing the strongest impact on the Bank is applied.

Differences between the going concern perspective and the gone concern perspective exclusively result from different interest rates used to discount the cash flows.

### 5.10.3 Risk Assessment and Limitation

The pension risk comprises the obligations towards both NRW.BANK's own employees and the employees of Portigon AG employed under a dual contract.

Economic capital is calculated once a year. As this means that it is constant throughout the year, the Bank makes no distinction between limit and utilisation.

### 5.10.4 Economic Capital

The economic capital set aside for pension risks as of the reporting date amounted to € 70 million (2017: € 60 million) under the going concern perspective and to € 110 million (2017: € 100 million) under the gone concern perspective.

## 5.11 Business and Cost Risk

### 5.11.1 Definition

Business risk describes the risk of changes in the economic environment (market and/or demand) or the legal (incl. tax) environment as a result of which income may be reduced. Cost risk means that the planned personnel and operating expenses are exceeded or that unplanned costs become effective. A cost risk could arise, for instance, as a result of projects that are not foreseeable today, e. g. in the context of the national and European banking supervision or accounting.

The business and cost risk was classified as non-material in the risk inventory. This risk is nevertheless backed by economic capital to ensure comprehensive management of the risk-bearing capacity.

### 5.11.2 Methods

A general risk amount is defined on the basis of a simplified procedure for a one-year risk horizon, which is consistent with other risk types. For this purpose, the deviations from the projected balance of income and administrative expenses are determined for the fiscal years since the inception of the Bank. From the negative deviations, mean and standard deviations are determined, from which the economic capital at the chosen confidence level is derived.

### 5.11.3 Risk Assessment and Limitation

Developments from which business and cost risks may arise are analysed on a regular basis. This includes, in particular, a review of the internal and external premises on which the strategy of NRW.BANK is based. If required, adjustments are implemented in the context of the strategy process, for which the Managing Board is directly responsible.

Economic capital is calculated once a year. As this means that it is constant throughout the year, the Bank makes no distinction between limit and utilisation.

### 5.11.4 Economic Capital

As of the reporting date, the economic capital set aside for the business and cost risk amounted to € 50 million under the going concern perspective and to € 65 million under the gone concern perspective (differences result from different interest rates used to discount the cash flows). No changes have occurred compared to the previous year.

### 5.12 Reporting

In accordance with the MaRisk provisions, the Risk Control business unit ensures market-independent and regular reporting to the Managing Board and the Risk Committee.

Daily reports are produced for the Managing Board both on Bank-wide level and for the capital market business. These include risk positions and trading results as well as all cases where limits for market risks and liquidity risks as well as counterparty and issuer limits are exceeded.

As a general standard, the monthly risk report covers the following topics: Bank-wide risk management, credit risks, market risks, liquidity risks, operational risks and profit performance. It forms the basis for the discussion of the risk situation in the ALCO and the Credit Committee. Besides the standardised content, the report covers risk-relevant special topics as required. Every quarter, it covers the Bank-wide stress tests across all risk types.

The quarterly reports to the Risk Committee are based on the monthly reports that are relevant for the quarter; while the level of detail is reduced with a view to the recipients, all material aspects are addressed. In addition, extraordinary events which are material from a risk perspective immediately trigger an (ad-hoc) report.

### 5.13 Outlook

In November 2018, the ECB published the final SSM Guides on institutions' internal capital and liquidity adequacy assessment processes (ICAAP and ILAAP), which came into force on January 1, 2019. NRW.BANK had started at an early stage to design the management of its risk-bearing capacity and liquidity in accordance with the new Guides.

In early 2019, the going concern perspective and the gone concern perspective were replaced by a normative perspective and an economic perspective. The normative perspective is geared to compliance with all material regulatory requirements and also includes multi-year capital planning. The economic perspective is an essentially mark-to-market view, which serves to secure economic losses through disposable capital.

NRW.BANK's capital and liquidity position was adequate also under the new perspectives.

## 6 Internal Control System Relevant for the Financial Reporting Process

NRW.BANK's internal control system (ICS) is to ensure that the financial statements present a true and fair view of the net worth, financial and result of operations of the Bank in accordance with applicable legal provisions and standards. It primarily comprises regulations governing the organisational and operational structure and makes a clear distinction between responsibilities as well as processes, procedures and measures to ensure the appropriateness and reliability of internal and external accounting.

The Managing Board of NRW.BANK is responsible for the creation and effective maintenance of an appropriate accounting-related internal control system. Responsibility for implementation rests with the Finance business unit in cooperation with the business units Business Support and Risk Control.

Accounting-related business events are mostly handled locally. All accounting-relevant events are initiated in IT systems. The respective business units are responsible for full and proper capture and for implementing and documenting the required controls. Bank-wide functional responsibility for the accounting rules, the booking system, accounting and the definition of the valuation principles rests with the Finance business unit. This ensures that consistent accounting and valuation principles are applied within NRW.BANK even where business transactions are recorded locally. Risk Control is responsible for the trading-independent valuation and results analysis.

In the context of the Management Information System, a standardised report on the income statement, the cost centre statement, total assets, the business volume and the planning and budgeting process is sent to the Managing Board each month to ensure timely reporting. The Managing Board regularly informs the Supervisory Board and its committees about the current business situation.

The financial statements are prepared by the Finance business unit and drawn up by the Managing Board. In accordance with the Statutes, the Board of Guarantors

of NRW.BANK approves and endorses the financial statements, which are published in the electronic Federal Gazette within the statutory deadlines.

On the basis of legal standards, especially of the German Commercial Code (HGB) and the "Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute" (Ordinance on accounting by banks and financial institutions – RechKredV), NRW.BANK's accounting process is described and laid down in manuals and work instructions. These written orders are updated on a regular basis. All employees have direct access to the corresponding manuals via NRW.BANK's intranet. Compliance to the manuals is mandatory.

The Finance business unit examines all new legislation for its potential relevance to the Bank's accounting process. Necessary adjustments to processes and manuals are implemented in a timely manner. The management and monitoring of new products are coordinated by the Risk Control business unit in a standardised process. In this context, an accounting-related analysis of the products and the associated risks is carried out with a view to ensuring accurate accounting.

The front-office business units are functionally and organisationally separated from the business units responsible for settlement, monitoring and control. This separation is also reflected in the responsibilities of the individual Managing Board members. The authorities and responsibilities are laid down in detail in the individual specialist business units. Employees involved in accounting-relevant processes have the knowledge and experience required for their respective tasks. Where required, external experts are called in for certain calculations, e.g. the measurement of pension obligations.

Besides the minimum requirements of the four-eye principle, the use of standard software is a key element of the internal control system. The software is protected against unauthorised access by means of authorisations reflecting users' competence levels. In addition, system-immanent plausibility checks, standardised coordination routines and target-actual comparisons serve to check completeness and avoid and identify errors. For instance,

the figures determined in the accounting process are checked for plausibility on a monthly basis by means of comparisons with prior-year figures and planning figures and on the basis of the actual business trend. Inconsistencies are addressed jointly by the external and internal accounting Departments.

The Supervisory Board establishes an Audit Committee from among its members. In accordance with the Statutes and the Public Corporate Governance Code of NRW.BANK, the Audit Committee addresses matters such as accounting-related issues, the selection of the auditors and the verification of their independence, the commissioning of the auditors to carry out the audit, the definition of focal points for the audit and the auditor's fee.

The auditor is appointed by the Board of Guarantors at the recommendation of the Supervisory Board/Audit Committee.

The auditor participates in the Supervisory Board's and the Board of Guarantors' consultations regarding the financial statements and reports on the key results of the audit.

The functionality of the accounting-related internal control system is additionally monitored by Internal Audit through regular process-independent tests in accordance with the MaRisk requirements published by the Federal Financial Supervisory Authority (BaFin). The Managing Board and the Supervisory Board are informed of the results of the tests in a timely manner.

# Balance Sheet

of NRW.BANK at December 31, 2018

## Assets

	see Notes No.	€	€	Dec. 31, 2017 € thousands
<b>1. Cash</b>				
a) cash on hand		8,531.10		9
b) balances with central banks		1,503,360,238.36		3,190,890
thereof:				
with Deutsche Bundesbank € 1,503,360,238.36				(3,190,890)
			<b>1,503,368,769.46</b>	3,190,899
<b>2. Debt instruments issued by public institutions and bills of exchange eligible for refinancing with central banks</b>				
a) treasury bills and discounted treasury notes as well as similar debt instruments issued by public institutions			<b>60,080,044.70</b>	23,555
thereof:				
eligible for refinancing with Deutsche Bundesbank € 60,080,044.70				(23,555)
<b>3. Receivables from banks</b>	<b>1, 10, 21, 24, 25</b>			
a) payable on demand		2,651,337,229.91		3,802,703
b) other receivables		40,285,708,153.69		37,558,345
			<b>42,937,045,383.60</b>	41,361,048
<b>4. Receivables from customers</b>	<b>2, 10, 21, 24, 25</b>		<b>58,041,977,077.66</b>	58,236,306
thereof:				
secured by mortgages € 2,838,041.36				(4,087)
loans to public authorities and entities under public law € 37,908,824,031.32				(37,312,308)
			<b>102,542,471,275.42</b>	102,811,808
		To be carried forward:		

## Liabilities

see Notes No.

Dec. 31, 2017

	€	€	€ thousands
<b>1. Liabilities to banks</b>	<b>12, 21, 24, 25</b>		
a) payable on demand	1,455,311,495.64		1,612,271
b) with agreed maturity or period of notice	35,662,348,853.90		39,415,660
		<b>37,117,660,349.54</b>	<b>41,027,931</b>
<b>2. Liabilities to customers</b>	<b>13, 21, 25</b>		
a) other liabilities			
aa) payable on demand	304,829,191.63		309,788
ab) with agreed maturity or period of notice	14,168,051,948.88		15,333,275
		<b>14,472,881,140.51</b>	<b>15,643,063</b>
<b>3. Certificated liabilities</b>	<b>14, 21, 25</b>		
a) bonds and notes issued by the bank	70,816,456,312.61		64,009,759
		<b>70,816,456,312.61</b>	<b>64,009,759</b>
<b>4. Trust liabilities</b>	<b>15</b>		
thereof:			
trust loans € 1,327,237,808.50			(1,399,818)
<b>5. Other liabilities</b>	<b>16, 21</b>		
		<b>1,169,464,860.88</b>	<b>1,542,331</b>
<b>6. Deferred items</b>	<b>17, 21</b>		
		<b>767,686,495.71</b>	<b>793,959</b>
<b>7. Provisions</b>	<b>18</b>		
a) provisions for pensions and similar obligations	2,060,301,494.00		1,883,069
b) tax reserves	1,656,324.02		1,957
c) provisions for interest rate subsidies	153,892,377.33		105,605
d) other	474,538,067.66		423,977
		<b>2,690,388,263.01</b>	<b>2,414,608</b>
<b>8. Subordinated liabilities</b>	<b>19</b>		
thereof:			
due in less than two years € 169,100,000.00			(192,600)
		<b>1,764,120,207.00</b>	<b>1,847,220</b>
			(192,600)
		<b>130,191,210,879.38</b>	<b>128,742,721</b>
	To be carried forward:		

# Balance Sheet

of NRW.BANK at December 31, 2018

## Assets

see Notes No.		Dec. 31, 2017	
	€	€	€ thousands
		Carried forward:	102,811,808
		<b>102,542,471,275.42</b>	<b>102,811,808</b>
<b>5. Bonds and other interest-bearing securities</b>	<b>3, 7, 11, 21, 24, 25</b>		
a) money market instruments			
aa) of public institutions	10,009,665.75		718,264
thereof: eligible as collateral for Deutsche Bundesbank advances € 0.00			(125,385)
ab) of other issuers	99,812,300.31		280,364
thereof: eligible as collateral for Deutsche Bundesbank advances € 99,812,300.31			(280,364)
	109,821,966.06		998,628
b) bonds and notes			
ba) of public institutions	19,002,930,462.19		19,486,520
thereof: eligible as collateral for Deutsche Bundesbank advances € 15,388,650,210.94			(16,293,714)
bb) of other issuers	21,420,507,610.61		18,309,624
thereof: eligible as collateral for Deutsche Bundesbank advances € 18,798,551,924.50			(15,714,832)
	40,423,438,072.80		37,796,144
c) bonds issued by the bank	103,489.09		0
principal amount € 100,000.00			
		<b>40,533,363,527.95</b>	<b>38,794,772</b>
<b>6a. Trading portfolio</b>	<b>4</b>	<b>40,571,881.05</b>	<b>395,120</b>
<b>7. Equity investments in non-affiliated companies</b>	<b>5, 7</b>	<b>2,307,848,730.61</b>	<b>2,300,582</b>
thereof: equity investments in banks € 2,243,772,546.20			(2,243,773)
<b>8. Equity investments in affiliated companies</b>	<b>5, 7</b>	<b>222,684,133.66</b>	<b>201,869</b>
<b>9. Trust assets</b>	<b>6</b>	<b>1,392,553,250.12</b>	<b>1,463,850</b>
thereof: trust loans € 1,327,237,808.50			(1,399,818)
<b>10. Intangible assets</b>	<b>7</b>	<b>4,935,578.01</b>	<b>5,939</b>
<b>11. Tangible assets</b>	<b>7</b>	<b>67,915,170.33</b>	<b>69,302</b>
<b>12. Other assets</b>	<b>8, 21</b>	<b>1,403,521,125.31</b>	<b>1,070,265</b>
<b>13. Deferred items</b>	<b>9, 21</b>	<b>567,090,183.90</b>	<b>470,303</b>
<b>Total assets</b>		<b>149,082,954,856.36</b>	<b>147,583,810</b>

## Liabilities

see Notes No.

Dec. 31, 2017

	€	€	€ thousands
	Carried forward:	<b>130,191,210,879.38</b>	128,742,721
<b>9. Fund for general banking risks</b>		<b>907,944,000.00</b>	857,899
thereof: special item pursuant to Section 340e Para. 4 HGB € 2,944,000.00			(2,899)
<b>10. Equity capital</b>	<b>20</b>		
a) subscribed capital	17,000,000,000.00		17,000,000
b) capital reserves	728,052,848.56		727,443
c) reserves from retained earnings			
ca) reserves required by NRW.BANK's Statutes	36,100,000.00		36,100
cb) other reserves	219,647,128.42		219,647
d) profit for the year	0.00		0
		<b>17,983,799,976.98</b>	17,983,190
<b>Total liabilities</b>		<b>149,082,954,856.36</b>	147,583,810
<b>1. Contingent liabilities</b>	<b>21, 22, 30</b>		
Liabilities from guarantees and indemnity agreements		<b>14,424,511,590.46</b>	14,206,869
<b>2. Other commitments</b>	<b>21, 23</b>		
Irrevocable loan commitments		<b>4,372,038,410.45</b>	4,705,816
<b>3. Administered funds</b>		<b>26,373,220.57</b>	33,736

# Income Statement

of NRW.BANK for the Period January 1–December 31, 2018

	see Notes No.			Jan. 1 – Dec. 31, 2017
	€	€	€	€ thousands
<b>1. Interest income from</b>				
a) lending and money market transactions	3,566,998,147.78			3,360,624
b) interest-bearing securities and book-entry securities	610,036,398.67			765,503
thereof:		4,177,034,546.45		4,126,127
from negative interest € 51,049,702.23				(21,421)
<b>2. Interest expenses</b>		3,578,065,579.33		3,516,145
thereof:				
from positive interest € 112,812,861.54				(75,618)
			<b>598,968,967.12</b>	609,982
<b>3. Income from</b>				
a) equity investments in non-affiliated companies		5,292,952.29		11,284
b) equity investments in affiliated companies		12,000,172.59		11,464
			<b>17,293,124.88</b>	22,748
<b>4. Income from profit pooling, profit transfer and partial profit transfer agreements</b>			<b>2,773,274.22</b>	2,117
<b>5. Commission income</b>	<b>26</b>	86,935,530.58		96,376
<b>6. Commission expenses</b>		8,166,935.98		8,615
			<b>78,768,594.60</b>	87,761
<b>7. Net profit from trading portfolio</b>			<b>395,369.27</b>	-1,223
<b>8. Other operating income</b>	<b>27</b>		<b>15,301,419.32</b>	49,662
<b>9. General administrative expenses</b>				
a) personnel expenses	<b>31</b>			
aa) wages and salaries		105,739,587.65		102,394
ab) social security contributions and expenses for pensions and other employee benefits		42,748,395.63		23,839
thereof:				126,233
for pensions € 19,158,759.18				(4,106)
b) other administrative expenses	<b>29, 32</b>	96,397,814.00		87,529
			<b>244,885,797.28</b>	213,762
<b>10. Depreciation and value adjustments on intangible and tangible assets</b>			<b>4,418,618.12</b>	4,751
<b>11. Other operating expenses</b>	<b>28</b>		<b>267,988,346.07</b>	157,035
			<b>196,207,987.94</b>	395,499
		To be carried forward:		

see Notes No.

Jan. 1 –  
Dec. 31, 2017

	€	€	€ thousands
	Carried forward:	<b>196,207,987.94</b>	395,499
<b>12. Write-downs and value adjustments on loans and certain securities as well as allocations to loan loss provisions</b>		<b>264,748,672.82</b>	551,359
thereof: allocation to fund			(50,000)
for general banking risks € 50,000,000.00			
<b>13. Income from write-ups of equity investments in non-affiliated companies, equity investments in affiliated companies and securities treated as tangible assets</b>		<b>84,440,149.91</b>	174,042
<b>14. Expenses from the assumption of losses</b>		<b>0.00</b>	0
<b>15. Result from normal operations</b>		<b>15,899,465.03</b>	18,182
<b>16. Taxes on income and revenues</b>	6,680,474.50		7,828
<b>17. Other taxes not shown under other operating expenses</b>	145,786.42	<b>6,826,260.92</b>	141 7,969
<b>18. Net income</b>		<b>9,073,204.11</b>	10,213
<b>19. Designated payout due to legal requirements</b>	33	<b>9,073,204.11</b>	10,213
<b>20. Profit for the year</b>		<b>0.00</b>	0

# Notes

## of NRW.BANK for the Fiscal Year 2018

### Information for the Identification of the Bank

The following information is provided to identify NRW.BANK in accordance with Section 264 Para. 1a of the German Commercial Code (HGB):

#### Company name

NRW.BANK

Institution under public law

#### Registered office

Düsseldorf	Münster
Kavalleriestraße 22	Friedrichstraße 1
40213 Düsseldorf	48145 Münster

#### Commercial Register

Commercial Register A 15277 District Court Düsseldorf  
Commercial Register A 5300 District Court Münster

### Preparation of NRW.BANK's Annual Accounts

The annual accounts of NRW.BANK are prepared in accordance with the provisions of the German Commercial Code (Handelsgesetzbuch – HGB), the Ordinance Regarding Accounting for Banks and Financial Services Institutions (Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute – RechKredV), the Act on NRW.BANK (Gesetz über die NRW.BANK – NRW.BANK G) and NRW.BANK's Statutes. Information that may appear either on the balance sheet or in the notes is included in the notes. Amounts in the notes are generally given in € millions.

As in the previous year, assets and liabilities in the present annual accounts are recognised at amortised cost in accordance with Sections 252 et seq. HGB.

The subsidiaries in the NRW.BANK Group are not of material importance either individually or collectively. Consolidated financial statements are not prepared.

### Accounting and Valuation Principles

Assets, liabilities and open contracts are valued in accordance with Sections 340 et seq. HGB in conjunction with Sections 252 et seq. HGB.

### 1. General

Receivables are reported at their amortised cost less any discounts where appropriate. Premiums and discounts from notes and bonds are released by the end of the term. Liabilities are carried at their settlement amount with any related discounts reported under deferred items. Premiums on receivables and liabilities are reported under deferred items as an asset or liability, respectively. These items are released on a straight-line basis. The proportionate amount of accrued interest on a receivable or liability at year-end is generally included with the receivable or liability to which it applies. Non-interest-bearing loans to employees are reported at their amortised cost in accordance with tax regulations. Zero-coupon bonds are carried as liabilities at their issue price plus interest accrued as of the reporting date.

According to a decision made by the Specialist Committee on Banking (Bankenfachausschuss – BFA) of the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer – IDW) on June 23, 2015, negative interest included in net interest income has to be shown separately in the income statement (P&L). The Specialist Committee on Banking justifies this by saying that negative interest is an unusual phenomenon in money and capital markets. In the fiscal year 2018, NRW.BANK therefore discloses negative interest by open deduction as a sub-item of "Interest income" (reduction in interest income on the assets side) and "Interest expenses" (reduction in interest expenses on the liabilities side) in the income statement. Negative interest from swap transactions is netted and therefore not included in this item. The negative interest of € 15,177,292.75 recognised in the sub-item of interest income in the previous year was adjusted by an amount of € 6,243,819.27 in the 2018 financial statements. As a result of this adjustment, the previous year's negative interest in the sub-item increased to € 21,421,112.02.

Repurchase agreements and reverse repurchase agreements are combinations of a spot purchase or sale of securities with a simultaneous forward sale or repurchase transaction entered into with the same counterparty. Securities purchased with an obligation to sell (reverse repurchase agreements), and securities sold with an obligation to repurchase (repurchase agree-

ments), are generally regarded as collateralised financial transactions. The securities pledged under repurchase agreements (spot sale) are still recognised as part of the securities portfolio. The cash deposit received as part of the repurchase agreement, including accrued interest, is recognised as a liability. In the case of reverse repurchase agreements, a corresponding receivable is recognised, including accrued interest. The underlying securities received in pledge (spot purchase) are not recognised on the balance sheet.

In securities lending transactions, the lender transfers securities held in its portfolio to the borrower for a certain period of time. The borrower undertakes to retransfer the same type and the same amount of securities at the end of the lending period. According to prevailing legal opinion, this is a non-cash loan. The lender is obliged to assign the securities to the borrower; the borrower assumes all rights associated with the securities. Regardless of this, the lender remains the beneficial owner of the lent securities according to prevailing legal opinion. Consequently, the securities are not recognised in the borrower's balance sheet but continue to be recognised in the lender's balance sheet, as the latter remains the beneficial owner.

Discernible risks in the lending business were adequately covered by individual value adjustments (Einzelwertberichtigungen – EWB) and provisions. General value adjustments (Pauschalwertberichtigungen – PWB) were formed in accordance with tax valuation methods for latent risks from receivables and recourse receivables. Value adjustments were deducted from assets in the longest remaining maturity range. Non-performing loans were written off. The off-balance sheet contingent liabilities and other commitments were reduced by the provisions for potential losses established for these items.

The principles of the IDW statement on accounting "Zur einheitlichen oder getrennten handelsrechtlichen Bilanzierung strukturierter Finanzinstrumente (IDW RS HFA 22)" (On Uniform or Separate Accounting under Commercial Law for Structured Financial Instruments) are incorporated in the current financial statements. According to these principles, each structured financial instrument held in the investment book including secu-

rities issued is generally recognised as an integral asset or an integral liability. In those cases where the structured financial instrument has much higher or additional risks or opportunities than the basic instrument due to an embedded derivative, each individual component of the asset or liability is recognised separately as an underlying transaction and a derivative in accordance with the relevant HGB principles. In those cases where the recognition as an integral asset or an integral liability gives a fair view of the net assets, financial position and result of operations, such recognition is applied.

In the context of the determination of the fair value, NRW.BANK applies mark-to-market valuation provided that an active market exists for a given security. In this case, the valuation is based on the liquid prices provided by respected market data providers (such as Reuters or Bloomberg). In addition, the discounted cash flow method is used for mark-to-model valuation. Under the discounted cash flow method, the contractually agreed cash flows of an instrument (without options) are discounted using risk-adjusted interest rates (use of spread curves). To the extent possible, interest curves based on liquid curves quoted in the market are used. In exceptional cases, the spreads used for discounting are taken from research publications or, alternatively, provided by external market participants and verified independently by the Risk Control business unit.

Structured derivatives and other structured products are valued on the basis of generally accepted models (Black 76, Normal-Black 76, Normal-Black 76 with extension for CMS spread instruments, One and Two Factor Model of Interest Rates, Hazard Rate Model). Here, too, valuation parameters based on standard market data sources are used (such as Reuters or Markit).

When using models, standard model assumptions are made. Valuation uncertainties primarily result from uncertainties of the parameters used and the assumptions on which the models are based.

## **2. Promotional Loans of the Housing Promotion Business Unit**

The Housing Promotion business unit's promotional loans to customers and banks, most of which are at no interest or below-market interest, are carried at their

nominal value. This recognises the fact that these loans are funded at matching maturities from equity capital and takes into account the interest balance guarantee under which the State of North Rhine-Westphalia would compensate for any negative interest balance for all promotional loans granted by the Housing Promotion business unit up to December 31, 2009. No negative interest balance existed for these receivables as of the balance sheet date.

All loans granted by the Housing Promotion business unit after December 31, 2009 are not covered by the interest balance guarantee of the State of North Rhine-Westphalia. Up to the balance sheet date, the Bank exclusively used equity capital to finance these non-guaranteed loans.

### 3. Loss-Free Valuation of the Banking Book

According to the IDW statement "Einzelfragen der verlustfreien Bewertung von zinsbezogenen Geschäften des Bankbuchs (Zinsbuchs) (IDW RS BFA 3 new version)" (Individual Aspects of the Loss-Free Valuation of Interest-Related Transactions in the Banking Book) (Interest Book), a provision for contingent losses must be established for a surplus of obligations resulting from the banking and interest book in an overall view of the transactions. NRW.BANK performed the corresponding calculations in the 2018 financial statements, for which a P&L-oriented (periodic or period-related) view was taken. The present value of the future interest result of the banking book was reduced by pro-rated risk and administrative costs for the total term. The calculation did not result in a surplus of obligations, which means that there was no need to establish a provision for contingent losses.

### 4. Securities and Derivatives in the Investment Portfolio

Securities treated as fixed assets (financial investment portfolio) are valued at amortised cost. If an impairment is expected to be permanent, they are written down to the lower fair value. Where securities in the financial investment portfolio are recognised at values which exceed the current market or stock exchange values in accordance with the mitigated lower of cost or market principle, these differences are stated in the notes. This information is subject to change over time due to portfolio changes as well as interest rate-induced movements and/or risk-induced movements.

For securities held in the financial investment portfolio with a carrying value of € 7,205,159,703.66 lower market values of € 7,152,673,208.78 were determined.

Because these securities have been funded and/or hedged at matching maturities and interest rates, and because none of the issuers' credit ratings indicated sustained weakening (no permanent impairment in value expected), it was not necessary to write the securities down to market or stock exchange value.

Revaluation adjustments relating to derivative transactions in the financial investment portfolio are not recognised. These derivatives are microhedges and/or macrohedges in the form of interest rate and currency derivatives, which serve to hedge individual risk positions or to manage the Bank's overall exposure to interest rate risk, as well as credit default swaps (CDS), which are used as credit substitute transactions.

### 5. Securities Held in the Liquidity Reserve

Securities held in the liquidity reserve are valued according to the strict lower of cost or market principle. If the carrying value exceeds the fair value, they are recognised at the lower fair value on the reporting date.

### 6. Financial Instruments of the Trading Portfolio

In accordance with Section 340e Para. 3 HGB, financial instruments in the trading portfolio are measured at fair value less a risk discount for trading assets of € 0.1 million (2017: € 1.1 million).

The risk discount was calculated on the basis of the value-at-risk (VaR) model, which the Risk Control business unit also uses for internal monitoring of the market price risks of the trading book. The regulatory requirements of a confidence level of 99% and a holding period of ten days were applied. The historical observation period for the determination of the statistical parameters is 250 days, with a greater weight placed on incidents in the more recent past.

The internally defined criteria for the inclusion of financial instruments in the trading portfolio remained unchanged in the past fiscal year.

According to Section 340e Para. 4 HGB, an amount of at least 10% of the net profits from the trading portfolio must be allocated to the "Fund for general banking

risks" pursuant to Section 340g HGB and be stated separately under this special item in each fiscal year. The amount of the allocation to the special item is limited and the allocation must be made until the special item amounts to 50% of the average of the last five annual net profits from the trading portfolio generated before the calculation date. In the 2018 financial statements, NRW.BANK therefore allocated an amount of € 45.0 thousand (2017: € 0.0 thousand) from the net result of the trading portfolio to the "Fund for general banking risks" pursuant to Section 340g HGB and stated the accumulated allocations in a separate sub-item.

## **7. Equity Investments in Non-Affiliated and Affiliated Companies**

Equity investments in affiliated and non-affiliated companies are carried at cost taking existing collateral into account; where a loss of value is expected to be permanent, they are written down to the lower fair value.

With regard to the equity investment in Portigon AG, the State of North Rhine-Westphalia has issued an indefinite value guarantee to NRW.BANK to hedge the equity investment risk. In the case of a sale, the difference between the proceeds and a value of € 2,200.0 million is guaranteed.

NRW.BANK treats the equity investment in Portigon AG and the value guarantee as a hedge relationship as defined in Section 254 HGB, which is accounted for using the net hedge presentation method. Accordingly, the equity investment in Portigon AG was recognised at an amount of € 2,190.8 million as of December 31, 2018.

## **8. Tangible and Intangible Assets**

Tangible and purchased intangible assets with a limited useful life are depreciated in accordance with the applicable tax regulations. They are written down for impairment where such impairment is likely to be permanent.

## **9. Provisions**

Provisions have been made for contingent liabilities and anticipated losses from open contracts in the amount of the settlement amount that will be required according to prudent commercial judgement.

Provisions for pension obligations with a remaining maturity of more than one year are discounted at the average market rate of the past ten fiscal years as appropriate for the respective remaining maturity in accordance with Section 253 Para. 2 Sentence 1 HGB. By contrast, other provisions with a remaining maturity of more than one year are discounted using the average market rate of the past seven years as appropriate for the respective remaining maturity.

In accordance with the option granted under Section 253 Para. 2 Sentence 2 HGB, NRW.BANK has discounted provisions for pension obligations or comparable long-term obligations using the average market rate for an assumed remaining maturity of fifteen years. The interest rate of 3.21% (2017: 3.68%) used for discounting was stipulated by Deutsche Bundesbank.

The difference arising from the recognition of pension provisions using the average market rate of the past ten fiscal years and the recognition of pension provisions using the average market rate for the past seven years in the amount of € 348.3 million (2017: € 252.8 million), which is determined in accordance with Section 253 Para. 6 Sentence 1 HGB, is subject to a payout restriction pursuant to Section 253 Para. 6 Sentence 2 HGB, according to which profits may be distributed only if the free reserves remaining after the profit distribution plus a profit carried forward and minus a loss carried forward are equivalent to at least the amount of the difference.

Pension, benefit and other personnel provisions are measured by using the internationally accepted projected unit credit method, taking the future development of wages and pensions into account. Based on the new "Heubeck tables 2018 G" published by Heubeck-Richttafeln-GmbH in Cologne in 2018, average salary and pension increases of 2.5% were applied for this purpose.

The assessment of the provisions for benefit payments was calculated using an annual cost increase of 3.5% for healthcare benefits. The average rate of the benefit payments over the past three years was taken as the basis.

Interest rate effects from the valuation of pension, benefit and other personnel provisions are recognised in the other operating result in the income statement.

As in the previous years, NRW.BANK used interest rate subsidies for certain loans in order to fulfil its state promotional tasks. When the loan is extended, the interest rate subsidy is provisioned for in the amount of the present value.

The option pursuant to Article 67 Para. 1 Sentence 2 of the Introductory Act to the Commercial Code (Einführungsgesetz zum Handelsgesetzbuch – EGHGB) was exercised in the fiscal year 2010 in such a way that the existing provisions are maintained due to excess cover, as the amount to be released in the context of a required release would have to be reallocated by December 31, 2024 at the latest. As of December 31, 2018, excess cover of € 7.1 thousand (2017: € 17.0 thousand) exists for these provisions.

#### 10. Currency Translation

Foreign currency amounts are translated in accordance with Section 256a HGB in conjunction with Section 340h HGB as well as the IDW statement "Besonderheiten der handelsrechtlichen Fremdwährungsumrechnung bei Instituten (IDW RS BFA 4)" (Special Aspects of Currency Translation at Institutions under Commercial Law). Assets, liabilities and pending transactions denominated in foreign currencies are translated into euros using the spot exchange rate on the reporting date. In this context, NRW.BANK uses the reference rates of the European System of Central Banks (ESCB). In case of foreign exchange forwards, the forward rate is split into a spot rate and a swap rate.

For the translation of foreign currencies, NRW.BANK determines the foreign currency positions by offsetting the claims and obligations of all foreign currency assets, liabilities and pending transactions in the respective foreign currency. In accordance with Section 256a HGB in conjunction with Section 340h HGB, these transactions are classified and valued as being specifically covered in all currencies. Accordingly, all income and expenses from foreign currency translation are stated in the income statement pursuant to Section 340h HGB and shown as "Foreign currency result" in "Net expenses from trading portfolio" or "Net profit from trading portfolio".

Positive revaluation adjustments resulting from the currency translation of foreign exchange forwards as at December 31, 2018 are recognised as "Adjustment item from currency translation in accordance with Section 340h HGB" under "Other assets".

#### 11. Deferred Tax Assets

Due to NRW.BANK's exemption from income tax, deferred taxes primarily relate to investments in commercial partnerships held as part of the public mission. In accordance with Section 274 Para. 1 Sentence 2 HGB, no deferred taxes were recognised for the deductible temporary differences which result in a tax reduction.

## Balance Sheet

### Receivables from Banks (1)

Breakdown by maturity	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Payable on demand	2,651.3	3,802.7
Other receivables		
– up to 3 months	2,007.7	1,610.1
– between 3 months and 1 year	4,944.0	4,021.6
– between 1 and 5 years	14,620.3	13,802.8
– more than 5 years	18,713.7	18,123.8
<b>Total receivables from banks</b>	<b>42,937.0</b>	<b>41,361.0</b>

The receivables from companies in which equity investments are held totalled € 90.5 million (2017: € 92.1 million).

### Receivables from Customers (2)

Breakdown by maturity	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
– up to 3 months	3,968.1	2,978.0
– between 3 months and 1 year	4,265.5	3,985.6
– between 1 and 5 years	15,559.4	16,775.7
– more than 5 years	34,249.0	34,497.0
<b>Total receivables from customers</b>	<b>58,042.0</b>	<b>58,236.3</b>

The receivables from companies in which equity investments are held totalled € 1.6 million (2017: € 1.6 million).

**Bonds and Other Interest-Bearing Securities (3)**

Marketability	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Bonds and other interest-bearing securities		
– listed on a stock exchange	36,846.5	34,688.9
– not listed on a stock exchange	3,686.9	4,105.9
<b>Total bonds and other interest-bearing securities</b>	<b>40,533.4</b>	<b>38,794.8</b>

Of the bonds and other interest-bearing securities, an amount of € 5,341.4 million (2017: € 7,901.6 million) is due in the following year.

The bonds and other interest-bearing securities from companies in which equity investments are held totalled € 75.0 million (2017: € 0.0 million).

Of the total bonds and other interest-bearing securities, € 99.9 million (2017: € 982.4 million) are held as part of the liquidity reserve and € 40,433.5 million (2017: € 37,812.4 million) are held in the financial investment portfolio.

**Trading Portfolio (Assets) (4)**

Breakdown of trading portfolio (assets)	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Derivative financial instruments	0.0	0.9
Receivables	40.7	0.0
Bonds and other interest-bearing securities	0.0	395.3
Risk discount pursuant to Section 340e Para. 3 Sentence 1 HGB	-0.1	-1.1
<b>Total trading portfolio</b>	<b>40.6</b>	<b>395.1</b>

Derivative financial instruments include futures with a positive market value of € 95.5 thousand (2017: € 37.1 thousand). This market value is offset against the opposite variation margin received from futures.

**Equity Investments in Non-Affiliated and Affiliated Companies (5)**

NRW.BANK holds € 2,307.8 million (2017: € 2,300.6 million) in equity investments in non-affiliated companies and € 222.7 million (2017: € 201.9 million) in equity investments in affiliated companies. Of the equity investments in non-affiliated companies, € 2,193.7 million (2017: 2,193.9 million) are securitised by marketable securities. However, none are listed on a stock exchange.

An itemised list of NRW.BANK's investments pursuant to Section 285 No. 11 and 11a HGB is shown separately on page 103 et seq.

NRW.BANK holds more than 5% of the voting rights in the following major corporations:

- Investitionsbank des Landes Brandenburg (ILB)
- Portigon AG

## Trust Assets (6)

Trust assets comprise the following:

Breakdown by asset type	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Receivables from banks	42.2	48.5
Receivables from customers	1,285.1	1,351.4
Equity investments in non-affiliated and affiliated companies	65.3	64.0
<b>Total trust assets</b>	<b>1,392.6</b>	<b>1,463.9</b>

## Changes in Fixed Assets (7)

Schedule of fixed assets	Bonds and other interest-bearing securities forming part of fixed assets	Equity investments in non-affiliated companies	Equity investments in affiliated companies	Intangible assets	Land and buildings	Office equipment
	€ millions	€ millions	€ millions	€ millions	€ millions	€ millions
<b>Acquisition cost / production cost</b>						
<b>As of Dec. 1, 2018</b>	<b>37,402.0</b>	<b>3,874.0</b>	<b>251.7</b>	<b>75.0</b>	<b>73.1</b>	<b>26.3</b>
Additions				0.7	0.0	1.3
Retirements				0.0	0.0	-1.0
<b>As of Dec. 31, 2018</b>				<b>75.7</b>	<b>73.1</b>	<b>26.6</b>
<b>Write-downs</b>						
<b>As of Dec. 1, 2018</b>				<b>-69.1</b>	<b>-11.1</b>	<b>-19.0</b>
Write-downs		Net change pursuant to Section 34 Para. 3 Sentence 2 RechKredV: € -1,125.2 million		-1.7	-1.3	-1.4
Change in total write-downs from retirements				0.0	0.0	1.0
<b>As of Dec. 31, 2018</b>				<b>-70.8</b>	<b>-12.4</b>	<b>-19.4</b>
<b>Remaining carrying amounts</b>						
<b>As of Dec. 31, 2018</b>	<b>40,122.4</b>	<b>2,307.8</b>	<b>222.7</b>	<b>4.9</b>	<b>60.7</b>	<b>7.2</b>
<b>As of Dec. 31, 2017</b>	<b>37,402.0</b>	<b>2,300.6</b>	<b>201.9</b>	<b>5.9</b>	<b>62.0</b>	<b>7.3</b>

Of the land and buildings, € 60.7 million (2017: € 62.0 million) is used for business purposes.

**Other Assets (8)****Breakdown by individual items**

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Interest receivables from the State of North Rhine-Westphalia under the value guarantee for the equity investment in Portigon AG	559.6	559.6
Adjustment item from currency translation pursuant to Section 340h HGB	323.1	0.0
Option premiums paid	231.5	233.5
Option premiums not yet received	225.1	221.7
Compensation claims to Helaba Landesbank Hessen-Thüringen relating to pension provisions for "dual contract holders"	36.6	31.8
Cash collateral furnished in the context of the EU bank levy	8.9	6.1
Compensation claims to Portigon AG relating to service cost of "dual contract holders"	3.8	8.7
Other	14.9	8.9
<b>Total other assets</b>	<b>1,403.5</b>	<b>1,070.3</b>

**Deferred Items (Assets) (9)****Breakdown of deferred items (assets)**

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Prepaid swap fees	298.3	258.5
Prepaid CDS fees	149.7	97.9
Discounts from underwriting business	93.7	85.0
Premiums from lending business	20.1	22.5
Other	5.3	6.4
<b>Total deferred items</b>	<b>567.1</b>	<b>470.3</b>

**Subordinated Assets (10)**

Subordinated assets are included in:

**Breakdown by asset type**

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Receivables from banks	0.8	0.8
Receivables from customers	16.4	22.2
<b>Total subordinated assets</b>	<b>17.2</b>	<b>23.0</b>

### Pledged Assets (11)

Of the assets reported, NRW.BANK pledged € 1,636.2 million (2017: € 4,036.3 million) under repurchase agreements.

### Liabilities to Banks (12)

#### Breakdown by maturity

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Payable on demand	1,455.3	1,612.3
Other liabilities		
– up to 3 months	5,538.5	8,184.0
– between 3 months and 1 year	1,932.6	2,209.7
– between 1 and 5 years	11,245.6	11,428.8
– more than 5 years	16,945.7	17,593.1
<b>Total liabilities to banks</b>	<b>37,117.7</b>	<b>41,027.9</b>

The liabilities to companies in which equity investments are held totalled € 1.0 million (2017: € 2.4 million).

### Liabilities to Customers (13)

#### Breakdown by maturity

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Payable on demand	304.8	309.8
Other liabilities		
– up to 3 months	1,338.4	1,072.6
– between 3 months and 1 year	661.9	749.9
– between 1 and 5 years	3,831.8	4,144.6
– more than 5 years	8,336.0	9,366.2
<b>Total liabilities to customers</b>	<b>14,472.9</b>	<b>15,643.1</b>

Liabilities to customers include liabilities to affiliated companies in the amount of € 73.4 million (2017: € 64.2 million). The liabilities to companies in which equity investments are held totalled € 20.8 thousand (2017: € 5.2 thousand).

**Certificated Liabilities (14)****Breakdown of certificated liabilities**

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Notes issued		
– mortgage bonds	0.6	0.6
– municipal bonds	276.3	262.6
– other bonds	70,539.6	63,746.6
<b>Total certificated liabilities</b>	<b>70,816.5</b>	<b>64,009.8</b>

Of the notes issued, € 32,119.7 million (2017: € 30,821.5 million) are due in the following year.

**Trust Liabilities (15)**

Trust liabilities comprise the following:

**Breakdown by liability type**

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Liabilities to banks	4.5	4.7
Liabilities to customers	1,388.1	1,459.2
<b>Total trust liabilities</b>	<b>1,392.6</b>	<b>1,463.9</b>

**Other Liabilities (16)****Breakdown by individual items**

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Liabilities owed to the State of North Rhine-Westphalia from repayment discounts granted for housing promotional programmes	673.9	490.5
Option premiums received	231.5	233.3
Option premiums not yet paid	225.1	221.7
Liabilities owed to employees of NRW.BANK from the fixed bonus	12.8	12.8
Liabilities owed to the State of North Rhine-Westphalia	9.1	10.2
Other	17.1	13.4
Adjustment item from currency translation pursuant to Section 340h HGB	0.0	560.4
<b>Total other liabilities</b>	<b>1,169.5</b>	<b>1,542.3</b>

## Deferred Items (Liabilities) (17)

### Breakdown of deferred items (liabilities)

	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Swap fees received in advance	415.0	470.2
Premiums from underwriting business	290.9	249.3
Transfer of salaries for employees of Portigon AG under "dual contracts"	40.7	24.5
CDS fees received in advance	21.0	17.6
Discounts from lending business	0.1	0.1
Transfer of pension obligation provisions for employees of Portigon AG under "dual contracts"	0.0	32.1
Other	0.0	0.2
<b>Total deferred items</b>	<b>767.7</b>	<b>794.0</b>

## Provisions (18)

The provisions for pensions reported in the amount of € 2,060.3 million (2017: € 1,883.1 million) include € 1,392.3 million (2017: € 1,307.2 million) in pension obligations to employees of Portigon AG who have claims for or are entitled to a pension under the laws relating to civil servants. Pursuant to Article 1 Section 4 Para. 1 Sentence 4 of the Bank Redefining Act (Neuregelungsgesetz) of July 2, 2002, these obligations passed from the former Westdeutsche Landesbank Girozentrale to NRW.BANK. Pursuant to the regulations of the assessment dated August 1, 2002, Portigon AG and NRW.BANK agreed in the fiscal year 2013 to settle NRW.BANK's claims resulting from the compensation entitlement for good, with the exception of the future service cost, by means of a one-time payment. With this one-time payment, responsibility for managing and handling the pension payments has passed to NRW.BANK.

The provisions for pensions additionally include pension obligations in the amount of € 36.6 million (2017: € 31.8 million) towards employees of Helaba Landesbank Hessen-Thüringen who also have contractual claims or are entitled to a pension under the laws relating to civil servants. NRW.BANK is entitled to reimbursement from Helaba Landesbank Hessen-Thüringen in the same amount, which is shown in "Other assets".

NRW.BANK's provisions for additional benefits are at € 368.5 million (2017: € 308.6 million). This amount includes € 294.4 million (2017: € 249.9 million) in obligations to persons covered under the former pension agreement of the former Westdeutsche Landesbank Girozentrale, for which NRW.BANK has assumed the additional benefit payments since the spin-off from the former Westdeutsche Landesbank Girozentrale. An additional € 74.1 million (2017: € 58.7 million) has been set aside for claims to additional benefits that employees of NRW.BANK have for their retirement.

Provisions in an unchanged amount of € 76.7 million exist for potential compensation claims under the value guarantee.

**Subordinated Liabilities (19)**

The subordinated liability as described below exceeds 10% of the total subordinated liabilities of € 1,764.1 million (2017: € 1,847.2 million).

The State of North Rhine-Westphalia has to make repayments towards the Federal Government in conjunction with the use of housing promotional loans granted by the Federal Government. Under applicable federal state law, NRW.BANK has to transfer the required funds from the repayment of housing promotional loans to the state budget. This transfer duty takes the form of a non-interest-bearing subordinated loan in an amount of € 2,413.9 million granted by the State of North Rhine-Westphalia to NRW.BANK, which has to be repaid by the year 2044 in accordance with a defined repayment plan. Based on the repayments made to date, the subordinated loan was stated in an amount of € 1,509.1 million as of December 31, 2018.

The remaining subordinated liabilities of € 255.0 million have original maturities between fifteen and thirty years and carry interest rates between 0.0% and 6.0%. As in the previous year, these subordinated liabilities carry an average interest rate of 3.5%. There is no early redemption obligation.

Subordinated liabilities include liabilities with a remaining term of less than two years in an amount of € 169.1 million (2017: € 192.6 million).

There are no existing agreements or plans to convert these funds into capital or into another form of debt.

As in the previous year, interest expenses on subordinated liabilities amounted to € 5.5 million.

The subordinated liabilities carried by NRW.BANK comply with the requirements of Article 63 of the Capital Requirements Regulation (CRR).

**Equity Capital (20)**

As of December 31, 2018, NRW.BANK's subscribed capital remained unchanged at € 17,000.0 million. The reserves totalled € 983.8 million (2017: € 983.2 million).

NRW.BANK's capital and reserves as reported on the balance sheet are made up of the following:

Commercial law equity	Dec. 31, 2018	Dec. 31, 2017
	€ millions	€ millions
Subscribed capital	17,000.0	17,000.0
Capital reserves	728.1	727.5
Reserves from retained earnings		
– reserves required by NRW.BANK's Statutes	36.1	36.1
– other reserves	219.6	219.6
Profit for the year	0.0	0.0
<b>Total equity capital</b>	<b>17,983.8</b>	<b>17,983.2</b>

Once the annual accounts are approved, the capital of NRW.BANK required for regulatory purposes under Section 10 of the German Banking Act (Kreditwesengesetz – KWG) will total € 20,054.0 million (2017: € 20,091.7 million).

### **Foreign Currency Assets and Foreign Currency Liabilities (21)**

At the reporting date, NRW.BANK had foreign currency assets valued at € 8,297.0 million (2017: € 8,839.2 million) and foreign currency liabilities valued at € 38,344.0 million (2017: € 37,405.8 million). Contingent liabilities and other commitments denominated in foreign currencies totalled € 10,236.3 million (2017: € 8,267.8 million).

### **Contingent Liabilities (22)**

Contingent liabilities totalled € 14,424.5 million (2017: € 14,206.9 million) and incorporate € 13,473.2 million (2017: € 13,372.8 million) for credit derivatives and € 951.3 million (2017: € 834.1 million) for other guarantees and indemnity agreements.

The credit derivatives are credit default swaps, in which NRW.BANK acts as protection seller. Against receipt of a premium from the protection buyer, NRW.BANK has taken the risk that a credit event agreed between the two parties with regard to the reference debtor occurs. The credit default swaps of NRW.BANK are primarily referenced to countries and are almost exclusively of very good and good investment grade quality. No claims are expected to be raised at present.

The other guarantees and indemnity agreements primarily comprise liability releases in favour of house banks for loans granted in the context of various promotional programmes as well as working capital loans with changing utilisation as well risk sub-participations held to reduce the risk of SME financing. Claims under these guarantees would potentially be raised in the event of the non-fulfilment of contractual obligations of the main borrower towards the beneficiary. This would arise, for instance, in the event of the delayed (or non-)repayment of loans or the improper completion of promised services. NRW.BANK considers the overall risk of future claims being raised because of such non-fulfilment by the main borrower to be low. In those cases where claims are likely to be raised, adequate provisions have been established.

### **Other Commitments (23)**

Other commitments comprise irrevocable loan commitments in an amount of € 4,372.0 million (2017: € 4,705.8 million). Of this total, € 1,358.5 million (2017: € 1,217.5 million) relate to commitments of the Housing Promotion business unit.

The irrevocable loan commitments result from transactions in which NRW.BANK has made a binding commitment towards its customers and is therefore exposed to a future credit risk from loans. Based on historical experience from the previous years, it is expected that the irrevocable loan commitments will be utilised with a probability of almost 100%. In individual cases where a loss is likely to arise from anticipated claims, adequate provisions have been established for the risk arising from these claims.

**Assets Used as Collateral (24)**

Receivables in the nominal amount of € 670.0 million (2017: € 667.8 million) were assigned as collateral for liabilities to banks.

Bonds and notes in a nominal amount of € 6,620.5 million (2017: € 4,823.4 million) were pledged to the Deutsche Bundesbank as well as registered securities and note loans in a nominal amount of € 16,936.5 million (2017: € 19,090.1 million) were submitted to the Deutsche Bundesbank in the context of the process "Kreditforderungen – Einreichung und Verwaltung" (KEV) (credit claims – submission and administration) as collateral for funding facilities.

Securities in a nominal amount of € 27.8 million (2017: € 21.4 million) were deposited for the Eurex (electronic futures and options exchange) as collateral for forward transactions. In addition, securities in an amount of € 156.1 million (2017: € 152.9 million) were submitted as collateral to compensate for exchange rate fluctuations in Eurex repurchase agreements. In addition, securities in a nominal amount of € 246.7 million (2017: € 323.1 million) were transferred to secure off-exchange derivatives and were deposited as collateral with the counterparty.

NRW.BANK additionally has the possibility to fund itself in Swiss francs (CHF) via repos and tenders with the Schweizerischen Nationalbank (SNB). For this purpose, the Bank has deposited securities in the nominal amount of € 10.0 million (2017: € 10.0 million) at SIX SIS AG as collateral.

In addition, as in the previous year, securities in a nominal amount of € 2.0 million were assigned as rent deposit for an existing rental agreement.

**Cover (25)**

All issues of NRW.BANK requiring cover were covered in accordance with the statutory provisions and in accordance with the Bank's Statutes.

On December 31, 2018, the nominal amounts of the cover are as follows:

Cover	Dec. 31, 2018	Dec. 31, 2017
	Municipal bonds (cover register II) € millions	Municipal bonds (cover register II) € millions
Municipal bonds issued	1,539.7	1,677.0
<b>Liabilities requiring cover</b>	<b>1,539.7</b>	<b>1,677.0</b>
Municipal loans	2,778.0	3,208.3
Excess cover	75.2	66.1
<b>Cover funds</b>	<b>2,853.2</b>	<b>3,274.4</b>
<b>Excess cover</b>	<b>1,313.5</b>	<b>1,597.4</b>

The cover only includes the cover register for municipal bonds (cover register II), as NRW.BANK currently holds no mortgage bonds (cover register I) and currently does not issue new mortgage bonds.

## Income Statement

### Services Rendered for Third Parties (26)

The net commission income includes € 7.2 million (2017: € 8.0 million) from the trust and administered activities.

### Other Operating Income (27)

The principal contributions towards other operating income are composed of € 3.8 million (2017: € 9.1 million) in income from the reimbursement of the service cost of Portigon AG, € 3.4 million (2017: € 34.5 million) in income from the write-back of provisions as well as € 2.8 million (2017: € 0.6 million) in income from tax allocations to affiliated companies.

### Other Operating Expenses (28)

The principal contributions towards other operating expenses are composed of € 198.7 million (2017: € 123.7 million) in interest effects from the valuation of pension, benefit and other personnel provisions, € 53.4 million (2017: € 19.6 million) for non-interest allocations to pension and benefit provisions for employees of Portigon AG who have claims for or are entitled to a pension under the laws relating to civil servants as well as € 15.7 million (2017: € 13.6 million) in expenses for the EU bank levy.

### Fee Paid to Auditor of the Annual Accounts (29)

In the fiscal year 2018, the auditor charged a total fee of € 1.3 million (2017: € 1.2 million). € 1.2 million (2017: € 1.1 million) of which account for the auditing of the annual accounts and € 0.1 million (2017: € 0.1 million) for other auditing services.

### Services Provided to NRW.BANK or Its Subsidiaries by the Auditor in Addition to the Audit

In the fiscal year 2018, the auditor provided permitted non-audit services within the meaning of Article 5 Para. 3 of the EU Audit Regulation to NRW.BANK and its subsidiaries. These services essentially comprised a review of the reporting duties and behavioural rules pursuant to Section 89 of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG), the issue of a Comfort Letter, the preparation of audit reports and the execution of agreed examinations for regulatory purposes as well as the execution of an audit to obtain limited assurance of the non-financial statement. In addition, services such as voluntary annual audits, an audit of tax compliance management systems and an audit of internal control systems were provided to subsidiaries.

## Miscellaneous

### Other Financial Obligations

NRW.BANK has long-term obligations in the amount of € 108.2 million (2017: € 59.5 million) up to the end of the contractual term. Thereof obligations in the amount of € 29.9 million relate to the fiscal year 2019. The remaining other financial obligations in the amount of € 78.3 million relate to the fiscal years 2020 to 2029. In addition, there are other annual financial obligations with an indefinite remaining term after the balance sheet date in the amount of € 2.2 million (2017: € 2.0 million). Other financial obligations primarily result from building leases, software maintenance agreements as well as maintenance and IT service agreements.

In the context of the EU bank levy, there is another financial obligation in the amount of the irrevocable payment obligation of € 8.9 million (2017: € 6.1 million). The cash collateral paid in the same amount is included in the balance sheet item "Other assets".

Furthermore, in the equity investment business, NRW.BANK has other financial obligations from subscription commitments for funds managed by third parties in the amount of € 64.0 million (2017: € 67.6 million).

### Other Obligations (30)

NRW.BANK has other obligations pursuant to Article 1 Section 3 Sentence 1 of the Bank Redefining Act of July 2, 2002.

In addition to its capital contribution of € 55.0 million, NRW.BANK remains liable for Investitionsbank des Landes Brandenburg (ILB) in the amount of an additional € 110.0 million.

As in the previous year, there is an obligation to make additional contributions in the amount of € 16.0 million to the European Investment Fund (EIF).

Both the liability assumed for Investitionsbank des Landes Brandenburg (ILB) and the obligation to make additional contributions to the European Investment Fund (EIF) are included in other guarantees and indemnity agreements shown under the balance sheet item "Contingent liabilities".

## Derivative Transactions

As of December 31, 2018, the total nominal value of the derivative transactions is € 196,301 million (2017: € 190,175 million).

Derivative transactions are mostly used as hedges against fluctuations in interest rates, exchange rates and market prices and almost entirely relate to the banking book.

Banking book	Nominal values		Market values positive	Market values negative
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018
	€ millions	€ millions	€ millions	€ millions
<b>Interest rate derivatives</b>				
Interest rate swaps	147,097	141,226	6,492	-8,175
Interest rate options				
– bought (long)	4,083	4,361	51	–
– written (short)	4,545	4,735	–	-35
Stock market contracts				
– bought (long)	1	–	–	–
– written (short)	80	–	–	–
Other interest rate forwards	157	422	4	-9
<b>Total interest rate derivatives</b>	<b>155,963</b>	<b>150,744</b>	<b>6,547</b>	<b>-8,219</b>
<b>Currency derivatives</b>				
Foreign exchange forwards, swaps	20,613	20,206	243	-60
Currency swaps/ interest rate currency swaps	19,721	18,918	744	-907
<b>Total currency derivatives</b>	<b>40,334</b>	<b>39,124</b>	<b>987</b>	<b>-967</b>
<b>Total banking book</b>	<b>196,297</b>	<b>189,868</b>	<b>7,534</b>	<b>-9,186</b>

Trading book	Nominal values		Market values positive	Market values negative
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018
	€ millions	€ millions	€ millions	€ millions
<b>Interest rate derivatives</b>				
Stock market contracts				
– bought (long)	4	8	0	–
– written (short)	–	4	–	–
<b>Total interest rate derivatives</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>–</b>
<b>Currency derivatives</b>				
Currency swaps/ interest rate currency swaps	–	295	–	–
<b>Total currency derivatives</b>	<b>–</b>	<b>295</b>	<b>–</b>	<b>–</b>
<b>Total trading book</b>	<b>4</b>	<b>307</b>	<b>0</b>	<b>–</b>

Banking book and trading book	Nominal values		Market values positive	Market values negative
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018
	€ millions	€ millions	€ millions	€ millions
Total interest rate derivatives	155,967	150,756	6,547	-8,219
Total currency derivatives	40,334	39,419	987	-967
<b>Total banking book and trading book</b>	<b>196,301</b>	<b>190,175</b>	<b>7,534</b>	<b>-9,186</b>

The presentation of derivative transactions also reflects embedded derivative instruments that have to be separated of a nominal value of € 4,646 million (2017: € 4,944 million).

The average nominal value of the derivative transactions and other forward transactions entered into by NRW.BANK for the period from January 1 to December 31, 2018, was € 195,725 million (2017: € 185,583 million).

The market values of the derivative transactions are shown without accrued interest.

To the extent available, stock exchange or market prices are used for valuing the derivative financial instruments. If stock exchange or market values are not available or cannot be reliably determined, the fair value is determined on the basis of standard pricing models or discounted cash flows.

Option premiums paid/received are reported under the balance sheet items "Other assets" and "Other liabilities"; prepaid swap fees and swap fees received in advance are included in the respective deferred item.

The breakdown of derivative transactions by counterparty is as follows:

Banking book	Nominal values		Market values positive	Market values negative
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018
	€ millions	€ millions	€ millions	€ millions
OECD banks	184,314	176,221	6,560	-7,676
OECD public-sector entities	6,050	6,686	879	-1,291
Other counterparties	5,933	6,961	95	-219
<b>Total banking book</b>	<b>196,297</b>	<b>189,868</b>	<b>7,534</b>	<b>-9,186</b>

Trading book	Nominal values		Market values positive	Market values negative
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018
	€ millions	€ millions	€ millions	€ millions
OECD banks	4	307	0	0
<b>Total trading book</b>	<b>4</b>	<b>307</b>	<b>0</b>	<b>0</b>

Banking book and trading book	Nominal values		Market values positive	Market values negative
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018
	€ millions	€ millions	€ millions	€ millions
<b>Total banking book and trading book</b>	<b>196,301</b>	<b>190,175</b>	<b>7,534</b>	<b>-9,186</b>

Interest rate derivatives that are not assigned to the trading book are used as microhedges for specific transactions or as macrohedges for overall exposure, exclusively in the Bank's proprietary business. Their result is recognised in net interest income.

The interest rate contracts are spread across the entire spectrum of maturities, with approx. 46% (2017: € 47%) of the interest rate contracts having a remaining time to maturity of more than five years.

Banking book	Interest rate derivatives		Currency derivatives	
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
Nominal values	€ millions	€ millions	€ millions	€ millions
Residual maturity				
– up to 3 months	7,331	4,966	21,393	15,386
– more than 3 months to 1 year	15,671	17,468	6,202	10,295
– more than 1 to 5 years	61,440	57,305	10,451	11,134
– more than 5 years	71,521	71,005	2,288	2,309
<b>Total banking book</b>	<b>155,963</b>	<b>150,744</b>	<b>40,334</b>	<b>39,124</b>

Trading book	Interest rate derivatives		Currency derivatives	
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
Nominal values	€ millions	€ millions	€ millions	€ millions
Residual maturity				
– up to 3 months	4	12	0	295
<b>Total trading book</b>	<b>4</b>	<b>12</b>	<b>0</b>	<b>295</b>

Banking book and trading book	Interest rate derivatives		Currency derivatives	
	Dec. 31, 2018	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2017
Nominal values	€ millions	€ millions	€ millions	€ millions
<b>Total banking book and trading book</b>	<b>155,967</b>	<b>150,756</b>	<b>40,334</b>	<b>39,419</b>

## Number of Employees

### Employees on an annual average\*

	2018			2017		
	Women	Men	Total	Women	Men	Total
Full-time employees	357	558	915	359	552	911
Part-time employees	361	105	466	336	92	428
<b>Total employees on an annual average</b>	<b>718</b>	<b>663</b>	<b>1,381</b>	<b>695</b>	<b>644</b>	<b>1,339</b>

\* Excl. Managing Board, trainees, apprentices, interns and employees on parental leave and similar leave.

### Active employees as at Dec. 31

	2018			2017		
	Women	Men	Total	Women	Men	Total
Full-time employees	361	570	931	355	553	908
thereof employees under limited employment contracts	9	18	27	8	15	23
Part-time employees	360	106	466	346	94	440
thereof employees under limited employment contracts	5	4	9	6	4	10
<b>Total active employees as at Dec. 31</b>	<b>721</b>	<b>676</b>	<b>1,397</b>	<b>701</b>	<b>647</b>	<b>1,348</b>
In addition as at Dec. 31						
Managing Board	1	3	4	1	3	4
Apprentices and trainees	19	30	49	18	29	47
Employees employed outside of NRW.BANK (leave, secondments, employee assignments)	13	21	34	9	18	27

### Managing Board Remuneration (31)

Non-performance-linked and performance-linked components of the Managing Board remuneration as well as the remuneration for mandates received by the Managing Board members in 2018 and 2017:

	Non-performance-linked remuneration						Performance-linked variable remuneration		Total remuneration		Remuneration for mandates <sup>4)</sup>	
	Fixed remuneration		Other remuneration		Company pension scheme		2018	2017	2018	2017	2018	2017
	2018 <sup>1)</sup>	2017	2018 <sup>2)</sup>	2017	2018 <sup>3)</sup>	2017						
	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	
Eckhard Forst	747.0	600.0	13.3	36.5	120.8	107.7	0.0	175.0	881.1	919.2	39.7	26.2
Gabriela Pantring	521.6	410.0	12.9	23.5	113.3	82.1	0.0	20.0	647.8	535.6	0.0	0.0
Michael Stölting	622.7	469.4	4.9	37.0	543.3	382.7	0.0	138.0	1,170.9	1,027.1	64.7	72.9
Dietrich Suhlrie	618.5	477.8	13.4	28.4	462.9	405.6	0.0	138.0	1,094.8	1,049.8	2.2	2.2
<b>Total Managing Board</b>	<b>2,509.8</b>	<b>1,957.2</b>	<b>44.5</b>	<b>125.4</b>	<b>1,240.3</b>	<b>978.1</b>	<b>0.0</b>	<b>471.0</b>	<b>3,794.6</b>	<b>3,531.7</b>	<b>106.6</b>	<b>101.3</b>

<sup>1)</sup> Amounts for the year 2018 incl. a fixed annual bonus (which replaces the former variable remuneration) as well as benefits in money's worth and benefits in kind.

<sup>2)</sup> Employer's statutory social security contributions and benefit payments; in 2017 also benefits in money's worth and benefits in kind.

<sup>3)</sup> Direct commitment, shown is the allocation to provisions including interest expenses for the year 2018.

<sup>4)</sup> Amounts incl. VAT, where applicable.

Deviating amounts in comparison to the remuneration report (chapter 8.6.1) are due to rounding.

Commitments in case of premature or regular termination of the activity:

In case of a premature resignation not attributable to an extraordinary termination for serious cause, the members of the Managing Board will receive the agreed remuneration until the end of their contractual term. For Mr Forst and Ms Pantring, this payment is capped at an amount equivalent to the remuneration for a maximum of two years. Thereafter, Mr Stölting and Mr Suhlrie will receive an early pension based on the pension that would be paid in case of invalidity until they reach the age of retirement. If the contract of Mr Forst is not renewed and this is not his fault and he is still able to work, he may apply for early retirement benefits after having reached the age of 62, whose payment will end once he receives his statutory pension but no later than after having reached the age of 66 years plus two months.

The members of the Managing Board are entitled to pension benefits as they reach the age of retirement or in case of invalidity. In the event of their death their dependants are also entitled to benefits. All commitments are contractually unforfeitable or unforfeitable by law because of the number of years served. As a result of his previous employment, Mr Stölting has an entitlement to a civil-service-type pension taking into account entitlements from the public pension scheme as well as entitlements under a pension enhancement policy. Mr Forst, Ms Pantring

and Mr Suhlrie benefit from a contribution-linked pension commitment. In the context of this pension commitment, a personal pension account with a starting component has been set up for them, into which annual pension components are paid.

In the fiscal year 2018, there were no changes in the commitments for old-age/invalidity and dependants' pension for any Managing Board member.

Expenses and present values of the benefits promised to the members of the Managing Board in case of regular termination of their activity:

	Expenses <sup>1)</sup>		Present value of the obligation	
	2018	2017	2018	2017
	€ thousands	€ thousands	€ thousands	€ thousands
Eckhard Forst	120.8	107.7	260.0	139.2
Gabriela Pantring	113.3	82.1	215.5	102.2
Michael Stölting	543.3	382.7	4,261.6	3,718.3
Dietrich Suhlrie	462.9	405.6	2,378.4	1,915.5
<b>Total Managing Board</b>	<b>1,240.3</b>	<b>978.1</b>	<b>7,115.5</b>	<b>5,875.2</b>

<sup>1)</sup> The expenses shown here comprise personnel and interest expenses. The fact that the expenses are higher than in the previous year is mainly attributable to the reduction in the discount rate from 3.68% as at December 31, 2017 to 3.21% as at December 31, 2018 resulting from the adjustment of the tables.

Payments to retired and resigned Managing Board members and present values of their retirement benefits:

	Payments from active employment <sup>1)</sup>		Payments from pension claims		Present value of the obligation	
	2018	2017	2018	2017	2018	2017
	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands	€ thousands
Former Managing Board members	123.2	124.3	1,261.7	899.1	27,644.2	27,166.8

<sup>1)</sup> Payments of deferred variable remuneration components from previous years.

## Remuneration of the Members of the Board of Guarantors, the Supervisory Board and Its Committees as well as the Advisory Board (32)

The tables below show the remuneration of the members of the Board of Guarantors, the Supervisory Board and its Committees as well as the Advisory Board in itemised form. The remuneration of the members of the Supervisory Board varies depending on their committee membership.

### Disclosure of the Remuneration Paid to Members of the Board of Guarantors

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 8 Para. 1 Letters a to c of the Statutes</b>		<b>Members Pursuant to Section 8 Para. 1 Letter d of the Statutes</b>	
Prof. Dr. Andreas Pinkwart Chairman Minister for Economic Affairs, Innovation, Digitalization and Energy of the State of North Rhine-Westphalia	5,900	Nathanael Liminski State Secretary as well as Head of the State Chancellery of the State of North Rhine-Westphalia	5,900
Lutz Lienenkämper, MdL Deputy Chairman Minister of Finance of the State of North Rhine-Westphalia	5,900	Mathias Richter State Secretary Ministry for School and Further Education of the State of North Rhine-Westphalia	5,600
Ina Scharrenbach Deputy Chairwoman Minister of Home Affairs, Municipal Affairs, Construction and Equality of the State of North Rhine-Westphalia	5,600	<b>Permanent Guests</b>	
		Martin Bösenberg (until June 30, 2018) Staff representative NRW.BANK	300
		Matthias Elzinga (since July 1, 2018) Staff representative NRW.BANK	300
		Frank Lill Staff representative NRW.BANK	600

1. On the basis of the rules adopted by the Board of Guarantors, turnover tax and travel expenses are refunded by the Bank upon request.
2. The labour remuneration for members who join or leave the Board of Guarantors during the year is paid on a pro-rata temporis basis for each calendar month.
3. Potential duties of payment of the mandate holders and/or payments made are not taken into account.

## Disclosure of the Remuneration Paid to Members of the Supervisory Board and Its Committees

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 12 Para. 1 Letters a to c of the Statutes</b>		<b>Permanent Representatives Pursuant to Section 12 Para. 2 of the Statutes</b>	
Prof. Dr. Andreas Pinkwart Chairman Minister for Economic Affairs, Innovation, Digitalization and Energy of the State of North Rhine-Westphalia	21,700	Dr. Johannes Velling (since March 15, 2018) Senior Principal Ministry of Economic Affairs, Innovation, Digitalization and Energy of the State of North Rhine-Westphalia	17,167
Lutz Lienenkämper, MdL Deputy Chairman Minister of Finance of the State of North Rhine-Westphalia	29,700	Gerhard Heilgenberg Assistant Secretary Ministry of Finance of the State of North Rhine-Westphalia	25,900
Ina Scharrenbach Deputy Chairwoman Minister of Home Affairs, Municipal Affairs, Construction and Equality of the State of North Rhine-Westphalia	29,100	Dr. Christian von Kraack (since January 18, 2018) Senior Principal Ministry of Home Affairs, Municipal Affairs, Construction and Equality of the State of North Rhine-Westphalia	26,500

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 12 Para. 1 Letter d of the Statutes</b>		<b>Members Pursuant to Section 12 Para. 1 Letter e of the Statutes</b>	
Ute Gerbaulet General Partner Bankhaus Lampe KG	17,400	Iris Aichinger (until June 30, 2018) Staff representative NRW.BANK	8,400
Ursula Heinen-Esser (since November 7, 2018) Minister for Environment, Agriculture, Conservation and Consumer Affairs of the State of North Rhine-Westphalia	1,967	Martin Bösenberg (until June 30, 2018) Staff representative NRW.BANK	9,000
Bernd Krückel, MdL Member of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	17,400	Matthias Elzinga Staff representative NRW.BANK	19,000
Isabel Pfeiffer-Poensgen (until October 23, 2018) Minister for Culture and Science of the State of North Rhine-Westphalia	9,533	Tanja Gossens (since July 1, 2018) Staff representative NRW.BANK	9,000
Norbert Römer, MdL Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	18,000	Frank Lill Staff representative NRW.BANK	17,600
Dr. Birgit Roos Chairwoman of the Managing Board Sparkasse Krefeld	20,000	Thomas Stausberg Director NRW.BANK	19,300
Christina Schulze Föcking, MdL (until July 13, 2018) Minister for Environment, Agriculture, Conservation and Consumer Affairs of the State of North Rhine-Westphalia (until May 15, 2018)	6,433	Torben Wittenberg (since July 1, 2018) Staff representative NRW.BANK	9,300
Dirk Wedel State Secretary Ministry of Justice of the State of North Rhine-Westphalia	6,200		

1. On the basis of the rules adopted by the Board of Guarantors, turnover tax and travel expenses are refunded by the Bank upon request.
2. The labour remuneration for members who join or leave the Supervisory Board or its Committees during the year is paid on a pro-rata temporis basis for each calendar month.
3. Potential duties of payment of the mandate holders and/or payments made are not taken into account.

## Disclosure of the Remuneration Paid to Members of the Advisory Board for Housing Promotion of NRW.BANK

	Total remuneration		Total remuneration
	€		€
<b>Member Pursuant to Section 23 Para. 1 Letter a of the Statutes</b>		<b>Members Pursuant to Section 23 Para. 1 Letter c of the Statutes</b>	
Ina Scharrenbach Chairwoman Minister of Home Affairs, Municipal Affairs, Construction and Equality of the State of North Rhine-Westphalia	3,600	Jochen Ott, MdL (since September 19, 2018) Deputy Chairman of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	1,000
<b>Members Pursuant to Section 23 Para. 1 Letter b of the Statutes</b>		Stephen Paul, MdL Member of the FDP Parliamentary Group State Assembly of North Rhine-Westphalia	3,600
Günther Bongartz Assistant Secretary Ministry of Finance of the State of North Rhine-Westphalia	3,600	Sarah Philipp, MdL (until September 19, 2018) Parliamentary State Secretary of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	2,250
Dr. Michael Henze Assistant Secretary Ministry for Economic Affairs, Innovation, Digitalization and Energy of the State of North Rhine-Westphalia	3,600	Fabian Schruppf, MdL Member of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	3,600
Sven-Axel Köster (since February 4, 2018) Senior Principal Ministry of Work, Welfare and Social Integration of the State of North Rhine-Westphalia	3,350	Daniel Sieveke, MdL Deputy Chairman of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	3,600
Hans Lauf (until February 4, 2018) Assistant Secretary Ministry of Work, Welfare and Social Integration of the State of North Rhine-Westphalia	500	Klaus Voussemer, MdL Member of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	3,600
<b>Members Pursuant to Section 23 Para. 1 Letter c of the Statutes</b>		<b>Members Pursuant to Section 23 Para. 1 Letter d of the Statutes</b>	
Roger Beckamp, MdL Member of the AfD Parliamentary Group State Assembly of North Rhine-Westphalia	3,600	Ass. jur. Erik Amaya Managing Director Haus & Grund NRW e.V.	3,600
Andreas Becker, MdL Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	3,600	Elisabeth Gendziorra, lawyer Managing Director BFW Landesverband Nordrhein-Westfalen e.V.	3,300
Martin Börschel, MdL Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	3,000	Alexander Rychter Association Director Verband der Wohnungs- und Immobilienwirtschaft Rheinland Westfalen e.V.	3,600
Arndt Klocke, MdL Chairman of the Bündnis 90/Die Grünen Parliamentary Group State Assembly of North Rhine-Westphalia	3,600		

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 23 Para. 1 Letter e of the Statutes</b>		<b>Member Pursuant to Section 23 Para. 1 Letter g of the Statutes</b>	
Rudolf Graaff Deputy Mayor Städte- und Gemeindebund Nordrhein-Westfalen e. V.	3,600	Dipl.-Ing. Ernst Uhing President Chamber of Architects of North Rhine-Westphalia	3,000
Thomas Hendele President Landkreistag Nordrhein-Westfalen e. V.	3,000	<b>Permanent Representative of the Chairing Member Pursuant to Section 23 Para. 2 of the Statutes</b>	
Stefan Raetz Mayor City of Rheinbach	3,600	Sigrid Koeppinghoff Assistant Secretary Ministry of Home Affairs, Municipal Affairs, Construction and Equality of the State of North Rhine-Westphalia	3,600
Hilmar von Lojewski Deputy Mayor for Urban Development, Construction, Housing and Transport Städtetag Nordrhein-Westfalen	3,600		
<b>Member Pursuant to Section 23 Para. 1 Letter f of the Statutes</b>			
Hans-Jochem Witzke 1st Chairman of the Managing Board Deutscher Mieterbund Nordrhein-Westfalen e. V.	3,600		

1. On the basis of the rules adopted by the Board of Guarantors, turnover tax and travel expenses are refunded by the Bank upon request.
2. The labour remuneration for members who join or leave the Advisory Board for Housing Promotion during the year is paid on a pro-rata temporis basis for each calendar month.
3. Potential duties of payment of the mandate holders and/or payments made are not taken into account.

## Disclosure of the Remuneration Paid to Members of the Advisory Board of NRW.BANK

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 25 of the Statutes</b>		<b>Members Pursuant to Section 25 of the Statutes</b>	
Prof. Dr. Andreas Pinkwart Chairman Minister for Economic Affairs, Innovation, Digitalization and Energy of the State of North Rhine-Westphalia	2,300	Andreas Feicht Chairman of the Managing Board Verband kommunaler Unternehmen e. V. – Regional Group North Rhine-Westphalia –	2,300
Kai Abruszat Mayor Stemwede local community	2,300	Dorothee Feller District President Münster Regional Government	2,300
Michael Ackermann Managing Director Klinikum Bielefeld gem. GmbH	2,000	Florian Festge Personally liable Partner HAVER & BOECKER OHG Drahtweberei und Maschinenfabrik	2,000
Uwe Berghaus Member of the Managing Board DZ BANK AG Deutsche Zentral-Genossenschaftsbank	2,300	Heinz Fiege FIEGE Logistik Holding Stiftung & Co. KG	2,300
Dr.-Ing. Heinrich Bökamp President and Board member Chamber of Engineers in North Rhine-Westphalia	2,300	Prof. Dr. Ursula Gather Chairwoman of the Board of Trustees Alfried Krupp von Bohlen und Halbach-Stiftung	2,000
Michael Breuer President Savings Banks and Giro Association of the Rhineland	2,300	Dieter Gebhard Chairman Regional Assembly of Westphalia-Lippe	2,300
Prof. Dr. Liane Buchholz President Savings Banks and Giro Association of Westphalia-Lippe	2,300	Dr. iur. Antonius Hamers, pastor (since July 1, 2018) Director Catholic Office North Rhine-Westphalia	1,000
Dr. Andre Carls Chairman of the Managing Board Bankenverband Nordrhein-Westfalen e. V.	2,000	Thomas Hendele President Landkreistag Nordrhein-Westfalen e. V.	2,300
Pit Clausen Deputy Chairman of the Managing Board Städtetag Nordrhein-Westfalen	2,000	Anne Henk-Hollstein (since July 1, 2018) Chairwoman Regional Assembly of the Rhineland	1,000
Heinrich Otto Deichmann Chairman of the Supervisory Board Deichmann SE	2,000	Thomas Hunsteger-Petermann Lord Mayor City of Hamm	2,000
Paolo Dell' Antonio Chairman of the Managing Board Wilh. Werhahn KG	2,000	Dipl.-Wirtsch.-Ing. Arndt G. Kirchhoff Managing Partner and CEO KIRCHHOFF Holding GmbH & Co. KG	2,000
Andreas Ehlert President Chamber of Handicrafts Düsseldorf	2,300	Dipl.-Ing. Hanspeter Klein Chairman of the Managing Board Verband Freier Berufe im Lande Nordrhein-Westfalen e. V.	2,300
Thomas Eiskirch Lord Mayor City of Bochum	2,000	Stefan Koetz Chairman of the Management Board Ericsson GmbH	1,572

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 25 of the Statutes</b>		<b>Members Pursuant to Section 25 of the Statutes</b>	
Daniel Krahn Founder & Managing Director UNIQ GmbH	2,300	Henriette Reker Lord Mayor City of Cologne	2,300
Dr. Arne Kupke Legal Vice President Evangelical Church of Westphalia	2,300	Prof. Dr.-Ing. Gerhard Sagerer Chairman Directors Conference of the Universities in North Rhine-Westphalia	2,000
Markus Lewe Lord Mayor City of Münster	2,000	Roland Schäfer (since April 1, 2018) President Städte- und Gemeindebund Nordrhein-Westfalen e. V.	1,800
Matthias Löb Director of LWL Regional Association of Westphalia-Lippe	2,300	Carola Gräfin von Schmettow Chairwoman of the Management Board HSBC Trinkaus & Burkhardt AG	2,300
Ulrike Lubek Director of LVR Regional Association of the Rhineland	2,300	Prof. Dr. Christoph M. Schmidt President RWI – Leibnitz-Institut für Wirtschaftsforschung	2,300
Wolfgang Lubert Managing Director EnjoyVenture Management GmbH	2,300	Dr. Rolf Martin Schmitz (since July 1, 2018) Chairman of the Managing Board RWE AG	1,000
Dr.-Ing. Hinrich Mählmann Personally liable Managing Partner Otto Fuchs KG	2,300	Prof. Dr. Uwe Schneidewind President and Academic Managing Director Wuppertal Institut für Klima, Umwelt, Energie gGmbH	2,000
Prof. Dr.-Ing. Wolfgang Marquardt Chairman of the Board of Directors Forschungszentrum Jülich GmbH	2,300	Frank Sportolari District Manager United Parcel Service LLC & Co. OHG	2,300
Dr. Dominik Meiering (until April 30, 2018) Apostolic Administrator of the Archbishop of Cologne Cologne Archbishopric	667	Marianne Thomann-Stahl District President Detmold Regional Government	2,300
Thomas Meyer (since April 1, 2018) President IHK NRW – Die Industrie- und Handelskammern in Nordrhein-Westfalen e. V.	1,500	Hans-Josef Vogel District President Arnsberg Regional Government	2,300
Roland Oetker Managing Partner ROI Verwaltungsgesellschaft mbH	2,300	Gisela Walsken District President Cologne Regional Government	2,300
Dr. Uli Paetzel Chairman of the Managing Board EMSCHERGENOSSENSCHAFT und LIPPEVERBAND	2,000	Anja Weber (since April 1, 2018) District Chairwoman Deutscher Gewerkschaftsbund NRW	1,800
Dr. Paul-Josef Patt Chairman of the Managing Board eCAPITAL entrepreneurial Partners AG	2,300	Prof. Dr. Jürgen Wilhelm (until June 30, 2018) Chairman Regional Assembly of the Rhineland	1,000
Birgitta Radermacher District President Düsseldorf Regional Government	2,300	Matthias Zachert Chairman of the Managing Board LANXESS AG	2,000

1. On the basis of the rules adopted by the Board of Guarantors, turnover tax and travel expenses are refunded by the Bank upon request.
2. The labour remuneration for members who join or leave the Advisory Board during the year is paid on a pro-rata temporis basis for each calendar month.
3. Potential duties of payment of the mandate holders and/or payments made are not taken into account.

### Disclosure of the Remuneration Paid to Members of the Parliamentary Advisory Council of NRW.BANK

	Total remuneration		Total remuneration
	€		€
<b>Members Pursuant to Section 26 of the Statutes</b>		<b>Members Pursuant to Section 26 of the Statutes</b>	
Dr. Marcus Optendrenk, MdL Chairman Deputy Chairman of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	250	Mehrdad Mostofizadeh, MdL Deputy Chairman of the Bündnis 90/Die Grünen Parliamentary Group State Assembly of North Rhine-Westphalia	250
Ralf Witzel, MdL Deputy Chairman Deputy Chairman of the FDP Parliamentary Group State Assembly of North Rhine-Westphalia	250	Elisabeth Müller-Witt, MdL Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	125
Ralph Bombis, MdL Member of the FDP Parliamentary Group State Assembly of North Rhine-Westphalia	250	Dr. Patricia Peill, MdL Member of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	0
Marc Herter, MdL Parliamentary Managing Director of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	125	Svenja Schulze, MdL (until May 16, 2018) Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia (until March 16, 2018)	0
Stefan Kämmerling, MdL Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	250	Herbert Strotebeck, MdL Member of the AfD Parliamentary Group State Assembly of North Rhine-Westphalia	250
Nadja Lüders, MdL (since May 16, 2018) Member of the SPD Parliamentary Group State Assembly of North Rhine-Westphalia	125	Marco Voge, MdL Member of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	250
Arne Moritz, MdL Member of the CDU Parliamentary Group State Assembly of North Rhine-Westphalia	250		

1. On the basis of the rules adopted by the Board of Guarantors, turnover tax and travel expenses are refunded by the Bank upon request.
2. Potential duties of payment of the mandate holders and/or payments made are not taken into account.

## Itemised List of NRW.BANK's Investments Pursuant to Section 285 No. 11 and 11a HGB

Name and head office of the company	Direct (D)/ Indirect (I)	Capital share in %	Equity in thou- sands	Net income/ loss for the year in thou- sands	Cur- rency	As at
<b>Equity investments in affiliated companies</b>						
Bremer Spielcasino GmbH & Co. KG, Bremen	D/I	51.00%	3,939	2,126	EUR	Dec. 31, 2017
Casino Duisburg GmbH & Co. KG, Duisburg	I	100.00%	10,000	8,405	EUR	Dec. 31, 2017
Nordwestlotto in Nordrhein-Westfalen GmbH, Münster	D	100.00%	156	0	EUR	Dec. 31, 2017
NRW.BANK.Fonds Beteiligungs-GmbH, Düsseldorf	D	100.00%	68	0	EUR	Dec. 31, 2017
NRW.BANK.Kreativwirtschaftsfonds GmbH & Co. KG, Düsseldorf	D	100.00%	9,846	-376	EUR	Dec. 31, 2017
NRW.BANK.Mittelstandsfonds GmbH & Co. KG, Düsseldorf	D	100.00%	44,520	1,299	EUR	Dec. 31, 2017
NRW.BANK.Mittelstandsfonds Zwei GmbH & Co. KG, Düsseldorf	D	100.00%	27,573	-1,736	EUR	Dec. 31, 2017
NRW.BANK.Seed Fonds Drei GmbH & Co. KG, Düsseldorf <sup>3)</sup>	D	100.00%				
NRW.BANK.Seed Fonds GmbH & Co. KG, Düsseldorf	D	100.00%	10,368	-543	EUR	Dec. 31, 2017
NRW.BANK.Seed Fonds Zwei GmbH & Co. KG, Düsseldorf	D	100.00%	8,335	1,032	EUR	Dec. 31, 2017
NRW.BANK.Spezialfonds GmbH & Co. KG, Düsseldorf	D	100.00%	8,522	-1,360	EUR	Dec. 31, 2017
NRW.BANK.Venture Fonds Drei GmbH & Co. KG, Düsseldorf <sup>3)</sup>	D	100.00%				
NRW.BANK.Venture Fonds GmbH & Co. KG, Düsseldorf	D	100.00%	13,630	-41	EUR	Dec. 31, 2017
NRW.BANK.Venture Fonds Zwei GmbH & Co. KG, Düsseldorf	D	100.00%	39,048	8,707	EUR	Dec. 31, 2017
Unterstützungseinrichtung GmbH der Westdeutsche Lotterie GmbH & Co. OHG, Münster	D/I	100.00%	26	-302	EUR	Dec. 31, 2017
Westdeutsche Lotterie GmbH & Co. OHG, Münster <sup>1)</sup>	D	100.00%	126,312	21,287	EUR	Dec. 31, 2017
Westdeutsche Lotto-VertriebsGmbH, Münster	I	100.00%	24	-2	EUR	Dec. 31, 2017
Westdeutsche Spielbanken GmbH, Duisburg	D	100.00%	26	0	EUR	Dec. 31, 2017
Westdeutsche Spielbanken GmbH & Co. KG, Duisburg	D/I	100.00%	74,187	-7,618	EUR	Dec. 31, 2017
Westdeutsche Spielcasino Service GmbH, Duisburg	D	100.00%	525	0	EUR	Dec. 31, 2017
WestEvent GmbH & Co. KG, Münster	D/I	100.00%	3,927	586	EUR	Dec. 31, 2017
WestSpiel Entertainment GmbH, Duisburg	I	100.00%	25	0	EUR	Dec. 31, 2017
<b>Equity investments in non-affiliated companies</b>						
Algiax Pharmaceuticals GmbH, Erkrath	I	8.39%	323	-585	EUR	Dec. 31, 2017
AMEPA Angewandte Messtechnik und Prozess- automatisierung GmbH, Würselen	I	16.67%	7,890	4,160	EUR	Dec. 31, 2017
AplaGen GmbH, Baesweiler <sup>2)</sup>	I	26.21%				
AYOXXA Biosystems GmbH, Cologne	I	15.65%	-9,125	-7,094	EUR	Dec. 31, 2017
BE Beteiligungen Fonds GmbH & Co. KG, Cologne	D	4.08%	44,391	-493	EUR	Dec. 31, 2017
BGB Ges. Bankenkonsortium ZENIT GmbH, Mülheim an der Ruhr	D	33.40%	2,912	-78	EUR	Dec. 31, 2017
BLSW Seedfonds GmbH & Co. KG, Wuppertal	I	48.20%	2,798	-22	EUR	Dec. 31, 2017
Bomedus GmbH, Bonn	I	22.80%	-471	-616	EUR	Dec. 31, 2017

Name and head office of the company	Direct (D)/ Indirect (I)	Capital share in %	Equity in thou- sands	Net income/ loss for the year in thou- sands	Cur- rency	As at
<b>Equity investments in affiliated companies</b>						
Bright Capital SME Debt Fund I GmbH & Co. KG, Frankfurt am Main	D	4.08%	7,118	-541	EUR	Dec. 31, 2017
Bürgschaftsbank Brandenburg GmbH, Potsdam	D	19.85%	29,088	1,486	EUR	Dec. 31, 2017
Bürgschaftsbank NRW GmbH – Kreditgarantiegemeinschaft, Neuss	D	15.75%	35,440	1,282	EUR	Dec. 31, 2017
Capnamic United Venture Fund I GmbH & Co. KG, Cologne	D	7.69%	22,127	-1,934	EUR	Dec. 31, 2017
Capnamic Ventures Fund II GmbH & Co. KG, Cologne	D	4.35%	11,344	-204	EUR	Dec. 31, 2017
CellAct Pharma GmbH, Dortmund	I	38.56%	859	11,717	EUR	Dec. 31, 2017
CEVEC Pharmaceuticals GmbH, Cologne	I	21.15%	480	-888	EUR	Dec. 31, 2017
Chronext AG, Zug	I	9.46%	2,353	-7,779	CHF	Dec. 31, 2016
CMP German Opportunity Investors Fund II SCA, Luxembourg	D	1.71%	106,433	23,481	EUR	Dec. 31, 2017
CMP German Opportunity Investors Fund II SCS, Luxembourg	D	1.68%	136,014	37,805	EUR	Dec. 31, 2017
CMP German Opportunity Investors Fund III SCSp, Luxembourg	D	2.00%	32,816	-5,016	EUR	Dec. 31, 2017
Creathor Venture Fund IV SCS, Luxembourg	D	9.60%	5,679	-1,658	EUR	Dec. 31, 2017
CryoTherapeutics GmbH, Cologne	I	17.38%	1,384	-1,600	EUR	Dec. 31, 2017
DBAG Expansion Capital Fund GmbH & Co. KG, Frankfurt am Main	D	9.79%	51,408	1,815	EUR	Dec. 31, 2017
DEINZER Holding GmbH, Munich <sup>3)</sup>	I	37.00%				
Deutsche Arzt AG, Essen	I	8.33%	21	-2,882	EUR	Dec. 31, 2017
DIREVO Industrial Biotechnology GmbH, Cologne	I	25.45%	2,641	152	EUR	Dec. 31, 2017
Earlybird GmbH & Co. Beteiligungs KG 2012, Munich	D	3.30%	66,987	-13,938	EUR	Dec. 31, 2017
Earlybird Health Tech Fund GmbH & Co. Beteiligungs KG, Cologne	D	8.54%	5,324	-314	EUR	Dec. 31, 2017
ELS Fonds GmbH & Co. KG, Recklinghausen	I	32.30%	1,880	-928	EUR	Dec. 31, 2017
Enerthing GmbH, Cologne	I	12.50%	158	-127	EUR	Dec. 31, 2017
European Investment Fund (EIF), Luxembourg	D	0.44%	1,957,523	110,121	EUR	Dec. 31, 2017
femtos GmbH, Bochum	I	10.00%	-80	-294	EUR	Dec. 31, 2017
Gardeur Beteiligungs GmbH, Mönchengladbach <sup>2)</sup>	I	49.00%				
GENUI Fund GmbH & Co. KG, Hamburg	D	1.72%	224,812	-7,249	EUR	Dec. 31, 2017
GreenPocket GmbH, Cologne	I	12.80%	-2	-110	EUR	Dec. 31, 2017
Gründerfonds Bielefeld-Ostwestfalen GmbH & Co. KG, Münster	I	38.42%	5,402	-2,632	EUR	Dec. 31, 2017
Gründerfonds Münsterland GmbH & Co. KG, Münster	I	37.81%	3,265	-1,205	EUR	Dec. 31, 2017
Gründerfonds Ruhr GmbH & Co. KG, Essen	D	43.48%	-245	-540	EUR	Dec. 31, 2017
Harbert European Growth Capital Fund I, London	D	1.67%	68,256	10,889	GBP	Dec. 31, 2017
Harbert European Growth Capital Fund II SCSp, London	D	2.01%	9,895	-1,632	EUR	Dec. 31, 2017
HAVERKAMP GmbH, Münster	I	49.00%	704	181	EUR	Dec. 31, 2017
Hemovent GmbH, Aachen	I	21.70%	1,152	-2,040	EUR	Dec. 31, 2017

Name and head office of the company	Direct (D)/ Indirect (I)	Capital share in %	Equity in thousands	Net income/loss for the year in thousands	Currency	As at
HF Private Debt Fonds SCSp, Senningerberg <sup>3)</sup>	D	3.14%				
Ideenreich Invest GmbH, Cologne	I	50.00%	7,917	37	EUR	Dec. 31, 2017
INNOLUME GmbH, Dortmund <sup>2)</sup>	I	1.63%				
Investitionsbank des Landes Brandenburg (ILB), Potsdam	D	50.00%	222,163	11,381	EUR	Dec. 31, 2017
IPF Fund I SCA, Luxembourg	D	1.19%	58,214	2,150	EUR	Dec. 31, 2017
JADO Technologies GmbH, Dresden <sup>2)</sup>	I	18.02%				
Kapitalbeteiligungsgesellschaft für die mittelständische Wirtschaft in NRW mbH, Neuss	D	49.63%	3,244	477	EUR	Dec. 31, 2017
Kleffmann Holding GmbH, Lüdinghausen	I	50.00%	6,933	205	EUR	Dec. 31, 2017
LSI Pre-Seed-Fonds GmbH, Bonn	D	35.13%	10,072	-694	EUR	Dec. 31, 2017
Mapudo GmbH, Düsseldorf	I	21.12%	764	-1,195	EUR	Dec. 31, 2017
Marondo Small-Cap Growth Fund I GmbH & Co. KG, Munich <sup>3)</sup>	D	7.14%				
mimoOn GmbH, Duisburg <sup>2)</sup>	I	17.06%				
Novihum Technologies GmbH, Dresden	I	12.34%	434	-3,002	EUR	Dec. 31, 2017
NRW.International GmbH, Düsseldorf	D	33.33%	35	5	EUR	Dec. 31, 2017
Occlutech Holding AG, Schaffhausen	I	0.15%	7,621	-7,641	CHF	Jun. 30, 2016
ODDSET Sportwetten GmbH, Munich	I	34.00%	-1,359	-926	EUR	Dec. 31, 2017
Odewald KMU GmbH & Co. Beteiligungsgesellschaft für Vermögensanlagen KG, Berlin	D	7.32%	38,180	38,000	EUR	Dec. 31, 2017
Odewald KMU II GmbH & Co. Beteiligungsgesellschaft für Vermögensanlagen KG, Berlin	D	5.87%	38,370	4,668	EUR	Dec. 31, 2017
Peppermint CBF 1 GmbH & Co. KG, Berlin	D	14.36%	15,440	-79	EUR	Dec. 31, 2017
Personal MedSystems GmbH, Berlin	I	5.68%	1,054	-1,816	EUR	Dec. 31, 2017
Phenox GmbH, Bochum	I	27.61%	7,895	635	EUR	Dec. 31, 2017
Pinova GmbH & Co. Beteiligungs 2 KG, Munich	D	5.56%	45,862	42,676	EUR	Dec. 31, 2017
Pinova GmbH & Co. Erste Beteiligungs KG, Munich	D	10.26%	31,258	691	EUR	Dec. 31, 2017
Portigon AG, Düsseldorf	D	30.51%	1,628,949	-100,402	EUR	Dec. 31, 2017
Protagen AG, Dortmund	I	15.46%	-1,515	-2,490	EUR	Dec. 31, 2017
RDZ GmbH, Wiehl <sup>2)</sup>	I	21.94%				
Rheinland Venture Capital GmbH & Co. KG, Cologne	I	39.92%	2,521	-58	EUR	Jun. 30, 2017
RiverRock European Opportunities Feeder Fund II, London	D	1.03%	129,231	-11,690	EUR	Dec. 31, 2017
RiverRock European Opportunities Fund Ltd., London	D	1.49%	67,524	4,557	EUR	Dec. 31, 2017
saperatec GmbH, Bielefeld	I	23.76%	-619	-769	EUR	Dec. 31, 2017
Scienion AG, Dortmund	D/I	45.60%	7,853	514	EUR	Dec. 31, 2017
SeedCapital Dortmund GmbH & Co. KG, Dortmund	I	46.51%	3,904	832	EUR	Dec. 31, 2017
SeedCapital Dortmund II GmbH & Co. KG, Dortmund	I	47.62%	3,291	693	EUR	Dec. 31, 2017
Seed Fonds für die Region Aachen GmbH & Co. KG, Aachen	I	46.95%	2,027	10	EUR	Dec. 31, 2017
Seed Fonds II für die Region Aachen GmbH & Co. KG, Aachen	I	46.96%	6,808	2,872	EUR	Dec. 31, 2017
Seed Fonds III für die Region Aachen GmbH & Co. KG, Aachen <sup>3)</sup>	I	36.87%				

Name and head office of the company	Direct (D)/ Indirect (I)	Capital share in %	Equity in thou- sands	Net income/ loss for the year in thou- sands	Cur- rency	As at
Simfy AG, Berlin <sup>2)</sup>	I	1.93%				
Sirius Seedfonds Düsseldorf GmbH & Co. KG, Düsseldorf	I	44.61%	1,630	-78	EUR	Dec. 31, 2017
Technologiefonds OWL GmbH & Co. KG, Paderborn	I	36.01%	610	-53	EUR	Dec. 31, 2017
unu GmbH, Berlin	I	8.25%	996	-3,049	EUR	Dec. 31, 2017
VENTECH GmbH, Marl <sup>2)</sup>	I	19.98%				
Vimecon GmbH, Herzogenrath	I	8.28%	976	-1,313	EUR	Dec. 31, 2017
windtest grevenbroich gmbh, Grevenbroich	D	25.00%	1,274	118	EUR	Dec. 31, 2017

<sup>1)</sup> NRW.BANK is a personally liable shareholder of Westdeutsche Lotterie GmbH & Co. OHG, Münster.

<sup>2)</sup> The company did not prepare financial statements due to insolvency or liquidation.

<sup>3)</sup> As the company was newly established in the fiscal year 2018, no financial statements are prepared yet.

## Disclosure of Seats Held Pursuant to Section 340a Para. 4 No. 1 HGB

### Seats Held by Members of the Managing Board

#### **Eckhard Forst**

Portigon AG, Düsseldorf  
Chairman of the Supervisory Board

#### **Michael Stölting**

Erste Abwicklungsanstalt, Düsseldorf  
Member of the Supervisory Board

Investitionsbank des Landes Brandenburg (ILB),  
Potsdam  
Deputy Chairman of the Supervisory Board

#### **Dietrich Suhlrie**

Investitionsbank des Landes Brandenburg (ILB),  
Potsdam  
Member of the Supervisory Board

### Seats Held by Employees

#### **Regine Bukowski-Knuppertz**

Investitionsbank des Landes Brandenburg (ILB),  
Potsdam  
Member of the Supervisory Board

#### **Dr. Peter Güllmann** (until May 14, 2018)

Investitionsbank des Landes Brandenburg (ILB),  
Potsdam  
Member of the Supervisory Board

#### **Ute Hagedorn** (since May 15, 2018)

Investitionsbank des Landes Brandenburg (ILB),  
Potsdam  
Member of the Supervisory Board

#### **Guido Köcher**

Kettler GmbH, Ense  
Member of the Supervisory Board

## Disclosure Pursuant to Section 26a Para. 1 Sentence 2 KWG in conjunction with Section 64r Para. 15 Sentence 1 KWG

NRW.BANK has dual head offices in Düsseldorf and Münster and has no branches performing banking activities outside the Federal Republic of Germany. All figures in the financial statements as defined in Section 26a Para. 1 Sentence 2 KWG therefore relate exclusively to the Federal Republic of Germany.

## Report on Post-Balance Sheet Date Events

There were no events of special importance after the end of the fiscal year that are considered neither in the income statement nor in the balance sheet.

## Resolution on the Appropriation of Profits (33)

The Board of Guarantors of NRW.BANK has passed the following resolution on the appropriation of profits:

In accordance with Section 30 of the Statutes and to meet the statutory distribution requirements under Section 14 Para. 1 NRW.BANK G, an amount of € 9,073,204.11 will be paid to the Federal Government for interest amounts that become due after December 31, 2018 and are to be paid by the State of North Rhine-Westphalia due to the utilisation of loans from the Federal Government for the promotion of housing construction and modernisation (subsidies pursuant to Article 104a Para. 4 of the German Constitution [Grundgesetz – GG] in the version effective until August 31, 2006).

**Executive Bodies of the Bank****Board of Guarantors**

Members Pursuant to Section 8 Para. 1  
Letters a to c of the Statutes

**Prof. Dr. Andreas Pinkwart**

Chairman  
Minister for Economic Affairs, Innovation,  
Digitalization and Energy  
of the State of North Rhine-Westphalia  
Düsseldorf

**Lutz Lienenkämper, MdL**

Deputy Chairman  
Minister of Finance  
of the State of North Rhine-Westphalia  
Düsseldorf

**Ina Scharrenbach**

Deputy Chairwoman  
Minister of Home Affairs, Municipal Affairs,  
Construction and Equality  
of the State of North Rhine-Westphalia  
Düsseldorf

Members Pursuant to Section 8 Para. 1  
Letter d of the Statutes

**Nathanael Liminski**

State Secretary as well as  
Head of the State Chancellery  
of the State of North Rhine-Westphalia  
Düsseldorf

**Mathias Richter**

State Secretary  
Ministry for School and Further Education  
of the State of North Rhine-Westphalia  
Düsseldorf

**Permanent Guests****Martin Bösenberg** (until June 30, 2018)

Staff representative  
NRW.BANK  
Münster

**Matthias Elzinga** (since July 1, 2018)

Staff representative  
NRW.BANK  
Münster

**Frank Lill**

Staff representative  
NRW.BANK  
Düsseldorf

**Supervisory Board**

Members Pursuant to Section 12 Para. 1  
Letters a to c of the Statutes

**Prof. Dr. Andreas Pinkwart**

Chairman  
Minister for Economic Affairs, Innovation,  
Digitalization and Energy  
of the State of North Rhine-Westphalia  
Düsseldorf

**Lutz Lienenkämper, MdL**

Deputy Chairman  
Minister of Finance  
of the State of North Rhine-Westphalia  
Düsseldorf

**Ina Scharrenbach**

Deputy Chairwoman  
Minister of Home Affairs, Municipal Affairs,  
Construction and Equality  
of the State of North Rhine-Westphalia  
Düsseldorf

**Members Pursuant to Section 12 Para. 1  
Letter d of the Statutes**

**Ute Gerbaulet**

General Partner  
Bankhaus Lampe KG  
Düsseldorf

**Ursula Heinen-Esser** (since November 7, 2018)

Minister for Environment, Agriculture,  
Conservation and Consumer Affairs  
of the State of North Rhine-Westphalia  
Düsseldorf

**Bernd Krückel, MdL**

Member of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

**Isabel Pfeiffer-Poensgen** (until October 23, 2018)

Minister for Culture and Science  
of the State of North Rhine-Westphalia  
Düsseldorf

**Norbert Römer, MdL**

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

**Dr. Birgit Roos**

Chairwoman of the Managing Board  
Sparkasse Krefeld  
Krefeld

**Christina Schulze Föcking, MdL** (until July 13, 2018)

Minister for Environment, Agriculture,  
Conservation and Consumer Affairs  
of the State of North Rhine-Westphalia  
(until May 15, 2018)  
Düsseldorf

**Dirk Wedel**

State Secretary  
Ministry of Justice  
of the State of North Rhine-Westphalia  
Düsseldorf

**Hendrik Wüst, MdL** (since January 17, 2019)

Minister of Transport  
of the State of North Rhine-Westphalia  
Düsseldorf

**Members Pursuant to Section 12 Para. 1  
Letter e of the Statutes**

**Iris Aichinger** (until June 30, 2018)

Staff representative  
NRW.BANK  
Düsseldorf

**Martin Bösenberg** (until June 30, 2018)

Staff representative  
NRW.BANK  
Münster

**Matthias Elzinga**

Staff representative  
NRW.BANK  
Münster

**Tanja Gossens** (since July 1, 2018)

Staff representative  
NRW.BANK  
Düsseldorf

**Frank Lill**

Staff representative  
NRW.BANK  
Düsseldorf

**Thomas Stausberg**

Director  
NRW.BANK  
Düsseldorf

**Torben Wittenberg** (since July 1, 2018)

Staff representative  
NRW.BANK  
Münster

**Permanent Representatives Pursuant to Section 12  
Para. 2 of the Statutes**

**Dr. Johannes Velling** (since March 15, 2018)

Senior Principal  
Ministry of Economic Affairs, Innovation,  
Digitalization and Energy  
of the State of North Rhine-Westphalia  
Düsseldorf

**Gerhard Heilgenberg**

Assistant Secretary  
Ministry of Finance  
of the State of North Rhine-Westphalia  
Düsseldorf

**Dr. Christian von Kraack** (since January 18, 2018)

Senior Principal  
Ministry of Home Affairs, Municipal Affairs,  
Construction and Equality  
of the State of North Rhine-Westphalia  
Düsseldorf

**Managing Board**

**Eckhard Forst**

Chairman of the Managing Board

**Gabriela Pantring**

Member of the Managing Board

**Michael Stölting**

Member of the Managing Board

**Dietrich Suhlrie**

Member of the Managing Board

Düsseldorf/Münster, February 12, 2019

NRW.BANK

The Managing Board

Forst, Pantring, Stölting, Suhlrie

# Cash Flow Statement

of NRW.BANK as of December 31, 2018

The cash flow statement shows the changes in cash and cash equivalents and the cash flows of NRW.BANK, divided into operating activities, investing activities and financing activities. The cash and cash equivalents shown include the balance sheet items "Cash" and "Debt instruments issued by public institutions and bills of exchange eligible for refinancing with central banks". Cash flows are allocated to operating activities as operating income accrues. The cash flow from investing activities results primarily from cash received and cash used in connection with selling or acquiring financial and tangible assets. The change in cash from financing activities captures the relationships to equity capital providers. The statement was prepared in accordance with German Accounting Standard No. 21 (Deutscher Rechnungslegungsstandard Nr. 21 – DRS 21).

	€ millions
1. Net income	9.1
2. Depreciation, write-downs/write-ups of receivables and tangible assets	-3.3
3. Increase/decrease in provisions	141.1
4. Other non-cash items	363.1
5. Gain/loss on the sale of tangible assets	-84.3
6. Other adjustments (balance)	0.0
7. Increase/decrease in receivables from banks	-3,060.8
8. Increase/decrease in receivables from customers	-143.5
9. Increase/decrease in securities (with the exception of financial assets)	1,224.5
10. Increase/decrease in other assets from operating activities	-77.6
11. Increase/decrease in liabilities to banks	-3,745.4
12. Increase/decrease in liabilities to customers	-1,228.4
13. Increase/decrease in certificated liabilities	6,418.7
14. Increase/decrease in other liabilities from operating activities	-691.5
15. Interest expenses/income	-619.0
16. Expenses for/income from extraordinary items	0.0
17. Income tax expenses/income	6.7
18. Interest and dividends received	5,947.9
19. Interest paid	-3,261.1
20. Extraordinary cash received	0.0
21. Extraordinary cash disbursed	0.0
22. Income tax payments	-7.9
<b>23. Cash flow from operating activities</b>	<b>1,188.3</b>

	€ millions
24. Cash from the disposal of financial assets	19.0
25. Disbursements for investments in financial assets	-2,763.6
26. Cash from the disposal of tangible assets	0.0
27. Disbursements for investments in tangible assets	-1.3
28. Cash from the disposal of intangible assets	0.0
29. Disbursements for investments in intangible assets	-0.7
30. Changes in cash from other investing activities (balance)	0.0
<b>31. Cash flow from investing activities</b>	<b>-2,746.6</b>
32. Cash from allocations to equity capital	0.6
33. Disbursements from equity reductions	0.0
34. Dividends paid to shareholders	-10.2
35. Cash changes from other capital (balance)	-83.1
<b>36. Cash flow from financing activities</b>	<b>-92.7</b>
37. Net change in cash and cash equivalents	-1,651.0
38. Other changes in cash and cash equivalents	0.0
39. Cash and cash equivalents at the beginning of the period	3,214.4
<b>40. Cash and cash equivalents at the end of the period</b>	<b>1,563.4</b>

# Statement of Changes in Equity

of NRW.BANK as of December 31, 2018

	Subscribed capital	Capital reserves	Reserves from retained earnings	Other reserves from retained earnings	Profit for the year	Total
	€ millions	€ millions	€ millions	€ millions	€ millions	€ millions
<b>As of Dec. 31, 2016</b>	<b>17,000.0</b>	<b>726.8</b>	<b>36.1</b>	<b>219.6</b>	<b>0.0</b>	<b>17,982.5</b>
Allocations		0.7				0.7
Net income					10.2	10.2
Designated payout due to legal requirements					-10.2	-10.2
<b>As of Dec. 31, 2017</b>	<b>17,000.0</b>	<b>727.5</b>	<b>36.1</b>	<b>219.6</b>	<b>0.0</b>	<b>17,983.2</b>
Allocations		0.6				0.6
Net income					9.1	9.1
Designated payout due to legal requirements					-9.1	-9.1
<b>As of Dec. 31, 2018</b>	<b>17,000.0</b>	<b>728.1</b>	<b>36.1</b>	<b>219.6</b>	<b>0.0</b>	<b>17,983.8</b>

# Reproduction of the Auditor's Report

We have issued the following Auditor's Report on the annual financial statements and the management report:

## "Independent auditor's report

**To NRW.BANK Institution under public law, Düsseldorf and Münster.**

## Report on the audit of the annual financial statements and the management report

### Audit opinions

We have audited the annual financial statements of NRW.BANK Institution under public law, which comprise the balance sheet as at December 31, 2018 and the income statement for the fiscal year from January 1, 2018 to December 31, 2018, the notes to the annual financial statements, the cash flow statement and the statement of changes in equity including the presentation of the accounting and valuation principles. We have also audited the management report of NRW.BANK Institution under public law for the fiscal year from January 1, 2018 to December 31, 2018.

According to our assessment based on the findings of our audit

- the accompanying annual financial statements comply, in all material respects, with the applicable provisions of German commercial law for institutions and, in accordance with German principles of proper accounting, give a true and fair view of the net assets and financial position of the Bank as of December 31, 2018 as well as of its result of operations for the fiscal year from January 1, 2018 to December 31, 2018 and
- the accompanying management report as a whole provides a suitable view of the Bank's position. In all material respects, the management report is consistent with the annual financial statements, complies with legal requirements and suitably presents the future opportunities and risks.

Pursuant to Section 322 Para. 3 Sentence 1 of the German Commercial Code (Handelsgesetzbuch – HGB), we state that our audit has not led to any reservations with respect to the correctness of the annual financial statements and the management report.

### Basis for the audit opinions

We conducted our audit of the annual financial statements and the management report in accordance with Section 317 HGB and the EU Audit Regulation (No. 537/2014) and in compliance with German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer – IDW). Our responsibility under those provisions and standards is further described in the "Auditor's responsibility for the audit of the annual financial statements and the management report" section of our report. We are independent of the Bank in accordance with the requirements of European and German commercial and professional law, and we have fulfilled our ethical responsibilities applicable in Germany in accordance with these requirements. In accordance with Article 10 Para. 2 Letter f of the EU Audit Regulation, we also declare that we have not provided non-audit services prohibited under Article 5 Para. 1 of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on the annual financial statements and the management report.

### Key audit matters in the audit of the annual financial statements

Key audit matters are those matters that, in our professional judgement, were most important in our audit of the annual financial statements for the fiscal year from January 1, 2018 to December 31, 2018. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

A description of what we have classified as a key audit matter is provided below:

#### Valuation of receivables from customers of the Housing Promotion business unit

##### Reasons for the classification as a key audit matter

The valuation of receivables from customers of the Housing Promotion business unit and the related estimate of the allowances for such receivables is an important area in which management takes discretionary decisions. Individual and general allowances as well as allowance reserves pursuant to Section 340f HGB are

established for acute and latent credit risks from loans. Both the identification of impaired loans and the determination of the recoverable amount are subject to uncertainties. Several assumptions and influencing factors, especially the financial position of the borrowers and the expected future cash flows from the loan agreements and/or from the properties financed as well as from the liquidation of collateral, are taken into account. Minor changes in the assumptions may lead to major valuation differences and may, hence, change the need to make write-downs for impairment.

A relatively large amount of time was needed to examine the valuation of receivables from customers of the Housing Promotion business unit in the context of the annual audit, which is therefore classified as a key audit matter.

#### **Audit procedure**

The assessment of the design and the effectiveness of the internal control system for the material accounting-relevant lending processes focused on the processes for the permanent monitoring of exposures and for calculating the individual impairments.

In the calculation of the individual impairments, we placed a focus on reviewing the need for NRW.BANK to establish risk provisions in the context of the annual monitoring of credit exposures and/or because of a particular cause.

At the processual level, we primarily reviewed the completeness of the monitoring of credit exposures, compliance with the deadlines for annual monitoring as well as the appropriateness and application of the Bank's proprietary risk provisioning concept. We also examined whether the calculation schemes defined by the Bank for the determination of the individual allowances are adequate and used consistently. This was primarily done on the basis of our industry knowledge.

On a random basis, we additionally conducted statement-related audit procedures and assessed the need for and appropriateness of individual risk provisions in the context of the individual case audit. The random samples

were chosen in a risk-oriented manner, especially based on criteria such as the amount of the exposures and/or the listing of loans on watchlists for latent and acute risks of default as well as the rating class.

The focus of our statement-related audit procedures was placed on management's estimates of the expected future cash flows from the loan agreements and/or from the properties financed as well as from the liquidation of collateral; in this context, we reviewed each of the material assumptions made for this purpose as part of the write-down process.

To assess the appropriateness of the estimates of the expected cash flows from the loan agreements, the properties financed and the liquidation of collateral, we checked the Bank's assumptions for plausibility using the present financial statements, tenant lists and cash flow projections of the customers and compared them with market data where available.

To assess the valuation of the real-estate collateral, we used the valuation appraisals prepared by the Bank's internal experts. We examined the activity of the experts, especially with regard to the independent and adequate determination of the values, on the basis of our industry knowledge. We also had the valuation appraisals reviewed by our own specialists on a random sample basis. This included both an assessment of the valuation method used in the valuation appraisal and the assessment of the determination of the parameters used for the estimates.

Our audit procedures have not led to any reservations regarding the valuation of receivables from customers of the Housing Promotion business unit.

#### **Reference to related disclosures**

The Bank's disclosures on the valuation of receivables from customers of the Housing Promotion business unit are made in the notes under Accounting and Valuation Principles under the heading "2. Promotional Loans of the Housing Promotion Business Unit". Further information regarding the receivables from customers of

the Housing Promotion business unit, the risk provisions established in the fiscal year and the amount of the risk provisions as of the balance sheet date is provided in the management report of the Bank in paragraphs "2.3.1" and "5.6.6".

#### **Other information**

The Supervisory Board is responsible for providing the "Report of the Supervisory Board". Otherwise, the legal representatives are responsible for providing other information.

Other information comprises the following paragraphs of the 2018 Financial Report obtained by us prior to the date of this Auditor's Report: "The Promotional Business of NRW.BANK", "Report on Public Corporate Governance", "Declaration of Conformity", "Report of the Supervisory Board", "Responsibility Statement", "Members of the Advisory Board for Housing Promotion", "Members of the Parliamentary Advisory Board", "Members of the Advisory Board", "Organisation Chart" and "NRW.BANK at a Glance".

Our audit opinions of the annual financial statements and the management report do not cover other information and we therefore issue no audit opinion or any other type of audit conclusion regarding such other information.

As part of our audit, it is our responsibility to read the other information and to check whether such other information

- shows material inconsistencies with the annual financial statements, the management report or the knowledge obtained in the context of our audit or
- otherwise appears to be materially misstated.

If, on the basis of the work performed by us, we arrive at the conclusion that such other information is materially misstated, we are obliged to report on this. We have nothing to report in this respect.

#### **Responsibilities of the legal representatives and the Supervisory Board for the annual financial statements and the management report**

The legal representatives are responsible for preparing annual financial statements that comply, in all material respects, with German commercial law applicable for institutions and for ensuring that the annual financial statements, in accordance with German principles of proper accounting, give a true and fair view of the net assets, financial position and result of operations of the Bank. In addition the legal representatives are responsible for such internal control as they have determined necessary in accordance with German principles of proper accounting to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the legal representatives are responsible for assessing the Bank's ability to continue as a going concern. They also have the responsibility – where applicable – for disclosing matters related to the going concern. In addition, they are responsible for the accounting, based on the going concern accounting principle, unless this is made impossible by actual or legal circumstances.

The legal representatives are also responsible for preparing a management report which, as a whole, provides a suitable view of the Bank's position, and is consistent with the annual financial statements in all material aspects, complies with German legal requirements and suitably presents the future opportunities and risks. In addition, the legal representatives are responsible for such arrangements and measures (systems) as they consider necessary to enable the preparation of a management report that complies with the requirements of German commercial law and to enable the provision of sufficient and appropriate evidence for assertions in the management report.

The Supervisory Board is responsible for overseeing the Bank's financial reporting process for the preparation of the annual financial statements and the management report.

### **Auditor's responsibility for the audit of the annual financial statements and the management report**

Our objective is to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides a suitable view of the situation of the Bank and is consistent with the annual financial statements in all material aspects as well as with the findings of our audit, complies with the legal provisions applicable in Germany and adequately reflects the future opportunities and risks as well as to issue an auditor's report that contains our audit opinions of the annual financial statements and the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German generally accepted standards for the audit of annual financial statements promulgated by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer – IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in total, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

During our audit, we exercise professional judgement and maintain professional scepticism. Moreover

- we identify and assess the risks of material misstatement of the annual financial statements and the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting material misstatements 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 controls;
- we obtain an understanding of the internal control system that is relevant to the audit of the annual financial statements and of the arrangements and measures that are relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of the Bank's systems;
- we evaluate the appropriateness of the accounting policies used by the legal representatives and the reasonableness of the accounting estimates and related disclosures made by the legal representatives;
- we conclude on the appropriateness of the legal representatives' 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 Bank's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements or in the management report 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 result in the Bank no longer being able to continue as a going concern;
- we evaluate the overall presentation, structure and content of the annual financial statements and whether the annual financial statements represent the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the net assets, financial position and result of operations of the Bank in accordance with German principles of proper accounting;
- we assess the consistency of the management report with the annual financial statements, its compliance with applicable laws and the view it provides of the situation of the Bank;

- we perform audit procedures on the forward-looking information presented by the legal representatives in the management report. Based on sufficient audit evidence, we hereby review, in particular, the significant assumptions used by the legal representatives as a basis for the forward-looking information and evaluate the appropriate derivation of the forward-looking information from these assumptions. We do not express a separate audit opinion on the forward-looking information and on the underlying assumptions. There is a substantial unavoidable risk that future events will deviate materially from the forward-looking information.

We discuss with the supervisory body, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the supervisory body with a statement that we have complied with the relevant independence requirements and discuss with it all relationships and other matters that may reasonably be thought to bear on our independence and the protective measures taken in this context.

From the matters discussed with the supervisory body, we determine those matters that were most important in the audit of the annual financial statements of the reporting period and are therefore the key audit matters. We describe these matters in our report on the audit of the annual financial statements unless laws or other regulations preclude public disclosure of such matters.

#### Other legal and regulatory requirements

#### Further information pursuant to Article 10 of the EU Audit Regulation

We were elected as auditors by the Board of Guarantors on March 19, 2018. We were commissioned by the Chairman of the Supervisory Board and the Board of Guarantors of NRW.BANK Institution under public law on May 2, 2018. We have been the auditors of the

annual financial statements of NRW.BANK Institution under public law without interruption since the fiscal year 2016.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (audit report).

#### German public accountant responsible for the audit

The German public accountant responsible for the audit is Martin Werthmann."

Düsseldorf, February 13, 2019

Ernst & Young GmbH  
Wirtschaftsprüfungsgesellschaft



Werthmann  
German Public Accountant



Eckert  
German Public Accountant

# Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of NRW.BANK, and the management report includes a fair review of the development and performance of the business and the position of NRW.BANK, together with a description of the principal opportunities and risks associated with the expected development of NRW.BANK.

Düsseldorf/Münster, February 12, 2019

NRW.BANK

The Managing Board



Eckhard Forst  
Chairman of the Managing Board



Gabriela Pantring  
Member of the Managing Board



Michael Stölting  
Member of the Managing Board



Dietrich Suhlrie  
Member of the Managing Board

# Members of the Advisory Board for Housing Promotion

## Member Pursuant to Section 23 Para. 1 Letter a of the Statutes

### Ina Scharrenbach

Chairwoman  
Minister of Home Affairs, Municipal Affairs,  
Construction and Equality  
of the State of North Rhine-Westphalia  
Düsseldorf

## Members Pursuant to Section 23 Para. 1 Letter b of the Statutes

### Günther Bongartz

Assistant Secretary  
Ministry of Finance  
of the State of North Rhine-Westphalia  
Düsseldorf

### Dr. Michael Henze

Assistant Secretary  
Ministry for Economic Affairs, Innovation,  
Digitalization and Energy  
of the State of North Rhine-Westphalia  
Düsseldorf

### Sven-Axel Köster (since February 4, 2018)

Senior Principal  
Ministry of Work, Welfare and  
Social Integration  
of the State of North Rhine-Westphalia  
Düsseldorf

### Hans Lauf (until February 4, 2018)

Assistant Secretary  
Ministry of Work, Welfare and  
Social Integration  
of the State of North Rhine-Westphalia  
Düsseldorf

## Members Pursuant to Section 23 Para. 1 Letter c of the Statutes

### Roger Beckamp, MdL

Member of the AfD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Andreas Becker, MdL

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Martin Börschel, MdL

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Arndt Klocke, MdL

Chairman of the  
Bündnis 90/Die Grünen Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Jochen Ott, MdL (since September 19, 2018)

Deputy Chairman  
of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Stephen Paul, MdL

Member of the FDP Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Sarah Philipp, MdL (until September 19, 2018)

Parliamentary State Secretary  
of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Fabian Schrumpf, MdL

Member of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Daniel Sieveke, MdL

Deputy Chairman of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### Klaus Vossemer, MdL

Member of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

**Members Pursuant to Section 23 Para. 1  
Letter d of the Statutes**

**Ass. jur. Erik Amaya**  
Managing Director  
Haus & Grund NRW e. V.  
Düsseldorf

**Elisabeth Gendziorra, lawyer**  
Managing Director  
BFW Landesverband Nordrhein-Westfalen e. V.  
Düsseldorf

**Alexander Rychter**  
Association Director  
Verband der Wohnungs- und Immobilienwirtschaft  
Rheinland Westfalen e. V.  
Düsseldorf

**Members Pursuant to Section 23 Para. 1  
Letter e of the Statutes**

**Rudolf Graaff**  
Deputy Mayor  
Städte- und Gemeindebund  
Nordrhein-Westfalen e. V.  
Düsseldorf

**Thomas Hendele**  
President  
Landkreistag Nordrhein-Westfalen  
Düsseldorf

**Stefan Raetz**  
Mayor  
City of Rheinbach  
Rheinbach

**Hilmar von Lojewski**  
Deputy Mayor  
for Urban Development, Construction,  
Housing and Transport  
Städtetag Nordrhein-Westfalen  
Cologne

**Member Pursuant to Section 23 Para. 1  
Letter f of the Statutes**

**Hans-Jochem Witzke**  
1st Chairman of the Managing Board  
Deutscher Mieterbund Nordrhein-Westfalen e. V.  
Düsseldorf

**Member Pursuant to Section 23 Para. 1  
Letter g of the Statutes**

**Dipl.-Ing. Ernst Uhing**  
President  
Chamber of Architects in North Rhine-Westphalia  
Düsseldorf

**Permanent Representative of the Chairing Member  
Pursuant to Section 23 Para. 2 of the Statutes**

**Sigrid Koeppinghoff**  
Assistant Secretary  
Ministry of Home Affairs, Municipal Affairs,  
Construction and Equality  
of the State of North Rhine-Westphalia  
Düsseldorf

# Members of the Advisory Board

## Member Pursuant to Section 25 of the Statutes

### Prof. Dr. Andreas Pinkwart

Chairman  
Minister for Economic Affairs, Innovation,  
Digitalization and Energy  
of the State of North Rhine-Westphalia  
Düsseldorf

### Kai Abruszat

Mayor  
Stemwede local community  
Stemwede

### Michael Ackermann

Managing Director  
Klinikum Bielefeld gem. GmbH  
Bielefeld

### Uwe Berghaus

Member of the Managing Board  
DZ BANK AG  
Deutsche Zentral-Genossenschaftsbank  
Düsseldorf

### Dr.-Ing. Heinrich Bökamp

President and Board Member  
Chamber of Engineers in North Rhine-Westphalia  
Düsseldorf

### Michael Breuer

President  
Savings Banks and Giro Association  
of the Rhineland  
Düsseldorf

### Prof. Dr. Liane Buchholz

President  
Savings Banks and Giro Association  
of Westphalia-Lippe  
Münster

### Dr. Andre Carls

Chairman of the Managing Board  
Bankenverband Nordrhein-Westfalen e. V.  
Düsseldorf

### Pit Clausen

Deputy Chairman of the Managing Board  
Städtetag Nordrhein-Westfalen  
Düsseldorf

### Heinrich Otto Deichmann

Chairman of the Supervisory Board  
Deichmann SE  
Essen

### Paolo Dell' Antonio

Chairman of the Managing Board  
Wilh. Werhahn KG  
Neuss

### Andreas Ehlert

President  
Chamber of Handicrafts Düsseldorf  
Düsseldorf

### Thomas Eiskirch

Lord Mayor  
City of Bochum  
Bochum

### Andreas Feicht (until January 31, 2019)

Chairman of the Managing Board  
Verband kommunaler Unternehmen e. V.  
– Regional Group North Rhine-Westphalia –  
Cologne

### Dorothee Feller

District President  
Münster Regional Government  
Münster

### Florian Festge

Personally liable Partner  
HAVER & BOECKER OHG  
Drahtweberei und Maschinenfabrik  
Oelde

### Heinz Fiege

FIEGE Logistik Holding Stiftung & Co. KG  
Greven

### Prof. Dr. Ursula Gather

Chairwoman of the Board of Trustees  
Alfried Krupp von Bohlen und Halbach-Stiftung  
Essen

### Dieter Gebhard

Chairman  
Regional Assembly of Westphalia-Lippe  
Münster

**Dr. iur. Antonius Hamers, pastor** (since July 1, 2018)

Director  
Catholic Office North Rhine-Westphalia  
Düsseldorf

**Thomas Hendele**

President  
Landkreistag Nordrhein-Westfalen e. V.  
Düsseldorf

**Anne Henk-Hollstein** (since July 1, 2018)

Chairwoman  
Regional Assembly of the Rhineland  
Cologne

**Thomas Hunsteger-Petermann**

Lord Mayor  
City of Hamm  
Hamm

**Dipl.-Wirtsch.-Ing. Arndt G. Kirchhoff**

Managing Partner and CEO  
KIRCHHOFF Holding GmbH & Co. KG  
Iserlohn

**Dipl.-Ing. Hanspeter Klein**

Chairman of the Managing Board  
Verband Freier Berufe  
im Lande Nordrhein-Westfalen e. V.  
Düsseldorf

**Stefan Koetz**

Chairman of the Management Board  
Ericsson GmbH  
Düsseldorf

**Daniel Krahn**

Founder & Managing Director  
UNIQ GmbH  
Holzwickede

**Dr. Arne Kupke**

Legal Vice President  
Evangelical Church of Westphalia  
Bielefeld

**Markus Lewe**

Lord Mayor  
City of Münster  
Münster

**Matthias Löb**

Director of LWL  
Regional Association of Westphalia-Lippe  
Münster

**Ulrike Lubek**

Director of LVR  
Regional Association of the Rhineland  
Cologne

**Wolfgang Lubert**

Managing Director  
EnjoyVenture Management GmbH  
Düsseldorf

**Dr.-Ing. Hinrich Mählmann**

Personally liable Managing Partner  
Otto Fuchs KG  
Meinerzhagen

**Prof. Dr.-Ing. Wolfgang Marquardt**

Chairman of the Board of Directors  
Forschungszentrum Jülich GmbH  
Jülich

**Dr. Dominik Meiering** (until April 30, 2018)

Apostolic Administrator of the Archbishop of Cologne  
Cologne Archbishopric  
Cologne

**Thomas Meyer** (since April 1, 2018)

President  
IHK NRW – Die Industrie- und Handelskammern  
in Nordrhein-Westfalen e. V.  
Düsseldorf

**Roland Oetker**

Managing Partner  
ROI Verwaltungsgesellschaft mbH  
Düsseldorf

**Dr. Uli Paetzel**

Chairman of the Managing Board  
EMSCHERGENOSSENSCHAFT und LIPPEVERBAND  
Essen/Dortmund

**Dr. Paul-Josef Patt**

Chairman of the Managing Board  
eCAPITAL entrepreneurial Partners AG  
Münster

**Birgitta Radermacher**

District President  
Düsseldorf Regional Government  
Düsseldorf

**Henriette Reker**

Lord Mayor  
City of Cologne  
Cologne

**Prof. Dr.-Ing. Gerhard Sagerer**

Chairman  
Directors Conference of the Universities  
in North Rhine-Westphalia  
Dortmund

**Roland Schäfer** (since April 1, 2018)

President  
Städte- und Gemeindebund Nordrhein-Westfalen e. V.  
Düsseldorf

**Carola Gräfin von Schmettow**

Chairwoman of the Management Board  
HSBC Trinkaus & Burkhardt AG  
Düsseldorf

**Prof. Dr. Christoph M. Schmidt**

President  
RWI – Leibnitz-Institut für Wirtschaftsforschung  
Essen

**Dr. Rolf Martin Schmitz** (since July 1, 2018)

Chairman of the Managing Board  
RWE AG  
Essen

**Prof. Dr. Uwe Schneidewind**

President and Academic Managing Director  
Wuppertal Institut für Klima,  
Umwelt, Energie gGmbH  
Wuppertal

**Frank Sportolari**

District Manager  
United Parcel Service LLC & Co. OHG  
Neuss

**Marianne Thomann-Stahl**

District President  
Detmold Regional Government  
Detmold

**Hans-Josef Vogel**

District President  
Arnsberg Regional Government  
Arnsberg

**Gisela Walsken**

District President  
Cologne Regional Government  
Cologne

**Anja Weber** (since April 1, 2018)

District Chairwoman  
Deutscher Gewerkschaftsbund NRW  
Düsseldorf

**Prof. Dr. Jürgen Wilhelm** (until June 30, 2018)

Chairman  
Regional Assembly of the Rhineland  
Cologne

**Matthias Zachert**

Chairman of the Managing Board  
LANXESS AG  
Leverkusen

# Members of the Parliamentary Advisory Board

## Members Pursuant to Section 26 of the Statutes

### **Dr. Marcus Optendrenk, MdL**

Chairman

Deputy Chairman of the  
CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Ralf Witzel, MdL**

Deputy Chairman

Deputy Chairman of the  
FDP Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Ralph Bombis, MdL**

Member of the FDP Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Marc Herter, MdL**

Parliamentary Managing Director of the  
SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Stefan Kämmerling, MdL**

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Nadja Lüders, MdL (since May 16, 2018)**

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Arne Moritz, MdL**

Member of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Mehrdad Mostofizadeh, MdL**

Deputy Chairman of the  
Bündnis 90/Die Grünen Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Elisabeth Müller-Witt, MdL**

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Dr. Patricia Peill, MdL**

Member of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Svenja Schulze, MdL (until May 16, 2018)**

Member of the SPD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
(until March 16, 2018)  
Düsseldorf

### **Herbert Strotebeck, MdL**

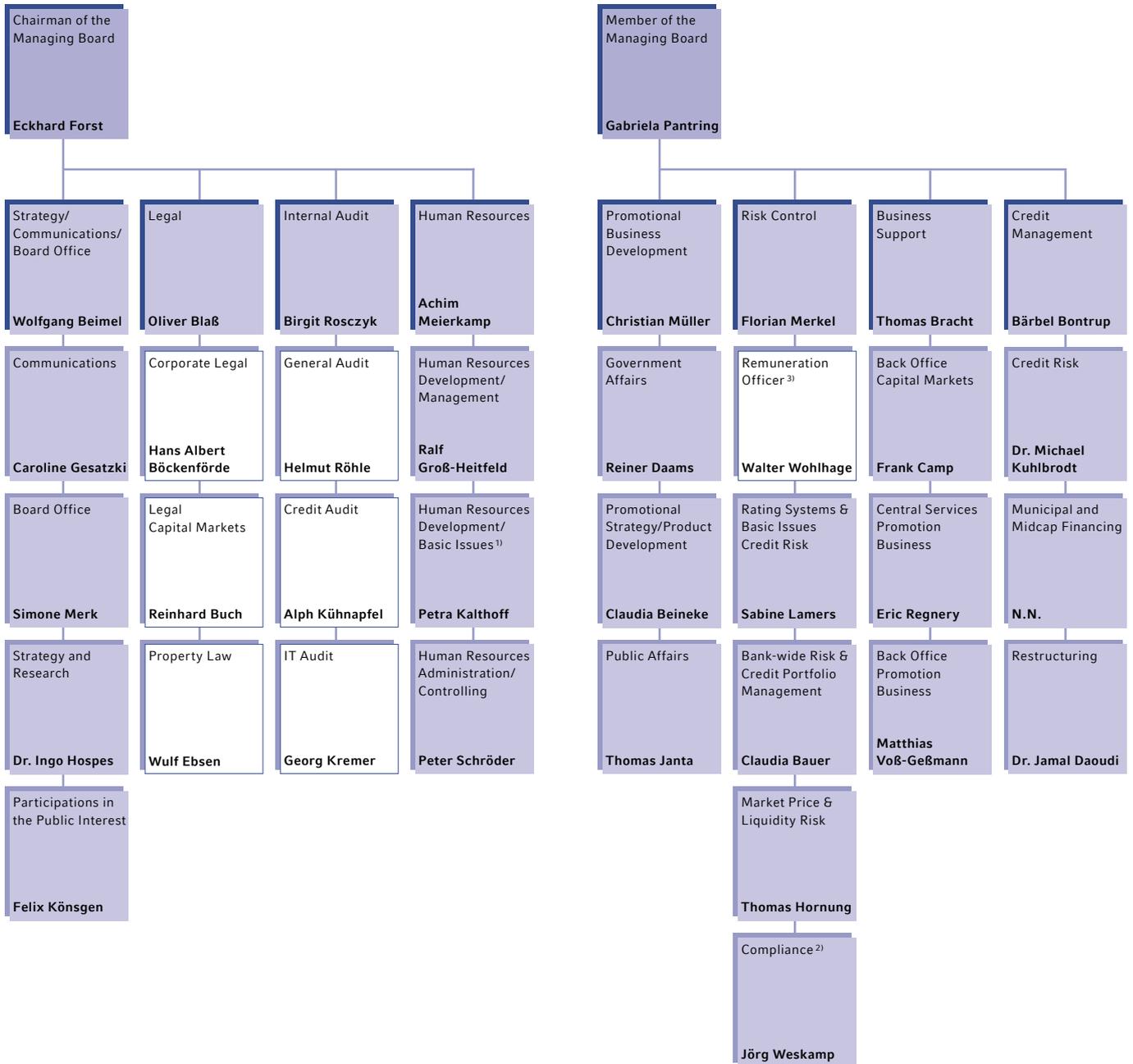
Member of the AfD Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf

### **Marco Voge, MdL**

Member of the CDU Parliamentary Group  
State Assembly of North Rhine-Westphalia  
Düsseldorf



# Organisation Chart



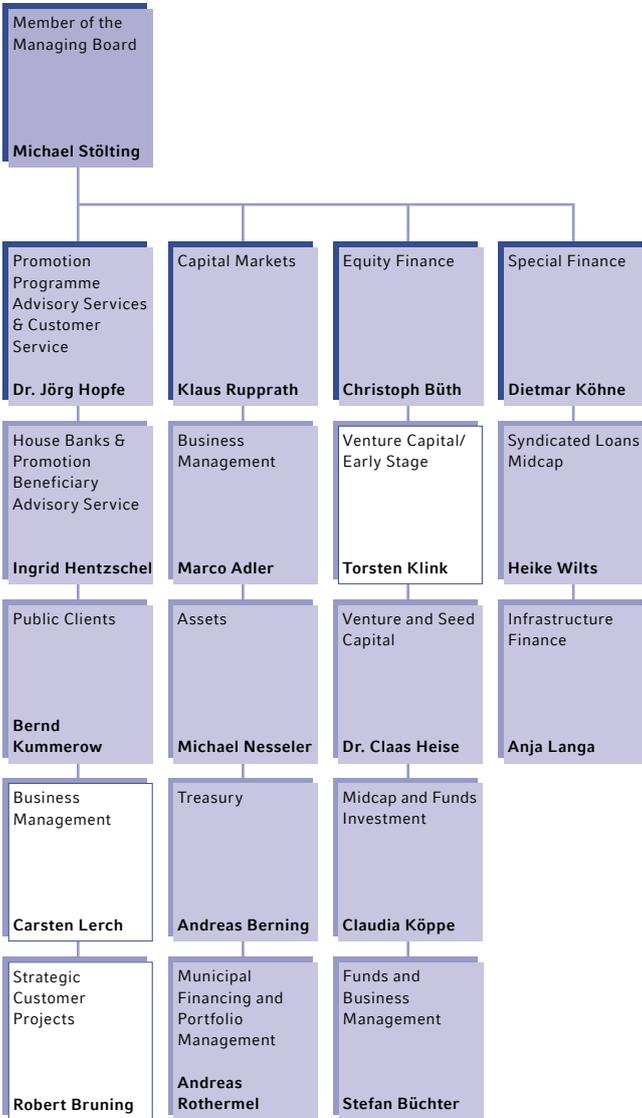
Business Unit
  Department
  Team with direct reporting line to the Business Unit Head

<sup>1)</sup> Occupational Safety Officer, Equal Opportunities Officer, Data Protection Officer and Chief Information Security Officer (CISO) report directly to the Managing Board.

<sup>2)</sup> The Money Laundering Officer, who is in charge of the central function for the prevention of money laundering, terrorist financing and other criminal acts pursuant to § 25h KWG, the WpHG Compliance Officer and the MaRisk Compliance Officer report directly to the Managing Board and are bound by instructions only from the latter.

<sup>3)</sup> The Remuneration Officer reports directly to the Supervisory Board and the Remuneration Control Committee.

Note: The Staff Council is not shown as an organisational unit in the organisational chart of NRW.BANK as it is an elected body which has no reporting relationship with the Managing Board.



# NRW.BANK at a Glance

## NRW.BANK Facts

**NRW.BANK** Competition-neutral promotional bank of North Rhine-Westphalia operating according to the house bank principle; holds a full bank licence

### Guarantor

- State of North Rhine-Westphalia (100%)

### Liabilities/Guarantees

- Institutional liability
- Guarantor liability
- Explicit refinancing guarantee granted by its guarantor

**Legal Status** Public law bank

**Head Offices** Düsseldorf and Münster

## Information Services of NRW.BANK

### Commercial Client Services

Initial advice and information on promotional products for:

Phone +49 211 91741-4800

Fax +49 211 91741-7832

info@nrwbank.de

Service hours: Mondays to Thursdays from 8 a.m. to 6 p.m. and Fridays from 8 a.m. to 5.30 p.m.

**For further advice, you may also contact:**

### Housing Sector Client Services

Phone +49 211 91741-4500

Fax +49 211 91741-7760

info@nrwbank.de

### Public Sector Client Support

Phone +49 211 91741-4600

Fax +49 211 91741-2666

oeffentliche-kunden@nrwbank.de

## NRW.BANK

### Düsseldorf

Kavalleriestraße 22  
40213 Düsseldorf  
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### Münster

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48145 Münster  
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**Concept and Design,  
Production and Typesetting**  
vE&K Werbeagentur GmbH & Co. KG,  
Essen

**Print**  
Woeste Druck + Verlag  
GmbH & Co. KG, Essen-Kettwig

## Financial Calendar 2019

March 19, 2019

Annual press conference

August 27, 2019

Publication of the promotional result for the second quarter

November 15, 2019

Publication of the promotional result for the third quarter

## Volume of new commitments

### Breakdown by promotional fields

	2018	2017
	€ millions	€ millions
Economy	3,592	3,667
Housing	2,215	2,609
Infrastructure/Municipalities	4,487	5,359
<b>Total</b>	<b>10,294</b>	<b>11,635</b>

## Key Figures

	2018	2017
	€ millions	€ millions
Total assets	149,083	147,584
Equity capital pursuant to the German Commercial Code (HGB)	17,984	17,983
Common Equity Tier 1 capital	18,409	18,424
Own funds	19,963	20,016
Operating income	445	614
Administrative expenses	249	219
Operating result	196	395
CET1 capital ratio	41.56%	41.34%
Total capital ratio	45.07%	44.91%
Number of employees	1,397	1,348

## Ratings

	Fitch Ratings	Moody's	Standard & Poor's
Long-term rating	AAA	Aa1	AA-
Short-term rating	F1+	P-1	A-1+
Outlook	stable	stable	positive

## Sustainability Ratings

	oekom research	imug	Sustainalytics	Vigeo	MSCI ESG	DZ BANK
Rating	Prime (C)	positive (B)	n. p.*	n. p.*	AA	Seal of approval for sustainability

\* not public

