Management report of Commerzbank Aktiengesellschaft

Structure and organisation

Commerzbank is one of Germany's leading banks for private and corporate clients and an internationally active commercial bank. Domestically, it has one of the densest branch networks of any private-sector bank in Germany, with approximately 1,000 branches, serving a total of around 18.8 million private and small-business customers and over 70,000 corporate clients including multinational groups, financial service providers and institutional clients worldwide.

As part of its strategy, Commerzbank is focusing its business activities on the two core segments Private and Small-Business Customers and Corporate Clients, offering them a comprehensive portfolio of banking and capital market services. The run-off segment Asset & Capital Recovery (ACR) comprises – besides the Public Finance business – all non-strategic activities of commercial real estate and ship finance. Each segment is managed by a member of the Board of Managing Directors.

All staff and management functions are contained in Group Management: Group Audit, Group Communications, Group Compliance, Group Finance, Group Human Resources, Group Investor Relations, Group Legal, Group Tax, Group Treasury, Big Data & Advanced Analytics and the central risk functions. The support functions are provided by Group Services. These include Group Digital Transformation & Strategy, Group Banking Operations, Group Markets Operations, Group Information Technology, Group Organisation & Security and Group Delivery Centre. The staff, management and support functions are combined in the Others and Consolidation division for reporting purposes.

On the domestic market, Commerzbank Aktiengesellschaft is headquartered in Frankfurt am Main, from where it manages a nationwide branch network through which all customer groups are served. Its major German subsidiaries are comdirect bank AG and Commerz Real AG. Outside of Germany, the Bank has 6 material subsidiaries, 20 operational foreign branches and 31 representative offices in just under 50 countries and is represented in all major financial centres, such as London, New York, Tokyo, Hong Kong and Singapore. However, the focus of the Bank's international activities is on Europe.

The financial year is the calendar year.

Corporate responsibility

Corporate responsibility is a guiding principle at Commerzbank. Ecological, social and ethical criteria play a central role in our corporate management. Through our core business we want to influence sustainable development, provide fair and competent advice to our customers, consistently shrink our environmental footprint, be an attracttive employer for our staff and show our commitment to society. Our corporate responsibility website https://www.sustainability.commerzbank.com provides an overview of the Commerzbank sustainability strategy and the objectives of its sustainability programme.

Our employees

Our employees make a key contribution to the success of the business. Thanks to their commitment and skills, we are well placed to hold our own against the competition and achieve our economic objectives over the longer term. Our goal is to constantly make Commerzbank a more attractive employer as a result of our HR activities. To do this we want to create an environment where staff are able to develop their abilities as best they can. At the same time, they should be able to manage a good work/life balance. Our corporate culture has a consistent understanding of leadership, values and principles of conduct. These provide guidance for our employees in treating each other and our customers and business partners fairly and professionally.

Owing to the integration of IT subsidiary Commerz Systems GmbH into Commerzbank Aktiengesellschaft there was a rise in the number of employees at Commerzbank Aktiengesellschaft as at 31 December 2018. The number of employees on the reporting date was 34,001, as compared to 33,850 at the end of 2017.

Commerzbank continues to drive forward digitalisation

Commerzbank drove its strategic Commerzbank 4.0 programme further forward in 2018, pursuing the objective of developing into a digital enterprise. HR assisted the business units in moving to the new target structure and continued to implement the job reductions planned by 2020 on schedule and in a way which is socially responsible. We set up a portal called "New Perspectives" so employees are well prepared for the Bank's change process. This gives staff an opportunity to learn about internal and external opportunities. They can explore their professional options and are given support preparing for a change of work.

Restructuring head office to improve the Bank's performance

Commerzbank started a fundamental restructuring of its Group head office in 2018 with Campus 2.0. This programme is the next stage in transforming the Bank into a digital enterprise. In future, every product and service will be developed and run by a clearly defined organisational unit known as a "cluster". The new cluster delivery organisation will be an integral part of the Bank. We are doing this to make the Bank more efficient and improve performance, so as to be faster and more flexible in the market and for customers. HR played a major part in Campus 2.0 in negotiating with the employee representatives and designing and implementing the staffing changes needed to restructure the Group head office.

Making employees fit for digital transformation

We want our employees and managers to be optimally prepared for the digital world. We will only be able to develop into a digital enterprise if the Bank succeeds in this transformation. Hence, we are offering measures across the Bank to help employees and managers extend what they know about digitalisation. We provide both in-class lectures and events and innovative online tutorials. In additional we teach our employees a great deal about agile working methods.

We are also breaking new ground in the way we bring on the next generation of managers. Last year we launched our international trainee programme in digital banking, attracting many graduates in STEM subjects to Commerzbank. During the year under review we again hired just under 20 graduates for the trainee programme. This will allow us to expand the skills required for our digital strategy.

Digitalisation is also being felt in HR. Last year we modernised a host of HR products and launched new digital products, including a new employee portal and a new study platform. Our aim is to further digitalise and simplify our HR products and processes.

Strong culture of integrity promotes the long-term growth of the Bank

Compliance and integrity are firmly integrated in our corporate culture. They protect our reputation, strengthen our brand and help us to achieve long-tern business success.

In 2018 we presented the "Culture of Integrity" award for the first time. This goes to employees who have demonstrated conduct that exemplifies integrity.

For years our ComValues have formed the basis of a binding corporate culture that unites us. Commerzbank revised the ComValues during the year under review and added the word "courage". We strongly believe that everyone has to have the courage to follow new paths and take responsibility for their own actions. This includes deliberately not doing some things and learning from mistakes.

Our updated code of conduct is based on our ComValues; this was introduced across the Group in stages following a revision last year. It provides us with orientation for acting correctly and morally impeccably in our daily work. At the same time, the Bank further expanded the process for managing consequences. This defines a consistent approach for handling breaches of legal regulations, regulatory requirements or internal guidelines.

Diversity management firmly embedded in the HR strategy

Commerzbank has a corporate culture of diversity and inclusiveness, and these form key elements of our HR work. We are clearly committed to a working environment that is free from prejudice and where the individuality and diversity of our employees, customers and business partners are not only accepted but desired. We are confident that we also profit from this as a bank. We want to continue strengthening understanding for this among our employees and managers in future.

As a signatory to the diversity charter we took part in numerous campaigns during the year, including German Diversity Day and the "#Flag for diversity" campaign. Our activities focused on including people with disabilities. In 2018, Commerzbank became the first bank in Germany to publish an action plan for inclusion based on the UN Convention on the Rights of Persons with Disabilities. It committed itself to implementing numerous measures by 2023 to improve the situation for people with disabilities in the Bank and in their business relationships. Commerzbank also supported the newly established employee network IDEAL, for people with disabilities.

Bank committed to work/life balance

We strongly believe that our employees are better motivated and perform better when they have a good work/life balance. We therefore have a range of offerings to support them in this respect at different stages of life. These include, for example, childcare arrangements, flexible working time models and part-time working options like "Keep in Touch". We also feel it is important to support employees who have to care for family members. Commerzbank has worked for many years with professional partners who advise employees and arrange services.

We won several prizes and awards this year for taking account of family issues and the different stages of life in our HR policy. The Bank's range of events and various staff networks also give employees the opportunity to learn and swap experiences within and outside the Bank.

The Bank remains committed to encouraging female managers

In 2018, Commerzbank signed the United Nations Women's Empowerment Principles. In doing so the Bank committed itself to promoting gender equality and strengthening the position of women in the company.

Encouraging female managers remains an important objective for Commerzbank. The Bank was able to employ more women in management positions (30.8%) in the year under review than in 2017. This moves the Bank closer to its target of having 35% of management positions held by women by the end of 2021. To achieve this, the Bank took various measures during the year. Whenever a management position has to be filled, discussions will always be held with both male and female candidates before a decision is taken on the appointment. Qualifications and skills remain the key considerations when filling positions.

Extensive offerings for promoting employee health

Commerzbank goes well beyond the legal requirements when it comes to promoting employee health. We firmly believe that healthy living and working has a positive impact on motivation and performance. Health objectives have therefore been an integral part of our HR policy for many years. Our health offering is wide-ranging and aims to better equip employees and managers to deal with the health challenges that arise from the digital restructuring of the world of work.

We also offer our staff training opportunities and health-related activities to encourage healthy behaviour in their daily working lives. Commerzbank again took part in the Global Challenge "step" competition; some 1,600 employees walked a total of over 1.5 million kilometres. Around 160 company sports groups are available to staff at Commerzbank across the country, offering more than 50 different types of sport.

In addition to physical health, Commerzbank's holistic and integrated approach to company health management means it also takes employees' mental health very seriously. The Employee Assistance Programme provides our staff with skilled advice in difficult personal and professional situations.

Attractive company benefits for employees

Along with remuneration, Commerzbank offers its employees other attractive benefits as a further means of creating a good working environment, showing recognition and positioning ourselves as an attractive employer. Commerzbank supplements the statutory pension with a company pension. In 2018, we also enhanced our tax-privileged direct insurance and pension fund deferred compensation models in line with the new German Company Pension Act (Betriebsrentenstärkungsgesetz or BetrAVG). As in previous years, our employees were also able to use numerous extras such as leasing Bank cars and bikes. Around 6,500 employees made use of these offers. The Bank is also encouraging electromobility and for the second time offered employees the chance to try an electric car on a leasing basis. Once again, our employees were also able to lease high-end IT devices for private use. Some 7,000 employees made use of this offer, with around 18,000 devices being ordered.

Remuneration

As a result of the increased significance arising from greater regulation, remuneration of all employees below the level of the Board of Managing Directors is disclosed in a separate report (remuneration report pursuant to Art. 16 of the Remuneration Ordinance for Institutions (Institutsvergütungsverordnung)). This is published annually on the Commerzbank website at www.commerzbank.com.

Remuneration report

This report follows the recommendations of the German Corporate Governance Code and complies with the requirements of the German Commercial Code (HGB).

Board of Managing Directors

Remuneration system for the Board of Managing Directors
The Supervisory Board ratified the remuneration system for the members of the Board of Managing Directors in December 2014; it has been in force since 1 January 2015. It had become necessary to introduce a new system to bring the remuneration of the Board of Managing Directors into line with new and/or amended rules under the Capital Requirements Directive IV, the German Banking Act and the Remuneration Ordinance for Institutions. The system also needed to be simplified, so as to improve its transparency and its clarity in respect of success measurement. However, the components of the old system that had not been paid out in full by 1 January 2015 continue to be governed exclusively by the rules of that system, which is described in the remuneration report for 2014. This now only concerns the share component from the long-term remuneration components (LTI components) for the 2014 financial year, which will be paid out in April 2019. On 7 November 2018, the Supervisory Board made the decision to amend the remuneration system to bring it into line with the revised version of the Remuneration Ordinance for Institutions of 4 August 2017. It also decided to convert some of the variable remuneration components into fixed remuneration components. The changes entered into force on 1 January 2019 and have been contractually agreed with all members of the Board of Managing Directors. An overview of the main changes can be found at the end of this section. The following describes the remuneration system as applied in the 2018 financial year.

Core elements of the remuneration system The core elements of the remuneration system are a fixed basic annual salary plus variable remuneration with a uniform target amount. The appropriateness of the fixed basic annual salary and the variable remuneration is checked regularly at two-year intervals. The 2015 Annual General Meeting approved the remuneration system and an upper limit for variable remuneration of 140% of fixed remuneration.

Fixed remuneration components The fixed remuneration components include the basic annual salary and non-monetary elements. The basic annual salary is €750 thousand for ordinary members of the Board of Managing Directors. The Chairman of the Board of Managing Directors receives 1.75 times this amount, i.e. €1,312,500. This is payable in 12 equal monthly instalments. The non-monetary elements mainly consist of the use of a company car with driver, security measures and insurance contributions (accident insurance), and the applicable tax thereon. Board members are also entitled to company pension arrangements, which are set down in pension agreements and described in a separate section below.

Performance-related remuneration components (variable remuneration) The remuneration system provides for a variable remuneration component linked to the achievement of targets set at the start of each financial year. The variable remuneration is calculated based on the (i) economic value added (EVA) target achievement by the Commerzbank Group, (ii) target achievement by the department (segment and/or shared functions) for which the member of the Board of Managing Directors in question is responsible, and (iii) achievement of individual performance targets. Target achievement for the Group and the department and individual performance can each be between 0% and 200%; however, the overall level of target achievement from these three components is limited to 150%. Multiplying the overall level of target achievement by the target amount for variable remuneration purposes gives the total amount of variable remuneration based on target achievement. Thus, the total amount of variable remuneration based on target achievement is capped at a maximum of 150% of the Board member's target variable remuneration.

› **Target amount** The target amount of variable remuneration is €1,000,000 for the ordinary members of the Board of Managing Directors and €1,628,640 for the Chairman, based on target achievement of 100%. The Supervisory Board may reduce the target amount if this is necessary to comply with the maximum ratio of fixed to variable remuneration. This can happen if non-monetary benefits or the service cost for the company pension arrangements for members of the Board of Managing Directors are reduced, as these are both included in the fixed remuneration.

› **Target setting** Before the beginning of each financial year, the Supervisory Board sets targets for the members of the Board of Managing Directors:

- **Company targets** The Supervisory Board sets targets based on economic value added (EVA) or another measures that it may choose for the Group and for the departments for which the member of the Board of Managing Directors in question is responsible and determines the respective target attainment percentages on this basis.

In 2018, the Supervisory Board formulated the Group target for all of the members of the Board of Managing Directors as a performance curve on the basis of EVA values. Further targets set by the Supervisory Board included corresponding performance curves for the Private and Small-Business Customers and Corporate Clients segments. The performance curves are based on the expected return of the Group or segments and not on one-year targets or sales targets. In addition to the quantitative targets, the Supervisory Board also set qualitative targets specific to the departments for which the respective members of the Board of Managing Directors are responsible. The qualitative targets pertain in particular to aspects of implementing the Commerzbank 4.0 strategy, such as promoting cultural willingness to change and implementing the new advisory models in the customer segments of the Bank. Furthermore, the Supervisory Board set targets for attaining the intended earnings growth and cost reductions, such as increasing new business volumes in the Private and Small-Business Customers segment and increasing market share in the Corporate Client business, and targets for digitalisation and automation. The Supervisory Board also set specific compliance and risk targets.

- **Individual targets** The Supervisory Board also sets individual performance targets for the members of the Board of Managing Directors.

  For 2018, for example, these included achieving the digital change targets, promoting the Group's ability to innovate and achieving maximum performance from the Bank's digital campus. Other targets included promoting, developing and motivating managers and employees, sustainable implementation of appropriate compliance and ensuring a high standard of risk management. Lastly, the Supervisory Board defined employee and customer satisfaction and perception of the Bank as a digital enterprise as individual targets.

› **Target achievement** Following the end of each financial year, the Supervisory Board decides on the extent to which the targets were achieved. The measurement of target achievement for company targets is based 70% on the Group's business success and 30% on the results and target achievement of the departments for which the Board member in question is responsible. Target achievement is measured over a three-year period, with achievement of the company targets for the financial year in question being given a weighting of 3/6, the previous year 2/6 and the year before that 1/6.

A transitional arrangement applies to the first two years for newly appointed members of the Board of Managing Directors. The results of the three-year achievement of the company targets are then multiplied by a factor of between 0.7 and 1.3, which is dependent on the Board member's achievement of the individual targets. 0.7 corresponds to individual target achievement of 0% (minimum), 1.0 to individual target achievement of 100% and 1.3 to individual target achievement of 200% (maximum). For intermediate figures, the Supervisory Board defines the factors in increments when setting the targets. Individual target achievement in 2018 lay in a range between 100% and 130%, resulting in corresponding factors of between 1.0 and 1.2.

Variable remuneration will only be applied if the Group achieves a profit before taxes and before adjusting for non-controlling interests according to IFRS.

The Supervisory Board may resolve to reduce or cancel the variable remuneration if necessary, for example to take account of the Bank's risk-bearing capacity or ability to ensure that it can maintain or rebuild sufficient capital or liquidity resources over the long term or to safeguard its ability to meet the capital buffer requirements of the German Banking Act. If predefined levels are not met, the Supervisory Board must cancel the variable remuneration. The Supervisory Board must also cancel the variable remuneration of a member of the Board of Managing Directors if said member has committed a serious breach of duty during the financial year in question prior to the determination of target achievement.

For 2018, the Supervisory Board reduced the respective arithmetic levels of overall target achievement, and hence the variable remuneration, of the members of the Board of Managing Directors, applying an adjustment clause under the rules of the remuneration system applicable to the Board of Managing Directors. Instead of the respective arithmetic levels of overall target achievement, the Supervisory Board decided – in line with the request of the members of the Board of Managing Directors – to adjust the figure to the respective allocation ratios for variable employee remuneration in the different departments. The result was a reduction in the arithmetic level of overall target achievement to figures between 24% and 30%.

› **Short-Term Incentive (STI)** 40% of the variable remuneration takes the form of a Short-Term Incentive. Entitlement to the STI arises upon determination by the Supervisory Board of the total amount of variable remuneration based on target achievement and notification to the member of the Board of Managing Directors in question. Half of this remuneration component is payable in cash; the other half is payable after a 12-month waiting period, also in cash but based on share price performance. The share-based half is linked to the performance of the Commerzbank share since the end of the financial year in respect of which the STI was awarded.

› **Long-Term Incentive (LTI)** The remaining 60% of the variable remuneration takes the form of a Long-Term Incentive. Entitlement to the LTI arises only after a five-year retention period and is subject to a retrospective performance evaluation. The retrospective performance evaluation can result in the LTI being reduced or cancelled completely. This mainly applies when facts subsequently emerge which reveal that the original calculation of target achievement was incorrect, or the Bank's capital adequacy has significantly deteriorated due to circumstances related to that financial year. This would also apply if there had been a significant failure in risk management in that financial year at Group level or in a department for which the Board member is responsible, or if the Bank's financial position at the time of the retrospective performance evaluation or at the end of the ensuing waiting period precluded payment. Half of the LTI element resulting from the retrospective performance evaluation is payable in cash and half after a further 12-month waiting period, also in cash but share-based. As with the share-based part of the STI, the share-based half of LTI is linked to the performance of the Commerzbank share since the end of the financial year in respect of which the LTI was awarded. The share-based half of the LTI therefore reflects the performance of the Commerzbank share during the five-year retention period and the subsequent waiting period.

Remuneration for serving on the boards of affiliated companies The remuneration accruing to an individual member of the Board of Managing Directors from serving on the boards of affiliated companies counts towards the total remuneration paid to the Board member in question.

Pension provision

Rules for members of the Board of Managing Directors in office in 2011 The company pension scheme adopted in 2011 by the Supervisory Board for members of the Board of Managing Directors contains a defined contribution benefit for members of the Board of Managing Directors in office at the time.

Each member of the Board of Managing Directors receives a credit of a pension module to their pension account every year until the end of their term in office. The pension module for a calendar year is calculated by converting the relevant annual contribution into an entitlement to a retirement, disability and surviving dependants' pension. The pension account represents the pension entitlement the Board member has accrued for an annual retirement pension. Since 2015, increases in the fixed annual salary only increase the pension module if so resolved by the Supervisory Board.

Company pension entitlements acquired under the old company pension scheme for members of the Board of Managing Directors before the transition to the new system have been transferred to this new system as an initial module. The initial module is adjusted in accordance with the pension agreement, as the old system provided for a benefit based on final salary.

Members of the Board of Managing Directors receive a retirement benefit in the form of a life-long pension, subject to the following conditions, provided their employment has ended:

- an old-age pension if the Board member has reached age 65;
- an early retirement pension if (i) the Board member has reached age 62 but not age 65 or (ii) the Board member has served at least 10 years on the Board of Managing Directors and has reached age 58, or (iii) the Board member has served at least 15 years on the Board of Managing Directors; or
- a disability pension if the Board member is permanently unable to work.

If a member of the Board of Managing Directors leaves the Bank before the pension benefits become due, any entitlement to vested benefits that they have already accrued is retained.

The monthly amount of the retirement pension is calculated as a twelfth of the amount in the pension account when the pension benefits start.

When calculating the early retirement pension, the pension will be reduced to reflect the fact that the payments start earlier.

If pension is paid due to disability before the age of 55, a supplement is added to the monthly disability pension.

If retiring upon reaching the age of 62, members of the Board of Managing Directors can elect to receive one lump-sum payment or nine annual instalments instead of an ongoing pension. The amount paid out is calculated using a capitalisation rate based on the age of the Board member.

Members of the Board of Managing Directors who leave the Board at age 62 or older or are permanently unable to work will continue to receive their pro-rata basic salary for six months as a form of transitional pay instead of the pension. The transitional pay can be reduced, especially in the event of misconduct. If a member of the Board of Managing Directors draws an early retirement pension and has not yet reached age 62, income earned from other activities will be deducted from the pension entitlement at a rate of 50% until age 62 is reached.

The surviving dependants' pension for a surviving spouse or partner is 66 2/3% of the Board member's pension entitlements. If no surviving dependant's pension is paid to a surviving spouse or partner, minors or children still in full-time education are entitled to an orphan's pension of 25% each of the Board member's pension entitlement, the total of the orphan's pensions being limited, however, to a maximum of the pension that would otherwise have been paid to a surviving spouse or partner.

Rules for Board members appointed after the new provisions in place Pension provision for members of the Board of Managing Directors appointed after the new provisions came into effect was defined according to the Commerzbank capital plan for company pension benefits. Members of the Board of Managing Directors receive a retirement benefit in the form of a capital payment, subject to the following conditions, provided their employment has ended:

- they have reached age 65 (retirement capital) or
- they have reached age 62 but not yet age 65 (early retirement capital) or
- they are permanently unable to work before they reach age 62.

If a member of the Board of Managing Directors leaves the Bank before the pension benefits become due, any entitlement to vested benefits that the Board member has already accrued is retained.

For each calendar year during the employment relationship until pension benefits start to be paid out, each member of the Board of Managing Directors joining after the new rules came into effect is credited an annual module equating to 40% of the fixed basic annual salary (annual contribution), multiplied by an age-dependent conversion factor. Under this system, too, increases in the fixed annual salary since 2015 only increase the annual module if so resolved by the Supervisory Board. The annual modules are managed in a pension account until the member of the Board of Managing Directors in question no longer serves on the Board. Upon reaching age 61, a premium of 2.5% of the amount in the Board member's pension account at the end of the previous year is additionally credited to the member's pension account until the pension benefits start to be paid out.

The annual contribution is invested in investment funds and placed in a virtual custody account.

The retirement capital (or early retirement capital, as the case may be) corresponds to the amount in the virtual custody account or the amount in the pension account, whichever is higher when the pension benefits become payable. Under these rules, the amount in the pension account represents the minimum capital sum payable, insofar as the amount in the virtual custody account is lower. As an alternative to a lump-sum payment, the member of the Board member in question may elect to receive a life-long pension.

For the first two months after pension benefits become due, the Board member in question will receive transitional pay of one-twelfth of their fixed basic annual salary per month. The transitional pay may be reduced, especially in the event of misconduct.

If a member of the Board of Managing Directors dies before the pension benefits become due, his/her dependants are entitled to receive dependants' capital, which is the amount in the virtual custody account on the value date or the amount in the pension account plus any applicable supplement, whichever is higher. A supplement is payable if, at the time pension benefits become due because of inability to work or death, the Board member had served at least five consecutive years on the Bank's Board of Managing Directors and had not yet reached age 55. If a Board member selected the option of drawing a retirement pension, in the event of that Board member's death, as a prospective pension recipient, the surviving spouse or partner will receive a surviving dependant's pension calculated on the basis of the retirement capital applying actuarial rules. If the Board member in question was already drawing a pension, a surviving spouse or partner will receive a surviving dependant's pension of 60% of the amount of the pension last paid to the deceased Board member.

The table below shows the annual pension entitlements on 31 December 2018 at a pensionable age of 62 for active members of the Board of Managing Directors, the corresponding actuarial net present values on 31 December 2018, the interest-rate-adjusted changes to the settlement amounts for 2018, and the comparable amounts for the previous year:

€1,000		Pension entitlements projected annual pension at pensionable age of 62 As at 31.12.	Net present values of pension entitlements As at 31.12.	Interest rate-adjusted changes in the settlement amount[1]
Martin Zielke	2018	276	5,455[2]	665
	2017	237	4,172	676
Frank Annuscheit	2018	244	4,712[2]	339
	2017	224	3,827	326
Dr. Marcus Chromik	2018	62[3]	911	312
	2017	43[3]	616	301
Stephan Engels	2018	119[3]	2,159	309
	2017	109[3]	1,840	303
Michael Mandel	2018	48[3]	793	309
	2017	32[3]	493	310
Dr. Bettina Orlopp[4]	2018	23[3]	360	309
	2017	3[3]	52	52
Michael Reuther	2018	279	6,003[2]	428
	2017	258	4,976	379
Total	**2018**		**20,393**	**2,671**
	2017		**15,976**	**2,347**

[1] The impact of the new Heubeck mortality tables varied because, in addition to life expectancy, disability risk is an important parameter, and this has a differing effect depending on age.
[2] For Martin Zielke, Frank Annuscheit and Michael Reuther, the fall in the discount rate from 3.68% to 3.21% has a greater impact on the respective net present values of the pension entitlements accrued because they come under the old pension scheme.
[3] Capital payment annualised.
[4] Dr. Bettina Orlopp has been a member of the Board of Managing Directors since 1 November 2017.

The assets backing these pension obligations have been transferred under a contractual trust arrangement to Commerzbank Pension-Trust e.V.

As at 31 December 2018, pension obligations for current members of the Commerzbank Aktiengesellschaft Board of Managing Directors in financial year 2018 totalled €20.4m (previous year: €16.0m).

Rules applying to the termination of office

If the term of office of a member of the Board of Managing Directors is effectively terminated, the following applies:

If the term of office of a member of the Board of Managing Directors ends prematurely, the employment contract normally expires six months later (linking clause). In this case, the Board member continues to receive the basic annual salary and variable remuneration – subject to Art. 615 sentence 2 of the German Civil Code (crediting of remuneration otherwise acquired) – beyond the end of employment until the end of the original term of office. From the time the term of office is ended, target achievement is the average target achievement of the other members of the Board of Managing Directors for the year in question. The variable remuneration otherwise remains subject to the rules of the remuneration system, including retrospective performance evaluation.

If, in the case of premature termination of the term of office, the employment contract ends for reasons other than the linking clause described above, the fixed basic annual salary will continue to be paid – pro rata temporis where applicable – until the end of the employment contract. The variable remuneration communicated for financial years prior to the termination of the employment contract remains unaffected. The variable remuneration for the year in which the term of office ends is reduced pro rata temporis where applicable. In this case, too, the variable remuneration remains subject to the rules of the remuneration system, including retrospective performance evaluation.

If the employment contract is not extended upon expiry of the respective term of office, without there being good cause within the meaning of Art. 626 of the German Civil Code, or if the employment contract ends as a result of a linking clause as described above, the Board member will continue to receive his or her basic annual salary for a maximum period of six months beyond the end of the original term of office. This payment ceases as soon as the Board member starts receiving pension payments.

In all these cases, the specified payments for the time after the effective termination of the term of office may not exceed two years' annual remuneration (cap)[1].

If upon termination of a term of office or non-extension of an appointment, the conditions apply for extraordinary termination of the employment contract pursuant to Art. 626 of the German Civil Code, the Board member in question will receive no variable remuneration for the calendar year in which their term of office ends. The same applies where a member of the Board of Managing Directors resigns without good cause attributable to the Bank.

[1] The cap is twice the basic annual salary including fringe benefits (in particular, the use of a company car with driver, security measures, insurance premiums for accident insurance and the applicable tax thereon) plus the average variable compensation granted for the three financial years previous to termination of the term of office.

In both these cases, the same applies to the fixed basic annual salary from the end of the month in which the term of office ends. If the term of office is terminated because of a serious breach of duty, the variable remuneration for the year in which the term of office ended and variable remuneration not yet paid out in respect of previous years shall not be payable.

Termination agreement with a member of the Board of Managing Directors

Commerzbank Aktiengesellschaft concluded a termination agreement with Frank Annuscheit on 5 December 2018, under which Mr. Annuscheit's term of office as a member of the Board of Managing Directors ended at the close of 28 February 2019. Mr. Annuscheit is entitled to all contractual claims for the period up to the end of the original term of office on 31 December 2020 (original termination date). In particular, he is entitled to the contractual remuneration claims limited by the cap described above. The cap is not calculated on the basis of the increased fixed basic annual salary as of 1 January 2019, but on the basis of the previous fixed basic annual salary of €750 thousand. Mr. Annuscheit will continue to receive contributions to the company pension scheme under his pension agreement until the original termination date. The contributions will likewise be calculated on the basis of the fixed basic annual salary of €750 thousand. Mr. Annuscheit is entitled to fringe benefits in accordance with the employment contract, insofar as the contract stipulates them as also being applicable to the period following the end of the term of office. The value of the fringe benefits will be deducted from the cap. The cap is €2,888 thousand.

Other

No members of the Board of Managing Directors received payments or promises of payment from third parties in the year under review in respect of their work as a member of the Board of Managing Directors.

Details of remuneration of the Board of Managing Directors in accordance with the German Corporate Governance Code

Under 4.2.5 the German Corporate Governance Code in the version dated 7 February 2017, the remuneration awarded for the year under review and the allocation (actual payouts) for the year under review are to be reported for each member of the Board of Managing Directors. This is to be broken down into fixed remuneration, company fringe benefits and one-year and multi-year variable remuneration.

As the model tables recommended by the German Corporate Governance Code do not take account of the specificities of the Remuneration Ordinance for Institutions, and hence are less suitable for institutions such as Commerzbank, the Bank has designed its own tables, which provide transparent and comprehensible information on its remuneration system for members of the Board of Managing Directors. Commerzbank has decided not to include the Code's model tables alongside the tables it designed itself, because this would undermine the clarity and comprehensibility of the remuneration report. Commerzbank also stated this in its declaration of compliance pursuant to Art. 161 of the Stock Corporation Act. As in the previous year, the remuneration awards table and the allocation table below do not distinguish between one-year and multi-year variable remuneration, but instead between short-term and long-term remuneration. This is because the total variable remuneration regularly includes the achievement of company targets over a period of three years. The only exceptions to this stem from a transitional arrangement for newly appointed members of the Board of Managing Directors in the first and second years of their appointment.

Variable short-term remuneration is the Short-Term Incentive under the remuneration system. This is paid out half in cash after the end of the financial year and half in the form of shares after a 12-month waiting period, i.e. in the short term. Entitlement to the long-term portion, the Long-Term Incentive, arises only after a five-year retention period and is subject to a retrospective performance evaluation. The pension expense for pension provision for the individual members of the Board of Managing Directors is shown in the above table in the "Interest rate-adjusted changes to settlement amounts" column. Pension expense is therefore not shown again in either the remuneration allocations or the remuneration awards table.

The following tables show the actual allocations in 2018 with the figures from the previous year for comparison for each individual member of the Board of Managing Directors. The allocation "for" the year means that the STI 2018 paid in cash for 2018 and for which all inputs are available at the end of the year is shown as an allocation for 2018 even though the actual payout is not made until 2019. Hence, the STI 2017 paid out in cash in 2018 is shown as an allocation for 2017.

Allocation €1,000	Martin Zielke Chairman		Frank Annuscheit Chief Operating Officer	
	2018	**2017**	**2018**	**2017**
Basic salary	1,313	1,313	750	750
Fringe benefits[1]	213	129	134	92
Sub-total	**1,526**	**1,442**	**884**	**842**
Short-term variable remuneration	**416**	**415**	**270**	**273**
STI 2015 in virtual shares (up to Q1/2017)	–	128	–	115
STI 2016 in virtual shares (up to Q1/2018)	328	–	216	–
STI 2017 in cash	–	287	–	158
STI 2018 in cash	88	–	54	–
Long-term variable remuneration[2]	**100**	**178**	**95**	**182**
LTI 2014 in cash (up to 31.12.2017)	–	178	–	182
LTI 2013 in virtual shares (up to Q1/2018)	100	–	95	–
Total	**2,042**	**2,035**	**1,249**	**1,297**

Allocation €1,000	Dr. Marcus Chromik Chief Risk Officer (since 1 January 2016)		Stephan Engels Chief Financial Officer	
	2018	**2017**	**2018**	**2017**
Basic salary	750	750	750	750
Fringe benefits[1]	68	71	129	122
Sub-total	**818**	**821**	**879**	**872**
Short-term variable remuneration	**260**	**186**	**273**	**285**
STI 2015 in virtual shares (up to Q1/2017)	–	–	–	115
STI 2016 in virtual shares (up to Q1/2018)	206	–	219	–
STI 2017 in cash	–	186	–	170
STI 2018 in cash	54	–	54	–
Long-term variable remuneration[2]	**–**	**–**	**87**	**169**
LTI 2014 in cash (up to 31.12.2017)	–	–	–	169
LTI 2013 in virtual shares (up to Q1/2018)	–	–	87	–
Total	**1,078**	**1,007**	**1,239**	**1,326**

Allocation €1,000	Michael Mandel Private and Small-Business Customers (since 23 May 2016)		Dr. Bettina Orlopp Group Compliance, Group Human Resources, Group Legal (since 1 November 2017)		Michael Reuther Corporate Clients	
	2018	2017	2018	2017	2018	2017
Basic salary	750	750	750	125	750	750
Fringe benefits[1]	114	102	92	20	141	130
Sub-total	**864**	**852**	**842**	**145**	**891**	**880**
Short-term variable remuneration	**193**	**170**	**54**	**30**	**226**	**251**
STI 2015 in virtual shares (up to Q1/2017)	–	–	–	–	–	123
STI 2016 in virtual shares (up to Q1/2018)	133	–	–	–	178	–
STI 2017 in cash	–	170	–	30	–	128
STI 2018 in cash	60	–	54	–	48	–
Long-term variable remuneration[2]	**–**	**–**	**–**	**–**	**95**	**174**
LTI 2014 in cash (up to 31.12.2017)	–	–	–	–	–	174
LTI 2013 in virtual shares (up to Q1/2018)	–	–	–	–	95	–
Total	**1,057**	**1,022**	**896**	**175**	**1,212**	**1,305**

[1] Non-monetary remuneration awarded, tax due on non-monetary remuneration and employer contributions to the BVV occupational retirement fund are shown under fringe benefits.
[2] Allocations from long-term variable remuneration for the performance years from 2015 onwards will only be made from 2021.

The following table shows the remuneration awarded, which comprises fixed remuneration (basic salary and fringe benefits) and variable remuneration at the target amount set, the short-term and long-term portions of variable remuneration and the minimum and maximum amounts of total variable remuneration for each individual member of the Board of Managing Directors.

Unlike the model table of the German Corporate Governance Code for remuneration awarded, the variable remuneration allocated is not shown as the target amount, i.e. the amount if target achievement is 100% or a comparable figure for an average probability scenario. Instead, the total target achievement amounts determined by the Supervisory Board are shown for each member of the Board of Managing Directors. The table reflects the actual target achievement of the members of the Board of Managing Directors and is therefore of greater informational value in respect of the variable remuneration for the past financial year than a hypothetical value that assumes target achievement of 100%.

Of the total target achievement amount and the minimum and maximum values shown, 40% relate to short-term variable remuneration (STI). Of the total target achievement amount and the minimum and maximum values shown, 60% relates to long-term variable remuneration (LTI). In both cases, half of the remuneration is share-based.

At its meeting on 13 February 2019, the Supervisory Board set the total target achievement amounts for variable remuneration of the individual members of the Board of Managing Directors for 2018. The total target achievement amount is not necessarily the same as the amount that may later actually be paid out. For instance, the Supervisory Board may reduce the portion relating to the LTI during the retrospective performance evaluation if hindsight indicates that this was not originally calibrated correctly. Also, half of the variable remuneration is share-based. Any changes in the Commerzbank share price compared to the conversion price therefore result in changes in the amounts paid out.

Awarded remuneration		Fixed remuneration		Variable remuneration							Total remuneration allocated[1]
€1,000		Basic salary	Fringe benefits[2]	Short-term		Long-term		Total target achievement amount			
				STI in cash	STI in virtual shares	LTI in cash	LTI in virtual shares		min	max[3]	
Martin Zielke	2018	1,313	213	88	88	132	132	440	0	2,443	**1,966**
	2017	1,313	129	287	287	430	430	1,433	0	2,443	**2,875**
Frank Annuscheit	2018	750	134	54	54	81	81	270	0	1,500	**1,154**
	2017	750	92	158	158	237	237	790	0	1,500	**1,632**
Dr. Marcus Chromik	2018	750	68	54	54	81	81	270	0	1,500	**1,088**
	2017	750	71	186	186	279	279	930	0	1,500	**1,751**
Stephan Engels	2018	750	129	54	54	81	81	270	0	1,500	**1,149**
	2017	750	122	170	170	255	255	850	0	1,500	**1,722**
Michael Mandel	2018	750	114	60	60	90	90	300	0	1,500	**1,164**
	2017	750	102	170	170	255	255	850	0	1,500	**1,702**
Dr. Bettina Orlopp	2018	750	92	54	54	81	81	270	0	1,500	**1,112**
	2017[4]	125	20	30	30	44	44	148	0	250	**293**
Michael Reuther	2018	750	141	48	48	72	72	240	0	1,500	**1,131**
	2017	750	130	128	128	192	192	640	0	1,500	**1,520**
Total	**2018**	**5,813**	**891**	**412**	**412**	**618**	**618**	**2,060**	**0**	**11,443**	**8,764**
	2017	**5,188**	**666**	**1,129**	**1,129**	**1,692**	**1,692**	**5,641**	**0**	**10,193**	**11,495**

[1] Total remuneration does not include pension expense. This is shown in the section on pension provision.
[2] Non-monetary remuneration awarded, tax due on non-monetary remuneration and employer contributions to the BVV occupational retirement fund are shown under fringe benefits.
[3] Maximum amount in the relevant year, i.e. excluding any rise in the share price for share-based remuneration.
[4] Dr. Bettina Orlopp has been a member of the Board of Managing Directors since 1 November 2017.

Details of remuneration of the Board of Managing Directors pursuant to German Accounting Standard no. 17 (DRS 17)

The remuneration of the Board of Managing Directors is shown below in accordance with the rules of DRS 17. The amounts shown differ from those reported above based on the German Corporate Governance Code. This is because reporting under DRS 17 involves special rules. The main differences that lead to different figures are:

- Under DRS 17, the LTI components of the remuneration system may only be stated after the retrospective performance assessment has been completed and the five-year retention period has expired. They are therefore not included in the DRS 17 table, in contrast to the remuneration awards table, which is based on the rules of the German Corporate Governance Code.
- The value of the share-based STI components has to be shown in the DRS 17 table using the share price on the day the Supervisory Board determined the total target achievement amounts. Therefore, the performance of the Commerzbank share from the start of the year to the day the amount was determined is included in the value shown. In contrast, in the remuneration awards table, which is based on the German Corporate Governance Code, this component is shown at 20% of the total target achievement amount. This is the value before conversion into a quantity of virtual shares and, thus, it does not include share price performance; therefore, the figure is generally different.

Consequently, total remuneration under DRS 17 cannot be compared with the remuneration awarded shown in the table based on the German Corporate Governance Code. The disclosure does not reflect variable remuneration set by the Supervisory Board for the year under review, nor is it an amount paid out. The disclosure is, however, required for accounting reasons.

Under DRS 17, payments only have to be disclosed if they have been granted on a legally binding basis. For both the cash components and the share-based components of the LTI under the remuneration system this is only the case once the retrospective performance evaluation has been carried out and the five-year retention period has expired. The retrospective performance evaluation for the LTI in respect of 2018 will thus not be carried out by the Supervisory Board until the end of 2023. The cash components and share-based components of the LTI under the remuneration system are therefore not included in the table.

However, for the purposes of DRS 17, the STI components are deemed to be granted when they are determined by the Supervisory Board following the end of the financial year in question. The cash component of the STI is shown at 20% of the total target achievement amount. This corresponds to the payout sum. The share-based STI component is linked to the performance of the Commerzbank share. Under DRS 17, share-based payments have to be disclosed at the time the grant becomes legally binding, i.e. when they are determined by the Supervisory Board. As payout of the share-based STI components only takes place after the 12-month waiting period has expired and is dependent on the performance of the Commerzbank share, the table shows only theoretical values for these components, not the sums to be paid out. The payout sums are calculated by multiplying the number of STI virtual shares shown by the conversion price at the end of the waiting period.

Under the remuneration system, no actual shares are awarded; instead, a cash payment is made on the basis of virtual shares, i.e. based on Commerzbank's share price performance.

€1,000		Fixed components		Performance-related components				
				with short-term incentive			with long-term incentive[1]	Total remuneration under DRS 17[2]
		Basic salary	Fringe benefits[3]	STI in cash[4]	STI in virtual shares[5]		LTI 2014 in cash[6]	
						Number of virtual shares in units		
Martin Zielke	2018	1,313	213	88	73	11,742	–	**1,687**
	2017	1,313	129	287	299	23,400	78	**2,106**
Frank Annuscheit	2018	750	134	54	45	7,210	–	**983**
	2017	750	92	158	165	12,898	80	**1,245**
Dr. Marcus Chromik	2018	750	68	54	45	7,210	–	**917**
	2017[7]	750	71	186	194	15,184	–	**1,201**
Stephan Engels	2018	750	129	54	45	7,210	–	**978**
	2017	750	122	170	177	13,878	74	**1,293**
Michael Mandel	2018	750	114	60	50	8,011	–	**974**
	2017[8]	750	102	170	177	13,878	–	**1,199**
Dr. Bettina Orlopp	2018	750	92	54	45	7,210	–	**941**
	2017[9]	125	20	30	31	2,422	–	**206**
Michael Reuther	2018	750	141	48	40	6,409	–	**979**
	2017	750	130	128	133	10,449	76	**1,217**
Total	**2018**	**5,813**	**891**	**412**	**343**	**55,002**	**–**	**7,459**
	2017[10]	**5,188**	**666**	**1,129**	**1,176**	**92,109**	**308**	**8,467**

1 The performance-related components with long-term incentive effect are only granted once the Supervisory Board has completed the retrospective performance evaluation after expiry of the five-year retention period. For 2018, that will be in 2024.

2 The amounts disclosed as total remuneration in accordance with DRS 17 for the 2018 financial year include only those components in respect of which the members of the Board of Managing Directors already have a legally binding entitlement. As such, the amounts disclosed as total remuneration in accordance with DRS 17 do not include the LTI components for financial year 2018, as there is no such entitlement until after the retrospective performance evaluation and expiry of the five-year retention period.

3 Non-monetary remuneration awarded, tax due on non-monetary remuneration and employer contributions to the BVV occupational retirement fund are shown under fringe benefits.

4 Payable in 2019 following determination of the total target achievement amount for 2018.

5 Payable one year after payment of the STI in cash. The amounts shown represent the values at the time that the variable remuneration was determined in February 2019. The payout is dependent on the future performance of the Commerzbank share price. The number of virtual shares is calculated using the proportion of the total target achievement amount and the average Commerzbank share price during November and December 2018.

6 Under DRS 17, the LTI EVA cash component still due for 2014 after the end of the four-year period from 2014 to 2017 and approval of the annual financial statements for 2017 has to be reported for the previous year. The cash element of the 2014 LTI share components and the share elements of both of these LTI components were already disclosed in the Annual Report 2014 and, therefore, do not need to be reported again under DRS 17.

7 Dr. Marcus Chromik has been a member of the Board of Managing Directors since 1 January 2016.

8 Michael Mandel has been a member of the Board of Managing Directors since 23 May 2016.

9 Dr. Bettina Orlopp has been a member of the Board of Managing Directors since 1 November 2017.

10 The amounts in 2017 for the 2014 LTI in cash and total remuneration according to DRS 17 are lower than reported in the 2017 remuneration report because the 2014 LTI for Martin Blessing in cash in the amount of €136 thousand and for Markus Beumer in the amount of €74 thousand are no longer included in the totals for 2017.

Loans to members of the Board of Managing Directors

Members of the Board of Managing Directors have been granted loans with terms ranging from on demand up to a due date of 2051 and at interest rates ranging between 0.7% and 2.8% and, in certain cases, up to 9.5% on amounts overdrawn. The loans, mainly real estate financing, are secured at normal market terms, if necessary through land charges or rights of lien.

As at the reporting date, the aggregate amount of loans granted to members of the Board of Managing Directors was €3,494 thousand; in the previous year, the figure was €3,129 thousand. In 2018, members of the Board of Managing Directors repaid €308 thousand. With the exception of rental guarantees, Commerzbank Aktiengesellschaft did not enter into any contingent liabilities in favour of members of the Board of Managing Directors in the year under review.

Amendment of the remuneration system of the Board of Managing Directors as at 1 January 2019

On 7 November 2018, the Supervisory Board of Commerzbank Aktiengesellschaft amended the remuneration system. It did this in order to meet the requirements set out in the revised version of the Remuneration Ordinance for Institutions of 4 August 2017. It also decided to convert some of the variable remuneration components into fixed remuneration components. The changes entered into force on 1 January 2019 and have been contractually agreed with all members of the Board of Managing Directors. The following aspects are particularly noteworthy:

- The remuneration system contains a clawback provision, which stipulates that variable remuneration already paid out can be reclaimed for a period of up to seven years from the date of payment and variable remuneration not yet paid out may be voided. The provision takes effect in the circumstances set out in section 20 paragraph 6 in conjunction with Art. 18 (5) sentence 3 nos. 1 and 2 of the Remuneration Ordinance for Institutions. This provision enters into force, for example, in the event of a member of the Board of Managing Directors committing a serious breach of duty or being responsible for substantial losses.
- All of the regulatory parameters required to determine whether a total amount of variable remuneration may be made available are subject to an overall assessment.
- In the case of newly appointed members of the Board of Managing Directors, the retention period will in future be extended by two years to seven years for the first year of appointment and by one year to six years for the second year of appointment.
- The retrospective performance evaluation for the LTI will no longer be based on defined criteria with materiality thresholds, but on a full review of the original decision on the determination of the variable remuneration.
- Dividend payments distributed during the retention period will no longer be offset by the virtual shares granted.

Furthermore, the Supervisory Board has decided that some of the variable remuneration components will be converted into fixed remuneration components. The Supervisory Board increased the fixed basic annual salary of the ordinary members of the Board of Managing Directors from €750 thousand to €990 thousand and reduced the target amount for variable remuneration from €1 million to €660 thousand. The total target remuneration (fixed basic annual salary and target amount for variable remuneration) is thus €100 thousand lower than the previous amount. The fixed basic annual salary of the Chairman of the Board of Managing Directors was increased from €1,312,500 to €1,674,247 and the target amount of variable remuneration was reduced from €1,628,640 to €1,116,165. The total target remuneration of the Chairman of the Board of Managing Directors is thus €150,728 lower than the previous figure.

Supervisory Board

Principles of the remuneration system and remuneration for financial year 2018

The remuneration of the Supervisory Board is regulated in Art. 15 of the Articles of Association; the current version was approved by the AGM on 20 April 2016.

Under the remuneration system, members of the Supervisory Board receive basic remuneration of €80 thousand for each financial year. The Chairman receives triple and the Deputy Chairman double this amount.

Members also receive an additional €30 thousand annually for sitting on either the Audit Committee or the Risk Committee. Members also receive an additional €20 thousand annually for sitting on any other committee of the Supervisory Board that meets at least once in the calendar year. The committee chairman receives double these amounts. Additional remuneration is paid for a maximum of three committee appointments; if more than three committee appointments are held, the additional remuneration is paid for the three highest paid positions. Members of the Supervisory Board who only belonged to the Board or one of its committees for part of a financial year receive reduced remuneration for that year calculated pro rata temporis. In addition, each member of the Supervisory Board receives an attendance fee of €1.5 thousand for each meeting or conference call of the Supervisory Board or one of its committees. Where several meetings or conference calls take place on a single day, only one attendance fee is paid. The basic remuneration, remuneration for serving on committees and attendance fees are payable at the end of the financial year.

Commerzbank Aktiengesellschaft reimburses any expenses incurred by members of the Supervisory Board in the performance of their duties and any VAT due on remuneration or expenses. The Chairman of the Supervisory Board is provided with appropriate human and material resources and, in particular, is reimbursed for costs incurred for travel in connection with duties of representation and costs for requisite security measures arising from his position.

Members of the Supervisory Board thus received total net remuneration for the 2018 financial year of €3,174.0 thousand (previous year: €2,936.3 thousand). Of this figure, the basic remuneration amounted to €1,842.2 thousand (previous year: €1,839.8 thousand) and remuneration for committee memberships to €910.3 thousand (previous year: €765.0 thousand). Attendance fees were €421.5 thousand (previous year: €331.5 thousand).

The remuneration is divided between the individual members of the Supervisory Board as follows:

€1,000		Basic remuneration	Remuneration for serving on committees	Attendance fee	Total
Dr. Stefan Schmittmann (since 8 May 2018)	2018	155.3	77.7	15.0	248.0
	2017	–	–	–	–
Klaus-Peter Müller (until 8 May 2018)	2018	85.3	42.7	9.0	137.0
	2017	240.0	120.0	19.5	379.5
Uwe Tschäge	2018	160.0	60.0	22.5	242.5
	2017	160.0	60.0	15.0	235.0
Hans-Hermann Altenschmidt (until 8 May 2018)	2018	28.4	24.9	15.0	68.3
	2017	80.0	70.0	22.5	172.5
Heike Anscheit	2018	80.0	12.9	13.5	106.4
	2017	80.0	–	12.0	92.0
Alexander Boursanoff (since 8 May 2018)	2018	51.8	–	10.5	62.3
	2017	–	–	–	–
Gunnar de Buhr	2018	80.0	50.0	24.0	154.0
	2017	80.0	49.9	21.0	150.9
Stefan Burghardt	2018	80.0	50.0	19.5	149.5
	2017	80.0	46.8	18.0	144.8
Sabine Ursula Dietrich	2018	80.0	45.9	15.0	140.9
	2017	80.0	20.0	13.5	113.5
Monika Fink (since 8 May 2018)	2018	51.8	19.4	15.0	86.2
	2017	–	–	–	–
Karl-Heinz Flöther (until 8 May 2018)	2018	28.4	10.7	10.5	49.6
	2017	80.0	30.0	19.5	129.5
Dr. Tobias Guldimann (since 3 Mai 2017)	2018	80.0	68.9	27.0	175.9
	2017	52.7	15.8	10.5	79.0
Dr. Rainer Hillebrand (since 8 May 2018)	2018	51.8	32.3	10.5	94.6
	2017	–	–	–	–
Christian Höhn (since 8 May 2018)	2018	51.8	38.8	13.5	104.1
	2017	–	–	–	–
Stefan Jennes (1 February 2017 until 8 May 2018)	2018	28.4	–	4.5	32.9
	2017	73.3	–	12.0	85.3
Kerstin Jerchel (since 8 May 2018)	2018	51.8	–	10.5	62.3
	2017	–	–	–	–
Dr. Markus Kerber	2018	80.0	70.0	25.5	175.5
	2017	80.0	70.0	21.0	171.0
Alexandra Krieger	2018	80.0	–	13.5	93.5
	2017	80.0	–	12.0	92.0
Oliver Leiberich (until 8 May 2018)	2018	28.4	–	4.5	32.9
	2017	80.0	–	12.0	92.0
Dr. Stefan Lippe (until 8 May 2018)	2018	28.4	10.7	7.5	46.6
	2017	80.0	30.0	13.5	123.5
Beate Mensch (until 8 May 2018)	2018	28.4	–	3.0	31.4
	2017	80.0	–	12.0	92.0
Anja Mikus	2018	80.0	62.9	25.5	168.4
	2017	80.0	50.0	22.5	152.5
Dr. Roger Müller (until 3 May 2017)	2018	–	–	–	–
	2017	27.1	–	3.0	30.1
Dr. Victoria Ossadnik (since 8 May 2018)	2018	51.8	12.9	10.5	75.2
	2017	–	–	–	–
Dr. Helmut Perlet (until 8 May 2018)	2018	28.4	32.0	10.5	70.9
	2017	80.0	90.0	21.0	191.0
Mark Roach (until 8 May 2018)	2018	28.4	–	4.5	32.9
	2017	80.0	–	10.5	90.5
Margit Schoffer (until 31 January 2017)	2018	–	–	–	–
	2017	6.7	2.5	1.5	10.7
Robin J. Stalker (since 8 May 2018)	2018	51.8	38.8	18.0	108.6
	2017	–	–	–	–
Nicholas Teller	2018	80.0	80.0	25.5	185.5
	2017	80.0	80.0	19.5	179.5
Dr. Gertrude Tumpel-Gugerell	2018	80.0	55.9	25.5	161.4
	2017	80.0	30.0	19.5	129.5
Stefan Wittmann (since 8 May 2018)	2018	51.8	12.9	12.0	76.7
	2017	–	–	–	–
Total	**2018**	**1,842.2**	**910.3**	**421.5**	**3,174.0**
	2017	**1,839.8**	**765.0**	**331.5**	**2,936.3**

Members of the Supervisory Board once again provided no advisory, intermediary or other personal services in 2018. Accordingly, no additional remuneration was paid.

Loans to members of the Supervisory Board

Members of the Supervisory Board have been granted loans with terms ranging from on demand up to a due date of 2042 and at interest rates ranging between 1.0% and 4.7%, and on amounts overdrawn in certain cases up to 9.5%. The loans, mainly real estate financing, are secured at normal market terms, if necessary through land charges or rights of lien.

As at the reporting date, the aggregate amount of loans granted to members of the Supervisory Board was €1,578 thousand; in the previous year, the figure was €3,560 thousand). Repayments of €34 thousand were made in 2018. This further decline in loans was mainly due to changes in the members serving on the Supervisory Board. Commerzbank Aktiengesellschaft did not enter into any contingent liabilities in favour of members of the Supervisory Board in the year under review.

Other details

D&O liability insurance

A Directors and Officers (D&O) liability insurance policy is in place for members of the Board of Managing Directors and the Supervisory Board. The excess for members of the Supervisory Board and the Board of Managing Directors is set at 10% of the claim up to a maximum of 150% of the fixed annual remuneration for all insurance claims made within a single year.

Purchase and sale of Bank shares

Art. 19 of Regulation (EU) No. 596/2014 on market abuse requires disclosure and notification of transactions by managers of listed companies and persons closely associated with them. Own transactions by such persons in shares or bonds issued by Commerzbank Aktiengesellschaft or in derivatives or other financial instruments based thereon must be disclosed if they exceed an aggregate volume of €5 thousand within a calendar year. This duty of disclosure applies to members of the Board of Managing Directors and the Supervisory Board.

The transactions reported to Commerzbank Aktiengesellschaft in 2018 are listed below:

Transaction date	Disclosing party	Relation	Position	Purchase/ Sale	Units	Price €	Transaction volume | €
15.5.2018	Martin Zielke		Member of BMD	Purchase	4,300	10.9982	47,292.26
15.5.2018	Frank Annuscheit		Member of BMD	Purchase	4,600	10.9982	50,591.72
15.5.2018	Stephan Engels		Member of BMD	Purchase	4,000	10.9982	43,992.80
15.5.2018	Michael Reuther		Member of BMD	Purchase	4,600	10.9982	50,591.72

Details pursuant to Art. 289 of the German Commercial Code (HGB)

Information under takeover law required pursuant to Art. 289a (1) of the German Commercial Code (HGB) and explanatory report

Share capital structure

The share capital of Commerzbank totalled €1,252,357,634.00 at the end of the financial year. It is divided into 1,252,357,634 no-par-value shares. The shares are issued in bearer form. Commerzbank has issued only ordinary shares with the same rights and responsibilities. Each share has one vote.

Restrictions on voting rights and transfers; nature of voting control for employee shares

We are not aware of any restrictions on voting rights or the transfer of shares. Employees who hold Commerzbank shares exercise their rights of control like any other shareholders, in accordance with the law and the Articles of Association.

Shares with special rights granting powers of control

There are no shares with special rights granting powers of control.

Appointment and replacement of the members of the Board of Managing Directors; amendments to the Articles of Association

The members of the Board of Managing Directors are appointed and replaced by the Supervisory Board pursuant to Art. 84 of the German Stock Corporation Act and Art. 6 (2) of the Articles of Association. Before members of the Board of Managing Directors are appointed it must be demonstrated to BaFin, the Deutsche Bundesbank and the ECB that they are fit and proper and have sufficient time available. Being fit and proper requires them to have sufficient theoretical and practical knowledge of the Bank's business and management experience (Section 24 (1) no. 1 and Section 25c (1) of the German Banking Act (KWG) and Art. 93 Regulation (EU) No. 468/2014 (the SSM Framework Regulation). Pursuant to Art. 6 (1) of the Articles of Association, the Board of Managing Directors must comprise a minimum of two people; otherwise, the Supervisory Board defines the number of members on the Board of Managing Directors in accordance with Art. 6 (2) of the Articles of Association. If there is a vacancy on the Board of Managing Directors for a required member and the Supervisory Board has not appointed a replacement, in urgent cases one will be appointed by a court pursuant to Art. 85 of the German Stock Corporation Act. Any amendment to the Articles of Association requires a resolution of the Annual General Meeting under Art. 179 (1) sentence 1 of the German Stock Corporation Act. Unless the law mandates a majority of the share capital represented at the date of resolution, a simple majority of the capital represented is sufficient to pass resolutions (Art. 19 (3) sentence 2 of the Articles of Association). The authority to amend the Articles of Association, provided such amendments affect merely the wording of an article with no change in substance, has been transferred to the Supervisory Board under Art. 10 (3) of the Articles of Association in compliance with Art. 179 (1) sentence 2 of the German Stock Corporation Act.

Powers of the Board of Managing Directors to issue and buy back shares

The Board of Managing Directors, with the approval of the Supervisory Board, is authorised to increase the share capital by a total of €569,253,470.00 by issuing new shares under Art. 4 (3) (Authorised Capital 2015) of the Articles of Association applicable on 31 December 2018. The Board of Managing Directors is authorised to exclude subscription rights in certain circumstances, with the approval of the Supervisory Board.

Moreover, the Annual General Meeting on 30 April 2015 gave the Board of Managing Directors the authority to issue convertible bonds or bonds with warrants, profit-sharing certificates or hybrid debt instruments (both with and without conversion or option rights or mandatory conversion) against a cash or non-cash contribution for a total nominal value of up to €13,600,000,000.00. The financial instruments can also be structured in such a way that they are recognised as Additional Tier 1 capital at the time of issue. However, the Board of Managing Directors is authorised to exclude subscription rights to financial instruments in certain circumstances, with the approval of the Supervisory Board. Conditional capital of up to €569,253,470.00 is available to issue financial instruments with conversion or option rights or obligations under Art. 4 (4) of the Articles of Association (Conditional Capital 2015).

For details of the authorised capital and conditional capital, particularly regarding maturities and terms and conditions of exercise, please refer to the explanations in Notes 30 and 31.

On 30 April 2015, the Annual General Meeting authorised the Board of Managing Directors to purchase and sell Commerzbank shares for the purpose of securities trading, pursuant to Art. 71 (1) no. 7 of the German Stock Corporation Act, until 29 April 2020. The aggregate amount of shares to be acquired for this purpose may not exceed 5% of the share capital of Commerzbank Aktiengesellschaft at the end of any given day. The price at which own shares are purchased may not be more than 10% lower or higher than the average share price (closing auction prices or similar successor prices for Commerzbank shares in Xetra trading or a similar successor system to the Xetra system on the Frankfurt Stock Exchange) on the three trading days preceding the purchase.

Material agreements in the event of a change of control following a takeover bid

In the event of a change of control at Commerzbank, an extraordinary right of termination in favour of certain contract parties has been negotiated by Commerzbank under ISDA master agreements. In general, the right of termination is also conditional upon a material deterioration in Commerzbank's credit standing. In the event of this type of termination, the individual agreements signed under these master agreements would have to be settled at market value, which can be determined on any stock exchange trading day. However, the possibility cannot be excluded that, if an individual customer with an especially large volume of business terminates a contract, Commerzbank's net assets, financial position and operating results could nevertheless be heavily impacted due to the Bank's potential payment obligations.

Compensation agreements in the event of a takeover offer

There are no compensation agreements in the event of a takeover offer, either with the members of the Board of Managing Directors or with employees of Commerzbank.

Equity holdings that exceed 10% of the voting rights

According to the notification of voting rights dated 4 June 2013, the Financial Market Stabilisation Fund holds a stake of 17.15% in the voting capital of Commerzbank Aktiengesellschaft. Provided that the voting rights are unchanged, the Financial Market Stabilisation Fund would hold a stake of approximately 15.6% in the voting capital of Commerzbank Aktiengesellschaft following the capital increase in April 2015.

Details pursuant to Art. 289 (4) of the German Commercial Code (HGB)

The aim of the internal control and risk management system in respect of financial reporting is to ensure that the annual financial statements of Commerzbank Aktiengesellschaft and the Commerzbank Group provide a true and fair view of the net assets, financial position and results of operations in accordance with the applicable accounting standards under the German Commercial Code and IFRS. The internal control system and the risk management system at Commerzbank are linked with each other, both with a view to financial reporting. In the following, we shall therefore use the term ICS (internal control system). Details of the risk management system can be found in the risk report on pages 44 ff.

The objective of proper and reliable financial reporting is endangered if material information in the financial reporting is erroneous. It is irrelevant whether this is due to one single matter or a combination of several.

Risks to financial reporting may arise from errors in the accounting processes. Fraudulent behaviour can also result in the inaccurate reporting of information. The Bank therefore has to ensure it minimises the risks of incorrect statement, measurement or presentation of material information in the financial reporting.

The Commerzbank ICS seeks to provide sufficient certainty that it complies with the relevant legal requirements, that business is conducted in a proper and cost-effective manner and that financial reporting is complete and accurate. It is important to note that despite all measures the Bank may take, the ICS methods and procedures used cannot entirely rule out accidental errors or fraud and, as such, offer sufficient certainty but never absolute certainty.

Legal basis and guidelines

Art. 289 (4) of the German Commercial Code requires capital market-oriented companies to describe the material features of their ICS in the management report. Commerzbank follows the principles for bank-specific organisation of the internal control system set out in the Minimum Requirements for Risk Management (MaRisk).

The Bank's internal control system is structured in line with the internationally recognised framework developed by the Committee of Sponsoring Organisations of the Treadway Commission (COSO). Commerzbank derives the following objectives from this:

- that business processes be effective and efficient,
- that applicable laws and regulations be observed and
- that financial reporting be reliable.

As regards the risk assessment of the reporting process required by COSO in respect of the reliability of financial reporting (for example, ensuring that all transactions are fully and correctly recognised in the financial statements), the Bank follows the recommendations of the International Standard on Auditing (ISA) 315.

Organisation

The written rules of procedure form a sound basis for good corporate governance that provides strategic direction for the Group as a whole while taking account of risk elements. These rules are defined as the transparent description, to be updated on an ongoing basis, of the organisational structure and processes of a company, including powers. The binding standard required by regulation for the organisational structure is set down in the policy on written rules and procedure and the process framework. These form the basis for process descriptions and other directives. Documenting and updating the organisational structure is seen as part of the written rules and procedures and sets consistent and binding minimum requirements as a governance framework for all corporate units. The primary feature is the principle of clear allocation of responsibility, starting with the schedule of business responsibilities for the full Board of Managing Directors and ending with the individual cost approval authorities at the lower management levels. The scope and structure of the governance framework follow both the legal and regulatory requirements and also the "Commerzbank corporate constitution" approved by the full Board of Managing Directors. The governance framework translates the main guiding principles of the corporate constitution into practical rules and comprises the following elements:

- plan for allocating the business responsibilities for the full Board of Managing Directors,
- rules of procedure,
- organisational charts,
- business remits of the units and
- approval authorities for operating costs.

The organisational control and monitoring units that ensure a functioning and efficient control structure are aligned in three successive levels at Commerzbank AG. The "three lines of defence" model is a central element in Commerzbank's corporate constitution. In addition, where tasks in the Bank by their nature cannot be combined, they are organised into different areas applying the principle of separation of functions. Strict checks are also carried out using the dual-control principle to minimise risks in financial reporting.

In accordance with MaRisk, responsibility for implementing, executing, applying, refining and reviewing the Bank-wide ICS lies with the full Board of Managing Directors. The full Board of Managing Directors is responsible for structuring the Group-wide ICS and demonstrating that it is appropriate, while the CFO is responsible for structuring the ICS for financial reporting and ensuring its effectiveness for this purpose. The CFO is responsible for the design of the ICS through appropriate and effective control steps and for embedding these into the various processes. The full Board of Managing Directors is also responsible for ensuring that the financial statements for the parent company and Group are properly prepared.

The Supervisory Board is supported in its oversight of the financial reporting primarily by the Audit Committee set up for this purpose. It provides support in monitoring the accounting process and the effectiveness of the risk management system (especially the internal control system), compliance and internal audit. It also provides support in monitoring the performance of the annual audit, particularly with regard to the independence of the auditor and the services provided by the auditor. The Audit Committee also monitors remediation of shortcomings noted by the auditor within the scope of the follow-up and reporting done by Internal Audit.

During the year, Group Audit reports to the Supervisory Board and its appointed committees about the work it has carried out and its material findings.

Group Finance (GM-F), which reports directly to the CFO, is responsible for ensuring that the financial statements are drawn up in compliance with the relevant laws and internal and external guidelines.

Within GM-F, Accounting and Controlling Policies & Guidelines is the department responsible for drawing up accounting guidelines and publishing them over the intranet. Implementation of these accounting guidelines supports consistent and correct reporting across the Group.

GM-F is supported in producing financial statements by other Group divisions. Of particular importance here is Group Information Technology, which is responsible for providing and upgrading the accounting IT systems used.

Controls to minimise risk

Controls at the Bank are integrated directly into operating processes, either technically or manually (i.e. by means of organisation). Technical controls are used in the IT systems employed and consist, for example, of check sums and verification digits. Technical controls are often complemented by manual controls such as screen approvals carried out by the responsible employees. Data quality on initial entry into systems is ensured by organisational measures such as the dual-control principle, delegation of powers of approval, the separation of functions and by technical measures when issuing IT approval authorities. Additional controls during further processing guarantee that the data entered and used is complete and accurate.

Monitoring by Group Audit

Group Audit (GM-A) provides auditing and advisory services for the Board of Managing Directors independently, objectively and in a risk-oriented manner so as to evaluate the compliance, security and cost-effectiveness of Commerzbank's business processes and flag potential for optimisation. GM-A supports the Board of Managing Directors by evaluating the appropriateness and effectiveness of risk management, the internal control system and business processes in a systematic and targeted manner, providing support on key projects in an internal auditing capacity and issuing recommendations. In doing so, it contributes to the security of business processes and assets.

GM-A is directly accountable to the Board of Managing Directors and reports to that body. It performs its functions autonomously and independently. Particularly with regard to reporting and the assessment of audit results, GM-A is not subject to any directives. Based on MaRisk, its auditing activities, underpinned by the principle of risk-oriented auditing, extend to all of the Group's activities and processes, regardless of whether these take place within the Group or are outsourced. GM-A's activities complement the work of the subsidiaries' audit departments within the framework of Group risk management. The audit of the suitability and effectiveness of the ICS covers the risk management and risk controlling systems, reporting, IT systems and financial reporting. In performing its duties, GM-A has an unrestricted right to information.

GM-A promptly prepares a written report on each audit; recipients include the responsible members of the Board of Managing Directors. On the basis of these audit reports, GM-A oversees and documents the steps taken to remedy any deficiencies identified within the period of time specified for this. If such deficiencies are ignored, an escalation process comes into effect. In addition, GM-A prepares an annual report on the audits that it has carried out during the course of the financial year, the material deficiencies identified and the corrective measures taken, and presents this report to the Board of Managing Directors.

The financial reporting process

The financial reporting procedures at Commerzbank are supported by IT systems integrated into each process. The annual financial statements of Commerzbank AG in Germany are produced using a financial architecture consisting of a new financial data warehouse that provides a consistent repository of basic information and standard SAP software for the financial function. The parent company in Germany therefore has a single solution using consistent financial data for financial statements under both IFRS and the German Commercial Code.

As part of the input process for financial reporting, all information relevant for drawing up the financial statements of Commerzbank Group under IFRS and Commerzbank Aktiengesellschaft under the German Commercial Code is submitted to GM-F by the reporting units. Data is transmitted via an online data entry functionality directly into SAP EC-CS consolidation software, which has been adapted to the Bank's requirements. Subsidiaries submit IFRS data; German and foreign branches also submit data under the German Commercial Code. Data is automatically checked for consistency before transmission to GM-F. Once the plausibility checks have been successfully completed, the individual reports can be finalised. Further plausibility checks are carried out using this data in GM-F. After these checks have been successfully completed, the Commerzbank Aktiengesellschaft parent company financial statements are drawn up and all the necessary steps are taken to produce the consolidated Commerzbank Group financial statements. Drawing up the Group financial statements involves individual steps (e.g. consolidating equity, liabilities, income and expenses), currency translation and the elimination of intra-Group profits.

IFRS segment reporting is done on a separate IT system. This involves reconciliation with the data from accounting.

Measures to further enhance the ICS as regards financial reporting

The ICS has been adapted to meet the needs of the Commerzbank Group as regards financial reporting and it is enhanced further on an ongoing basis. To this end, Control Environment Finance (CEF) has been permanently implemented at Group Finance. CEF is based on the GM-F "process map". This is a top-down representation of all key processes, which is refined with descriptions of procedures and in which the risks in relation to the reliability of financial reporting are determined, applying the COSO framework. The Bank also follows the recommendations of ISA 315. This involves checking whether a risk can be assigned to one of the following three categories and their various aspects:

- statements on types of business transaction: their occurrence, completeness, accuracy, allocation to the correct period and the correct account;
- statements on account balances at the reporting date: availability, rights and obligations, completeness, measurement and allocation;
- statements on presentation in the financial statements and on the notes to the financial statements: occurrence, rights and obligations, completeness, reporting and comprehensibility, accuracy and measurement.

Suitable controls are implemented to minimise the risks identified, and these in turn are also assigned to the ISA 315 categories and their various aspects. With respect to the effectiveness of the ICS, the way in which the controls are structured in the form of appropriate steps and embedded into the respective processes and the way the controls are performed at the operating level are decisive factors in minimising risk.

The ICS is reinforced by regular assessment of the effectiveness and efficiency of key controls and regular checks on how controls are implemented in the interest of financial reporting.

This procedure ensures that risks are identified and minimised and that any faulty developments on the operational side are avoided.

Other

No material changes have been made to the financial reporting ICS since the reporting date.

Details pursuant to Art. 340a (1a) in conjunction with Art. 289b (3) of the German Commercial Code (HGB)

The details pursuant to Art. 340a (1a) in conjunction with Art. 289b (3) of the German Commercial Code (HGB) can be found as a combined separate non-financial report in the Annual Report of the Commerzbank Group on pages 48 ff. and online at: https://www.commerzbank.com/NFR2018.

Corporate governance report and declaration on corporate governance pursuant to Art. 289f of the German Commercial Code

Commerzbank has always attached great importance to responsible and transparent corporate governance aimed at sustainable value creation. That is why we – the Board of Managing Directors and the Supervisory Board – expressly support the German Corporate Governance Code and the goals and objectives it pursues.

In accordance with section 3.10 of the German Corporate Governance Code, we report below on corporate governance as practised at Commerzbank. This report also includes the declaration on corporate governance in accordance with Art. 289f of the German Commercial Code.

Recommendations of the German Corporate Governance Code

The Bank declares every year whether the recommendations of the Commission regarding conduct have been and are being complied with, and explains which individual recommendations are not being implemented and the reasons why. This declaration of compliance by the Board of Managing Directors and the Supervisory Board is published on the Commerzbank website (https://www.commerzbank.com). There is also an archive of all the declarations of compliance made since 2002. The latest declaration was made in November 2018.

Commerzbank complies with virtually all of the recommendations of the German Corporate Governance Code; it deviates from them in only a few points:

- Section 4.2.1 of the Code recommends that rules of procedure should be in place that govern the activities of the Board of Managing Directors, including the allocation of responsibilities to its members. The Board of Managing Directors has adopted rules of procedure with the approval of the Supervisory Board. However, the Board of Managing Directors determines the allocation of duties among the individual Board members itself, outside the purview of the rules of procedure. This provides it with the requisite flexibility if changes are needed, thus ensuring an efficient division of responsibilities within the Board of Managing Directors. The Supervisory Board is informed of all changes and is thus included in the process. The rules of procedure for the Board of Managing Directors and the specific responsibilities of the various members of the Board of Managing Directors are published on Commerzbank AG's website at http://www.commerzbank.com.

- According to section 4.2.3 (2) sentence 6 of the Code, the total remuneration of the members of the Board of Managing Directors and the upper limits on their variable remuneration components should be disclosed. The core elements of the Bank's remuneration system are a fixed basic annual salary plus variable remuneration with a uniform target amount. In respect of variable remuneration, after the end of a financial year, the Supervisory Board determines an amount for total target achievement based on previously agreed goals. This amount is capped at 1.4x fixed remuneration as calculated under the Remuneration Ordinance for Institutions. Up to 50% of this amount is paid in virtual Commerzbank shares, which are normally subject to a five-year retention period and a waiting period of a further 12 months. At the end of the waiting period, the value of the virtual Commerzbank shares is paid out in cash, subject to various checks to ensure sustainability. Changes in the share price over this period do not affect the number of virtual shares granted and thus will alter the amount to be paid out, which has no upper limit. The remuneration system ist designed such that the members of the Board of Managing Directors bear the risk of the performance of the virtual shares after the calculation of the amount for total target achievement as an element of long-term remuneration. It would not be appropriate to cap the scope for participating in positive share price performance, especially given that no floor applies if the price should fall.

- In accordance with section 4.2.3 (2) sentence 8 of the Code, there should be no subsequent changes to targets or benchmarks for determining the variable remuneration components for the Board of Managing Directors. Under the German Stock Corporation Act, however, the Supervisory Board should have the option of restricting the variable remuneration of the Board of Managing Directors in exceptional circumstances. It is entitled under this legislation to adjust the targets and other parameters for determining variable remuneration components in exceptional circumstances, to reasonably neutralise any positive or negative repercussions on the achievability of the targets; the cap on variable remuneration must be observed in all cases.

- Section 4.2.3 (3) of the Code recommends that in the case of pension commitments to members of the Board of Managing Directors, the Supervisory Board should define the intended level of benefits – commensurate with the length of the term of office – taking into account the resulting annual and long-term expense for the company. Pension provision for the Board of Managing Directors is a defined contribution scheme that does not specify a particular level of benefits. Instead, each member of the Board of Managing Directors has an entitlement to an annual pension module, the amount of which is determined as a percentage of that individual's basic annual salary. This gives the Supervisory Board a clear picture of the annual and long-term expense for the company, including the impact of actuarial effects on pension provisions. The fact that the scheme does not define a target benefit level, combined with the switch to a defined contribution scheme, is in line with what is largely standard business practice.

- Section 4.2.5 sentences 5 and 6 of the Code requires some of the information on board remuneration in the remuneration report to be provided in standardised tables. However, the model tables recommended in the Code do not take account of the requirements of the Remuneration Ordinance for Institutions and are therefore not as suitable for financial institutions such as Commerzbank AG. Commerzbank AG therefore deviated from this recommendation in its remuneration report for 2017 and does so again in the remuneration report for 2018. Commerzbank AG has created its own tables which provide clear and transparent information on its board remuneration system. Commerzbank AG has decided to present only the tables that it created itself and those are required under accounting rules and to omit the model tables recommended by the Code because the intended clarity and comprehensibility of the remuneration report would otherwise be undermined.

- Section 5.3.3 of the Code recommends that the Supervisory Board establish a nomination committee made up exclusively of share-holder representatives. Under Art. 25d (11) sentence 2 no. 1 of the German Banking Act, the nomination committee must support the Supervisory Board in identifying candidates to fill positions on bank management bodies. At Commerzbank, this task was formerly performed by the Presiding Committee, which also includes employee representatives. In order to maintain the established practice at Commerzbank of involving both employee and shareholder representatives in the selection of candidates for the Board of Managing Directors, two members of the Commerzbank Supervisory Board's Nomination Committee are employee representatives.

- Section 5.4.1 (2) sentence 2 of the Code recommends that the Supervisory Board should set concrete objectives regarding its composition which, while considering the specific situation at the company, appropriately take into account the international activities of the company, potential conflicts of interest, the number of independent members of the Supervisory Board pursuant to section 5.4.2 of the Code, a specified age limit for members of the Supervisory Board, a specified limit on length of service on the Supervisory Board and diversity. The Supervisory Board of Commerzbank regularly sets specific targets for its composition, appropriately taking into account the criteria listed in section 5.4.1 (2) sentence 2. However, it had not yet set a limit on the normal length of service on the Supervisory Board, as the Supervisory Board takes the view that continued service frequently has to be decided in respect of the individual member. This is now reflected by means of a limit that allows exceptions to be made for the Supervisory Board in justified individual cases and gives priority to the provisions of the Co-determination Act for employee representatives. This means that the Code's recommendation pursuant to section 5.4.1 (2) sentence 2 is now and will be fully complied with.

Suggestions of the German Corporate Governance Code

Commerzbank also largely complies with the suggestions of the German Corporate Governance Code, deviating from them in only a few points:

- In a departure from section 2.3.2, the proxy can only be reached up to the day prior to the Annual General Meeting. However, shareholders present or represented at the Annual General Meeting are able to give instructions to the proxy at the meeting itself as well.

- In section 2.3.3, it is suggested that shareholders be able to watch the Annual General Meeting on the internet. Up to and including financial year 2018, Commerzbank has broadcast the speeches of the Chairman of the Supervisory Board and the Chairman of the Board of Managing Directors, but not the general debate. This allowed shareholders to discuss matters freely with the management, without a wide-scale public broadcast. From financial year 2019 onwards, Commerzbank will broadcast the Annual General Meeting in its entirety on the internet for shareholders and thus fully comply with the suggestion set out in section 2.3.3.

Company values and governance practices at Commerzbank AG

Commerzbank is committed to its corporate, environmental and social responsibilities. In order to ensure sustainable corporate governance, extensive standards have been defined in various spheres of activity, which are published on the Commerzbank homepage at https://www.commerzbank.com.

The ComValues thus create a binding and unifying corporate culture. They lay the foundation for the entrepreneurial and individual responsibility of every employee at Commerzbank.

Based on the ComValues, Commerzbank AG has set out codes of conduct for acting with integrity, which provide all Commerzbank Group employees with a binding framework for lawful and ethically appropriate conduct in the day-to-day working environment.

The Bank has also provided guidelines on corporate responsibility to give guidance on the sustainable orientation of Commerzbank's business activities. One of the six guidelines is the commitment to the principles of the UN Global Compact, an initiative set up by the United Nations together with many renowned companies, which is dedicated to active environmental protection, responsible dealings with employees, respect for human rights and the fight against corruption and bribery.

In its capacity as a key financier of the German economy, Commerzbank has also defined various positions and guidelines for its core business, including formulating environmental guidelines with a special focus on the environment. These guidelines are important reference points for the orientation of the core business as well as for managing the impacts on the environment.

Board of Managing Directors

The Commerzbank Board of Managing Directors is responsible for independently managing the Bank in the Bank's best interest. In doing so, it must consider the interests of shareholders, customers, employees and other stakeholders, with the objective of sustainable value creation. It develops the company's strategy, discusses it with the Supervisory Board and ensures its implementation. In addition, it sees that efficient risk management and risk control measures are in place. The Board of Managing Directors conducts Commerzbank's business activities in accordance with the law, the Articles of Association, its rules of procedure, internal guidelines and the relevant employment contracts. It cooperates on a basis of trust with Commerzbank's other corporate bodies and with employee representatives.

The composition of the Board of Managing Directors and the responsibilities of its individual members are presented on page 5 of the Group Annual Report. The work of the Board of Managing Directors is specified in greater detail in its rules of procedure, which may be viewed on Commerzbank's website https://www.commerzbank.com.

Extensive details of the remuneration paid to the members of the Board of Managing Directors are given in the remuneration report on pages 7 to 17.

Supervisory Board

The Supervisory Board advises and supervises the Board of Managing Directors in its management of the Bank. It appoints and dismisses members of the Board of Managing Directors and, together with the Board of Managing Directors, ensures that there is long-term succession planning. The Supervisory Board discharges its responsibilities in accordance with legal requirements, the Articles of Association and its rules of procedure; it cooperates closely and on a basis of trust with the Board of Managing Directors.

The composition of the Supervisory Board and its committees is presented on pages 15 to 17 of the Group Annual Report. Details of the work of this committee, its structure and its control function can be found in the report of the Supervisory Board on pages 6 to 14 of the Group Annual Report. Further details of how the Supervisory Board and its committees work can be found in the rules of procedure of the Supervisory Board, available online at https://www.commerzbank.com.

Section 5.4.1 (2) of the Code recommends that the Supervisory Board should set concrete objectives and draw up a profile of skills and expertise for the board as a whole. While taking into consideration the company's specific situation, the composition of the Supervisory Board should appropriately reflect the international activities of the company, potential conflicts of interest, the number of independent members of the Supervisory Board pursuant to section 5.4.2 of the Code, an age limit for members of the Supervisory Board, a limit on the normal length of service on the board and diversity. The special requirements of the German codetermination legislation need to be taken into account for the elected employee representatives. In accordance with section 5.4.1 (4) of the Code, the appointments proposed by the Supervisory Board to the Annual General Meeting should take account of the Supervisory Board's objectives and targets while also seeking to fulfil the profile of skills and expertise for the board as a whole. Progress in implementing the targets should be published in the corporate governance report.

The Supervisory Board of Commerzbank has approved the following concrete objectives:

The composition of the Supervisory Board should be such that, overall, its members have the necessary skills, expertise, experience and knowledge to be able to perform its duties properly. In particular, the Supervisory Board should have all the expertise and experience deemed essential for the activities of the Commerzbank Group. The members of the Supervisory Board must be able to challenge and monitor the decisions made by the Board of Managing Directors. The target is that the Supervisory Board should always have at least eight members elected by the Annual General Meeting who are independent as defined in section 5.4.2 of the Code, and not more than two former members of the Board of Managing Directors of Commerzbank AG. The normal length of service of individual members of the Supervisory Board should not exceed a period of 15 years, whereby the provisions of the German Codetermination Act must be observed and given priority for the employee representatives. The members of the Supervisory Board should also be able to devote sufficient time to the performance of their duties. Members should be reliable, and consideration should be given to their commitment, personality, professionalism, integrity and independence. The Supervisory Board has resolved a detailed responsibilities profile for its composition, which readers may consult on Commerzbank's website at https://www.commerzbank.com. The Supervisory Board takes account of the targets and requirements set out there in its election proposals to the Annual General Meeting and the regular assessment of the Supervisory Board as a whole and its individual members. None of the members of the Supervisory Board elected at the Annual General Meeting exceed the normal length of service. All other targets set by the Supervisory Board for its composition and skills profile were also implemented as at 31 December 2018.

In accordance with section 5.4.1 (4) of the Code, the corporate governance report should also provide information on what in the view of the Supervisory Board is the appropriate number of independent shareholder members and the names of these members. Under section 5.4.2 of the Code, a Supervisory Board member is not considered independent if he or she has a personal or business relationship with the company, its corporate bodies, a controlling shareholder or a company affiliated with a controlling shareholder that could lead to a significant, non-transient conflict of interest. The employee representatives are not taken into account in this assessment of independence.

Applying the above-mentioned criteria, all ten shareholder representatives can be classified as "independent", namely Dr. Stefan Schmittmann, Sabine U. Dietrich, Dr. Tobias Guldimann, Dr. Rainer Hillebrand, Dr. Markus Kerber, Anja Mikus, Dr. Victoria Ossadnik, Robin Stalker, Nicholas Teller and Dr. Gertrude Tumpel-Gugerell.

As 100% of the Supervisory Board members on the shareholder side are therefore independent, the Supervisory Board's own assessment that the Board contains a suitable number of independent members is well-founded.

In accordance with section 5.6 of the German Corporate Governance Code, the Supervisory Board reviewed the efficiency of its work in the 2018 financial year as part of the assessment required under Art. 25d (11) nos. 3 and 4 of the German Banking Act. The results of the efficiency audit were presented to the plenary session for discussion. The members of the Supervisory Board believe that the board works in an efficient manner and to a high standard overall. Suggestions from members of the Supervisory Board have been and continue to be taken into account for future activities.

Under section 5.5.2 of the German Corporate Governance Code and Art. 3 (6) of the rules of procedure of the Supervisory Board, each member of the Supervisory Board must disclose any conflicts of interest. No member of the Supervisory Board declared such a conflict of interest during the year under review. Details of the remuneration paid to the members of the Supervisory Board are given in the remuneration report on pages 17 ff.

Diversity

At Commerzbank AG, attention is paid to diversity both in the composition of the Board of Managing Directors, appointments to management roles and in recommendations for the election of Supervisory Board members (sections 4.1.5, 5.1.2 and 5.4.1 of the Code). The aim is to reduce the risk of prejudice and "groupthink". In addition, diversity within the Board of Managing Directors and Supervisory Board contributes to a broader range of experience and a greater spectrum of knowledge, capabilities and expertise.

Diversity policy and targets for the Supervisory Board The Supervisory Board of Commerzbank AG consists of 20 members. As already mentioned in the description of the targets for the composition of the Supervisory Board, the Supervisory Board is supposed to always have at least eight members elected by the Annual General Meeting who are independent (shareholder representatives) as defined in section 5.4.2 of the Code and not more than two former members of the Board of Managing Directors of Commerzbank AG. The normal length of service of individual members of the Supervisory Board should not exceed a period of 15 years, whereby the provisions of the German Codetermination Act must be observed and given priority for the employee representatives. The Supervisory Board has also set a regular age limit of 72 and aims to have a broad range of ages represented on the board. The Supervisory Board also wants its members to have a suitable range of educational and professional backgrounds and for the board to have at least one international member. The Supervisory Board also considers appropriate female representation when proposing candidates to the Annual General Meeting for election. The Supervisory Board is committed to fulfilling the statutory minimum requirement of at least 30% female representation. It must be borne in mind that the only way the Supervisory Board is able to influence its composition is by the candidates it proposes to the Annual General Meeting for election. The employee representatives on the Supervisory Board also strive to attain a percentage of female representation among employee representatives of at least 30%.

As at 31 December 2018, the Supervisory Board of Commerzbank AG included three international members and eight women, of whom four were shareholder representatives. The percentage of women on the Supervisory Board is therefore 40% at present.

Diversity policy and targets for the Board of Managing Directors The Nomination Committee of Commerzbank AG's Supervisory Board supports the Supervisory Board in selecting applicants for positions on the Board of Managing Directors. It takes account of the balance and range of knowledge, skills and experience of all the board members, draws up a job description with an applicant profile and indicates the time requirements associated with the appointment. In making appointments to the Board of Managing Directors, the Supervisory Board aims to increase diversity, particularly with regard to age, geographic origin, education and professional background and to give appropriate consideration to women. As a rule, the members of the Board of Managing Directors should not be over 65 years of age.

In terms of the proportion of women on Commerzbank AG's Board of Managing Directors, for which the company is required by law to stipulate a target, the Supervisory Board has set a target of at least one female member by 31 December 2021. This target has already been met. Dr. Bettina Orlopp, responsible for Compliance, Human Resources and Legal, has been a member of the Board of Managing Directors of Commerzbank AG since 1 November 2017. The proportion of women on Commerzbank AG's Board of Managing Directors was therefore 14.3% as at 31 December 2018.

Targets for the first and second levels of management Art. 76 (4) of the German Stock Corporation Act requires the Board of Managing Directors of Commerzbank AG to set target percentages for female representation at the two levels of management below the Board of Managing Directors and a deadline for achieving these. In accordance with Art. 25 (1) of the Introductory Act of the German Stock Corporation Act, the targets and deadlines had to be set for the first time and documented by 30 September 2015. The deadlines specified had to be no later than 30 June 2017. A maximum period of five years applies to all subsequent deadlines under Art. 76 (4) of the German Stock Corporation Act.

The full Board of Managing Directors last set new targets for female representation in the first and second management levels of Commerzbank AG (in Germany) in May 2017. The target is 17.5% for the first management level and 20% for the second level. The deadline set for achieving the targets is 31 December 2021. Commerzbank AG has thus given itself ambitious targets. It is an important objective for the Bank and the Group as a whole to further increase the number of women in management positions.

As at 31 December 2018, the first management level below the Board of Managing Directors in Commerzbank AG consisted of 35 people, of whom 30 were male and 5 female. The percentage of women in the first level of management below the Board of Managing Directors was therefore 14.3%.

The second management level below the Board of Managing Directors consisted of 360 people, 298 of whom were male and 62 female. The percentage of women in the second level of management below the Board of Managing Directors was thus 17.2%.

Accounting

Accounting at the Commerzbank Group and Commerzbank Aktiengesellschaft gives a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with the respective accounting standards. The Group financial statements and Group Management Report are prepared in accordance with International Financial Reporting Standards (IFRS) and the additional requirements of the German Commercial Code; the parent company financial statements and management report of Commerzbank Aktiengesellschaft are prepared in accordance with the provisions of the German Commercial Code. The Group financial statements and parent company financial statements are prepared by the Board of Managing Directors and approved by the Supervisory Board. The audit is performed by the auditor elected by the Annual General Meeting.

The management report also includes a detailed risk report, providing information on the Bank's responsible handling of the various types of risk. This appears on pages 44 ff. of this Annual Report.

Shareholders and third parties receive additional information on the course of business during the financial year in the form of the semi-annual report and two quarterly reports. These interim financial statements are also prepared in accordance with International Financial Reporting Standards (IFRS).

Shareholder relations, transparency and communication

The Annual General Meeting of shareholders takes place once a year. It decides on the appropriation of distributable profit (if any) and approves the actions of the Board of Managing Directors and the Supervisory Board, the appointment of the auditors and any amendments to the Articles of Association. If necessary, it authorises the Board of Managing Directors to undertake capital-raising measures and approves the conclusion of profit and loss transfer agreements. Each share entitles the holder to one vote.

In 2015, the Board of Managing Directors and the Supervisory Board, as is permitted under Art. 120 (4) of the German Stock Corporation Act, gave the Annual General Meeting the opportunity to vote on the approval of the remuneration system for members of the Board of Managing Directors. The 2015 Annual General Meeting approved the principles of the variable remuneration system and the fixed basic annual salary for members of the Board of Managing Directors. The 2015 Annual General Meeting also voted on the ratio of variable to fixed annual remuneration for members of the Board of Managing Directors pursuant to Art. 25a (5) sentence 5 of the German Banking Act and approved an increase in the cap on variable annual remuneration for members of the Board of Managing Directors of Commerzbank to 140% of the respective fixed annual remuneration set from 2015 onwards. The revised remuneration system of the Board of Managing Directors effective from 1 January 2019 is described in more detail in the remuneration report on page 17 and will be presented and explained to the Annual General Meeting 2019.

The Bank's shareholders may submit recommendations or other statements by letter or e-mail or may present them in person. The Bank's head office quality management unit is responsible for dealing with written communication. At the Annual General Meeting, the Board of Managing Directors or the Supervisory Board comment or reply directly. Shareholders may codetermine the course of the Annual General Meeting by submitting countermotions or supplementary motions to the agenda. Shareholders may also request an Extraordinary General Meeting be convened. The reports and documents required by law for the Annual General Meeting, including the Annual Report, as well as the agenda for the Annual General Meeting and any countermotions or supplementary motions may be downloaded from the internet.

Commerzbank informs the public – and consequently shareholders as well – about the Bank's financial position and financial performance four times a year. Corporate news that may affect the share price is also published in the form of ad hoc releases. This ensures that all shareholders are treated equally. The Board of Managing Directors reports on the annual financial statements and the quarterly results in press conferences and analysts' meetings. Commerzbank uses the options offered by the internet for reporting purposes, providing a wealth of information about the Commerzbank Group at https://www.commerzbank.com. Materials including the Commerzbank Articles of Association and the rules of procedure of the Board of Managing Directors and the Supervisory Board are available online, for instance. The financial calendar for the current and the upcoming year is also published in the Annual Report and on the internet. It shows the dates of all the significant financial communications, notably the annual press conference and analyst conferences and the date of the Annual General Meeting.

We feel an obligation to communicate openly and transparently with our shareholders and all other stakeholders. We intend to continue to meet this obligation in the future.

Business and overall conditions

Economic environment

The world economy enjoyed above-average growth once again in 2018, but with strong regional divergences. In China, growth slowed due to the tighter economic policy. Overall, though, Asian emerging markets kept up the high pace of growth seen in 2017.

In the USA, 2018 growth was much higher than in 2017 at an estimated 2.9%. Unemployment is now below 4%. Against this backdrop, the Federal Reserve decided to raise key interest rates by a further 100 basis points to 2.25%–2.50% and continued to slowly run down its holdings of securities.

In the eurozone, however, the upturn slowed noticeably in 2018. Growth was a full half-percentage point lower than in 2017 at 1.8%. One reason for this was the feeble rise in exports, especially to China. In the second half of the year, the economy was also hurt by the difficult situation in the auto industry. Despite the growth slowdown, the situation in the labour market continued to significantly improve. The unemployment rate fell from 8.6% at the end of 2017 to 7.9% in December 2018, almost back to the low level seen before the financial crisis started. Greater competition for staff is now apparent in wages. So far, however, high wage increases have not fed through into higher inflation. The core inflation rate, i.e. the year-on-year rate of the consumer price index excluding the highly volatile food, luxury goods and energy prices, continues to fluctuate around 1%.

The ECB stopped its bond purchasing programme at the year-end. It will, though, reinvest all proceeds from maturing securities.

Germany's economic growth also weakened significantly in 2018 (1.5%) versus 2017 (2.2%), but the growth was still sufficient to reduce unemployment further. Seasonally-adjusted unemployment at the start of 2019 was 5.0%, a new low since German reunification. The main brakes on the economy were weaker foreign demand and the difficult situation in the auto industry.

Financial markets were unsettled by ongoing rate hikes by the Federal Reserve and the trade conflict between the USA and China. Stock prices were down sharply and the dollar appreciated considerably. Despite the rising rates in the USA, the yield on ten-year treasury notes ended 2018 0.3% lower than at the start of the year.

Sector environment

2018 was a year of contrasts for the financial services industry. January was one of the best months for equity markets in history, giving one of the most powerful starts to the year in over 35 years. February was more sobering and big price falls in just two weeks unsettled many clients.

The second half of 2018 saw an appreciable rise in international uncertainties compared to the start of the year. The trade dispute between the USA and China broadened out as both sides brought in ever higher and more extensive tariffs. Concern about some emerging markets rose, putting exchange rates in these countries under pressure. With negotiations proving difficult, the uncertainties associated with the UK's departure from the European Union also increased. When the new Italian government then submitted the main points of its draft budget, risk premiums and the volatility of Italian government bonds rose again. These negative factors put particular pressure on European equities, with banks disproportionately affected by the uncertainties. By contrast bonds regarded as particularly safe, such as German government securities, were in high demand and the volatility on markets for risky investments rose perceptibly worldwide.

Over the year as a whole the banking sector received much less support from overall economic activity than in 2017. In both the eurozone and Germany, annual average economic growth was down year-on-year in 2018; with Germany's export growth, which is key for German banks' corporate business, declining by almost half. In contrast, total domestic demand maintained its growth pace, owing to the strong labour market and the good financial position of the corporate sector, which in turn supported demand for residential mortgages and corporate loans. The auto industry, which is key for the banking sector, faced a series of problems in 2018 that spilled over into other sectors.

The Eurosystem's expanded asset purchase programme improved banks' liquidity position and financing conditions in 2018, but at the same time it put pressure on net interest margins and thus had a significant adverse impact on earnings – even though loans to the domestic private sector grew at a faster rate. While the banks' efforts to reduce solvency and liquidity risks and theit greater resilience to the 2018 stress test were recognised, there were persistent fears about a sustained weakening of the profitability of the banking system in the eurozone and the ability of banks to generate profitable returns on interest-rate-based business.

Last but not least, the importance of cyber security and compliance was once again demonstrated in the year under review. The protection of data networks and appropriate staff training are an ongoing process which the banking sector must take very seriously, despite its already strong understanding of IT security. The same applies to ensuring compliance with the legal and regulatory requirements.

Overall, the fundamental transformation of the European banking system continued in 2018. The sector today is smaller, more clearly focused on its core functions and less profitable, but also more robust and resilient to future crises.

Important staffing and business policy events

With the conclusion of the agreement to sell Equity Markets & Commodities, another milestone was reached in the implementation of the Commerzbank 4.0 strategy. The marked improvement in the results of the stress test conducted by the European Banking Authoritiy is a further demonstration of the Bank's healthy risk profile and high resilience to stress. With its inaugural green bond the Bank is sending an important signal about the growing significance of this asset class, while also highlighting its sustainability strategy. The Bank also further strengthened its compliance function. There were some changes in personnel during the year, within both the Board of Managing Directors and the Supervisory Board.

Newly elected Commerzbank Supervisory Board

As proposed by the Supervisory Board, the Annual General Meeting on 8 May 2018 elected Sabine U. Dietrich, Dr. Tobias Guldimann, Dr. Rainer Hillebrand, Dr. Markus Kerber, Anja Mikus, Dr. Victoria Ossadnik, Dr. Stefan Schmittmann, Robin J. Stalker, Nicholas Teller and Dr. Gertrude Tumpel-Gugerell to the Supervisory Board of Commerzbank Aktiengesellschaft. The election of the employee representatives on the Supervisory Board had already taken place at the start of 2018. At its first meeting following the Annual General Meeting, the Supervisory Board elected Dr. Stefan Schmittmann as its chairman. For full details of the Supervisory Board and the composition of the individual committees, please refer to the Commerzbank website at https://www.commerzbank.com/supervisoryboard.

Changes in the Board of Managing Directors of Commerzbank

At the Supervisory Board meeting held on 5 December 2018 Michael Reuther, the member of the Board of Managing Directors of Commerzbank responsible for corporate customer business, announced that he would like to complete his contract running until the end of September 2019 but that he would decline any offer to extend it. At the same meeting the Supervisory Board accepted with regret the request from Chief Operating Officer Frank Annuscheit to step down from the Board of Managing Directors on 28 February 2019 for health reasons. Frank Annuscheit's successor is Jörg Hessenmüller, who was previously a member of the Divisional Board for Digital Transformation & Strategy. Jörg Hessenmüller's appointment to the Board of Managing Directors was confirmed by the regulator on 15 January 2019.

Commerzbank issues inaugural green bond

In mid-October 2018, Commerzbank issued its inaugural green bond in the capital market. The issue raised €500m. Commerzbank will use the proceeds to refinance renewable energy projects. With the inaugural green bond, the Bank is sending an important signal about the growing significance of this asset class. The non-preferred senior bond attracted keen investor interest. The final order book at reoffer was above €1.1bn. The bond has a term of five years. The coupon is 1.25% p.a. Commerzbank already has wide experience in the green bond market. For years, Commerzbank has been successfully supporting its corporate clients to prepare their sustainable bond issues and place them in the international capital market. The bond is structured in accordance with the Green Bond Principles. This market standard provides investors with a high degree of transparency as regards how the funds are actually used. Commerzbank has earmarked the bond proceeds for loans for onshore and offshore wind projects and solar projects in Germany, other European countries and North and South America. Commerzbank is committed to the objective set at the UN Climate Change Conference in Paris in 2015 to limit global warming to less than two degrees Celsius versus pre-industrial levels. The associated energy revolution and reduction in CO_2 emissions are creating a need for new technologies and products requiring large investments.

Commerzbank scores good result in the EBA stress test

Commerzbank considerably improved its result in the 2018 stress test conducted by the European Banking Authority (EBA), despite a further tightening of the adverse scenario. This is a further sign of Commerzbank's healthy risk profile and high resilience to stress. Under the adverse stress scenario, the common equity tier one (CET 1) ratio is 9.9% at the end of the review period in 2020. That is 2.5 percentage points higher than in the last test in 2016.

Key milestone in implementing the Commerzbank 4.0 strategy

On 8 November 2018, Commerzbank and Société Générale signed a purchase agreement for the Equity Markets & Commodities division (EMC). On 3 July 2018, the two banks had already announced an agreement to sell Commerzbank's EMC business to Société Générale. The employee representative bodies in Germany consented to the transaction, which remains subject to the consent of the relevant authorities.

The Commerzbank EMC business includes issuing and market making in structured trading and investment products, the established ComStage brand for exchange-traded funds (ETFs) and the associated leading platform for ETF market making. The equity capital markets (ECM) business, equity trading and equity sales brokerage are not part of this transaction. The same applies to the business in hedging products for commodity risk. These activities will remain at Commerzbank as part of the strategic customer business. The transaction will see trading books, customer business, employees and parts of the IT infrastructure transferred. EMC front office staff and some employees in downstream units are to move to Société Générale. Transfer of the trading books and the corresponding impact on the balance sheet and income will take place in stages.

Further strengthening of the compliance function

The Bank continued its activities in 2018 to further strengthen the compliance function. As before this pertains not only to structural changes. We also diligently pushed ahead with building up internal staff, staff training and the successful recruitment of additional experienced compliance experts to work at head office and in foreign locations. Following the creation of a dedicated compliance trainee programme in 2017, 2018 again saw further graduates hired for this new international programme.

The compliance function implemented various measures relating to global financial crime, global markets compliance and anti-bribery and corruption in order to improve the management of compliance risks. Steps were also taken to further strengthen compliance governance in Germany and abroad. Amongst other things, the strengthening of the global compliance system landscape in line with the latest market standards is being rigorously driven forward. Commerzbank also set up compliance coordination units in the front office and continued its activities to expand structures and further improve the existing compliance processes in the business units.

In 2015, Commerzbank reached settlements with various US authorities regarding violations of US sanctions and anti-money laundering provisions. In terms of the findings relating to the settlements, the Bank has dealt with the majority of the findings. The Bank has also received various interim reports and the final report from the monitor appointed by the New York State Department of Financial Services (DFS), to which it has responded with corresponding implementation programmes. The Bank continues to make good progress in carrying out the implementation programmes and has dealt with most of the measures. The DFS will confirm when the monitorship ends. This decision has not yet been taken.

In accordance with the requirements of the Financial Services and Markets Act 2000 (FSMA), in 2017 Commerzbank London mandated a consulting company as a "skilled person". The consulting company carried out a review of existing structures and processes (especially with regard to money laundering/financing of terrorism as well as sanctions/embargoes) and prepared a report for the UK Financial Conduct Authority (FCA). Commerzbank London subsequently put in place a full-scale remediation project, the implementation of which is being evaluated by the skilled person and reported to the FCA half yearly. Here, too, Commerzbank made good progress in implementation.

Since 31 December 2012, Commerzbank has been provisionally registered as a swap dealer with the U.S. Commodity Futures Trading Commission (CFTC). On 8 November 2018, Commerzbank reached agreement with the CFTC in a consent order waiving an investigation into breach of the U.S. swap dealer rules under the U.S. Commodity Exchange Act and the regulations of the CFTC. The consent order also stipulates that Commerzbank must retain an outside consultant approved by the CFTC for a period of two years. The CFTC may extend this period by a further year at its discretion, based on its assessment of Commerzbank's remedial efforts. During the review period, the outside consultant will produce annual reports assessing the swap dealer's compliance with the Commodities Exchange Act and the regulations of the CFTC. The report will also contain recommendations on improving the swap dealer's practices, policies and procedures. The outside consultant will start work once the ongoing CFTC approval process has been completed.

For more information on integrity and compliance at Commerzbank, please see the combined separate non-financial report on pages 48 ff. of the Group Annual Report.

Earnings performance, assets and financial position

Commerzbank changed the measurement for own credit spread of the derivatives portfolio in 2018. It was adjusted to match the current trends in comparable instruments. This adjustment resulted in a remeasurement effect of €–70m. A description of the changes can be found on page 83 of the financial statements.

Commerzbank had unrestricted access to the money and capital markets throughout the reporting period, and its liquidity and solvency were also adequate at all times. It was always able to raise the resources required for a balanced funding mix and continued to enjoy a comfortable liquidity position in the period under review.

Income statement

Commerzbank Aktiengesellschaft made a net profit of €262m in 2018, following a net profit of €176m in the previous year. The changes in the individual earnings components are set out below.

Net interest income, the balance of interest income and interest expense, rose €0.4bn year on year to €3,572m. The business with private and small-business customers managed to increase its net interest income considerably year on year. This was largely due to a full twelve months of interest income from the instalment loan portfolio taken over in August 2017. Following a further decline in deposit-related income the previous year, the domestic deposit business made a noticeably higher contribution to income in 2018. In corporate clients the growth path paid off. The negative impact from interest rates, restrained demand for capital market and hedging products and intense price competition was almost fully compensated.

At €2,497m, net commission income was 4.3% lower than in the previous year. In the business with private and small-business customers, net commission income declined slightly from the previous year. This reflects the complete absence of commission income from referring consumer loans, which since the first half of 2017 have been offered over Commerzbank's own platform. There was also a significant decline in transaction-related commission income in the domestic securities business, as customer activity was muted with MiFID II coming into effect at the start of 2018. Payment services, by contrast, enjoyed growth in commissions. In the corporate client business, net commission income was lower than the previous year, mainly due to a lower contribution from hedging and capital market products.

Net trading income came to €217m in the reporting year (previous year: €879m). The decline was primarily the result of a much lower mark-to-market result than last year.

The balance of other operating income and expenses for the reporting period was €–679m, compared with €–1,167m the previous year. The clearly negative result was mainly due to higher interest expenses for retirement benefit obligations and increased allocations to provisions. In the previous year, settlement of a write-down at a foreign subsidiary was the main cause of the negative impact on earnings.

The cost of assuming subsidiaries' losses under profit and loss transfer agreements was €9m, after €25m in the previous year. Income from profit pooling and from partial or full profit transfer agreements came to €502m, compared to €227m the previous year. The increase was largely due to a sale of shares in a subsidiary within the Group and income from the sale of real estate. This resulted in net income from profit and loss transfer agreements of €493m, after €202m the previous year.

Operating expenses fell 1.0% to €5,579m in the reporting year. Personnel expenses (mainly wages and salaries) fell 1.8% to €2,955m. At €2,624m, other operating expenses were at the same level as in the previous year. While IT expenses were up, as were contributions for the European banking levy, consultancy costs were down year on year. Depreciation, amortisation and write-downs of intangible and fixed assets increased by 9.9% to €536m in the year under review. This rise was due to higher amortisation of intangible assets.

For 2018, income from write-ups on loans and certain securities and from the release of provisions in lending business came to €203m, after €1,535m the year before.

As a result of the income statement items described above, Commerzbank Aktiengesellschaft posted a profit on ordinary activities of €318m in 2018, compared with €1,273m in the previous year.

An extraordinary expense of €–46m was recorded in the period under review. The figure of €–786m in 2017 was impacted by restructuring expenses in connection with the Commerzbank 4.0 strategy.

Tax expenses amounted to €10m for the reporting year, compared with €311m in the previous year. Taxes on income declined, largely due to various tax effects relating to other periods.

Commerzbank Aktiengesellschaft therefore made a net profit of €262m in 2018 after €176m in the previous year. Subject to the approval of the decision-making bodies, the corresponding net profit will be used to pay a dividend of €0.20 per share and to further strengthen retained earnings.

Balance sheet

Total assets of Commerzbank Aktiengesellschaft rose 4.2% or €15.6bn year on year to €383.2bn.

Within assets, the cash reserve fell by €0.6bn to €49.0bn. This slight decrease from the end of 2017 came from the reallocation of demand deposits held with central banks to the cash reserve in accordance with the applicable terms and conditions. Claims on banks rose compared with the previous year, by €6.3bn to €48.9bn. This was the result of a significant increase in secured money market transactions in the form of reverse repos. Claims on customers grew by €8.8bn to €206.0bn. The main cause for this was the sharp €5.6bn rise in lending business and an increase of €4.8bn in retail property and mortgage loans. Bonds and other fixed-income securities rose by €0.6bn to €32.0bn. The increase was due to larger holdings of bonds and notes in the liquidity portfolio. Trading assets recorded a volume of €32.2bn, compared with €30.8bn in the previous year. The rise was mainly related to the fair value of financial derivatives. Holdings in affiliated companies declined by €0.2bn from €5.8bn at the end of 2017 to €5.5bn.

On the liabilities side, liabilities to banks – especially in connection with the growth in term deposits and higher repos and cash collaterals – increased sharply by 11.5% to €74.8bn. Liabilities to customers were €210.2bn, €3.4bn higher than the level at the end of the previous year. Sight deposits were up €13.7bn, repos and cash collaterals up €2.5bn and liabilities from money market transactions up €3.8bn, whereas term deposits and registered Pfandbriefe fell by a total of €16.8bn. Securitised liabilities were €37.6bn, €4.8bn higher than the previous year. The rise was the result of growth in both bonds and other securitised liabilities. Trading liabilities recorded a volume of €20.7bn, compared with €18.6bn in the previous year. This €2.1bn rise was the result of higher negative fair values for derivative transactions. Subordinated liabilities totalled €8.5bn, €0.6bn lower year on year. At €0.1bn, profit-sharing certificates were unchanged year on year.

Off-balance-sheet liabilities rose overall year on year, with contingent liabilities up 9.8% year on year at €37.6bn and irrevocable lending commitments down €1.6bn to €73.5bn.

Equity

Commerzbank Aktiengesellschaft's reported equity as at 31 December 2018 was €0.2bn higher compared with year-end 2017, at €22.7bn. Both the capital reserve and subscribed capital were almost unchanged on the prior year, at €17.2bn and €1.7bn respectively. Retained earnings were up €0.1bn on the end-2017 level, standing at €3.6bn.

Since 2007, the Bank has made use of the waiver rule of Art. 2a of the German Banking Act (KWG), which means it only reports risk-weighted assets and capital ratios for the banking group to the supervisory authority.

Risk-weighted assets (fully phased-in) were €180.5bn as at 31 December 2018, €9.5bn above the year-end 2017 level. The increase was largely caused by a growth-driven rise in risk-weighted assets from credit risks, which was only slightly offset by reductions from IFRS 9 adjustments and a further reduction of wind-down portfolios. The slight increase in risk-weighted assets from operational risk is made up by a marginal fall in risk-weighted assets from market risk. Regulatory Tier 1 capital (on a "phased-in" basis) fell by €1.9bn to €24.1bn compared with year-end 2017, chiefly as a result of the next stage in the Basel 3 phase-in and the conversion to IFRS 9, although this was party compensated by the regulatory eligible profit and lower regulatory deductions. The corresponding Tier 1 ratio fell to 13.4%. Common Equity Tier 1 capital was €23.2bn and the corresponding Common Equity Tier 1 ratio 12.9%. The total capital ratio was 16.3% as at the reporting date. The leverage ratio based on the CRD IV/CRR rules applicable on that date, which compares Tier 1 capital with leverage exposure, was 5.0% (phase-in) or 4.8% (fully phased-in).

The Bank complies with all regulatory requirements. This information includes the consolidated profit attributable to Commerzbank shareholders for regulatory purposes.

Summary of 2018 business position

Commerzbank made further progress in implementing its Commerzbank 4.0 strategy in 2018 and again grew in its core business, even though the environment was extremely challenging.

As the Bank is managed via its segments, the information that follows is largely geared towards the performance of the Group. For more information on corporate management and the key figures and data used to manage the Group, please see page 65 of the Group Annual Report 2018. From the Group perspective, the slight decline in operating income year on year was in line with our expectations and mainly related to lower adjusted income; with the cost base stable, the cost/income ratio rose slightly as expected. Adjusting for one-off income, the objective of improved quality of income and earnings last year was achieved. Overall, we managed to increase consolidated net profit significantly year on year in 2018, as forecast.

The Private and Small-Business Customers segment faced very challenging conditions in 2018 but achieved major objectives in terms of improved market position and hence profitability. Progress was made in all divisions of the segment both in digitalising services and processes and expanding and bringing together the distribution channels. A major strategic milestone in new customer growth was also reached in 2018: the segment has gained one million net new customers since the Commerzbank 4.0 strategy was launched, almost 420,000 in 2018 alone. High volumes of new business were again achieved in lending in 2018. This was the case in both retail mortgage financing and the instalment loan business. In the Corporate Clients segment, 2018 saw a number of challenges. The persistently low level of interest rates, intense price competition in the German market and the regulatory environment were reflected in the earnings performance. In addition, increased geopolitical uncertainty factors held back customer activity considerably. As a result, it was no longer possible to achieve our expectations of a slight rise in income. At the mid-year stage in 2018 we therefore adjusted our income forecast for the full financial year. The ACR segment made further great progress in 2018 in winding down the remaining assets and risks that do not form part of the core business of Commerzbank. Total volume as measured by exposure at default fell by more than a third year on year. The considerable improvement in the risk situation is also reflected in the reduction of the sub-portfolio with the greatest credit risks, commercial real estate and ship finance.

Commerzbank Aktiengesellschaft's overall net profit for the reporting year was €262m, after €176m in the previous year. Profitability was therefore above what we had predicted for 2018.

Outlook and opportunities report

Future economic situation

The global economy looks set to grow somewhat slower in 2019. The greatest risk comes from China, where the economy has clearly lost momentum. In addition, the trade dispute with the USA is weighing on the outlook for the Chinese economy. As in previous years, politicians are likely to prevent a collapse in the economy that could place political and social stability at risk. The government has already taken countermeasures and provided relief to individuals and companies through tax cuts. Monetary policy has also been loosened. If the actions taken so far prove insufficient, more are likely to follow.

The upturn in the USA will probably continue in 2019. There are no signs of excesses where a correction might drive the economy into a recession. However, the rate hikes and the slackening support from fiscal policy will likely result in a more moderate pace of growth. But the US economy is still set to grow by 2.5% in 2019, faster than productive potential. The already low unemployment rate will decline further. This is likely to strengthen underlying inflation slightly. The US Federal Reserve will probably not raise its benchmark rates any further in 2019. The biggest risk to the US economy comes from politics. The tussle between the Republicans and Democrats, who hold the majority in the House of Representatives since the elections in November, and the trade dispute with China are causing unease.

Real gross domestic product Change from previous year	2018	2019[1]	2020[1]
USA	2.9%	2.5%	1.8%
Eurozone	1.8%	1.4%	1.6%
Germany	1.5%	1.2%	2.0%
Central and Eastern Europe	3.0%	1.6%	2.2%
Poland	5.1%	3.2%	3.3%

[1] The figures for 2019 and 2020 are all Commerzbank forecasts.

In the eurozone the upturn noticeably slowed in 2018. However, the economy is unlikely to slip into recession. Domestic demand continues to be driven by the ECB's expansive monetary policy. The ECB terminated its bond buying programme at the end of the year. But that does not mean the end of loose monetary policy. The ECB deposit rate is likely to remain at −0.4% for a considerable time. Low interest rates are making the still high debt levels of many companies and households more sustainable. The foreign trade environment is also likely to brighten a little as the Chinese economy stabilises. However, although economic growth is set to pick up further in the course of the year, the average for 2019 will probably be only close to 1.4%. The planned UK departure from the EU is likely to have only a temporary impact on the economy in the eurozone. The economy is unlikely to slip into recession even if the EU and UK are unable to reach an exit agreement. Both sides will be keen to minimise the economic turbulence.

After a weak second half in 2018, the German economy is likely to gain speed again over the course of 2019. The main support for the economy will be investment, which remains robust. However, consumption and exports should provider stronger boosts again as the year progresses. For the year as a whole we expect growth of 1.2%, after 1.5% last year. It is worthy of note, however, that unit labour costs at German companies have been rising faster than in the rest of the monetary union for several years now. And in the property market, low interest rates are still driving up prices, especially in the major cities.

The end of interest rate hikes in the USA and the continuation of the ECB's highly expansive monetary policy will shape the financial markets in 2019. Even after the end to ECB bond purchases the yield on 10-year German government bonds will not rise materially. Not only because there is no prospect of a genuine cycle of rate hikes, but because the ECB will be reinvesting the bonds that mature.

It will therefore hold just under one-third of government bonds for a long time to come, permanently pushing down the maturity premium on them. The euro will probably tend to appreciate against the dollar in 2019. This is not a matter of euro strength, but rather the dollar weakness that is likely as the end of the Federal Reserve's cycle of rate hikes draws nearer. Equity markets should recover from last year's setback in 2019, once it becomes apparent that there is no threat of a global recession. The persistently loose monetary policy is also supportive of equity valuations.

Exchange rates	31.12.2018	31.12.2019[1]	31.12.2020[1]
Euro/US-dollar	1.15	1.24	1.32
Euro/Sterling	0.90	0.89	0.92
Euro/Zloty	4.29	4.25	4.20

[1] The figures for 2019 and 2020 are all Commerzbank forecasts.

Future situation in the banking sector

Our views regarding the expected development of the banking sector structurally and over the medium term have not changed significantly since the statements published in the interim report as at 30 June 2018. However, the risks to short-term prospects for the banking environment have risen further in recent months, and unlike one year previously the risks are now mainly to the downside.

The financial sector will enjoy less support from the overall economic environment in 2019 than in the previous two years. The fact that the global economy, the eurozone and Germany remain on the growth track and there is no threat of recession in the most likely scenario is a positive. The corporate and small-business customer business in Germany will benefit from the further growth in capital investment and exports, albeit to a lesser degree than in 2018. By contrast, business with private customers will enjoy the positive impact of stable growth in private consumption, construction investment, the persistent strength of the labour market and a strong ability to save. Large repayments by customers and the increased use of internal and alternative external sources of funding, along with tough competition, will also limit income growth. Furthermore, 2019 will again be a year with no sign of a traditional cycle of interest rate hikes in the eurozone. We do not expect the deposit rate to be increased until after March 2020. There is still no prospect of a genuine turning point in monetary policy or a perceptible steepening of the yield curve in the eurozone. Banks thus remain exposed on this front, and market participants' incentives to place their money in risky investments are not weakening.

The downside risks have risen in the period under review and a sharper awareness of them means there is a risk that the private sector will review its consumption and investment decisions and hence that the corporate and retail customer business will experience stronger headwinds from the real economic and financial environment at interest-earnings and commission business level than previously assumed. The growing disconnect between the growth prospects for the real economy, which remain solid, and the increasing disquiet among investors and companies, is having a negative impact on the banking environment.

Over-reactions on the financial markets and misallocations in the real economy caused by the lengthy period of expansive monetary policy would have a direct impact on the banking sector through interest rate and commission business. The already relatively high valuation of equities and bonds, real estate and private equity has built up considerable potential for disappointment which may not yet have unwound as the environment for various risk assets deteriorated in 2018. The expectations of market participants are still very one-sided. Investors who normally buy safe assets might panic at (further) market turbulence, and pro-cyclical investors have become much more significant. In their reports on financial stability, the Deutsche Bundesbank and the European Central Bank both drew attention to the challenging environment for the financial sector. The German banking sector is vulnerable to a scenario in which the macroeconomic environment undergoes an unexpectedly sharp deterioration. The risk of fears about the sustainability of the level of debt in countries with large borrowings has grown, as has the potential risk of liquidity tensions in the investment fund sector. We should also point out the risk of a sudden rise in risk premiums and the dangers for banks ability to act as intermediaries.

A largely disorderly UK departure from the EU without any transitional period or free trade agreement could cause harm to the German banking sector, even though there would be marginally positive value creation effects as market-related financial services are moved to Germany. The current level of integration between the UK and the EU, especially Germany, is very high, due to specialisation in the internal market and international value chains. Banks foreign business with key German export industries could be affected. This applies, through trading, to cars, engineering, electricals, chemicals, pharmaceuticals, food and textiles. Deliveries of intermediate goods are significant at the macro and micro-economic level for both Germany and the UK. Research by the Ifo Institute shows that at least 550,000 jobs in Germany depend on exports to the UK, hence business with retail bank customers would be directly affected. Germany is one of the world's largest exporters of services as well as goods. Services are a very important part of domestic and cross-border value chains and frequently accompany exports of goods. The Deutsche Bundesbank recently demonstrated that the costs from an increase in trade barriers for services can be very significant for some countries. In addition, the UK's departure from the EU internal market and the customs union may affect trade with other EU countries. Banks have to hope that their credit customers identify the risks Brexit will have for their own business models and mitigate these. In the short term there would be major general downside risk for the macroeconomic environment from market jitters and political uncertainty, with a negative impact on the customers of the banking sector. The perception of serious institutional consequences from the departure of one of the three large member states (in terms of the balance of power in the EU, a potential change of direction on free trade and the effect on the EU budget) could add to this. If the UK government lowers regulatory standards in the banking sector after Brexit to support London as a financial centre, the competitive position of the banks in the remaining EU countries would be harmed. If London, Europe's financial centre, loses its unrestricted access to the European single market this would increase fragmentation in investment banking, and equity, liquidity and other resources will have to be committed separately and profitability will suffer as a result. In the worst-case scenario, according to the Deutsche Bundesbank, bottlenecks, frictions and an absence of licenses might mean some activities have to be shut down entirely.

There is also ongoing uncertainty on the markets regarding capital adequacy, valuation of credit risks and credit security, interest rate risks, non-performing loans, cyber risks and especially profitability of European banks.

The focus remains on individual business models for sustainable profit generation and stress resistance in the low interest rate environment. Full-service banks have to demonstrate that they can make up for the high costs of complexity in the current regulatory environment by economies of scale, despite their relatively low market share in Germany. One of the main challenges still facing banks is to adapt their business models – in view of ongoing overcapacity in some countries coupled with new technology-driven competitors – to the changed conditions, reduce costs and increase profitability. This means pushing ahead with the systematic modernisation of banking operations and making sufficient capacity available for digitalisation.

Essentially, the banking sector in the eurozone is still in the midst of a protracted period of structural change. The stronger capital base is offset by reductions in implicit government guarantees, stricter rules on resolution and greater creditor loss participation. A further reduction in leverage exposure levels and improved asset quality in an increasingly digitalised and automated industry are still essential if the banking sector is to meet the tougher requirements of banking supervisors and fulfil investor expectations.

The outlook for the banking environment in Poland remains gloomy for the medium term as a result of economic policy and the threat of considerable reductions in EU infrastructure funds. The close trade and income relations with the UK would also cause temporary uncertainty in the event of a disorderly Brexit. The Polish economy continues to grow relatively strongly, though. After a healthy rise of around 5.1% in economic output last year, 2019 is likely to see a slowdown to 3.2% growth. Private consumption will again play a major role, accentuated by fiscal policy measures such as support programmes for families and pensioners. However, consumer confidence appears to have peaked and private consumption, which is so important, will probably grow less strongly this year than in 2018. In addition, as the funding period draws to an end, an increasing amount of EU funding can be expected to be drawn down, which should support investment in 2019. The positive trend in wages and unemployment should generally boost credit volumes, and the solid position of private households and the corporate sector will be reflected favourably in banks' risk costs.

Managing opportunities at Commerzbank

The demands placed on modern, sustainable banking business and the overall framework conditions have changed markedly in the past few years. The pressure on profitability has increased significantly in respect of both earnings and costs. Rising competition means old structures have to be reviewed and new paths taken. Whereas in the past, personal customer relationship management was a key element of banking, these days our customers expect multi-channel advisory services, digital financial offerings and individual, tailor-made products. We are rising to these challenges with the strategic initiatives we have launched and in some cases have already successfully implemented. But we face additional challenges from increasingly stringent regulatory requirements. With this in mind, the constant review of internal processes, structures and technical platforms to make ourselves leaner, more efficient and more customer-oriented is not a one-off project but an ongoing process that will occupy us on an ongoing basis and should enable us to largely counteract the significantly tougher requirements.

The Commerzbank 4.0 strategy announced in autumn 2016 has three main thrusts. Firstly, we are concentrating on businesses with clear competitive advantages and selling non-core activities. Secondly, we are transforming ourselves into a digital enterprise. And thirdly, we are simplifying the Bank's structure and thus boosting our efficiency. Our aim is to be the leading bank in Germany for private, small-business and corporate clients. We want to provide a modern and considered range of digital and personal services, close to the customer and offering fast and efficient processing. We will remain personal and digital: the customer can decide which channel to use to contact us. The Bank focusses its customer activities in two strong sales segments – Private and Small-Business Customers and Corporate Clients.

By 2020 the Private and Small-Business Customers segment will a digital multi-channel bank in Germany. The key elements of this are digital and analogue service offerings, new sales platforms and a differentiated branch concept. We are sticking to our national presence with 1,000 branches, over 100 wealth management locations, 330 locations for small-business customers and 100 locations for corporate customers. On 1 September 2018 we launched a new management structure and new market divisions in the Private and Small-Business Customers segment and the new advisory models for small-business and corporate customers. This marks a major step in the implementation of the Commerzbank 4.0 strategy but we want to achieve faster growth by combining digital platform strategies with modern branch formats. The "ONE" sales application is a standardised technical platform for online and branch sales. Broad-based market coverage is assured through flagship branches focusing on advisory services and city branches that combine efficient customer service with a reduced infrastructure and lower operating costs. With the aim of gaining two million net new customers by 2020, the Bank is offering attractive products such as digital instalment loans and digital asset management and working with partners such as Tchibo, Amazon and Lufthansa. Small-business customers are handled in a separate business unit within the Private and Small-Business Customers segment. We combine strong expertise in private customer business with the credit experience of Mittelstandsbank. With new digital offerings coupled with a nationwide local presence we wish to significantly increase our share of the business customer and smaller Mittelstand customer markets from 5% to 8%. The holistic advisory services take both business and private considerations into account.

The Corporate Clients segment combines the Bank's traditional strengths in corporate banking – a national presence coupled with support for customers entering international markets, a unique relationship management model and a leading range of trade and export financing services – with the capital market know-how of our investment bank. We are thus creating the optimal framework for developing solutions tailored to the specific needs of larger companies. We will also leverage our expertise in Germany's key industries at a European level in order to better harness it for international growth. Our aim is to be the leading provider of hedging products for corporate clients and the number one debt house. We strive to ensure a consistently high quality of advice worldwide. Corporate customer advisors in Germany not only coordinate the involvement of product specialists, they also work with the Bank's global client service teams. The multilingual relationship managers and specialists on the European desks in their global markets are in constant contact with corporate customer advisors in the domestic market. New data analysis tools (e.g. the foreign payments dashboard) put us a step ahead of the competition and support the corporate customer sales team with specific transaction approaches and analyses of potential to achieve income. We are the first bank in Germany to offer our corporate customers a fully digitalised advisory process for both interest and currency risk management and investment management. We have also introduced a digital lending platform that allows mid-sized companies to apply for an overdraft of up to €5m entirely digitally.

We will transform the Bank into a digital enterprise across all segments. This restructuring affects strategy, technology, competence and culture. We will actively drive forward digitalisation in the banking business and be a technology leader. We want to be number one in all technologies that provide our customers with speed, security and convenience. For some time now, we have been involved in start-ups, both directly and through our subsidiaries CommerzVentures, main incubator and the digitalisation platform #openspace. We support entrepreneurs with good ideas, so we have a finger on the pulse of tomorrow's innovations. The Digital Leadership programme will support our managers in their multiplier role for digital change. Commerzbank was the first bank to set up an enterprise lab at the Fraunhofer Institute for Material

Flow and Logistics IML. The Trade Finance Innovation Lab covers financial services, focusing on trade financing. It will develop new payment and financing solutions for the trade finance business using innovative technologies and bring to them market maturity.

The Digital Campus has become the engine driving the Commerzbank transformation, where we test and develop new, agile working methods and new forms of cooperation. This will bring us to results more quickly and allow us to deal with changes more flexibly. Having gained one and a half years of experience with the Digital Campus, we are now in a position to further expand this new form of cooperation. We can now step up the pace and drive the transformation forwards more vigorously. We will further extend our Digital Campus success in the Campus 2.0 project and will restructure the head office. We are creating what is known as a "cluster delivery organisation". In future, sales will receive functioning solutions more quickly and be able to focus entirely on customers' needs. Instead of traditional hierarchies there will be agile working teams or "cells". Each cell is multi-functional and combines technical and IT expertise. They can develop a complete product and deliver it to customers and are also responsible for operating the systems later. All cells work independently in around 50 clusters on developing new products and processes in specific areas.

Commerzbank anticipates that its capital market funding requirement over the coming years will be of the order of €10bn. Commerzbank offers a broad range of products in the capital market. In addition to unsecured funding instruments (preferred and non-preferred senior bonds and Tier 2 subordinated debt), when refinancing Commerzbank can also issue secured funding instruments, in particular mortgage Pfandbriefe and public-sector Pfandbriefe. As such, Pfandbriefe are a key element of Commerzbank's funding mix. These give Commerzbank stable access to long-term funding with cost advantages compared with unsecured sources of funding. Issuance formats range from large-volume benchmark bonds to private placements. Commerzbank does not anticipate any negative effects on the placing of long-term funding instruments in connection with Brexit.

Anticipated performance of Commerzbank Aktiengesellschaft

The banking environment remained very challenging in 2018, but Commerzbank made further progress towards achieving a sustainable, higher level of profitability in the medium term with the help of the Commerzbank 4.0 strategy. In 2019, the focus will remain on further growth in customer numbers and business volumes, and thus on income in both of the core business areas, Private and Small-Business Customers and Corporate Clients. One key to a sustainably improved market position is the continued digital transformation of the business model, which is being pursued with considerable investment. The overall conditions for the German banking sector this year look set to remain very challenging. The low/negative interest rate environment will continue to weigh on profitability, as will the intensity of competition, with margins on new lending business at an unsatisfactory level in some cases. We think a normalisation of interest rates that would allow to accelerate the desired medium term improvements in income and earnings is unlikely to occur in 2019. Our main focus this year will be on increasing client-related income, in other words we are anticipating a good quality of income and earnings.

As the Bank is managed via its segments, the information in the following sections of the outlook and opportunities report is geared towards the performance of the Commerzbank Group as a whole. We expect to see the following developments in 2019:

Anticipated performance of individual earnings components

Even though we assume the interest rate environment will remain difficult, Commerzbank is aiming for a slight increase in net interest income as the most important source of income. The planned further growth in credit volume will make an important contribution to this. As in past years, Commerzbank intends to strive for growth with middle-market customers that is higher than the market, especially in the Private and Small-Business Customers segment, but also in the Corporate Clients segment. However, owing to the persistently high pressure on margins in Germany as a result of competition, we assume that the growth in income will be disproportionately less than the volume increase. The targeted growth in customer deposits, combined with efficient asset/liability management, should make it possible to increase income in the deposits business again after several years of decline. All in all, we still see sizable growth potential in the private, small-business and corporate customer business both for Commerzbank in Germany as well as at mBank.

We expect net commission income to be largely stable this year. In the absence of any periods of excess volatility on the financial markets, which normally harm customer activity, a slight increase is possible. Growth potential remains in both core business areas, Private and Small-Business Customers and Corporate Clients, especially in securities and capital markets business. With private customers, higher portfolio-related income from mandated transactions and in wealth management, combined with an anticipated market related rise in custody account volumes, should result in higher commission income. With institutional and corporate customers, commission business should develop positively, in part due to increased activity in the primary and secondary markets.

In terms of net income from financial assets and liabilities at fair value through profit and loss, the risk-oriented and client-focused approach at Commerzbank means the objective remains to achieve a contribution to earnings that is as stable as possible. It is hard to make a forecast, however, given the uncertainties over the performance and volatility on global capital markets. For the ship finance portfolio which moved to fair value measurement in line with IFRS 9 on 1 January 2018 Commerzbank assumes that by the end of 2019 the remaining holdings will have essentially been reduced in full with no material impact on earnings.

Experience has shown that the other income items, including realised profit or losses on financial instruments and other net income, are often affected by one-off income and measurement effects, which are hard to forecast. Given the relatively low level of such non-recurring income items in 2018, we assume there will be no material change to them overall in 2019.

The overall forecast trend in operating income, especially net interest income, is based on the assumption that interest rates will remain low. If rates look set to rise, especially at the short end of the yield curve, we feel it is realistic that the expected improvements in income could be considerably accelerated.

Despite the transfer of a consumer financing portfolio with high expected risk costs onto the bank’s own books, the risk result had a considerably smaller impact in 2018 than originally anticipated. We do not expect loan impairments in 2019 to be on a level comparable to last year (i.e. exceptionally low). Even so, the risk result of at least €550m anticipated in the baseline scenario reflects a favourable level by historical standards. Even in a somewhat weaker economic environment, Commerzbank will in our view continue to benefit from good risk management in both new lending and dealing with problem loans.

Also, with respect to the three stages under IFRS 9, we again anticipate a similar picture to last year, when non-performing loans accounted for most of the loan loss provisions. The expectation of above-average portfolio quality is reflected in our forecast that also in the current year only a relatively small share of the risk result is likely to relate to value losses caused by a significant deterioration of credit quality, known as phase 2 impairments. Under IFRS 9, expected lifetime losses must be taken through profit and loss in the risk result when credit exposures suffer a material rating deterioration.

Operating expenses in 2019 should remain lower than the past year. The planned cost base of less than €6.8bn should allow further investment to boost future profitability and also cover the expected ongoing high level of regulatory costs. We expect increasing cost relief from the efficiency improvement measures already implemented and still to come, such as the digitalisation offensive in all areas of the Group, although much of this is only scheduled to become visible in subsequent years.

Anticipated segment performance

In the Private and Small-Business Customers segment, rising customer numbers and business volumes, especially in Germany, remain the main driver for the targeted slight improvement in total operating income. The segment expects growing scope for income from improved penetration of the existing customer base by applying data-based analysis tools efficiently; customers will be offered customised banking offerings to suit each stage of their lifecycle. As the move to a multi-channel bank proceeds, over time it will be possible to conclude the full product range over all channels, so customers will ultimately have unlimited choice between online, mobile or branch distribution channels. We see the ongoing digitalisation of products and processes, combined with innovative branch and distribution concepts, as a competitive advantage which we expect to provide further growth potential. We are aiming for further significant volume growth in lending, to counter the persistently unfavourable interest rate and competitive environment and the resultant margin pressure. New business in higher-margin consumer loans should grow particularly strongly in 2019, supported by increased use of online sales channels. The aim in real estate financing is to at least maintain the considerably improved market position attained in recent years. Third-party sales, being connected more efficiently to Commerzbank systems through the application programming interface (API), will play an increased role here.

Higher income is also expected from corporate customers following the completion last autumn of the transfer of small and medium-sized customers with annual turnover of less than €15m from the Corporate Clients segment to the Private and Small-Business Customers segment. Business volumes should be increased by better coverage, especially as regards operational issues. The broad range of services for small business customers includes, for example, leasing offerings and innovative digital solutions for liquidity management. We expect our Polish subsidiary mBank, which operates what is acknowledged to be one of the most innovative direct banking platforms in Europe, to maintain its growth path. Given the steady expansion of the market position in recent years in both corporate and private customer banking, we expect further improvements in business volume and adjusted income at mBank. In addition to higher income, efficiency gains should make an increasing contribution to improving operating earnings in the whole Private and Small-Business Customers segment. The advanced expansion of the central ONE distribution platform in Germany will result in significant process optimisations and thus better cost efficiency, as will the trend towards less product diversity. The product range will become increasingly digital and thereby create additional benefits for clients. As a result, operating expenses should remain stable or decline slightly despite an ongoing high anticipated burden from regulatory costs. The sharp increase predicted in the risk result for the Private and Small-Business Customers segment as a whole is primarily related to the higher volume of loans expected in Germany. Instalment loans in particular require significantly higher impairments, but experience shows these are covered by the considerably higher credit margin. Although we assume that the low level of risk costs, which is to an extent unusual, cannot be sustained, we remain confident that given the high quality of the loan portfolio, it will prove robust even in a less favourable economic environment. Overall, we anticipate a significant increase in operating profit in the Private and Small-Business Customers segment in 2019. Slightly higher income combined with slightly lower operating expenses and a small rise in the risk result should also considerably improve the operating return on equity. There is likely to be a considerable drop in the cost/income ratio.

In the Corporate Clients segment, too, the focus is on growth initiatives aimed at modestly increasing income by further strengthening and improving the market position, which is that of leader in many areas. In Germany, the aim is to leverage potential, especially among SMEs with turnover in the range of €15m to €100m, on the one hand by winning further customers and, on the other, by applying a new advisory model and data-supported needs analysis that will make it possible to tap into existing customers better. In international business, the segment positions itself as a eurobank focused on fast-growing regions such as the USA and China. With the aim of also broadening the customer base, it can build on the strong competitive position in trade financing, for example, and euro payments, and benefit from outstanding sector and corporate finance expertise. A further focus of segment activities in the current year will remain the digital transformation of the advisory and distribution processes. The ongoing digitalisation goes hand in hand with the further major expansion of the ability to do business online across the whole product range. The segment expects that exploiting increasing efficiency gains over time will lead to a slight reduction in operating expenses year on year. The forecast of a considerably higher risk result in the current year is based on lower expected reversals of loan impairments, which had a large favourable impact on the prior-year figure. Based on the fundamental assumption of no major weakening in the overall economic environment, we expect portfolio quality to remain robust both in Germany and abroad. Overall, in 2019 the Corporate Clients segment should achieve operating profit that is at least stable or slightly higher, with a slight improvement in the cost/income ratio. We expect the operating return on equity to be essentially unchanged.

We are forecasting that by the end of 2019 the size of the portfolio in the Asset & Capital Recovery segment will have been substantially reduced compared to the end of 2018. We are confident that we will manage to once again cut the remaining positions in shipping loans and commercial real estate financing considerably during the course of the year. We are also targeting a major reduction in Public Finance. Current income in the ACR segment will fall sharply this year in both absolute and relative terms in line with the size of the portfolio. The future performance of the ACR segment will continue to be dominated by measurement gains or losses, which experience has shown are hard to forecast reliably. In the baseline scenario, total revenue in 2019 will again fall below zero, although not by much, since, like in 2018, no significant burden is expected from the shipping portfolio, which is measured at fair value through profit and loss. We also forecast only a small risk result for the commercial real estate financing portfolio. Overall, we assume the Asset & Capital Recovery segment will post an operating profit significantly below the past year's figure, with operating expenses substantially lower again.

General statement on the outlook for the Group

The Bank will continue to systematically implement the Commerzbank 4.0 strategy in 2019. Our forecasts for the rest of the year assume neither a trend in interest rates that would positively affect profitability nor any relaxation in the competitive environment. It is highly likely that margin pressure will persist in both private and corporate customer business, as maturing loans with higher interest rates can generally only be replaced with new business at lower rates. Commerzbank is forecasting slightly higher income overall for the current financial year, operating expenses below €6.8bn and a significantly higher risk result. This will result in a slight rise in operating profit; the cost/income ratio should improve slightly. We anticipate a minor but perceptible burden from items that do not contribute to operating profit, largely attributable to profit or loss from discontinued operations, which includes the contribution from the former Equity Markets & Commodities division. Overall, we expect a slight increase in consolidated net profit. As a result, we see both the return on equity and economic value added rising to a slightly higher level. In terms of the Common Equity Tier 1 ratio (fully phased-in), in future Commerzbank will focus more closely on the capital requirements arising from the Supervisory Review and Evaluation Process (SREP). At the end of 2018, the regulator, the European Central Bank (ECB), praised the progress made by Commerzbank in improving its risk profile. Consequently, it set the minimum Common Equity Tier 1 ratio resulting from the SREP one-quarter of a percentage point lower for 2019. The success in reducing risks and the size of the balance sheet in recent years has also resulted in the German regulator leaving the capital buffer for other systematically important institutions (O-SIIs) at 1.0% for 2019, delaying the increase to 1.5% which had been planned. Our own ambition for the Common Equity Tier 1 ratio at the end of 2019 is at least 12.75%. This figure is well above the ECB regulatory requirement and in management's opinion it includes a sufficient buffer to cover potential stress situations. We assume that we will initially report a Common Equity Tier 1 ratio below our 12.75% target, probably in the first half of the year. The implementation of new accounting standards and the anticipated impact of regulatory measures are likely to push the ratio down temporarily, before a steady improvement over the course of the year is seen towards the target figure.

Based on our current estimates, we anticipate that the net profit in Commerzbank Aktiengesellschaft's parent company financial statements in 2019 will be slightly higher than in 2018. We aim to propose a dividend for 2019 at a level comparable to that for 2018.

Despite the steady improvement in resilience to external influences in recent years, numerous risk factors are present that could affect the forecast profit for 2019 to a considerable, though not reliably quantifiable, extent should events take an unfavourable turn. Among these are the highly uncertain geopolitical situation and increased global economic risks, including in the core region for Commerzbank, Europe. Here we see looming trade disputes and the currently unpredictable outcome of the Brexit process having a considerable impact. Difficulties related to the normalisation of monetary policy over time and the end to the unconventional central bank measures, which is desired by most central banks, caused short, sharp price corrections and a leap in volatility on the capital markets at the end of 2018. Valuation levels remain high by historical standards on both international equity and bond markets. The economic situation is fundamentally positive, but if this were to darken significantly it could hit Germany's internationally connected economy particularly hard and result in risk costs much higher than expected. Other risk factors include unfavourable trends in the regulatory or legal environment, which could delay the impact of the intended cost improvements, and a further tightening of the competitive situation in Germany. If margins were to fall further to levels that are unattractive from a risk/return perspective, this could considerably constrain Commerzbank's profitability.

Risk Report

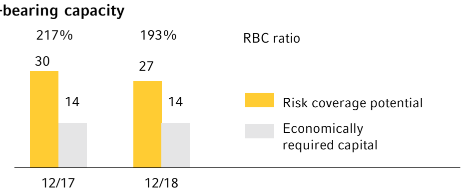
Risk reporting takes place according to the internal risk management of Commerzbank at the Group and segment level. The basis for this is formed by the financial figures according to IFRS as well as the key risk parameters according to the regulatory requirements.

Executive Summary 2018

Solid capitalisation and high risk-bearing capacity ratio

- The risk-bearing capacity ratio remains on a high level.
- The decline in the RBC ratio to 193% is the result of the risk coverage potential (among others the introduction of IFRS 9 and time-to-maturity effects of subordinated capital).

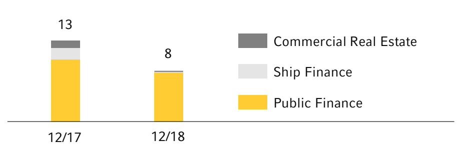
Risk-bearing capacity
€bn



Exposure reduction in the Asset & Capital Recovery segment

- ACR exposure in the performing loan book was reduced by around €5bn compared with the end of the previous year due to the conversion to IFRS 9 and the ongoing wind-down of the portfolio.
- Ship Finance exposure in ACR was below €500m as at the end of 2018.

EaD
€bn



Risk result for the Group lower at €–446m

- The risk result relating to the Group's lending business in 2018 amounted to €–446m.
- Compared with the previous year the calculation of the risk result showed substantial changes due to the conversion to IFRS 9.

Risk result
€m

Market risk in the trading book increased slightly in 2018

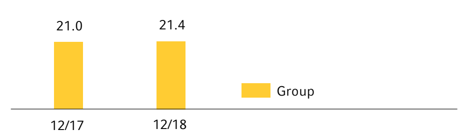
- The Value-at-Risk increased slightly from €9m to €10m over the year.
- VaR in the trading book is still at a historical low.

VaR
€m

Operational risks remained virtually constant year-on-year

- Risk-weighted assets from operational risks remained virtually constant at €21.4bn.
- The total charge for OpRisk events fell from €38m to €30m compared with the previous year.

Risk-weighted assets from operational risks
€bn



The following Risk Report is also part of the Management Report.

Risk-oriented overall bank management

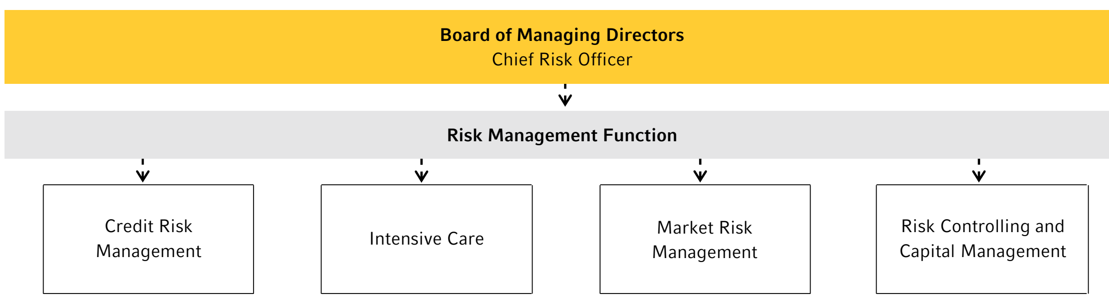
Commerzbank defines risk as the danger of possible losses or profits foregone due to internal or external factors. In risk management, we normally distinguish between quantifiable and non-quantifiable types of risk. Quantifiable risks are those to which a value can normally be attached in financial statements or in regulatory capital requirements, while non-quantifiable risks include compliance and reputational risk.

Risk management organisation

Commerzbank regards risk management as a task for the whole Bank. The Chief Risk Officer (CRO) is responsible for developing and implementing the Group's risk policy guidelines for quantifiable risks, laid down by the Board of Managing Directors, as well as for measuring these risks. The CRO regularly reports to the full Board of Managing Directors and the Supervisory Board's Risk Committee on the overall risk situation within the Group.

The risk management organisation comprises Credit Risk Management, Intensive Care, Market Risk Management as well as Risk Controlling and Capital Management. In all segments except for Asset & Capital Recovery (ACR), credit risk management is separated into a performing loan area and Intensive Care, while in ACR it has been merged into a single unit across all rating classes. All divisions have a direct reporting line to the CRO.

It is Group Compliance's responsibility to establish appropriate governance, procedures and systems to avoid the Bank being unintentionally endangered as a consequence of compliance risks. This includes the risks associated with money laundering, terrorist financing, sanctions and embargoes, markets compliance, and fraud and corruption. Group Compliance is led by the Chief Compliance Officer, who reports directly to the member of the Board of Managing Directors with responsibility for Group Compliance.



The full Board of Managing Directors has exclusive responsibility for fundamental strategic decisions. The Board of Managing Directors has delegated operative risk management to committees. Under the relevant rules of procedure, these are the Group Credit Committee, the Group Market Risk Committee, the Group OpRisk Committee and the Group Strategic Risk Committee, which decides on risk issues of an overarching nature. The CRO chairs all these committees and has the right of veto. The CRO is also a member of the central Asset Liability Committee.

The tasks and competencies of the respective committees are described below:

The **Group Credit Committee** is the decision-making committee for operative credit risk management, comprising two representatives each from the back office and front office. The Group Credit Committee operates on the basis of the credit risk strategy. It takes decisions in line with the competencies delegated to it by the full Board of Managing Directors.

The **Group Market Risk Committee** monitors market risk throughout the Bank and manages limit requirements in line with risk-bearing capacity. To do this, all market risks from the trading and banking book are analysed to identify risks early and for active risk management purposes. The focus here is on optimising the risk/return profile.

The **Group OpRisk Committee** (OpRiskCo) is responsible for managing operational risks within the Group and in this regard acts as the highest escalation and decision-making committee below the full Board of Managing Directors. The OpRiskCo also addresses all important regulatory issues that arise in connection with the management of operational risks and the implementation of the advanced measurement approach within the Group. In addition, it deals with standards on governance and assessing the functioning of the Internal Control System (ICS) within the Commerzbank Group. Details about the ICS can be found in the section on operational risks.

The **Group Strategic Risk Committee** acts as the discussion and decision-making committee for all types of risk, and its main objective is to monitor and manage risks at portfolio level. This covers risk measurement, risk transparency and risk management.

The central **Asset Liability Committee** (ALCO) is the Commerzbank Group committee responsible for the Group-wide and integrated management of financial resources, namely capital, liquidity and balance sheet structure as well as net interest income, in accordance with the regulatory framework. The ALCO monitors in particular the Group's risk-bearing capacity and as such plays an important part in the Internal Capital Adequacy Assessment Process (ICAAP). The ALCO resolves the recovery plan (resolutions of the central ALCO are presented to the full Board of Managing Directors for confirmation). In case of violation of a recovery plan indicator, the ALCO plays a central role regarding the escalation, the estimation of the situation and the introduction of measures.

Moreover, risk issues are dealt with in the Supervisory Board's Risk Committee and in the Risk & Analytics Executive Committee:

The **Supervisory Board's Risk Committee** is the Bank's highest risk committee. It comprises at least five Supervisory Board members. The Risk Committee's tasks include monitoring the risk management system and dealing with all risks, particularly with regard to market, credit and operational risk as well as reputational risk. The Risk Committee determines the type, scope, format and frequency of the information that must be presented to the Board of Managing Directors about strategy and risk.

The **Risk & Analytics Executive Committee** is the discussion and decision-making committee within the risk function and Big Data & Advanced Analytics. It is responsible in particular for the organisation and strategic development of risk management and for creating and maintaining a uniform risk culture. It also ensures that the Group risk strategy and the resolutions of the full Board of Managing Directors are implemented in the risk function.

Risk strategy and risk management

The overall risk strategy, in line with the business strategy, governs the strategic risk focus of the Commerzbank Group. It sets the risk appetite as the maximum risk that the Bank is prepared and able to accept while following its business objectives without exposing itself to existential threats over and above the risks inherent in the business. The guiding idea is to ensure that the Group holds sufficient liquidity and capital. Based on these requirements, suitable limits are defined for the risk resources of capital and liquidity available to the Group. The overarching limits of the overall risk strategy are consistent with the indicator thresholds of the recovery plan.

Banks' core functions as transformers of liquidity and risk result in inevitable threats that can in extreme cases endanger the continued existence of the institution. For Commerzbank, in view of its business model, these inherent existential threats include the default of Germany, Poland, one or more of the other major EU countries (France, Italy, Spain or the UK, although Brexit is not deemed to be a default) or the default of the USA. Italy is an idiosyncratic special case due to the major legacy exposures to the Italian government, while in the other countries existential threats would arise from the impact of a government default on banks and companies and the repercussions for the other EU countries. Others include a deep recession lasting several years with serious repercussions for the German economy, a bank run and the collapse of global clearing houses or the foreign exchange markets, possibly triggered by a cyber attack. In general, cyber risk is an inherent, existential threat for Commerzbank in the context of increasing digitalisation in the business environment.

When pursuing its business targets, the Bank accepts these existential threats. It may be necessary to adjust the business model and hence the business and risk strategies in the medium and long term if the full Board of Managing Directors' assessment of these threats to Commerzbank changes substantially. To the extent that it is able to do so, Commerzbank makes early preparations in anticipation of forthcoming changes in regulatory requirements and accounting standards. Such changes and their (retrospective) interpretation may have lasting implications for – and even threaten the survival of – Commerzbank's business model. Commerzbank accepts these regulatory risks because there are many cases where there is no option to mitigate or manage them.

The overall risk strategy covers all material risks to which Commerzbank is exposed. It is updated annually or on an ad hoc basis as required and set out in further detail in the form of sub-risk strategies for the risk types which are material. These are then specified and made operational through policies, regulations and instructions/guidelines. By means of the upstream risk inventory process, Commerzbank ensures that all risk types of relevance to the Group are identified and their materiality assessed. The assessment of the materiality of a risk is based on whether its occurrence could have a major direct or indirect impact on the Bank's risk-bearing capacity.

As part of the planning process, the Board of Managing Directors decides how much of the risk coverage potential of the Group should be utilised. On that basis, individual types of quantifiable risk contributing to the capital requirements are limited in a second stage. A capital framework is allocated to the management-relevant units through the planning process. Compliance with limits and guidelines is monitored during the year, and management measures are put in place where required. In addition, further qualitative and quantitative early warning indicators are established in the overall risk strategy. Potential negative developments can be identified at an early stage with the help of these indicators.

One of the primary tasks of risk management is the avoidance of risk concentrations. These can arise from the synchronous movement of risk positions both within a single risk type (intra-risk concentrations) and across different risk types (inter-risk concentrations). The latter result from common risk drivers or from interactions between different risk drivers of different risk types.

By establishing adequate risk management and controlling processes, Commerzbank provides for the identification, assessment, management, monitoring and communication of material risks and related risk concentrations. This ensures that all Commerzbank-specific risk concentrations are taken into account in its risk management. Stress tests are regularly used to ensure transparency regarding risk concentrations. The structure of the scenarios and the integrated approach ensure that the impact of adverse scenarios on portfolio priorities and risk concentrations are examined in a targeted manner. Management is regularly informed about the results of the analyses so that the potential risk of losses can be avoided in good time.

The Group Risk & Capital Monitor is the monthly risk report, designed for management purposes, on capital, credit risk, market risk, liquidity risk and OpRisk topics within Commerzbank risk management. It shows all the above risk types, including economic and regulatory risk-bearing capacity, for the Commerzbank Group. The report's aims include providing the full Board of Managing Directors and the Supervisory Board's Risk Committee with transparent and comprehensive information, highlighting important developments from a risk perspective and setting management measures. The report is also used in particular to monitor limits and guidelines within the overall risk strategy. Responsibility for approving the overall risk strategy and the Group Risk & Capital Monitor lies with the full Board of Managing Directors.

Commerzbank has adopted a code of conduct that defines binding minimum standards for Commerzbank's corporate responsibility, its dealings with customers, business partners and colleagues, and its day-to-day business. It goes without saying that the Bank complies with relevant laws, regulatory requirements, industry standards and internal rules, and this therefore forms a particularly important part of its risk culture. It actively requires employees to behave appropriately, courageously, with integrity and in compliance with rules, and any failure to comply with rules is penalised. Expanded procedures ensure that misconduct is evaluated in a uniform and fair manner, strengthening consequence management on a long-term basis.

The main pillar of the Bank's overall risk management and culture is the concept of three lines of defence, which is a core element of the Corporate Charter. Under the three lines of defence principle, protecting against undesirable risks is an activity that is not restricted to the risk function. Each unit (segment or function) forms the first line of defence within its area of operational responsibility and is responsible for identifying and managing risks within it while complying with the prescribed risk standards and policies. For example, the front office forms the first line of defence in all business decisions and has to take risk aspects into account in reaching them. The second line of defence for each type of risk lays down standards for appropriate management of risks of that type, monitors this and ensures the application of such standards, and analyses and evaluates the risks. The risk function forms the second line of defence against credit and market risks associated with business decisions. Particularly for credit risk, this includes involvement in the credit decision process by means of a second vote. Units outside the risk function (e.g. Group Compliance and Group Finance) also operate as the second line of defence for certain risk types. The third line of defence is internal audit.

Risk ratios

Commerzbank uses a comprehensive system of ratios and procedures for measuring, managing and limiting various types of risk. The most important of these are listed below:

Economically required capital is the amount, corresponding to a high confidence level (currently 99.91% at Commerzbank), that will cover unexpected losses arising from risk positions.

The **risk-bearing capacity ratio (RBC ratio)** indicates the excess coverage of the economically required capital by the risk coverage potential. Risk-bearing capacity is deemed to be assured as long as the RBC ratio is higher than 100%.

Exposure at default (EaD) is the expected exposure amount taking into account a potential (partial) drawing of open lines and contingent liabilities that will adversely affect risk-bearing capacity in the event of default. EaD is hereinafter also referred to as "exposure".

Expected loss (EL) measures the potential loss on a loan portfolio that can be expected within one year on the basis of historical loss data.

Risk density is the ratio of expected loss to exposure at default and thus represents the relative risk content of an exposure or a portfolio.

Value at risk (VaR) is a methodology for quantifying risk. It involves setting a holding period (such as one day) and a confidence level (such as 97.5%). The VaR value then denotes the relevant loss threshold that will not be exceeded within the holding period with a probability in line with the confidence level.

Credit value at risk (CVaR) is the economic capital requirement for credit risk with a confidence level of 99.91%. The term results from the application of the value at risk concept to credit risk measurement. Credit VaR is an estimate of the amount by which losses from credit risks could potentially exceed the expected loss within a single year, i.e. unexpected loss. The idea behind this approach is that expected loss simply represents the long-term average of lending losses, but this may vary (positively or negatively) from actual credit losses for the current financial year.

In relation to bulk risk, the **"all-in" concept** comprises all customer credit lines approved by the Bank in their full amount – irrespective of the loan utilisation to date. It is independent of statistically modelled parameters to the greatest possible extent and comprises internal as well as external credit lines.

Risk-bearing capacity and stress testing

Risk-bearing capacity analysis is a key part of overall bank management and Commerzbank's ICAAP. The purpose is to ensure that sufficient capital is held at all times.

Commerzbank monitors risk-bearing capacity using a gone concern approach which seeks primarily to protect unsubordinated lenders. This objective should be achieved even in the event of extraordinarily high losses from an unlikely extreme event. The gone concern analysis is supplemented here by elements aimed at ensuring the institution's continuing existence (going concern perspective).

When determining the economically required capital, allowance is made for potential unexpected fluctuations in value. Where such fluctuations exceed forecasts, they must be covered by the available economic capital to absorb unexpected losses (risk coverage potential). The quantification of the risk coverage potential is based on a differentiated view of the accounting values of assets and liabilities and involves economic valuations of certain balance sheet items.

The capital requirement for the risks taken is quantified using the internal economic capital model. When assessing the economic capital required, allowance is made for all the types of risk at the Commerzbank Group that are classified as material and quantifiable in the annual risk inventory. The economic risk approach therefore also comprises risk types that are not included in the regulatory requirements for banks' capital adequacy. The model also reflects diversification effects incorporating all types of risk. The confidence level of 99.91% in the economic capital model is in line with the underlying gone concern assumptions and ensures the economic risk-bearing capacity concept is internally consistent. The quantifiable risks in the economic capital model can be divided into default risk, market risk, operational risk and (although not shown separately in the table on page 49) business risk, physical asset risk, investment portfolio risk, deposit model risk and reserve risk. Business risk is the risk of a loss resulting from discrepancies between actual income and expense and the respective budgeted figures. Business risk is considered as a deductible amount in risk coverage potential. Investment portfolio risk indicates the risk of an unexpected fall in the value of unlisted investments. Physical asset risk is the risk of an unexpected fall in the value of owned property which is either already recognised as an asset in the Group's balance sheet or which can be recognised during the next 12 months under contractually assured obligations with option character (especially real estate). Deposit model risk is the risk arising from the deposit model used by Commerzbank and from modelling unscheduled repayment rights in commercial credit business. Reserve risk is the risk of additional charges being incurred on the portfolio of loans already in default through the creation of additional loan loss provisions. Allowance is made for this risk by means of a risk buffer when considering risk-bearing capacity. The results of the risk-bearing capacity analysis are shown using the risk-bearing capacity ratio (RBC ratio), indicating the excess of the risk coverage potential in relation to the economically required capital.

The risk-bearing capacity is monitored and managed monthly at Group level. Risk-bearing capacity is deemed to be assured as long as the RBC ratio is higher than 100%. In 2018, the RBC ratio was consistently above 100% and stood at 193% on 31 December 2018. The decline in the RBC ratio is attributable to the change in the risk coverage potential, which fell compared with December 2017 due mainly to the introduction of IFRS 9, time-to-maturity effects of subordinated capital and the market-related developments in the Public Finance portfolio. The RBC ratio remains at a high level.

Risk-bearing capacity Group | €bn	31.12.2018	31.12.2017
Economic risk coverage potential[1]	**27**	**30**
Economically required capital[2]	**14**	**14**
thereof for default risk	10	10
thereof for market risk[3]	3	3
thereof for operational risk	2	2
thereof diversification effects	−2	−2
RBC ratio (%)[4]	**193**	**217**

[1] Including deductible amounts for business risk.
[2] Including physical asset risk, risk of unlisted investments and reserve risk.
[3] Including deposit model risk.
[4] RBC ratio = economic risk coverage potential/economically required capital (including risk buffer).

Commerzbank uses macroeconomic stress tests to review the risk-bearing capacity in the event of assumed adverse changes in the economic environment. The scenarios on which they are based take into account the interdependence in development between the real and financial economies and extend over a time horizon of at least two years. They are updated quarterly and approved by the ALCO. The scenarios describe an extraordinary but plausible adverse development in the economy, focusing in particular on portfolio priorities (e.g. export-based sectors in Germany) and business strategies of relevance to Commerzbank. The scenario simulation is run monthly at Group level using the input parameters of the economic capital requirements calculation for all material and quantifiable risk types. In addition to the capital required, the income statement is also subjected to a stress test based on the macroeconomic scenarios. Based on this, changes in the risk coverage potential are simulated. Whereas the RBC ratio is embedded into Commerzbank's limit system, guidelines for risk-bearing capacity are set as an early warning system in the stressed environment. The ongoing monitoring of the limits and guidelines is a key part of internal reporting. Defined escalations are triggered if the limits are breached.

The risk-bearing capacity and stress testing concept is subject to an annual internal review and is refined on an ongoing basis. The development of the regulatory environment is also taken into account. The European Central Bank (ECB) published revised ICAAP and ILAAP guidelines on 9 November 2018. Commerzbank will adjust its risk-bearing capacity and stress testing concept to comply with the new requirements from 2019. This will involve changing the economic approach from a gone concern approach to a going concern approach. In addition to the regular stress tests, reverse stress tests are implemented annually at Group level. Unlike regular stress testing, the result of the simulation – a sustained threat to the Bank – is determined in advance. The aim of the analysis process in the reverse stress test is to improve the transparency of Bank-specific risk potential and interactions of risk by identifying and assessing extreme scenarios and events. On this basis, for instance, action fields in risk management including the regular stress tests can be identified and taken into account in the ongoing development efforts.

In addition to its own internal stress test of economic risk-bearing capacity, Commerzbank once again took part in the EU-wide stress test conducted by the European Banking Authority (EBA), achieving a significantly better result than in the previous stress test in 2016. Under the adverse stress scenario the common equity tier one (CET1) ratio was 9.9% at the end of the review period in 2020. That is 2.5 percentage points higher than in the last test in 2016. Overall, the stress effect reduced the CET 1 ratio by 3.4 percentage points from 13.3% (full application of Basel 3 including the new IFRS 9 accounting rules as at year-end 2017/ 2018). In 2016, the ratio fell by 4.7 percentage points under the adverse stress scenario.

In 2018, the risk-weighted assets resulting from Commerzbank's business activities increased from €171bn to €180bn.

The increase was mainly attributable to volume growth in the Private and Small-Business Customers and Corporate Clients segments. RWA also increased as a result of parameter adjustments, partially offset by the planned reduction of the Asset & Capital Recovery portfolio.

The table below gives an overview of the distribution of risk-weighted assets, broken down by segment and risk type:

Risk-weighted assets as at 31.12.2018 | €bn	Default risk	Market risk	Operational risk	Total
Private and Small-Business Customers	36	1	5	41
Corporate Clients	80	6	11	98
Asset & Capital Recovery	9	2	1	12
Commercial Real Estate	1	0	1	2
Ship Finance	0	0	0	1
Public Finance	8	2	0	9
Others and Consolidation	22	3	4	29
Group 2018	**147**	**12**	**21**	**180**
Group 2017	137	13	21	171

Regulatory environment

With Basel 3, the Basel Committee on Banking Supervision published among other things comprehensive rules on the components of shareholders' equity and ratios as well as the management of liquidity risk. The Capital Requirements Directive and Regulation (CRD-IV) package of measures, constituting the European implementation of Basel 3, has been in force since 1 January 2014, with the more stringent capital requirements being phased in up to 2019. Numerous supplementary regulations have since been published by the European Banking Authority (EBA) in particular, and these will now gradually enter into force; this will continue in subsequent years. Commerzbank has prepared itself for the more stringent capital adequacy requirements by taking a number of steps.

In addition, under Basel 3 the leverage ratio has been introduced as a new and non-risk-sensitive debt ratio. Commerzbank has set its own leverage ratio targets and applies them in its capital management process.

The phasing in of capital buffers is a significant feature of the Basel 3 revision. The capital conservation buffer, the buffer for other systemically relevant institutions and the countercyclical capital buffer, which the Federal Financial Supervisory Authority (BaFin) has again set at 0% for German exposure for the fourth quarter of 2018, have applied since 1 January 2016. The buffer for other systemically relevant institutions was set by BaFin for Commerzbank at 1% for 2018.

Liquidity risk is to be monitored by means of the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR). The LCR entered into force on 1 October 2015 and is binding on all European banks. The final version of the NSFR, which was approved by the Basel Committee in October 2014, is due to be transposed into European law as part of the Capital Requirements Regulation II (CRR II). Commerzbank is already calculating both ratios as part of its regulatory reporting processes, communicating them in its internal reporting and reporting them to the supervisory authority.

The ECB, in its capacity as the supervisory authority for the eurozone banks directly supervised by it, has conducted the Supervisory Review and Evaluation Process (SREP) and specified individual minimum capital requirements for each bank.

The aim of the ECB's targeted review of internal models (TRIM) is to harmonise the RWA-relevant models for market, counterparty and credit risk that fall within the scope of the Single Supervisory Mechanism (SSM). In particular, the scope for interpretation permitted by the regulations or arising due to differences in national application is to be significantly reduced in future. The relevant guides include rules that are to be enacted in future and wide-ranging independent interpretations. In 2018, reviews focused in particular on low default portfolios. The decision regarding the TRIM assessment in 2017 will be prepared by the ECB in 2019. This may result in higher risk-weighted assets.

The EU Bank Recovery and Resolution Directive has been in force since mid-2014. It was transposed into German law in the form of the Bank Recovery and Resolution Act (Sanierungs- und Abwicklungsgesetz, SAG). Based on this law, the Financial Market Stabilisation Authority (FMSA), as the national resolution authority, took over responsibility for the drafting of resolution plans and the resolution of German banks with effect from 1 January 2015. Responsibility for the drafting of resolution plans and the resolution of at-risk banks supervised by the ECB was transferred to the Single Resolution Board (SRB) in Brussels with effect from 1 January 2016. At the same time, eurozone banks started to fund the Single Resolution Fund. In 2018, the SRB defined a first formal minimum requirement for own funds and eligible liabilities (MREL) for the banks under its responsibility on a consolidated basis.

The Group-wide recovery plan was updated in 2018 to reflect the regulatory requirements. The recovery plan describes in detail for instance the courses of action and recovery potential available to the Bank in the event of a crisis and which specific recovery measures, in various stress scenarios, will enable the Bank to complete its recovery. As the European and German regulations and requirements are finalised, the Bank will refine its recovery plan accordingly.

Commerzbank operates in markets subject to national and supranational regulation. In addition, it is subject to the overarching requirements imposed by accounting standards. Changes in regulatory requirements and accounting standards have significantly grown in frequency and materiality in recent years. They may have lasting implications for the financial industry in general and Commerzbank's business model in particular. Commerzbank participates actively and at an early stage in the consultation processes aimed at preparing for the constant changes in the operating environment. It also monitors and evaluates current developments as regards future regulatory projects. Specific examples of these at global level are the final standards for revising capital requirements for market risk now published by the Basel Committee on Banking Supervision, the rules on interest rate risks in the banking book and revision of the framework for operational risks and credit risks, including the associated floor rules and disclosure requirements. At European level, Commerzbank is monitoring the European Commission initiatives to introduce a European deposit insurance scheme and establish a capital markets union, and in particular the associated EU securitisation framework.

Default risk

Default risk is defined as the risk of losses sustained or profits foregone due to the default of a counterparty. It is a quantifiable material risk and includes the material sub-risk types of credit default risk, issuer risk, counterparty risk, country and transfer risk, dilution risk and reserve risk.

Strategy and organisation

The credit risk strategy is the sub-risk strategy for default risks and is derived from the overall risk strategy. It is embedded in the ICAAP process of the Commerzbank Group and forms a link between the Bank's overall risk management across all risk types and the operationalisation of default risk management. The overriding aim is to ensure the adequate quality of the credit portfolio. To this end, the credit risk strategy defines the credit risk tolerance, specifies risk strategy priorities, provides an overview of the material credit risk management concepts and thereby plays an integral part in maintaining the Group's risk-bearing capacity. The credit risk strategy makes use of quantitative and qualitative management tools that give decision-makers clear guidance on both portfolio management and decisions in specific cases.

Commerzbank's underwriting practices are governed by its Corporate Clients Loan Underwriting Policy, which addresses amongst other things, loan origination, underwriting criteria, as well as the credit decision process. Furthermore, the Loan Underwriting Policy is interlinked with the bank's credit risk strategy and credit policies.

Credit risk management is a joint task of the front office and the risk function, based on a standardised Group-wide credit risk culture. Impeccable moral and ethical conduct in compliance with the law and regulations is a key element of a culture of integrity and core to the credit risk culture. Default risks are assessed against uniform standards, regardless of segment limits. In line with the three lines of defence principle, the front office is the first line of defence and must take risk aspects into account when taking business decisions. The risk function (back office and Risk Controlling) is the second line of defence, its fundamental task being to manage, limit and monitor risks. The third line of defence is Internal Audit. It is tasked with independently auditing the Bank's processes and safe guards, and as such also assesses the activities of the first and second lines of defence.

The Group Credit Committee is the highest decision-making committee for operative credit risk management, comprising two representatives each from the back office and front office. It takes decisions in line with the competencies delegated to it by the full Board of Managing Directors and is responsible for managing all credit risks. In so doing, the Group Credit Committee operates on the basis of the valid credit risk strategy. Reporting to the Group Credit Committee are sub-credit committees, which operate on the basis of their respective rules of procedure and within the competencies approved by the full Board of Managing Directors. They comprise at least two representatives from the segments and two representatives from Group Risk Management. The sub-credit committees are responsible for managing all credit risks in the sub-portfolios within their respective remit and are entitled, in turn, to sub-delegate certain credit decisions within their prescribed competencies.

Discrete back-office areas are responsible for operational credit risk management at portfolio level and on a case-by-case basis. The responsibilities are separated between the performing loan area on the one hand and Intensive Care on the other. All credit decisions in the performing loan area are risk/return decisions. The front and back office take joint responsibility for risk and return from an exposure, with the front office having primary responsibility for the return, and the back office for the risk. Accordingly, neither office can be overruled in its primary responsibility in the credit decision process.

Higher-risk customers in Corporate Clients and Private and Small-Business Customers are handled by specialist Intensive Care areas. The customers are moved to these areas as soon as they meet defined criteria for assignment or mandatory transfer. The principal reasons for assignment to Intensive Care areas are criteria relating to number of days overdrawn, together with event-related criteria such as rating, third-party enforcement measures or credit fraud. Intensive Care decides on further action based on the circumstances of individual cases. Customers must be transferred to Intensive Care if they are in default (for example due to insolvency). This graduated approach ensures that higher-risk customers can continue to be managed promptly by specialists in a manner appropriate to the risks involved and in defined standardised processes.

In the ACR segment, by contrast, there is no separation of responsibilities between the performing loan area and Intensive Care. Credit risk management here has been merged into one unit across all rating classes.

The aim is to fully wind down all the assets grouped in this segment in a way that preserves value. To this end, EaD-based guidelines have been established and an asset management programme has been implemented. This is carried out through regular asset planning. The main aim here is to prioritise the winding down or reduction of those parts of the portfolio and individual loans for which the capital requirement is particularly high. Opportunities for selling sub-portfolios in a way that preserves value may also be used to free up capital as part of the systematic portfolio reduction. For business in Public Finance, the reduction is primarily through regular maturities of assets. Market opportunities that arise are used in a targeted way for the sale of individual assets.

Risk management

Commerzbank manages default risk using a comprehensive risk management system. The management framework comprises an organisational structure, methods and models, quantitative and qualitative management tools and regulations and processes. The risk management system ensures that the entire portfolio and the sub-portfolios, right down to individual exposure level, are managed consistently and thoroughly on a top-down basis.

The ratios and measures required for the operational process of risk management are based on the overarching Group objectives. The principle of maintaining a low-risk profile in all business decisions is closely combined here with the risk function's aim of providing the front office with appropriate support. The Bank's particular preference is for credit growth in granular lending business with good credit ratings. It also prefers business and products with low complexity and pays attention to the responsiveness of credit lines and exposures.

Quantitative credit risk strategy guidelines limit risks with regard to poorer credit ratings and exposures with high loss-at-default contributions (concentration management) and for selected sub-portfolios with a high risk weight or regulatory importance, and, as applicable, for individual products with a high portfolio share. Detailed arrangements for operationalising the guidelines for selected sub-portfolios are set out in separate portfolio policies. In addition, qualitative management guidelines in the form of credit policies define the target business of the Bank. At the level of individual transactions, they regulate the transaction type for which the available risk resources are to be used. These credit policies are firmly embedded in the credit process: transactions which do not meet the requirements are escalated through a fixed competence regulation.

Group-wide guiding principles are based on risk-oriented analyses of trends (e.g. of the development of weaker credit ratings over time) combined with an assessment of external framework conditions and internal rules. Risk-oriented analyses on key dates (e.g. rating profile of individual asset classes) are used in particular to derive portfolio guiding principles. Trend analyses of product-specific risk drivers are key factors for determining product guiding principles (e.g. loan-to-value of mortgage lending). In contrast, credit and portfolio policies are primarily produced through a multi-level coordination process involving the product and portfolio managers from the front and back offices, combined with an assessment of internal and external information sources.

To monitor compliance with credit risk strategic rules, continuous monitoring and reporting has also been set up at whole Group level and at segment or sub-portfolio level. Asset quality reviews by the risk function make an important contribution here to quality assurance and early risk detection. The key aspects of monitoring vary according to the subject matter and target audience, and ad-hoc reporting processes are in place. In addition, crisis events may pose a risk to the Bank's capital and liquidity adequacy and thereby to its risk-bearing capacity. In a crisis, the Risk Mitigation Task Force will manage decisions flexibly in a coordinated, Group-wide process. As part of the process, emergency action plans ensure that risk-mitigation measures are implemented quickly and efficiently. The avoidance of risk concentrations is a core strategy of risk management. Risk concentrations are actively managed in order to identify at an early stage and contain the increased potential for loss from the synchronous movement of risk positions. In addition to exposure-related credit risk concentrations (bulk risks), default risk also includes country and sector concentrations. Segment-specific features are taken into account here.

A uniform definition based on "all-in" is used to manage bulk risk. The all-in concept comprises all customer credit lines approved by the Bank in their full amount – irrespective of the loan utilisation to date.

Management and the Supervisory Board's Risk Committee are regularly informed about the results of the analyses.

Management of economic capital commitment

Economic capital commitment is managed in order to ensure that the Commerzbank Group holds sufficient capital. To this end, all relevant risk types in the overall risk strategy for economic risk capital are given limits on a Group-wide basis, with, in particular, a CVaR limit being specified. Due to the systematically restricted options for reducing default risk on a short-term basis, it is important to take account of expected trends (medium-term and long-term) in order to manage credit risk. For this reason, forecast values of credit risk parameters play a key role in ongoing management. At segment and business area level, changes to forecasts are monitored and adjustments made when necessary. There is no cascaded capital limit concept for credit risk below Group level.

Overview of management instruments and levels

	Risk strategies and policies	Limit and guideline systems	Portfolio monitoring and reporting	Structures of organisation and committees
Group	Overall risk strategy plus sub-risk strategies for significant risk types Establishment of a general risk understanding and creation of a uniform risk culture	Definition of Group limits (across all risk types) for capital and liquidity management Additional definition of guidelines as key points of the aspired target portfolio	Group Risk & Capital Monitor plus risk type specific Group formats (including flash reporting) Uniform, consolidated data repository as basis for Group reporting	Ensuring exchange of information and networking in committees that operate across all risk types Retaining qualified staff in line with progressive product innovation or regulatory adjustments
Sub-portfolios	Clear formulation of risk policy in guidelines (portfolios, asset classes, etc.) Differenciated credit authorities based on compliance of transactions with the Bank's risk policy	Performance metrics on level of risk categories and sub-portfolios Expansion of Group-wide performance metrics using sub-portfolio-specific indicators	Portfolio batches as per established portfolio calendar Asset quality review and analysis of High Attention Parts (HAP) Trigger monitoring with clear escalation and reporting lines	Interdisciplinary composition of segment committees Ensuring uniform economic opinions
Individual exposures	Rating-dependent and bulk-sensitive credit authority regulations with clear escalation processes	Limitation of bulk risk and uniform management according to model-independent all-in definition	Limit monitoring at individual exposure level Monthly report to the Board of Managing Directors on the development of bulk risks Review of individual customers/exposures resulting from asset quality review or HAP analyses	Deal team structures Institutionalized exchange within the risk function, also taking account of economic developments Sector-wise organization of domestic corporate business

Rating classification

The Commerzbank rating method comprises 25 rating classes for customers not in default (1.0 to 5.8) and five default classes (6.1 to 6.5). The Commerzbank master scale allocates precisely one rating class, stable over time, to each probability of default. The rating methods are validated annually and recalibrated where necessary so that they reflect the latest assessment based on all actual observed defaults. The probability of default ranges assigned to the ratings are the same for all portfolios. This ensures internal comparability consistent with the master scale method. For guidance and indicative purposes, the Commerzbank master scale also shows external ratings as well as credit quality steps in accordance with Article 136 CRR. However, a direct reconciliation is not possible, because external ratings of different portfolios show fluctuating default rates from year to year.

The credit approval authorities of both individual staff and the committees (full Board of Managing Directors, Credit Committee, sub-credit committees) are graduated by a range of factors including size of exposure and rating class.

Commerzbank AG rating	PD and EL mid-point %	PD and EL range %	S&P scale		Credit quality steps in accordance with Article 136 CRR[1]	
1.0	0	0	AAA	AAA	I	
1.2	0.01	0 – 0.02				
1.4	0.02	0.02 – 0.03	AA+	AA		
1.6	0.04	0.03 – 0.05	AA, AA–		II	
1.8	0.07	0.05 – 0.08	A+, A	A		Investment Grade
2.0	0.11	0.08 – 0.13	A–			
2.2	0.17	0.13 – 0.21	BBB+			
2.4	0.26	0.21 – 0.31	BBB	BBB	III	
2.6	0.39	0.31 – 0.47				
2.8	0.57	0.47 – 0.68	BBB–			
3.0	0.81	0.68 – 0.96	BB+			
3.2	1.14	0.96 – 1.34	BB			Sub-investment grade
3.4	1.56	1.34 – 1.81		BB	IV	
3.6	2.10	1.81 – 2.40				
3.8	2.74	2.40 – 3.10	BB–			
4.0	3.50	3.10 – 3.90	B+			
4.2	4.35	3.90 – 4.86				Non-investment grade
4.4	5.42	4.86 – 6.04	B	B	V	
4.6	6.74	6.04 – 7.52				
4.8	8.39	7.52 – 9.35	B–			
5.0	10.43	9.35 – 11.64				
5.2	12.98	11.64 – 14.48	CCC+	CCC		
5.4	16.15	14.48 – 18.01	CCC, CCC–		VI	
5.6	20.09	18.01 – 22.41	CC, C	CC, C		
5.8	47.34	22.41 – 99.99				
6.1		> 90 days past due				
6.2		Imminent insolvency				
6.3	100	Restructuring with recapitalisation		D		Default
6.4		Termination without insolvency				
6.5		Insolvency				

[1] CRR = Capital Requirements Regulation (EU) No 575/2013.

Risk mitigation

The collateral taken into account in risk management changed in the period under review from €99.0bn to €104.5bn for positions in the Group's performing portfolio and from €1.6bn to €0.9bn for positions in the default portfolio.

Commerzbank mitigates credit risk through various measures including collateral and netting procedures.

Types of collateral include in particular mortgages, financial collateral, guarantees, indemnities, credit derivatives, life insurance policies, other registered liens and other physical collateral.

The Bank takes account of credit risk mitigation effects from the acceptance of recognisable warranties (guarantees, comparable claims on third parties) by using the guarantor's risk parameters (PD and LGD) and/or the regulatory risk weightings.

As at the reporting date, no loan loss provisions were created for transactions with a total volume of €5.3bn, as these are entirely collateralised.

Where eligible from a regulatory point of view, guarantors are subject to a creditworthiness check and rating assignment based on their sector and business as part of the assessment of their declaration of liability. The aim of the creditworthiness check is to establish the guarantor's creditworthiness and maximum solvency.

The quality of the collateralisation is rigorously checked in line with regulatory requirements and monitored on an ongoing basis. This includes in particular checks on legal enforceability and regular measurement of the collateral, carried out at appropriate intervals depending on the type of collateral, at least annually or on an event-driven basis. Positive correlations between the debtor's creditworthiness and the value of the collateral or guarantee are defined in the credit and collateral processing process. Collateral processing for Corporate Clients is performed exclusively by the collateral management team within the risk function.

The Bank analyses all credit collateral (physical and personal collateral) for evidence of collateral concentrations. The analysis includes checks on various dimensions such as collateral categories, the borrower's rating classes or regional allocations of collateral. The full Board of Managing Directors receives regular information in respect of the above dimensions about changes in the collateral pool and possible issues/concentrations.

The measurement and processing of collateral is governed by generally applicable standards and collateral-specific instructions (guidelines, process descriptions, IT instructions). Legally verified standard agreements and models are used wherever possible. The standards established to hedge or mitigate credit risk include:

- Legal and operational standards for documentation and data collection and measurement standards.
- Standards to ensure the uniformity and timeliness of collateral measurement through the definition of measurement processes, uniform measurement methods, parameters and defined collateral discounts, clear definition of competences and responsibility for the processing and measurement process, and regular remeasurement frequencies.
- Other standards to take account of specific risks such as operational risk, correlation and concentration risk, market price change risk (e.g. due to currency fluctuations), country risk, legal and legal change risk and the risk of inadequate insurance coverage.

Commerzbank Group

Commerzbank focusses its business on two customer segments, "Private and Small-Business Customers" and "Corporate Clients". In the "Asset & Capital Recovery" segment, the Bank has bundled the activities of the Commercial Real Estate and Ship Finance areas and complex financings from the Public Finance area. The intention is that all the portfolios in this segment should be completely wound down over time.

Credit risk parameters

The credit risk parameters in the Commerzbank Group are distributed in the rating classes 1.0 to 5.8 over the segments as follows:

Credit risk parameters as at 31.12.2018	Exposure at default €bn	Expected loss €m	Risk density bp	CVaR €m
Private and Small-Business Customers	165	420	25	2,476
Corporate Clients	187	467	25	5,458
Asset & Capital Recovery	8	46	57	643
Others and Consolidation[1]	72	35	5	1,790
Group 2018	**432**	**968**	**22**	**10,366**
Group 2017	423	1,180	28	10,362

[1] Mainly liquidity portfolios of Group Treasury.

When broken down on the basis of PD ratings, 84% of the Group's portfolio is in the internal rating classes 1 and 2, which comprise investment grade.

Rating breakdown as at 31.12.2018 EaD | %	1.0-1.8	2.0-2.8	3.0-3.8	4.0-4.8	5.0-5.8
Private and Small-Business Customers	32	51	14	3	1
Corporate Clients	20	59	16	3	1
Asset & Capital Recovery	27	56	8	9	1
Others and Consolidation	45	53	1	0	0
Group 2018	**29**	**55**	**13**	**2**	**1**
Group 2017	32	51	13	2	2

The Group's country risk assessment covers both transfer risks and event risks driven by political and economic events which impact on the individual economic entities of a country. Country risks are managed on the basis of defined credit risk and transfer risk limits at country level. Country exposures which are significant for Commerzbank due to their size are handled by the Strategic Risk Committee on a separate basis.

The regional breakdown of the exposure corresponds to the Bank's strategic direction and reflects the main areas of its global business activities.

Group portfolio by region as at 31.12.2018	Exposure at default €bn	Expected loss €m	Risk density bp
Germany	227	477	21
Western Europe	84	162	19
Central and Eastern Europe	41	197	48
North America	32	54	17
Asia	37	44	12
Other	10	34	33
Group 2018	**432**	**968**	**22**
Group 2017	423	1,180	28

Around half of the Bank's exposure relates to Germany, another third to other countries in Europe, 8% to North America and 9% to Asia. The rest is broadly diversified and is split among a large number of countries where we serve German exporters in particular or where Commerzbank has a local presence. The expected loss of the Group portfolio is mainly divided between Germany and the other European countries. A main driver of the expected loss in the region "Other" is ship financing.

In view of current geopolitical developments, national economies such as Russia, Turkey and China are closely monitored. As at the end of 2018, exposure to Russia was €2.6bn, exposure to Turkey was €1.7bn and exposure to China was €6.4bn.

The sovereign exposures of Italy and Spain are also still closely monitored as a result of the sovereign debt crisis. As at the end of 2018, Commerzbank's Italian sovereign exposure was €8.4bn, while its Spanish sovereign exposure was €1.3bn.

Risk result The risk result relating to the Group's lending business in 2018 amounted to €–446m. The risk result in the Corporate Clients segment benefited mainly from a reversal associated with a single exposure.

Compared with the previous year the calculation of the risk result showed substantial changes due to the conversion to IFRS 9. The following table shows the breakdown of the risk result by stage according to IFRS 9.

The fluctuations of market values in the shipping portfolio are not recognised in the risk result. They are recognised in the gain or loss from financial assets and liabilities measured at fair value through profit and loss.

	2018			
Risk result | €m	**Stage 1**	**Stage 2**	**Stage 3**[1]	**Total**
Private and Small-Business Customers	9	−63	−180	−233
Corporate Clients	−26	−46	−121	−194
Asset & Capital Recovery	9	0	−18	−8
Others and Consolidation	−5	−6	0	−11
Group	**−13**	**−115**	**−318**	**−446**

[1] Stage 3 including POCI (POCI – purchased or originated credit-impaired).

Loan loss provisions[1] | €m	**2017**
Private and Small-Business Customers	−154
Corporate Clients	−295
Asset & Capital Recovery	−336
Others and Consolidation	4
Group	**−781**

[1] Loan loss provisions according to IAS 39.

The risk result of the third and fourth quarters of 2018, with loan loss provisions of €133m and €154m respectively projected for a full year, is in line with a normalised level. From the present perspective, the risk result for the year 2019 as a whole will therefore not be less than €550m.

Default portfolio The Group's default portfolio stood at €3,839m as at 31 December 2018.

The following breakdown of the default portfolio shows the claims in the default portfolio in the amortised cost and fair value OCI (other comprehensive income) categories. The loans, of which by far the greatest share of €3.6bn relates to the loans and receivables class and €171m to off-balance sheet transactions, are assigned solely to the amortised cost category. The fair value OCI category exclusively includes securities in the amount of €67m, which are fully assigned to the securitised debt instruments class. The collateral shown shall be liable to the full extent for loans in the amortised cost category, with €876m relating to loans and receivables and €37m to off-balance sheet transactions.

The decrease in the parameters is mainly due to the reclassification of the shipping portfolio as part of the conversion to IFRS 9 at the beginning of 2018.

	31.12.2018			31.12.2017[1]
Default portfolio Group | €m	**Loans**	**Securities**	**Total**	**Total**
Default portfolio	3,769	71	3,839	5,569
LLP[2]	1,606	3	1,609	2,770
Coverage ratio excluding collateral (%)[3]	43	4	42	50
Collateral	913	0	913	1,578
Coverage ratio including collateral (%)[3]	67	4	66	78
NPL ratio (%)[4]			0.9	1.3

[1] Until 31 December 2017 only loans.
[2] Loan loss provisions.
[3] Coverage ratio: LLP (and collateral) as a proportion of the default portfolio.
[4] NPL ratio: default portfolio (non-performing loans – NPL) as a proportion of total exposure (EaD including NPL).

The default portfolio is divided into five classes based on the nature of the default:

- Rating class 6.1: Over 90 days past due.
- Rating classes 6.2/6.3: Imminent insolvency, or the Bank is assisting in financial rescue/restructuring measures at the customer with restructuring contributions.
- Rating classes 6.4/6.5: The Bank recalls the loan and the customer has become insolvent respectively.

The table below shows the breakdown of the default portfolio based on the five default classes:

Group rating classification €m	6.1	6.2/6.3	6.4/6.5	31.12.2018	31.12.2017
Default portfolio	454	1,280	2,106	3,839	5,569
LLP	169	395	1,045	1,609	2,770
Collateral	173	314	426	913	1,578
Coverage ratio (%)	75	55	70	66	78

Overdrafts in the performing loan book In order to avoid an increase in the default portfolio, overdrafts are closely monitored at Commerzbank. In addition to the 90 days-past-due trigger event, IT-based management of overdrafts starts on the first day the account is overdrawn. The table below shows overdrafts outside the default portfolio based on the exposure at default as at the end of December 2018:

EaD €m	> 0 ≤ 30 days	> 30 ≤ 60 days	> 60 ≤ 90 days	> 90 days	Total
Private and Small-Business Customers	787	107	57	1	952
Corporate Clients	1,948	50	40	0	2,039
Asset & Capital Recovery	10	0	0	0	10
Group 2018[1]	**2,746**	**157**	**97**	**1**	**3,000**
Group 2017[1]	2,590	157	65	2	2,920

[1] Including Others and Consolidation.

Private and Small-Business Customers segment

The Private and Small-Business Customers segment (PSBC) comprises the activities of Private Customers, Small-Business Customers, comdirect bank and Commerz Real. mBank is also shown in the Private and Small-Business Customers segment. Private Customers includes Commerzbank's branch business in Germany for private customers as well as Wealth Management. Small-Business Customers contains business customers and small corporate customers.

The focus of the portfolio is on traditional owner-occupied home financing and the financing of real estate capital investments (residential mortgage loans and investment properties with a total EaD of €81bn). We provide our business and small-business customers with credit in the form of individual loans with a volume of €20bn. In addition, we meet our customers' day-to-day demand for credit with consumer loans (consumer and instalment loans and credit cards, to a total of €16bn). The portfolio's expansion over the last twelve months was largely due to residential mortgage loans.

Compared with year-end 2017, the risk density of the portfolio decreased by one basis point to 25 basis points.

Credit risk parameters as at 31.12.2018	Exposure at default €bn	Expected loss €m	Risk density bp
Private Customers	99	177	18
Business Customers	29	67	23
comdirect bank	4	6	17
Commerz Real	1	2	29
mBank	33	167	50
Private and Small-Business Customers 2018	**165**	**420**	**25**
Private and Small-Business Customers 2017	154	397	26

In 2018, the risk result in the Private and Small-Business Customers segment was €–233m and therefore remained at a low level.

The default portfolio in the segment stood at €1,751m as at 31 December 2018.

	31.12.2018			31.12.2017
Default portfolio PSBC | €m	**Loans**	**Securities**	**Total**	**Total**
Default portfolio	1,751	0	1,751	1,864
LLP	850	0	850	951
Coverage ratio excluding collateral (%)	49	0	49	51
Collateral	531	0	531	564
Coverage ratio including collateral (%)	79	0	79	81
NPL ratio (%)			1.1	1.2

Corporate Clients segment

This segment comprises the Group's activities with mid-size corporate clients, the public sector, institutional customers and multinational corporates. The segment is also responsible for the Group's relationships with banks and financial institutions in Germany and abroad, as well as with central banks. The regional focus of our activities is on Germany and Western Europe. The Group's customer-oriented capital markets activities are also bundled in this segment.

Credit risk parameters as at 31.12.2018	Exposure at default €bn	Expected loss €m	Risk density bp
Mittelstand	74	198	27
International Corporates	68	149	22
Financial Institutions	23	69	30
Other	22	50	23
Corporate Clients 2018	**187**	**467**	**25**
Corporate Clients 2017	180	421	23

The EaD of the Corporate Clients segment increased from €180bn to €187bn compared with 31 December of the previous year. Risk density increased slightly from 23 basis points to 25 basis points.

For details of developments in the Financial Institutions portfolio, please see page 60.

In November 2018, Commerzbank and Société Générale Group, Paris, France concluded a purchase agreement for the Equity Markets & Commodities (EMC) division of the Business Segment Corporate Clients, following coordination with the relevant tax authorities.

Supported by continuing robustness in the overall economy, the risk result in the Corporate Clients segment was again at a low level in fiscal year 2018, at €–194m.

The default portfolio in the segment stood at €1,736m as at 31 December 2018.

	31.12.2018			31.12.2017
Default portfolio CC | €m	**Loans**	**Securities**	**Total**	**Total**
Default portfolio	1,669	67	1,736	2,592
LLP	636	3	639	1,243
Coverage ratio excluding collateral (%)	38	4	37	48
Collateral	251	0	251	543
Coverage ratio including collateral (%)	53	4	51	69
NPL ratio (%)			0.9	1.4

Asset & Capital Recovery segment

The Asset & Capital Recovery (ACR) segment comprises positions of the portfolios in the areas of Commercial Real Estate (CRE) and Ship Finance (SF) and complex financings from the Public Finance area. The intention is that all the portfolios in this segment should be completely wound down over time.

EaD for the ACR segment in the performing loan book totalled €8bn as at 31 December 2018, which is a decrease of around €5bn compared with the end of the previous year due to the conversion to IFRS 9 and the ongoing wind-down of the portfolio.

Credit risk parameters as at 31.12.2018	Exposure at Default €bn	Expected loss €m	Risk density bp
Commercial Real Estate	0	2	53
Ship Finance	0	0	29
Public Finance	8	44	57
ACR 2018	**8**	**46**	**57**
ACR 2017	13	330	255

Commercial Real Estate The portfolio further decreased due to redemptions and repayments. Compared with 31 December 2017, risk density decreased from 185 basis points to 53 basis points.

Ship Finance Ship finance exposure in the performing loan book was reduced by almost €2bn overall and expected loss by more than €250m compared with 31 December 2017, primarily as a result of the conversion to IFRS 9. The decrease was mainly attributable to the introduction of the fair value approach according to IFRS 9 at the beginning of 2018 as well as to disposals during the course of the year.

Overall our portfolio is mainly made up of three standard types of ship: container ships (€0.1bn), tankers (€0.2bn) and bulkers (€0.1bn). The rest of the portfolio consists of various special purpose vehicles, which are well diversified across the various ship segments.

There was a further recovery in the bulker and container markets in the first half of 2018, building on some significant improvements in 2017 following the historical lows recorded in 2016. Charter rates in both segments slowed again in the second half of the year, however, considerably in some cases, with Capesize bulkers falling below the corresponding 2017 level. This slowdown was due to a combination of falling demand and a high number of ship deliveries coupled with extremely low scrappage levels. This meant that full debt servicing was once again not possible in the year under review. It was a contrasting picture for the tanker markets, which saw charter rates fall until the third quarter of 2018 due to the excess supply of tonnage in recent years. Falling new ship deliveries and intense scrappage activity coupled with stronger-than-expected demand for crude oil as a result of the buoyant global economy then sent charter rates soaring from the fourth quarter of the year, allowing a temporary resumption of regular debt servicing. The Bank will continue to reduce problem and non-performing loan exposures as part of its ongoing effort to run down the portfolio.

Public Finance The Public Finance sub-portfolio in the ACR segment is largely made up of exposures with credit quality ranging from satisfactory to good, some of them with very long maturities and complex structures, to local authorities in the UK (€2.9bn EaD), a private finance initiative (PFI) portfolio (€3.5bn EaD) with a regional focus on the UK and further Public Finance debtors, predominantly in the USA (€1.3bn EaD).

The risk result in the ACR segment was €–8m in financial year 2018.

The default portfolio in the segment stood at €351m as at 31 December 2018. The decrease in the parameters is mainly due to the reclassification of the shipping portfolio as part of the conversion to IFRS 9 at the beginning of 2018. The exposure of fair value P&L credit positions with default criterion stood at €385m. The default portfolio of the sub-portfolio Ship Finance stood at €729m as at 31 December 2017.

	31.12.2018			31.12.2017
Default portfolio ACR | €m	Loans	Securities	Total	Total
Default portfolio	348	4	351	1,113
LLP	123	0	123	571
Coverage ratio excluding collateral (%)	35	0	35	51
Collateral	131	0	131	471
Coverage ratio including collateral (%)	73	0	72	94
NPL ratio (%)			4.1	7.9

Further portfolio analyses

The analyses below are independent of the existing segment allocation. The positions shown are already contained in full in the Group and segment presentations above.

Corporates portfolio by sector

A breakdown of the corporates exposure by sector is shown below:

Corporates portfolio by sector as at 31.12.2018	Exposure at default €bn	Expected loss €m	Risk density bp
Energy supply/Waste management	18	62	34
Consumption	14	54	37
Technology/Electrical industry	13	31	24
Wholesale	13	48	37
Transport/Tourism	11	30	26
Basic materials/Metals	11	42	40
Services/Media	10	30	29
Automotive	10	27	28
Chemicals/Plastics	9	41	43
Mechanical engineering	9	24	28
Construction	6	16	28
Pharmaceutical/Healthcare	4	10	24
Other	5	7	13
Total	**133**	**421**	**32**

Financial Institutions portfolio

Our network of correspondent banks continued to focus on trade finance activities on behalf of our corporate customers and on capital market activities. In derivatives, we enter into trades with selected counterparties under the European Market Infrastructure Regulation (EMIR) standards.

We continue to keep a close watch on the impact of regulatory requirements on banks. In this context, we continue to pursue our strategy of holding as few exposures as possible which might absorb losses in the event of a bail-in of an affected institution.

We are keeping a close eye on developments in various countries with individual issues such as recessions, embargoes or economic uncertainty caused by political events and are responding with flexible portfolio management that is tailored to the individual situation of each country. Overall, our risk appetite is geared to keeping the portfolio as responsive as possible.

	31.12.2018			31.12.2017		
FI portfolio by region	Exposure at default €bn	Expected loss €m	Risk density bp	Exposure at default €bn	Expected loss €m	Risk density bp
Germany	5	6	12	5	5	11
Western Europe	15	12	8	13	9	7
Central and Eastern Europe	3	17	56	4	16	42
North America	2	1	4	2	1	9
Asia	12	24	21	11	27	25
Other	6	23	40	5	19	40
Total	**43**	**83**	**19**	**38**	**77**	**20**

Non-Bank Financial Institutions portfolio

The Non-Bank Financial Institutions (NBFI) portfolio mainly comprises insurance companies, asset managers, regulated funds and central counterparties. Business activities are focused on Germany, Western Europe and the United States.

We carry out new business with NBFIs, partly in light of regulatory requirements (clearing via central counterparties) and partly in the interests of our institutional customers, with a focus on attractive opportunities with customers with good credit ratings. We manage our portfolios with the aim of ensuring their high quality and responsiveness.

	31.12.2018			31.12.2017		
NBFI portfolio by region	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp	**Exposure at default** €bn	**Expected loss** €m	**Risk density** bp
Germany	18	25	14	17	25	15
Western Europe	12	23	19	12	20	16
Central and Eastern Europe	1	8	65	1	5	56
North America	9	24	28	7	41	58
Asia	2	2	13	1	1	10
Other	1	2	31	1	1	16
Total	**42**	**84**	**20**	**40**	**94**	**24**

Originator positions

Commerzbank has in recent years securitised receivables from loans to the Bank's customers with a current volume of €5.9bn, primarily for capital management purposes.

As at the reporting date 31 December 2018, risk exposures with a value of €5.5bn were retained. By far the largest portion of these positions is accounted for by €5.3bn of senior tranches, which are nearly all rated good or very good.

		Commerzbank volume[1]				
Securitisation pool €bn	**Maturity**	**Senior**	**Mezzanine**	**First loss piece**	**Total volume[1] 31.12.2018**	**Total volume[1] 31.12.2017**
Corporates	2025–2036	5.3	< 0.1	0.1	5.9	7.6
Total		**5.3**	**< 0.1**	**0.1**	**5.9**	**7.6**

1 Tranches/retentions (nominal): banking and trading book.

Conduit exposure and other asset-backed exposures

Commerzbank is the sponsor of the multiseller asset-backed commercial paper conduit Silver Tower. It uses it to securitise receivables, in particular trade and leasing receivables, from customers in the Corporate Clients segment. The transactions are financed predominantly through the issue of asset-backed commercial paper (ABCP) or through the drawing of credit lines (liquidity lines). The volume and risk values in the Silver Tower conduit rose by €0.1bn in the fourth quarter of 2018. As at 31 December 2018, the volume had fallen by around €0.1bn year-on-year to €3.9bn.

Liquidity risks from securitisations are modelled conservatively in the internal liquidity risk model. Firstly, a worst-case assumption is made that Commerzbank will have to take on the funding of a major part of the purchase facilities provided to its special-purpose vehicles within the scope of the Silver Tower conduit. Secondly, the Bank's holdings of securitisation transactions only qualify as liquid assets if they are eligible for rediscount at the European Central Bank. These positions are only included in the liquidity risk calculation after applying conservative discounts.

The other asset-backed exposures mainly comprise government-guaranteed ABSs held by Commerzbank Finance & Covered Bond S.A. and Commerzbank AG in Germany. The volume fell to €4.0bn during 2018 (December 2017: €4.5bn), while risk values[1] fell to €3.8bn (December 2016: €4.4bn).

There are also investments in the Structured Credit area. The volume of new investments entered into since 2014 stood at €3.8bn (December 2017: €2.9bn). In general, we have traditionally invested in bonds of senior tranches of securitisation transactions in the consumer (auto) ABS, UK RMBS and CLO asset classes, which show a robust structure and a moderate risk profile.

1 Risk value is the balance sheet value of cash instruments. For long CDS positions, it comprises the nominal value of the reference instrument less the net present value of the credit derivative.

At the end of 2018, this portfolio contained only AAA-rated CLO positions. Remaining structured credit positions with a volume of €1.3bn were already in the portfolio prior to 2014 (December 2017: €1.6bn), while risk values stood at €0.4bn (December 2017: €0.7bn).

Forbearance portfolio

The EBA's definition of forbearance comprises two requirements, which have to be met concurrently: The debtor is in financial difficulties and the measures of the bank to help the debtor include concessions to the debtor that the bank would not have agreed to under different circumstances. Examples of concessions include deferrals, increases in limits or loans and waivers in connection with restructuring. The definition of forbearance applies independently of whether the debtor is in the performing or the non-performing portfolio.

The following table shows Commerzbank's total forbearance portfolio on the basis of the EBA definition as well as the loan loss provisions for these positions:

Forbearance portfolio by segment as at 31.12.2018	Forborne exposure €m	LLP €m	LLP coverage ratio %
Private and Small-Business Customers	1,062	178	17
Corporate Clients	1,507	177	12
Asset & Capital Recovery	902	296	33
Group	**3,471**	**651**	**19**

The forbearance portfolio by region is as follows:

Forbearance portfolio by region as at 31.12.2018	Forborne exposure €m	LLP €m	LLP coverage ratio %
Germany	1,927	381	20
Western Europe	720	73	10
Central and Eastern Europe	744	183	25
North America	12	3	23
Asia	5	1	22
Other	62	9	15
Group	**3,471**	**651**	**19**

In addition to the loan loss provisions of €651m, the risks of the forbearance portfolio are covered by collateral totalling €1,095m.

Market risk

Market risk is the risk of potential financial losses due to changes in market prices (interest rates, commodities, credit spreads, exchange rates and equity prices) or in parameters that affect prices such as volatilities and correlations. Losses may impact profit or loss directly, e.g. in the case of trading book positions. However, for banking book positions they are generally reflected in the revaluation reserve or in hidden liabilities/reserves.

Strategy and organisation

Commerzbank's market risk strategy is derived from its overall risk strategy and the business strategies of the individual segments. It sets targets for market risk management in relation to Commerzbank's main business activities. The core market risk management tasks are the identification of all material market risks and drivers of market risk and the independent measurement and evaluation of these. The results and estimates serve as the basis for risk/return-oriented management.

The Board of Managing Directors of Commerzbank is responsible for ensuring the effective management of market risk throughout the Commerzbank Group. Specific levels of authority and responsibility in relation to market risk management have been assigned to the appropriate market risk committees.

Various market risk committees have been established within the Bank. In these, segment representatives, along with representatives from the risk function and finance area, discuss current risk positioning issues and decide on appropriate action. Chaired by the risk function, the Group Market Risk Committee, which meets monthly, deals with the Commerzbank Group's market risk position. Discussions centre on the monthly market risk report, which is also presented to the Board of Managing Directors for their consideration. The report summarises the latest developments on financial markets, the Bank's positioning and related risk ratios. The Segment Market Risk Committee focuses on the Corporate Clients segment and the Group Treasury division. This committee also manages market risks arising from non-core activities (Asset & Capital Recovery).

The risk management process involves the identification, measurement, management and monitoring of risks and reporting on them. It is the responsibility in functional terms of market risk management, which is independent of trading activities. Central market risk management is complemented by decentralised market risk management units at segment level and for regional units and subsidiaries. The close integration of central and local risk management with the business units means that the risk management process starts in the trading areas themselves. The trading units are responsible in particular for the active management of market risk positions, e.g. reduction measures or hedging.

Risk management

Commerzbank uses a wide range of quantitative and qualitative tools to manage and monitor market risk. Quantitative limits for sensitivities, value at risk, stress tests, scenario analyses and ratios on economic capital limit the market risk. Our comprehensive rulebook, in the form of market risk policies and guidelines as well as restrictions on portfolio structure, new products, maturities and minimum ratings, establishes the qualitative framework for market risk management. The market risk strategy lays down the weighting of figures in each segment by reference to their relevance. Thereby allowance is made for the varying impact of the parameters for the management of the segments in line with the business strategy.

Market risk is managed internally at Group level, segment level and in each segment's reporting units. A comprehensive internal limit system broken down to portfolio level is implemented and forms a core part of internal market risk management.

The quantitative and qualitative factors limiting market risk are determined by the market risk committees by reference to the Group's management of economic capital. The utilisation of these limits, together with the relevant net income figures, is reported daily to the Board of Managing Directors and the responsible heads of the Group divisions. Based on qualitative analyses and quantitative ratios, the market risk function identifies potential future risks, anticipates potential financial losses in collaboration with the finance function, and draws up proposals for further action, which are discussed with the front office units. Voting on the proposed measures or risk positions takes place in the above-mentioned market risk committees and is subsequently submitted to the Board of Managing Directors for approval.

Risk concentrations are restricted directly using specific limits or are indirectly avoided, for example, using stress test limits. In addition, the combination of various conventional risk measures (e.g. VaR, sensitivities) ensures the appropriate management of concentration risks. Furthermore, risk drivers are analysed on a regular basis in order to identify concentrations. The risk management of existing concentrations is also reviewed using situation-driven analyses and, where necessary, supplemented by targeted measures such as limits.

Any limits that are breached are handled in a separate escalation procedure. After a limit breach has been identified, the front office and risk units design adequate countermeasures. If the limit breach cannot be remedied within a reasonable period, it will be escalated by the market risk function to the next hierarchical level.

Regulatory risk measures that are not included in economic risk-bearing capacity are limited and managed separately. These include, for example, stressed VaR and incremental risk charge.

In internal management, all positions relevant to market risk are covered, and trading and banking book positions are jointly managed. In addition, for regulatory purposes the trading book is managed separately (in accordance with regulatory requirements, including currency and commodity risks in the banking book) and interest rate risks in the banking book are managed on a stand-alone basis. In order to provide a consistent presentation in this report, all figures relating to the VaR are based on a confidence level of 99%, a holding period of one day, equally weighted market data and a 254-day history.

Over the course of 2018, the VaR for the overall book fell by €20m to €34m. This was primarily caused by bringing VaR into line with IFRS 9 accounting.

VaR contribution | €m	31.12.2018	31.12.2017
Overall book	**34**	**54**
thereof trading book	10	9

Trading book

Below, we show how the regulatory market risk ratios of the trading book portfolio developed. Most of Commerzbank's trading book positions derive from the Corporate Clients segment and Group Treasury division. The VaR figures comprise all risks in the internal VaR model. Smaller Commerzbank Group entities use standardised approaches for their regulatory capital calculation under partial use rules. These figures are not contained in the VaR figures shown in this report.

The VaR rose from €9m to €10m over the course of 2018. VaR in the trading book is at a historical low.

VaR of portfolios in the trading book | €m	2018	2017
Minimum	6	9
Mean	9	15
Maximum	12	25
VaR at end of reporting period	**10**	**9**

The market risk profile is diversified across all asset classes.

VaR contribution by risk type in the trading book | €m	**31.12.2018**	**31.12.2017**
Credit spreads	1	1
Interest rates	2	3
Equities	3	2
FX	2	3
Commodities	1	1
Total	**10**	**9**

Further risk ratios are calculated for regulatory capital adequacy. This includes the calculation of stressed VaR. Stressed VaR is calculated using the internal model on the basis of the VaR method described above. The main difference lies in the market data used to value the assets. Stressed VaR measures the risk in the present position in the trading book by reference to market movements from a specified crisis period in the past. The crisis observation period used for this is checked regularly through model validation and approval processes and adjusted where necessary. The crisis observation period remained the same in the course of the year. Stressed VaR climbed from €31m at end-2017 to €35m at the end of 2018. This was due primarily to changes in positions in the Corporate Clients segment.

The market risk profile in stressed VaR is also diversified across all asset classes.

Stressed VaR contribution by risk type in the trading book | €m	**31.12.2018**	**31.12.2017**
Credit spreads	5	8
Interest rates	12	8
Equities	10	5
FX	4	8
Commodities	4	1
Total	**35**	**31**

In addition, the incremental risk charge and the equity event VaR figures quantify the risk of deterioration in creditworthiness and event risks in trading book positions. The incremental risk charge fell by €24m to €19m over the course of 2018. The decline is mainly attributable to the Corporate Clients segment.

The reliability of the internal model (historical simulation) is monitored in various ways, including by backtesting on a daily basis. The VaR calculated is set against actually occurring profits and losses. The VaR used in backtesting is based on the complete historical simulation and therefore represents all internal models used in the market risk VaR calculation of capital adequacy requirements at Group level. The process draws a distinction between “clean P&L” and “dirty P&L” backtesting. In the former, exactly the same positions in the income statement are used as were used for calculating the VaR. This means that the profits and losses result only from changes in market prices (hypothetical changes in the portfolio value). In dirty P&L backtesting, by contrast, profits and losses from newly concluded and expired transactions from the day under consideration are also included (actual profits and losses induced by portfolio value changes). Profits and losses from valuation adjustments and model reserves are factored into dirty and clean P&L according to the regulatory requirements. If the actual loss exceeds the VaR, it is described as a negative backtesting outlier.

Analysing the results of backtesting provides an informative basis for checking parameters and for improving the market risk model. In 2018, we saw no negative clean P&L outliers and no negative dirty P&L outliers. The results confirm the quality of the VaR model. Backtesting is also used by the supervisory authorities for evaluating internal risk models. Negative outliers are classified by means of a traffic-light system laid down by the supervisory authorities. All negative backtesting outliers at Group level (from both clean P&L and dirty P&L) must be reported to the supervisory authorities, citing their extent and cause.

As the VaR concept gives a prediction of potential losses on the assumption of normal market conditions, it is supplemented by the calculation of stress tests. These stress tests measure the risk to which Commerzbank is exposed, based on unlikely but still plausible events. These events may be simulated using extreme movements on various financial markets. The key scenarios relate to major changes in credit spreads, interest rates and yield curves, exchange rates, share prices and commodities prices. Events simulated in stress tests include all stock prices falling by 15%, a parallel shift in the yield curve or changes to the curve’s gradient. Extensive Group-wide stress tests and scenario analyses are carried out as part of risk monitoring.

The internal model’s individual components are independently validated at regular intervals to assess their appropriateness for risk measurement. The identification and elimination of model weaknesses are of particular importance in this.

Banking book

The key drivers of market risk in the banking book are the Group Treasury portfolios, with their credit spread, interest rate and basis risks, and the area of Asset & Capital Recovery (ACR) – Public Finance, along with the positions held by the subsidiary Commerzbank Finance & Covered Bond S.A.

In market risk management, credit spread sensitivities in the banking and trading books are considered together. Credit spread sensitivities (downshift of 1 basis point) for all securities and derivative positions (excluding loans) were at €41m as at the end of 2018.

Most credit spread sensitivities related to securities positions measured at amortised cost. Changes in market price have no impact on the revaluation reserve or the income statement for these positions.

The impact of an interest rate shock on the economic value of the Group's banking book is simulated monthly in compliance with regulatory requirements. In accordance with the EU Banking Directive, the German Federal Financial Supervisory Authority (BaFin) and the European Central Bank (ECB) have prescribed two scenarios of uniform, sudden and unexpected changes in interest rates (+/–200 basis points) to be used by all banks, which have to report on the results of this stress test every quarter. The calculation methodology was changed from BaFin rules to ECB methodology with effect from 30 June 2018. The changes versus year-end 2017 are largely attributable to the changed calculation methodology.

The outcome of the +200 basis points scenario would be a potential loss of €1,651m, while the –200 basis points scenario would result in a potential profit of €230m, both as at 31 December 2018. Commerzbank does not, therefore, need to be classified as a bank with elevated interest rate risk, as the decline in net present value represents less than 20% of its regulatory capital.

As at 31 December 2018, the interest rate sensitivity of the entire banking book (without pension fund) was €6.3m per basis point of interest rate reduction.

Pension fund risk is also part of market risk in the banking book. Our pension fund portfolio comprises a well-diversified investment section and a section comprising insurance-related liabilities. The duration of the liabilities is extremely long (cash outflows modelled over almost 90 years), and the main portion of the overall portfolio's present value risk is in maturities of 15 years and over. The main risk drivers are long-term euro interest rates, credit spreads and expected euro inflation due to anticipated pension dynamics. Equity, volatility and foreign exchange risk also need to be taken into consideration. Diversification effects between individual risks reduce the overall risk. The extremely long maturities of these liabilities represent the greatest challenge, particularly for hedging credit spread risk. This is because there is insufficient liquidity in the market for corresponding hedging products.

Market liquidity risk

In measuring economic capital adequacy, Commerzbank also takes account of market liquidity risk. This is the risk of the Bank not being able to liquidate or hedge risky positions in a timely manner, to the desired extent and on acceptable terms as a result of insufficient liquidity in the market.

The first step is to create a realistic downsizing profile for each portfolio on the basis of its product and risk strategies and an assessment of the market. This enables portfolios to be classified in terms of their convertibility into cash using a "market liquidity factor". The market liquidity factor takes into account the heightened volatility of portfolio value resulting from the extended holding period for risk positions in line with the portfolio's downsizing profile. The market risk of every portfolio is then evaluated based on a one-year view and weighted with the market liquidity factor.

At the end of 2018, Commerzbank had earmarked €0.1bn in economic capital to cover market liquidity risk in the trading and banking books. Asset-backed securities and structured products in particular have a higher market liquidity risk.

Liquidity risk

We define liquidity risk in the narrower sense as the risk that Commerzbank will be unable to meet its payment obligations on a day-to-day basis. In a broader sense, liquidity risk describes the risk that future payments cannot be funded for the full amount, in the required currency or at standard market conditions, as and when they are due.

Strategy and organisation

The Board of Managing Directors adopts the business strategy and the Bank's risk tolerance, which is associated with it. Liquidity risk tolerance is then operationalised by defining the liquidity reserve period and the limit framework. In order to ensure an appropriate liquidity risk management process, the Board of Managing Directors delegates certain competences and responsibilities in connection with the Group-wide liquidity risk strategy to the Risk and Treasury functions.

The central Asset Liability Committee (ALCO) is responsible for limiting, analysing and monitoring liquidity risk and for strategic liquidity positioning. ALCO is supported by various sub-committees in this.

Risk management

Commerzbank uses a wide range of tools to manage and monitor liquidity risks on the basis of its own liquidity risk model. The stress scenario within the Bank that underlies the model and is relevant for management purposes allows for the impact of both a bank-specific stress event and a broader market crisis. Binding regulatory requirements are an integral component of the management mechanism.

Group Treasury is responsible for the Group's liquidity management operations. Group Treasury is represented in all major locations of the Group in Germany and abroad and has reporting lines into all subsidiaries. Commerzbank manages its global liquidity centrally using cash pooling. This approach ensures that liquidity resources are used efficiently and that this occurs across all time zones, as Group Treasury units are located in Frankfurt, London, New York and Singapore. Liquidity risk is monitored on the basis of the Bank's own liquidity risk model by the independent risk function.

The Bank has established early warning indicators for the purpose of managing liquidity risk. These ensure that appropriate steps can be taken in good time to secure long-term financial solidity.

Risk concentrations can lead to increased outflows of liquidity, particularly in a stress situation, and thus to increased liquidity risk. They can, for example, occur with regard to maturities, large individual creditors or currencies. By means of ongoing monitoring and reporting, emerging risk concentrations in funding can be recognised in a timely manner and mitigated through suitable measures.

This also applies to payment obligations in foreign currencies. The Bank also mitigates concentration by continuously using broadly diversified sources of funding, in particular diverse customer deposits and capital market instruments. Commerzbank also ensures that it monitors foreign exchange risks and fulfils the currency matching requirements for highly liquid assets and net liquiddity outflows.

In the event of a liquidity crisis, the emergency plan provides for various measures for different types of crisis, which can be launched by the central ALCO. The emergency plan forms an integral part of Commerzbank's recovery plan and is updated at least once a year; the individual liquidity emergency measures are checked regularly during the year for plausibility. The emergency plan also defines a clear allocation of responsibilities for the processes to be followed in emergency situations and gives details of any action that may need to be taken.

Liquidity risk model

A key component of liquidity risk management is the daily calculation of the liquidity gap profile. The liquidity gap profile shows the deterministic or stochastic inflows and outflows expected in the future on a given reporting date and across all portfolios. This forms the basis for calculating liquidity requirements or excess liquidity per maturity band. This also includes modelling the proportion of customer deposits that will be permanently available, known as the core deposit base.

The liquidity gap profile is also used to set the issuance strategy of the Commerzbank Group, which is operationalised by the Group Treasury division. The Group Finance division is responsible for calculating and allocating liquidity costs on the basis of the liquidity gap profile, which are then incorporated in the management of the segments' business activities.

Based on the liquidity gap profile, management mechanisms such as recovery and early warning indicators are limited and monitored accordingly. The liquidity gap profile is limited in all maturity bands. The Group limits are broken down into individual Group units and currencies. The internal liquidity risk model is complemented by the regular analysis of additional adverse, reverse and historical stress scenarios.

Quantification and stress testing

Commerzbank uses a wide range of tools to manage and monitor liquidity risks on the basis of its own liquidity risk model. In addition to internal economic considerations, liquidity risk modelling also factors in the binding regulatory requirements under the Capital Requirements Regulation (CRR) and the Minimum Requirements for Risk Management (MaRisk). Commerzbank incorporates this within its liquidity risk framework, thereby quantifying the liquidity risk appetite established by the full Board of Managing Directors.

The stress scenarios within the Bank that underlie the model and are relevant for management purposes allow for the impact of both a bank-specific stress event and a broader market crisis. The Commerzbank-specific idiosyncratic scenario simulates a stress situation arising from a rating downgrade of two notches, whereas the market-wide scenario is derived from experience of the subprime crisis and simulates an external market-wide shock. The main liquidity risk drivers of both scenarios are a markedly increased outflow of short-term customer deposits, above-average drawdown of credit lines, extensions of lending business regarded as commercially necessary, the need to provide additional collateral for secured transactions and the application of higher risk discounts to the liquidation values of assets. As a complement to the individual scenarios, the Bank also simulates the impact on the liquidity gap profile (net liquidity position) of a scenario that combines idiosyncratic and market-specific effects. The liquidity gap profile is shown for the whole of the modelling horizon across the full spectrum of maturities and follows a multi-level concept. This allows for a nuanced presentation – deterministic and modelled cash flows in existing business on the one hand and the inclusion of prolongations on the other.

The table below shows the liquidity gap profile values after application of the respective stress scenarios for periods of one and three months as at the end of the year. Significantly more liquidity flows out in a combined scenario compared with the individual scenarios. As at the end of the final quarter of 2018, in the one-month and three-month periods, the combined stress scenario leaves net liquidity of €11.0bn and €11.7bn respectively.

Net liquidity in the stress scenario | €bn		**31.12.2018**
Idiosyncratic scenario	1 month	16.6
	3 months	19.2
Market-wide scenario	1 month	21.6
	3 months	22.7
Combined scenario	1 month	11.0
	3 months	11.7

Liquidity reserves

Significant factors in the liquidity risk appetite include the reserve period, the size of the liquidity reserve portfolio held to compensate for unexpected short-term liquidity outflows, and the limits in the various maturity bands. As the liquidity reserve portfolio consists of highly liquid assets, it functions as a buffer in stress situations. The liquidity reserve portfolio is funded in line with the liquidity risk appetite to ensure that it is kept at the required size throughout the entire reserve period stipulated by the Board of Managing Directors.

As at the reporting date, the Bank had a liquidity reserve of €77.3bn in the form of highly liquid assets. A part of this liquidity reserve is held in a separate stress liquidity reserve portfolio managed by Group Treasury to cover liquidity outflows should a stress event occur and to ensure solvency at all times. In addition, the Bank operates an intraday liquidity reserve portfolio in the amount of €10.0bn as at the reporting date.

Liquidity reserves from highly liquid assets | €bn	**31.12.2018**
Highly liquid assets	77.3
of which level 1	61.9
of which level 2A	14.1
of which level 2B	1.3

Liquidity ratios

Throughout 2018, Commerzbank's internal liquidity ratios, including the regulatory liquidity coverage ratio (LCR), were at all times above the limits set by the Board of Managing Directors. The same is true of compliance with the survival period calculation set down by MaRisk.

The regulatory LCR is contained in the internal liquidity risk model as a binding secondary condition. The LCR is calculated as the ratio of liquid assets to net liquidity outflows under stressed conditions. It is used to measure whether a bank has a large enough liquidity buffer to independently withstand any potential imbalance between inflows and outflows of liquidity under stressed conditions over a period of 30 calendar days. As of 1 January 2018, the Bank must maintain a ratio of at least 100%.

In 2018, Commerzbank significantly exceeded the minimum ratio of 100% stipulated for that year on every reporting date. As at the end of 2018, the average month-end value of the LCR over the last twelve months was 135.66%.

The Bank has established corresponding limits and early warning indicators to ensure the LCR minimum requirements are met.

Operational risk

Based on the Capital Requirements Regulation (CRR), Commerzbank defines operational risk (OpRisk) as the risk of loss resulting from the inadequacy or failure of internal processes, people and systems or from external events. This definition includes legal risks; it does not cover strategic or reputational risks. In view of their increased economic significance, compliance risk and cyber risk are managed as separate risk types. In line with the CRR, however, losses from compliance and cyber risks are still incorporated into the model for determining the regulatory and economic capital required for operational risks.

Strategy and organisation

Within Commerzbank, OpRisk and governance issues of the Internal Control System (ICS) are closely connected in terms of both organisational structure and methodology and are continuously being enhanced. This is because many OpRisk cases are closely linked with failures in the control mechanisms. A properly functioning ICS thereby helps to reduce or avoid losses from operational risks and thus to lower the amount of capital required to cover operational risks in the medium to long term. Conversely, the operational risk management systems enable the ICS to adapt itself consistently to them. The reinforcement of the ICS structure is an essential aspect of the proactive reduction or prevention of operational risks.

Chaired by the CRO, the Group OpRisk Committee meets four times a year and deals with the management of operational risks within the Commerzbank Group. It also acts as the escalation and decision-making committee for key OpRisk topics that span all areas. The Management Boards and/or the Segment Committees with responsibility for operational risk deal with the management of operational risk in the relevant units. They analyse OpRisk issues that affect them, such as loss events, and define subsequent measures or recommend action.

Commerzbank's OpRisk strategy is approved on an annual basis by the full Board of Managing Directors after it has been discussed and voted upon in the Group OpRisk Committee. The

OpRisk strategy describes the risk profile, key elements of the desired risk culture, its management framework and measures to be taken by Commerzbank to manage operational risk.

OpRisk management is based on three consecutive levels (three lines of defence) which, when taken together, are crucial for reaching the given strategic aims.

Risk management

Commerzbank takes an active approach to managing operational risk, aiming to systematically identify OpRisk profiles and risk concentrations and to define, prioritise and implement risk mitigation measures.

Operational risks are characterised by asymmetric distribution of losses. This means that most of the losses are relatively small, while isolated losses with a very low probability of occurrence have the potential to be large and devastating. This makes it necessary not only to limit high loss potential but also to proactively manage losses that can be expected to occur frequently.

To do this, Commerzbank has set up a multi-stage system that brings together the defined limits on economic capital (risk capacity) and those set for operative risk management during the year (risk appetite/tolerance), complemented by rules on the transparent and conscious acceptance and approval of individual risks (risk acceptance).

OpRisk management includes an annual evaluation of the Bank's ICS and a risk scenario assessment. Furthermore, OpRisk loss events are subjected to ongoing analysis and to ICS backtesting on an event-driven basis. Lessons learned activities are carried out after all material loss events. External OpRisk events at competitors are also systematically evaluated.

Commerzbank uses the advanced measurement approach (AMA) to measure regulatory and economic capital for operational risks. Risk-weighted assets for operational risks on this basis came to €21.4bn at the end of the fourth quarter of 2018 (31 December 2017: €21.0bn, 99.9% quantile), while economically required capital was €1.8bn (31 December 2017: €1.7bn, 99.91% quantile).

The following table gives an overview of risk-weighted assets and the economically required capital (ErC) by segment:

	31.12.2018		31.12.2017	
€bn	RWA	ErC	RWA	ErC
Private and Small-Business Customers	5.1	0.4	5.1	0.4
Corporate Clients	11.4	1.0	9.5	0.8
Asset & Capital Recovery	1.3	0.1	2.1	0.2
Others and Consolidation	3.5	0.3	4.4	0.4
Group	**21.4**	**1.8**	**21.0**	**1.7**

The total charge for OpRisk events at the end of 2018 was approximately €30m (full-year 2017: €38m). The events mainly related to losses in the "Process related" and "External fraud" categories.

OpRisk events[1] | €m	31.12.2018	31.12.2017
Internal fraud	4	4
External fraud	7	7
Damage and IT failure	5	0
Products and business practices	−17	2
Process related	30	24
HR related	0	1
Group	**30**	**38**

[1] Losses incurred and provisions, less OpRisk-based income and repayments.

A structured, centralised and decentralised reporting system ensures that the management of the Bank and its segments, members of the OpRisk Committee and the supervisory bodies are informed regularly, promptly and fully about operational risk. OpRisk reports are produced quarterly. They contain changes in OpRisk losses, the segments' main loss events, current risk analyses, changes in the capital requirement and the status of measures implemented. Operational risks are also part of the regular risk reporting process to the full Board of Managing Directors and to the Supervisory Board's Risk Committee.

Other risks

To meet the requirements of the Basel framework, MaRisk requires an integrated approach to risk that also includes unquantifiable risk categories. At Commerzbank, these are subjected to a qualitative management and control process. The following risk types except model risk are outside the responsibility of the CRO.

Legal risk

According to the CRR, legal risk falls within the definition of operational risk. It primarily arises for the Commerzbank Group when the Bank's claims cannot be enforced for legal reasons or when claims can be made against the Bank because the underlying law was not observed or has changed since a transaction was concluded.

The operation of banking and financial services transactions that are subject to regulatory provisions may also result in legal risk. This risk may also take the form of orders or sanctions issued or imposed by one or more authorities whose supervision Commerzbank is subject to anywhere in the world. Legal risk also arises in realised losses or provisions due to or in connection with court cases brought against Commerzbank (passive proceedings). Cases brought by Commerzbank (active proceedings) generally represent a credit risk rather than an operational risk, so the risk of loss is already taken into account through write-downs. However, the costs of legal action (court and lawyers' costs) for active proceedings are classified as legal risk.

Organisation Within Commerzbank, the functional management of legal risk throughout the Group is the responsibility of Group Legal. All legal staff at the various Group Legal locations including the foreign branches as well as the legal staff of the legal departments of the domestic and foreign subsidiaries are as legal risk managers operationally responsible for the identification and management of the Group-wide legal risk within Commerzbank.

Risk management The task of the Group's legal risk managers is to detect legal risks and all losses potentially resulting from them at an early stage, to highlight possible solutions that might avoid or minimise such losses, and to play an active part in reaching decisions concerning legal risks. They must ensure that they are always up to date with all legal changes or new findings within their area of responsibility and inform the business units affected about the impact on legal risk and any action that needs to be taken as a result.

The legal risk managers are responsible for arranging or adjusting legal provisions and look after and monitor new and ongoing court proceedings.

In the case of passive proceedings, provisions are recognised on the basis of the risk assessment carried out by the responsible legal risk manager. The expected risk of loss for proceedings generally corresponds to the size of the provisions to be recognised. To estimate the expected loss, the amount that the Bank would reasonably have to pay to settle the dispute at the current point in time is calculated after each significant stage in the proceedings. In the case of active proceedings, provisions are usually only recognised for the expected court and lawyers' costs.

Group Legal provides information about all major court proceedings and risk trends in the quarterly Legal Risk Report. This report is sent to the Bank's management and Supervisory Board, the supervisory authority and the OpRisk Committee.

Current developments Commerzbank and its subsidiaries are involved in a variety of court and arbitration cases, claims and official investigations (legal proceedings) in connection with a broad range of issues. They include, for example, allegations of defective advice, disputes in connection with credit finance or payment transactions, entitlements to occupational pensions, allegedly false accounting and incorrect financial statements, enforcement of claims due to tax issues, allegedly incorrect prospectuses in connection with underwriting transactions, alleged violations of competition laws, and cases brought by shareholders and other investors as well as investigations by US authorities. In addition, changes to rulings by supreme courts, which may render them more restrictive, as well as to legal conditions, e.g. in the private customer business, may result in more claims being brought against Commerzbank or its subsidiaries. In these court cases, claimants are mostly asking for the payment of compensation, claims on account of unjust enrichment or the reversal of agreements already entered into. If the courts were to find in favour of one or more of the claimants in these cases, Commerzbank could be liable to pay compensation, which could in some cases be substantial, or could incur the expense of reversing agreements or of other cost-intensive measures.

Regulatory authorities and governmental institutions in various countries in which Commerzbank and its subsidiaries are or have been active have for some years been investigating irregularities in connection with the fixing of foreign exchange rates and with foreign exchange business in general. In the course of these investigations, regulatory authorities and governmental institutions have also sought checks on Commerzbank or have approached the company with requests for information. They have also brought one case. Commerzbank is cooperating fully with these bodies and is also looking into the relevant matters on the basis of its own comprehensive investigations. The possibility of financial consequences arising from some of these matters cannot be ruled out; however, it is not yet possible to make more precise statements in that regard.

The public prosecutor's office in Frankfurt is investigating equity transactions conducted by Commerzbank and the former Dresdner Bank around the dividend record date (cum-ex transactions). Commerzbank is cooperating fully with the authorities. It had already initiated a forensic analysis of cum-ex transactions at the end of 2015, which was concluded at the start of 2018 with regard to Commerzbank's equity transactions and is still ongoing regarding the equity transactions of the former Dresdner Bank.

In the circular of the German Federal Ministry of Finance (BMF) dated 17 July 2017, the tax authorities addressed the treatment of cum-cum transactions, declaring their intention to critically examine past transactions for indications of abuse of law. According to the view put forward in the BMF circular, abuse of law pursuant to Article 42 of the German Tax Code (Abgabenordnung, AO) is indicated if there are no economically reasonable grounds for the transaction in question and the structure of the transaction appears to be largely tax-induced (tax arbitrage). The circular provides a non-exhaustive list of cases which the BMF will assess for tax purposes.

In a letter dated 18 July 2017, the Bundesbank asked Commerzbank to assess the financial repercussions of the potential application of the BMF circular by means of a survey form. Based on the analyses conducted for cum-cum transactions, the Bank recognised precautionary provisions for potentially refundable own capital gains taxes.

With respect to cum-cum securities lending transactions, Commerzbank is exposed to compensation claims from third parties for crediting entitlements that have been denied. Based on the analyses performed, Commerzbank considers it rather unlikely that such claims could be enforced. However, it cannot be ruled out. Based on our estimates, there could be a financial impact in these cases.

For the other cum-cum-relevant transactions, Commerzbank has concluded that the legal structuring it adopted was appropriate under Article 42 of the German Tax Code.

The possibility that this conclusion could alter as developments unfold, for example in connection with assessments made by the tax authorities and fiscal/civil courts, cannot be completely ruled out.

Some of these cases could also have an impact on the reputation of Commerzbank and its subsidiaries. The Group recognises provisions for such proceedings if liabilities are likely to result from them and the amounts to which the Group is likely to be liable can be determined with sufficient accuracy. Since there are considerable uncertainties as to how such proceedings will develop, the possibility cannot be ruled out that some of the provisions recognised for them may prove to be inadequate once the courts' final rulings are known. As a result, substantial additional expense may be incurred. This is also true in the case of legal proceedings for which the Group did not consider it necessary to recognise provisions. The eventual outcome of some legal proceedings might have an impact on Commerzbank's results and cash flow in a specified reporting period; in the worst case it cannot be fully ruled out that the liabilities that might result from them may also have a significant impact on Commerzbank's earnings performance, assets and financial position.

Compliance risk

The success of Commerzbank in terms of its competitiveness and integrity (reputation) is critically dependent on the trust of its customers, shareholders, business partners and employees, as well as on the regulatory and supervisory authorities and the public. This trust is based not only on implementing and complying with the applicable laws, rules, regulations and good market practice that Commerzbank is required to observe in its Group-wide activities, but also on recognising and complying with the cultural and legal frameworks of the countries in which Commerzbank does business. The Board of Managing Directors of Commerzbank actively promotes a strong culture of compliance and has set down and communicated corresponding values in the code of conduct.

The risk that may arise from the failure to adhere to key legal regulations and requirements is referred to as compliance risk. It includes the risks associated with money laundering, terrorist financing, sanctions and embargoes, markets compliance as well as fraud and corruption.

To prevent compliance risks, Commerzbank has implemented security systems and controls for its transactions, customers, products and processes. These procedures for ensuring compliance with material legal provisions and requirements are referred to in their entirety as a compliance management system. Commerzbank's compliance management system is based on international market standards and the regulatory requirements in the various countries which are relevant for Commerzbank's business activities. Commerzbank is constantly developing its compliance management system in order to meet its responsibilities and address the growing complexity and increasing regulatory requirements, thereby enabling it to secure its long-term business success.

Under the three lines of defence principle, protecting against undesirable compliance risks is an activity that is not restricted to the compliance function (Group Compliance). Instead, the organisational control and monitoring elements are aligned in three sequential levels. The units in the first line of defence (1LoD) assume the main responsibility for identifying and managing risks and for complying with their own business rules; they also ensure that process-oriented control mechanisms are set up. Group Compliance, the second line of defence (2LoD), oversees the appropriateness and effectiveness of the procedures and controls in the first line of defence, and assesses and communicates any deficiencies found. Internal Audit, the third line of defence (3LoD), uses regular and independent audits to check that compliance in both the 1LoD and 2LoD is appropriate and effective.

Compliance risks are managed in a control circuit with interacting elements. Commerzbank continually monitors relevant regulatory requirements and defines and/or adapts corresponding internal standards to ensure that the requirements are met. Where necessitated by changes in requirements and standards, internal training measures are defined and/or adapted and the Bank's units are advised how to implement these effectively. Implementation encompasses setting up and carrying out suitable processes and controls in daily work, assuring their quality and testing their effectiveness. Compliance risks are monitored using appropriate ratios, and regular internal monitoring reports are produced. Where necessary, matters are escalated according to their urgency and severity. A systematic risk analysis (compliance risk assessment) is a core element of risk management. It assesses the inherent risk arising from doing business with different customer groups and products and compares this with an assessment of the corresponding control environment. It produces a residual risk, the risk content of which is assessed. The Bank defines measures to enhance risk management (e.g. introducing additional controls) as necessary and tracks implementation closely.

In 2015 Commerzbank reached settlements with various US authorities regarding violations of US sanctions and anti-money laundering provisions. In terms of the findings relating to the settlements the Bank has dealt with the majority of the findings. The Bank has also received various interim reports and the final report from the monitor appointed by the New York State Department of Financial Services ("DFS"), to which it has responded with corresponding implementation programmes. The Bank has made good progress in carrying out the implementation programmes and has dealt with most of the measures. The DFS will confirm when the monitorship ends. This decision has not yet been taken.

In line with the requirements of the Financial Services and Markets Act 2000 (FSMA), in 2017 Commerzbank London mandated a consulting company as a "skilled person". The consulting company carried out a review of existing structures and processes (especially with regard to money laundering, financing of terrorism as well as sanctions/embargoes) and prepared a report for the UK Financial Conduct Authority (FCA). Commerzbank London subsequently put in place a full-scale remediation project, the implementation of which is being evaluated by the skilled person, with half-yearly reports to the FCA. Here too Commerzbank has made good progress in implementation.

Since 31 December 2012 Commerzbank has been provisionally registered as a swap dealer with the U.S. Commodity Futures Trading Commission (CFTC). In accordance with the consent order issued by the CFTC on 8 November 2018, Commerzbank will retain an outside consultant to be approved by the CFTC for a period of two years. The CFTC may extend this period by a further year at its discretion, based on its assessment of Commerzbank's remedial efforts. During the review period the outside consultant will produce annual reports assessing the swap dealer's compliance with the Commodities Exchange Act and the regulations of the CFTC. The report will also contain recommendations on improving the swap dealer's practices, policies and procedures. The outside consultant will start work once the ongoing CFTC approval process has been completed.

Reputational risk

Reputational risk is the risk that stakeholders may lose confidence in Commerzbank or that its reputation may be damaged as a result of negative events in its business activities. Commerzbank's stakeholder groups include in particular the public and the media, non-governmental organisations and its customers. In the present-day competitive environment, a company's reputation is becoming more and more important. The main factor determining this is how companies handle sustainability considerations (environmental, ethical or social risks) in the market segments' customer business (intrinsic reputational risks). Companies are judged not only on the basis of people's personal experiences of them, but also on reports reaching the public, especially through the media. Reputational risk therefore goes hand in hand with communication risk.

Strategy and organization All employees and managers have a fundamental duty to protect and reinforce Commerzbank's good reputation as a significant element of its enterprise value. The segments and significant subsidiaries bear direct responsibility for reputational risk resulting from their particular business activity. The Reputational Risk Management department is part of the central Group Communications division of the Commerzbank Group and focuses on intrinsic reputational risk that may directly lead to reputational damage among stakeholder groups. The department maintains close links with the relevant front office units. Management of intrinsic reputational risk is the responsibility of the Chairman of the Board of Managing Directors. It is a component of Commerzbank's overall risk strategy. Reputational Risk Management's tasks include identifying, evaluating and addressing intrinsic reputational risk in systematic processes at an early stage and suggesting or implementing appropriate measures (early warning function).

Risk management Managing intrinsic reputational risk means identifying and reacting to potential environmental, social and ethical risks at an early stage, thereby reducing any potential communication risk or even preventing it completely. Intrinsic reputational risk is managed by means of a qualitative approach. As part of a structured process, transactions, products and customer relationships in connection with sensitive areas are assessed with reference to environmental, social and ethical risks on a qualitative five-point scale. This assessment can contain conditions and in some cases a negative verdict, which could lead to a rejection.

The sensitive areas regularly and comprehensively analysed in Reputational Risk Management include armaments exports and transactions, products and customer relationships relating to power generation and commodities extraction. Commerzbank's attitude towards these areas is laid down in positions and guidelines that are binding for all employees. Commerzbank's Reputational Risk Management department regularly observes and analyses new environmental, ethical and social issues and informs the relevant parts of the Bank about these. The reputational risks identified and addressed by the department are incorporated into the quarterly report on non-quantifiable risks and the quarterly report on major and high reputational risks (sustainability risks) prepared for the full Board of Managing Directors and the Risk Committee of the Supervisory Board.

IT risk

IT risk is a form of operational risk. In our internal definition, we define IT risk as risks to the security of information processed in our systems in terms of meeting the four IT security objectives set out below:

Confidentiality: Information is confidential if it is not accessible to, or capable of being reconstructed by, unauthorised persons, business processes or IT systems.

Integrity: Information possesses integrity if it has not been modified or destroyed by any unauthorised means. An information-processing system (IT system) possesses integrity if it can perform its intended functions without hindrance and free of unauthorised manipulations, whether deliberate or accidental.

Traceability: Actions and technologies applied to information are traceable if they themselves and their source can be traced back without any ambiguity.

Availability: Information is available if it is always capable of being used to a predefined extent by authorised persons, business processes and IT systems when it is required.

Commerzbank attaches great importance to the protection and security of its own information, of that entrusted to it by customers, and of the business processes and systems used to process it. They form a permanent core element in our IT strategy. The processing of information is based increasingly on information technologies. As such, our IT security requirements are at the heart of information security management. IT security requirements are based on the IT security objectives referred to above and are set down in policies and procedural instructions.

IT risks are identified, evaluated and regularly reviewed as part of IT governance processes. IT risk is covered in the quarterly IT risk report. Information security is also established as a principal objective for our Internal Control System.

Relevant IT risks are also evaluated as part of operational risk management through risk scenarios and considered in the Bank's RWA calculation. This includes the risk of a breakdown of critical IT, the risk of external attack on the systems or data of the Bank (cyber crime and advanced persistent threat (APT)[1] scenarios), the theft of corporate data or the default of service providers and vendors. See also the description of cyber risk.

[1] An advanced persistent threat is a special form of cyber attack. The intention of an APT attack is to remain undetected for as long as possible in order to steal sensitive information (internet espionage) or cause other types of damage over a longer period.

Given the major importance of IT security to Commerzbank, it is further developed and improved on an ongoing basis by means of strategic projects. We have taken into account the significance of the "human" factor in IT security and cyber security by introducing additional training and awareness-raising measures.

Cyber risk

Cyber risk is regarded as extremely important, given the increaseing digitalisation of the Bank and its environment. For this reason, cyber risk was classified as a material risk type during Commerzbank's 2017 risk inventory.

Cyber risk comprises risks with direct relevance to security and risks that lead to relevance to security (in each case, within cyber space). The part of cyber space of relevance to Commerzbank is all connected IT environments within the Bank and those outside the Bank that lead to customers, business partners and service providers. Cyber risk is therefore concerned with the digital representation of the Bank's assets (data, information) within cyber space.

Unlike information security risk, whose scope is limited to the Bank and third-party companies with a business connection, the scope of cyber risk extends to unknown persons, to take full account of the requirement to protect their legitimate expectations when using cyber space.

The strategic guidelines from the overall risk strategy and the information security strategy apply without limitation to cyber risk.

In order to prevent cyber risk organisationally, Commerzbank has – in addition to the established governance processes of information security, the related risk reports on key risk indicators and management via the Internal Control System (ICS) – set up a cyber security programme focusing on specific aspects of cyber security. The results of the cyber security programme feed both the ICS and the Bank's risk reporting.

Cyber risk is managed by Group Organisation & Security, which reports to the Group Chief Information Security Officer (CISO).

Cyber risk generally has consequences for the Bank's other material risk types such as operational risk. These can be broken down into direct and indirect consequences. In addition to the operational risk, direct consequences relate to business risk, credit risk, liquidity risk and market risk. Indirect consequences relate to investment portfolio risk, compliance risk, model risk, physical asset risk, reputational risk and reserve risk. All consequences are documented in the cyber sub-risk strategy and updated on an ongoing basis.

Human resources risk

Human resources risk falls within the definition of operational risk referred to in the Capital Requirements Regulation (CRR). The internal, management-oriented interpretation of this definition at Commerzbank includes the following elements in human resources risk:

Adjustment risk: Adjustment risk results when organisational and operational circumstances change (for example, restructuring, changes in management culture, qualification needs), these changes impact employees' scope of responsibilities and therefore require a greater willingness to change on the part of the staff. We offer selected internal and external training, continuing education and change programmes to ensure that the qualification levels of our employees keep pace with the current requirements, guidance is provided for structural changes and our employees can fulfil their duties and responsibilities.

Motivation risk: Motivation risk arises when demotivating factors are not eliminated and employees do not adequately perceive motivating factors such as management or remuneration. The effects (such as withheld performance by employees) can have a direct impact on the working environment and the organisation's productivity. Employee surveys enable us to respond as quickly as possible to potential changes in our employees' level of corporate loyalty and to initiate adequate measures.

Departure risk: Departure risk takes into account the consequences of undesired employee departures (for example, if an employee resigns voluntarily), particularly when high performers are involved. We take great care to ensure that the absence or departure of employees does not result in long-term disruptions to our operations. We also monitor staff turnover on a regular basis from both a quantitative and a qualitative perspective.

Supply risk: Supply risk reflects the consequences of insufficient staffing (for example, inadequate development of young staff) and the resulting consequences (operating bottlenecks, increased workload, lower productivity and illness). Appropriate quantitative and qualitative staffing aims to ensure that internal operating requirements, business activities and Commerzbank's strategy can be implemented.

Employees are a key resource for Commerzbank. Human resources risk is systematically managed by Group Human Resources with the aim of identifying, assessing and managing risks, for instance by applying selected personnel tools. The Board of Managing Directors is regularly informed about human resources risk.

In addition, systematic and strategic personnel planning helps to put the management of medium- and long-term human resources risks on a more professional footing. This has been introduced gradually into the Bank's strategically relevant business areas since 2015.

Overall, the Bank will continue to monitor human resources risk. There is a risk that the human resources risk situation may deteriorate due to the impending structural changes under the "Commerzbank 4.0" strategy. Change and organisational measures have already been initiated to counter human resources risk.

Business strategy risk

Business strategy risk is the medium- to long-term risk of negative influences on the achievement of Commerzbank's strategic goals, for example as a result of changes in the market or competitive environment, capital market requirements, regulatory/political factors or the inadequate implementation of the Group strategy (primary risk drivers).

Group strategy is developed further in a process that takes both external and internal factors into account. On the basis of these factors, the full Board of Managing Directors sets out a sustainable business strategy describing the major business activities and steps required to meet the targets. To ensure proper implementtation of the Group strategy to achieve the business targets, strategic controls are carried out through regular monitoring of quantitative and qualitative targets in the Group and the segments.

Responsibility for strategic corporate management lies with the full Board of Managing Directors. Specific business policy decisions (acquisition and sale of equity holdings representing >1% of Commerzbank AG's eligible capital) also require the authorisation of the Supervisory Board's Risk Committee. All major investments are subject to careful review by the full Board of Managing Directors.

Model risk

Model risk is the risk of incorrect management decisions based upon an inaccurate depiction of reality by the models used. With regard to the causes of model risk we distinguish between model risk from exceeding model boundaries and model risk from model errors (manual errors in model development/implementation). In line with the focus of the Group risk strategy, namely to ensure that the Bank has adequate capital and liquidity, the models for assessing risk-bearing capacity (capital requirements under the Basel framework) and liquidity resources are central for risk management.

The basic principles of model risk management are the identification and avoidance of model risks and appropriate consideration of known model risks (e.g. through conservative calibration or consideration of model reserves). Model risks that are unknown and hence cannot be mitigated are accepted as an inherent risk in the complexity of the Commerzbank business model. In respect of the governance of model risk management requirements relating to model validation and model changes are established.

Disclaimer Commerzbank's internal risk measurement methods and models which form the basis for the calculation of the figures shown in this report are state-of-the-art and based on banking sector practice. The risk models produce results appropriate to the management of the Bank. The measurement approaches are regularly reviewed by risk control and internal audit as well as by German and European supervisory authorities. Despite being carefully developed and regularly checked, models cannot cover all the influencing factors that have an impact in reality or illustrate their complex behaviour and interactions. These limits to risk modelling apply in particular in extreme situations. Supplementary stress tests and scenario analyses can only show examples of the risks to which a portfolio may be exposed in extreme market situations. However, stress-testing all imaginable scenarios is not feasible. Stress tests cannot offer a final estimate of the maximum loss should an extreme event occur.