One Bank, One UniCredit.

2018

UniCredit Bank AG Annual Report

Banking that matters.

HypoVereinsbank
Member of UniCredit

Disclaimer
This edition of our annual report is prepared for the convenience of our English-speaking readers. It is based on the German original, which takes precedence in all legal respects.

Published by:
UniCredit Bank AG
Head Office
D-81925 Munich
www.hvb.de
Registrar of companies: Munich HRB 421 48
Cover and creative definition: UniCredit S.p.A.
Creative definition: UniCredit S.p.A.
Design, graphic development and production: UniCredit S.p.A.
Typesetting: Serviceplan Solutions 1 GmbH & Co. KG, Munich
Printed by: G. Peschke Druckerei GmbH
Printed in Germany

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Legal structure

UniCredit Bank AG (HVB), formerly Bayerische Hypo- und Vereinsbank Aktiengesellschaft headquartered in Munich, was formed in 1998 through the merger of Bayerische Vereinsbank Aktiengesellschaft and Bayerische Hypotheken- und Wechsel-Bank Aktiengesellschaft. It is the parent company of HVB Group. HVB has been an affiliated company of UniCredit S.p.A., Milan, Italy (UniCredit), since November 2005 and hence a major part of the UniCredit corporate group as a subgroup.

Since the shares held by minority shareholders of HVB were transferred to UniCredit compliant with Section 327a of the German Stock Corporation Act (Aktiengesetz – AktG), as resolved at the Annual General Meeting of Shareholders in June 2007 and entered in the Commercial Register on 15 September 2008, UniCredit has held 100% of the share capital of HVB. Thus, trading in HVB shares officially ceased. As a capital-market-oriented company, however, HVB does remain listed on securities exchanges as an issuer of Pfandbriefs, bonds and certificates, among other things.

Organisation of management and control

Leadership function and Supervisory Board

The Management Board is the management body of HVB and consists of seven members as a basic rule. The Management Board is directly responsible for managing the Bank. It is obliged to act in the interests of the company and to increase its sustainable value. Within the framework of its leadership function, it is responsible above all for corporate planning and strategic orientation, and for ensuring adequate risk management and risk control. The Management Board provides the Supervisory Board with regular, timely and comprehensive reports particularly on all issues relevant to corporate planning and strategic development, the course of business, the state of the Bank and its subsidiaries, including the risk situation, and significant compliance issues. The members of the Management Board are jointly responsible for managing the Bank and for the proper business organisation of HVB. The responsibilities of the Management Board of HVB are specified in a schedule of responsibility, which forms part of the Management Board’s internal regulations. The Management Board’s internal regulations also specify particularly the matters reserved for the Management Board and the requirements for adopting resolutions and the required majorities.

Ms Ljiljana Čortan was appointed to the Management Board as the Chief Risk Officer (CRO) with effect from 1 January 2018. At its meeting on 16 February 2018, the Supervisory Board appointed Mr Jan Kupfer and Dr Emanuele Buttà as members of the Management Board with effect from 1 March 2018. Mr Kupfer is in charge of the Corporate & Investment Banking (CIB) business segment and succeeded Dr Michael Diederich, who was appointed Board Spokesman of UniCredit Bank AG (HVB) as per 1 January 2018. Mr Peter Buschbeck resigned from the Management Board effective from the end of 28 February 2018. Dr Emanuele Buttà took over the Private Clients Bank business unit from him. Mr Robert Schindler resigned from the Management Board effective from the end of 7 November 2018. Mr Markus Beumer took over the Unternehmer Bank business unit from him with effect from 1 December 2018. Combined, the Private Clients Bank and Unternehmer Bank business units make up the Commercial Banking (CB) business segment of HVB.

The Supervisory Board of the Bank has twelve members and has an equal number of employee and shareholder representatives. The task of the Supervisory Board is to monitor and regularly advise the Management Board as it conducts its business. The Supervisory Board has adopted by-laws specifically defining the details of the work within the Supervisory Board, the creation of committees and their tasks and the tasks of the Chairman of the Supervisory Board. In addition, the by-laws state that certain types of transactions require the approval of the Supervisory Board.

Mr Klaus Grünewald resigned from the Supervisory Board as an employee representative effective from the end of 30 June 2018. He was succeeded by Mr Gregor Völkl with effect from 1 July 2018 who had already been appointed a substitute member in May 2015 in compliance with the German Act on the Co-determination of Employees in a Cross-border Merger (Gesetz über die Mitbestimmung der Arbeitnehmer bei einer grenzüberschreitenden Verschmelzung – MgVG).

A list showing the names of all of the members of the Management Board and the Supervisory Board of HVB is given in the Note “Supervisory Board”, and the Note “Management Board”, in the present Annual Report.

Statement pursuant to Section 289f (4) of the German Commercial Code

The Supervisory Board of UniCredit Bank AG set a target that one-third of the members of the Supervisory Board (i. e. four out of twelve) should be women, which is to be achieved by 31 December 2021. Both the shareholder and the employee representatives on the Supervisory Board are to contribute to achieving this target. Three members of the Supervisory Board are women: Dr Marita Kraemer and Prof Dr Annette G. Köhler as shareholder representatives and Ms Beate Dura-Kempf as an employee representative. As the next Supervisory Board elections will not be taking place until 2020, the target can be achieved only by members resigning from the Supervisory Board. The target was unable to be achieved in the 2018 financial year when an employee representative resigned from the Supervisory Board as he was succeeded by the substitute member Mr Georg Völkl who was already elected in May 2015 in accordance with the German Act on the Co-determination of Employees in a Cross-border Merger (MgVG). Achieving this target will be given priority particularly during the scheduled elections to the Supervisory Board in the 2020 financial year.

For the proportion of women on the Management Board, the Supervisory Board adopted a target that one-seventh of the members should be women (i.e. one out of seven), which was to be achieved by the end of the first statutory compliance period (30 June 2017). In the 2017 financial year, the Supervisory Board once again set a target that one-seventh of the members of the Management Board should be women (i.e. one out of seven), which is to be achieved by 31 December 2021. By appointing Ms Sandra Betocchi Drwenski as a Management Board member (Chief Operating Officer – COO) from 1 November 2017, this target was achieved in 2017. By appointing Ms Ljiljana Čortan as a Management Board member (Chief Operating Officer – COO) from 1 January 2018, two sevenths (i.e. two out of seven) of the members of the Management Board are currently women.

For the proportion of women in the first and second management levels below the Management Board respectively, the Management Board set the following targets, which were to be achieved by the end of the first statutory compliance period (30 June 2017): 22 percent of women in the first and 24 percent in the second management level below the Management Board. Measures to promote women and more mixed management teams have been a focus at HVB for a long time: Concepts for work-life balance were developed and career development instruments were put in place to specifically support female talents and top performers in their careers. Talented women are made visible in discussion and management forums. The Bank already defined internal targets coupled with specific initiatives for the individual business segments in 2012. These are evaluated and followed up each quarter.

Based on this approach the proportion of women close to Management Board level has continually increased since 2012, even though the ambitious targets for the two management levels below the Management Board have not yet been reached. At 31 December 2018, the proportion of women at the first level below the Management Board was 19 percent (target: 22 percent) and at the second level below the Management Board 18 percent (target: 24 percent). The reasons for this can be found in the structural conditions of the individual business segments. In areas with a traditionally rather low representation of women, the proportion of women in management positions increased only at a slow but steady rate while in areas with an equal distribution of men and women, the targets had already been met. At the same time, to date the Bank has deliberately applied sustainable measures effective in the medium term to prepare high potential female employees for their career. This ensured that there was a steady improvement in the equal representation of men and women in the candidate pools for higher-level management positions.

In the 2018 financial year, the Management Board confirmed the targets of 22 percent of women in the first and 24 percent in the second management level below the Management Board, which are to be achieved by 31 December 2021. In future the Bank will place a greater focus than before on binding measures and percentages in the talent and successor pools as well as on promotion and appointment processes. Particularly in the rapidly changing environment of the banking business and in connection with our transformation strategy, it should be possible to easily achieve our gender goals.

Business Situation and Trends (Continued)

On 11 July 2018, UniCredit signed the "Women in Finance Charter" and joined the UK's HM Treasury Women in Finance Charter with the aim of supporting the improvement in gender diversity in the financial services sector both in the United Kingdom and worldwide. Participation in this initiative is part of UniCredit's group-wide Diversity Action Plan, which was launched in 2017 and follows a series of decisive measures that the Bank has already taken in order to achieve a more balanced gender distribution at all levels of the organisation. These measures include specific initiatives in the areas of the recruitment and professional development of talents, remuneration, work-life balance and education. In 2018, a "Diversity & Inclusion Committee" was set up to monitor the progress made in these initiatives.

Non-financial reporting

In the context of transposing the Corporate and Social Responsibility Directive into German law, certain large companies have been obliged to add a non-financial statement to their management reports since the 2017 financial year. As a fully consolidated subsidiary of the UniCredit corporate group, HVB waives publishing its own non-financial statement in accordance with Section 289b (2) of the German Commercial Code (Handelsgesetzbuch – HGB). The non-financial statement is issued, with a discharging effect for HVB, by our parent company, UniCredit S.p.A., Milan, and can be found on UniCredit's website (www.unicreditgroup.eu/en/a-sustainable-bank.html).

Overall bank management

HVB's objective is to generate a sustainable increase in corporate value. To take account of value-based management, we have implemented the principle of overall bank management based on earnings, risk, liquidity and capital aspects. This is explained in more detail in the Risk Report (please refer in particular to "Overall bank management" within the section entitled "Implementation of overall bank management"). The key performance indicators (KPIs) applied within the framework of the overall bank management at HVB are stated at the relevant places in the Management Report.

Business model, main products, sales markets, competitive position and locations in the 2018 financial year

HVB Group is part of UniCredit, a successful, pan-European commercial bank, with a simple business model and a fully plugged-in Corporate & Investment Banking. It delivers a unique banking network in Western, Central and Eastern Europe to its extensive client franchise and combines regional strength and local competence with the potential and know-how provided by an international banking group. Our integration into UniCredit is a strong basis for consistently exploiting its international network and economies of scale. UniCredit has a divisionally and regionally diversified business model. It facilitates unique access to leading banks in 14 core markets and 18 other countries worldwide for its customers.

As a universal bank, HVB with its subsidiaries is one of the leading providers of banking and financial services in Germany. It offers a comprehensive range of banking and financial products and services to retail, corporate and public-sector customers, international companies and institutional customers. HVB Group has a well-developed network of branches in Germany, which was modified to accommodate changing patterns of customer behaviour in recent years. In total, HVB has 364 offices around the world – 348 of which in Germany. In addition to its branch network, customers are served irrespective of their location in HVB's online branch in the retail banking business and through Business Easy in the corporate banking business. A breakdown of the locations of HVB Group's offices by region is shown in the Note "Offices" in the notes to the consolidated financial statements.

With our customer-oriented business model, excellent capital base, stable operating profitability and solid funding foundation as well as a good market position in our core business areas, we are a sought-after and reliable partner for our customers and investors.

Business segments

HVB is divided into the following business segments:
– Commercial Banking
– Corporate & Investment Banking (CIB)
– Group Corporate Centre
– Other

We report the Group Corporate Centre as a separate business segment for the first time in the 2018 reporting year. In the past, the Group Corporate Centre was part of the "Other" business segment.

Commercial Banking business segment

The Commercial Banking business segment serves all the customers in Germany with a need for standardised or personalised service and advice in diverse banking services in its Private Clients Bank and Unternehmer Bank business units. Depending on the advisory approach, a distinction is made as appropriate within Commercial Banking between retail customers, private banking customers, high net worth individuals/ultra high net worth individuals and family offices in wealth management, business and corporate customers as well as commercial real estate customers. In doing so, the Commercial Banking business segment builds on the common "HypoVereinsbank" brand and a largely identical sales network.

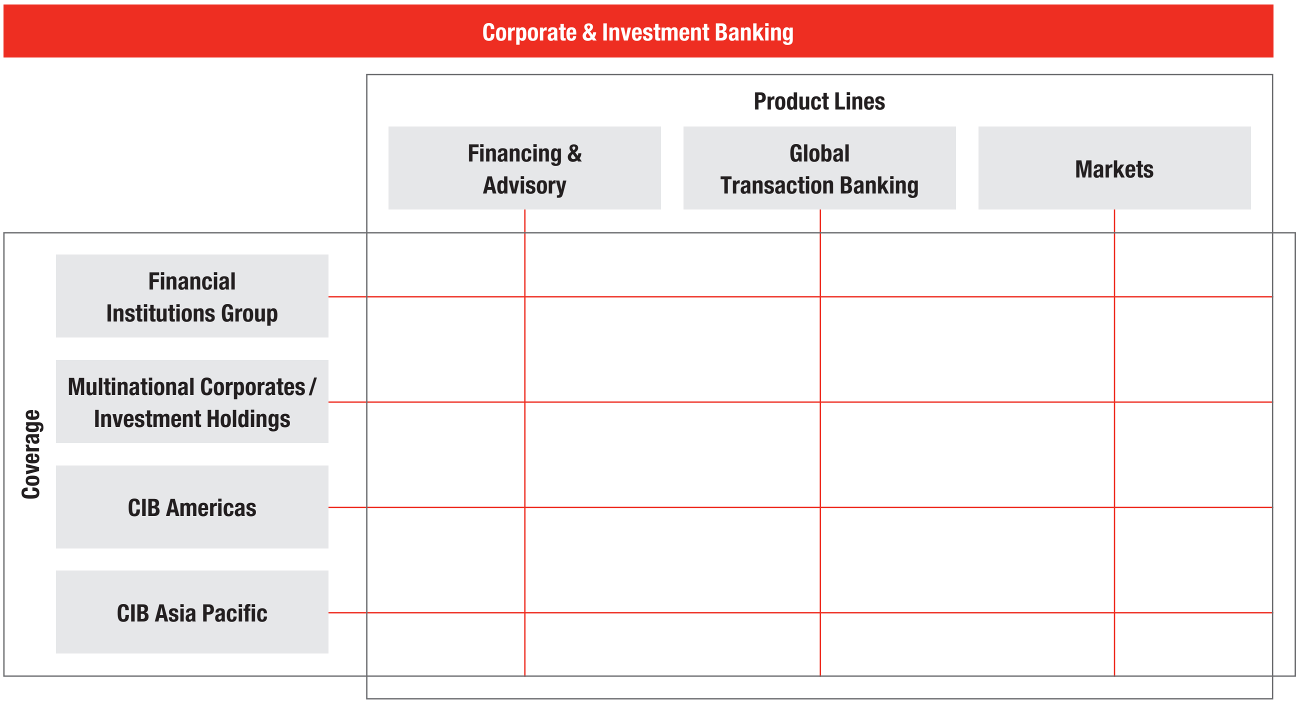
In line with the universal bank model, the range of products and services of Commercial Banking enables comprehensive customer support to be provided. This ranges from payment products, mortgage loans, consumer loans, savings-and-loan and insurance products and banking services for retail customers through to business loans and foreign trade financing for corporate customers, fund products for all assets classes, advisory and brokerage services in the securities business as well as liquidity and financial risk management, advisory services for high net worth individuals through to investment banking products for companies with access to the capital market. In addition to tailored portfolio concepts and financing solutions for high net worth private customers with an entrepreneurial background, the wealth management approach includes the brokerage of shareholdings.

Corporate & Investment Banking business segment

CIB is a global business segment of UniCredit and is organised based on a matrix structure. CIB's business success is based on the close cooperation and interaction between customer care and product units as well as on cooperation with other countries and business segments of UniCredit and the credit risk management units responsible. As CIB operates as a global business segment, all the statements and definitions apply both to CIB within HVB and to CIB worldwide. HVB helps to shape the global CIB strategy through its global CIB Division, which is a centre of competence for international markets and investment banking. The member of HVB's Management Board responsible for CIB has decided to apply the global CIB strategy to HVB's CIB business so as to ensure a standardised approach for our customers worldwide.

CIB offers the following to its customers:
– corporate banking and transaction services
– structured finance, capital markets and investment products as well as
– access to Western, Central and Eastern Europe.

Business Situation and Trends (Continued)



Customer support is organised horizontally:
Financial Institutions Group (FIG), Multinational Corporates (MNC) and Investment Holdings (GFO), CIB Americas and CIB Asia Pacific.

Three product factories are organised vertically:
Financing & Advisory (F&A) supports customers worldwide through the following departments: Financial Sponsors Solutions (FSS), Infrastructure & Power Project Finance (IPPF), Natural Resources (NR), Commodity Trade Finance (CTF) and Structured Trade and Export Finance (STEF).

Global Transaction Banking (GTB) offers a diverse range of innovative products in the Cash Management and Trade Finance departments and thus meets the transaction-oriented needs of our customers in the fields of payments, account information, cash flow optimisation, liquidity management and mainly short-term import and export finance.

Markets is a customer-related business that supports the corporate and institutional operations of HVB as an integral part of the CIB value chain. The product area spans all asset classes: interest rates, currencies, commodities and equity derivatives. It offers our institutional customers, corporate customers and private investors risk management solutions and investment products through our own or external networks.

The aim of CIB's growth strategy concept is to provide our Mittelstand customers with greater access to HVB's investment banking platform. To ensure more intensive care and support in Germany, a joint venture (JV) has been set up between CIB and UBK and embedded in the organisation of the CIB business segment. The organisational set-up focuses on selective product ranges from the Corporate Treasury Sales (CTS), Debt Capital Management (DCM), Equity Capital Management (ECM) and Corporate Finance Advisory (M&A) departments. The respective product specialists of the joint venture focus exclusively on the needs of UBK customers. Cross-selling is to be boosted through this focused sales approach.

Group Corporate Centre business segment
The Group Corporate Centre business segment includes profit contributions that do not fall within the jurisdiction of the individual business segments. Among other items, this includes the CFO, CRO and the CEO business units as well as the profits and losses of subsidiaries and other holdings, provided they are not assigned to the other business segments. Furthermore, this business segment incorporates the net income from securities holdings for which the Management Board is responsible. Also incorporated in this business segment are the amounts arising from decisions taken by management with regard to asset/liability management. This includes contributions to earnings from securities and money market transactions involving UniCredit S.p.A. and its subsidiaries. The Group Corporate Centre business segment also includes the Real Estate Restructuring (RER) customer portfolio.

Other business segment
The Other business segment encompasses the Chief Operating Office business unit and sees itself as a central internal service provider for customers and employees. The Chief Operating Office activities encompass purchasing, organisation, corporate security, logistics and facility management, cost management, back-office functions for credit, accounts, foreign exchange, money market and derivatives as well as in-house consulting. Payments, securities settlement, IT application development and IT operations have been outsourced. Strategic real estate management at HVB is also the responsibility of the Chief Operating Office business unit and is carried out by the Real Estate (GRE) unit, HVB Immobilien AG, Munich and by UniCredit Services S.C.p.A., Milan, which was engaged by HVB Immobilien AG, Munich by way of an operating contract.

Transform 2019
The persistently challenging environment for the banking industry and thus the huge downward pressure on profitability and revenues require adjustments to be made to bank structures and processes. To ensure the successful advancement of the Bank, we set up a Multi-Year Plan 2017–2019. Our strategic planning is embedded in the group-wide Transform 2019 programme, which comprises initiatives on the income, costs and cooperation side. Within the framework of the programme we are optimising our internal structures and processes (also through end-to-end optimisation and the streamlining of processes). This includes a transfer of activities between different locations and the centralisation of tasks as a restructuring measure and will extend into 2019 in parallel to a further adjustment of our staffing levels. At the same time, intensified cooperation between the business segments will create greater cross-selling potential and the use of the respective product expertise will leverage additional synergies and earnings potential. The implementation of the programme is proceeding according to schedule.

Corporate acquisitions and sales
In March 2018, HVB reached an agreement with an international financial investor on the sale of all the shares held in Mobility Concept GmbH, Oberhaching, which until then had been a 60 percent subsidiary of UniCredit Leasing GmbH. The closing of the transaction took place at the end of 31 May 2018.

Merger of UniCredit Luxembourg S.A.
The merger of UniCredit Luxembourg S.A., Luxembourg, into UniCredit Bank AG was entered in the Commercial Register for UniCredit Bank AG on 20 July 2018 and thus became legally effective. The merger was carried out with retroactive effect as per 1 July 2018 for tax and accounting purposes.

Business Situation and Trends (Continued)

Economic report

Underlying economic conditions

Global economic growth is likely to have slowed slightly to 3.6% in 2018 compared with the previous year, although there were some geographical differences. While the USA reports strong growth for 2018, Europe and some emerging markets grew at a slower pace. One of the main reasons for the weaker global development was less dynamic world trade. Economic growth in China also contracted slightly in 2018. Even though fiscal stimuli, such as infrastructure projects, are likely to have supported Chinese GDP growth and industrial production in 2018, the ongoing change in Chinese economic structures towards more private consumption and services is expected to have had a negative impact.

The US economy was one of the main drivers of growth in the global economy again in 2018. Real GDP growth is likely to have reached 2.8% in the USA, which is a significant increase on the previous year's figure (up 2.2%). The main reasons for the strong GDP growth in 2018 were fiscal measures aiming to support growth, including in particular a reduction in income and corporate tax as well as higher government spending. As a result, the government deficit rose to almost 5% of the GDP in the 2018 financial year and thus to the highest deficit since 2012. The momentum on the labour market once again proved to be another key factor of the strong growth. A still low unemployment rate close to the 4% mark coupled with lower taxes is likely to have supported private consumption. But corporate investments (such as in the energy sector) are predicted to have picked up substantially, providing further positive impetus for overall economic growth.

According to EuroStat, growth in the GDP in the eurozone was weaker than expected on account of the lower performance figures recorded by Germany and France (1.8% in 2018 compared with 2.3% in 2017). Besides temporary special factors (particularly in Germany), weaker global trade also had a dampening effect. However, the protectionist measures of the USA are likely to have had only a minor effect on growth so far. Other dampening effects arose on account of weaker monetary policy stimuli and higher oil and energy prices. In this context, particularly the latter weighed on increases in real household income and corporate profits.

With the steady decline in ECB bond purchases over the past year and the complete phase-out of the bond-buying programme in December 2018, the ECB remained on course for a less expansionary monetary policy. The inflation rate in the eurozone rose to 1.7% for the whole of 2018 and was thus again below the ECB's threshold of 2% in the reporting year.

At country level (data according to national statistical offices), the GDP grew in Germany by 1.4% (not calendar-adjusted) in 2018 compared with 2.2% in 2017, and also in France, growth declined to 1.5% in 2018 (previous year: 2.2%). Italy's economic growth also contracted to 0.8% in 2018 compared with 1.5% in the previous year. The economic recovery in Spain is set to decline slightly to 2.6% in 2018 after strong growth of 3.0% in 2017.

Weaker growth in Germany resulted from slower industrial production, with special factors (such as nationwide strikes, absences from work due to the flu epidemic and the introduction of new CO_2 emission standards for new cars) as well as lower demand from abroad having a negative impact. Positive growth stimuli, on the other hand, came from domestic demand. In addition to a solid increase in private consumer spending, positive stimulus from the construction industry supported GDP growth.

Sector-specific developments

The year 2018 was characterised by increasing global uncertainty and volatility driven by political risks and growing trade tensions. The greatest global growth risks are an increase in trade tensions, including the imposition of tariffs by the USA and China on imports from the other respective country, and the much-discussed US tariffs on imports from other regions. Another negative factor for the global economy is the somewhat weaker growth projected in China. The macroeconomic development in Europe can still be seen as positive. The formation of the government in Italy out of the Five Star Movement and the Lega in May and the ousting of Spain's prime minister in June led to a sharp increase in the risk premiums for the government bonds of both countries. This increase also resulted in higher risk premiums for bonds issued by banks from both countries. Compared with Germany's five-year bonds, the risk premium rose for Italy's ten-year government bonds from an average of under 137 basis points in the first quarter of 2018 to more than 320 basis points. After Italy presented its draft budget and reduced the planned deficit for 2019 after conducting negotiations with the EU Commission, the risk premiums narrowed again to 200 basis points in the fourth quarter. The ongoing negotiations on Brexit represent additional uncertainty for the markets. In early December 2018, Prime Minister Theresa May postponed the parliamentary vote on the Brexit agreement in order to renegotiate it with the EU and survived the vote of no confidence. In the first vote on 15 January 2019, a clear majority of the members of parliament voted against the Brexit agreement negotiated with the EU.

The ECB will discontinue its monthly net purchases of bonds as of the beginning of 2019 after making monthly purchases of €30 billion or €15 billion respectively in 2018. However, the ECB will remain a key market participant in the coming years. As at November 2018, the ECB had purchased €2.6 trillion in assets and will be reinvesting the maturing assets.

The increasing global and political uncertainty also caused gloomy sentiment on stock markets. The STOXX Europe 600 Banks index fell by over 28% in 2018.

Following the interest rate hikes of the Federal Reserve Bank (FED), the interest rate level continued to rise in the USA in 2018. The yield on the ten-year US government bonds rose to more than 3.2% and was thus more than 80 basis points higher than the level at the beginning of 2018. However, after mid-November there was a relatively sharp decrease in the yield to less than 2.7%. The yield on Germany's ten-year government bonds rose to over 70 basis points in the first quarter of 2018, the highest level since September 2015. But the increasing risk aversion of investors on account of rising political uncertainty again led to a narrowing to less than 30 basis points. The 3-month Euribor remained almost unchanged within a bandwidth of negative 31–33 basis points in 2018. A general revaluation of the risk premiums for bonds was carried out in 2018. Credit spreads for non-financials with good credit ratings widened by 63 basis points and senior bonds of banks by 57 basis points. This development partly reflected the anticipation of the end of the ECB's net purchases and partly offset the sharp narrowing of spreads in 2017.

The euro depreciated by around 5% against the US dollar in 2018. A depreciation against the Swiss franc and Japanese yen was also evident. The euro appreciated against the British pound, reflecting in particular the sharp depreciation of the pound since November 2018 in the course of the Brexit negotiations.

In the Italian banking sector, the reduction in the relatively large stock of impaired loans continued in 2018. The portion of impaired loans fell from 16.8% at the end of 2015 to 9.4% at 30 September 2018. Impaired loans were also further reduced in other countries such as Spain, Ireland or Portugal which resulted in a reduction of risks in the European banking sector overall.

Business Situation and Trends (Continued)

Operating performance

The 2018 income statement and important events in the 2018 financial year

	2018	2017	CHANGE	
Income statement	**€ millions**	**€ millions**	**€ millions**	**in %**
Net interest income	2,757	2,807	– 50	– 1.8
Net fees and commissions	1,050	1,194	– 144	– 12.1
Net income from the held-for-trading portfolio	345	652	– 307	– 47.1
Other operating income less other operating expenses	(673)	212	– 885	
Operating income	**3,479**	**4,865**	**– 1,386**	**– 28.5**
General administrative expenses	(3,233)	(3,144)	– 89	+ 2.8
Payroll costs	(1,624)	(1,544)	– 80	+ 5.2
Other administrative expenses[1]	(1,609)	(1,600)	– 9	+ 0.6
Operating result before provisions for losses on loans and receivables	**246**	**1,721**	**– 1,475**	**– 85.7**
Provisions	(242)	(244)	+ 2	– 0.8
Operating result	**4**	**1,477**	**– 1,473**	**– 99.7**
Other income less other expenses	17	113	– 96	– 85.0
Extraordinary income/expenses	496	(130)	+ 626	
Profit before tax	**517**	**1,460**	**– 943**	**– 64.6**
Tax	3	(160)	+ 163	
Net income	**520**	**1,300**	**– 780**	**– 60.0**
Transfer to the reserve for shares in a controlling				
or majority interest-holding company	—	(2)	+ 2	+ 100.0
Withdrawal from the reserve for shares in a controlling				
or majority interest-holding company	—	—	—	—
Transfer to other retained earnings	—	—	—	—
Withdrawal from other retained earnings	—	2	– 2	– 100.0
Profit available for distribution	**520**	**1,300**	**– 780**	**– 60.0**

1 Including standard amortisation and depreciation on intangible assets and property, plant and equipment.

Net interest income

At €2,757 million, the net interest income generated in the reporting period – net interest income/expenses including current income from equity securities and other variable-yield securities, participating interests and shares in affiliated companies as well as income from profit-pooling and profit-and-loss transfer agreements – is slightly lower than the previous year's figure (€2,807 million).

Current income of €216 million (previous year: €288 million) includes dividends from participating interests, affiliated companies and profit pools. In 2017, this total included dividend income of €105 million received from the dividend payout of UniCredit Luxembourg S.A., Luxembourg.

Net fees and commissions
At €1,050 million, net fees and commissions were lower than in the previous year (€1,194 million).

Fees and commissions receivable of €1,298 million were down on the previous year (€1,449 million). The decline in fees and commissions receivable, particularly in the securities and portfolio business as well as in the lending and credit business, was unable to be compensated for by the increase in income from payments and brokerage operations. The decline in fees and commissions receivable in the lending and credit business is mainly due to the absence of what is referred to as margin sharing with UniCredit Luxembourg S.A., Luxembourg, after the merger as at 1 July 2018.

Fees and commissions payable fell a slight €7 million to €248 million in the reporting year (previous year: €255 million), which is largely attributable to the decrease in fees and commissions payable in the lending and credit business and the commission paid in the securities and portfolio business and in other services.

Net income from the held-for-trading portfolio
There has been a significant decrease in net income from the held-for-trading portfolio from €652 million in the previous year to €345 million in the 2018 financial year.

The decline in net income from the held-for-trading portfolio relates above all to increased volatility as a result of macroeconomic events in 2018 in the interest-bearing business and a year-on-year decline in customer activity.

Other operating income less other operating expenses
The balance of other operating income and other operating expenses fell a substantial €885 million to an expense of €673 million in the 2018 financial year (previous year: income of €212 million). This was attributable to the required additions to provisions for legal risks. A description is given of the legal risks in the section entitled "Operational risk" in the Risk Report of this Annual Report.

General administrative expenses
General administrative expenses were up year-on-year by €89 million to €3,233 million (previous year: €3,144 million), particularly on account of higher pension expenses.

Operating result before provisions for losses on loans and receivables
The operating result before provisions for losses on loans and receivables fell by €1,475 million year-on-year to €246 million. This resulted in a substantial change in the cost-income ratio (ratio of operating expenses to operating income) to 93.0% (adjusted for restructuring costs: 74.1%) after 64.6% in the previous year.

Provisions for losses on loans and receivables
The provisions for losses on loans and receivables amounted to €242 million in the reporting period (previous year: €244 million). The net valuation expense on lending operations contained in provisions for losses on loans and receivables totals €316 million (previous year: €236 million). At €74 million, a net gain was generated with securities held for liquidity purposes (previous year: net loss of €9 million).

Other income less other expenses
Among other things, the net other income of €17 million (previous year: net income of €113 million) contains gains on the disposal of our participating interest in solarisBank AG, Berlin.

In the previous year, this item included, among other things, gains of €113 million on the disposal of our participating interests in Concardis GmbH, Eschborn and on the disposal of our fully owned subsidiary Bankhaus Neelmeyer AG, Bremen.

Extraordinary income/expenses
In the reporting year, extraordinary income/expenses includes a gain of €496 million on the merger of UniCredit Luxembourg S.A., Luxembourg, with UniCredit Bank AG in July 2018.

In the course of the changeover to the BilMoG in 2010, HVB exercised the option of aggregating at least one fifteenth of the amount allocable to the provisions for pensions in every financial year up to 31 December 2024 at the latest. The outstanding allocation amount of €130 million was fully written up in the 2017 financial year and charged to extraordinary income/expenses in the income statement.

Business Situation and Trends (Continued)

Profit before tax
Profit before tax decreased year-on-year by €943 million to €517 million.

Taxes
In spite of the profit before tax in the reporting year, there is tax income of €3 million (previous year: tax expense of €160 million). This is largely attributable to the reversal of provisions and largely tax-exempt extraordinary income.

Net income for the year and appropriation of net income
The profit available for distribution, which forms the basis for the appropriation of profit, amounts to €520 million. We will propose to the Shareholders' Meeting that a dividend of €520 million be paid in total to UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a dividend of around €0.65 per share after around €1.62 for the 2017 financial year. The consolidated profit of €1,300 million reported in the previous year was distributed to UniCredit in accordance with a resolution adopted by the Shareholders' Meeting on 11 June 2018.

Assessment of the business situation
In our expectations concerning the development of profit before tax outlined in the outlook in last year's Management Report, we forecast a moderate decrease compared with the previous year. At €517 million, the profit before tax, which was down by €943 million, was noticeably lower than in the previous year. This was mainly due to the required additions to provisions for risks and charges for legal risks. In addition, there was a stronger year-on-year decline in net trading income as a result of market conditions. And finally, there was a rise in pension expenses within general administrative expenses. On account of these effects, the profit before tax was substantially lower than forecast. The merger of UniCredit Luxembourg S.A., Luxembourg, into the Bank had a partially compensating effect. Net write-downs of loans and provisions for guarantees and commitments remained almost unchanged compared with the previous year.

Adjusted for the additions to provisions for risks and charges for legal risks, the cost-income ratio for 2018 amounted to 74.1% after 64.6% in the previous year, caused mainly by the decline in net trading income and the rise in general administrative expenses.

Financial position

Total assets
HVB's total assets amounted to €260.3 billion at 31 December 2018. This represents a year-on-year decrease of €2.9 billion.

The balances with central banks contained in the cash and cash balances item (€11.0 billion after €9.0 billion in 2017) were up year-on-year by €2.0 billion. At €6.0 billion, the cash on hand remained unchanged compared with the previous year. In the reporting year, there was a significant decrease in loans and receivables with banks from €58.0 billion in the previous year to €36.0 billion at 31 December 2018. This is primarily due to a deposit facility existing at 31 December 2017 with Deutsche Bundesbank which was repaid in 2018 and to lower fixed-term deposits. By contrast, there was a significant increase of €22.2 billion to €115.4 billion in loans and receivables with customers, due above all to the merger of UniCredit Luxembourg S.A., Luxembourg.

The holdings disclosed under securities (without held-for-trading portfolios) amounted to €52.1 billion (up €3.4 billion). While the money market papers held were down by €0.5 billion, there was an increase in the volume of bonds and notes issued by third parties (up €1.8 billion) and own bonds (up €2.1 billion) reported in the balance sheet.

At €42.3 billion, assets held-for-trading were lower than the previous year's level of €49.9 billion. This figure contains fixed-income securities including changes in value of €13.3 billion (previous year: €16.2 billion), equity securities and other variable-yield securities including changes in value of €10.1 billion (previous year: €16.1 billion) in particular due to the decline in customer activities compared with the previous year, receivables from securities repurchase transactions on the trading book of €2.8 billion (previous year: €4.4 billion), derivative financial instruments of €10.9 billion (previous year: €11.2 billion) and other assets of €5.4 billion (previous year: €2.1 billion).

The shareholdings disclosed under participating interests and shares in affiliated companies came to €1.7 billion (previous year: €2.5 billion). The decline is attributable to the merger of UniCredit Luxembourg S.A., Luxembourg.

There was a decrease in volumes on the liabilities side in line with the development on the assets side. The decline in deposits from banks (down €3.0 billion to €57.3 billion) is chiefly attributable to substantially lower term deposits (down €7.2 billion) and running counter to this development, an increase in securities repurchase transactions (up €3.5 billion).

Deposits from customers fell by €1.2 billion to €129.9 billion. The reason for this is particularly the declines in securities repurchase transactions (down €2.4 billion) and term deposits (down €1.4 billion) and to a lesser extent, collateral provided (down €0.5 billion), registered mortgage bonds (down €0.3 billion), registered public-sector bonds (down €0.3 billion) and savings deposits (down €0.2 billion). By contrast, there was an increase in other liabilities, mainly due to additions to current business accounts (up €4.4 billion).

Debt securities in issue rose by €3.4 billion to €20.2 billion. The volume of liabilities held-for-trading contracted (down €2.6 billion to €24.7 billion). Subordinated liabilities came to €0.7 billion.

The shareholders' equity fell €0.8 billion to €15.9 billion compared with year-end 2017. The dividend payout of €1.3 billion for the previous year is offset by net income for 2018 of €0.5 billion. The subscribed capital, the additional paid-in capital and the retained earnings remained unchanged compared with the previous year.

The return on assets is defined in Section 26a KWG as the ratio of net profit to total assets. This amounted to 0.200% at 31 December 2018 (31 December 2017: 0.494%).

At €78.8 billion, the contingent liabilities and other commitments not recognised in the balance sheet were almost unchanged year-on-year (previous year: €78.2 billion). This figure includes contingent liabilities (€26.1 billion) from general loan guarantees (€1.2 billion), transaction-related guarantees (€21.4 billion) and trading-related guarantees (€3.6 billion). Other commitments of €52.7 billion (previous year: €41.8 billion) consist solely of irrevocable lending commitments, which increased by €11.0 billion compared with the previous year.

Risk-weighted assets, key capital ratios and leverage ratio of HVB

The total risk-weighted assets of HVB (including market risk and operational risk) determined in accordance with Basel III requirements amounted to €78.8 billion at 31 December 2018 and were thus €1.6 billion higher than year-end 2017.

The risk-weighted assets for credit risk (including counterparty default risk) determined by applying partial use rose by €2.9 billion to €61.8 billion. Among other things, this increase is due to higher exposure values to companies.

The risk-weighted assets for market risk fell by €1.9 billion to €9.1 billion. This is attributable to both a decline in market risk in HVB's internal market risk model and to lower credit valuation adjustments as an expression of the risk of changes in credit ratings of counterparties in the OTC derivatives business.

Business Situation and Trends (Continued)

The risk-weighted asset equivalents for operational risk amounted to €7.9 billion at 31 December 2018 and increased by €0.5 billion compared with year-end 2017. The increase is largely attributable to a change in the AMA (Advanced Measurement Approach) model at year-end 2018, which also includes a margin of conservatism.

At 31 December 2018, the Common Equity Tier 1 capital compliant with Basel III excluding hybrid capital (CET1 capital) and the Tier 1 capital of HVB amounted to €15.5 billion and thus fell compared with year-end 2017 (31 December 2017: €15.6 billion in accordance with approved financial statements). The CET1 capital ratio (ratio of Common Equity Tier 1 capital to the total amount of credit risk-weighted assets and risk-weighted asset equivalents for market risk and operational risk) and the Tier 1 capital ratio under Basel III (including market risk and operational risk) amounted to 19.7% at 31 December 2018 in accordance with approved financial statements (31 December 2017: 20.2% in both cases). The decrease is attributable to both the higher risk-weighted assets and the lower capital. Own funds came to €16.3 billion at 31 December 2018 (31 December 2017: €16.4 billion in accordance with approved financial statements). The own funds ratio was 20.6% at 31 December 2018 (31 December 2017: 21.2% in accordance with approved financial statements).

The leverage ratio is determined by setting the Tier 1 capital measure against the total exposure measure. The total exposure measure is the sum total of the exposure values of all assets and off-balance sheet items. In accordance with the Commission Delegated Regulation (EU) 2015/62, the leverage ratio of HVB in accordance with approved financial statements amounted to 4.5% at 31 December 2018 (31 December 2017: 4.6%). The decrease in the leverage ratio is attributable to the increase in off-balance sheet items.

Ratings

The ratings of countries and banks are subject to constant monitoring by rating agencies. In the course of the harmonisation of the liability cascade of bank liabilities within the EU, the provisions of Section 46f KWG were adapted by the German legislator on 21 July 2018 and thus the insolvency ranking of bank liabilities of German banks was revised, in particular with regard to senior unsecured bonds.

In the course of this legislative adaptation, Moody's adjusted the rating of certain senior debt instruments of German banks on 3 August 2018. Moody's introduced junior senior bank debt as a class of instruments for senior non-preferred (SNP) debt instruments (contractual subordination). In addition, the senior unsecured debt instruments with legal subordination issued up to 20 July 2018, which had previously been reported under the issuer credit rating, were assigned to the new instrument class, as these debt instruments are equal in rank to SNPs. Junior senior bank bonds did not receive any premium resulting from possible government support as in the opinion of Moody's there is little likelihood that this class of instruments will receive government support. The junior senior unsecured instruments of UniCredit Bank AG were assigned a rating of Baa3.

The portfolio of complex structured senior bonds outstanding at 20 July 2018, which to date had been grouped under the "senior senior debt" category, was assigned to the new senior unsecured bank debt class of instruments. The senior unsecured rating of UniCredit Bank AG was affirmed at A2.

The rating category of senior unsecured bank debt instruments was defined as a point of reference for the issuer credit rating. As a result, the issuer credit rating of UniCredit Bank AG increased from Baa2 to A2.

The deposit rating of UniCredit Bank AG was affirmed at A2/stable/P-1 while the counterparty risk rating (CRR) remained unchanged at A1/P-1 and the stand-alone rating at Baa2.

Fitch responded to the amendment of Section 46f KWG by introducing the senior preferred instruments rating category. However, on account of the current uncertainty concerning the resolution strategy of UniCredit, Fitch is not currently differentiating between the individual instrument ratings of UniCredit Bank AG. The rating of senior preferred instruments is BBB+/F2, the same level as the issuer default rating (IDR). The deposit rating of UniCredit Bank AG stands at BBB+/F2, the derivative counterparty rating at BBB+. The outlook for the IDR remains negative as Fitch believes the fungibility of capital and liquidity could increase within banking groups under the direct supervision of the ECB. The ratings and the outlook of UniCredit Bank AG were affirmed by Fitch on 3 December 2018 in the course of a regular rating review.

As part of the specification of the liability cascade, S&P already introduced the senior subordinated debt instrument rating in March 2017, which is usually one level below the issuer credit rating (ICR). The senior subordinated debt rating of UniCredit Bank AG is BBB.

In June 2018, S&P introduced the resolution counterparty rating (RCR). S&P set its first rating for the RCR of UniCredit Bank AG at A-/A-2 and thus a notch higher than the long-term issuer credit rating.

Following the S&P rating decisions for Italy and for UniCredit S.p.A. in October 2018, for which the rating outlook was set to negative in both cases, the outlook of UniCredit Bank AG was then also adjusted from developing to negative in November 2018 while the ICR of UniCredit Bank AG was affirmed at BBB+/A-2 by S&P. The negative outlook for the ICR indicates that the rating can deteriorate in the event that UniCredit S.p.A. is downgraded and at the same time reflects the uncertainties regarding the design and timing of UniCredit's resolution strategy.

Significant investments

In the 2018 financial year, investments were made mainly in the IT infrastructure, which primarily serve the purpose of digitalisation and the adjustment to stricter internal and external requirements. These investments were made and accounted for by UniCredit Services S.C.p.A. Among other things, UniCredit Services S.C.p.A. is the subsidiary of the UniCredit responsible for IT to which HVB has outsourced its IT activities. No significant investments were made at HVB beyond the above, apart from the investments required in the ordinary course of business.

Business Situation and Trends (Continued)

Offices

Offices, broken down by region

		ADDITIONS	REDUCTIONS		
	1/1/2018	NEW OPENINGS	CLOSURES	CONSOLIDATIONS	31/12/2018
Germany					
Baden-Wuerttemberg	15	—	—	—	15
Bavaria	202	—	—	1	201
Berlin	8	—	—	1	7
Brandenburg	7	—	—	—	7
Bremen	—	—	—	—	—
Hamburg	13	—	—	—	13
Hesse	8	—	—	—	8
Lower Saxony	10	—	—	—	10
Mecklenburg-Western Pomerania	4	—	—	—	4
North Rhine-Westphalia	8	—	—	—	8
Rhineland-Palatinate	14	—	—	—	14
Saarland	4	—	—	—	4
Saxony	8	—	—	—	8
Saxony-Anhalt	9	—	—	—	9
Schleswig-Holstein	35	—	—	—	35
Thuringia	5	—	—	—	5
Subtotal	**350**	**—**	**—**	**2**	**348**
Other regions					
Europe	**7**	**1**	**—**	**—**	**8**
France	1	—	—	—	1
Greece	1	—	—	—	1
United Kingdom	1	—	—	—	1
Italy	1	—	—	—	1
Luxembourg	—	1	—	—	1
Austria	1	—	—	—	1
Switzerland	2	—	—	—	2
Africa	**1**	**—**	**—**	**—**	**1**
South Africa[1]	1	—	—	—	1
Americas	**2**	**—**	**—**	**—**	**2**
USA	2	—	—	—	2
Cayman Islands	—	—	—	—	—
Asia	**5**	**—**	**—**	**—**	**5**
Hong Kong	1	—	—	—	1
Singapore	1	—	—	—	1
Japan	1	—	—	—	1
United Arab Emirates	—	—	—	—	—
South Korea[1]	1	—	—	—	1
Vietnam[1]	1	—	—	—	1
Subtotal	**15**	**1**	**—**	**—**	**16**
Total	**365**	**1**	**—**	**2**	**364**

1 Representative offices.

Relations with affiliated companies

We have prepared a separate report on our relations with affiliated companies in the 2018 financial year which contains the following declaration made by the Management Board in accordance with Section 312 of the German Stock Corporation Act (Aktiengesetz – AktG):

"We declare that, based on the circumstances known at the time the legal transactions listed in this report were entered into, or the measures listed in this report were undertaken or omitted, UniCredit Bank AG received appropriate consideration for each transaction and did not suffer any disadvantage as a result of measures undertaken or omitted, or any disadvantages arising were compensated."

Report on subsequent events (events after the end of the reporting period)

At the end of January 2019, the purchase contract was signed for the associated company SwanCap Partners GmbH accounted for using the equity method.

Ms Beate Dura-Kempf left the Supervisory Board of UniCredit Bank AG as an employee representative with effect from the end of 31 January 2019. For the remaining term of her office, Ms Claudia Richter was appointed by Munich Local Court to the Supervisory Board as an employee representative with effect from 8 February 2019.

On 6 February 2019, UniCredit S.p.A. announced the reorganisation of the Group Senior Management Team of UniCredit S.p.A. This also involves the resignation of Gianni Franco Papa as General Manager of UniCredit S.p.A. Gianni Franco Papa will also resign as the Chairman of the Supervisory Board of UniCredit Bank AG.

Forecast report/Outlook

The Management Report and the annual financial statements include statements, expectations and forecasts concerning the future. These statements are based on plans and estimates that are supported by the information available to us at the present time. We assume no obligation to update these statements in the light of new information or future events. Known or unknown risks and uncertainties may be entailed in forward-looking statements, and the actual results and developments may thus differ significantly from those expected at present. Such discrepancies may result particularly from changes to the general economic situation and the competitive situation, developments on international capital markets, the possible default of borrowers or contracting parties in commercial transactions, the implementation of restructuring measures, amendments to national and international legislation relating in particular to supervisory and tax regulations, the reliability of our risk-management procedures and methods as well as other risks, some of which are described in detail in the Risk Report.

General economic outlook

Growth in the global economy is likely to weaken further in 2019. After an increase of roughly 3.6% in global output in 2018, we expect this to fall slightly to 3.4% in 2019. Besides a decline in economic performance in the USA, growth is also likely to contract in the eurozone. Many emerging and developing countries are likewise expected to lose momentum in 2019 as persistently high oil prices, a rise in US interest rates and a stronger US dollar exchange rate will adversely affect their economic development. Another negative factor for the global economy is likely to be the somewhat weaker growth in China. Besides the ongoing transformation of the economy, this is attributable to stricter allocation guidelines for real estate loans and house purchases and the related process of normalisation in the Chinese real estate market. In addition, there is still uncertainty about global trade due to the yet unforeseeable consequences of an increase in protectionist measures by the US administration and the outcome of the Brexit negotiations. In the eurozone, the budget negotiations between Italy and the EU Commission might also weigh down on the markets and poorer financing conditions might hinder economic growth. However, there are currently signs of an easing of this situation.

Business Situation and Trends (Continued)

Weaker global growth in 2019 will be mainly attributable to the forecasted weakening of the US economy. On account of expiring fiscal measures, we expect real GDP growth in the USA to come to 2.4% in 2019 and thus be 0.5 percentage points lower than in the previous year. In this context, fiscal stimuli are expected to probably begin expiring in the second half of 2019. Yet other factors will also adversely affect US growth in 2019: Firstly, the labour market will continue to lose momentum as job offers will increasingly lead to a bottleneck. With an unemployment rate of less than 4%, the increase in the working population will no longer suffice to ensure a continued high level of growth in employment. As a result, we expect monthly salary increases to slow down in 2019. In combination with the diminishing effects of tax cuts, this is projected to lead to a perceptible decrease in the income gains available. Secondly, there will probably be less investment expenditure as a weaker oil price will impact particularly commodity-related sectors. Furthermore, we anticipate an unfavourable external environment, characterised by a slower pace in global economic growth coupled with greater uncertainty about additional duties on Chinese imports. Finally, financial terms are also expected to be less accommodating, reflecting a combination of higher interest rates, greater volatility on stock markets and a stronger US dollar.

In 2019, we project lower growth of 1.4% in the eurozone and thus anticipate a slight decline compared with the previous year (up 1.8%). In this context, particularly the decline in growth in the USA and weaker global trade in the second half of 2019 will impact the economy in the eurozone. By contrast, domestic demand will probably be an important mainstay of economic activities again in 2019.

Despite the economic slowdown, employment growth has been robust to date, even though we anticipate a slight slow-down in recruitments this year. In addition, consumer confidence has declined slightly but it is still at a high level which is why private consumption should record stable growth at just under 1.5% again this year. From an accounting perspective, the budgets are in good shape as the debt burden in most countries is still low despite strong growth in consumer lending. There is a backlog in expenditure, particularly in the construction sector, which means that the recovery in capital expenditure in 2019 will continue at an annual pace of around 2.5-3%. The risks entailed in our forecasts are particularly political uncertainties (which includes an increasing intensification of protectionist measures of the US administration and corresponding countermeasures by trading partners, a disorderly Brexit and a renewed escalation of the budget negotiations between Italy and Brussels).

As the ECB's bond-buying programme ended in December 2018, the focus in 2019 is on the liquidity supply of banks and on the point in time at which the first hike in interest rates is going to take place. With regard to liquidity, we expect the ECB to ultimately decide to extend its TLTRO programme by around two years. As far as interest rate policy is concerned, the ECB is likely to leave the refinancing rate unchanged at 0% and the deposit facility rate at minus 0.4%. We expect consumer price inflation in the eurozone to fall to 1.4% for the full year 2019.

At country level, we forecast a GDP growth rate in Germany of 1.3% (not calendar-adjusted) in 2019 compared with the previous year (up 1.4%). At 1.2%, growth in France is projected to be slightly lower in 2019 than in 2018 (up 1.5%). For Italy, we also expect economic growth at a lower rate of 0.5% in 2019 compared with 0.8% in the previous year, and the economic recovery is likely to continue to weaken in Spain from 2.6% in 2018 to an estimated 2.1% in 2019. By contrast, we anticipate unchanged year-on-year growth of 1.4% in 2019 for the United Kingdom.

The key driver of German economic growth in 2019 is likely to be domestic consumption whereas foreign trade will probably have a dampening effect due to the global slow-down in the second half of the year. Moreover, particularly manufacturing companies might suffer from a further escalation of the trade conflicts in the USA-China-Europe triad. In the wake of weaker global growth and the associated lower growth rate in exports, the investments in Germany are expected to be less dynamic in the course of the year. By contrast, private consumption should record solid growth on the back of a historically low unemployment rate coupled with sustained wage increases. Further positive stimuli are likely to come from fiscal measures and an expansion of government consumption. But the construction industry in particular will probably once again make a significant contribution to overall economic growth in 2019, which is signalised not least by very high business expectations and a large backlog of completions in comparison with the building permits granted.

Sector development in 2019

The ECB discontinued its monthly net purchases of bonds from the beginning of 2019 after making monthly purchases in 2018 of €30 billion (January to September 2018) and €15 billion (October to December 2018). However, the ECB will remain a key market participant in the coming years. As at November 2018, the ECB had purchased €2.6 trillion in assets and will reinvest the maturing assets. At the same time, the prospect was held out of an increase in the key interest rates but not before the summer of 2019, which might also be delayed.

From a regulatory perspective, there were several important developments for banks again in 2018: One major issue was the further harmonisation of the creditor hierarchies of banks in Europe. Germany adopted a law on the readjustment of the insolvency hierarchy of banks that entered into force on 21 July 2018 and enables German banks to issue non-preferred senior unsecured bonds. Every other country had also amended its national insolvency hierarchies for banks by the end of 2018. Further regulatory issues were the topping up of the required TLAC and MREL ratios through the issuance of suitable debt instruments, the Targeted Review of Internal Models (TRIM) by the ECB, stricter regulatory expectations on the part of the ECB regarding loan loss provisions for new non-performing loans and receivables, the entry into effect of IFRS 9 as per 1 January 2018 as well as the new Markets in Financial Instruments Directive (MiFID II) and the related Regulation on Markets in Financial Instruments (MiFIR), which entered into effect on 3 January 2018.

In addition, the final Basel III reform package was adopted at the end of 2017. The new regulations relate mainly to the calculation of credit and operational risk and the respective capital backing of banks. The introduction of a minimum level of own funds (referred to as an output floor) for banks, which restricts the scope of banks in calculating their need for own funds with their own risk quantification methods, represents a significant change. The output floor will be implemented in stages between 2022 and 2027. Although a considerable increase in requirements is not expected for the global banking sector overall, the Basel III regulations are likely to result in higher capital requirements for individual financial institutions. These institutions are required to gradually bolster their capital cover by 2027.

Business Situation and Trends (Continued)

After an agreement was reached in the European Council in May 2018 on measures to reduce risks in the banking sector, a fundamental agreement was reached in December 2018 in the trialogue between the three different EU institutions. The political decision on the banking package was passed on 15 February but is to be adopted before the European elections in May 2019. The legislative text on the banking package is likely to be published by June 2019 at the latest. The package includes amendments to requirements for own funds (CRR II and CRD V) and to the recovery and resolution of failing banks (BRRD II). There is also political agreement on a greater role to be played by the European Stability Mechanism (ESM). In addition, the leverage ratio is projected to expand capital requirements. Moreover, the MREL and TLAC concepts will be harmonised and also contain a definition of TLAC requirements for globally systemically important banks and MREL requirements for other important banks. However, no major progress was made on the political side in the area of the European deposit insurance scheme (EDIS), although also the European Banking Authority (EBA) established that risks have been reduced in the European banking sector.

Development of HVB

The currently difficult-to-assess macropolitical environment in Europe, caused, among other things, by a potentially disorderly Brexit, the meanwhile somewhat defused budget dispute between the EU and Italy and the uncertainty about the impact that any new protectionist measures by the US administration will have on global trade are continuing to lead to structurally high volatility on financial and capital markets. Given this overall scenario, forward-looking statements on performance are unreliable.

In this persistently challenging environment for the financial sector, we nevertheless assume that we will generate a good profit before tax in the 2019 financial year based on the satisfactory development in our operating activities in the 2018 reporting year, our solid business model and the assumption that the political and macroeconomic environment will remain relatively stable. Our profit before tax should turn out considerably higher than in the reporting year, which, among other things, was heavily impacted by a non-recurring effect from an allocation to the provisions. At the planned tax rate, it should be possible to post an equally good result in profit after tax.

As described above in the section entitled "Transform 2019", we are proceeding on the assumption that the initiatives planned on the earnings and cooperation side in the Transform 2019 programme will develop positively and stimulate growth in operating income. To date, this programme has focused on cost reductions. On the earnings side, we expect growth to be stimulated by the acquisition of new customers and an increase in market shares in regions with high potential. We are also developing new sales channels through more intensive digitalisation in response to customer requests for new, more flexible advisory forms. On the cooperation side, we anticipate additional synergies through better interaction between the different business segments and the associated use of the respective product expertise which is likely to lead to an increase in cross-selling. All these measures should serve to ensure that slightly higher operating income is generated than in the reporting year.

Through the consistent implementation of our measures under the Transform 2019 programme and by continuing our strict cost management, which has already been in place for many years, there will be a further year-on-year reduction in operating costs. This should also result in a slight improvement in the cost-income ratio in the 2019 financial year compared with 2018.

We expect a slight decrease in provisions for losses on loans and receivables in the 2019 financial year. In the reporting year, provisions for losses on loans and receivables benefited from the generally positive economic development in Germany and were again very low by historical standards.

For the 2019 financial year, we continue to expect an excellent capital base without any change. The Common Equity Tier 1 ratio will probably fall moderately below the level of the previous year as we project an increase in risk-weighted assets, particularly due to the planned expansion in the lending volume.

Opportunities in terms of future business policy and corporate strategy, performance and other opportunities

The opportunities described below are offset by risks that can restrict the exploitation of those opportunities and plans. The risks arising from the business policy and corporate strategy are described in the Risk Report.

HVB is an important member of one of the largest, best-positioned banking groups in Europe, UniCredit. It is one of the largest private financial institutions in Germany and has core competence for all UniCredit customers, products and markets in Germany. In addition, it is the centre of competence for the international markets and investment banking of UniCredit as a whole. HVB operates in a domestic market which is the largest in the whole of Europe in terms of economic power, population and the number of companies and upscale private customers. Moreover, Germany is one of the few countries in the world that continues to enjoy a financial rating of AAA. All in all, HVB can exploit its regional strength coupled with the opportunities that arise from the network of a leading European banking group for the benefit of its customers.

With a business policy geared to sustainability, an excellent capital base, the measures for boosting efficiency and earnings in the Transform 2019 programme and specific growth initiatives, HVB stands for innovation, reliability, stability and security. This results in the opportunities described below:

The Commercial Banking business segment is notable for its universal bank offerings guaranteed to meet customers' needs to a high standard, particularly through the close cooperation between the business units in Commercial Banking and with the product specialists in Corporate & Investment Banking. The focus is placed on customers prepared to pay an appropriate price for premium services.

Specifically, we see the following growth opportunities for each business unit:

Within the Commercial Banking business segment, the Unternehmer Bank business unit is seeking profitable growth and an expansion of market shares in its corporate customer business through its positioning as a principal or core bank and the acquisition of new customers. At the same time, the Unternehmer Bank has positioned itself as a full-service solution provider in all customer-relevant sales channels. As a strategic business partner, the Unternehmer Bank is heavily involved in the entrepreneurial activities of its customers. The most important strategic challenges of customers include, among other things, foreign trade, internationalisation, digitalisation and corporate succession. The entrepreneur's private sphere is also a focal point of our comprehensive advisory services in the Wealth Management segment. For this reason, the growth initiatives of the Unternehmer Bank cover precisely these needs.

Business Situation and Trends (Continued)

In the Private Clients Bank business unit, we will continue to pursue the successful path we have embarked upon of fundamentally modernising our retail banking business by expanding our digital offering, thus underscoring our positioning as a quality provider. We are proactively focusing on demanding customers seeking professional advice. Here we aim to actively increase our market share to improve the profitability of our Private Clients Bank. We are striving to achieve this by creating clear lines of demarcation between us and the competition, providing first-class individualised advisory expertise, offering a modern omni-channel business model, loyalty pricing and accentuating our premium market presence. Among other things, the latter is characterised by our modern branches and a network of specialists. The consistent use of the 360-degree comprehensive advisory approach illustrates our advisory and product expertise in the market which aims to sustainably increase the prosperity of our customers and thus maintain long-term, trusting customer relationships. Offerings on all aspects of private assets, a business model that has received external awards as well as innovative and customised products and services underscores our commitment to be the best bank for customers in Germany – with quality, innovation and support.

The strategic emphasis in the CIB business segment is on consistent risk-adequate pricing and enhancements in strategic customer transactions and solutions to ensure a sustainable and long-term business relationship. An integrated value chain comprising network and product specialists enables us to provide top-drawer advice complete with solution-oriented approaches and wide-ranging financing and capital-procurement opportunities. We see further business potential in the expansion and improved use of our strong international network. To increase the efficiency of our customer-bank relations and thus enhance our cross-selling potential, we are expanding our processing and access platforms. We also wish to better exploit the opportunities afforded by digitalisation.

As a universal bank, HVB has a high level of cross-selling potential due to the close cooperation between the Private Clients Bank and the Unternehmer Bank as well as CIB. As a result of the fully integrated CIB, Mittelstand customers in the Unternehmer Bank benefit from HVB's investment banking solutions. Furthermore, the Unternehmer Bank supports the internationalisation activities of its customers by assisting them in their foreign activities in the home countries of UniCredit. Besides Eastern and Western Europe, the Unternehmer Bank serves its customers in all regions of strategic importance. Extensive opportunities for new business also arise by providing support in succession planning. HVB can respond quickly and flexibly to expansion opportunities arising on the market. On account of its excellent capital base, it is already well equipped for any tightening of regulatory requirements and will be able to actively operate even in that kind of scenario.

A success component at HVB entails setting strict limits for risk and managing the Bank with an awareness of risk. This approach is set to continue going forward. The HVB portfolio is in very good shape in terms of risk content and can be considered as entailing below-average risk exposure.

For years, HVB has been evolving into a bank with strong and consistent cost management. HVB is seeking to constantly enhance its operating costs over the coming years as well by exploiting synergies of overlapping functions particularly in the context of its Transform 2019 programme. In this regard, we are making use of the opportunities to cooperate within UniCredit across country and company lines and applying best practices wherever they can be found.

In addition, the possible consolidation wave in the banking sector in Germany, which is widely discussed in public, creates new growth opportunities for HVB. Through selective investments, we plan to make better use of our growth potential in individual regions, customer groups or product areas. This will be supported by process optimisations to create gains in efficiency and might involve an adjustment of structures, locations or roles.

Digitalisation has greatly altered the finance industry and the expectations of customers with regard to their bank and will continue to do so going forward. Already today, HVB is pressing ahead with digital transformation in individual business areas and has applied diverse models in various areas in terms of digitalisation.

As an attractive employer, HVB has opportunities to recruit highly qualified employees and managers. Both the size of UniCredit and the strategic positioning of HVB have a beneficial impact on the recruitment of employees and managers. Supporting female managers at junior level is an explicit part of the business strategy.

We see further potential for opportunities in our long-term orientation to customers and other stakeholders.

We are part of a successful, pan-European commercial bank, with a simple business model and a fully plugged in Corporate & Investment Banking, delivering a unique Western, Central and Eastern European network to our extensive client franchise.

Everything we do is based on our Five Fundamentals:

Our top priority, at all times, is to serve our customers the very best we can (Customers First). To do this, we rely on the quality and commitment of our people (People Development), and on our ability to cooperate and generate synergies as “One Bank, One UniCredit” (Cooperation & Synergies). We take the “right” risks, which we carefully manage and monitor (Risk Management), whilst being very disciplined in executing our strategy (Execution & Discipline).

We would expressly like to thank our employees at this point. Their willingness to embrace change and at the same time to help secure our commercial success forms the basis for our good performance. We also wish to thank the employee representatives for their constructive cooperation in spite of the very difficult issues. This gives all of us the confidence we need to master the challenges of the future.

Risk Report

HVB as a risk-taking entity

By their very nature, the business activities of HVB are subject to risk. HVB defines risk as the danger of suffering losses on account of internal or external factors. In the course of our business activities, risks are identified, quantified, assessed, monitored and actively managed. We therefore regard it as one of our core duties to apply these considerations in order to integrate risk-management, risk-controlling and risk-monitoring processes in all business segments and functions of HVB. These activities are the precondition for providing adequate capital backing and maintaining an adequate liquidity base.

The Risk Report deals exclusively with the risks at HVB. The opportunities are presented separately in the section of the Financial Review in this Management Report entitled "Opportunities in terms of future business policy and corporate strategy, performance and other opportunities".

HVB is divided into the following business segments:
– Commercial Banking
– Corporate & Investment Banking
– Group Corporate Centre
– Other/consolidation

The Group Corporate Centre (GCC) is shown as a separate business segment for the first time in the 2018 reporting year. The previous-year figures have been adjusted accordingly. In the past, the GCC was part of the "Other/consolidation" business segment.

Risk types

Credit risk is defined as the risk that a change in the credit rating of a contracting party (borrower, counterparty, issuer or country) induces a change in the value of the corresponding receivables. This change in value may be due to the default by the contracting party, meaning it is no longer in a position to meet its contractual obligations.

Market risk is defined as the potential loss of on- and off-balance-sheet positions in the trading and banking books that can arise in response to adverse changes in market prices (interest rates, equities, credit spreads, foreign exchange and commodities), other price-influencing parameters (volatilities, correlations) or trading-related events in the form of default or change in credit ratings of securities (specific price risk for interest net positions).

Liquidity risk is understood to be the danger that the Bank is not able to meet its payment obligations on time or in full. However, it is also defined as the risk of sufficient liquidity not being available when required or that liquidity can only be obtained at higher interest rates, or that the Bank will only be able to liquidate assets on the market at a discount.

In line with the Capital Requirements Regulation (CRR), HVB defines **operational risk** as the risk of losses resulting from inadequate or failed internal processes or systems, human error or external events. This definition includes legal risk, but excludes strategic and reputational risk. Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

These risk types are described in detail in the section entitled "Risk types in detail". All of HVB's other risk types are summarised in the section entitled "Other risks", which are presented in an abridged form.

The following risk types are summarised as other risks:
– **Real estate** risk covers potential losses resulting from changes in the fair value of the real estate portfolio of HVB. No land or properties are included that are held as collateral in lending transactions.

- **Business risk** is defined as losses from unexpected negative changes in the business volume and/or margins that are not attributed to other risk types. It can lead to long-term losses in earnings, thereby diminishing the fair value of the company. Business risk can result above all from a serious deterioration in the market environment, changes in the competitive situation or customer behaviour, changes in the cost structure, and changes in the underlying legal conditions.
- **Pension risk** can occur both on the assets side and the liabilities side (pension commitments). This may be caused by a decline in the fair value of plan assets on the assets side due to disadvantageous changes in market prices as well as an increase in the obligations on the liabilities side, due for instance to a reduction in the discount rate. Furthermore, there are actuarial risks such as longevity risk (changes to the mortality tables) on the obligation side. In this context, pension risk is the risk that the pension provider will have to provide additional capital to service the vested pension commitments.
- **Financial investment risk** covers potential losses arising from fluctuations in the measurement of HVB's equity interests. HVB's financial investment risk stems from the occurrence of losses in equity provided, in connection with a financial investment to other companies that are not consolidated in HVB's accounts or are not included in market risk.
- **Strategic risk** results from management either not recognising early enough or not correctly assessing significant developments or trends in the Bank's environment. As a consequence, fundamental management decisions could, in retrospect, prove to be disadvantageous in terms of the bank's long-term goals. In addition, some decisions may be difficult to reverse or cannot be reversed at all. In the worst case, this can negatively impact the profitability and risk profile of HVB.
- **Reputational risk** is defined as the risk of negative effects on the income statement caused by adverse reactions by stakeholders due to a changed perception of the Bank. This altered perception may be triggered by a primary risk such as credit risk, market risk, operational risk, liquidity risk, business risk, strategic risk or other primary risks.

Integrated overall bank management

Risk management

HVB's risk management programme is built around the business strategy adopted by the Management Board of HVB, the Bank's risk appetite and the risk strategy adopted groupwide.

The risk-taking capacity upon achievement of the set targets is assessed on the basis of the risk strategy and the business and risk plans, using the available financial resources. At the same time, limits are defined in the planning process to ensure that the risk-taking capacity is maintained. The determination of the risk-taking capacity is carried out for HVB Group.

Pursuant to the Minimum Requirements for Risk Management (MaRisk), multi-year budgeting is performed in relation to the internal capital. This involves analysing the relevant risk types over a time horizon of at least three years and taking into account a deteriorating macroeconomic environment. Two scenarios with negative consequences are examined independently of each other to permit an assessment of the effect of a deteriorating macroeconomic business environment. Whereas the first scenario assumes a conventional recession in Germany on account of the trade conflict between the USA and China and the associated cooling in the global economy, the second scenario assumes an interruption of the growth in the major economies of the European Currency Union. Since the available financial resources are considered with the same scenarios, it is possible to make a statement about how the risk-taking capacity will evolve overall over three years, taking into account the macroeconomic scenarios.

Implementation of the risk strategy is a task for the Bank as a whole, with key support from the Chief Risk Officer (CRO) organisation. The CRO organisation is responsible for risk management and risk policy guidelines set by the Management Board, reporting on a regular basis to the Management Board and the Risk Committee of the Supervisory Board on HVB's risk situation.

New releases and updates to instructions, policies and the risk strategy are communicated through the Bank's internal information system.

Risk Report (Continued)

Functional separation
In addition to Bank-wide risk management, integrated overall bank management is accompanied by comprehensive risk controlling and risk monitoring in accordance with the MaRisk rules, which is functionally and organisationally independent.

Risk controlling
Risk controlling is defined as the operational implementation of the risk strategy. The Senior Risk Management CIB & Large Commercial Bank – Credits unit and the Credit RR & NRR Germany (KRI) unit are responsible for the operational management of credit risk for the Commercial Banking and Corporate & Investment Banking (CIB) business segments. The senior risk managers and the credit specialists take lending decisions in the defined "risk-relevant business". They thus make it possible for the business segments to take on risk positions in a deliberate and controlled manner within the framework of the risk strategy and to evaluate whether it is profitable to do so from the overall perspective of the customer relationship and on the basis of risk-return considerations. In the "non-risk-relevant business", the business segments are authorised to take their own lending decisions under conditions set by the CRO organisation. The Market Risk unit is responsible for controlling market risk and the Finance unit within the Chief Financial Officer (CFO) organisation for controlling liquidity risk. The senior management is responsible for controlling operational risk and reputational risk with the support of the relevant operational risk managers.

Controlling the business risk consists mainly of the planning of earnings and costs by the individual business segments, which the CFO organisation proactively coordinates. The relevant business segments are responsible for controlling the financial investments. The real estate risk arising from the Group's own property portfolio is controlled centrally by the Chief Operating Office (COO) unit. HVB has undertaken to provide a range of different pension plans, which are largely financed by various investment vehicles, some of which are external. Under the capital investment process, there are separate rules covering the specific risk controlling of the different pension plans in each case. Some of these are subject to supervision by the German Federal Financial Supervisory Authority (BaFin), specifically by its insurers and pension funds supervision, and therefore need to comply with external rules and regulations. Controlling of strategic risk is the shared responsibility of HVB's Management Board.

Risk monitoring
The central risk monitoring function within the CRO organisation is responsible for identifying, measuring and evaluating the risks at HVB. It is subdivided in accordance with risk types. The risk monitoring functions for the following risk types: market risk and liquidity risk (for the liquidity risk, however, exclusively the risk monitoring functions of stress tests, calculation and monitoring of early warning indicators, calculation of the short-term concentration risk, evaluation of the funding plan) are bundled in the Market Risk unit and operational risk and reputational risk is bundled in the Operational & Reputational Risks unit. In addition, the Market Risk unit also monitors the market risk component of pension risk at regular intervals using a separately developed model (aggregated view of the plan assets and liabilities). As part of the asset management of the plan assets, the options for risk positioning are limited by both external and internal regulations. Ongoing monitoring of the respective rules is performed in accordance with the specific policies of the various pension plans. With regard to the monitoring of liquidity risk, some tasks are performed by the Market Risk unit while further risk monitoring functions for this risk type are the responsibility of the Finance unit within the CFO organisation (constant monitoring of the liquidity risk situation and compliance with limits). The Strategic Credit & Integrated Risks unit monitors credit risk, business, financial investment and real estate risk as well as the aggregated economic capital and the internal capital needs. The monitoring of strategic risk is the shared responsibility of HVB's Management Board.

The following are quantifiable risk types: credit risk, market risk, operational risk, business risk, financial investment risk, real estate risk and pension risk. The available financial resources are defined, quantified and compared with the risk capital for the analysis of the risk-taking capacity.

Liquidity risk is also a quantifiable risk but does not flow into the calculation of the risk-taking capacity.

A qualitative approach is used to monitor strategic risk and reputational risk.

Divisions and committees

Chief Risk Officer

The controlling and cross-business segment management of risk at HVB fall within the competence of the Chief Risk Officer (CRO). This is where all the key functions involved in the identification, analysis, assessment and reporting of risk are performed together with the ongoing tracking, handling, monitoring and controlling of risk. These activities are supported and complemented by various CFO units, notably with regard to liquidity risk.

The CRO organisation is divided into units that deal with lending business in the back office. The main functions of these units include:
- operational functions in the credit-decision and credit-monitoring processes for the risk-relevant lending business, complete with monitoring of the issuer and counterparty limits
- data management for the restructuring and workout portfolio
- restructuring activities with a view to minimising losses for the Bank

At the same time, there are units that cover operational and strategic aspects of risk monitoring. Their main functions include:
- the development, enhancement, parameterisation and calibration of the rating models used to determine the probability of our customers defaulting
- validation of Pillar I and II systems for risk measurement that contain the following components: models, associated processes, IT systems and data
- the development of concepts used to identify and control credit risk and concentrations, including country risk
- responsibility for the measurement methods and the refinement of the measurement methods and systems, and for the management and measurement of market risk and liquidity risk
- responsibility for the measurement methods and the refinement of the measurement methods and systems, and for the management and measurement of operational risk as well as responsibility for reputational risk and its management
- the determination of the internal capital and the economic capital base
- ensuring ICAAP compliance, ensuring compliance with the MaRisk rules as part of the responsibility for credit risk and economic capital, and the performance of stress tests
- ensuring compliance with regulatory rules regarding internal and external reports
- risk reporting

Chief Financial Officer

The Finance and Regional Planning & Controlling units from the Chief Financial Officer (CFO) organisation play a major role in risk monitoring. The Finance unit notably covers the management of short- and long-term liquidity at HVB (Asset Liability Management) acting in concert with the front office units and asset/liability management. Regional Planning & Controlling has also been tasked with central business management, cost controlling and equity capital management. This unit is also responsible for the creation and validation of the segment report in accordance with IFRS; it similarly has responsibility for the processes involved in preparing the income budgets and for the income projections. Furthermore, the segment-related controlling departments for all the segments apart from CIB come under this unit. Controlling of the CIB business segment is the responsibility of CIB Planning and Control. Among other things, this department is responsible for the reconciliation of net trading income, which it carries out jointly with Accounting.

Risk Report (Continued)

Asset Liability Management
The Finance unit controls Asset Liability Management by managing short-term and long-term liquidity within HVB. Its main objectives are to ensure that HVB has adequate liquidity at all times and to optimise funding costs. Asset Liability Management monitors trends and happenings on the money and capital markets and manages liquidity and funding requirements. As part of liquidity risk management, the Finance unit performs ongoing monitoring of the liquidity risk situation, in addition to the activities on the part of CRO, and manages funding activities together with the front office units. Within the framework of a liquidity cost allocation mechanism for all significant business activities, the internal transfer prices for the lending and deposit-taking activities are continually reviewed for appropriateness and regularly adjusted to reflect the market situation, for instance. The measures implemented in connection with these functions serve to support HVB's return targets.

Internal Audit
A number of important tasks regarding the implementation of an efficient risk management system have been entrusted to the Internal Audit department as described in the section entitled "Monitoring the effectiveness of the ICS".

Risk Committee
The Management Board has entrusted the following tasks to the Risk Committee (RC), subject to its management competence and its ultimate decision-making authority at any time:
– development and implementation of suitable policies and methods, especially for credit risk and credit portfolio management together with other risk topics
– discussion of and decision on strategic risk policy issues
A submission is always made to the Management Board when required for legal reasons (such as to comply with the MaRisk rules).

The RC generally meets once a month. Each meeting of the RC has a different main topic – either risk management or risk governance.

RC meetings focusing on risk management concentrate on the analysis of the business performance and risk development, and the ensuing measures. Method and process issues are also discussed at RC meetings which focus on risk governance alongside the risk strategy and the internal rules and instructions.

Asset Liability Committee
The Asset Liability Committee (ALCO) makes decisions at its monthly meetings on the asset/liability management of HVB. The committee pursues the following key goals:
– establishment of uniform asset/liability management methods for HVB
– optimum utilisation of liquidity and capital resources
– coordination between the requirements of the business segments for financial resources and the business strategy

Stress Test Council
The Management Board, as the body responsible for bank management, delegated the topic of stress tests to the RC and the Stress Test Council (STC) as a specialist committee. The tasks of the STC include:
– coordination of all stress-testing activities within HVB, including the refinement of the stress-testing methodology
– definition and coordination of cross-risk-type stress scenarios, including the validation of the underlying parameters
– analysis and presentation of stress-testing results and their use to prepare recommendations for management

Reputational Risk Council
The task of the Reputational Risk Council (RRC) is to manage HVB's reputational risks. It is the decision-making body for all business transactions and other activities that give rise to a potential reputational risk to HVB. Such activities include those relating to:
– projects and outsourcing activities
– the development of new products and the exploitation of new markets
– special purpose vehicles

Loan Loss Provision Committee
The Loan Loss Provision Committee (LLPC) is kept informed about developments in HVB's restructuring/workout portfolio and takes decisions within HVB regarding:
– the submitted risk provision requests, where these lead to allowances in excess of €5 million resulting from the initial assessment or follow-up assessments entailing a material change in the risk assessment
– debt forgiveness in excess of a risk provision/forgiveness competence of €5 million
– internal impairments at HVB in excess of a competence value I of €250 million or greater than 5% of HVB's regulatory equity capital

Implementation of overall bank management

Strategy
The business strategy and the risk strategy define the key pillars of business and risk policy for HVB. The subsidiaries, outsourcing and information and communications technology (ICT) are incorporated in both the risk strategy and the business strategy. The HVB business strategy describes the strategic starting point and organisational structure, the key pillars of the business strategy at overall bank level and the sub-strategies of the individual business segments.

The HVB risk strategy is derived consistently from the business strategy, supplementing it with the relevant aspects of risk management. In this context, HVB's risk strategy encompasses the risk types of credit risk and market risk together with their controlling using the economic capital and risk-type-specific limits, as well as operational risk, financial investment risk, real estate risk and business risk, which are controlled using only the economic capital. In addition, the strategic objectives for reputational risk, strategic risk, liquidity risk, pension risk and outsourcing are presented in terms of quality. The risk strategy is supplemented by the Industry Credit Risk Strategy, which specifies the risk appetite within the various industries.

The strategies approved by the Management Board of HVB are reviewed on both an ad hoc and a regular basis and, where necessary, modified.

Overall bank management
The management of HVB is part of the overall bank management of HVB Group. The metrics defined for the overall bank management of HVB Group are reviewed in the annual budgeting process; they are used to assess the success of the business strategy and the risk strategy. Earnings targets, risk targets, liquidity targets and capital targets are defined in the budgeting process together with the targeted risk-taking capacity at overall Bank level. The limits for the internal capital are defined and monitored in order to ensure the risk-taking capacity. For the purposes of business segment management, the economic capital limits are distributed for each risk type (credit risk and market risk) to ensure that the planned economic risks move within the corridor defined by the Management Board of HVB.

Key performance indicators (KPIs) generally applicable across all business segments have been defined for the management of HVB Group. These KPIs serve to entrench the aspects of profitability and growth, as well as restrictions and sustainability.

The value-oriented management of HVB Group focuses on the measurement of the business activities in accordance with return and risk considerations, with a risk-return target set for each of the business units of HVB Group. The expected economic returns are calculated using the allocated capital principle that is applied group-wide by UniCredit. Within the scope of the principle of dual control, both regulatory capital, in the sense of used core capital (Common Equity Tier 1), and internal capital are allocated to the business segments. Both resources are expected to yield an appropriate return, the amount of which is derived from the returns expected by the capital market.

Risk Report (Continued)

In line with the parameters defined in the business and risk strategies, the defined targets are broken down to business segment level and then translated into operational metrics for sales management. The defined targets are monitored using a standardised report to the Management Board of HVB. The Management Board of HVB initiates counter-measures in response to deviations from the targets defined in the budgeting process.

Regulatory capital adequacy

Used core capital (Common Equity Tier 1)

For the purposes of planning and monitoring risk-weighted assets, the business segments are required to have core capital backing of equivalent risk-weighted assets arising from credit, market and operational risks equal to an average of 12.5%. The expected return on investment is derived from the average used core capital (Common Equity Tier 1).

Management of regulatory capital adequacy requirements

To plan the regulatory capital taking account of regulatory requirements, we apply the three capital ratios listed below, which are managed within HVB Group's risk appetite framework using internal target, trigger and limit levels:

– Common Equity Tier 1 capital ratio (ratio of Common Equity Tier 1 capital to the sum of risk-weighted assets arising from credit risk positions and the equivalent risk-weighted assets from market and operational risk positions)
– Tier 1 capital ratio (ratio of Tier 1 capital to the sum of risk-weighted assets arising from credit risk positions and the equivalent risk-weighted assets from market and operational risk positions)
– equity funds ratio (ratio of equity funds to the sum of risk-weighted assets arising from credit risk positions and the equivalent risk-weighted assets from market and operational risk positions)

Essentially, the following processes have been defined to safeguard an appropriate capital base over the long term:

– carrying out of a rolling eight-quarter projection on a monthly basis to provide an ongoing forecast of the capital ratios of HVB Group
– carrying out of quarterly stress tests of the regulatory capital ratios under various scenarios (details on the stress tests can be found in the section entitled "Stress tests", see also the section entitled "Consistent liquidation approach/going concern approach")

More details on how these equity ratios have developed are presented in the section entitled "Risk-weighted assets, key capital ratios, liquidity and leverage ratio of HVB" in the Financial Review of the present Management Report of HVB.

All in all, HVB satisfies both the regulatory requirements arising from the statutory provisions and the minimum capital ratio specified by the European Central Bank (ECB) under the Supervisory Review and Evaluation Process (SREP).

HVB and UniCredit S.p.A. agreed with the relevant regulators that HVB and HVB Group would not fall below an equity funds ratio of 13%. This agreement will remain in force until further notice. The equity funds ratio of HVB was 20.6% at the end of December 2018 (31 December 2017: 21.2%).

Economic capital adequacy

HVB Group determines its internal capital. The internal capital is the sum of the aggregated economic capital for all quantified risk types (with the exception of liquidity risk), a premium for pension risk and financial investment risk and the economic capital for small legal entities. The economic capital measures the potential for unexpected loss over a time horizon of one year with a confidence level of 99.90%.

In the 2018 reporting year, the risk metrics for the economic capital are presented from the calculations for HVB Group for the first time. This means that all risks arising from unlimited Statements of Responsibility of HVB for subsidiaries are also taken into account and adequately reflected. The HVB Group figures shown below are indicated as HVB figures accordingly.

In addition, the group-wide model risk cushion, which takes account of the model risk, was included in the calculation of the ICAAP at year-end 2018. The model risk contribution is added to the aggregate economic capital to obtain the internal capital.

When the aggregated economic capital is determined, risk-mitigating diversification effects are taken into account between the individual risk types. HVB Group deploys UniCredit's group-wide model for risk aggregation that uses parameters that are uniform throughout the group for determining interdependencies between the risk types. In terms of methodology, the model is based on a copula approach where the parameters are estimated using the statistical Bayesian method. On account of the low risk content, the economic capital for small legal entities of HVB Group is approximated with no differentiation by risk type.

An all-round overview of the risk situation of HVB Group is obtained by regularly assessing the risk-taking capacity, as shown in the table "Internal capital after portfolio effects".

Internal capital after portfolio effects (confidence level 99.90%)

	2018		2017	
Broken down by risk type	**€ millions**	**in %**	**€ millions**	**in %**
Credit risk	3,144	37.6	2,734	34.8
Market risk	2,004	23.9	2,023	25.7
Operational risk	1,263	15.1	1,318	16.8
Real estate risk	475	5.7	386	4.9
Business risk	234	2.8	280	3.6
Aggregated economic capital	**7,120**	**85.1**	**6,741**	**85.8**
Pension risk	874	10.4	924	11.7
Financial investment risk	185	2.2	163	2.1
Model risk cushion	161	1.9	—	—
Economic capital of small legal entities	28	0.3	34	0.4
Internal capital of HVB Group	**8,368**	**100.0**	**7,862**	**100.0**
Available financial resources of HVB Group	**17,170**		**17,475**	
Risk-taking capacity of HVB Group, in %	**205.2**		**222.3**	

Risk Report (Continued)

Internal capital has increased by €506 million in comparison to 31 December 2017. This is mainly due to the increase in the economic capital of credit risk as a risk type and the introduction of the model risk cushion.

More details on the individual changes within the types of risk can be found in the respective sections on the corresponding types of risk.

Internal capital (without pension risk and without the model risk cushion) broken down by business segment (confidence level 99,90%)

	2018		2017	
Broken down by business segment	**€ millions**	**in %**	**€ millions**	**in %**
Commercial Banking	1,828	24.9	1,634	23.6
Corporate & Investment Banking	4,627	63.1	4,698	67.7
Group Corporate Centre	514	7.0	329	4.7
Other/consolidation	363	5.0	276	4.0
Internal capital (without pension risk and without model risk cushion) of HVB Group	**7,332**	**100.0**	**6,938**	**100.0**

Risk appetite

The risk appetite is defined as part of the annual strategy and planning process for HVB Group, whereby selected metrics are monitored only for HVB. The risk appetite metrics comprise specifications that are subdivided into the categories of "Pillar I", "commercial" and "specific risks". Targets, triggers and limits are defined for these metrics that allow excessive risk to be identified and counter-measures to be initiated at an early stage. The matter is escalated to the appropriate committees and the Management Board of HVB, should the defined limits be exceeded or not reached.

Consistent liquidation approach/going concern approach

HVB controls its risk-taking capacity under a consistent liquidation approach (gone-concern approach), where the fundamental aim of protective measures is to protect senior lenders. At the same time, appropriate figures are also defined for the regulatory core capital backing alongside targets, triggers and limits for the risk-taking capacity.

The going-concern approach (the assumption that operations will continue) is additionally allowed for by critically evaluating and incorporating as appropriate the results of the regular Bank-wide stress tests when defining targets, triggers and limits for both the risk-taking capacity and the regulatory capital backing. Over the course of 2019, the steering approach will transition from the liquidation approach to the going-concern approach.

Recovery plan

The preparation of recovery plans (RPs) is intended to facilitate the restructuring of systemically important financial institutions. UniCredit S.p.A. and HVB have been identified as systemically important at a global level and at a national level, respectively. Supervision of HVB passed to the ECB when the Single Supervisory Mechanism (SSM) came into effect in November 2014. According to a decision of the Joint Supervisory Team (JST), HVB, as part of UniCredit, has not been required to prepare a HVB Group recovery plan since 2015. For this reason, HVB works closely together with UniCredit S.p.A. each year to prepare a joint "UniCredit Group Recovery Plan". This Recovery Plan was officially submitted to the ECB on 30 September 2018 and has been in effect since then.

Risk-taking capacity

As part of an analysis of our risk-taking capacity, HVB Group measures the internal capital against the available financial resources. Furthermore, the risk-taking capacity is analysed across the defined multi-year period as part of the planning process.

HVB Group uses an internal definition for the available financial resources, which, like risk measurement, is based on a gone-concern approach. Under this approach, the risk-taking capacity is defined by comparing unexpected losses at the confidence level (internal capital) with the ability to absorb losses using the available equity funds (available financial resources). When determining the available financial resources, the available capital is viewed from an economic standpoint. In other words, the calculation is made in accordance with a value-oriented approach, under which shareholders' equity shown in the balance sheet is adjusted for fair value adjustments. Furthermore, intangible assets, deferred tax assets and effects of own credit rating are deducted and minority interests are only taken into account to the extent of the risk-bearing portion. At the same time, subordinated liabilities recognised as regulatory capital are included.

The risk metrics for economic capital, the available financial resources and the risk-taking capacity are presented for the 2018 reporting year based on the calculations for HVB Group.

The available financial resources at HVB Group totalled €17,170 million at 31 December 2018 (31 December 2017: €17,475 million).

With internal capital (including the model risk cushion) of €8,368 million, the risk-taking capacity for HVB Group is 205.2% (31 December 2017: 222.3%). This figure is much higher than the target HVB Group has set itself. The decrease of 17.1 percentage points in comparison with 31 December 2017 for HVB Group is attributable to a decrease of €305 million or 1.7% in the available financial resources and a simultaneous increase of €506 million or 6.4% in the internal capital in 2018. The decline in the available financial resources is the result of changes in individual components that had opposing effects in some cases; but above all, maturities in subordinated capital and a negative development in fair-value adjustments (elimination of effects of own credit rating and revaluation reserve).

Limit concept

The risk limit system is a key component of the ICAAP at HVB Group. Its purpose is to ensure the Bank's risk-taking capacity at all times by means of an integrated controlling process. A wide-ranging, consistent limit system that includes the specification of limits for internal capital and economic capital, risk-type-specific limits and limits for risk concentrations has been implemented to ensure this. It covers all the risks that need to be backed with capital. Consequently, unexpected losses for credit, market, operational, business and real estate risk are currently recorded. In addition, pension risk, financial investment risk, any model risks and the economic capital for small legal entities are included in the internal capital by means of a cushion.

This system of limits reflects the business and risk strategies, taking into account the risk appetite and the available financial resources, at the level of HVB Group, and ensures compliance with the risk-taking capacity. The risk limits are approved by the Management Board of HVB each year during the strategy process.

The internal capital limits are allocated at the level of HVB Group broken down by risk type and for the internal capital as a whole. Based on the aggregate limit set for internal capital, the risk-taking capacity of HVB Group is ensured at all times. The correlation effects included in the internal capital cannot be influenced by the business segments. Consequently, economic capital limits adjusted for these effects and the risk-type-specific limits are used for controlling purposes in the business segments.

In order to identify at an early stage any potential overshooting, HVB has specified triggers in the form of early warning indicators as well as the defined limits. The utilisation of, and hence compliance with, the limits is monitored regularly and presented in the Bank's reports on a monthly basis. After six months of the year, the limits are additionally checked to ensure their adequacy and, if necessary, adjusted.

Risk Report (Continued)

Stress tests
The MaRisk rules call for stress tests to be carried out regularly using various scenarios.

Various macroeconomic downturn scenarios and a historical scenario were calculated for the cross-risk-type stress tests in 2018:
- Contagion scenario – focusing on political tensions within the EU
- Recession scenario – recession in Germany due to a massive decline in global demand
- Historical scenario – based on the 2009 financial crisis
- Financial intermediary scenario – A second, stricter variant of the historical scenario additionally reflects the default by the financial intermediary with the highest stressed counterparty risk exposures
- Protectionism scenario – protectionism, China slowdown and Turkey shock
  This scenario considers the introduction of a policy of protectionism in the USA that throttles growth in China in conjunction with a growth shock in Turkey
- Interest Rate Shock scenario – rise in interest rates in the eurozone

Taking account of macroeconomic developments over the course of 2018, the aforementioned downturn scenarios and the underlying baseline scenario were reviewed and the corresponding macroeconomic parameters and market parameters were adjusted.

The stress tests across risk types are presented and analysed within the structure of the Stress Test Council on a quarterly basis and any measures required are presented to the Risk Committee and the Management Board of HVB. Both the risk-taking capacity and the minimum requirements for regulatory capital ratios of HVB Group would currently be met and complied with even after occurrence of the stress test scenarios listed. The risk-taking capacity within the scope of the stress test was established for HVB Group and is based on a confidence level of 99.90%.

Furthermore, inverse and ad hoc stress tests are carried out.

Inverse stress tests involve analysing what events could endanger the continued existence of the Bank as a going concern. The continued existence as a going concern is considered at risk when the original business model proves to be no longer feasible or viable. The hypothetical events analysed included fraud by a trader, rating downgrades, a bank run and default by customers and industries.

Ad hoc stress tests are carried out in response to internal and external events that might have a considerable impact on HVB Group.

Concentrations of risk and earnings
Concentrations are accumulations of risk positions that react in a similar way to specific developments or events. Concentrations may have an impact within a risk type or equally across risk types. They indicate increased potential losses resulting from an imbalance of risk positions held with customers and in products or specific industries and countries.

Concentrations are analysed, monitored, managed and reported on a regular basis with regard to the relevant risk drivers for credit, market, liquidity and operational risk. In particular, appropriate instruments and processes ensure the prompt identification of concentrations. Adequate monitoring, the suitability of which is reviewed at regular intervals, is used as the steering approach for the risk types of financial investment risk, real estate risk and pension risk.

The risk management processes for concentrations have been optimised with regard to the interlinking of risk drivers across the risk types, such that concentration risk is integrated into the assessment and controlling functions.

The concentration of earnings at individual customers, business segments, products, industries or regions represents a business-related strategy risk for the Bank. Risks arising from concentrations of earnings are monitored regularly, as their avoidance is an important indicator of sustainable diversification and hence the viability of the business model in crisis situations.

Risk inventory
The scheduled comprehensive yearly risk inventory at HVB was started in February 2018. The existing and potential new risks were analysed and critically evaluated by means of structured interviews with numerous decision-makers within HVB and by means of questionnaires, among other things. The outcome of the 2018 risk inventory was presented to the Risk Committee and HVB's Management Board in September 2018 and included in the calculation and planning of the risk-taking capacity following approval. The risk inventory serves to review the overall risk profile of HVB. Various topics are identified, some of which are included in the stress test, the validation of the measurement methods used for the material risk types and other ICAAP components.

Internal reporting system
The internal reporting system supports risk monitoring at portfolio level in particular. The portfolio sections used in this connection were defined for the purpose of risk controlling and do not correspond to the portfolio sections that are defined for accounting purposes in the context of the classification of financial instruments. Within the framework of the internal reporting system, information is provided on the overall risk to HVB's Management Board, the Risk Committee of the Supervisory Board and the Risk Committee on a monthly basis, to the full Supervisory Board at least on a quarterly basis and also on an ad hoc basis. In addition, further monthly risk reports are created focusing on specific business segments, countries or industries, to be communicated to the Risk Committee and the units involved in risk management, among others.

Risk types in detail

Where the measurement methods for individual risk types have been refined, details are presented under the risk type concerned.

1 Credit risk

Definition
Credit risk is defined as the risk that a change in the credit rating of a contracting party (borrower, counterparty, issuer or country) induces a change in the value of the corresponding receivables. This change in value may be due to the default of the contracting party, meaning it is no longer in a position to meet its contractual obligations. Credit risk comprises the following categories:
– Credit default risk (including counterparty risk and issuer risk)
– Country risk

Categories
Credit default risk
Credit default risk is considered to occur with regard to a specific contracting party when one or both of the following criteria are satisfied:
– The Bank assumes the contracting party is probably not in a position to meet its entire contractual obligation towards HVB as whole, without having to take recourse to measures like the sale of collateral (where present).
– The contracting party is more than 90 days in arrears in terms of a material receivable of HVB.

The credit default risk also encompasses counterparty risk and issuer risk.

Risk Report (Continued)

Counterparty risk
Counterparty risk arises from the possible loss of value due to the default of the counterparty in trading activities (such as derivatives involving interest rates, foreign exchange, equities/indices, or other futures or derivative contracts). It is divided into the following components:
– Settlement risk: Settlement risk is defined as the risk that the counterparty fails to meet its delivery or performance obligation on the due date while the Bank has already paid the consideration.
– Pre-settlement risk: Pre-settlement risk arises from the risk that the Bank has to replace a transaction on the market under less favourable conditions following a default by the counterparty.
– Money market risk (cash risk): Money market risk consists in the risk that the counterparty does not repay loans (taken out in cash).

Issuer risk
Issuer risk is defined as credit default risk in the securities holding resulting from the downgraded credit rating or default of an issuer that can lead to a loss of value through to total loss. Issuer risk arises from the purchase of securities, securities issuance activities, credit derivatives and the placement of securities.

Country risk
Country risk is the risk of losses caused by events attributable to actions by the government of a given country. This includes the repayment of capital in a specific country being prevented by government intervention, which gives rise to various risks (such as transfer risk, expropriation risk, legal risk, tax risk, security risk). It also includes the risk of repayment of capital being prevented by a deterioration in the economic and/or political environment (such as through recession, a currency and/or banking crisis, natural disasters, war, civil war, social unrest). Country risk encompasses:
– Sovereign risk (state as counterparty): Sovereign risk is the risk of the central government or central bank (or any agency backed by the government) defaulting, irrespective of the currency in which the debt is issued.
– Transfer and conversion risk: Transfer and conversion risk is the risk that the government takes measures due to the inability or unwillingness to pay with the objective of limiting the transfer of capital and/or convertibility of the currency, which leads to losses. War and civil war can similarly lead to a lack of solvency. Transactions contain transfer risk when they represent cross-border business (from the standpoint of the unit disbursing the loan) and are denominated in a foreign currency (from the borrower's standpoint). The borrower's credit risk is not classified as transfer risk; the transfer risk is measured separately.
Delivery risk is included in transfer risk. Delivery risk is the risk of default on account of non-delivery caused by state intervention in the delivery contract or state-imposed delivery restrictions (in the case of project loans or commodity financing, for instance).

Strategy
A risk strategy has been approved for HVB that operationalises the strategic controlling of credit risk. This is done by setting targets and limits for different metrics as needed. Controlling using economic capital, together with volume and risk metrics, is particularly important in this regard. The planning of the targets and limits is embedded in HVB's annual plan, similarly taking into account ceilings arising from the requirements regarding the capital base. Firstly, the limits are intended to leave scope for implementation of the business planning and, secondly, to set upper limits, specifically with regard to economic capital.

Systematic controlling and setting of limits for credit risk are essential for sustaining HVB's strategic orientation. The risk strategy is intended to make it possible for both the sales controlling and risk management functions to back transactions with concrete, measurable criteria in order to optimise the risk profile of the credit portfolio. To achieve this, the expected and unexpected losses of a given borrower are determined. These form the basis for drawing up limits and in some cases target portfolios for the different risk types, exposures and risk metrics.

HVB's successful strategy implemented in recent years of strictly limiting risk and managing the Bank in a risk-conscious manner was continued again in 2018. By selectively writing new business, employing active portfolio management and making effective use of professional restructuring and workout capacity, HVB has evolved into a bank that has a lower than average risk profile for the industry. The goal for 2018 was to continue applying this strategy and maintain the overall portfolio at a sustainable level.

Industry-specific controlling of credit risk had a positive effect. The details of industry-specific controlling are specified in the Industry Credit Risk Strategy. This strategy includes an assessment of the opportunities and risks for every industry, from which controlling signals and quantitative ceilings for new business are derived.

Active management of the exposure in the countries badly affected by the financial crisis also contributed to the positive development described. The strategy of HVB in its role as a universal bank was to concentrate on strong regional core markets like Switzerland, the UK, Belgium and France alongside the domestic market of Germany. The Spanish, Dutch and Scandinavian markets are primarily served by other UniCredit banks, with the exception of multinational core customers, who continue to be served by HVB. At the same time, the Markets unit in the CIB business segment will enter into credit risk and market risk subject to clearly defined standards in UniCredit's core countries as a result of the corporate function as UniCredit's investment bank.

Limit system

The credit risk strategy defines limits for risk metrics and risk types for individual portfolios. These are allocated at the following levels:
- HVB Group
- HVB
- business segments of HVB Group and HVB
- products and special portfolios (such as Leverage and Project Finance and shadow banks)

The following criteria are analysed with regard to the performing portfolio: exposure, expected loss and risk density. An overshooting of the limits is generally not permitted.

In order to avoid concentrations of risk in credit default risk, the following concentration limits and, where appropriate, target portfolios are used for controlling purposes:
- single-name concentrations
  The references unit for setting limits on single-name concentrations are economic or legal borrower groups with an unsecured exposure of €50 million or more.
- industry concentrations
  The limits are set in the same way as for industry controlling as part of the risk management programme at HVB.
- concentration limits for countries and regions
  Exposures outside Germany are subject to the risk of a sovereign default and hence possibly related problems in the financial system. The concentration limit restricts the credit risk of all borrowers in a given country. Every country and region has been assigned a limit that reflects the risk appetite and the strategic orientation via controlling signals (overweight, underweight or neutral) of HVB. In addition, a limit is set for cross-border country risk exposure.

The utilisation of the individual limits is classified using a traffic light system:
- green: limit utilisation is below a defined trigger
- yellow: limit utilisation is below the limit but above the defined trigger
- red: limit utilisation is above the limit

If a limit or a trigger is exceeded, an escalation process is initiated to eliminate the overshooting or prevent an overshooting of the limit in the event that a trigger is exceeded. The corresponding responsibilities are defined in the escalation process to ensure the permanent controlling effect of the limits.

Risk Report (Continued)

Credit risk mitigation

In new lending, HVB pursues the strategy of applying all types of loan collateral that would present an economic benefit to the Bank in the event of default.

For the reduction of credit risk, only such collateral is used as meets the requirements of the Advanced Internal Ratings Based (A-IRB) approach in accordance with Basel III. An essential point in the formulation of collateral agreements and internal processes is ensuring that the collateral is legally enforceable.

Methods have been implemented to value collateral that meet the requirements of Basel III. Empirically determined ratios for realisation proceeds and costs are employed in the valuation together with realisation periods. The land charges are calculated using a statistical model to update the current and forecast fair values at the time of realisation. The fair values are adjusted on an annual basis to reflect the market developments actually observed, and the forecast is reviewed and, where necessary, adjusted. Special simulation methods for valuing collateral have been devised for collateral types with a low default history. In the case of securities, HVB resorts to its own haircut calculations based on historical data. In addition, collateral is taken into account using a substitution approach if permissible under the CRR.

The most significant collateral types in terms of value in the lending business are land charges, guarantees and pledges of financial collateral, which together account for approximately 90% of all valued collateral.

In trading activities, over-the-counter (OTC) derivatives, security financing transactions (SFTs) and exchange-traded derivatives (ETDs) are hedged on the basis of the respective contractual provisions with the counterparties. In the case of OTCs, these are the International Swaps and Derivatives Association (ISDA), the German Master Agreement for Derivatives (Deutscher Rahmenvertrag für Finanztermingeschäfte – DRV) and the Credit Support Annex (CSA, appended to an ISDA master agreement) or BRV (appended to a DRV master agreement). In the case of SFTs, these are the Global Master Repurchase Agreement (GMRA) or the Global Master Securities Lending Agreement (GMSLA). For credit risk reduction, only collateral recognised as eligible under the CRR is permitted for regulatory purposes. Internally, the collateral policy defines conditions for accepting collateral in trading activities. The back office has a consultation and veto right in this regard. Collaterals from the trading business are measured on the basis of current market prices. The counterparty risk exposure is forecast using a refined internal model for predicting the amount of collateral needed and the value of the collateral provided (simulation method).

Measurement

We use the following risk measurement methods and metrics to assess our credit risk.

Probability of default (PD)

The internal customer-segment-specific rating and scoring methods of HVB that are available for all significant credit portfolios form the basis for the measurement of credit default risk. The reliable determination of our customers' PDs is critical for credit decisions, pricing and core capital backing under Basel III (A-IRB model) as well as for the internal credit risk model. Consequently, we place particular emphasis on the further development and refinement of our internal rating analysis instruments.

The PDs determined on the basis of the rating and scoring methods lead to allocation to a rating class on a ten-point scale. The rating classes 1 to 7 are set aside for performing loans and the rating classes 8 to 10 for non-performing loans, with the rating classes 8-, 9 and 10 representing default classes.

HVB master scale with PD bandwidths

HVB RATING CLASS	AVERAGE PD	LOWER PD BANDWIDTH	UPPER PD BANDWIDTH
1	0.03%	0.001%	0.048%
2	0.08%	0.048%	0.121%
3	0.19%	0.121%	0.306%
4	0.49%	0.306%	0.775%
5	1.23%	0.775%	1.961%
6	3.12%	1.961%	4.965%
7	7.90%	4.965%	12.570%
8	20.00%	12.570%	99.999%
8–/9/10	100%	100%	

In contrast to ratings at customer level for which the customer represents the risk for the Bank, in the case of a transaction rating the risk relates to the transaction. In this instance, the customer is not considered the risk-bearing entity; the individual transaction is rated with its clearly specified risk instead. Structured loans and securitisations are typical examples of transaction ratings.

Loss given default (LGD)
The LGD indicates what proportion of the underlying portfolio of receivables would almost certainly be lost in the event of a default. The expected proceeds from the collateral used to reduce credit default risk have a major influence on the amount of the LGD. At the same time, the amount of the LGD is determined by borrower-related criteria. The reliable determination of our customers' LGD is critical for credit decisions, pricing, core capital backing under Basel III (A-IRB model) and our internal credit risk model. Consequently, the refinement and annual validation of our LGD estimation methodology is a high priority for us.

Exposure at default (EAD)
The EAD is the expected amount of the receivable at the time of default. It covers current arrears together with the probable future utilisation by the borrower. These probable future utilisations are determined on the basis of historical data and validated on an annual basis. Off-balance-sheet exposures such as unused, externally committed credit lines are also employed as the reference point for the EAD parameters. The EAD parameters are also incorporated in the credit decision, pricing, core capital backing under Basel III (A-IRB model) and the internal credit risk model.

The credit-risk-oriented calculation of exposures and limits is also carried out for issuer risk. This involves calculating a fair-value-oriented exposure for the individual positions in the trading book, which shows and limits the maximum potential fair value loss without taking account of residual values. A credit-risk-oriented, nominal-value-based exposure is used to limit the banking book and asset-backed security (ABS) positions. Netting effects are taken into account when the limits are set.

Risk Report (Continued)

In terms of counterparty risk, a simulation method is used to determine future exposure figures for the pre-settlement risk within the scope of an internal model. The default conditional metric used in the internal model to determine the future exposures makes it possible among other things to incorporate the correlation effects between market risk and credit risk, and notably the specific wrong-way risk. The simulation is carried out for up to 50 future dates on the basis of 3,000 market data scenarios for each calculation date.

Expected loss (EL) (standard risk costs)
The expected loss shows the credit default losses to be expected from the credit portfolio over the next 12 months, taking into account the current ratings and collateral on hand. Among other things, it is used for risk identification, as both an absolute and a relative value, in pricing, for profitability calculations and for limitation purposes.

Risk density
The risk density is another risk metric alongside the EAD and expected loss that is used to manage the individual HVB sub-portfolios. HVB calculates the risk density as the ratio of expected loss to performing exposure in basis points (bps). It indicates the development of risk in a given portfolio.

Unexpected loss (economic capital, EC)
The economic capital measures the amount of capital required to cover the unexpected loss beyond the expected loss, which, with a probability of 99.90%, will not be exceeded over the next 12 months. This risk metric makes the risk content of the various sub-portfolios comparable, taking into account the concentration risks in the portfolio. It is also used in pricing and the Bank's risk-adjusted profitability calculations.

Internal credit risk model
HVB has been using the credit portfolio model used throughout UniCredit to measure the economic capital of credit risk. The group model follows the structural Merton approach under which correlations between the borrowers are mapped using a multi-factor model, taking into account fluctuations in value arising from rating changes (migration risk) for certain sub-portfolios as well as the pure credit default risk.

The credit portfolio model covers all banking book positions and counterparty risks arising from derivative positions that are relevant pursuant to the definition of credit risk. Issuer risk from the trading book continues to be recorded using the incremental risk charge (IRC) model, which forms part of the market risk in the presentation of the ICAAP.

Country risk is integrated using appropriate PD add-ons. Risk-reducing factors are included by applying reductions to the LGDs and PDs.

Risk-based and market-oriented pricing
Pricing methods and tools are used to manage risk and profitability in the lending business that take into account all cost components, in particular the expected standard risk costs and the cost of capital, and that are each adjusted to reflect the current parameters and bank management. Lending decisions are made under risk/return considerations that are determined in the obligatory pre-calculation prior to a transaction being concluded.

Monitoring and controlling

Risk monitoring takes place at the level of individual exposures. In addition, various instruments are used at portfolio level.

Individual exposures are monitored in both lending and trading operations with the aid of classical monitoring systems, such as rating analysis and early warning systems. Individual exposure limits are also defined in line with the probability of default to limit the risks entered into. Monitoring and reporting of any limit overshootings takes place on a monthly basis.

Special features of counterparty risk and issuer risk
We employ limit systems as a key element of the management and controlling of counterparty risk as well as issuer risk to prevent an increase in our risk position that does not comply with the strategy. These systems are available online at all key HVB facilities engaged in trading activities. Each new trade is entered and applied to the corresponding limit without delay (the same day). The pre-settlement risk is established on the basis of an internal model method (IMM) and is recognised by the banking supervisory authorities for calculating capital requirements. To reduce counterparty risk relating to financial institutions, HVB is making greater use of derivative exchanges in its function as a central counterparty.

Quantification and specification
The economic capital for credit risk at HVB, without taking account of diversification effects between the risk types and without the model risk cushion, amounts to €3,488 million, which is €430 million higher than the total reported value as at 31 December 2017 (€3,058 million).

Credit default risk
The following tables and charts for credit default risk show the aggregate exposure values (total of non-performing and performing exposure) of HVB including issuer risk from the trading book. Issuer risk arising from the trading book is, moreover, included in the regulatory market risk analysis by way of the incremental risk charge. The comments in this regard can be found in the section covering market risk.

The aggregate exposure to credit default risk is referred to as credit default risk exposure, or simply exposure, in the following. Account balances on the entry date are included in the calculation of exposure.

The remaining exposures assigned to the former Real Estate Restructuring business segment are excluded from the analysis because the portfolio does not include any further new business and is earmarked for elimination. The portfolio has been reduced consistently in recent years and now stands at a mere €44 million (31 December 2017: €127 million).

Development of metrics by business segment

	EXPECTED LOSS[1] in € millions		RISK DENSITY IN BPS[2]	
Business segment	**2018**	**2017**	**2018**	**2017**
Commercial Banking	140	132	15	14
Corporate & Investment Banking	141	137	11	10
Group Corporate Centre	0	0	6	10
Other/consolidation	0	2	31	174
HVB	**281**	**271**	**13**	**12**

1 Expected loss of the performing exposure without issuer risk in the trading book.
2 Risk density as a ratio of expected loss to performing exposure without issuer risk in the trading book in basis points (bps); 100bps = 1%.

Risk Report (Continued)

In 2018, the expected loss of HVB increased by €10 million and risk density by 1bp.

Among other things, this is attributable to business expansion and rating downgrades in the Commercial Banking business segment and, within that business segment, especially to the Private Customers and Tourism industry groups. Overall, the expected loss in this business segment rose by €8 million.

The rise in the expected loss of €4 million and in the risk density of 1bp in the CIB business segment is the result of a reduction in liquidity reserves and the associated change in the portfolio structure, among other factors.

Breakdown of credit default risk exposure by business segment and risk category (€ millions)

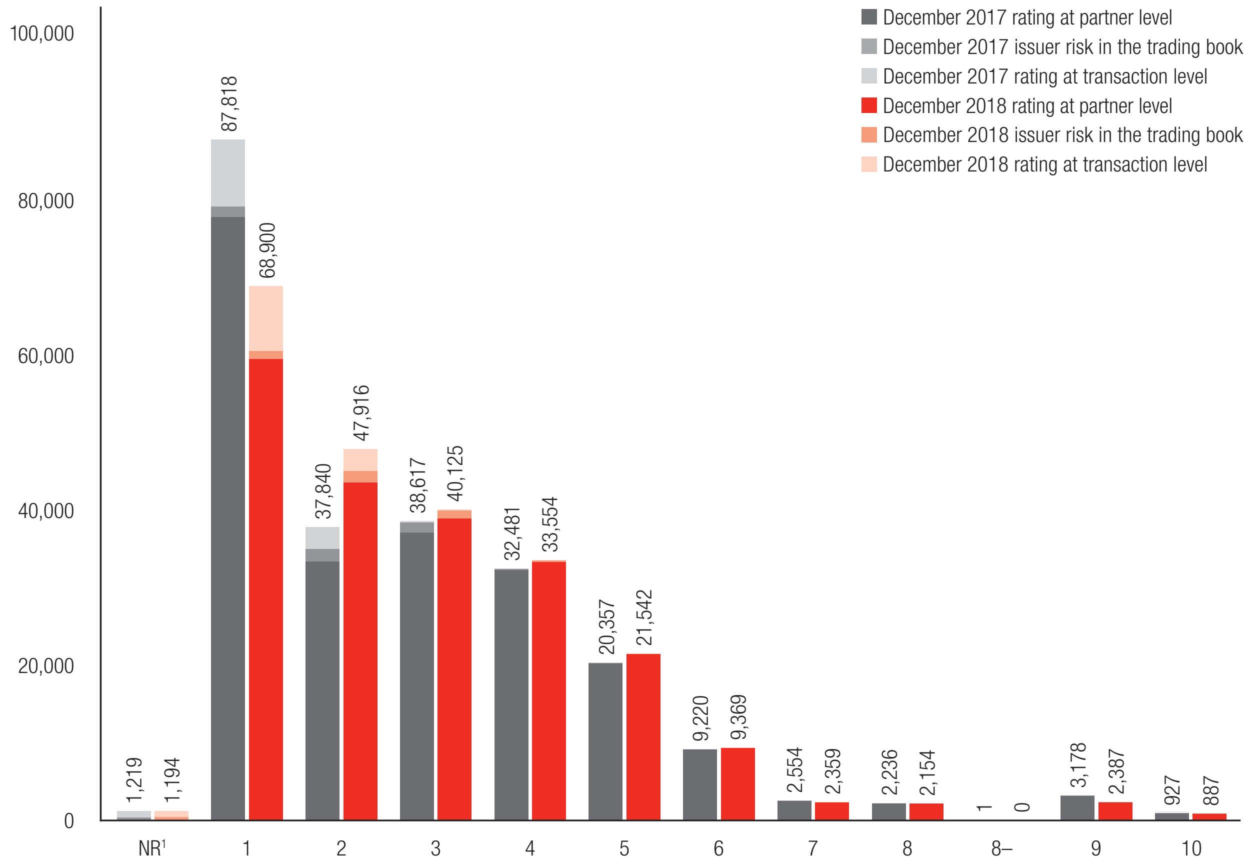
	CREDIT DEFAULT RISK EXPOSURE		OF WHICH COUNTERPARTY RISK		OF WHICH ISSUER RISK IN BANKING BOOK		OF WHICH ISSUER RISK IN TRADING BOOK	
Broken down by business segment	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Commercial Banking	96,568	92,621	2,823	2,660	—	—	—	—
Corporate & Investment Banking	133,521	143,471	18,346	15,921	35,541	37,046	4,270	4,836
Group Corporate Centre	192	228	186	206	6	10	—	—
Other/consolidation	105	129	0	3	—	—	—	—
HVB	**230,386**	**236,449**	**21,355**	**18,790**	**35,547**	**37,056**	**4,270**	**4,836**

HVB's credit default risk exposure decreased by €6,063 million in 2018.

In the CIB business segment in particular, the exposure fell by €9,950 million primarily on account of the sharp reduction in liquidity reserves at Deutsche Bundesbank and in the public sector that are, however, not only set against growth in business at other financial institutions (including foreign sovereigns) but also in other industries.

In contrast, exposure in the Commercial Banking business segment increased by €3,947 million in the private customers and real estate industries, among others.

Breakdown of credit default risk exposure by rating class (€ millions)



1 Not rated.

The rating structure of HVB changed over 2018 mainly on account of the development of exposure in the financial institutions (including foreign sovereigns) and public sector (including German sovereign) industry groups.

In rating class 1, exposure fell by €18,918 million mainly on account of the significant reduction in HVB's liquidity reserves at Deutsche Bundesbank and in the public sector (including German sovereign).

This is contrasted by growth in business at other financial institutions (including foreign sovereigns) and in other industry groups of other rating classes.

Risk Report (Continued)

Development of metrics by industry group

Industry group	CREDIT DEFAULT RISK EXPOSURE € millions		OF WHICH ISSUER RISK IN TRADING BOOK € millions		EXPECTED LOSS[1] € millions		RISK DENSITY in BPS[2]	
	2018	2017	2018	2017	2018	2017	2018	2017
Financial institutions								
(including foreign sovereigns)	58,389	70,525	2,970	3,178	29	29	5	4
Real estate	27,490	26,089	66	61	22	22	8	9
Public sector (including German sovereign)	20,043	25,229	307	411	1	1	1	1
Special Products	12,532	12,888	17	0	8	7	6	5
Energy	12,462	11,139	142	218	14	15	12	15
Food, beverages, agriculture	10,771	9,580	48	83	13	14	13	15
Chemicals, pharma, healthcare	10,316	10,219	162	102	18	17	18	17
Automotive	8,670	7,328	125	118	8	7	10	9
Consumer goods, textile industry	6,566	6,284	22	58	16	12	24	20
Services	5,626	5,702	39	77	15	19	28	34
Metals	5,525	5,251	83	108	12	14	23	30
Machinery	5,437	4,569	8	18	13	12	24	28
Telecommunication, IT	5,412	4,442	148	180	11	9	22	21
Construction, building materials	5,300	4,616	32	33	7	8	14	18
Transport, travel	3,826	3,730	54	98	7	5	21	14
Electronics	2,921	1,998	20	29	3	2	11	13
Shipping	2,845	3,337	1	5	40	42	187	188
Media, paper	2,405	2,037	11	22	6	4	24	18
Tourism	2,342	2,016	10	31	7	4	29	19
Private customers	20,988	19,346	—	—	31	26	15	13
Others	520	124	5	6	0	2	3	200
HVB	**230,386**	**236,449**	**4,270**	**4,836**	**281**	**271**	**13**	**12**

1 Expected loss of the performing exposure without issuer risk in the trading book.
2 Risk density as a ratio of expected loss to performing exposure without issuer risk in the trading book in basis points (bps); 100bps = 1%.

The portfolio has a balanced structure and is diversified across the various industries.

How the top 5 industries developed within HVB Group is described below.

Financial institutions (including foreign sovereigns)
The exposure in the financial institutions (including foreign sovereigns) industry group fell significantly by €12,136 million as at 31 December 2018. This development is exclusively attributable to the reduction in liquidity reserves at Deutsche Bundesbank. A portion of this amount was reinvested both at other state institutions and issuers, and in other industries. There was no change in the expected loss which is within the range of normal portfolio development. The risk density increased slightly from 4bps to 5bps.

Rising costs from regulatory requirements and in connection with compliance (fines and investments), together with falling earnings due to partially modified business models, less demand for credit and the ongoing historically low level of interest rates led to continued strong downward pressure on margins throughout the industry group. The earnings of European banks in particular remained below those of major US banks. The provision of liquidity to banks is unproblematic in most cases. ECB policies may lead to negative interest rates for deposits in solitary cases. The banks have a stable capital base, but ten years down the line from the global financial crisis, it is still not possible to talk of a lasting recovery in the sector.

Some new geopolitical risks as well as existing ones that are intensifying again are causing turbulence and volatilities on the financial markets on a regular basis.

HVB has deployed a monitoring tool known as the "radar screen for financial institutions/banks" in order to be in a position to promptly identify and counter negative developments within the banking sector. A change in the exposure strategy will be adopted at short notice should bank downgrades be noted.

Part of the exposure in the financial institutions (including foreign sovereigns) industry group resulted from credit risk exposure to UniCredit S.p.A. and other entities affiliated to UniCredit (upstream and downstream exposure) on account of the strategic positioning of HVB as the group-wide centre of competence for the markets and investment banking business of UniCredit and other business activities (such as export finance and guarantees).

Real estate
In the real estate industry, exposure as at the 31 December 2018 reporting date increased by €1,401 million while the expected loss remained constant.

The German real estate market saw a continuation of its boom phase once again in 2018. This development still has its origins in the historically extremely low long-term interest rates, the robust labour market and the persistently strong demand for residential and commercial properties – especially in conurbations. The change in investment patterns seen during the most recent financial crisis in 2008 led to large shifts of assets into real estate. The purchase prices frequently outstripped growth in rental charges and continue to do so. Counteracting effects can be identified in some regional sub-markets, due to demographic developments, among other factors.

Unresolved international conflicts and uncertainty as to developments in the situation surrounding Europe and increasing dangers from trade wars could lead to worsening economic prospects in coming periods, which could have an impact on the commercial real estate market in particular. In the case of residential properties, the core markets (including Berlin, Hamburg, Munich) are showing indications of market cooling and a normalisation of sales patterns, especially in the case of high-price properties.

Partly as a result of the conservative credit risk strategy for the real estate industry group that has been applied for years, the portfolio of existing properties remained robust and relatively low risk in 2018, and measured in terms of risk density, was successfully kept at an unchanged low level. In a multi-year comparison, a very good risk result (measured against the actual loss) was achieved in the real estate industry group in 2018. The financing business remains focused on Germany.

HVB continues to place its focus on disciplined risk management in compliance with financing policies. Market and portfolio developments are monitored on an ongoing basis in order to be in a position to identify and counter negative developments at an early stage. Market observers, including Deutsche Bundesbank, warn of potentially overinflating prices and overheating markets.

Risk Report (Continued)

Public sector (including German sovereign)
In the public sector (including German sovereign) industry group, the exposure decreased by €5,186 million in 2018. This is essentially attributable to the maturing liquidity reserves, a lack of corresponding investment opportunities and, to a certain extent, to a reallocation to other industry groups. The expected loss and the risk density remains unchanged in this context.

The public sector (including German sovereign) industry group contains private enterprises with public sector owners as well as state entities. As the German states and the development banks enjoying the formers' full liability represent important counterparties for internal liquidity management, the vast majority of the exposure is due to HVB's own liquidity reserves.

Special products
Special products transactions include ABS/CDO bond investments, customer-related securitisations, securitisations of UniCredit's own assets, structured credit products such as structured fund financing, structured leasing transactions and other structured financial transactions (not including project and acquisition financing).

A strategy of growth within clearly defined parameters involving conservative credit standards (for instance in relation to asset classes, rating quality) was defined for sub-segments of the special products portfolio under the 2018 risk strategy. This growth strategy was able to be implemented only to a certain extent in 2018. There was a further reduction in non-strategic transactions. As a result, the total volume of the special products portfolio lagged behind December 2017 somewhat. The expected loss and the risk density consolidated at a very low level.

Energy
As at the 31 December 2018 reporting date, exposure in the energy industry increased by €1,323 million while expected loss had fallen at the same time by €1 million.

In line with the defined risk strategy, we are focusing on large multinationals in the energy sector (including oil and gas). The increase in exposure over the reporting period essentially results from an expansion in the loans issued to large companies with good credit ratings, which is reflected in a decreased risk density of 3bps.

In the case of project loans on the renewable energy side, we are concentrating on projects in countries with a stable regulatory environment and ensuring compliance with our lending standards. In addition, details on further industry groups of relevance with regard to their development within HVB are described in the following.

Food, beverages, agriculture
The food, beverages, agriculture industry group saw an increase in exposure of €1,191 million with a slight decline in the expected loss in 2018. The rise in the exposure is mainly the result of new business with five key accounts, each with a very good rating. The risk density decreased by 2bps to 13bps.

Automotive
Exposure in the automotive industry group increased by €1,342 million as at the 31 December 2018 reporting date. This increase is distributed in almost equal proportions over new business with ten existing key accounts as well as new business with a large number of smaller accounts. Supported by our rigorous industry strategy and industry policies, the portfolio's high quality remains largely unchanged but the expected loss and the risk density have deteriorated slightly due to the ailing state of the automotive industry.

Shipping

Exposure in the shipping industry group continued to decrease, falling by €492 million to €2,845 million as at the 31 December 2018 reporting date. The expected loss and the risk density fell slightly.

The industry situation improved overall in 2018, but is still not satisfactory in substantial areas.

HVB continues to apply a conservative strategy in its ship financing activities. The focus remains on managing the risk in the existing portfolio. After the significant portfolio reduction in the shipping industry in recent years, the reduction in the existing portfolio continued in 2018. In addition, customers repaid loans prematurely. At the same time, new business was written very selectively where this helped to enhance the quality of the portfolio.

Exposure development of countries/regions

The following tables show the comprehensive concentration risk at country level. The exposure figures are shown with regard to the risk country of the customer.

Development of credit default risk exposure of eurozone countries (€ millions)

	CREDIT DEFAULT RISK EXPOSURE		OF WHICH ISSUER RISK IN TRADING BOOK	
Broken down by eurozone countries	**2018**	**2017**	**2018**	**2017**
Germany	132,653	151,440	891	1,092
Italy	8,659	9,336	784	1,567
France	8,076	6,181	448	257
Spain	7,526	6,911	131	126
Ireland	6,290	6,046	43	46
Luxembourg	5,006	5,487	74	98
Netherlands	4,422	4,126	183	171
Austria	1,923	1,849	378	304
Belgium	1,340	319	34	94
Finland	339	330	40	21
Greece	201	237	—	—
Portugal	102	48	52	3
Cyprus	53	157	—	1
Malta	42	17	—	—
Slovenia	22	44	4	22
Lithuania	9	16	9	16
Latvia	6	2	4	—
Slovakia	3	7	1	2
Estonia	2	2	2	2
Supranational organisations and multilateral Banks	2,481	2,057	99	—
HVB	**179,155**	**194,612**	**3,177**	**3,822**

Risk Report (Continued)

Exposure developed within the framework set by the risk strategy for 2018. This was specifically true in light of the stabilisation seen to date in the eurozone economy. The increasing uncertainty engendered by Brexit could, however, have a negative impact on this. HVB will monitor this development on an ongoing basis and, if necessary, take suitable measures.

Italy
The size of the portfolio results from HVB's role as group-wide centre of competence for the markets and investment banking business of UniCredit. This portfolio is actively managed in accordance with market standards. The exposure to Italy also includes the exposure with UniCredit S.p.A., for which a separate strategy was defined. Italy's economic growth weakened in the second half of 2018, which means that growth is likely to amount to 0.8% for the full year 2018, after 1.5% in 2017. The parliamentary elections in spring 2018 led to a strengthening of the Movimento Cinque Stelle and Lega political parties, who have now joined up to form a government. This government's intention to simultaneously increase expenditure and to significantly reduce taxes, regardless of the fiscal rules of the European Economic and Currency Union (EECU), has led to a serious conflict with the EU Commission. This conflict has been defused for the time being by the government declaring its willingness to plan a somewhat lower budget deficit for 2019. But a corrected budget will not significantly reduce the very high sovereign debt (in relation to the gross domestic product) either. One noteworthy positive aspect is that, contrary to previous declarations, the leaders of both government parties have now stated that they no longer strive towards Italy leaving the Eurozone, which is also rejected by a clear majority of the population.

Development of the weaker eurozone countries
The intense austerity and reform measures implemented in Spain and Portugal, countries formerly severely impacted by the euro crisis, have shown success, which in turn has led to an improved assessment overall by the capital markets. Spain, in particular, deserves special mention in this connection. It is likely to record relatively strong growth of 2.6% for 2018 despite a slight year-on-year slowdown. Real GDP growth of 2.1% is expected for 2019 against the backdrop of a weaker pace of global economic growth. Alongside the robust economic growth, Spain has significantly reduced the level of unemployment since 2015. Moreover, a gradual but persistent reduction in the sovereign debt ratio is becoming apparent. The political crisis in connection with the secessionist movement in Catalonia is a factor causing uncertainty, but it has not yet had any major impact on the Spanish economy. The snap general election called for April 2019 is likely to result in a situation where it is once again difficult to form a government as the political landscape in Spain is also becoming increasingly fragmented. To date, even difficult political circumstances, such as the minority government of Pedro Sanchez, have not seriously affected economic development.

The portfolio in the weaker eurozone countries was again actively managed in 2018, albeit with different strategies.

The strategy of reduction continued to be applied for Greece in 2018.

Development of credit default risk exposure by country/region outside the eurozone (€ millions)

Broken down by country/region outside the eurozone	CREDIT DEFAULT RISK EXPOSURE 2018	CREDIT DEFAULT RISK EXPOSURE 2017	OF WHICH ISSUER RISK IN TRADING BOOK 2018	OF WHICH ISSUER RISK IN TRADING BOOK 2017
UK	11,290	9,184	243	249
USA	9,805	8,853	136	161
Switzerland	6,636	5,418	259	142
Japan	6,246	1,477	3	0
Asia/Oceania (without Japan, China, Hong Kong)	4,036	3,615	23	25
Western Europe (without Switzerland, UK)	2,202	1,728	124	104
China (including Hong Kong)	1,944	1,593	0	0
Turkey	1,925	2,441	12	5
Near/Middle East	1,761	1,686	—	0
Eastern Europe (without eurozone countries)	1,277	1,412	226	145
CIS/Central Asia (without Turkey)	1,193	1,007	28	86
Africa	1,148	1,149	5	10
North America (including offshore jurisdictions, without USA)	1,133	1,615	11	63
Central/South America	635	644	23	23
Without country classification	—	15	—	—
HVB	**51,231**	**41,837**	**1,093**	**1,013**

Over 2018, the total exposure to countries/regions outside the eurozone increased by €9,394 million especially on account of the growth in business in Japan.

Brexit

HVB is taking account of the possible consequences of Brexit in terms of the future development of its exposure in the UK, among other things.

Geopolitical flashpoints

On account of the ongoing conflict in eastern Ukraine and the difficult economic situation throughout the country, unsecured transactions with Ukrainian banks remain on hold. Russia's acts of intervention in Ukraine have led to a continuation of the existing sanctions imposed by the EU and USA that impact the cross-border business with Russia. This is reflected in the decline in exposure, as new business is not written unless all the sanctions are observed and customer interests have been taken into account on a case-by-case basis. Excluded from this are transactions with the UniCredit subsidiary in Russia, which shows an increase in business, with the result that the exposure of the CIS/Central Asia region increased year on year.

Risk Report (Continued)

The Turkish economy has come under pressure primarily from the domestic policy issues since the failed coup d'état in the summer of 2016 and from the environment of gradually rising interest rates in the USA which is likely to make investments in emerging economies, such as Turkey, generally less attractive. In the second half of 2018, there was thus a substantial decrease in the foreign portfolio investments that have financed the country's large current account deficit to date. In view of this fact, the economy is likely to have entered a recession and an even greater contraction of the real gross domestic product can be expected for 2019. As a result, a strategy of reduction was adopted for business with Turkey posing a country risk.

The Near/Middle East region is additionally suffering from the growing tensions between Saudi Arabia and Iran and the fall in the oil price to a significantly lower level since mid-2014. This is forcing Saudi Arabia and the Gulf States to make downward adjustments to public spending in the medium term despite their considerable fiscal reserves, an action that might give rise to discontent in their respective populations. Furthermore, there are political risks due to the confrontation between several Gulf States including Saudi Arabia and Qatar.

Financial derivatives

Alongside the goal of generating returns, derivatives are employed to manage market risks (in particular, risks arising from interest-rate fluctuations and currency fluctuations) resulting from trading activities, and also serve to provide cover for on- and off-balance-sheet items within asset/liability management. Besides market risk, derivatives bear counterparty risk or, in the case of credit derivatives, which additionally serve to manage credit risk, also issuer risk.

The positive fair values are relevant for purposes of credit default risk as replacement values for the OTC derivatives, which represent the potential costs that HVB would incur to replace all of the original contracts with equivalent transactions in case of simultaneous default by all counterparties.

On the basis of these replacement values and not taking into account any risk-reducing effects, the maximum counterparty risk for HVB as at 31 December 2018 totalled €60.7 billion (31 December 2017: €59.0 billion).

In accordance with the regulatory provisions under Basel III and CRR as well as taking account of the internal model method (IMM) that has been approved by the regulatory authorities for use by HVB to determine counterparty risks, HVB's derivative business results in risk-weighted assets arising from counterparty risk of €4.2 billion as at 31 December 2018 (31 December 2017: €4.8 billion).

The following tables provide detailed information especially on the nominal amount and fair values of all derivative transactions and credit derivative transactions of HVB.

Derivative transactions (€ millions)

	NOMINAL AMOUNT					FAIR VALUE			
	RESIDUAL MATURITY			TOTAL		POSITIVE		NEGATIVE	
	UP TO 1 YEAR	MORE THAN 1 YEAR UP TO 5 YEARS	MORE THAN 5 YEARS	2018	2017	2018	2017	2018	2017
Interest rate derivatives	**852,804**	**901,541**	**761,605**	**2,515,950**	**2,267,755**	**46,710**	**48,244**	**42,568**	**44,136**
OTC products									
Forward rate agreements	243,160	—	—	243,160	42,402	5	2	4	2
Interest rate swaps	526,245	816,541	660,050	2,002,836	1,941,266	42,593	44,089	38,262	39,234
Interest rate options									
– purchased	6,786	36,809	52,462	96,057	96,376	3,532	3,467	471	383
– written	8,427	41,192	49,053	98,672	96,203	576	435	3,830	4,254
Other interest rate derivatives	11,388	17	—	11,405	51	4	—	1	1
Exchange-traded products									
Interest rate futures	50,036	6,982	—	57,018	42,867	—	—	—	—
Interest rate options	6,762	—	40	6,802	48,590	—	251	—	262
Foreign exchange derivatives	**224,331**	**35,652**	**6,937**	**266,920**	**309,669**	**3,237**	**3,511**	**3,625**	**3,832**
OTC products									
Foreign exchange forwards	180,222	22,072	1,837	204,131	247,613	2,680	3,027	3,009	3,211
Foreign exchange options									
– purchased	21,203	6,925	2,686	30,814	30,707	356	343	205	175
– written	22,686	6,655	2,414	31,755	31,085	175	132	411	446
Other foreign									
exchange derivatives	220	—	—	220	262	26	9	—	—
Exchange-traded products									
Foreign exchange futures	—	—	—	—	2	—	—	—	—
Foreign exchange options	—	—	—	—	—	—	—	—	—
Cross-currency swaps	**56,065**	**100,238**	**43,975**	**200,278**	**181,703**	**5,665**	**4,405**	**5,520**	**3,948**
Equity/index derivatives	**34,047**	**34,411**	**11,486**	**79,944**	**87,442**	**3,274**	**2,111**	**3,119**	**2,914**
OTC products									
Equity/index swaps	5,109	5,620	567	11,296	12,767	530	160	452	163
Equity/index options									
– purchased	2,286	2,189	765	5,240	6,015	268	251	48	190
– written	8,211	8,139	4,417	20,767	26,108	384	70	562	593
Other equity/index derivatives	425	299	131	855	1,204	55	34	2	1
Exchange-traded products									
Equity/index futures	4,988	770	1,023	6,781	7,594		9		9
Equity/index options	12,682	16,591	4,506	33,779	33,754	2,037	1,587	2,055	1,958
Equity swaps	346	803	77	1,226	—	—	—	—	—
Credit derivatives[1]	**13,380**	**13,805**	**1,399**	**28,584**	**40,731**	**223**	**385**	**341**	**443**
Other transactions	**8,657**	**3,248**	**435**	**12,340**	**12,538**	**1,568**	**375**	**807**	**530**
HVB	**1,189,284**	**1,088,895**	**825,837**	**3,104,016**	**2,899,838**	**60,677**	**59,031**	**55,980**	**55,803**

1 For details of credit derivatives, please see the tables "Credit derivatives" and "Credit derivatives by reference asset" below.

Derivative transactions with a residual maturity of up to three months accounted for a nominal total amount of €738,392 million as at 31 December 2018 (thereof credit derivatives: €3,194 million).

Derivative transactions by counterparty type

(€ millions)

	FAIR VALUE			
	POSITIVE		NEGATIVE	
	2018	2017	2018	2017
Central governments and central banks	7,188	7,086	1,242	1,307
Banks	30,730	29,990	32,560	32,850
Financial institutions	19,236	19,704	20,186	19,697
Other companies and private individuals	3,523	2,251	1,992	1,949
HVB	**60,677**	**59,031**	**55,980**	**55,803**

Credit derivatives

(€ millions)

	NOMINAL AMOUNT					FAIR VALUE			
	RESIDUAL MATURITY			TOTAL		POSITIVE		NEGATIVE	
	UP TO 1 YEAR	MORE THAN 1 YEAR UP TO 5 YEARS	MORE THAN 5 YEARS	2018	2017	2018	2017	2018	2017
Banking book	**14**	**72**	**8**	**94**	**25**	**2**	**—**	**9**	**—**
Protection buyer									
Credit default swaps	14	72	5	91	25	2	—	9	—
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	—	3	3	—	—	—	—	—
Protection seller									
Credit default swaps	—	—	—	—	—	—	—	—	—
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	—	—	—	—	—	—	—	—
Trading book	**13,366**	**13,733**	**1,391**	**28,490**	**40,706**	**220**	**385**	**331**	**443**
Protection buyer									
Credit default swaps	6,616	6,770	599	13,985	18,588	73	14	137	356
Total return swaps	19	495	66	580	285	7	2	115	35
Credit-linked notes	10	101	60	171	2,494	5	6	2	29
Protection seller									
Credit default swaps	6,721	6,348	658	13,727	18,497	135	361	76	23
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	19	8	27	842	—	2	1	—
HVB	**13,380**	**13,805**	**1,399**	**28,584**	**40,731**	**222**	**385**	**340**	**443**

Credit derivatives by reference asset

(€ millions)

	NOMINAL VOLUME				
	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT-LINKED NOTES	TOTAL 2018	TOTAL 2017
Public sector bonds	14,089	—	8	14,097	17,067
Corporate bonds	12,887	84	24	12,995	21,564
Equities	—	—	—	—	—
Other assets	827	496	169	1,492	2,100
HVB	**27,803**	**580**	**201**	**28,584**	**40,731**

Single-name credit derivatives make up 55.1% of the total; multi-name credit derivatives, relating notably to baskets or indices, account for a share of 44.9%.

Stress tests
By carrying out stress tests in the credit portfolio, the credit risk managers obtain information on a quarterly basis about the possible consequences of a deterioration in the underlying economic conditions in addition to the monthly analysis of the real portfolio development. The focus here is on the risk metrics of risk-weighted assets, expected loss and economic capital, and the changes in the portfolio quality. Concentration stress tests, ad hoc stress tests and inverse stress tests are carried out alongside the stress tests based on macroeconomic scenarios (results of which are included in the cross-risk-type stress analysis, among other analyses).

Summary and outlook
The Bank has put a strong focus on sustainable growth with simultaneous risk control in its business strategy. The goal is still to maintain a healthy credit portfolio on an ongoing basis.

Despite ongoing expectations of global economic growth, there remain numerous uncertainties of economic and geopolitical nature that have to be taken into consideration in any assessment of the macroeconomic environment.

2 Market risk

Definition
Market risk is defined as the potential loss of on- and off-balance-sheet positions in the trading and banking books that can arise in response to adverse changes in market prices (interest rates, equities, credit spreads, foreign exchange and commodities), other price-influencing parameters (volatilities, correlations) or trading-related events in the form of default or changes in credit ratings of securities (specific price risk for interest net positions).

Categories
We define interest rate risk as the risk of values changing on account of fluctuations in interest rates.

Foreign currency risk arises from fluctuations in exchange rates.

Stock and commodity risk is defined as the risk arising from changing rates on the stock and/or commodity markets.

We define the credit spread as the premium on the interest rate compared with a risk-free investment. Fluctuations in the credit spread give rise to credit spread risk.

The risk that results from changes in volatilities is subsumed in option risk.

Strategy
Market risk essentially arises in the CIB business segment. As was already the case in previous years, the focus in 2018 was again on customer transactions. This made it possible to avoid material losses arising from sudden, large market movements.

The trade in financial instruments was restructured to a minor extent in 2018 with a view to boosting its efficiency. Some teams were reorganised more efficiently. Currency trading on electronic platforms saw further customer growth. A rapid expansion of these platforms is planned for the next few years.

Around one third of the market risk is in trading books while around two thirds – mainly invested in interest-bearing-securities – lie in strategic investments or in liquidity reserve portfolios. All positions exposed to market risk are subject to corresponding limits.

Risk Report (Continued)

Limit system
All transactions exposed to market risk in the trading and banking books of HVB are aggregated every day to form value-at-risk (VaR) metrics and set against the risk limits. The Management Board of HVB approves and, if necessary, adjusts the risk limits every year. Limits are defined for trading books by using VaR limits, whereas limits are set for the combination of trading and banking books by total VaR limits. Both groups of limits are equally binding and compliance is equally enforceable.

At the beginning of 2018 when the risk strategy for HVB Group was adopted, the overall VaR limit of €90 million was confirmed without change and the trading book limit of €37 million was increased to €47 million.

Monitoring of the regulatory metrics stressed value-at-risk and incremental risk charge to be used additionally for the internal market risk model is ensured by setting limits for the risk values that are reported on a weekly basis.

Alongside management using the VaR approach, the risk positions of key units are restricted by an additional bundle of granular limits. These limits relate to sensitivities, stress test results and nominal volumes in various risk classes.

Measurement
The VaR shows the maximum expected loss caused by market price fluctuations that with a certain probability (confidence level) will not be exceeded over a given period. We use a confidence level of 99.00% and a holding period of one day for internal risk reports, management and risk limits.

We use a historical simulation to calculate the VaR. This simple method makes it possible to calculate the VaR without having to make any fundamental assumptions regarding the statistical distribution of the movements in the portfolio value. It encompasses the generation of the hypothetical distribution of earnings (gains and losses) from a portfolio of financial instruments directly using the historical market price fluctuations over the last two years (observation period).

HVB has defined several further market risk metrics under the current CRR rules for risk management as well as the VaR:
- The stressed VaR is calculated in the same way as the VaR, although the 12-month observation period has been selected covering the most significant negative market changes for HVB's trading portfolio. The amount calculated for the regulatory report relates to a holding period of ten days and a confidence level of 99.00%.
- The incremental risk charge (IRC) for credit-risk-sensitive positions is the internal approach used to determine the specific risks (specific price risk for net interest positions). This includes credit default risk and migration risk, meaning that both the change in ratings (migration) and the potential default on a credit product are taken into account. The calculated amount for both regulatory and internal reporting relates to a holding period of one year and a confidence level of 99.90%.
- The specific risks for securitisations and nth-to-default credit derivatives are covered by the regulatory Standard Approach.
- Based on the CRR regulations, we calculate risks with regard to the credit valuation adjustment (CVA). The CVA risk shows the risk of fair value losses based on changes in the expected counterparty risk for all relevant OTC derivatives under CRR. We use our own internal model to calculate the vast majority of the CVA. For the regulatory report, the internal model calculates both the CVA VaR and the stressed CVA VaR on the basis of a 10-day holding period and a confidence level of 99.00%.

Monitoring and controlling

The market risk positions in the trading and banking books are monitored using a hierarchical limit system that restricts the potential loss from market risk. This involves restricting the VaR totals from trading positions by setting trading book limits. At the same time, all positions, irrespective of the regulatory or IFRS classification, are limited by what are known as VaR warning levels.

The VaR figures are reported daily along with the limit utilisation and the earnings figures (P/L figures) to the Management Board member responsible and the persons responsible in the CIB business segment. Whenever trading-book and/or total VaR limits are exceeded, an escalation process is triggered immediately and the reduction of the positions in question monitored. In 2018, such reduction was, with a few exceptions, carried out within one day. If the specified limit was exceeded on the following day as well, the escalation process was again initiated immediately.

The Market Risk Management department has direct access to the front-office systems used in trading operations. The monitoring of trading activities comprises prompt allocation to credit risk limits and detailed checks of the P/L on the following day. In this context, both the daily turnover and the P/L generated on intraday transactions are calculated.

In addition to the daily reports, the management is informed on a weekly and monthly basis about the results of the risk analysis, including the results of back-testing and stress tests as well as sensitivity ratios.

To calculate and allocate the economic capital requirements for market risk, the hypothetical distribution used to determine the VaR has been expanded to an observation period of (at least) six years and combined with the results arising from the CVA risk. Unlike in internal risk controlling, any hedge effect of the model book for equity is not included in the economic capital. Furthermore, market risks are also included that arise from the Incremental Default Risk Charge (IDRC), which in contrast to the regulatory IRC approach only takes account of issuer default, the market risk Standard Approach, add-ons for ABS risks and for gap option risks. All risks, with the exception of the add-ons, are scaled accordingly to obtain a holding period of one year and a confidence level of 99.90%. In the course of a hypothetical resolution, it is assumed that tradeable positions are sold or hedged within the one-year holding period.

The regulatory capital requirement for market risk encompasses the VaR and stressed VaR for, in each case, a 10-day holding period together with the IRC and the market risk Standard Approach. The CVA risk is also taken into account. When calculating the capital requirement, the individual risk metrics are aggregated by regulatory averages, maximum calculation and scaling.

Interest rate risk in the banking book

The main objective of the strategy in the interest rate risk in the banking book is to reduce the negative effects on net interest income caused by fluctuations in interest rates in a multi-year horizon. The strategy aims at generating sustainable earnings that guarantee a return on investment in line with the strategic plan. The strategy does not imply any intended directional positioning or any scope of discretion for generating additional earnings, unless approved by relevant bodies and separately monitored. The only exception is for those functions authorised to carry interest rate positions within the approved limits. Management's strategy on the structural mismatch between non-interest bearing assets and non-interest bearing liabilities (free funds) aims to achieve a balance between a stable flow of earnings in a multi-year horizon and the opportunity cost of having a fixed interest rate. The interest rate risk strategy takes into account the potential impact of prepayments, which is estimated on the basis of historical prepayment data as well as trend analyses. The risk of premature repayments in German mortgage banking is driven by the level of the interest rates and by the behaviour of customers regardless of the interest rate level. The interest-rate-sensitive prepayments are rather low at the current level of interest rates and are hedged using swaptions. The non-interest rate sensitive prepayments are hedged using cash flow adjustments.

Risk Report (Continued)

HVB measures and monitors this risk in line with the corresponding Group policy that establishes consistent methodologies and models and limits or thresholds to focus on, with regard to the sensitivity of net interest income and the economic value. Generally, the Treasury department hedges interest rate risk exposure from commercial banking transactions.

A key component of the measurement of interest rate risk in the banking book is the consideration of the economic value (present value perspective). This shows the effects of fluctuations in the interest rate on the economic value of assets and liabilities. The economic value of the Bank can be viewed as the present value of the Bank's expected net cash flows, defined as the expected cash flows on assets minus the expected cash flows on liabilities. A relevant risk measure from this perspective is the economic value sensitivity per time bucket for a 1bps interest rate shock. The result is reported to the relevant committees to assess the economic impact of various changes in the yield curve.

In compliance with the regulatory rules published, the change in the fair value of the banking book in the event of a sudden and unexpected interest rate shock of plus/minus 200bps is compared with the Bank's eligible equity funds on a monthly basis. This analysis is carried out both with and without the hedging effect from the equity capital model book. At 31 December 2018, the calculation of the present value from the managerial viewpoint taking into account the interest rate shocks of around 200bps gives rise to a capital requirement of 0.22% (31 December 2017: 0%). When calculated from the regulatory viewpoint, by contrast, a capital charge of 10.54% becomes apparent given an increase in interest rates of 200bps (31 December 2017: 8.22%). HVB is well below the 20% mark (in relation to the capital charge), above which the banking supervisory authorities consider a bank to have increased interest rate risk. These figures include the positions of HVB, customer margins are not included.

Furthermore, additional stress test scenarios are performed on a regular basis to estimate the impact on short term interest rate up/down movements and nonparallel shocks, such as steepening and flattening scenarios. The two latter mentioned scenarios constitute a standardised interest rate shock scenario according to the Basel requirements with pivot point 3.5 or six years (steepening: short rate down and long rate up/flattening: short rate up and long rate down) while a short rate up/down scenario considers simply the short term interest rate changes.

In addition to the net present value approach, a simulation of the net interest in the banking book is performed for HVB on a monthly basis. The focus of this analysis is the impact of changes of interest rates on net interest income. It shows the difference between income generated from interest-sensitive assets and the expense of interest-sensitive liabilities. An example of the management of the sensitivity of net interest income is a parallel interest rate shock of plus 100 basis points (bps). It provides an indication of the impact of such an interest rate shock on net interest income over the next 12 months if such a shock should occur. On the assumption of an unchanged balance sheet, i.e. assuming that balance sheet items remain constant during this period and that the expiring contracts are reinvested within this time horizon with the same product features, the net interest income would increase by €191 million (31 December 2017, plus 100bps: €145 million) by taking into account elasticity assumptions for sight and savings deposits. A parallel interest rate shock of minus 30bps for transactions in euro and foreign currencies combined with minus 100bps interest rate shock for foreign currencies in USD and GBP would reduce net interest income for the same period by €119 million (31 December 2017: minus 30/minus 100bps: minus €76 million). Depending on the contractual agreement with the customer a floor of 0.0% could be employed for commercial banking products. In such a case, the interest rate shock of minus 30/minus 100bps would not be fully applied.

The resulting sensitivity analysis was carried out on the basis of the planned net interest income for the 2018 financial year. The change in results as of year-end can be explained by the changed positions held by the Bank and the persistently low interest rates.

Furthermore, additional stress test scenarios are performed on a regular basis to estimate the basis risk (resulting from the imperfect correlation in lending and borrowing interest rates for different instruments and products) and nonparallel shocks. Model assumptions are also incorporated into the analysis. This relates notably to products with unknown and/or undefined maturities and included options. The interest rate risk inherent in these product types in the banking book is measured on the basis of assumptions and analyses of customer behaviour in the lending and deposit-taking business.

Quantification and specification

The economic capital for market risk at HVB, without taking account of diversification effects between the risk types, amounts to 2,364 million and has hardly changed in comparison with the figure as at 31 December 2017 (€2,343 million).

The following table shows the aggregated market risk for the trading positions at HVB over the course of the year.

Market risk from trading-book activities of HVB (VaR, 99.00% confidence level, one-day holding period) **(€ millions)**

	AVERAGES					PERIOD-END TOTALS	
	2018	Q4 2018	Q3 2018	Q2 2018	Q1 2018	31/12/2018	31/12/2017
Credit spread risks	4	3	3	4	5	3	6
Interest rate positions	5	5	5	5	4	4	5
Foreign exchange positions	2	2	2	2	3	1	3
Equity/index positions[1]	3	3	3	3	3	3	3
HVB[2]	**7**	**7**	**8**	**7**	**6**	**6**	**7**

1 Including commodity risk.
2 Because of the diversification effects between the risk categories, the total risk is less than the sum of the individual risks.

Risk Report (Continued)

The regulatory capital requirements for the past twelve months are described below, broken down by the relevant risk metrics.

Regulatory metrics of HVB (€ millions)

	31/12/2018	30/9/2018	30/6/2018	31/3/2018	31/12/2017
Value at risk	80	84	74	62	90
Stressed value at risk	288	255	289	272	251
Incremental risk charge	222	236	281	301	319
Market risk Standard Approach	14	8	7	7	7
CVA value at risk	10	11	12	19	29
Stressed CVA value at risk	86	83	79	87	153
CVA Standard Approach	26	27	29	26	26

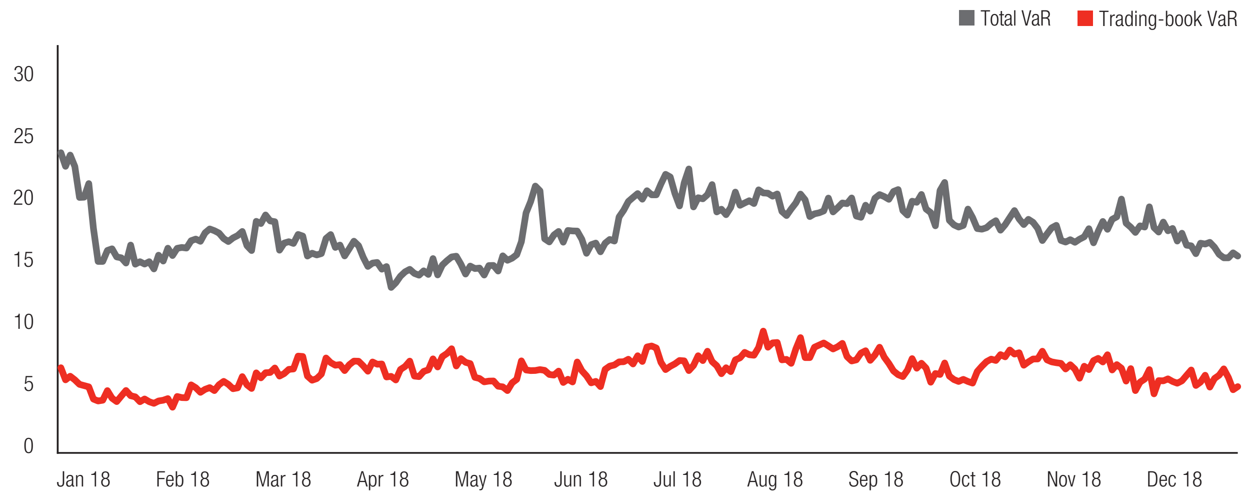
Alongside the market risk relevant for regulatory reporting, further market risk arises from positions in the banking book. All transactions exposed to market risk in the trading and banking books of HVB are consolidated for the purpose of risk controlling. Most of the market risk arises from positions of the CIB business segment at HVB.

Market risk from trading- and banking-book activities of HVB (VaR, 99.00% confidence level, one-day holding period) (€ millions)

	AVERAGES					PERIOD-END TOTALS	
	2018	Q4 2018	Q3 2018	Q2 2018	Q1 2018	31/12/2018	31/12/2017
Credit spread risks	18	17	18	16	20	13	20
Interest rate positions	6	6	7	6	4	5	5
Foreign exchange positions	4	3	4	3	5	4	6
Equity/index positions[1]	3	3	3	3	3	3	3
HVB[2]	**18**	**18**	**20**	**16**	**17**	**16**	**24**

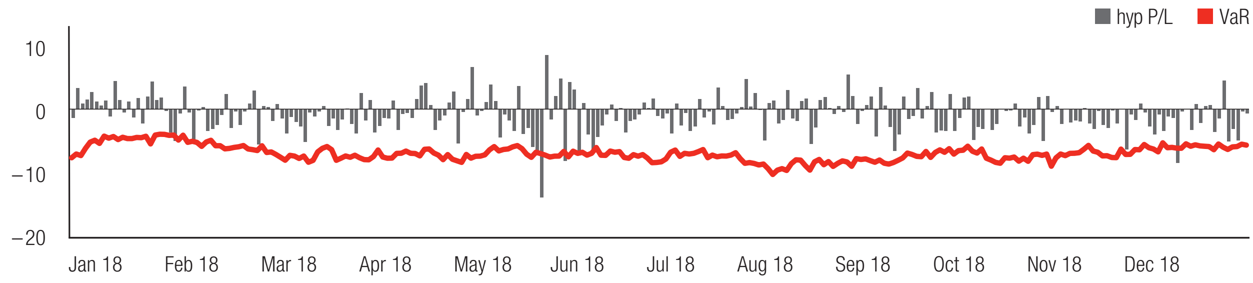
1 Including commodity risk.
2 Because of the diversification effect between the risk categories, the total risk is less than the sum of the individual risks.

Development of trading-book and total value-at-risk at HVB (€ millions)



The total value at risk (VaR) at HVB shows the VaR curve for market price risk arising from trading- and banking-book positions. The trading-book VaR represents the development of the VaR in the trading book. The decrease in total VaR in January 2018 is mainly attributable to more stable market conditions while the increase in the total VaR in May 2018 was caused by severe market fluctuations. The VaR curve for the trading book reveals a relatively stable development of risk over the course of 2018.

Regulatory back-testing of the internal model at HVB for 2018 (€ millions)



The forecasting quality of the VaR measurement method is reviewed by means of regular back-testing that compares the computed regulatory VaR figures with the changes in the hypothetical portfolio value (hyp P/L). Five reportable back-testing outliers occurred in 2018. The hypothetical loss was larger than the forecast VaR figure on these days (see the chart "Regulatory back-testing of the internal model at HVB for 2018"). These five outliers were all caused by severe market fluctuations, for instance by significantly higher credit spreads for Italy and Italian banks (end of May 2018) or by strong fluctuations on the stock and interest rate market (beginning of December 2018).

Alongside back-testing using the hypothetical change in value, HVB also uses a back-testing method based on the change in the actual portfolio value to validate the model. In 2018, there were two instances of a limit being exceeded, which were due to regular adjustments to measurement and severe market fluctuations.

Besides back-testing, further methods are used at regular intervals to check the quality of the model. These involve analysing the suitability of both the modelling and the risk factors used and adjusting them as required. Risks that cannot be adequately modelled are monitored at regular intervals and limits set for them if they are material.

Market liquidity risk

Market liquidity risk relates to the risk that the Bank will suffer losses due to the disposal of assets that can only be liquidated on the market at a discount. In an extreme case, HVB may not be able to sell such an asset, as the market does not offer enough liquidity or the Bank holds a position that is too large to set against the market turnover.

Greater volatility on the financial markets could also make it more difficult for HVB to establish a value for some of its assets and exposures. Significant changes to the fair values of such assets and exposures that might prove to be much lower than the present or estimated fair values could be a further consequence. All of these factors could force HVB to recognise amortisation charges or impairment losses, which would have a negative effect on its financial position, operating result and thus on the liquidity of HVB Group.

Stress tests

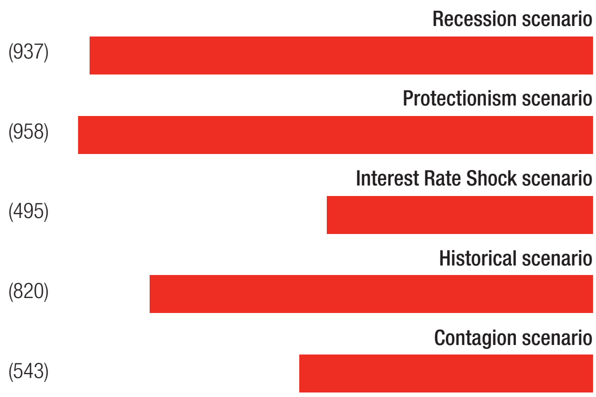
In addition to calculating the VaR and the other risk metrics, we regularly conduct stress tests to determine the potential losses in our market risk positions resulting from extreme market movements and extraordinary events. The scenarios we examine range from large movements in interest rates, currency and equity markets through to disruptions in the underlying volatilities. Further scenarios are also considered for HVB, such as a widening of credit spreads. We also analyse macroeconomic stress test scenarios based on real market upheavals in the past (historical stress tests) or current threats (hypothetical stress tests).

The Historical scenario is calculated to evaluate on a regular basis the effects of a potential financial crisis. This scenario reflects the trend in the financial crisis in 2009. To take account of the low market liquidity, the time horizon for this scenario was extended and covers a period of three months.

Further hypothetical scenarios are based on the potential market movements in the event of a worsening of the debt crisis in Europe (Contagion scenario) or a negative demand shock in Germany (Recession scenario). The Protectionism scenario sees a slowing in Chinese growth following a policy of protectionism in the USA and simulates a growth shock in Turkey. The Interest Rate Shock scenario is used to analyse the impact of a rapid rise in interest rates in the eurozone.

At 31 December 2018, the most significant stress test result of this package of stress test scenarios involves a potential loss of €1.0 billion in the Protectionism scenario (31 December 2017: loss of €1.5 billion). This scenario is also used in the cross-risk-type stress tests, where it is analysed for risk-taking capacity.

HVB stress test at 31 December 2018 (€ millions)



As described under the sub-header “Stress tests” in the section entitled “Implementation of overall bank management”, inverse stress tests were again performed in 2018. Risks resulting from market risk in the banking portfolio were also included in this analysis.

Summary and outlook

As was already the case in 2018, efforts will again be made in 2019 to concentrate on low market risk customer business in our trading activities on the financial markets. HVB will continue to invest in the development and implementation of electronic sales platforms for trading activities.

3 Liquidity risk

Definition
Liquidity risk is understood to be the danger that the Bank is not able to meet its payment obligations on time or in full. However, it is also defined as the risk of not being able to obtain sufficient liquidity when required or that liquidity will only be available at higher interest rates, and the risk that the Bank will only be able to liquidate assets on the market at a discount. Liquidity risk comprises the following risk categories:
– short-term liquidity risk
– operational liquidity risk (part of short-term liquidity risk)
– funding risk
– market liquidity risk

Categories
Short-term liquidity risk
Short-term liquidity risk relates to the risk of a discrepancy in the amount and/or maturity of incoming and outgoing payments in the short run (one year or less).

Operational liquidity risk, which is part of the short-term liquidity risk
Operational liquidity risk arises when a financial institution cannot meet its intraday payment obligations (payment obligations within one trading day) from its current incoming and outgoing payments, hence becoming technically insolvent. This can be considered a special type of short-term liquidity risk. An intraday cushion is set up as part of the short-term liquidity cushion with a view to balancing the intraday liquidity requirement and covering unforeseen payment obligations.

Funding risk
The funding risk (structural liquidity risk) relates to the risk of the Bank not being able to fund its balance sheet in a sustainably stable, long-term manner (more than one year) or only being able to procure sufficient liquidity for funding at increased market interest rates and the future earnings of the company are impaired accordingly. Funding risk is not a significant risk but it requires observation and is assessed at regular intervals as part of the risk inventory.

Market liquidity risk
Market liquidity risk relates to the risk that the Bank would suffer losses due to the disposal of assets that can only be liquidated on the market at a discount. In the extreme case, HVB may not be able to sell such an asset, as the market does not offer enough liquidity, or the Bank holds a position that is too large to set against the market turnover. Market liquidity risk is managed by the CRO organisation, which carries out expanded market liquidity analyses.

Strategy
Liquidity management at HVB is divided into short-term liquidity management (one year or less) and long-term liquidity management (more than one year). Risk drivers that may be the cause of potential liquidity outflows have been identified for the various segments.

Furthermore, various dimensions of liquidity risk management have been defined to which appropriate instruments and controlling mechanisms have been assigned depending on the type of risk involved.

The risk appetite is defined with regard to liquidity risk on the basis of the business activities and taking into account risk sources and risk drivers. This forms the foundation for the management and limit mechanisms, such as liquidity reports, projections and plans, and the definition of liquidity cushions to be maintained for unexpected outflows of liquidity during the day. Furthermore, a limit system has been set up and triggers defined. The result is the specification of a minimum survival period that matches the risk appetite.

Limit system

For the management of short-term liquidity risk, we have put in place a cash-flow-oriented limit system that presents the relevant balances within HVB per working day and limits the positions appropriately.

The difference between the calculated potential liquidity requirement and the existing liquidity reserves is limited.

A limit was set for operational liquidity risk as part of short-term liquidity risk by implementing a minimum balance to be observed during the day, by means of which additional liquidity is maintained to cover unforeseeable outflows (intraday liquidity cushion).

Funding risk or structural liquidity risk is restricted by defining a limit for the ratio of liabilities to assets.

The effects arising from the change in funding spreads are to a very large extent taken into account by limiting funding risk. In addition, the internal transfer prices for the lending and deposit-taking activities are continually reviewed for appropriateness and regularly adjusted to reflect the market situation.

Reduction

Among other ways of reducing liquidity risk, we specify processes, implement an early warning system complete with early warning indicators and a limit system, and manage the highly liquid assets made available as collateral.

Measurement

Short-term liquidity risk

To measure short-term liquidity risk, cash flow profiles are produced on a daily basis. The resulting balances are compared with the available liquidity reserves, which consist primarily of the available highly liquid securities eligible at all times as collateral for central bank borrowings. The cumulative balance of the above-named components is backed with limits for all maturity buckets of up to three months for the relevant units of HVB.

The aggregate amount for the three-month maturity bucket is published in the Risk Report for short-term liquidity risk as the relevant figure for managing the Bank's liquidity risk.

Furthermore, stress-test scenarios based on the liquidity profiles of the HVB units are simulated at regular intervals and the impact on liquidity is calculated. The corresponding stress-test scenarios take account of both company-specific influences (e.g. potential HVB-specific incidents) and external factors (e.g. disruptions in global financial markets), as well as a combination of company-specific and external factors (e.g. the scenario demanded under the MaRisk rules). A time horizon of up to two months is defined for the individual stress-test scenarios, during which the available liquidity reserves are expected to exceed the simulated outflows of liquidity. This ensures that counter-measures can be initiated promptly, if required. In addition, the defined early warning indicators and relevant concentration risks are determined and monitored at regular intervals.

Calculating the liquidity coverage ratio (LCR) is intended to ensure that an institution is able to meet its short-term payment obligations under the assumption of an acute stress scenario over a period of 30 calendar days.

Risk Report (Continued)

Funding risk
To measure funding risk, the long-term funding needs based on the expected business development are reported and updated in a co-ordinated process. The long-term funding need, which is used to set the funding targets and is presented to the Asset Liability Committee (ALCO), takes into account the assets and liabilities falling due in the planning period. Limiting maturity mismatches between the long-term assets and liabilities ensures a balanced funding structure in defined maturity buckets. The key assumptions underlying the risk measurement methods are reviewed on a regular basis to assess their appropriateness. The net stable funding ratio (NSFR) is used as the key internal indicator for measuring funding risk according to the requirements of the "Bank for International Settlements". An adjusted NSFR is calculated for the time horizon greater than three years, in which connection the net surplus of current liabilities to assets is assumed to be stable.

Monitoring and controlling

Short-term liquidity risk
The task of monitoring the short-term liquidity situation at HVB has been entrusted to the Finance unit in the CFO organisation. This essentially involves analysing and controlling the short-term liquidity profiles within the scope of the limits defined and monitored by the CRO organisation on a daily basis. The monitoring and controlling of operational intraday liquidity risk are essentially performed on the basis of various minimum balances that must be observed during the day and at the beginning of the day. These are set against the current volumes in the relevant accounts on a continual basis and monitored. Responsibility for monitoring and controlling developments on the respective local markets rests with the local Treasury units, which report to the Finance unit as and when necessary.

For short-term liquidity risk, moreover, weekly stress analyses based on various scenarios allow us to make projections on the impact of sudden disruptions on the liquidity position, enabling us to take the necessary management measures as early as possible. Units in the CRO organisation are responsible for monitoring and analysing the stress-test scenarios, the early warning indicators and concentration risk, while the CFO organisation has been tasked with monitoring and analysing the holding of freely disposable securities eligible as collateral for central bank borrowings that can be used at short notice to cover unexpected liquidity outflows. Additional market liquidity analyses are carried out by the CRO organisation during the stress tests.

Funding risk
The task of monitoring the structural liquidity situation at HVB has similarly been entrusted to the Finance unit in the CFO organisation. This essentially involves analysing and controlling the long-term mismatches in the maturities of assets and liabilities within the scope of the defined limits and also specified funding targets. Compliance with the long-term funding ratios is monitored on a monthly basis. The funding risk of HVB is well balanced thanks to the diversification of our funding across products, markets and investor groups. The front-office units implement the volume and product parameters derived from the funding targets cost-efficiently upon consultation with the Finance unit. This activity is similarly supported by a liquidity cost allocation mechanism – known as Funds Transfer Pricing (FTP) – for all significant business activities, the principles of which are defined in the FTP policy.

The ALCO and the management are regularly informed about the current liquidity and funding situation. A contingency plan is in place to allow the impact of potential liquidity crises to be managed. This plan describes and regulates the distribution of responsibilities, internal reporting requirements, decision-making powers and potential measures.

The rules and regulations governing liquidity management are defined in a liquidity policy adopted by the Management Board of HVB. The key points contained in the policy relate to the ability to satisfy financial obligations at all times in line with the defined risk appetite. Its objectives include the following: optimising the projected cash flows, restricting the cumulative short-term and operational liquidity differences, performing stress tests at regular intervals and restricting the long-term maturity mismatches between the liabilities side and the assets side.

The liquidity policy and contingency plan together with supplementary remarks are updated at regular intervals by the CRO organisation with support from the CFO organisation. The liquidity policy is implemented by the operational business units and coordinated and monitored for the relevant units of HVB by the Market Risk unit in the CRO organisation.

Quantification and specification

Short-term liquidity risk

Within the framework of our limit system, we showed an overall positive balance of short-term liquidity risk of €36.0 billion at HVB for the three-month maturity bucket at the end of the year 2018 (31 December 2017: €37.8 billion). The holding of available securities eligible as collateral for central bank borrowings that can be employed on the next banking day to compensate for unexpected outflows of liquidity amounted to €17.7 billion at the end of December 2018 (31 December 2017: €12.8 billion).

The requirement of having a liquidity coverage ratio (LCR) of a minimum of 100% to ensure that an institution is able to meet its short-term payment obligations was significantly exceeded at HVB as at 31 December 2018 with a figure in excess of 100%.

Funding risk

The funding risk of HVB was again low in 2018 thanks to our broad funding base in terms of products, markets and investor groups. This ensured that we were able to obtain adequate funding at all times for our lending operations in terms of volume and maturity within the framework of our limit system. By the end of December 2018, HVB had obtained longer-term funding with a volume of €9.3 billion, in which connection no Targeted Longer-Term Refinancing Operation II of the ECB (TLTRO-II programme) was concluded (31 December 2017: €17.9 billion, including €5.3 billion under the ECB's Targeted Longer-Term Refinancing Operations II, TLTRO-II programme). There has been no regulatory minimum ratio for the NSFR to date. HVB adhered to a ratio of over 100% in 2018. The adjusted NSFR greater than three years was over 100% in 2018. We do not expect to face any significant liquidity risk in the future either. With their high credit quality and liquidity, our Pfandbrief-covered bonds still remain an important funding instrument.

Stress tests

Stress analyses are carried out at regular intervals, enabling us to make projections on the impact of sudden disruptions to our liquidity position on the basis of various scenarios so that we can initiate appropriate management measures as early as possible.

We include Bank-specific, market-wide and combined scenarios when conducting our stress tests. The calculations at the end of the year 2018 showed that the available liquidity reserves were sufficient to cover the funding requirements over the minimum period demanded.

Summary and outlook

There are uncertainties worldwide with regard to security, monetary and economic policy not only arising from the ongoing geopolitical conflicts, in the Arabian region among others, but also due to a number of trade policy disagreements in various directions, especially relating to the USA, China, Russia and the European Union (EU).

Risk Report (Continued)

In Europe, the overall impact of the impending expected ultimate withdrawal of the United Kingdom from the EU can still not be conclusively assessed, and the shape of the potential future economic links between the EU and the UK as well as the underlying agreements are still unknown factors.

It is impossible to predict the extent and intensity of the reaction by the global financial markets to the developments worldwide seen as a whole.

HVB again put in a good performance in 2018 in a demanding market environment. Once again, the most important factors contributing to this development included our good liquidity situation, the sound financing structure and the liquidity management measures taken.

In this context, we expect our liquidity situation to remain comfortable in future. Our forward-looking risk quantification and regular scenario analysis will remain important factors in this regard going forward.

4 Operational risk

Definition

In accordance with the Capital Requirements Regulation (CRR), HVB defines operational risk as the risk of losses resulting from inadequate or failed internal processes, systems and people or from external events. The definition of operational risk includes legal risk, but excludes strategic and reputational risk. Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

Strategy

The risk strategy for operational risk is part of the HVB Group risk strategy, which is updated and adopted by the Management Board of HVB on an annual basis.

The risk strategy pursues the goal of reducing operational risk to a reasonable level from a profitability perspective and taking the defined risk appetite into account. This is primarily intended to reduce or avoid significant losses by taking appropriate measures and also helps to generate a sustainable improvement in earnings.

In this context, operational risk that could seriously damage the Bank must be subject to planning measures that go beyond mere profitability concerns.

To make the risk strategy more specific, Bank-wide and business segment-specific action areas are defined on the basis of influencing factors relevant to operational risk.

Limit system

Operational risk is part of the internal capital, with a limit set for HVB Group accordingly.

Reduction

HVB has a group-wide operational risk organisational structure. The individual business segments of HVB are responsible for identifying, analysing and managing operational risk.

Loss events that have occurred and significant risks are reported to the Management Board and the Risk Committee at regular intervals. On a local level, operational risk managers report losses and relevant risks to their senior management on a quarterly or half-yearly basis.

Employees in Business Continuity Management, Outsourcing, Compliance and Legal perform a special function in a unique way in operational risk management in that they carry out risk-controlling and risk-monitoring tasks.

Information technology (IT)
UniCredit Services S.C.p.A. provides most of HVB's IT services. HVB's Information and Communication Technology (ICT) management processes require continual adjustments to be made to the internal control system (ICS) for IT to allow for all significant IT risks within the ICT management processes, among other things, to be monitored and managed appropriately. This also includes the processes in the field of the IT infrastructure in turn outsourced by UniCredit Services S.C.p.A. to Value Transformation Services (V-TS, a joint venture of IBM and UniCredit Services S.C.p.A.) as defined for the separate controls in HVB's ICS. In addition, the control system will be adjusted as necessary in line with the potential improvements identified at regular intervals and findings from audits.

Business continuity management, IT service continuity management and crisis management
The business continuity, IT service continuity and crisis management function demonstrated its effectiveness and appropriateness by successfully mastering critical situations so as to minimise their impact on HVB. Several successfully completed contingency tests showed that the performance of the critical business processes also works in emergency situations. In addition, the emergency precautions are adapted constantly to accommodate new threats. Evidence of the appropriateness and proper functioning of the crisis management system was additionally provided by a crisis exercise in the first half of 2018.

Legal risk and compliance risk
Legal risk as a subcategory of operational risk is defined as the possibility of losses, damage or costs caused by lack of knowledge of the current legal situation or by a delay in reacting to changes in the law, insufficient and/or inadequate application of the law or unforeseeable changes to case law and/or the interpretation of the law by the authorities.

The Legal, Corporate Affairs & Documentation department is responsible for managing legal risk and provides advice on legal matters to all units of HVB. Excluded from this are tax law, labour law (only legal disputes), data protection and the legal areas covered by compliance, which are overseen by the respective functional departments.

Compliance risk is defined as an existing or future risk to income or capital as a consequence of infringements of or non-compliance with laws, regulations, statutory provisions, agreements, mandatory practices or ethical standards. This may result in fines, compensation for damage and/or contracts being rendered null and void in addition to damaging a bank's reputation.

The management of compliance risk is normally a task of the Bank's Management Board. Pursuant to Section 25a of the German Banking Act (Kreditwesengesetz – KWG), it is required to ensure that a proper business organisation is in place, encompassing in particular effective risk management, including an ICS. The Compliance function forms part of the ICS that helps the Management Board to manage compliance risk.

The Minimum Requirements for Compliance (MaComp) and MaRisk both require a compliance function to be put into place. Both also contain rules on how such compliance function should be structured. At HVB, both functions are combined in the Compliance unit in order to ensure a uniform approach. Money-laundering and fraud prevention as well as preventive measures against infringements of financial sanctions and embargos are also assigned to the Compliance unit. Comprehensive risk assessment is ensured by this approach. On account of its high degree of specialisation, tax compliance is managed and refined within the CFO organisation exclusively by the Tax Affairs unit.

Legal risks
A failure to deal appropriately with various legal and regulatory requirements may lead to litigation and administrative proceedings or investigations and subject HVB to damage claims, regulatory fines or other penalties.

Risk Report (Continued)

In many cases, there is substantial uncertainty regarding the outcome of the proceedings and the amount of possible damages. These cases include criminal or administrative proceedings by the relevant authority and claims in which the petitioner has not specifically quantified the amounts in dispute. In all proceedings where it is possible to reliably estimate the amount of possible losses, and the loss is considered likely, appropriate provisions have been set up based on the circumstances and consistent with the German Commercial Code (Handelsgesetzbuch – HGB) accounting principles applied by HVB.

HVB is involved in various legal proceedings. The following is a summary of cases against HVB, which individually or collectively in the respective subject areas have a value in dispute exceeding €50 million or are of substantial significance for HVB for other reasons.

VIP 4 Medienfonds Fund

Various investors in Film & Entertainment VIP Medienfonds 4 GmbH & Co. KG to whom the Bank issued loans to finance their participation, brought legal proceedings against HVB. In the context of the conclusion of the loan agreements the plaintiffs claim that inadequate advice was provided by the Bank about the fund structure and the related tax consequences. A settlement was reached with the vast majority of the plaintiffs. An outstanding final decision with respect to the question of HVB's liability for the prospectus in the proceeding pursuant to the Capital Markets Test Case Act (Kapitalanleger-Musterverfahrensgesetz) which is pending at Munich Higher Regional Court, will affect only a few pending cases.

Closed-end funds

Investors filed lawsuits against HVB and claim insufficient advice was provided by the Bank within the scope of their investment in closed-end funds. In particular, the investors claim that HVB did not or did not fully disclose any refunds made to the Bank or they were advised on the basis of an allegedly incorrect prospectus. The questions regarding a correct and sufficient advice provided to a customer as well as questions regarding the limitation period and thus the success prospects in proceedings depend on the individual circumstances of the particular case and are therefore difficult to predict. As far as these proceedings were disputed, the experience of the past has shown that the deciding courts have largely ruled in favour of HVB.

Real-estate financing

In various cases, customers dispute their obligation to repay their property loan agreements because they are of the opinion that HVB gave insufficient advice about the intrinsic value of the acquired property and the expected rent. In the last few years only a small number of new lawsuits has been filed. In the light of the experience gained, HVB assumes that there are no significant risks expected in this context.

Derivative transactions

The number of complaints and lawsuits filed against HVB by customers in connection with inadequate advice in the context of the conclusion of derivative transactions is declining. Among other things, the arguments raised are that the Bank allegedly did not sufficiently inform the customer with respect to potential risks related to such transactions and especially did not inform the customer about a potential initial negative market value of the derivative. Experience gained so far show that the characteristics of the relevant product and the individual circumstances of each case are decisive. In particular, the statute of limitations, the client's economic experience and risk tolerance, and the actual investment advice given may be relevant aspects.

Proceedings related to claims for withholding tax credits

On 31 July 2014, the Supervisory Board of HVB concluded its internal investigation into the so-called "cum-ex" transactions (the short selling of equities around dividend dates and claims for withholding tax credits on German share dividends) at HVB. The findings of the Supervisory Board's investigation indicated that the Bank sustained losses due to certain past acts/omissions on the part of individuals. The Supervisory Board has submitted a claim for compensation against three individual former members of the Management Board, not seeing reasons to take any action against the current members. These proceedings are ongoing.

In addition, criminal investigations have been instigated against current or former employees of HVB by the Prosecutors in Frankfurt/ Main, Cologne and Munich with the aim of verifying alleged tax evasion offences on their part. HVB cooperated – and continues to cooperate – with the aforesaid Prosecutors who investigated offences that include possible tax evasion in connection with cum-ex transactions both for HVB's own book as well as for a former customer of HVB. Proceedings in Cologne against HVB and its former employees came to a conclusion in November 2015 with, among other things, the payment by HVB of a fine of €9.8 million. The investigations by the Frankfurt/ Main Prosecutor against HVB under section 30 of the Administrative Offences Act (Ordnungswidrigkeitengesetz) came to a conclusion in February 2016 by the payment of a fine of €5 million. The investigation by the Munich Prosecutor against HVB were legally completed in April 2017 following the payment of a forfeiture of €5 million. In December 2018, in connection with a separate ongoing investigation against former bank employees by the Cologne Prosecutor, the Bank was informed of the initiation of additional proceedings in connection with an administrative offence regarding "cum-ex" transactions involving Exchange Traded Funds ("ETF"). The facts are being examined internally. The Bank continues to cooperate with the authorities.

The Munich tax authorities are currently performing a regular field audit of HVB for the years 2009 to 2012 which includes, among other things, review of other transactions in equities around the dividend record date. During these years HVB performed, among other things, securities-lending with different domestic counterparties which include but are not limited to different types of securities transactions around the dividend date. It remains to be clarified whether, and under what circumstances, tax credits can be obtained or taxes refunded with regard to different types of transactions carried out close to the distribution of dividends, and what the further consequences for the Bank will be in the event of different tax treatment. The same applies for the years 2013 until 2015 following the current regular tax audit mentioned above. It cannot be ruled out that HVB might be exposed to tax-claims in this respect by relevant tax offices or third party claims under civil law. HVB is in constant communication with relevant regulatory authorities and competent tax authorities regarding these matters. HVB has made provisions deemed appropriate.

Lawsuit for consequential damages

A customer filed an action against HVB for consequential damages of €236 million for the following reasons: In 2010, HVB was ordered by Frankfurt Higher Regional Court to pay damages in the amount of €4.8 million to the plaintiff due to the faulty handling of a bill of exchange and in addition to compensate further damages suffered by the plaintiff as a result of this deficiency. In 2011, the plaintiff filed an action against HVB with Frankfurt Regional Court for alleged consequential damages in the amount of €33.7 million and extended this action several times to a total of €236 million, in the meantime. By ruling dated 31 August 2017, Frankfurt Regional Court dismissed the claim and followed HVB's opinion on the claim being unfounded and the allegations raised by the plaintiff being unreasonable. In the meantime the plaintiff has appealed against the court ruling to Frankfurt Higher Regional Court. Within the scope of the hearing on 20 November 2018, Frankfurt Higher Regional Court expressed its interim opinion according to which the plaintiff's appeal does not have any prospect of success.

Financial sanctions matters

In the past years, violations of US sanctions and certain US dollar payment practices have resulted in certain financial institutions entering into settlements and paying substantial fines and penalties to various US authorities, including the US Treasury Department's Office of Foreign Assets Control (OFAC), the US Department of Justice (DOJ), the District Attorney for New York County (NYDA), the US Federal Reserve (Fed) and the New York Department of Financial Services (DFS). More specifically, in March 2011, HVB received a subpoena from the NYDA relating to historical transactions involving certain Iranian entities designated by OFAC and their affiliates. In June 2012, the DOJ opened an investigation of OFAC-related compliance by HVB and its subsidiaries more generally.

Risk Report (Continued)

In this context, HVB conducted a voluntary investigation of its US dollar payments practices and its historical compliance with applicable US financial sanctions, in the course of which certain historical non-transparent practices have been identified.

HVB is cooperating with the relevant US authorities and remediation activities relating to policies and procedures have commenced and are ongoing. Each Group entity subject to investigations is updating its regulators as appropriate. It is also possible that investigations into historical compliance practices may be extended and/or that new investigations or proceedings may be commenced.

Recent violations of US sanctions and certain US dollar payment practices by other European financial institutions have resulted in those institutions entering into settlements and paying material fines and penalties to various US authorities. The investigations and/or proceedings could therefore result in the payment of material fines and/or criminal or civil penalties.

HVB is continuing settlement discussions with the relevant US authorities to come to a resolution of these matters. Discussions are ongoing and HVB has not yet entered into any agreement with these authorities. Therefore, it is not possible to determine with any certainty the terms and timing of any resolution with any relevant authorities, including what final costs, remediation, payments or other criminal or civil liability may occur in connection with a final resolution.

The investigation costs, remediation required and/or payment or other legal liability incurred in connection with the proceedings could lead to liquidity outflows and could potentially negatively affect the net income and have a material detrimental impact on the reputation and business activities.

HVB has recognised appropriate provisions.

Although the timing of any agreement with the various US authorities currently cannot be predicted, it is conceivable, however, that the settlement discussions could be completed by the end of the first half of 2019.

Lehman Brothers Special Financing Claim

The Lehman Brothers Special Financing Claim (LBSF) relates to HVB's holding of: (A) 2005-1 €19,000,000 Class A2–A9 notes issued by Ruby Finance Plc (Ruby), and (B) 2004-1 Upper Thames €25,000,000 Credit-Linked Synthetic Portfolio Notes due in 2043 and issued by Quartz Finance PLC (Quartz).

Both Ruby and Quartz entered into contracts for derivatives with Lehman Brothers Special Financing, Inc. LBSF included these credit derivative transactions in omnibus avoidance proceedings commenced before the US Bankruptcy Court on 1 October 2010 (LBSF v Bank of America, N.A. et. al. Adv. Pro. No. 10-03547; the "Adversary Proceeding"). On 18 July 2012, LBSF amended its First Amended Claim in the Adversary Proceeding, in order to, among other things, add the London Branch of HVB as a "Noteholder Defendant", in an attempt to claw-back distributions for the benefit of LBSF (as derivative counterparty) already made by both Ruby and Quartz to HVB (as noteholder).

The US Bankruptcy Court held a hearing on 4 May 2016 on an omnibus motion to dismiss filed by the Noteholder Defendants, and on 28 June 2016 the decision of Bankruptcy Judge Chapman on the omnibus motion was issued. In her decision, Judge Chapman dismissed the case against HVB and the other Noteholder Defendants.

LBSF unsuccessfully appealed such decision to the US District Court for the Southern District of New York.

On 13 April 2018, LBSF filed notice of appeal to the Second Circuit Court of Appeals. The parties exchanged pleadings. A date for an oral hearing has not yet been set.

Measurement

The operational risk of HVB Group is calculated for HVB and its material subsidiaries – HVB Immobilien AG and UniCredit Leasing GmbH (together with subsidiaries) – using an internal model in accordance with the Advanced Measurement Approach (AMA model). The standard approach is applied for all other minor subsidiaries.

The AMA model is based mainly on internal and external loss data. The process involves computing loss distributions for each model risk category. A model risk category is determined by combining the Basel loss event category and the product category of the loss event. Scenario data are used to complete the data for rare yet extreme events. The individual data sources are aggregated by applying the Bayesian model to the loss distribution parameters for each model risk category.

The VaR is determined using a Monte Carlo simulation. The VaR of the individual model risk categories are modified to reflect internal control and business environment factors. Upon aggregation, correlations between the model risk categories as well as risk-reducing measures such as insurance policies are taken into account.

The economic capital for operational risk is determined as a whole for HVB Group using the internal AMA model and then allocated to HVB and its AMA subsidiaries using a risk-sensitive allocation mechanism.

The model was developed by UniCredit S.p.A. HVB checks the plausibility of the calculation results on a regular basis. The AMA model is validated at regular intervals to ensure that it is appropriate.

Implementation of the change made with effect as of the balance sheet date 31 December 2018 to the model for calculating AMA capital requirements for operational risk in order to calculate the economic capital is planned for the first half of 2019.

Stress tests

The impact of macroeconomic scenarios on operational risk is analysed within the scope of the cross-risk-type stress tests.

Summary and outlook

The risk strategy specifies the specific action areas that have been identified for strengthening, on an ongoing basis, risk awareness with regard to operational risk in the Bank and expanding the management of operational risk.

Risk Report (Continued)

5 Other risks

HVB groups together in the section entitled "Other risks" the following types of quantifiable risk as other risks: real estate risk, business risk, pension risk and financial investment risk as well as the strategic risk and reputational risk types, which are described exclusively in qualitative terms. The risk arising from outsourcing activities is not treated as a separate risk type at HVB, but is considered a cross-risk type and is consequently listed under other risks.

Real estate risk

Real estate risk covers potential losses resulting from fluctuations in the fair value of the real estate portfolio of HVB. No land or properties are included that are held as collateral in lending transactions.

A fundamental distinction is made in real estate risk between (strategic) real estate required for operations and (non-strategic) real estate that is not used for operations. In 2018, the general focus for the existing real estate portfolio was placed on measures targeting fair value and cost optimisation. In principle, no acquisitions are planned except where they would serve the interests of HVB (in other words only in defined exceptional cases). The longer term orientation for strategic real estate corresponds with the Bank's strategy of preferring Bank-owned properties over rented properties for own use and making such properties available for the banking operations of HVB at market terms on a cost-optimised basis.

Facility concepts are drawn up for both the Bank-owned portfolio and the rented properties, under which the requirements of the business segments and also economic viability are the key factors for decisions, taking into account the assumptions listed.

The work carried out at HVB's locations over the course of 2018 mainly consisted of maintenance and repair measures.

The main risks for the Bank-owned portfolio stem mainly from the development of the current fair value, which is always compared with the carrying amount. The risk drivers are the future usage by the Bank, property rents/Bank rents, market rents, rental contract periods, occupancy rate and required investment. The medium- to long-term goal for the non-strategic real estate portfolio, on the other hand, is to realise the best possible value upon disposal of the overall portfolio; in this regard, the impact on both the income statement and the Bank's other management instruments is crucial for the individual decisions. This tallies with the overarching strategy for dealing with real estate risk.

Real estate risk is managed overall on the basis of an internal capital limit for HVB Group. In addition, economic capital limits adjusted for diversification effects were allocated to the business segments at HVB Group level for 2018 in the context of overall bank management. Based on these limits, HVB has also defined early warning indicators in the form of targets and triggers in order to identify in advance any overshooting. The limits are checked for adequacy mid-year and adjusted as necessary.

The Bank uses a variance-covariance model with a confidence level of 99.90% and a holding period of one year to quantify real estate risk. The Bank's proprietary real estate indices are employed as explanatory risk factors for the parametrisation of the model. These indices are broken down by property type (rented office areas, rented flats, owner-occupied homes (houses or flats), land for housing construction, agricultural properties, retailers with small floor areas, retailers with large floor areas, land for commercial construction, warehouse/logistics properties) and geographical location. In the case of foreign real estate, there is currently only one index that is derived from the present portfolio in terms of its composition due to the current strategic orientation of the portfolio. For German properties, time series are currently available for the most important municipalities.

The economic capital for the real estate risk is determined by the Credit Risk Modelling & Systems (CRS) unit. The Strategic Credit & Integrated Risks (SCI) unit is responsible for reporting to the business segments, the CRO, the Management Board and the Risk Committee of the Supervisory Board. In line with the risk strategy, quarterly risk reporting also includes a comparison of the actual values with the limits.

The economic capital for the real estate risk at HVB Group, without taking account of diversification effects between the risk types and without the model risk cushion, amounts to €636 million at 31 December 2018, which represents an increase of €37 million (31 December 2017: €599 million). The fully diversified economic capital for the real estate risk at HVB Group stands at 475 million (31 December 2017: €386 million). The increase in economic capital is mainly attributable to a rise in the fair value of the real estate portfolio.

The risk figures relate to a portfolio valued at €3,881 million.

Breakdown of the real estate portfolio by type

	PORTFOLIO VALUE € millions		SHARE in %	
	2018	2017	2018	2017
Strategic real estate	2,216	2,073	57.1	55.6
Non-strategic real estate	1,665	1,659	42.9	44.4
HVB Group	**3,881**	**3,732**	**100.0**	**100.0**

From a geographical perspective, the focus is on the Munich region with 50.6% of the value of the portfolio located there.

The impact of macroeconomic scenarios on real estate risk is analysed within the scope of the cross-risk-type stress tests. These quarterly analyses deliver information on the estimated, scenario-related lower real estate prices that would ensue compared with the base scenario, should the scenario materialise. This is the basis on which stressed VaR is determined.

For 2019, there are also plans to make further disposals from the portfolio of non-strategic real estate. The situation on the real estate markets will depend on economic developments once again in 2019. There is currently great demand for properties in good locations.

Risk Report (Continued)

Business risk

We define business risk as losses from unexpected negative changes in the business volume and/or margins that are not attributed to other risk types. It can lead to long-term losses in earnings, thereby diminishing the fair value of a company. Business risk can result above all from a serious deterioration in the market environment, changes in the competitive situation or customer behaviour, changes in the cost structure, and changes in the underlying legal conditions.

The strategy for business risk is based on the direction of business over the medium term and is reflected in the planning. As part of its general cost and income management, each business unit is responsible for the operational management of business risk. HVB has specified corresponding initiatives intended to counter the earnings risks.

In the CIB business segment, the strategic focus in 2018 remained on growth in virtually all areas and product factories. Support for this objective came from our SQUARED growth strategy, which was implemented in 2015 and has been refined and enhanced by Transform 2019. The original three pillars were combined into four strategic components:

- Confirm and improve market leadership
- Exploit synergies
- Ongoing cost discipline and simplification
- Constant risk culture awareness

By enhancing our strategy, we intend to further expand the central role of HVB and UniCredit with core CIB customers, exploit opportunities with Mittelstand customers (joint venture between CIB and Unternehmer Bank (UBK) for Mergers & Acquisitions, Equity Capital Markets UBK, Debt Capital Markets UBK, Corporate Treasury Sales, Corporate Finance Advisory) and become Europe's powerhouse for trade finance. We intend to increase our international footprint by selling our international services to customers in our core countries, strategically expanding our presence in countries given special priority and standardising and refining our operating platform. At the same time, we are expanding our presence along the developments of trade flows with a view to winning as customers the best international actors outside of our home markets. We are positioning ourselves as a provider of holistic and customised solutions for corporate customers through all sales channels relevant to our customers by expanding the cross-selling opportunities as well as the underwriting and distribution capacities. We are also striving to heighten the service commitment for banks.

The goal of the Commercial Banking business segment is to further expand its market position, despite the challenging market environment in 2018. Among other things, strategic initiatives intended to counter earnings risks focused on risk-adjusted pricing, the central control of major transactions by higher-level bodies, reinforced value creation with the customer and new customer acquisition in order to generate earnings. Customer orientation is ensured by enhancing quality in the core business, by achieving sustainable cost management through high cost awareness and continuous cost controlling.

Business risk is managed overall on the basis of an internal capital limit for HVB. Based on this limit, HVB has additionally defined early warning indicators in the form of targets and triggers in order to identify in advance any overshooting. The limits are checked for adequacy mid-year and, if necessary, adjusted.

HVB uses a group-wide model to measure the economic capital used by business risks that is based on a time series model of the quarterly income. The economic capital requirement corresponds to the unexpected loss and is quantified using value-at-risk (VaR) metrics over a period of one year and a confidence level of 99.90%.

The economic capital for the business risk is determined by the Credit Risk Modelling & Systems (CRS) unit. The Strategic Credit & Integrated Risks (SCI) unit is responsible for reporting to the business segments, the CRO, the Management Board and the Risk Committee of the Supervisory Board. In line with the risk strategy, quarterly risk reporting also includes a comparison of the actual values with the limits.

The economic capital for HVB Group's business risk, without taking account of diversification effects between the risk types and without the model risk cushion, remained almost constant at €380 million in 2018 (31 December 2017: €388 million). The fully diversified economic capital for HVB Group's business risk totals €234 million as at 31 December 2018 (31 December 2017: €280 million).

The impact of macroeconomic scenarios on business risk is analysed within the scope of the cross-risk-type stress tests. This quarterly analysis provides information on the estimated, scenario-related lower earnings that would result should the scenario occur compared with the base scenario. In addition, the stressed VaR is determined.

Pension risk

HVB has undertaken to provide a range of different pension plans to current and former employees, which are largely financed by various forms of investment, some of which are external. Pension risk may arise in connection with the pension plans on both the assets side and the liabilities side (pension commitments). This may be caused by a decline in the fair value of plan assets on the assets side due to disadvantageous changes in market prices as well as by an increase in the obligations on the liabilities side, for instance due to a reduction in the discount rate. Furthermore, actuarial risks such as longevity risk (changes to the mortality tables) may arise on the obligation side. In this context, pension risk is the risk that the pension provider will have to provide additional capital to service the vested pension commitments.

In risk management the risks are calculated and monitored at regular intervals using a model devised specifically for pension risk. A risk figure is determined periodically using calculations based on changes in key risk parameters for both the various capital investments and the cash flows on the obligations side. A figure of €868 million was determined as at 31 December 2018 for the total pension risk of HVB Group (31 December 2017: €917 million). The risk figure is incorporated in the calculation of the risk-taking capacity in the form of an additive component to the internal capital. In addition, the impact on pension risk is analysed at regular intervals as part of the cross-risk-type stress tests.

Risk Report (Continued)

Low interest rates continue to be seen as the main negative factor for both the amount of the pension commitments disclosed and the amount of the income that can be generated from the plan assets with acceptable risk. In the current low interest rate environment, it is perfectly conceivable that the discount rate will return to its all-time lows seen in 2016 (at year-end 2018, the discount rate stood at 2.10%), thus causing the pension obligations to rise. There are currently still no regulatory provisions for the measurement of pension risks that have been harmonised at a European level. This gives rise to uncertainty regarding the future development of the disclosed pension risk and, depending on how the provisions are ultimately structured, this might lead to an increase in the pension risk.

Financial investment risk

Financial investment risk covers potential losses arising from fluctuations in the measurement of HVB's equity interest. HVB's investment risk stems from losses on the equity held in companies that are not consolidated in HVB or are not included in market risk.

The financial investment portfolio mainly consists of unlisted interests, private equity investments (co-investments and direct investments), equity derivatives and other fund shares (real estate funds and other closed-end funds). All the investments to be included in the financial investment risk are either considered strategic and allocated to a business segment or competence line, or deemed non-strategic and connected with the fundamental goal of reduction.

The financial investment risk is controlled at a higher level on the basis of a limit for internal capital for HVB. In addition, the business segments at HVB Group level have been allocated limits for economic capital for the year 2018 that were adjusted for diversification effects in the sense of overall bank management. On the basis of these limits, HVB has additionally defined early warning indicators in the form of target values and triggers in order to indicate in advance any overshooting. The limits are reviewed for adequacy mid-year and adjusted as necessary.

The risk from holdings in unlisted companies is covered by applying a cautious approach of 100% capital backing of the investment value. In addition, risks from hedge funds, private equity funds (including issuer risks from the trading book) and FX risks from the investment portfolio are no longer included in financial investment risk but are included in the calculation of the market risk.

The economic capital for the real estate risk is determined by the Credit Risk Modelling & Systems (CRS) unit. The Strategic Credit & Integrated Risks (SCI) is responsible for reporting to the business segments, the CRO, the Management Board and the Risk Committee of the Supervisory Board. In line with the risk strategy, quarterly risk reporting also includes a comparison of the actual values with the limits.

The economic capital for financial investment risk at HVB Group, without taking into account any diversification effects between the risk types and without the model risk cushion, rose by €22 million and stands at €185 million as at 31 December 2018 (31 December 2017: €163 million). HVB Group's fully diversified economic capital amounts to €185 million as at 31 December 2018 (31 December 2017: €163 million).

Breakdown of the financial investment portfolio

	PORTFOLIO VALUE € millions		SHARE in %	
	2018	2017	2018	2017
Private equity investments	19	19	10.3	11.7
Other holdings[1]	166	144	89.7	88.3
HVB Group	**185**	**163**	**100.0**	**100.0**

1 Listed and unlisted investments.

For the purpose of the cross-risk-type stress tests, a 100% capital charge is assumed for the stressed economic capital irrespective of the macroeconomic scenarios.

As was the case in 2018, HVB will continue to selectively dispose of non-strategic shareholdings in 2019. It will also look into setting up new companies and making fresh investments in line with its business strategy and the current market environment, provided these complement our structure and our business priorities, and generate added value for HVB and HVB Group.

Strategic risk

Strategic risk results from management either not recognising early enough or not correctly assessing significant developments or trends in the Bank's environment. As a consequence fundamental management decisions could, in retrospect, prove to be disadvantageous in terms of the Bank's long-term goals. In addition, some decisions may be difficult to reverse or cannot be reversed at all. In the worst case, this can negatively impact the profitability and risk profile of HVB.

The strategic risk is not quantified as part of internal capital but is assessed qualitatively instead. This assessment is based on a traffic light system: low risk (green), increased risk (yellow) and high risk (red). Furthermore, continual monitoring is performed of the national and international environment in which HVB operates (for example, political, economic, regulatory or specific banking market conditions) and a constant review of the Bank's own strategic positioning.

Strategic risk is monitored on an ongoing basis by the Management Board and its staff offices and, if necessary, analysed in depth on an ad hoc basis. Any changes in the strategic parameters are discussed at Management Board meetings, whereby alternative courses of action are derived and implemented accordingly. A dialogue with external experts (such as management consultants and independent auditors) regarding strategic issues and options at Management Board level and below ensures the involvement of external experts' know-how.

Risk Report (Continued)

Risk arising from the overall economic environment
Based on HVB's focus with its Commercial Banking and CIB business segments and its concentration on its home market of Germany and further core countries, the overall economic developments in Germany and within the eurozone as well as developments on the international financial and capital markets are of great importance for the assets, financial position and operating result of HVB. As a consequence, the regular economic analysis carried out by HVB covers macroeconomic developments in the eurozone, the monetary policy of central banks and the discussions surrounding the deleveraging of highly indebted countries.

As a sound universal bank with excellent customer relationships, HVB considers itself fundamentally in good shape to continue operating successfully in this challenging environment. Should, however, the measures taken to stabilise the eurozone fail to have the desired effect, for instance, or economic growth slow in Europe, or further turmoil roil the financial and capital markets, this could have a negative effect on the assets, financial position, and operating result of HVB.

Industry-specific risk
Since the financial and economic crisis (2007 and the following years), the bank sector has been and still is facing grave challenges and the necessity of constantly adapting quicker than in the past. Material factors influencing the entire banking sector, and thus also HVB, are as follows:
– Continuing low market interest rates with a negative deposit rate at the ECB
– Subdued customer demand in conjunction with weakened customer confidence
– Extremely tough competition also due in part to the ongoing existence of the three-pillar system with disproportionately large market shares being held by the public sector (savings banks and Landesbanks) and the cooperative sector (cooperative banks)
– Consolidation on the German and international banking and financial markets
– Wide-ranging trend towards digitalisation throughout society which entails massive changes also for the banking and financial services sector, both with regard to customer interaction (products, customer needs and customer perception) and with regard to opportunities to boost the efficiency of internal processes
– The entry of new market participants, known as FinTechs, that use modern technologies to provide or facilitate financial services such as e-commerce, mobile payments, crowd lending or crowd investing.

If, however, the competitive conditions in the financial sector were to continue to intensify, for example, and shifts in market shares were to occur, this could also have a negative impact on the assets, financial position, and operating result of HVB.

HVB is facing up to these external market influences and is making the corresponding strategic adjustments to its strategic measures. The Bank's strong profitability and capital base in conjunction with its willingness to undergo constant change are a sound foundation enabling it to remain a stable and successful market actor also in the future.

Risks arising from the strategic orientation of HVB's business model
HVB as a universal bank focuses on the regional management of the German market and also acts as the centre of competence for the investment banking activities of UniCredit as a whole. As a consequence, the Bank's business model is built upon several pillars. However, depending on developments on external markets, it cannot always be ruled out that imbalances in earnings contributions could arise. Thus, the business segments are impacted by the persistently low interest rate environment each in their own way.

The Commercial Banking business segment serves all customers in the Private Clients Bank and Unternehmer Bank business units in Germany with a need for standardised or personalised service and advice with regard to a wide range of bank services. The market environment in the Commercial Banking business segment is characterised by persistently low interest rates, a fragmented competition environment and rising regulatory costs. In parallel with persistently subdued customer demand, increasing digitalisation is bringing about lasting change in customer needs. HVB is facing up to the challenges posed by this framework in the Commercial Banking business segment with a premium positioning and a diverse set of measures of growth and efficiency activities that also extend to clearly defined digitalisation initiatives.

The strategic orientation of the CIB business segment is to generate additional value for customers by offering specific advisory models and a wide variety of products geared to the customers specific needs. Even though investment banking activities are customer-driven, revenues are traditionally volatile as customer demand for CIB products is influenced by the market environment. Whilst in a normal market environment investment banking is very profitable, there are increased risks to the assets, liabilities, financial position, and profit or loss under difficult market conditions.

Risks arising from changes to the regulatory and statutory environment

The activities of HVB are regulated and supervised by the central banks and regulatory authorities in the countries and regions where HVB does business. HVB comes under the supervision of the ECB as part of the Single Supervisory Mechanism (SSM).

The regulatory requirements in the individual countries/regions are subject to changes and may vary. This might impact the competitive situation and necessitate further measures on the part of HVB. Besides a higher cost of capital and additional expenses arising from the implementation of regulatory requirements, adjustments to the business model may become necessary.

The failure of HVB to fully satisfy the regulatory requirements of the supervisory authorities could lead to the responsible authority imposing sanctions. In the worst case, the business activities of HVB could be discontinued.

All in all, this could give rise to a negative impact on the assets, financial position, and operating result of HVB.

Risks arising from a change in HVB's rating

HVB has an investment grade rating from the external rating agencies Standard & Poor's (S&P), Moody's and Fitch. The implementation of new regulations (specifically the Bank Recovery and Resolution Directive (BRRD) has led to adjustments to the rating methods on the part of the rating agencies in recent years. In this context, the rating agencies have aligned the ratings of the individual financing instruments to the anticipated liability cascade. As consequence, adjustments were made to ratings at HVB.

A rating downgrade could make funding costs higher for HVB or have a negative impact on the business opportunities of HVB as a counterparty in the interbank market or with rating-sensitive customers. The possibility cannot be excluded that the risk-reward profile of business activities affected will alter so significantly that modifications are made to business units with potentially negative consequences for the assets, financial position, and operating result of HVB. The possible negative effects arising from this risk will depend notably on whether HVB's rating changes less than, the same as or more than that of its competitors.

Risk Report (Continued)

Reputational risk

Reputational risk is defined as the risk of negative effects on the income statement caused by adverse reactions by stakeholders due to a changed perception of the Bank. This altered perception may be triggered by a primary risk such as credit risk, market risk, operational risk, liquidity risk, business risk, strategic risk or other primary risks.

HVB applies a holistic approach to reputational risk management. This means that all significant new activities and transactions at the Bank are regularly analysed with regard to reputational risk ("change-the-bank" approach) and individual units at the Bank are examined at regular intervals regarding latent reputational risk at the same time ("run-the-bank" approach).

Commercial transactions and new activities such as new product processes, outsourcing, projects and particular investments (such as SPVs) are included in the "change-the-bank" approach, as well as any other new activity as is appropriate. The employees responsible in each case are required to analyse the transactions/activities to identify any reputational risk, taking into account the existing guidelines. Once a reputational risk has been identified, the appropriate specialist departments are called in who will assess the reputational risk identified in terms of quality. The Reputational Risk Council (RRC) will obtain a decision on the basis of the risk analysis and the qualitative assessment.

Under the "run-the-bank" approach, the individual units of the Bank are examined at regular intervals with regard to existing and/or latent reputational risk. The process starts with what are known as risk self-assessments by important function owners (risk managers) together with the local operational risk managers. A list of questions is used to carry out the risk self-assessments. Senior management is subsequently interviewed about reputational risk. The senior managers have the opportunity to review the reputational risk identified in their unit during the interview and add further material reputational risks. Where it is possible and makes sense to do so, additional countermeasures are defined for the individual reputational risks.

The Bank has decided not to directly quantify reputational risk under the "run-the-bank" process on account of the fundamental difficulty of accurately assessing the possible effects of reactions from stakeholders. Instead, the risk is classified in accordance with a three-tier system (traffic light logic) as part of the "run-the-bank" approach. This involves determining the aggregate risk across two dimensions: impact on the income statement and probability of occurrence. Any reputational risk identified is documented in the Bank's own IT system (as necessary during the year).

The individual business segments and central units are responsible for reputational risk management. Overall responsibility for monitoring rests with the Operational & Reputational Risks unit (CRO organisation). The Operational & Reputational Risks unit consolidates the results of the senior management interviews and prepares a RepRisk Report covering the largest reputational risks at HVB.

Risks arising from outsourcing activities

Outsourcing involves the transfer of activities and processes to external service providers. This involves the transfer of some of the liability for operational risk, while contractual risks arising from the outsourcing arrangement remain within HVB. An outsourcing arrangement is deemed to exist when a different company is contracted to carry out activities and processes in connection with the performance of banking business, financial services or other typical banking services that would otherwise be performed by the outsourcing company itself. This includes outsourcing arrangements within UniCredit as well as the subcontracting of outsourced activities and functions to subcontractors.

Outsourcing risk is considered a cross-risk-type risk at HVB and is not treated as a separate risk type. Outsourcing activities affect the following risk types in particular: operational risk, reputational risk, strategic risk, business risk, credit risk, market risk and liquidity risk. Those risks that are identified and assessed in an in-depth risk analysis are managed as part of the respective risk type. Specific risks arising from outsourcing activities that cannot be assigned directly to a specific risk type are managed by the unit responsible for the outsourcing in question.

The respective project team and defined functional departments (including Operational Risk Management, Compliance, Legal, Corporate Affairs & Documentation, Data Protection and Business Continuity Management) use a standardised procedure to classify outsourcing arrangements as “not material”, “material without significant impact” and “material with significant impact”. In accordance with the group-wide regulations on outsourcing management, these arrangements are also subdivided into “not relevant” and “relevant” in line with the provisions of the Bank of Italy’s Circular no. 263. An in-depth risk analysis covering the other risk types as well as operational risk is performed for all outsourcing arrangements classified as “material” or “relevant”. A retained organisation (RTO) responsible for the arrangement is set up for each material outsourcing arrangement that manages the risks identified. The identified risks are incorporated in HVB’s risk management in the processes defined for the risk types concerned. The operational risk managers help the project manager and the heads of the RTOs to prepare and/or update the related risk analyses.

Within the scope of the introduction of the revised Markets in Financial Instruments Directive (MiFID II) as at 3 January 2018, a new material outsourcing arrangement without significant impact with Deutsche Börse AG relating to reporting pursuant to Section 34h of the Securities Trading Act (Wertpapierhandelsgesetz – WpHG, ensuring post-trade transparency) was put in place at HVB by an instance of outsourcing relating to reporting services as part of an approved publication arrangement (APA) and an approved reporting mechanism (ARM). Furthermore, an already existing arrangement with the subsidiary UniCredit Capital Markets LLC relating to various services associated with broker/dealer activities in New York was classified as a material outsourcing arrangement without significant impact. This did not give rise to any material change to the risk for HVB.

ICS – Internal Control System

Internal control system with regard to the financial reporting process

Definitions and objectives

Section 289 (4) of the German Commercial Code (Handelsgesetzbuch – HGB) requires capital-market-oriented companies as defined in Section 264d HGB to describe the main features of the internal control system (ICS) and risk management system with regard to the financial reporting process.

The risk management system is formulated in broad terms and relates above all to strategic management, the identification, quantification, assessment, monitoring and active management of risk. The ensuing coordination of risk-management, risk-controlling and risk-monitoring processes in our Bank is presented in the Risk Report in the present Management Report. The respective risk types are described in detail in the sections entitled "Risk types" and "Risk types in detail".

Risks with regard to the financial reporting process might, for example, involve human processing errors, system weaknesses or fraudulent conduct resulting in significant financial misrepresentations or delays in financial reporting, and these might not reflect the actual situation or not give an appropriate view of the assets, liabilities and financial position. These risks might possibly entail legal penalties and, in addition, the erosion of investors' confidence and damage to the Bank's reputation. The purpose of the internal control system in relation to the financial reporting process is to implement controls that ensure with an adequate degree of certainty that the annual financial statements together with the Management Report are prepared in compliance with regulations despite the identified risks.

The ICS encompasses the policies, processes and measures needed to ensure the financial reporting process and compliance with the applicable legal provisions. It makes sure that internal and external financial reports are correct and reliable and that the assets, provisions, liabilities, and deferrals and accruals are classified, recognised and measured and changes in equity are correctly shown.

The method used for the design of the ICS and thus the introduction and risk assessment of processes is based on the international "Internal Control – Integrated Framework" standard issued by the Treadway Commission's Committee of Sponsoring Organizations (COSO) and creates a solid methodological framework. The main task in this context is to define specific objectives to facilitate a control system and to monitor the effectiveness of the control system on this basis. The following objectives are pursued:

- Completeness: All transactions are recorded and all assets and liabilities, provisions and shareholders' equity are included in the financial statements.
- Measurement: The assets and liabilities, provisions and transactions are disclosed at their correct amounts in the financial reports.
- Presentation and disclosure: The financial reports are correctly classified and discussed with regard to recognition, structure and disclosures in the notes to the consolidated financial statements, comply with the legal requirements and are published on schedule.

Even the best possible structuring of the ICS can naturally only ensure that the objectives of the ICS are achieved with reasonable assurance but not with absolute certainty. The documented controls carried out within the framework of the ICS for the relevant processes or systems are therefore unable to completely eliminate mistakes or fraudulent actions. It must also be taken into account in this context that the work performed and spending on the ICS must be commensurate with the benefits achieved.

ICS organisation

The Management Board determines the extent and orientation of the ICS specifically geared to the Bank, taking measures to refine the systems and adapt them to changing conditions. At Board meetings, it regularly discusses the key topic of the Internal Control Business Committee (ICBC), in terms of the consolidation and monitoring of all ICS-related projects and measures.

Responsibility for the financial reporting process and, in particular, for the preparation of the annual and consolidated financial statements rests with the CFO organisation. The CFO receives significant support in this context from the CRO organisation by the CRO also assuming responsibility for the measurement of financial instruments (receivables, securities and derivatives), among other things.

The CFO organisation is also supported in the technical process of preparing the financial statements by the Human Resources department (recognition and measurement of payroll expenses), the Legal department (recognition and measurement of legal disputes and other legal risks) and external third parties. The latter essentially extends to various expert opinions of external service providers relating to such things as the measurement and accounting treatment of pension provisions.

Technical system support for the application systems used in the Accounting department and especially in connection with preparing the financial statements has been outsourced to UniCredit Services S.C.p.A., the UniCredit subsidiary responsible for IT. UniCredit Services S.C.p.A. is monitored and managed by the Retained Organisation (OSI) in the Chief Operating Office (COO).

Organisational structure and tasks of the CFO organisation

For purposes of the financial reporting processes, the Chief Financial Officer (CFO) organisation is essentially broken down into the following areas, from which the responsible Management Board member can draw on staff with the required skills and experience. Sets of values such as the Integrity Charter, the Code of Conduct and compliance rules have been implemented in all UniCredit countries for many years, and hence also in HVB. These values form the basis for responsible action on the part of all employees, including those involved in the financial reporting process.

HVB's financial reporting is conducted by the Accounting, Shareholdings, Regulatory Reporting (CFF) unit. This unit has functional responsibility for the financial reporting systems employed by HVB. At the same time, the CFF unit is responsible for fundamental accounting questions under IFRS and the German Commercial Code and for preparation of the annual financial statements. Furthermore, it prepares the financial reporting in the Annual Report of HVB. The management and administration of shareholdings for financial reporting purposes is also positioned in this unit. In addition, it submits the regulatory reports for HVB to the banking supervisory authorities.

The central tax department (CFT/Tax Affairs) monitors compliance with all tax laws on the one hand and on the other hand, advises its customers (Management Board, business lines and competence lines) on all tax-related concerns of HVB, including its foreign branches.

ICS – Internal Control System (Continued)

Regional Planning & Controlling (CCP) is tasked with central business management, cost controlling and equity capital management at HVB. Furthermore, CCP prepares and validates the internal segment report in accordance with IFRS. This department also has process responsibility for the preparation of income budgets and income projections. Moreover, the business segment-related controlling departments for all the segments excluding CIB are assigned to CCP. Controlling for CIB is the responsibility of CPA. This department also carries out the reconciliation of trading income for Markets jointly with Accounting. The reconciliation of trading income for Treasury is carried out between Accounting and Finance (CDF).

The Chief Data Office (CDO) is responsible for data and information governance in coordination with the Group Data Office. In addition, significant parts of the data produced are amalgamated in CDO for the CFO in order to achieve a continual improvement in data quality. This department also has responsibility for the implementation of various IT projects relating to financial reporting.

Controls in the ICS for risk minimisation

To minimise the risk of misrepresentation in financial reporting as described above, we carry out various preventive and investigative controls which are integrated in operating processes. This includes permanent controls to ensure compliance with instructions, functional separation and compliance with approval authority regulations. The controls comprise both automated system-based controls within the IT systems and manual controls.

As part of UniCredit, HVB is also obliged to comply with Law 262 ("the Savings Law" – Law 262/2005, passed in Italy in 2005 and amended by Legislative Decree 303/2006, based on the Sarbanes-Oxley Act in the United States). Alongside the internal CFO controls, there are also checking and control steps in the upstream processes and organisations.

Based on the requirements under Law 262 and the legal requirements under the German Commercial Code, a number of financial reporting processes complete with the risks and controls included therein are documented in the course of implementing the ICS at HVB. The corresponding process descriptions include detailed presentations of both the individual process steps and the organisational units involved in the processes. At the same time, risk and control are defined, together with their assessment, and documented.

The focus of risk and monitoring analysis is on identifying and evaluating the risks relevant to financial reporting. Identified risk potential is sufficiently reduced through defined control steps. Periodic random sampling serves to document the implementation of these controls and provide adequate records. If the controls do not sufficiently reduce risk, or no controls are in place, appropriate measures are initiated to eliminate the identified deficiencies. The timely implementation of these measures is reviewed on a quarterly basis.

In a half-yearly certification process, the Management Board confirms to the departments in charge of processes that reporting to the CFO of HVB, and from the CFO to UniCredit, is correct.

The controls cover the aspects of the ICS described below:

There are general accounting rules set out in the Bank-wide Operating Guidelines, the application of which is mandatory for all process participants.

HVB uses SAP's standard SAP Balance Analyzer and Business Warehouse software to prepare its annual financial statements. The SAP Balance Analyzer concept is based on the mainly automated uploading of individual transaction data from the upstream systems relevant to financial reporting (sub-ledger). The Accounting department collates the data relevant to the financial statements. It reconciles the positions delivered by the upstream systems and automatically checks the totals against the general ledger account balances, which serves as proof of the completeness of balance sheet items. At the same time, it also corrects errors and performs manual bookings of one-off transactions and closing entries. Adjustments and closing entries are entered by authorised persons in accordance with the principle of dual control. Furthermore, deviation analyses are conducted at item level to minimise the risk of error and incomplete data.

The ICS for securities, derivatives and other trading-related transactions also comprises the following components:

- The allocation of transactions to the holding categories compliant with IFRS and HGB is primarily governed by the orientation of the operating units. The determination of the holding category is determined individually for each trading book and the related trading strategy. The Accounting department is incorporated as an authorising body to ensure compliance with individual requirements relating to classification based on the respective accounting standard.
- Booking standards based on the respective holding category – initiated by transactions – are defined in the accounting systems.
- The income calculated for purposes of financial reporting is checked on a monthly basis by comparing it with the result of the economic income statement that serves as the basis for the daily information provided to the Management Board members. Following this, the results are analysed and comments made on the content of the deviation analysis.
- The Risk Control department, which reports to the CRO, performs several tasks in connection with ensuring the valuation and other information relevant for the financial statements (for example: level allocation) of the financial instruments mentioned above. Firstly, transactions are checked by the Risk Control department to ensure compliance with market pricing. Secondly, the Risk Control department reviews the valuation of financial instruments in the front office systems. Depending on the market parameters and asset classes, market data are supplied by both the trading departments and external sources such as Bloomberg, Reuters and MarktIT. Valuation adjustments and valuations based on estimates are agreed by the CRO and CFO units on an ongoing basis.
- In accordance with the separation of functions, the back office handles the processing of HVB trades. For derivatives, this is UniCredit Services S.C.p.A., which is supervised by the COO unit. Furthermore, external service providers have been engaged to process securities transactions in Germany and for the Milan branch. It has thus been ensured that trades are processed independently of the Trading department.

A cross-departmental new product process is in place for developing and launching new products, as stipulated in the Operating Guidelines. All the products relevant for a new product process are addressed in this process. It involves all the departments concerned as they have veto rights and are authorised to enforce amendments up to and including the termination of the new product process.

ICS – Internal Control System (Continued)

The figures presented in the balance sheet and income statement are validated using deviation analysis at historical comparative figures and budget figures and on the basis of non-recurring effects in an ongoing process that is carried out over the entire course of the reporting year as part of the process of preparing the monthly and quarterly financial statements. In addition, the data are also verified by analysing the segment report.

With regard to the presentation and disclosure of financial reporting-related data in financial reports, controls have been implemented to ensure compliance with disclosure duties. This is carried out by means of checklists and by the data being reviewed and approved by management personnel within the CFO organisation.

UniCredit Services S.C.p.A. carries out the back-up and archiving of data from financial reporting-related application systems under the responsibility of the CFO in accordance with Section 257 HGB in conjunction with Sections 238 and 239 HGB and the German Generally Accepted Accounting Principles (GAAP) under the supervision of the Retained Organisation and the respective banking expert responsible. In the course of what are referred to as first level controls, controls between the upstream systems (e. g. EuroSIG) and the general ledger have been outsourced to UniCredit Services S.C.p.A. via additional service level agreements (SLAs). Another technical review takes place in the Accounting department as a second level control.

The required protection against unauthorised access, and compliance with the principles of functional separation when using the Bank's financial reporting application systems are ensured notably by requesting and periodically monitoring individual rights in the authorisation management systems. For SAP rights, special approval is provided across the board by the functional units responsible for the application. The use of individual rights automatically implies a time restriction of no more than one year.

Furthermore, appropriate contingency plans are in place to ensure the availability of human and technical resources to handle processes regarding financial reporting. These contingency plans are constantly updated and refined.

Monitoring the effectiveness of the ICS

Internal Audit

The Internal Audit department is a process-neutral instrument of the Management Board, to which it reports directly. According to its internal regulations, the Management Board bears the overall responsibility for setting up the Internal Audit department and ensuring that it functions properly. In the reporting year, operational responsibility for the audit function was assigned to the Board Spokesman (CEO).

The Internal Audit department is responsible for the risk-oriented, process-neutral auditing and assessment of all activities and processes, regardless of whether they are outsourced or not. The outsourced activities may be audited by the internal audit function of the service provider.

For this purpose, Internal Audit carries out a risk-based selection of individual operating and business processes in order to set scheduling priorities for audits. The Minimum Requirements for Risk Management (MaRisk) stipulate that all operating and business processes must be audited at least every three years – if deemed useful and appropriate. In the case of activities and processes deemed to be of lower priority in terms of risk, it is permissible to deviate from the three-year cycle. Operating and business processes subject to especially high levels of risk are audited at least once a year. If the need arises or it is instructed to do so, the Internal Audit department may also carry out tasks in subsidiaries, taking into account the findings of any audits performed by internal audit departments in those subsidiaries.

The Bank's Internal Audit department must audit and assess the following areas in particular:
– functionality, effectiveness, economic efficiency and appropriateness of the internal control system
– applications, functionality, effectiveness and appropriateness of the risk management and risk control systems, reporting, information systems, and finance and accounting
– compliance with legal and regulatory standards as well as other regulations
– observation of internal operational guidelines, ordinances and regulations
– correctness of operational and business processes
– regulations and measures to protect assets

While audit reports are submitted promptly to audited units and the responsible Management Board members, the Management Board as a whole receives quarterly reports and an annual report which includes a comprehensive overview of audit findings as well as significant deficiencies, major deficiencies, severe deficiencies and particularly severe deficiencies as defined in the MaRisk rules, the measures taken and their current status.

The head of the Internal Audit department informs the Audit Committee and the Risk Committee of the Supervisory Board on a quarterly basis at meetings of these committees of the main findings of the audits carried out by Internal Audit.

Supervisory Board
It is the task of the Supervisory Board to advise the Management Board on the running of the Bank and monitor it as it conducts its business. Particularly with respect to the monitoring of the financial reporting process and the effectiveness of the ICS, the Supervisory Board receives support from the Audit Committee pursuant to Section 107 (3) AktG and Section 25d (9) Nos. 1 and 2 KWG. In this context, the Audit Committee also addresses the ICS in connection with the financial reporting process. Furthermore, the Supervisory Board – and, in a preparatory role, the Audit Committee – is itself integrated into the financial reporting processes through its monitoring of the financial reporting performed by reviewing and approving the financial statements and the Management Report as well as the proposal for the appropriation of profits. In addition, the Audit Committee and the Supervisory Board discuss the interim financial information with the Management Board as such information becomes available throughout the year.

Refinement of the ICS
When changes are made to the legal provisions and regulations for financial reporting, they must be assessed to determine what consequences, if any, they have for the financial reporting processes. In the case of amendments or new regulations that would have a substantial impact on the accounting processes, a corresponding project is set up to cover all measures such as IT adaptations, working procedures and posting instructions and the effects on financial reporting across all departments and business segments.

In the course of the regular update of the ICS, moreover, new processes are subject to half-yearly reviews in terms of organisational changes or changes in content by the persons responsible for the process. If necessary, the documentation is modified and a new risk assessment performed. In addition, the completeness of the process documentation is checked on an ongoing basis and, if necessary, further relevant processes added and assessed, and integrated into routine ICS operations.

Income Statement of UniCredit Bank AG

For the year ended 31 December

EXPENSES

(€ millions)

				2018	2017
1	Interest payable			1,143	1,160
	including: netted positive interest from borrowings				
	€263 million				(246)
2	Fees and commissions payable			248	255
3	Net expense from the held-for-trading portfolio			—	—
4	General administrative expenses				
	a) payroll costs				
	aa) wages and salaries	1,183			1,209
	ab) social security costs and expenses for				
	pensions and other employee benefits	441			335
			1,624		1,544
	including: for pensions				
	€271 million				(154)
	b) other administrative expenses		1,586		1,574
				3,210	3,118
5	Amortisation, depreciation and impairment losses				
	on intangible and tangible assets			26	27
6	Other operating expenses			988	92
7	Write-downs and impairments for receivables and				
	certain securities as well as additions to provisions				
	for losses on guarantees and indemnities			242	244
8	Write-downs and impairments on participating				
	interests, shares in affiliated companies				
	and investment securities			—	—
9	Expenses from absorbed losses			8	2
10	Extraordinary expenses			—	130
11	Taxes on income			(8)	158
12	Other taxes, unless shown under				
	“Other operating expenses”			5	2
13	Net income			520	1,300
	Total expenses			6,382	6,488

INCOME

(€ millions)

			2018	2017
1	Interest income from			
	a) loans and money market operations	3,103		2,981
	including: netted negative interest from borrowings			
	€154 million			(143)
	b) fixed-income securities and government-inscribed debt	234		420
			3,337	3,401
2	Current income from			
	a) equity securities and other variable-yield securities	348		278
	b) participating interests	9		3
	c) shares in affiliated companies	68		221
			425	502
3	Income earned under profit-pooling			
	and profit-and-loss transfer agreements		138	64
4	Fees and commissions receivable		1,298	1,449
5	Net income from the held-for-trading portfolio		345	652
	including: transfer as per Section 340e HGB			
	€— million			(—)
6	Write-ups on bad and doubtful debts and on certain			
	securities as well as release of provisions for losses on			
	guarantees and indemnities		—	—
7	Write-ups on participating interests,			
	shares in affiliated companies and investment securities		28	116
8	Other operating income		315	304
9	Extraordinary income		496	—
10	Net loss		—	—
	Total income		**6,382**	**6,488**
1	Net income		520	1,300
2	Withdrawal from retained earnings			
	a) from the reserve for shares in a controlling			
	or majority interest-holding company	—		—
	b) from other retained earnings	—		2
			—	2
3	Transfer to retained earnings			
	a) to the reserve for shares in a controlling			
	or majority interest-holding company	—		2
	b) to other retained earnings	—		—
			—	2
4	Profit available for distribution		**520**	**1,300**

Balance Sheet of UniCredit Bank AG

at 31 December

ASSETS

(€ millions)

		31/12/2018	31/12/2017
1 **Cash and cash balances**			
a) cash on hand	5,994		6,024
b) balances with central banks	4,995		2,967
including: with Deutsche Bundesbank			
€820 million			(700)
		10,989	8,991
2 **Treasury bills and other bills eligible**			
for refinancing with central banks			
a) Treasury bills and zero-interest treasury notes and			
similar securities issued by public authorities	—		4
including: eligible for refinancing with			
Deutsche Bundesbank			
€— million			(—)
b) bills of exchange	—		—
		—	4
3 **Loans and receivables with banks**			
a) repayable on demand	12,302		30,292
b) other loans and receivables	23,654		27,696
		35,956	57,988
including: mortgage loans			
€— million			(—)
municipal loans			
€53 million			(31)
against pledged securities			
€— million			(—)
4 **Loans and receivables with customers**		115,379	93,202
including: mortgage loans			
€42,676 million			(41,383)
municipal loans			
€7,230 million			(7,500)
against pledged securities			
€298 million			(309)
Amount carried forward:		162,324	160,185

LIABILITIES

(€ millions)

			31/12/2018	31/12/2017
1 Deposits from banks				
a) repayable on demand		5,734		6,843
b) with agreed maturity dates or periods of notice		51,540		53,406
			57,274	60,249
including: registered mortgage bonds in issue				
€496 million				(435)
registered public-sector bonds in issue				
€383 million				(229)
bonds given to lender as				
collateral for funds borrowed:				
registered mortgage bonds				
€— million				(—)
and registered public-sector bonds				
€— million				(—)
2 Deposits from customers				
a) savings deposits				
aa) with agreed period of notice of three months	13,577			13,846
ab) with agreed period of notice				
of more than three months	82			59
		13,659		13,905
b) registered mortgage bonds in issue		4,271		4,586
c) registered public-sector bonds in issue		2,207		2,470
d) other debts				
da) repayable on demand	78,479			73,131
db) with agreed maturity dates or periods of notice	31,304			37,014
including: bonds given to lender as				
collateral for funds borrowed:				
registered mortgage bonds				
€— million				(1)
and registered public-sector bonds				
€— million				(—)
		109,783		110,145
			129,920	131,106
Amount carried forward:			187,194	191,355

at 31 December

ASSETS (€ millions)

			31/12/2018	31/12/2017
Amount brought forward:			162,324	160,185
5 **Bonds and other**				
fixed-income securities				
a) money market paper				
aa) issued by public authorities	3			154
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€— million				(151)
ab) issued by other borrowers	69			442
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€— million				(—)
		72		596
b) bonds and notes				
ba) issued by public authorities	16,379			16,845
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€13,148 million				(16,499)
bb) issued by other borrowers	28,497			26,187
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€15,788 million				(17,078)
		44,876		43,032
c) own bonds		7,133		5,067
nominal value €7,125 million				(5,000)
			52,081	48,695
6 **Equity securities and other variable-yield securities**			679	791
6a **Held-for-trading portfolio**			42,304	49,875
7 **Participating interests**			95	89
including: in banks				
€8 million				(15)
in financial service institutions				
€28 million				(9)
8 **Shares in affiliated companies**			1,597	2,389
including: in banks				
€— million				(795)
in financial service institutions				
€488 million				(488)
Amount carried forward:			259,080	262,024

LIABILITIES

(€ millions)

			31/12/2018	31/12/2017
Amount brought forward:			187,194	191,355
3 Debt securities in issue				
a) bonds				
aa) mortgage bonds	14,350			11,956
ab) public-sector bonds	1,169			1,284
ac) other bonds	4,634			3,470
		20,153		16,710
b) other debt securities in issue		—		3
including: money market paper				
€— million				(—)
acceptances and promissory notes				
€— million				(3)
			20,153	16,713
3a) Held-for-trading portfolio			24,707	27,258
4 Trust liabilities			4	4
including: loans taken out on a trust basis				
€4 million				(4)
5 Other liabilities			7,388	6,517
6 Deferred income				
a) from issuing and lending operations		80		84
b) other		250		122
			330	206
6a) Deferred tax liabilities			—	—
7 Provisions				
a) provisions for pensions				
and similar commitments		—		—
b) tax provisions		290		630
c) other provisions		3,051		2,569
			3,341	3,199
8 Subordinated liabilities			654	678
9 Participating certificates outstanding			—	—
including: those due in less than two years				
€— million				(—)
10 Fund for general banking risks			638	638
thereof: special items as per Section 340e (4) HGB				
€347 million				(347)
Amount carried forward:			244,409	246,568

Balance Sheet of UniCredit Bank AG (Continued)

at 31 December

ASSETS (€ millions)

			31/12/2018	31/12/2017
	Amount brought forward:		259,080	262,024
9	Trust assets		4	4
	including: loans granted on a trust basis			
	€4 million			(4)
10	Intangible assets			
	a) internally generated intellectual property rights			
	and similar rights and assets	—		—
	b) purchased franchises, intellectual property rights			
	and similar rights and assets,			
	as well as licences to such rights and assets	6		9
	c) goodwill	—		—
	d) advance payments	—		1
			6	10
11	Property, plant and equipment		181	144
12	Other assets		735	613
13	Prepaid expenses			
	a) from issuing and lending operations	33		37
	b) other	123		101
			156	138
14	Deferred tax assets		—	—
15	Excess of plan assets over pension liabilities		120	288
	Total assets		260,282	263,221

LIABILITIES

(€ millions)

			31/12/2018	31/12/2017
Amount brought forward:			244,409	246,568
11 Shareholders' equity				
a) called-up capital				
subscribed capital		2,407		2,407
divided into:				
802,383,672 shares of common				
bearer stock				
b) additional paid-in capital		9,791		9,791
c) retained earnings				
ca) legal reserve	—			—
cb) reserve for shares in a controlling				
or majority interest-holding company	10			10
cc) statutory reserve	—			—
cd) other retained earnings	3,145			3,145
		3,155		3,155
d) profit available for distribution		520		1,300
			15,873	16,653
Total liabilities and shareholders' equity			**260,282**	**263,221**
1 Contingent liabilities				
a) contingent liabilities on rediscounted				
bills of exchange credited to borrowers		—		—
b) liabilities under guarantees and				
indemnity agreements		26,097		36,458
c) contingent liabilities on assets pledged				
as collateral for third-party debts		—		—
			26,097	36,458
2 Other commitments				
a) commitments from the sale of assets				
subject to repurchase agreements		—		—
b) placing and underwriting commitments		—		—
c) irrevocable lending commitments		52,750		41,774
			52,750	41,774

Notes to the Annual Financial Statements

Legal basis

UniCredit Bank AG (HVB) is a universal bank with its registered office and principal place of business in Arabellastrasse 12, Munich, Germany. It is entered under HRB 42148 in the B section of the Commercial Register maintained by Munich Local Court. HVB is an affiliated company of UniCredit S.p.A., Milan, Italy (ultimate parent company).

The annual financial statements of UniCredit Bank AG for the 2018 financial year are prepared in accordance with the accounting regulations in the German Commercial Code (Handelsgesetzbuch – HGB), the German Stock Corporation Act (Aktiengesetz – AktG), the German Pfandbrief Act (Pfandbriefgesetz – PfandBG) and the Regulations Governing Disclosures in the Financial Statements of Banks and Similar Financial Institutions (Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute – RechKredV).

HVB is active in all of the sectors served by commercial and mortgage banks.

Accounting, valuation and disclosure

1 Reporting date/period

The amounts shown in the tables and texts below relate to the reporting date of 31 December for disclosures regarding balance sheet items and totals and the period from 1 January to 31 December of the respective year for disclosures regarding the income statement.

2 Consistency

The same accounting and valuation methods have essentially been applied as last year. Changes in accounting and valuation methods as well as disclosure modifications are indicated for the respective items.

UniCredit Luxembourg S.A., Luxembourg, was merged into UniCredit Bank AG with retroactive effect as per 1 July 2018. Effects on account of the lack of comparability with the previous-year figures are stated in the respective item notes.

3 Cash and cash balances

The cash and cash balances (asset item 1) are stated at nominal amounts.

4 Treasury bills and bills of exchange

Treasury bills and other bills (asset item 2) are shown at their cash value, i.e. less any discounted amounts.

5 Loans and receivables with banks and customers

Loans and receivables with banks and customers (asset items 3 and 4) are always stated at the nominal amount plus any accrued interest. Differences between acquisition cost and nominal amount (premiums/discounts) that are attributable to interest are allocated to prepaid expenses or deferred income and taken to the income statement under net interest income in the correct period over the term of the underlying items. Any necessary write-downs and provisions compliant with Section 340f HGB are deducted.

Loans and receivables are valued at the lower of cost or market as stipulated in Section 253 (4) 1 HGB. HVB creates specific loan-loss provisions and accruals to the amount of the anticipated loss for all identifiable exposure to acute counterparty default risk. The expected flow-backs discounted with the original effective interest rate are used when determining the level of write-downs compliant with Section 253 HGB. In the process, various realistic scenarios are estimated whereby the loss in value resulting from the expected value of the credit default losses is weighted by the probability of occurrence for each scenario. Specific loan-loss provisions are reversed once the receivable is classified as irrecoverable and written off. Accruals are reversed as soon as the default risk has ceased.

Country risk is covered by specific loan-loss provisions for loans at risk of default; a distinction is no longer made between the default risk of the borrower and the transfer risk from the borrower to the Bank.

Latent lending risks are covered by global provisions. When assessing domestic latent lending risks, HVB applies the principles of the German tax regulations allowing financial institutions to deduct global provisions. When assessing foreign latent lending risks, HVB similarly applies the principles of the German tax regulations allowing financial institutions to deduct global provisions. The only exception is the calculation of latent lending risks for the Athens branch, where the global provisions are set up on the basis of Greek law (1% of the average volume of loans and receivables with customers).

Like other loans and receivables, mortgage loans are shown at their nominal values. Differences between the nominal amount and the actual amount paid out are included under either prepaid expenses or deferred income, and reversed over the period to which they apply.

The purpose defined at the time of acquisition (Section 247 (1) and (2) HGB) determines the assignment of loans, receivables and securities to the held-for-trading portfolios, the liquidity reserve or investment assets.

The Bank has made use of the option permitted by Section 340f (3) and has included the change in provisions compliant with Section 340f HGB to net the write-downs and impairments for receivables and certain securities as well as additions to provisions for losses on guarantees and indemnities with the write-ups on bad and doubtful debts and on certain securities as well as release of provisions for losses on guarantees and indemnities.

6 Bonds and other fixed-income securities, and equity securities and other variable-yield securities

Investment securities and securities held for liquidity purposes (securities treated neither as held for trading purposes nor as investment securities) are shown under bonds and other fixed-income securities (asset item 5) and equity securities and other variable-yield securities (asset item 6).

We measure investment securities in accordance with the modified lower of cost or market principle compliant with Section 253 (3) 5 HGB, under which impairments are only to be deducted from the acquisition cost if the loss of value is expected to be permanent. In the case of equity instruments, we recognise an impairment loss if the fair value at the reporting date is significantly lower than the carrying amount or if the fair value has fallen below the carrying amount for a long period of time. In the case of debt instruments, on the other hand, an impairment that is likely to be permanent occurs when the issuer of the securities defaults. In the event of a loss of value that is attributable to market prices, we assume that the impairment is only temporary, as these losses will be balanced out again by the due date at the latest.

The recognition of securities held for liquidity purposes was changed in 2018 to amortised cost, taking account of the lower of cost or market principle (Section 253 (4) 1 HGB) at the market value or fair value at the balance sheet date, whichever is lower. The amortisation of the premium and discount was applied retrospectively and offset against the opposing valuation adjustments in net interest income. This ensures comparability with the previous year.

In observance of the lower of cost or market principle, appropriate write-downs are taken to take account of the creditworthiness of the issuer and the liquidity of the financial instrument. Where the reasons for a write-down to the lower of cost or market no longer apply, the write-down is reversed compliant with Section 253 (5) HGB.

Notes to the Annual Financial Statements (Continued)

The Bank sets up portfolio valuation units documented in advance for certain interest-bearing securities, promissory notes (with a carrying amount of €29,613 million (previous year: €31,255 million)) and certain interest rate derivatives hedged against interest rate risk by equivalent hedging derivatives (notably interest rate swaps). The hedge of the dynamic portfolio within the framework of the valuation unit is of unlimited duration; the hedging period of the individual hedging derivatives is always related to the residual maturity of the respective hedged items in the portfolio. The offset changes in the value of the interest-bearing securities amount to an increase of €367 million (previous year: €195 million) for the portfolios whose hedged items encompass securities and promissory notes. The change is largely attributable to the retrospective amortisation of the premiums. The requirements of Section 254 HGB regarding valuation units have been met. The prospective hedging efficiency is documented using the interest rate risk sensitivity analysis based on basis point values (BPV). The changes in value arising from the hedged items and hedges induced from the hedged risk are set against each other and offset within the individual valuation units. Under the net hedge presentation method, no net valuation gain is taken to the income statement; provisions are set up to cover any net loss on the ineffective portion of the changes in the value of the hedge. Any valuation loss arising from the unhedged risk is included in the respective hedged items and hedging derivatives in accordance with the imparity principle.

The Bank makes use of the option permitted by Section 340f (3) HGB to net the write-downs and impairments for receivables and certain securities as well as additions to provisions for losses on guarantees and indemnities with the write-ups on bad and doubtful debts and on certain securities as well as release of provisions for losses on guarantees and indemnities.

7 Held-for-trading portfolio

Compliant with Section 340e (3) HGB, financial instruments held by banks for trading purposes are measured at fair value less a risk discount and recognised in the balance sheet. Any ensuing changes in value and provisions relating to trading transactions are recognised in the income statement under net income from the held-for-trading portfolio. In addition, compliant with Section 340e (4) HGB an amount is allocated to the "Fund for general banking risks" in accordance with Section 340g HGB, and shown in the balance sheet separately. HVB assigns all financial instruments (bonds, equity securities, derivatives, loans and receivables, and liabilities, including delivery obligations arising from short sales of securities) to the held-for-trading portfolio that are acquired and sold with the intention of generating a short-term gain on proprietary trading. This is done to exploit existing or anticipated differences between buying and selling prices or fluctuations in market rates, prices, values or interest rates to generate a trading gain or margin. No changes have been made compared with last year regarding the criteria for assignment to the trading portfolio (definition of the intention to trade). No financial instruments have been reclassified to or from the held-for-trading portfolio. The assets and liabilities that are held for trading are shown separately in the balance sheet (asset item 6a and liability item 3a).

We have determined the fair value of the financial instruments held for trading purposes in accordance with the valuation hierarchy specified in Section 255 (4) HGB. The fair value is normally defined as the amount at which the asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction on the balance sheet date. The market price is used for financial instruments for which there is an active market. Where there is no active market that can be used to determine the market price, the fair value is determined with the aid of generally recognised valuation methods (notably present value and option price models).

The fair values of securities and derivatives are assumed on the basis of either external price sources (such as stock exchanges or other price providers like Reuters) or determined using internal valuation models. For the most part, prices from external sources are used to calculate the fair value of securities. HVB's credit risk is included in the fair value of liabilities held for trading purposes. Derivatives are primarily measured on the basis of valuation models. The parameters for HVB's internal valuation models (such as yield curves, volatilities and spreads) are taken from external sources, and checked for their validity and correctness by the Risk Control unit.

Appropriate adjustments (referred to as fair value adjustments) are made to the fair values calculated in this way in order to take account of further influences on the fair value (such as the liquidity of the financial instrument, closing out costs or model risks when the fair value is calculated using a valuation model). Rating-related default risk in trading-book derivatives is covered by applying suitable valuation adjustments (CVAs and DVAs). Furthermore, funding valuation adjustments (FVAs) were recognised in the income statement for the measurement at fair value of not fully secured derivatives. Apart from unsecured derivatives, this also affects derivatives for which collateral has been provided in favour of the counterparty only.

The main conditions that can influence the amount, timing and certainty of future cash flows from derivatives essentially relate to the following features of derivatives:
- Where the cash flows under derivatives are linked to current market prices or rates, the respective market price or market rate at the payment date determines the amount payable (in the case of interest rate swaps, for instance, the payment of the variable interest rate on the payment date depends on the interest rate fixed on this date, such as Euribor).
- Where the derivatives allow for cash settlement at fair value on the due date, the amount payable is calculated as the difference between the price set when the derivative was entered into and the current market price (in the case of a foreign exchange forward with cash settlement, for instance, the difference between the agreed forward price and the current price is payable).
- In the case of American options, unlike European options, the option buyer has the right to exercise the option at any time during the term of the option.
- Where it is possible to terminate a derivative prior to maturity (as is the case with all exchange-traded derivatives, for instance), the derivative may be terminated by paying the current fair value.
- The counterparty's credit rating and solvency are a further important consideration. If the counterparty becomes insolvent, it can no longer be expected that it will meet its obligations arising from the derivative.

These features may be included in the terms agreed for any type of derivative. Thus it is possible that foreign exchange, interest rate and equity options may be exercised at any time (American option) or only at maturity (European option). It is generally possible to determine the size of the derivative positions entered into from the respective nominal amounts.

In order to obtain the final figures disclosed in the balance sheet for the held-for-trading portfolios, the risk discount required by Section 340e (3) 1 HGB is deducted from the fair values of the financial instruments held for trading purposes determined in this way. Including the risk discount in net trading income reflects the risk of possible price losses up until the earliest possible date of realisation of unrealised valuation gains or losses. In accordance with the relevant regulatory rules, the risk discount is determined on the basis of the internal risk management system using an accounting value-at-risk approach (holding period of ten days; confidence level: 99%; 2-year observation period). We have deducted the risk discount determined for the entire held-for-trading portfolio from the assets held for trading purposes in the balance sheet (asset item 6a) and recognised it in the net income from the held-for-trading portfolio.

Notes to the Annual Financial Statements (Continued)

HVB employs derivative financial instruments both for trading purposes and to hedge balance sheet items. The vast majority are trading derivatives which are disclosed at their fair value in the held-for-trading portfolio items on the assets side and liabilities side of the balance sheet and taken to the income statement.

With interest rate swaps, the two opposing cash flows from interest are aggregated for each swap contract and disclosed net as interest income or interest expense. In the case of derivative portfolios purely held for trading, we disclose the netted interest payments in the net trading income.

Derivatives that are not associated with the held-for-trading portfolio continue to be treated in accordance with the principle of the non-recognition of pending transactions. Only cash flows that have started, such as option premiums and accrued upfront payments on unvalued banking book derivatives, are disclosed under other assets (asset item 12), other liabilities (liability item 5) and deferred income or prepaid expenses (asset item 13 and liability item 6). Irrespective of whether it results from the hedged item or the hedging derivative, any net loss arising from valuation units set up for the netting (compensation) of the change in value of the hedged item and hedging derivative associated with the hedged risk is to be taken to the income statement as a provision for valuation units. In accordance with German GAAP, any change in fair value arising from the unhedged risk in both the hedged item and the hedging instrument is recognised on a gross basis in compliance with individual valuation under the imparity principle.

The Bank takes out the credit derivatives not held for trading exclusively as a protection buyer. In this context, the credit derivatives serve to hedge the risk of default of other transactions entered into by the Bank. The credit derivatives not held for trading are therefore accounted for according to the principles relating to loan collateral.

The interest rate derivatives employed for asset/liability management of the general interest rate risk associated with receivables and liabilities in the banking book are measured as part of the aggregate interest position. Please refer to the Risk Report for a discussion of the management of the overall interest rate position.

The few remaining standalone derivatives outside the trading book are valued in accordance with the imparity principle. A provision for anticipated losses on pending transactions is set up for unrealised valuation losses; unrealised valuation gains are not recognised.

Derivatives held for trading purposes that were concluded under master agreements together with a credit support annex allowing for daily exchange of collateral are netted for each counterparty in the balance sheet. Such netting encompasses both the carrying amount of the derivatives and the collateral provided for each counterparty.

Extensive information about HVB's derivative financial instruments, complete with detailed breakdowns by product and risk type, and showing the nominal amounts, fair values and the counterparty structure, is included in the note to the annual financial statements regarding derivative financial instruments.

The Risk Report contains a detailed overview of the Bank's derivative transactions.

8 Participating interests and shares in affiliated companies

Participating interests and shares in affiliated companies (asset items 7 and 8) are shown at the lower of acquisition cost or – if there is a permanent impairment – fair value prevailing at the balance sheet date.

Where HVB holds a controlling interest, profits and losses of partnerships as well as dividends paid by limited or incorporated companies are recognised in the year in which they arise, provided the relevant legal conditions are met.

Compliant with Section 340c (2) 1 HGB, HVB nets income from write-ups on participating interests, shares in affiliated companies and investment securities with write-downs on these investments. In addition, the expense and income items which reflect the results from the disposal of financial assets are included in this netting process in accordance with the option permitted by Section 340c (2) 2 HGB.

9 Intangible assets

Goodwill and software are disclosed under intangible assets (asset item 10).

Purchased goodwill is calculated by setting the acquisition cost of a company against the value of the company's individual assets, less the liabilities at the time of acquisition. It is normally amortised over the standard useful life assumed by law. An impairment is recognised in the event of a permanent loss of value. Should the reasons for the impairment no longer apply, the lower amount recognised for derivative goodwill is retained.

Purchased intangible assets are capitalised at cost and amortised over their expected useful life of three to five years (software) or a longer contractual useful life of up to ten years (other intangible assets). Impairments are recognised where necessary. HVB has not made use of the capitalisation option for internally generated intangible assets classified as non-current.

10 Property, plant and equipment

Property, plant and equipment (asset item 11) is valued at acquisition or production cost, less – insofar as the assets are depreciable – depreciation using the straight-line method based on their expected useful life. In such cases, the useful lives are closely related to the depreciation rules specified in Section 7 of the German Income Tax Act (Einkommensteuergesetz – EStG) in conjunction with the depreciation tables for equipment. Pro rata depreciation is taken to the income statement for additions to furniture and office equipment in the year of acquisition.

Low-value assets with acquisition costs of up to €250 (until 31 December 2017: €150) are fully expensed in the year of acquisition and shown as additions and disposals in the analysis of non-current assets. We set up a collective item for all items of property, plant and equipment with acquisition costs of between €250 and €1,000 (pool depreciation in accordance with Section 6 (2a) EStG, new version), one-fifth of which we reverse in the financial year of creation and each of the following four years in the income statement.

11 Liabilities

Liabilities (liability items 1 to 3, 8 and 9) are stated at the amount repayable plus accrued interest. Differences between the amount repayable and the amount disbursed (premiums/discounts) that are attributable to interest are allocated to prepaid expenses or deferred income, and reversed under net interest income in the correct accounting period. Liabilities without current interest payments (zero-coupon bonds) are stated at their present value calculated using a constant discount rate over the relevant terms.

Notes to the Annual Financial Statements (Continued)

12 Provisions

In accordance with the principles of sound commercial judgement, we assess provisions for taxes, uncertain liabilities and anticipated losses on pending transactions (liability item 7) at the amount repayable, taking into account anticipated future price and cost increases. As a basic principle, provisions falling due in more than one year are discounted using the average market rate of the past seven financial years determined and published by Deutsche Bundesbank as appropriate for the respective maturities.

HVB offers its employees various types of company pension plans. To fund the company pension plans, HVB has covered its pension commitments largely with plan assets managed as external trustee assets with limited access. These plan assets are set against the liabilities arising from pension commitments or similar long-term commitments. If the plan assets of the pension funds, pension guarantee associations or retirement benefit corporations in question do not cover the amount of the equivalent pension commitments payable, HVB recognises a provision for pension funds and similar obligations in the amount of the shortfall. If the fair value of the plan assets exceeds the commitments, the difference is recognised as the excess of plan assets over pension liabilities.

We measure payment obligations arising from pension commitments at the amount payable calculated using the projected unit credit method on the basis of biometric probabilities. Anticipated future salary and pension increases are taken into account when measuring the pension commitment. Insofar as the amount of the pension commitments is determined exclusively by the fair value of securities, we recognise provisions for this at the fair value of these securities where it exceeds a guaranteed minimum amount. HVB has made use of the option to employ the average market rate determined and published by Deutsche Bundesbank as the discount rate for an assumed residual maturity of 15 years.

The German Act Implementing the Directive on Credit Agreements Relating to Residential Immovable Property and Amending Provisions of Commercial Law enacted in 2016 changed the specified discount rate used in discounting provisions for pension obligations from a seven-year average to a ten-year average. The difference occurring in every financial year between the valuation of the provision applying the corresponding average market rate from the previous ten financial years and applying the corresponding average market rate from the previous seven financial years is subject to a ban on distribution.

	2018	2017
Discount rate (10-annual average)	3.21%	3.68%
Discount rate (7-annual average)	2.32%	2.80%
Pension trend	1.70%	1.60%
Anticipated wage and salary increases	1.50%	1.50%
Career trend	0.50%	0.50%
Reduction of the probabilities based on the modified		
Heubeck 2018 G (previous year: 2005 G) tables to		
Mortality		
Men	80%	75%
Women	95%	90%
Probability of disability		
Men	80%	80%
Women	80%	80%

Income and expenses arising from the compounding and discounting of provisions for pensions are included in other operating income less other operating expenses. However, the current service cost accruing during the period and the effects arising from changed assumptions regarding the wage, salary and pension trend and biometric probabilities are disclosed under payroll costs. The same principles apply for the impact on earnings arising from the change in the group of beneficiaries and the change in provisions for pensions in connection with company restructuring activities. Similarly, the impact on earnings of the change in the discount rate is allocated to payroll costs.

Furthermore, the revised version of IDW RS BFA 3 requires the Bank to check whether it has incurred a loss on the aggregate holding of interest-bearing transactions in the banking book. The Bank applies the net present value approach to ascertain whether there are any circumstances beyond the individual valuation that had already occurred in economic terms at the reporting date that would lead to losses in the future. In this instance, it would be necessary to set up a provision for anticipated losses on pending transactions to ensure loss-free valuation in the banking book. To do this, the cash flows from the interest-bearing transactions in the banking book are discounted on the basis of the market interest rates at the reporting date and set against their carrying amounts using the net present value approach. All on- and off-balance-sheet, interest-bearing financial instruments outside of the held-for-trading portfolio are included in this process. All costs to be incurred in connection with the interest-bearing transactions such as risk costs, administration costs for handling the transactions through to their maturity, funding costs and so on are taken into account for discounting. The contractual cash flows are normally used as the basis; appropriate assumptions regarding the anticipated utilisation are only made and hence an economic maturity used as the basis for financial instruments with no fixed maturity (such as demand and savings deposits) in compliance with the internal risk management rules. The present values calculated in this way are set against the carrying amounts; derivatives concluded to hedge interest rate risk in the banking book are recognised at their fair value and generally set against a carrying amount of zero as they are not carried as general hedging derivatives individually in the banking book. A provision for anticipated losses on pending transactions needs to be set up to cover any shortfall between the present value determined in this way and the carrying amount. In this context, positive differences on interest-bearing transactions may not be offset against negative differences unless the transactions concerned are controlled together in internal interest rate risk management.

13 Plan assets

Assets serving exclusively to settle pension commitments or similar long-term commitments, and to which all other creditors do not have recourse (plan assets), are measured at fair value and offset against the underlying commitment.

If the offsetting results in an excess of commitments over plan assets, we recognise a provision for pensions and similar commitments (liability item 7) to this amount. If the value of the assets exceeds the commitments, the amount is recognised under excess of plan assets over pension liabilities (asset item 15).

The plan assets consist mainly of investment fund shares that are recognised at the current redemption price (fair value). Income and expenses arising from plan assets to be offset are shown in other operating income less other operating expenses.

Compliant with Section 8a of the German Semi-Retirement Act (Altersteilzeitgesetz – AltTZG), employee credits for semi-retirement are secured by pledging securities to the trustee.

Notes to the Annual Financial Statements (Continued)

14 Deferred tax assets and liabilities

Compliant with Section 274 HGB, deferred tax items are determined for temporary differences between the carrying amount of an asset, liability or deferred item shown in the commercial balance sheet and the corresponding amount disclosed for tax reporting purposes as well as for tax loss carryforwards and tax credits. German corporations are normally charged a corporate income tax rate of 15%, irrespective of any dividend distribution. Deferred taxes are measured using the uniform corporate income tax rate of 15.8%, including the solidarity surcharge, and the municipal trade tax dependent upon the applicable municipal trade tax multiplier. At HVB, this results in an overall valuation rate for the domestic portion of deferred taxes of 31.4%. The respective local tax rates are applied analogously for the foreign establishments. Compliant with Section 274 (1) 2 HGB, the deferred tax assets involved have not been recognised on account of an aggregate future reduction in tax. This results mainly from tax valuation reservations regarding general provisions and held-for-trading portfolios as well as tax loss carryforwards.

15 Foreign currencies

Amounts in foreign currency are translated in accordance with the principles set forth in Section 340h and Section 256a HGB. As a result, assets and liabilities denominated in foreign currency and spot transactions outstanding at the balance sheet date are always converted into euros using the mean spot rate applicable at the balance sheet date. The foreign currency positions in the portfolio not held for trading that are concluded in each currency are transferred to the held-for-trading portfolio on a daily basis under a standard system of currency risk management that is applicable across the Bank as a whole. The translation gains on the foreign currency positions managed in the held-for-trading portfolio are recognised at fair value in the income statement in accordance with the valuation methods applicable to the held-for-trading portfolio (Section 340e (3) 1 HGB). Consequently, the entire net income from FX trading is disclosed under net income from the held-for-trading portfolio in the income statement. On the other hand, investment securities denominated in foreign currency that are not specifically covered in the same currency and are not transferred to the held-for-trading portfolio as part of currency risk management applicable throughout the Bank are carried at their historical cost. Outstanding forward transactions are translated using the forward rate effective at the balance sheet date.

Notes to the Income Statement

The condensed income statement is shown with the Management Report.

16 Breakdown of income by region

The following table shows a breakdown by region of:
– interest income
– current income from equity securities and other variable-yield securities, participating interests and shares in affiliated companies
– fees and commissions receivable
– net income from the held-for-trading portfolio and
– other operating income

(€ millions)

	2018	2017
Total income	**5,720**	**6,308**
Germany	4,580	4,945
Italy	170	509
United Kingdom	397	502
Rest of Europe	184	52
Americas	288	247
Asia	101	53

17 Net interest income

(€ millions)

	2018	2017
Net interest income	**2,757**	**2,807**
Interest income from		
lending and money market transactions	3,103	2,981
including: netted positive interest from borrowings	154	143
fixed-income securities and government-inscribed debt	234	420
Current income from equity securities and other variable-yield securities, participating		
interests and shares in affiliated companies	425	502
Income from profit-pooling and profit-and-loss-transfer agreements	138	64
Interest expenses	1,143	1,160
including: netted negative interest from borrowings	263	246

Negative interest mainly relates to securities repurchase agreements, overnight deposits and forward transactions with banks and institutional investors.

The amounts disclosed under interest income/expense for negative interest in the previous year have been adjusted in the reporting year.

The interest expense arising from the compounding of provisions amounts to €3 million (previous year: €3 million).

Notes to the Income Statement (Continued)

18 Services performed for third parties
HVB performed significant services for third parties notably in portfolio, asset and trust-loan management, in the brokerage of insurance, savings and loan contracts and investment funds, in investment and securities commission activities, and in the handling of payments.

19 Net income from the held-for-trading portfolio
The net income from the held-for-trading portfolio (net trading income) of €345 million (previous year: €652 million) includes the offset income and expenses arising from transactions involving financial instruments held for trading purposes, complete with the full net income from FX operations. Also carried here are certain fees and commissions in connection with transactions involving financial instruments held for proprietary trading purposes and trading with precious metals. We carry the current interest income/expense resulting from held-for-trading portfolios (so-called trading-induced interest) as well as dividend income in net interest income and in current income rather than in net trading income in accordance with our internal management.

20 Breakdown of other operating income and expenses
Other operating income primarily includes the following:
– income from the reversal of provisions other than provisions for lending and securities operations (€162 million, previous year: €177 million),
– cross-charged payroll costs and cost of materials (€66 million, previous year: €65 million) and
– the recognition of income from services performed in earlier years (€16 million, previous year: €11 million).

Other operating expenses primarily include the following:
– additions to provisions other than provisions for lending and securities operations (€929 million, previous year: €44 million),
– expenses of €7 million (previous year: €19 million) arising from the compounding and discounting of other provisions in the non-lending business,
– expenses of €6 million (previous year: €4 million) related to other periods and
– compensation and ex gratia payments (€6 million, previous year: €13 million).

21 Expenses from absorbed losses
In the 2018 financial year, there was an expense of €6 million (previous year: €– million) from an absorbed loss in other accounting periods.

22 Extraordinary income/expenses
In the reporting year, this item includes a gain of €496 million on the merger of UniCredit Luxembourg S.A., Luxembourg, into UniCredit Bank AG in July 2018.

In the course of the introduction of the German Accounting Law Modernisation Act (Bilanzrechtsmodernisierungsgesetz – BilMoG) in 2010, HVB exercised the option to aggregate the amount allocable to the provisions for pensions in annual instalments of at least one-fifteenth in every financial year up to 31 December 2024. The amount of €130 million still outstanding from the omitted transitional allocation was fully written up through the income statement in the 2017 financial year and is contained in extraordinary expenses.

23 Taxes on income
The income from current taxes on income of €8 million includes a net tax income of €118 million from earlier years.

24 Net income
The profit available for distribution amounts to €520 million. We will propose to the Shareholders' Meeting that a dividend of €520 million be paid to UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a dividend of around €0.65 per share after around €1.62 in the 2017 financial year. In accordance with a resolution adopted by the Shareholders' Meeting on 11 June 2018, the profit available for distribution of €1,300 million reported in the previous year was distributed to UniCredit.

Notes to the Balance Sheet

25 Breakdown by maturity of selected asset items

(€ millions)

		2018	2017
A 3 b)	Other loans and receivables with banks		
	with residual maturity of less than 3 months	14,465	9,452
	at least 3 months but less than 1 year	7,151	11,530
	at least 1 year but less than 5 years	1,821	5,977
	5 years or more	217	737
A 4	Loans and receivables with customers		
	with residual maturity of less than 3 months	15,994	9,704
	at least 3 months but less than 1 year	8,503	7,415
	at least 1 year but less than 5 years	41,018	28,965
	5 years or more	40,810	38,539
	No fixed maturity	9,054	8,579
A 5	Bonds and other fixed-income securities, amounts due in the following year	9,157	10,452

26 Breakdown by maturity of selected liability items

(€ millions)

		2018	2017
L 1	Deposits from banks		
L 1b)	with agreed maturity dates or periods of notice		
	with residual maturity of less than 3 months	23,410	23,793
	at least 3 months but less than 1 year	4,384	5,948
	at least 1 year but less than 5 years	18,446	17,956
	5 years or more	5,300	5,709
L 2	Deposits from customers		
L 2 ab)	savings deposits with agreed maturity dates of more than 3 months		
	with residual maturity of less than 3 months	2	6
	at least 3 months but less than 1 year	4	13
	at least 1 year but less than 5 years	76	40
	5 years or more	—	—
L 2 b)	registered Mortgage Pfandbriefs in issue		
L 2 c)	registered Public Pfandbriefs in issue		
L 2 db)	other debts with agreed maturity dates or periods of notice		
	with residual maturity of less than 3 months	13,794	18,119
	at least 3 months but less than 1 year	7,289	10,398
	at least 1 year but less than 5 years	9,443	7,395
	5 years or more	7,255	8,158
L 3	Debt securities in issue		
L 3 a)	Bonds, amounts due in following year	3,693	2,718
L 3 b)	other debt securities in issue		
	with residual maturity of less than 3 months	—	3
	at least 3 months but less than 1 year	—	—
	at least 1 year but less than 5 years	—	—
	5 years or more	—	—

Notes to the Balance Sheet (Continued)

27 Amounts receivable from and payable to affiliates and companies in which participating interests are held

(€ millions)

	2018		2017	
	AFFILIATES	PARTICIPATING INTERESTS	AFFILIATES	PARTICIPATING INTERESTS
Loans and receivables with banks	4,216	142	14,021	184
of which: UniCredit S.p.A.	2,871	—	3,217	—
Loans and receivables with customers	2,256	1,618	2,039	508
Bonds and other fixed-income securities	3	6,674	3	5,703
of which: UniCredit S.p.A.	—	—	—	—
Deposits from banks	3,005	86	9,456	109
of which: UniCredit S.p.A.	822	—	5,749	—
Deposits from customers	760	2,655	638	447
Debt securities in issue	1,000	—	125	—
of which: UniCredit S.p.A.	1,000	—	—	—
Subordinated liabilities	469	—	463	—

There have been a number of transactions involving UniCredit S.p.A. and other UniCredit group companies since the integration of HVB into the UniCredit group of companies.

In its role as centre of competence for markets and investment banking for the entire UniCredit group, HVB acts as counterparty for derivative transactions conducted by UniCredit companies. For the most part, this involves hedge derivatives of UniCredit group companies that are externalised on the market by HVB.

28 Trust business

(€ millions)

	2018	2017
Trust assets	**4**	**4**
Loans and receivables with banks	—	—
Loans and receivables with customers	4	4
Equity securities and other variable-yield securities	—	—
Participating interests	—	—
Other assets	—	—
Trust liabilities	**4**	**4**
Deposits from banks	4	4
Deposits from customers	—	—
Debt securities in issue	—	—
Other liabilities	—	—

There were no significant changes in trustee activities compared with last year.

29 Foreign-currency assets and liabilities

(€ millions)

	2018	2017
Assets	**46,714**	**39,923**
Cash and cash balances	4,171	2,266
Treasury bills and other bills eligible for refinancing with central banks	—	4
Loans and receivables with banks	4,193	3,550
Loans and receivables with customers	17,878	14,386
Bonds and other fixed-income securities	5,780	3,190
Equity securities and other variable-yield securities	—	—
Held-for-trading portfolio (assets held for trading purposes)	14,507	16,350
Participating interests	8	8
Shares in affiliated companies	79	76
Trust assets	—	—
Intangible assets	—	—
Property, plant and equipment	3	4
Other assets	91	83
Prepaid expenses	4	6
Liabilities	**33,360**	**34,512**
Deposits from banks	10,104	11,257
Deposits from customers	10,065	10,202
Debt securities in issue	338	2
Held-for-trading portfolio (liabilities held for trading purposes)	11,174	12,319
Trust liabilities	—	—
Other liabilities	132	129
Deferred income	75	43
Provisions	1,317	410
Subordinated liabilities	155	150

The amounts shown represent the euro equivalents of all currencies.

30 Subordinated asset items

(€ millions)

	2018	2017
Subordinated asset items	**2,629**	**2,398**
Loans and receivables with banks	—	320
Loans and receivables with customers	33	36
Bonds and other fixed-income securities	2,449	1,856
Equity securities and other variable-yield securities	—	—
Held-for-trading portfolio	147	186

Notes to the Balance Sheet (Continued)

31 Marketable debt and investments

The listed and unlisted marketable securities included in the respective balance sheet items break down as follows:

(€ millions)

	2018			2017		
	TOTAL MARKETABLE SECURITIES	OF WHICH: LISTED	OF WHICH: UNLISTED	TOTAL MARKETABLE SECURITIES	OF WHICH: LISTED	OF WHICH: UNLISTED
Bonds and other fixed-income securities	51,966	39,078	12,888	48,695	39,497	9,198
Equity securities and other						
variable-yield securities	26	—	26	76	—	76
Held-for-trading portfolio	21,646	18,463	3,183	30,734	26,143	4,591
Participating interests	—	—	—	—	—	—
Shares in affiliated companies	—	—	—	—	—	—

Non-current marketable securities contain financial instruments carried at an amount higher than their fair value.

(€ millions)

	2018		2017	
	CARRYING AMOUNT	FAIR VALUE	CARRYING AMOUNT	FAIR VALUE
Non-current securities	**5,818**	**5,762**	**2,888**	**2,857**
Bonds and other fixed-income securities	5,818	5,762	2,888	2,857
Equity securities and other variable-yield securities	—	—	—	—

Given the development of interest and rating risks, we do not believe that these securities are permanently impaired.

32 Held-for-trading portfolio

The following table shows the breakdown of assets held for trading purposes (asset item 6a) by financial instruments:

(€ millions)

	2018	2017
Assets held for trading	**42,304**	**49,875**
Derivative financial instruments (positive fair values)	10,864	11,198
Loans and receivables	2,778	4,357
Bonds and other fixed-income securities	13,266	16,163
Equity securities and other variable-yield securities	10,060	16,129
Other assets	5,354	2,052
Less risk discount (for entire portfolio of assets held for trading purposes)	(18)	(24)

The following table shows the breakdown of liabilities held for trading purposes (liability item 3a) by financial instruments:

(€ millions)

	2018	2017
Liabilities held for trading	**24,707**	**27,258**
Derivative financial instruments (negative fair values)	7,006	7,590
Liabilities (including delivery obligations arising from short sales of securities)	17,701	19,668

Derivatives held for trading purposes that were concluded under master agreements together with a credit support annex allowing for daily exchange of collateral were netted for each counterparty in the balance sheet. The netting for each counterparty encompasses both the carrying amount of the derivatives and the collateral provided. This involved netting positive fair values of €32.9 billion (previous year: €32.6 billion) with negative fair values of €33.5 billion (previous year: €33.7 billion) on derivatives held for trading with the associated receivables (€7.9 billion, previous year: €7.9 billion) and liabilities (€8.2 billion, previous year: €6.9 billion) from collateral provided.

33 Investment funds

The following table contains information regarding shares in investment funds compliant with Section 285 No. 26 HGB for which the Bank's holding exceeds 10% of the total number of shares:

(€ millions)

	2018				2017			
	CARRYING AMOUNT	FAIR VALUE	DIFFERENCE CARRYING AMOUNT/ FAIR VALUE	DIVIDEND PAYMENTS	CARRYING AMOUNT	FAIR VALUE	DIFFERENCE CARRYING AMOUNT/ FAIR VALUE	DIVIDEND PAYMENTS
Total investment funds	**717**	**720**	**3**	**5.6**	**1,194**	**1,199**	**5**	**4.1**
Equity funds	176	176	—	—	214	214	—	—
Money market funds and								
near-money market funds	—	—	—	—	20	20	—	—
Mixed funds	183	186	3	2.9	455	460	5	0.8
Index funds	109	109	—	0.5	189	189	—	0.1
Bond funds	171	171	—	0.4	173	173	—	1.0
Funds of funds	78	78	—	1.8	143	143	—	2.2

In addition, the Bank holds all the shares in the "European-Office-Fonds" property special purpose entity, which is fully consolidated in the Bank's consolidated financial statements in accordance with IFRS 10.

Under Section 246 (2) HGB, assets to which all other creditors do not have access and which serve exclusively to settle liabilities arising from pension commitments or similar long-term commitments must be offset against these liabilities. Where these assets represent shares in investment funds, they are not shown in this table.

The shares listed in this table are held in either the Bank's held-for-trading portfolio or its liquidity reserve. Where necessary, the holdings in the liquidity reserve are always written down to the lower fair value.

In the case of the information regarding the dividend payments, it should be noted that the positions included in the table frequently represent investment funds that reinvest dividends in themselves. Consequently, the dividend payments shown in the table serve only as a limited indicator for the performance of the investment funds.

There are no indications of a restriction on daily return for the shares listed here.

Notes to the Balance Sheet (Continued)

34 Analysis of non-current assets

(€ millions)

	INTANGIBLE ASSETS				PROPERTY, PLANT AND EQUIPMENT			OTHER NON-CURRENT ASSETS
	SOFTWARE	DOWN-PAYMENTS	OTHER INTANGIBLE ASSETS	TOTAL	LAND AND BUILDINGS	FURNITURE AND OFFICE EQUIPMENT	TOTAL	
Acquisition/Production costs								
Balance at 1/1	508	1	—	509	188	218	406	21
Additions from merger	8	—	—	8	102	10	112	—
Additions	2	—	—	2	—	2	2	—
Disposals	2	—	—	2	1	5	6	—
Reclassifications[1]	1	(1)	—	—	—	2	2	—
Post-capitalization	—	—	—	—	—	—	—	—
Balance at 31/12	517	—	—	517	289	227	516	21
Depreciation/Amortisation								
Balance at 1/1	499	—	—	499	105	157	262	—
Additions from merger	7	—	—	7	54	8	62	—
Additions	7	—	—	7	7	12	19	—
thereof non-scheduled	1	—	—	1	1	1	2	—
Disposals	2	—	—	2	1	4	5	—
Reclassifications[1]	—	—	—	—	—	2	2	—
Write-ups	—	—	—	—	5	—	5	—
Balance at 31/12	511	—	—	511	160	175	335	—
Net Book Value								
Balance at 1/1	9	1	—	10	83	61	144	21
Balance at 31/12	6	—	—	6	129	52	181	21

1 Including changes in value due to currency translation.

The carrying amount of the land and buildings used for the Bank's own purposes amounts to €108 million (previous year: €83 million) at 31 December 2018.

In connection with the merger of UniCredit Luxembourg S.A., Luxembourg, into UniCredit Bank AG effective as of 1 July 2018, the non-current assets, consisting of intangible assets and property, plant and equipment, from the closing balance sheet of the transferring entity were transferred at their carrying amounts to the acquiring entity. In the analysis of non-current assets, this is presented within historical acquisition/production cost and accumulated depreciation/amortisation in the "Additions from merger" lines. This means that the "Land and buildings" column contains for the first time a property that is not used by the Bank in its own operations. We changed the column's designation accordingly.

(€ millions)

	ACQUISITION COST	CHANGES +/–[1]	NET BOOK VALUE 31/12/2018	NET BOOK VALUE 31/12/2017
Participating interests	190	(95)	95	89
Shares in affiliated companies	1,764	(167)	1,597	2,389
Investment securities	9,698	1,684	11,382	9,698

1 Use has been made of the possibility of combining amounts allowed by Section 34 (3) RechKredV.

35 Other assets

The following table shows the main items included in other assets:

(€ millions)

	2018	2017
Claims to dividends from affiliated companies	191	160
Claims to tax reimbursements	173	135
thereof:		
Claims arising from income tax	156	109
Claims arising from non-income tax	17	26
Proportion of income from commission/interest not yet received	121	76
Proportion of income from portfolio fees	37	29
Trade debtors	36	20
Capital investments with life insurers	26	25
Works of art	21	21

36 Prepaid expenses

The prepaid expenses arising from issuing and lending operations include the following:

(€ millions)

	2018	2017
Discounts on funds borrowed	32	36
Premiums on amounts receivable	1	1

37 Excess of plan assets over pension liabilities

An amount payable of €1,534 million arising from liabilities due to pension and similar commitments was set against offsetting plan assets with a fair value of €1,657 million. The excess of assets over commitments is disclosed in the balance sheet as the excess of plan assets over pension liabilities (€120 million). The acquisition cost of the offsetting plan assets totalled €1,462 million. The assets involved are essentially fund shares, subordinated bonds, investments, and cash and cash equivalents.

(€ millions)

	2018	2017
Amount payable for offset pension and similar commitments (average interest rate 7 years)	1,837	1,588
Amount payable for offset pension commitments (average interest rate 10 years)	1,534	1,357
Fair value of the offsetting plan assets	1,657	1,645
Omitted transitional allocation	—	—
Excess of plan assets over the commitments, including the shortfall	120	288
Acquisition cost of the offsetting plan assets	1,462	1,444

The following table shows the surplus from pension commitments contained in other operating expenses:

(€ millions)

	2018	2017
Surplus from pension commitments	**(31)**	**(5)**
Income from plan assets used to offset pension and similar commitments	35	40
Expense component of the change in provisions for pensions and similar commitments	39	45
Expenses from plan assets used to offset pension and similar commitments	27	—

Notes to the Balance Sheet (Continued)

38 Assets assigned or pledged as security for own liabilities

Assets were assigned or pledged as security for the following liabilities:

(€ millions)

	2018	2017
Assets assigned or pledged as security for own liabilities	**40,105**	**40,216**
Deposits from banks	32,383	27,177
Deposits from customers	7,722	13,039

In addition, collateral is pledged to the ECB, irrespective of whether this is actually used to borrow funds or not. At the reporting date, the volume of pledged collateral amounted to €15.2 billion (previous year: €16.3 billion).

Examples of own liabilities for which HVB provides collateral are special credit facilities provided by KfW and similar institutions, which the Bank has passed on as loans in compliance with their conditions.

As a seller under repurchase agreements, HVB has transferred assets with a book value of €27.2 billion (previous year: €29.9 billion) to its funding partners. The total includes €7.8 billion (previous year: €7.2 billion) relating to own securities holdings. These securities continue to be disclosed as HVB's assets. The consideration received in return is stated under liabilities. They comprise mainly international money market transactions.

At the same time, further assets totalling €13.1 billion (previous year: €12.6 billion) were pledged as security for securities lending transactions and exchange traded derivatives. In setting up a contractual trust arrangement (CTA), HVB transferred collateral to the asset administrator to secure pension and semi-retirement obligations. Pursuant to Section 8a AltTZG, employers are required to secure credit exceeding three times the amount of normal earnings, including the associated employer's contribution to the total social security charge, against the risk of insolvency. Recognised provisions and obligations to cover the costs of other group companies are not considered suitable means of security.

39 Other liabilities

The following table shows the main items included in other liabilities:

(€ millions)

	2018	2017
Amounts owed to special purpose entities	6,640	5,657
Obligations arising from debts assumed	175	339
Other amounts owed to employees	76	90
Taxes payable	39	45
Trading book valuation reserves	11	12
Liabilities from losses absorbed from subsidiaries	2	2
Amounts yet to be distributed from outplacements, etc.	1	7

The true sale transactions included under amounts owed to special purpose entities were carried out with a view to using the securities generated as collateral for repurchase agreements with the ECB. The underlying receivables are still recognised by HVB. All tranches are retained by the Bank, meaning that there is no corresponding reduction in risk-weighted assets.

The obligations arising from debts assumed essentially reflect obligations arising from the liquidation of media funds.

The taxes payable include liabilities from other taxes of €39 million (previous year: €42 million).

40 Deferred income

Discounts on amounts receivable shown at nominal value totalled €12 million (previous year: €13 million). Furthermore, other deferred income includes accrued commissions of €12 million (previous year: €13 million), processing fees of €91 million (previous year: €64 million) and interest of €130 million (previous year: €42 million) collected in advance.

Notes to the Balance Sheet (Continued)

41 Provisions

Other provisions include the following items:

(€ millions)

	2018	2017
Total other provisions	**3,051**	**2,569**
Provisions for losses on guarantees and indemnities	178	228
Anticipated losses on pending transactions	—	—
Provisions for uncertain liabilities	2,873	2,341
thereof:		
Legal risks	1,512	603
Payments to employees	344	334
Restructuring	263	356
Valuation units	185	372
Payments for early retirement, semi-retirement, etc.	182	173
Anniversary bonus payments	30	34
Bonuses on saving plans	4	11
Other	353	458

The provisions for legal risks shown under provisions for uncertain liabilities contain provisions for litigation fees and damages payments. The other provisions include provisions for dismantling obligations, among other things.

42 Subordinated liabilities

This item includes accrued interest of €3 million (previous year: €3 million). At the reporting date, interest expenses on subordinated liabilities amounted to €25 million (previous year: €25 million).

The borrower cannot be obliged to make early repayment in the case of subordinated liabilities. In the event of insolvency or liquidation, subordinated loans are only repaid after the claims of all primary creditors have been settled. For the purposes of a bank's liable funds as defined under banking supervisory regulations, subordinated liabilities are regarded as supplementary (Tier 2) capital.

On 25 January 2001, HVB issued a subordinated promissory note with a volume of €96 million. This subordinated promissory note matures on 27 January 2031 and bears interest at the 6-month Euribor rate, taking account of a surcharge of 0.65% p.a. for the entire term.

On 28 December 2001, HypoVereinsFinance N.V. (merged into HVB in July 2017) issued a subordinated promissory note with a volume of €60 million. This subordinated promissory note matures on 28 December 2031 and bears interest at the 3-month Euribor rate, taking account of a surcharge of 0.75% p.a. for the entire term.

Shareholders' Equity

43 Analysis of shareholders' equity shown in the balance sheet

(€ millions)

a) Called-up capital		
Subscribed capital		
Balance at 1 January 2018	2,407	
Balance at 31 December 2018		2,407
b) Additional paid-in capital		
Balance at 1 January 2018	9,791	
Balance at 31 December 2018		9,791
c) Retained earnings		
ca) Legal reserve		
Balance at 1 January 2018	—	
Balance at 31 December 2018		—
cb) Reserve for shares in a controlling or majority interest-holding company		
Balance at 1 January 2018	10	
Withdrawal/transfer to the reserve for shares in a controlling or		
majority interest-holding company	—	
Balance at 31 December 2018		10
cc) Reserve set up under the Articles of Association		
Balance at 1 January 2018	—	
Balance at 31 December 2018		—
cd) Other retained earnings		
Balance at 1 January 2018	3,145	
Transfer from the reversal of the reserve for shares in a controlling		
or majority interest-holding company	—	
Withdrawal from retained earnings	—	
Balance at 31 December 2018		3,145
d) Profit available for distribution		
Balance at 1 January 2018	1,300	
Dividend payout of HVB for 2017	(1,300)	
Withdrawal from retained earnings	—	
Net profit 2018	520	
Balance at 31 December 2018		520
Shareholders' equity		
Balance at 31 December 2018		15,873

Shareholders' Equity (Continued)

44 Holdings of HVB stock in excess of 5%

(in %)

	2018	2017
UniCredit S.p.A.	100.0	100.0

Compliant with Section 271 (2) HGB, HVB is an affiliated company of UniCredit S.p.A., Milan, Italy, and is included in the consolidated financial statements of UniCredit, which can be obtained from the Trade and Companies Register in Milan, Italy.

45 Amounts not available for distribution

The measurement at fair value of offsetting plan assets in connection with pension commitments and semi-retirement agreements gives rise to an amount of €195 million (previous year: €200 million). The amount not available for distribution arising from the difference between the valuation of the provisions for pension commitments based on the respective average market rate of the past ten financial years and their valuation based on the respective average market rate of the past seven financial years totalled €300 million as at the reporting date. Freely disposable provisions have been set up to cover the amount not available for distribution.

46 List of shareholdings pursuant to Section 285 No. 11, 11a HGB, Section 340a (4) HGB

A complete list of shareholdings as a constituent part of the notes to the financial statements is given in the section entitled “List of Holdings” in this Annual Report.

Other Information

47 Report on subsequent events (events after the end of the reporting period)

The purchase agreement for the associated company SwanCap Partners GmbH accounted for using the equity method was signed at the end of January 2019.

Ms Beate Dura-Kempf resigned from the Supervisory Board of UniCredit Bank AG as an employee representative with effect from the end of 31 January 2019. For the remaining term of her office, Ms Claudia Richter was appointed to the Supervisory Board as an employee representative by Munich Local Court with effect from 8 February 2019.

On 6 February 2019 UniCredit S.p.A. announced the reorganisation of the Group Senior Management Team of UniCredit S.p.A. This also involves the resignation of Gianni Franco Papa as the General Manager of UniCredit S.p.A. Gianni Franco Papa will also resign as the Chairman of the Supervisory Board of UniCredit Bank AG.

48 Contingent liabilities and other financial commitments

The following table shows the breakdown of contingent liabilities arising from guarantees and indemnity agreements totalling €26,097 million:

(€ millions)

	2018	2017
Guarantees and indemnities	21,388	16,751
Loan guarantees	1,151	16,300
Documentary credits	3,558	3,407
Total	**26,097**	**36,458**
thereof to:		
affiliated companies	2,041	16,925
associated companies	1	1

Irrevocable lending commitments totalling €52,750 million break down as follows:

(€ millions)

	2018	2017
Book credits	46,849	35,918
Mortgage and municipal loans	2,836	3,023
Guarantees	3,065	2,833
Bills of exchange	—	—
Total	**52,750**	**41,774**
thereof to:		
affiliated companies	324	568
associated companies	—	—

Utilisation by the Bank on account of the contingent liabilities and other commitments that it has entered into is possible as part of its banking activities. Thus, every loan is fundamentally granted by utilising a previously made lending commitment that is shown under other commitments. Although utilisation by the Bank under contingent liabilities is not very probable in the case of guarantees it has issued, the possibility cannot be excluded. Utilisation is also the general case with regard to the documentary credits also shown here, as these are employed in the handling of foreign trade payments.

The key factor in this regard is that utilisation by the Bank under its contingent liabilities and other commitments does not generally lead to a loss. Instead, it results in the loan granted being recognised as is the case when a lending commitment is utilised. Provisions for anticipated losses on pending transactions that are required due to commitments to make payouts to defaulting borrowers are set up and deducted from the disclosed contingent liabilities and other commitments.

Other Information (Continued)

As a member of the deposit guarantee scheme in Germany, UniCredit Bank AG is liable in accordance with the current provisions.

HVB has made use of the option to provide up to 15% (previous year: 15%) of the annual contribution to the bank restructuring fund in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 12 of the German Bank Restructuring Fund Act (Restrukturierungsfondsgesetz – RStruktFG). The cash collateral provided in this regard amounted to €64 million in the reporting period (previous year: €48 million).

HVB has made use of the option to provide up to 30% of the annual contribution to the compensation scheme of German banks in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 19 of the Regulation on the Financing of the Compensation Scheme of German Banks (Entschädigungseinrichtungs-Finanzierungsverordnung – EntschFinV). The financial security provided in this regard amounted to €22 million in the reporting year (cumulative amount of the previous year: €15 million).

Legal risks can give rise to losses for HVB, the occurrence of which is greater than improbable but less than probable, and for which no provisions have been set up. Such legal risks may result from negative developments in proceedings under civil law and the tendency for rulings to be made in favour of consumers or customers. The assessment of the risk of loss may prove to be too low or too high, depending on the outcome of the proceedings. HVB assumes that it will not be necessary to utilise the vast majority of the contingent liabilities arising from legal risks, meaning that the amounts are not representative of actual future losses. Such contingent liabilities arising from significant legal risks for which an estimate is possible amounted to €63 million at year-end 2018 after €112 million at year-end 2017.

Other financial commitments arising in particular from real estate and IT operations total €773 million (previous year: €759 million). A large part of the total relates to contracts with subsidiaries (€568 million (previous year: €648 million)). The contracts run for standard market periods, and no charges have been put off to future years.

At the reporting date, HVB had pledged securities worth €1,195 million (previous year: €1,531 million) as collateral for transactions with Eurex Frankfurt AG, Frankfurt am Main.

As part of real estate financing and development operations, HVB has assumed rental obligations or issued rental guarantees to make fund constructions more marketable – in particular for lease funds and (closed-end) KG real estate funds. Provisions have been set aside to cover identifiable risks arising from such guarantees.

Commitments for uncalled payments on shares not fully paid up amounted to €29 million in the reporting year (previous year: €33 million), and similar obligations for shares in cooperatives totalled €1 thousand (previous year: €1 thousand). HVB was not liable for any defaults on such calls under Section 22 (3) and Section 24 GmbHG.

Where employees are granted a bonus that is disbursed over a period of several years under their variable compensation arrangements, the expense is to be taken to the income statement over the period on a pro rata basis accordingly. Hence, an expense accrued for the bonus commitments for the years 2013 to 2018 in the reporting period. Especially in the case of the group of employees identified as "risk-takers", the German regulations governing institutions' remuneration systems (Instituts-Vergütungsverordnung) requires the bonus in a financial year to be disbursed over a period of several years. The bonus is granted subject to the proviso that the beneficiaries satisfy specific criteria (in the case of bonuses granted in the form of shares, stock options or deferred cash payments) that comply with both the regulatory requirements and the Bank's own rules. In addition, the bonus is linked to further conditions such as a malus arrangement that ensures that negative contributions to earnings and any compliance violations are taken into account when determining the deferred variable compensation components or when determining the bonus. Provisions totalling €162 million were set aside in the income statement at 31 December 2018 (previous year: €144 million) in connection with bonus commitments. The final amount disbursed may be higher, should the plan conditions be met.

In its function as personally liable partner, HVB had unlimited liability arising from shares in the partnership Bayerischer BankenFonds GbR, Munich, at the reporting date, as was the case in the previous year.

With a Statement of Responsibility dated 21 December 1993, HVB issued an undertaking to the State of Baden-Wuerttemberg (Ministry of Finance) to assume a liquidity provision obligation in the event of the sale, liquidation or bankruptcy of HVB Projekt GmbH.

49 Statement of Responsibility

HVB ensures that, to the extent of its shareholding, the company set forth below is in a position to meet its contractual obligations except in the event of political risks:

Financial companies
UniCredit Leasing GmbH, Hamburg

HVB's commitment arising from the above Statement of Responsibility declines by the extent to which HVB's shareholding decreases in the future with regard to such commitments of the company that did not arise until after HVB's shareholding decreased. Where HVB is no longer a shareholder in the company named above, our commitment arising from the above Statement of Responsibility ends on the date on which our holding ceased with regard to such liabilities of the company that did not arise until our shareholding ceased.

HVB no longer provides a Statement of Responsibility for companies for which a Statement of Responsibility had been provided in earlier annual reports but which no longer appear in the above list. Liabilities of these companies arising before the reduction or cessation of the shareholding are only covered by such Statements of Responsibility that were provided before the reduction or cessation of the shareholding in each case.

50 Auditor's fees

We have exercised the option provided by Section 285 No. 17 HGB and refer to the disclosures regarding the fees paid to the independent auditor made in the section of the consolidated financial statements at 31 December 2018 entitled "Other Information".

51 Off-balance-sheet transactions

Special purpose entities

HVB maintains business relations with a number of special purpose entities that pursue varying business models and hold various different types of assets. HVB's business relations with the special purpose entities are recognised in the financial statements either on or off the balance sheet.

The Bank uses special purpose entities to securitise both the Bank's own receivables and customer receivables. The latter involve commercial paper conduits for which the Bank provides guarantees and liquidity facilities.

In the case of the Bank's own receivables, the special purpose entities mainly serve to procure liquidity. These do not, however, result in the securitised receivables being taken off the books as they involve securitisation transactions with all risks retained to create securities as collateral with central banks. The securitisation of customer receivables is generally accompanied by an improvement in the customer's liquidity situation and a broadening of the funding base, whereby the Bank generates income from the structuring service and the facilities provided. HVB may face economic disadvantages, in particular, should the facilities provided be drawn down.

In addition, there are special purpose entities for which HVB acts solely as an investor, for instance to purchase securities or grant loans. The ensuing risks may lead to write-downs being recognised on the positions involved.

In some instances, HVB controls a special purpose entity from an economic point of view, which entails full consolidation of the special purpose entity in the consolidated financial statements of HVB.

Other Information (Continued)

Revocable credit commitments
HVB has granted its customers credit and liquidity facilities that are callable at any time and are not shown either on or off the balance sheet. The advantage for HVB from this customary, standardised product lies in the possibility of generating additional interest and commission income. This is set against the risk of a deterioration in the financial situation of those customers to whom these credit commitments were made.

Outsourcing of activities
Like other affiliated companies, HVB has outsourced IT activities and activities relating to the settlement of transactions to UniCredit Services S.C.p.A., Milan. The goal is to exploit synergies and make it possible to provide fast, high-quality IT services and to make settlement services available in line with a standard business and operating model.

HVB has outsourced activities in the fields of payments, document management and archiving in Germany and the settlement of securities transactions in Germany and at its Milan branch to external service providers. The purpose of this for HVB is to permanently reduce its operating costs.

52 Regulatory disclosure requirements (Disclosure Report)
HVB has been classified as a significant subsidiary of UniCredit within the meaning of Article 13 (1) of the Capital Requirements Regulation (CRR), making it subject to the scope of the CRR (Article 13 (1) and Part 8 CRR) and certain extended regulatory disclosure requirements in accordance with Section 26a KWG (disclosure under Pillar III).

HVB discloses this information on a standalone basis in the form of a separate disclosure report. This report is produced on an annual basis at 31 December and in addition at each quarter-end during the year and published on the Bank's website under About us > Investor Relations > Reports. Publication for the reporting date at 31 December is scheduled for shortly after publication of the Annual Report. The interim reports should be published shortly after submission of the regulatory COREP report to the supervisory authorities responsible.

The disclosure of the remuneration policy and practices for those categories of staff whose professional activities have a material impact on the Bank's risk profile (known as "risk takers") required by Article 450 CRR in conjunction with section 16 (1) of the German Regulation on the Requirements for the Remuneration Systems of Institutions under Regulatory Law (Institutsvergütungsverordnung – InstitutsVergV) takes the form of a separate report for HVB. This is drawn up once a year at 31 December and published on the Bank's website under About us > Investor Relations > Corporate Governance in the second quarter of the following year.

53 Own funds
Pursuant to Article 72 CRR, for regulatory purposes own funds consists of Tier 1 capital and Tier 2 capital; they amounted to €16,253 million at year-end 2018 (previous year: €16,398 million) based on annual financial statements approved by the Supervisory Board. We have not allocated any unrealised reserves to Tier 2 capital compliant with Section 10 (2b) KWG as applicable until 31 December 2013.

The eligible capital calculated in accordance with Article 4 (1) (71)(b) in conjunction with Article 494 CRR are used primarily to determine thresholds for large exposures and loans to executive board members and for investment limits. It amounted to €16,253 million at year-end 2018 (previous year: €16,398 million).

54 Derivative financial instruments

The following table provides detailed information about the nominal amount and fair values of all derivative transactions and credit derivative transactions of HVB:

(€ millions)

	NOMINAL AMOUNT					FAIR VALUE			
	RESIDUAL MATURITY			TOTAL		POSITIVE		NEGATIVE	
	UP TO 1 YEAR	MORE THAN 1 YEAR UP TO 5 YEARS	MORE THAN 5 YEARS	2018	2017	2018	2017	2018	2017
Interest rate derivatives	**852,804**	**901,541**	**761,605**	**2,515,950**	**2,267,755**	**46,710**	**48,244**	**42,568**	**44,136**
OTC products									
Forward rate agreements	243,160	—	—	243,160	42,402	5	2	4	2
Interest rate swaps	526,245	816,541	660,050	2,002,836	1,941,266	42,593	44,089	38,262	39,234
Interest rate options									
– purchased	6,786	36,809	52,462	96,057	96,376	3,532	3,467	471	383
– written	8,427	41,192	49,053	98,672	96,203	576	435	3,830	4,254
Other interest									
rate derivatives	11,388	17	—	11,405	51	4	—	1	1
Exchange-traded products									
Interest rate futures	50,036	6,982	—	57,018	42,867	—	—	—	—
Interest rate options	6,762	—	40	6,802	48,590	—	251	—	262
Foreign exchange derivatives	**224,331**	**35,652**	**6,937**	**266,920**	**309,669**	**3,237**	**3,511**	**3,625**	**3,832**
OTC products									
Foreign exchange forwards	180,222	22,072	1,837	204,131	247,613	2,680	3,027	3,009	3,211
Foreign exchange options									
– purchased	21,203	6,925	2,686	30,814	30,707	356	343	205	175
– written	22,686	6,655	2,414	31,755	31,085	175	132	411	446
Other foreign									
exchange derivatives	220	—	—	220	262	26	9	—	—
Exchange-traded products									
Foreign exchange futures	—	—	—	—	2	—	—	—	—
Foreign exchange options	—	—	—	—	—	—	—	—	—
Cross-currency swaps	**56,065**	**100,238**	**43,975**	**200,278**	**181,703**	**5,665**	**4,405**	**5,520**	**3,948**
Equity/index derivatives	**34,047**	**34,411**	**11,486**	**79,944**	**87,442**	**3,274**	**2,111**	**3,119**	**2,914**
OTC products									
Equity/index swaps	5,109	5,620	567	11,296	12,767	530	160	452	163
Equity/index options									
– purchased	2,286	2,189	765	5,240	6,015	268	251	48	190
– written	8,211	8,139	4,417	20,767	26,108	384	70	562	593
Other equity/index									
derivatives	425	299	131	855	1,204	55	34	2	1
Exchange-traded products									
Equity/index futures	4,988	770	1,023	6,781	7,594	—	9	—	9
Equity/index options	12,682	16,591	4,506	33,779	33,754	2,037	1,587	2,055	1,958
Credit derivatives	**13,380**	**13,805**	**1,399**	**28,584**	**40,731**	**223**	**385**	**341**	**443**
Other transactions	**8,657**	**3,248**	**435**	**12,340**	**12,538**	**1,568**	**375**	**807**	**530**
HVB	**1,189,284**	**1,088,895**	**825,837**	**3,104,016**	**2,899,838**	**60,677**	**59,031**	**55,980**	**55,803**

Most of the derivatives are held for trading purposes.

The banking book contains derivatives with positive fair values of €1.5 billion (previous year: €1.5 billion) and negative fair values of €0.7 billion (previous year: €0.7 billion).

Other Information (Continued)

55 Employees

The average number of staff employed was as follows:

	2018	2017
Staff (excluding trainees)	12,268	13,264
of whom:		
full-time	8,513	9,739
part-time	3,755	3,525
Trainees	318	337

The staff's length of service was as follows: (in %)

	WOMEN	MEN	2018	2017
STAFF'S LENGTH OF SERVICE	(EXCLUDING TRAINEES)		TOTAL	TOTAL
25 years or more	33.7	25.1	29.6	27.3
15 to 25 years	24.2	19.9	22.2	23.6
10 to 15 years	21.4	22.7	22.1	19.7
5 to 10 years	10.5	14.9	12.5	13.5
less than 5 years	10.2	17.4	13.6	15.9

56 Emoluments

(€ thousands)

	2018						
	SHORT-TERM COMPONENTS		LONG-TERM INCENTIVES				
	FIXED SALARY	SHORT-TERM PERFORMANCE-RELATED CASH REMUNERATION	LONG-TERM PERFORMANCE-RELATED CASH REMUNERATION	SHARE-BASED REMUNERATION	POST-EMPLOYMENT BENEFITS	TERMINATION BENEFITS	TOTAL
Members of the Management Board of UniCredit Bank AG	4,377	267	85	318	1,071	—	6,118
Members of the Supervisory Board of UniCredit Bank AG for Supervisory Board activities	787	—	—	—	—	—	787
Members of the Supervisory Board of UniCredit Bank AG for activities as employee representatives	468	37	—	—	41	—	546
Former members of the Management Board of UniCredit Bank AG and their surviving dependants	723	404	219	2,165	8,740	—	12,251

(€ thousands)

	2017						
	SHORT-TERM COMPONENTS		LONG-TERM INCENTIVES				
	FIXED SALARY	SHORT-TERM PERFORMANCE-RELATED CASH REMUNERATION	LONG-TERM PERFORMANCE-RELATED CASH REMUNERATION	SHARE-BASED REMUNERATION	POST-EMPLOYMENT BENEFITS	TERMINATION BENEFITS	TOTAL
Members of the Management Board of UniCredit Bank AG	4,802	506	1,342	1,164	1,479	—	9,293
Members of the Supervisory Board of UniCredit Bank AG for Supervisory Board activities	790	—	—	—	—	—	790
Members of the Supervisory Board of UniCredit Bank AG for activities as employee representatives	386	31	—	—	30	—	447
Former members of the Management Board of UniCredit Bank AG and their surviving dependants	159	58	342	383	1,347	—	2,289

It is the task of the Bank's full Supervisory Board to decide on the total remuneration paid to the individual members of the Management Board and to review the structure of the remuneration systems for the Management Board. The full Supervisory Board receives assistance in this regard from the Remuneration Control Committee, which submits appropriate proposals to the full Supervisory Board. Appropriateness and sustainability are key criteria for the form and structure of the remuneration paid to the members of the Management Board. The structure of remuneration is derived from the service agreements with the members of the Management Board. It has two components: a fixed salary and a variable element. The variable remuneration is normally granted in deferred tranches over several years in the form cash and in shares, with disbursement dependent upon defined corporate targets being achieved in the subsequent years.

Pension commitments for seven members of the Management Board are shown in the table alongside the direct emoluments. Seven members of the Management Board took part in the employer-financed, fund-linked pension scheme for executives (known as AgfA) in 2018. The Bank will provide/has provided 35% of the fixed salary contributions (2018: €978 thousand; 2017: €1,237 thousand).

Other Information (Continued)

Non-monetary compensation and other fringe benefits are granted to members of the Management Board to the usual extent. The amounts involved are included in the totals for fixed remuneration shown.

Compensation paid to members of the Management Board for positions on supervisory boards of any UniCredit group companies is surrendered to HVB.

At 31 December 2018, there were provisions in the amount of €26 million (previous year: €25 million) for pensions payable to former members of the Management Board and retired members of the Management Board of HVB and their surviving dependents, as calculated in accordance with actuarial principles using the projected unit credit method, taking into account anticipated future rises in pensions.

Share-based remuneration was granted to the members of the Management Board under the Group Incentive Scheme in the reporting period as follows:

SHARES GRANTED TO MEMBERS OF THE MANAGEMENT BOARD OF UNICREDIT BANK AG	2018	2017
Number of shares granted	14,415	248,064
Number of shares committed after capital measures in 2017	—	49,495
Fair value on grant date (€)	17.088	14.030

57 Loans to executive board members

Loans and advances made to, and contingent liabilities and liabilities assumed for, related parties at the reporting date were as follows: (€ thousands)

	2018			2017		
	LOANS AND ADVANCES	CONTINGENT LIABILITIES	LIABILITIES	LOANS AND ADVANCES	CONTINGENT LIABILITIES	LIABILITIES
Members of the Management Board						
and their related parties	2,235	10	3,166	2,401	10	8,156
Members of the Supervisory Board						
and their related parties	—	—	4,804	299	—	4,296

Members of the Supervisory Board and Management Board at HVB and their respective immediate family members are considered related parties.

Mortgage loans with interest rates of between 0.491% and 4.14% were granted to members of the Management Board and their immediate family members falling due in the period from 2019 to 2037.

An overdraft facility was made available to one member of the Supervisory Board with an interest rate of 10.63%.

All banking transactions involving the group of people listed were conducted at customary market terms with the usual collateral.

58 Supervisory Board

Gianni Franco Papa	Chairman
Florian Schwarz Dr Wolfgang Sprissler	Deputy Chairmen
Paolo Cornetta Beate Dura-Kempf Francesco Giordano Klaus Grünewald until 30 June 2018 Prof Dr Annette G. Köhler Dr Marita Kraemer Klaus-Peter Prinz Oliver Skrbot Christian Staack Gregor Völkl since 1 July 2018	Members

59 Management Board

Sandra Betocchi Drwenski	Chief Operating Officer (COO)
Markus Beumer since 1 December 2018	Commercial Banking – Unternehmer Bank
Peter Buschbeck until 28 February 2018	Commercial Banking – Private Clients Bank
Dr Emanuele Buttà since 1 March 2018	Commercial Banking – Private Clients Bank
Ljiljana Čortan since 1 January 2018	Chief Risk Officer (CRO)
Dr Michael Diederich	Board Spokesman (since 1 January 2018) Human Capital/Labour and Social Affairs (since 1 January 2018) Corporate & Investment Banking (interim until 28 February 2018)
Jan Kupfer since 1 March 2018	Corporate & Investment Banking
Robert Schindler until 7 November 2018	Commercial Banking – Unternehmer Bank
Guglielmo Zadra	Chief Financial Officer (CFO)

List of Executives and Outside Directorships

60 Supervisory Board

NAME, OCCUPATION, PLACE OF RESIDENCE	POSITIONS ON STATUTORY SUPERVISORY BOARDS OF OTHER GERMAN COMPANIES[1]	POSITIONS ON COMPARABLE BOARDS OF GERMAN AND FOREIGN COMPANIES[1]
Gianni Franco Papa General Manager of UniCredit S.p.A., Vienna Chairman		UniCredit Bank Austria AG, Vienna, (Chairman since 10 December 2018), Amundi S.A., Paris, since 14 February 2018
Florian Schwarz Employee of UniCredit Bank AG, Munich Deputy Chairman		
Dr Wolfgang Sprissler Former Board Spokesman of UniCredit Bank AG, Sauerlach Deputy Chairman		Dr. Pfleger Arzneimittel GmbH (formerly Dr. R. Pfleger Chemische Fabrik Gesellschaft mit beschränkter Haftung), Bamberg (Deputy Chairman)
Paolo Cornetta Head of Group Human Capital of UniCredit S.p.A., Milan		ES Shared Service Center S.p.A, Cernusco sul Naviglio/Milan, until 19 December 2018, UniCredit Bank Austria AG, Vienna, until 11 April 2018
Beate Dura-Kempf Employee of UniCredit Bank AG, Litzendorf		
Francesco Giordano Co-Chief Operating Officer of UniCredit S.p.A., Milan		UniCredit Services S.C.p.A. (formerly UniCredit Business Integrated Solutions S.C.p.A.), Milan, YAPI ve KREDİ BANKASI A.Ş., Istanbul, since 20 March 2018
Klaus Grünewald until 30 June 2018 Former state district secretary (Landesfachbereichs- sekretär), Division 1 – Financial Services, Bavarian state district of Vereinte Dienstleistungs- gewerkschaft ver.di, Gröbenzell		

1 As at 31 December 2018.

NAME, OCCUPATION, PLACE OF RESIDENCE	POSITIONS ON STATUTORY SUPERVISORY BOARDS OF OTHER GERMAN COMPANIES[1]	POSITIONS ON COMPARABLE BOARDS OF GERMAN AND FOREIGN COMPANIES[1]
Prof Dr Annette G. Köhler University professor and Chair of Accounting, Auditing and Controlling, University of Duisburg-Essen, Faculty of Business Administration – Mercator School of Management, Düsseldorf	DMG MORI AKTIENGESELLSCHAFT, Bielefeld, Villeroy & Boch Aktiengesellschaft, Mettlach, since 23 March 2018	DKSH Holding AG, Zürich, since 22 March 2018
Dr Marita Kraemer Former member of the Management Board of Zurich GI Management Aktiengesellschaft (Deutschland), and former member of the Management Board of Zurich Service GmbH, Frankfurt am Main	Allianz Deutschland AG, Munich, since 2 March 2018	EULER HERMES GROUP S.A., Paris, until 20 June 2018, Allianz France S.A., Paris
Klaus-Peter Prinz Employee of UniCredit Bank AG, Luxembourg Branch, Trier		
Oliver Skrbot Employee of UniCredit Bank AG, Buttenwiesen		
Christian Staack Employee of UniCredit Bank AG, Hamburg		
Gregor Völkl since 1 July 2018 District secretary (Bezirksfachbereichssekretär) of Vereinte Dienstleistungsgewerkschaft ver.di, Division 1 – Financial Services Munich district, Munich		

1 As at 31 December 2018.

List of Executives and Outside Directorships (Continued)

61 Management Board

NAME	POSITIONS ON STATUTORY SUPERVISORY BOARDS OF OTHER GERMAN COMPANIES[1]	POSITIONS ON COMPARABLE BOARDS OF GERMAN AND FOREIGN COMPANIES[1]
Sandra Betocchi Drwenski born 1958 Chief Operating Officer (COO)	HVB Immobilien AG, Munich (Chairwoman)[2]	UniCredit Services S.C.p.A. (formerly UniCredit Business Integrated Solutions S.C.p.A.), Milan
Markus Beumer born 1964 since 1 December 2018 Commercial Banking – Unternehmer Bank	DAW SE, Ober-Ramstadt	UniCredit Leasing GmbH, Hamburg (Chairman since 10 December 2018)[2], since 4 December 2018, UniCredit Leasing Finance GmbH, Hamburg (Chairman since 10 December 2018)[2], since 4 December 2018
Peter Buschbeck born 1961 until 28 February 2018 Commercial Banking – Private Clients Bank	WealthCap Kapitalverwaltungsgesellschaft mbH, Munich (Deputy Chairman)[2], until 31 March 2018, Wüstenrot & Württembergische AG, Stuttgart	Wealth Management Capital Holding GmbH, Munich (Deputy Chairman)[2], until 31 March 2018
Dr Emanuele Buttà born 1966 since 1 March 2018 Commercial Banking – Private Clients Bank	WealthCap Kapitalverwaltungsgesellschaft mbH, Munich (Deputy Chairman since 11 April 2018)[2], since 1 April 2018	Wealth Management Capital Holding GmbH, Munich (Deputy Chairman since 11 April 2018)[2], since 1 April 2018
Ljiljana Čortan born 1971 since 1 January 2018 Chief Risk Officer (CRO)	HVB Immobilien AG, Munich[2], since 1 January 2018, WealthCap Kapitalverwaltungsgesellschaft mbH, Munich[2], since 1 January 2018	AO UniCredit Bank, Moscow, until 9 April 2018, Wealth Management Capital Holding GmbH, Munich[2], since 1 January 2018
Dr Michael Diederich born 1965 Board Spokesman Human Capital/Labour & Social Affairs Corporate & Investment Banking (interim) until 28 February 2018	Bayerische Börse Aktiengesellschaft, Munich (Deputy Chairman), until 30 June 2018	PORR AG, Vienna, until 29 May 2018, ESMT European School of Management and Technology GmbH, Berlin, FC Bayern München AG, Munich, since 17 December 2018
Jan Kupfer born 1964 since 1 March 2018 Corporate & Investment Banking	Bayerische Börse Aktiengesellschaft, Munich, since 1 July 2018	
Robert Schindler born 1964 until 7 November 2018 Commercial Banking – Unternehmer Bank		UniCredit Leasing GmbH, Hamburg (Chairman)[2], until 30 November 2018, UniCredit Leasing Finance GmbH, Hamburg (Chairman)[2], until 30 November 2018
Guglielmo Zadra born 1972 Chief Financial Officer (CFO)		

1 As at 31 December 2018.
2 Group directorship.

62 List of employees and outside directorships

NAME	POSITIONS ON STATUTORY SUPERVISORY BOARDS OF OTHER COMPANIES[1]
Aurich, Peter	CAM AG, Munich
Biebl, Matthias	Wacker Chemie AG, Munich
Breiner, Thomas	AGROB Immobilien AG, Ismaning[2]
Dobrikat, Joachim	Düsseldorfer Hypothekenbank AG, Düsseldorf
Dr Fischer, Jochen	HVB Trust Pensionsfonds AG, Munich
Glückert, Matthias	OECHSLER AG, Ansbach
Höllinger, Marion	UniCredit Direct Services GmbH, Munich[2]
Rohleder, Georg	HVB Trust Pensionsfonds AG, Munich
Dr Wegener, Richard	UniCredit Direct Services GmbH, Munich[2]
Weidenhöfer, Peter	AGROB Immobilien AG, Ismaning[2]

1 As at 31 December 2018.
2 Group directorship.

List of Holdings

63 List of Holdings

Compliant with Section 313 (2) German Commercial Code (Handelsgesetzbuch – HGB) for the consolidated financial statements and Section 285 No. 11, 11a HGB and Section 340a (4) HGB for the annual financial statements of UniCredit Bank AG.

		SHARE OF CAPITAL IN %			EQUITY CAPITAL	NET PROFIT
NAME	REGISTERED OFFICE	TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	in thousands of currency units	in thousands of currency units
1 Controlled companies						
1.1 Controlled by voting rights						
1.1.1 Consolidated subsidiaries						
1.1.1.1 Banks and financial institutions						
UniCredit Leasing Finance GmbH	Hamburg	100.0	100.0	EUR	160,013	[2]
1.1.1.2 Other consolidated subsidiaries						
Acis Immobilien- und Projektentwicklungs GmbH & Co. Oberbaum City KG[3]	Grünwald	100.0	100.0	EUR	35	4,327
Acis Immobilien- und Projektentwicklungs GmbH & Co. Parkkolonnaden KG[3]	Grünwald	100.0	100.0	EUR	34	(12)
Acis Immobilien- und Projektentwicklungs GmbH & Co. Stuttgart Kronprinzstraße KG[3]	Grünwald	100.0	100.0	EUR	42	318
AGROB Immobilien AG (share of voting rights: 75.0%)[4,7]	Ismaning	52.7	52.7	EUR	26,720	2,399
Argentaurus Immobilien-Vermietungs- und Verwaltungs GmbH[3]	Munich	100.0	100.0	EUR	793	[2]
Atlanterra Immobilienverwaltungs GmbH	Munich	90.0	90.0	EUR	(36,362)	950
A&T-Projektentwicklungs GmbH & Co. Potsdamer Platz Berlin KG[3]	Munich	100.0	100.0	EUR	(37,240)	0
Bertram Projekt Unodecima Technikzentrum GmbH & Co. KG	Munich	94.0	94.0	EUR	(2,178)	114
BIL Leasing-Fonds GmbH & Co VELUM KG (share of voting rights: 66.7%, of which 33.3% held indirectly)	Grünwald	100.0		EUR	(2)	0
BIL Leasing-Fonds Verwaltungs-GmbH	Grünwald	100.0	100.0	EUR	2,243	1,731
Delpha Immobilien- und Projektentwicklungs GmbH & Co. Großkugel Bauabschnitt Alpha Management KG[3]	Munich	100.0	100.0	EUR	(22,880)	0
Delpha Immobilien- und Projektentwicklungs GmbH & Co. Großkugel Bauabschnitt Beta Management KG[3]	Munich	100.0	100.0	EUR	(53,477)	0
Delpha Immobilien- und Projektentwicklungs GmbH & Co. Großkugel Bauabschnitt Gamma Management KG[3]	Munich	100.0	100.0	EUR	(59,493)	0
Food & more GmbH[3]	Munich	100.0		EUR	235	[1.1]
Grundstücksaktiengesellschaft am Potsdamer Platz (Haus Vaterland)	Munich	98.2	98.2	EUR	4,495	[2]
Grundstücksgesellschaft Simon beschränkt haftende Kommanditgesellschaft[3]	Munich	100.0	100.0	EUR	52	1,341
HAWA Grundstücks GmbH & Co. oHG Hotelverwaltung[3]	Munich	100.0	100.0	EUR	276	779
HAWA Grundstücks GmbH & Co. oHG Immobilienverwaltung[3]	Munich	100.0	100.0	EUR	54	455
H.F.S. Immobilienfonds GmbH	Ebersberg	100.0	100.0	EUR	26	[2]
H.F.S. Leasingfonds Deutschland 1 GmbH & Co. KG (Immobilienleasing)[3]	Munich	99.4	99.4	EUR	22,519	2,763
H.F.S. Leasingfonds GmbH	Ebersberg	100.0	100.0	EUR	2	(34)
HJS 12 Beteiligungsgesellschaft mbH[3]	Munich	100.0		EUR	278	[1.2]
HVB Capital LLC	Wilmington	100.0		USD	1,128	87
HVB Capital LLC II	Wilmington	100.0		GBP	2	0
HVB Capital LLC III	Wilmington	100.0		USD	1,107	90
HVB Capital Partners AG[3]	Munich	100.0		EUR	12,671	[1.3]
HVB Funding Trust II	Wilmington	100.0		GBP	2	0
HVB Gesellschaft für Gebäude mbH & Co. KG[3]	Munich	100.0		EUR	871,401	63,567
HVB Hong Kong Limited	Hong Kong	100.0		USD	2,273	(2,329)
HVB Immobilien AG[3]	Munich	100.0		EUR	86,644	[1.4]
HVB Projekt GmbH[3]	Munich	100.0	94.0	EUR	72,151	[2]

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN % TOTAL	SHARE OF CAPITAL IN % OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL in thousands of currency units	NET PROFIT in thousands of currency units
HVB Secur GmbH[3]	Munich	100.0		EUR	126	[1,5]
HVB Tecta GmbH[3]	Munich	100.0	94.0	EUR	1,751	[2]
HVB Verwa 4 GmbH[3]	Munich	100.0		EUR	10,132	[1,6]
HVB Verwa 4.4 GmbH[3]	Munich	100.0	100.0	EUR	10,025	[2]
HVZ GmbH & Co. Objekt KG[3]	Munich	100.0	100.0	EUR	148,091	(29,022)
Hypo-Bank Verwaltungszentrum GmbH & Co. KG Objekt Arabellastraße[3]	Munich	100.0	100.0	EUR	26	(3,706)
Interra Gesellschaft für Immobilienverwaltung mbH[3]	Munich	100.0	93.9	EUR	51	[2]
Life Management Erste GmbH	Munich	100.0	100.0	EUR	24	[2]
MERKURHOF Grundstücksgesellschaft mit beschränkter Haftung[3]	Munich	100.0		EUR	16,692	[1,7]
NF Objekt FFM GmbH[3]	Munich	100.0	100.0	EUR	125	[2]
NF Objekte Berlin GmbH[3]	Munich	100.0	100.0	EUR	15,725	[2]
Ocean Breeze Asset GmbH & Co. KG	Bremen	100.0	100.0	EUR	9	44
Ocean Breeze Energy GmbH & Co. KG[3]	Bremen	100.0	100.0	EUR	(12,480)	28,092
Ocean Breeze GmbH	Bremen	100.0	100.0	EUR	30	26
Omnia Grundstücks-GmbH & Co. Objekt Haidenauplatz KG[3]	Munich	100.0	94.0	EUR	26	(92)
Omnia Grundstücks-GmbH & Co. Objekt Perlach KG[3]	Munich	100.0	100.0	EUR	3,233	(781)
Orestos Immobilien-Verwaltungs GmbH[3]	Munich	100.0	100.0	EUR	56,674	[2]
Othmarschen Park Hamburg GmbH & Co. Centerpark KG[3]	Munich	100.0	100.0	EUR	(18,942)	0
Othmarschen Park Hamburg GmbH & Co. Gewerbepark KG[3]	Munich	100.0	100.0	EUR	(44,083)	0
Perikles 20092 Vermögensverwaltung GmbH	Bremen	100.0	100.0	EUR	37	25
Portia Grundstücks-Verwaltungsgesellschaft mbH & Co. Objekt KG[3]	Munich	100.0	100.0	EUR	500,014	36,120
Rolin Grundstücksplanungs- und -verwaltungsgesellschaft mbH	Munich	100.0	100.0	EUR	60	13
Salvatorplatz-Grundstücksgesellschaft mbH & Co. oHG Saarland[3]	Munich	100.0	100.0	EUR	1,534	874
Salvatorplatz-Grundstücksgesellschaft mbH & Co. OHG Verwaltungszentrum[3]	Munich	100.0	100.0	EUR	2,301	13,306
Selfoss Beteiligungsgesellschaft mbH[3]	Grünwald	100.0	100.0	EUR	25	[2]
Simon Verwaltungs-Aktiengesellschaft i.L.	Munich	<100.0		EUR	2,994	(27)
Sirius Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0	EUR	(143,835)	[2]
Solos Immobilien- und Projektentwicklungs GmbH & Co. Sirius Beteiligungs KG[3]	Munich	100.0	100.0	EUR	(30,973)	950
Spree Galerie Hotelbetriebsgesellschaft mbH[3]	Munich	100.0	100.0	EUR	249	[2]
Structured Invest Société Anonyme	Luxembourg	100.0		EUR	7,283	221
T & P Frankfurt Development B.V.	Amsterdam	100.0	100.0	EUR	(7,273)	(9)
T & P Vastgoed Stuttgart B.V.	Amsterdam	87.5	87.5	EUR	(15,496)	(2)
TERRENO Grundstücksverwaltung GmbH & Co. Entwicklungs- und Finanzierungsvermittlungs-KG[3]	Munich	75.0	75.0	EUR	(268,579)	0
TIVOLI Grundstücks-Aktiengesellschaft	Munich	99.7	99.7	EUR	12,959	5,443
Transterra Gesellschaft für Immobilienverwaltung mbH[3]	Munich	100.0	93.9	EUR	26	[2]
TRICASA Grundbesitz Gesellschaft mbH & Co. 1. Vermietungs KG[3]	Munich	100.0	100.0	EUR	11,174	848
TRICASA Grundbesitzgesellschaft des bürgerlichen Rechts Nr. 1	Munich	100.0	100.0	EUR	23,637	36
UniCredit Beteiligungs GmbH	Munich	100.0		EUR	1,175	[1,8]
UniCredit Capital Markets LLC	New York	100.0	100.0	USD	136,233	9,200
UniCredit Direct Services GmbH[3]	Munich	100.0		EUR	933	[1,9]

List of Holdings (Continued)

		SHARE OF CAPITAL IN %			EQUITY CAPITAL	NET PROFIT
NAME	REGISTERED OFFICE	TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	in thousands of currency units	in thousands of currency units
UniCredit Leasing Aviation GmbH	Hamburg	100.0	100.0	EUR	27,489	796
UniCredit Leasing GmbH[7]	Hamburg	100.0		EUR	452,026	[1.10]
UniCredit U.S. Finance LLC	Wilmington	100.0		USD	115,645	213
Vermietungsgesellschaft mbH & Co. Objekt MOC KG[3]	Munich	89.3	89.3	EUR	(96,693)	1,821
Verwaltungsgesellschaft Katharinenhof mbH[3]	Munich	100.0		EUR	708	[1.11]
V.M.G. Vermietungsgesellschaft mbH	Munich	100.0	100.0	EUR	26	[2]
Wealth Management Capital Holding GmbH	Munich	100.0		EUR	20,539	[1.12]
WealthCap Entity Service GmbH	Munich	100.0	100.0	EUR	564	(6)
WealthCap Equity GmbH	Munich	100.0	100.0	EUR	(6,663)	(7,133)
WealthCap Equity Management GmbH	Munich	100.0	100.0	EUR	1,394	1,369
WealthCap Fonds GmbH	Munich	100.0	100.0	EUR	2,243	1,731
WealthCap Immobilien 1 GmbH & Co. KG	Munich	100.0	100.0	EUR	(156)	215
WealthCap Immobilien 2 GmbH & Co. KG	Munich	100.0	100.0	EUR	1,159	1,015
WealthCap Immobilienfonds Deutschland 36 Komplementär GmbH	Grünwald	100.0	100.0	EUR	(285)	25
WealthCap Immobilienfonds Deutschland 38 Komplementär GmbH	Grünwald	100.0	100.0	EUR	(77)	(35)
WealthCap Initiatoren GmbH	Munich	100.0	100.0	EUR	3,736	2,158
WealthCap Investment Services GmbH	Munich	100.0	90.0	EUR	5,101	[2]
WealthCap Investments, Inc.	Wilmington	100.0	100.0	USD	1,864	15
WealthCap Investorenbetreuung GmbH	Munich	100.0	100.0	EUR	155	[2]
WealthCap Kapitalverwaltungsgesellschaft mbH	Munich	100.0	100.0	EUR	10,000	[2]
WealthCap Leasing GmbH	Grünwald	100.0	100.0	EUR	(91)	54
WealthCap Los Gatos 131 Albright Way L.P.	Wilmington	100.0	100.0	USD	2,918	4,584
WealthCap Management Services GmbH	Grünwald	100.0	100.0	EUR	7,254	6,032
WealthCap Objekt-Vorrat 20 GmbH & Co. KG	Munich	100.0	100.0	EUR	353	9,243
WealthCap Objekt-Vorrat 21 GmbH & Co. KG	Munich	100.0	100.0	EUR	(143)	(73)
WealthCap PEIA Komplementär GmbH	Grünwald	100.0	100.0	EUR	28	(29)
WealthCap PEIA Management GmbH	Munich	100.0	94.0	EUR	2,882	1,627
WealthCap Portland Park Square, L.P.	Wilmington	100.0	100.0	USD	(940)	(187)
WealthCap Real Estate Management GmbH	Munich	100.0	100.0	EUR	108	[2]
WealthCap Vorrats-2 GmbH	Grünwald	100.0	100.0	EUR	26	0
1.1.2 Non-consolidated subsidiaries[5]						
Acis Immobilien- und Projektentwicklungs GmbH	Grünwald	100.0	100.0	EUR	25	[2]
AGRUND Grundstücks-GmbH	Munich	90.0	90.0			
Altea Verwaltungsgesellschaft mbH & Co. Objekt I KG	Munich	100.0	100.0			
AMMS Ersatz-Komplementär GmbH	Ebersberg	100.0	100.0			
AMMS Komplementär GmbH i.L.	Ebersberg	98.8	98.8			
Antus Immobilien- und Projektentwicklungs GmbH	Munich	90.0	90.0	EUR	(16,872)	0
ANWA Gesellschaft für Anlagenverwaltung mbH	Munich	95.0	93.9			
Apir Verwaltungsgesellschaft mbH & Co. Immobilien- und Vermietungs KG	Munich	100.0	100.0	EUR	(33,657)	0
Arena Stadion Beteiligungsverwaltungs-GmbH	Munich	100.0				
ARRONDA Immobilienverwaltungs GmbH	Munich	100.0	100.0	EUR	(40,601)	975
A&T-Projektentwicklungs-Verwaltungs GmbH	Munich	100.0	100.0			
Aufbau Dresden GmbH	Munich	100.0	100.0	EUR	(23,944)	0
Bayerische Wohnungsgesellschaft für Handel und Industrie, Gesellschaft mit beschränkter Haftung	Munich	100.0	100.0	EUR	294	[2]
B.I. International Limited	George Town	100.0	100.0	EUR	(254)	531
BIL Aircraftleasing GmbH	Grünwald	100.0	100.0			
BIL Immobilien Fonds GmbH	Munich	100.0	100.0			
Blue Capital Metro Amerika Inc.	Wilmington	100.0	100.0			
BV Grundstücksentwicklungs-GmbH	Munich	100.0	100.0	EUR	511	[2]
CUMTERRA Gesellschaft für Immobilienverwaltung mbH	Munich	100.0	100.0	EUR	26	[2]

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL in thousands of currency units	NET PROFIT in thousands of currency units
Erste Onshore Windkraft Beteiligungsgesellschaft mbH & Co.						
Windpark Grefrath KG (share of voting rights: 68.3%)	Oldenburg	68.5	68.5			
Erste Onshore Windkraft Beteiligungsgesellschaft mbH & Co.						
Windpark Krähenberg KG (share of voting rights: 68.3%)	Oldenburg	68.5	68.5			
Erste Onshore Windkraft Beteiligungsgesellschaft mbH & Co.						
Windpark Mose KG (share of voting rights: 68.3%)	Oldenburg	68.5	68.5			
GCCS Golfanlagen Errichtungs- und Verwaltungs GmbH	Munich	100.0	100.0	EUR	26	[2]
GIMMO Immobilien-Vermietungs- und Verwaltungs GmbH	Munich	100.0	100.0	EUR	26	[2]
Golf- und Country Club Seddiner See Immobilien GmbH	Munich	100.0	100.0	EUR	(15,507)	0
Großkugel Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0	EUR	(3,354)	[2]
H.F.S. Immobilienfonds Deutschland 1 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 3 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 4 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 6 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 7 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 8 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 9 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 10 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 11 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 12 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 15 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 16 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 18 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 19 GmbH & Co. KG	Munich	100.0	100.0			
H.F.S. Immobilienfonds Europa 2 Beteiligungs GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Europa 3 Beteiligungs B.V.	The Hague	100.0	100.0			
H.F.S. Immobilienfonds Europa 3 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Immobilienfonds GmbH & Co. Europa 4 KG	Munich	100.0	100.0			
H.F.S. Leasingfonds Deutschland 1 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Leasingfonds Deutschland 7 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Value Management GmbH	Munich	100.0	100.0			
H.F.S. Zweitmarktfonds Deutschland 1 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Zweitmarktfonds Deutschland 2 Komplementär GmbH	Grünwald	100.0	100.0			
H.F.S. Zweitmarktfonds Deutschland 3 GmbH & Co. KG	Munich	100.0	100.0			
H.F.S. Zweitmarktfonds Deutschland 4 GmbH & Co. KG	Munich	100.0	100.0			
Hofgarten Real Estate B.V. (share of voting rights: 50.5%)	Amsterdam	47.2	47.2	EUR	(49,339)	11
HVB Export Leasing GmbH	Munich	100.0				
HVB Gesellschaft für Gebäude Beteiligungs GmbH	Munich	100.0				
HVB Investments (UK) Limited	George Town	100.0				
HVB London Investments (AVON) Limited	London	100.0				
HVB Services South Africa (Proprietary) Limited	Johannesburg	100.0				
HVBFF International Greece GmbH	Munich	100.0	100.0			
HVBFF Internationale Leasing GmbH	Munich	100.0	100.0			
HVBFF Kapitalvermittlungs GmbH	Munich	100.0	100.0	EUR	19	[2]
HVBFF Leasing & Investition GmbH & Co Erste KG	Munich	100.0	100.0			
HVBFF Leasing Objekt GmbH	Grünwald	100.0	100.0			
HVBFF Leasing-Fonds Verwaltungs GmbH	Munich	100.0	100.0			
HVBFF Objekt Beteiligungs GmbH	Munich	100.0	100.0			
HVBFF Produktionshalle GmbH i.L.	Munich	100.0	100.0			
Hypo-Bank Verwaltungszentrum GmbH	Munich	100.0	100.0			
HYPO-REAL Haus- und Grundbesitz Gesellschaft mbH	Munich	100.0	100.0	EUR	128	[2]
HYPO-REAL Haus- und Grundbesitz Gesellschaft mbH & Co.						
Immobilien-Vermietungs KG	Munich	80.0	80.0			
Landos Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0			
Life Britannia GP Limited	Edgware	100.0	100.0			

List of Holdings (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL in thousands of currency units	NET PROFIT in thousands of currency units
Life Britannia Management GmbH	Grünwald	100.0	100.0			
Life Management Zweite GmbH	Grünwald	100.0	100.0	EUR	26	2
Life Verwaltungs Erste GmbH	Munich	100.0	100.0			
Life Verwaltungs Zweite GmbH	Grünwald	100.0	100.0			
Motion Picture Production GmbH	Grünwald	51.2	51.2			
Movie Market Beteiligungs GmbH i. L.	Munich	100.0	100.0			
Omnia Grundstücks-GmbH	Munich	100.0	100.0	EUR	26	2
Omnia Grundstücks-GmbH & Co. Betriebs KG	Munich	100.0	94.0			
Othmarschen Park Hamburg Wohn- und Gewerbepark GmbH	Munich	100.0	100.0	EUR	102	2
"Portia" Grundstücksverwaltungs-						
Gesellschaft mit beschränkter Haftung	Munich	100.0	100.0			
Projekt-GbR Kronstadter Straße München	Munich	75.0	75.0	EUR	(5,690)	0
Quinterra Gesellschaft für Immobilienverwaltung mbH	Munich	100.0	100.0	EUR	26	2
Redstone Mortgages Limited	London	100.0		GBP	973	26,659
RHOTERRA Gesellschaft für Immobilienverwaltung mbH	Munich	100.0	93.9	EUR	26	2
Roncasa Immobilien-Verwaltungs GmbH	Munich	100.0	100.0	EUR	(36,170)	950
Salvatorplatz-Grundstücksgesellschaft						
mit beschränkter Haftung	Munich	100.0	100.0	EUR	711	2
TERRENO Grundstücksverwaltung GmbH	Munich	75.0	75.0			
TERRENO Grundstücksverwaltung GmbH & Co.						
Objektgesellschaft Grillparzerstraße KG	Munich	75.0		EUR	(3,002)	0
Terronda Development B.V.	Amsterdam	100.0	100.0	EUR	(15,006)	(2)
Tishman Speyer Berlin Friedrichstraße KG i.L.						
(share of voting rights: 96.6%, of which 7.1% held indirectly)	Munich	97.1	5.9			
Trinitrade Vermögensverwaltungs-						
Gesellschaft mit beschränkter Haftung	Munich	100.0				
UniCredit CAIB Securities UK Ltd.	London	100.0				
VCI Volta Center Immobilienverwaltungs GmbH	Munich	100.0	100.0	EUR	(21,097)	950
VereinWest Overseas Finance (Jersey) Limited	St. Helier	100.0				
WealthCap Aircraft 27 GmbH & Co. KG	Grünwald	100.0	100.0			
WealthCap Aircraft 27 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Canadian Management Inc.	Toronto	100.0	100.0			
WealthCap Dritte Europa Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Equity Sekundär GmbH	Munich	100.0	100.0			
WealthCap Erste Kanada Immobilien Verwaltung GmbH	Munich	100.0	100.0			
WealthCap Europa Erste Immobilien –						
Objekt Niederlande – Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Europa Immobilien Fünfte Objekte						
Österreich Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Europa Immobilien Siebte Objekte						
Österreich Komplementär GmbH	Munich	100.0	100.0			
WealthCap Europa Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Immobilien Deutschland 39 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Immobilien Deutschland 42 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Immobilienfonds Deutschland 36 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Immobilienfonds						
Deutschland 37 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Immobilien Nordamerika 16 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Immobilien Nordamerika 17 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Immobilien Services GmbH	Munich	100.0	100.0			
WealthCap Immobilien und Verwaltung Sekundär GmbH	Munich	100.0	100.0			
WealthCap Immobilien 40 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Immobilien 41 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Immobilien 42 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Los Gatos 121 Albright Way GP, Inc.	Wilmington	100.0	100.0			

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL in thousands of currency units	NET PROFIT in thousands of currency units
WealthCap Los Gatos 131 Albright Way GP, Inc.	Wilmington	100.0	100.0	USD	(3,161)	(1,123)
WealthCap Management, Inc.	Wilmington	100.0	100.0			
WealthCap Mountain View GP, Inc.	Georgia	100.0	100.0			
Wealthcap Objekt Dresden GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt Nürnberg GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 13 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Objekt-Vorrat 17 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Objekt-Vorrat 20 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Objekt-Vorrat 21 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Objekt-Vorrat 24 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 25 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 25 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Objekt-Vorrat 26 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 26 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Portfolio 3 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Portfolio 4 GmbH & Co. KG	Grünwald	100.0	100.0			
Wealthcap Portfolio 4 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Portfolio 5 GmbH & Co. KG	Grünwald	100.0	100.0			
Wealthcap Portfolio 5 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Portland Park Square GP Inc.	Atlanta	100.0	100.0	USD	(1,456)	(1,464)
WealthCap Private Equity GmbH	Munich	100.0	100.0			
WealthCap Private Equity Sekundär GmbH	Munich	100.0	100.0			
WealthCap Private Equity 19 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 20 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 21 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Private Equity 22 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Real Estate GmbH	Munich	100.0	100.0			
WealthCap Real Estate Komplementär GmbH	Munich	100.0	100.0			
WealthCap Real Estate Sekundär GmbH	Munich	100.0	100.0			
WealthCap SachWerte Portfolio 2 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Spezial 3 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Spezial 4 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial 5 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Spezial-AIF 1 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Spezial Büro 6 GmbH & Co. geschlossene Investment KG	Munich	100.0	100.0			
Wealthcap Spezial Büro 6 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Spezial Portfolio Immobilien 1 Komplementär SARL	Luxembourg-Findel	100.0	100.0			
Wealthcap Spezial Portfolio Private Equity 1 Komplementär SARL	Luxembourg-Findel	100.0	100.0			
Wealthcap Spezial Wohnen 1 Komplementär GmbH	Grünwald	100.0	100.0			
WealthCap Stiftungstreuhand GmbH	Munich	100.0	100.0			
WealthCap USA Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Vorrats-1 GmbH	Grünwald	100.0	100.0			
Wealthcap Wohnen Spezial-AIF 1 GmbH & Co. geschlossene Investment KG	Munich	100.0	100.0			
WealthCap Wohnen 1 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Wohnen 1a GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Wohnen 1b GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Zweite Europa Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap Zweite USA Immobilien Verwaltungs GmbH	Munich	100.0	100.0			
WealthCap ZweitmarktWerte Immobilien 4 Komplementär GmbH	Munich	100.0	100.0			
WealthCap ZweitmarktWerte 5 GP S.à r.l.	Senningerberg	100.0	100.0			
WealthCap 39 Komplementär GmbH	Grünwald	100.0	100.0			
Weicker S.à r.l.	Luxembourg-Findel	100.0				

List of Holdings (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN %	CURRENCY	SUBSCRIBED CAPITAL in thousands of currency units
1.2 Fully consolidated structured entities				
with or without shareholding				
Altus Alpha Plc	Dublin	0	EUR	40
Arabella Finance DAC	Dublin	0	EUR	<1
BARD Engineering GmbH	Emden	0	EUR	100
BARD Holding GmbH	Emden	0	EUR	25
Buitengaats Holding B.V.	Eemshaven	0	EUR	18
Elektra Purchase No. 28 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 31 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 32 S.A.	Luxembourg	0	EUR	31
Elektra Purchase No. 32 S.A. – Compartment 2	Luxembourg	0	EUR	<1
Elektra Purchase No. 33 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 34 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 36 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 37 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 38 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 39 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 41 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 43 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 44 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 46 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 48 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 54 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 55 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 56 DAC	Dublin	0	EUR	< 1
Elektra Purchase No. 57 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 63 DAC	Dublin	0	EUR	< 1
Elektra Purchase No. 718 DAC	Dublin	0	EUR	<1
Elektra Purchase No. 911 Ltd.	St. Helier	0	EUR	<1
European-Office-Fonds	Munich	0	EUR	0
GELDILUX-TS-2015 S.A.	Luxembourg	0	EUR	31
GEMMA Verwaltungsgesellschaft mbH & Co.				
Vermietungs KG (held indirectly)	Pullach	6.1	EUR	68,272
H.F.S. Leasingfonds Deutschland 7				
GmbH & Co. KG (held indirectly)	Munich	<0.1	EUR	56,605
HVB Funding Trust	Wilmington	0	USD	0
HVB Funding Trust III	Wilmington	0	USD	0
MOC Verwaltungs GmbH & Co.				
Immobilien KG (held indirectly)[4, 6]	Munich	23.0	EUR	5,113
Ocean Breeze Finance S.A. – Compartment 1	Luxembourg	0	EUR	0
Rosenkavalier 2008 GmbH	Frankfurt am Main	0	EUR	25
Rosenkavalier 2015 UG	Frankfurt am Main	0	EUR	8

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL in thousands of currency units	NET PROFIT in thousands of currency units
2 Joint ventures						
Minor joint ventures[5]						
Heizkraftwerk Cottbus Verwaltungs GmbH i.L.	Cottbus	33.3		EUR	354	245
Heizkraftwerke-Pool Verwaltungs-GmbH	Munich	33.3		EUR	119	863
WealthCap Portfolio Finanzierungs-						
GmbH & Co. KG (share of voting rights: 50.0%)	Grünwald	—		EUR	71,686	2,233
3 Associated companies						
3.1 Associated companies valued at equity						
Adler Funding LLC[4]	Dover	32.8		USD	(16,128)	(29,160)
Comtrade Group B.V.[4,7]	Rotterdam	21.1	21.1	EUR	53,673	6,613
Nautilus Tankers Limited[4]	Valletta	45.0	45.0	USD	36,333	4,390
paydirekt Beteiligungsgesellschaft privater Banken mbH	Berlin	24.0		EUR	598	(5,517)
SwanCap Partners GmbH (share of voting rights: 49.0%)[4]	Munich	75.3		EUR	7,147	2,727
3.2 Minor associated companies[5]						
MOC Verwaltungs GmbH	Munich	23.0	23.0			
4 Further Holdings according to						
Section 271 (1) HGB[5]						
4.1 Banks and financial institutions						
AKA Ausfuhrkredit-Gesellschaft mbH	Frankfurt am Main	15.4		EUR	238,732	11,080
BBB Bürgschaftsbank zu Berlin-Brandenburg GmbH	Berlin	4.3		EUR	11,526	278
BGG Bayerische Garantiegesellschaft mbH						
für mittelständische Beteiligungen	Munich	10.5		EUR	51,389	2,653
Bürgschaftsbank Brandenburg GmbH	Potsdam	7.8		EUR	29,088	1,486
Bürgschaftsbank Mecklenburg-Vorpommern GmbH	Schwerin	9.1		EUR	16,562	212
Bürgschaftsbank Nordrhein-Westfalen GmbH –						
Kreditgarantiegemeinschaft –	Düsseldorf	0.6		EUR	35,440	1,282
Bürgschaftsbank Rheinland-Pfalz GmbH	Mainz	1.4		EUR	16,605	79
Bürgschaftsbank Saarland Gesellschaft mit beschränkter						
Haftung, Kreditgarantiegemeinschaft für den Handel,						
Handwerk und Gewerbe	Saarbrücken	1.3		EUR	4,313	19
Bürgschaftsbank Sachsen-Anhalt GmbH	Magdeburg	8.9		EUR	15,612	454
Bürgschaftsbank Sachsen GmbH (share voting rights: 5.4%)	Dresden	4.7		EUR	42,015	1,645
Bürgschaftsbank Schleswig-Holstein GmbH	Kiel	5.4		EUR	40,182	971
Bürgschaftsbank Thüringen GmbH	Erfurt	8.7		EUR	25,946	642
Bürgschaftsgemeinschaft Hamburg GmbH	Hamburg	10.5		EUR	25,243	744
MCB Bank Limited	Lahore	>0.0		PKR	136,493,057	14,648,799
Niedersächsische Bürgschaftsbank GmbH	Hanover	3.0		EUR	26,397	1,934
Saarländische Investitionskreditbank AG	Saarbrücken	3.3		EUR	65,474	1,009
4.2 Other companies						
Acton GmbH & Co. Heureka II KG	Munich	8.9		EUR	72,257	(1,016)
Amstar Liquidating Trust						
(share voting rights: 0.0%)	New York	>0.0	>0.0			
Babcock & Brown Limited	Sydney	3.2				
Bavaria Servicos de Representacao Comercial Ltda.	Sao Paulo	>0.0	>0.0	BRL	6,500	868
BayBG Bayerische Beteiligungsgesellschaft mbH[8]	Munich	22.5		EUR	232,843	6,129
Bayerischer BankenFonds GbR[8]	Munich	25.6				
BGN GmbH & Co. KG	Wiesbaden	6.0	6.0			

List of Holdings (Continued)

NAME	REGISTERED OFFICE	SHARE OF CAPITAL IN % TOTAL	OF WHICH HELD INDIRECTLY	CURRENCY	EQUITY CAPITAL in thousands of currency units	NET PROFIT in thousands of currency units
BIL Leasing-Fonds GmbH & Co. Altstadtsanierung Freiberg KG						
(share voting rights: 0.3%)	Grünwald	—	—	EUR	459	886
BIL Leasing-Fonds GmbH & Co HONOR KG i.L.						
(share voting rights: 0.1%)	Grünwald	—	—			
Bil Leasing-Fonds GmbH & Co Objekt Verwaltungssitz						
Bankenverband KG (share voting rights: 0.2%)	Grünwald	—	—	EUR	824	1,184
BIL Leasing GmbH & Co Objekte Freiberg KG	Grünwald	6.0	6.0			
BIL Leasing GmbH & Co Objekt Verwaltungsgebäude Halle KG						
(share voting rights: 0.1%)	Grünwald	—	—			
BioM Aktiengesellschaft Munich Bio Tech Development	Planegg	8.5		EUR	2,158	88
Blue Capital Equity I GmbH & Co. KG i.L.	Munich	>0.0	>0.0	EUR	903	(428)
Blue Capital Equity II GmbH & Co. KG i.L.	Munich	>0.0	>0.0	EUR	1,652	(160)
Blue Capital Equity III GmbH & Co. KG						
(share voting rights: >0.0%)	Munich	0.8	0.8	EUR	5,686	(38)
Blue Capital Equity IV GmbH & Co. KG	Munich	>0.0	>0.0	EUR	9,438	612
Blue Capital Equity IX GmbH & Co. KG						
(share voting rights: 0.6%)	Munich	0.7	0.7	EUR	4,258	605
Blue Capital Equity V GmbH & Co. KG						
(share voting rights: >0.0%)	Munich	0.1	0.1	USD	894	(176)
Blue Capital Equity VI GmbH & Co. KG	Munich	>0.0	>0.0	USD	19,225	(459)
Blue Capital Equity VII GmbH & Co. KG	Munich	>0.0	>0.0	USD	9,211	307
Blue Capital Equity VIII GmbH & Co. KG						
(share voting rights: 0.0%)	Munich	0.7	0.7	EUR	9,464	826
Blue Capital Europa Immobilien GmbH & Co.						
Fünfte Objekte Österreich KG	Munich	0.1	0.1	EUR	15,005	952
Blue Capital Europa Immobilien GmbH & Co.						
Siebte Objekte Österreich KG	Munich	0.1	0.1	EUR	22,819	137
Blue Capital Metro Amerika Fund, L.P.	Wilmington	0.1	0.1	USD	163,290	5,792
Blue Capital Metropolitan Amerika GmbH & Co. KG	Munich	0.1	0.1	USD	120,035	7,380
Boston Capital Partners V, L.L.C.	Wilmington	10.0	10.0			
Boston Capital Ventures V, L.P. (share voting rights: 0.0%)	Wilmington	20.0		USD	12,818	(383)
BTG Beteiligungsgesellschaft Hamburg mbH	Hamburg	13.6		EUR	4,322	163
BV Capital GmbH & Co. Beteiligungs KG Nr. 1	Hamburg	16.8	16.8	EUR	2,094	237
Carlyle Partners V, L.P. (share voting rights: 0.0%)	Wilmington	>0.0	>0.0	USD	3,461,150	1,654,964
Carlyle U.S. Equity Opportunity Fund, L.P.						
(share voting rights: 0.0%)	Wilmington	0.9	0.9	USD	771,373	56,867
Charme II (share voting rights: 0.0%)	Milan	7.7		EUR	4,864	(387)
CHARME INVESTMENTS S.C.A. (share voting rights: 12.1%)	Luxembourg	13.4		EUR	22,677	(93)
China International Packaging Leasing Co., Ltd.	Beijing	17.5		CNY	(101,056)	553
China Investment Incorporations (BVI) Ltd.	Tortola	10.8	10.8	USD	9,135	(42,850)
CLS Group Holdings AG	Zurich	1.2		GBP	389,130	15,752
CMC-Hertz Partners, L.P. (share voting rights: 0.0%)	Wilmington	7.1	7.1			
CME Group Inc.	Wilmington	>0.0		USD	22,411,800	4,063,400
Earlybird GmbH & Co. Beteiligungskommanditgesellschaft III i.L.	Munich	9.7	9.7	USD	7,589	205
Easdaq NV	Leuven	>0.0		EUR	1,609	(257)
East Capital Financials Fund AB (share voting rights: 0.0%)	Stockholm	0.2		EUR	18,362	(6,963)
EDD AG (share voting rights: 3.1%)	Düsseldorf	3.0		EUR	27,792	(3,009)
Einkaufsgalerie Roter Turm Beteiligungs GmbH & Co. KG	Munich	>0.0	>0.0	EUR	5,447	253
Einkaufsgalerie Roter Turm Chemnitz GmbH & Co. KG	Munich	>0.0	>0.0	EUR	51,564	3,776
EURO Kartensysteme GmbH	Frankfurt am Main	6.0		EUR	11,835	199
Film & Entertainment VIP Medienfonds 4 GmbH & Co. KG	Grünwald	9.9	9.9	EUR	23,679	(1,246)
H.F.S. Immobilienfonds Bahnhofspassagen						
Potsdam GmbH & Co. KG	Munich	6.0	6.0	EUR	23,663	2,578
H.F.S. Immobilienfonds "Das Schloss"						
Berlin-Steglitz GmbH & Co. KG	Munich	6.0	6.0	EUR	17,913	(732)

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H.F.S. Immobilienfonds Deutschland 4 GmbH & Co. KG	Munich	0.2	0.2	EUR	(618)	1,869
H.F.S. Immobilienfonds Deutschland 6 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	13,412	(207)
H.F.S. Immobilienfonds Deutschland 8 GmbH & Co. KG	Munich	0.1	0.1	EUR	11,403	(114)
H.F.S. Immobilienfonds Deutschland 9 GmbH & Co. KG	Munich	0.1	0.1	EUR	10,243	7,461
H.F.S. Immobilienfonds Deutschland 10 GmbH & Co. KG	Munich	1.4	1.4	EUR	120,942	5,541
H.F.S. Immobilienfonds Deutschland 12 GmbH & Co. KG	Munich	3.9	3.9	EUR	82,107	23,836
H.F.S. Immobilienfonds Deutschland 15 GmbH & Co. KG	Munich	0.1	0.1	EUR	18,040	2,702
H.F.S. Immobilienfonds Deutschland 16 GmbH & Co. KG	Munich	0.1	0.1	EUR	51,057	56,456
H.F.S. Immobilienfonds GmbH & Co. Europa 3 KG	Munich	0.1	0.1	EUR	10,547	(2,325)
H.F.S. Immobilienfonds Köln GmbH & Co. KG	Munich	>0.0	>0.0	EUR	6,603	48,072
H.F.S. Immobilienfonds Köln Supplier-Park GmbH & Co. KG	Munich	>0.0	>0.0	EUR	23,192	1,960
H.F.S. Immobilienfonds Schweinfurt GmbH & Co. KG	Munich	>0.0	>0.0	EUR	1,450	1,938
H.F.S. Zweitmarktfonds Deutschland 1 GmbH & Co. KG	Ebersberg	0.1	0.1	EUR	16,522	6,474
H.F.S. Zweitmarktfonds Deutschland 2 GmbH & Co. KG	Ebersberg	>0.0	>0.0	EUR	83,283	15,359
HVBFF Life Britannia GmbH & Co Erste KG	Grünwald	>0.0	>0.0	EUR	15,783	842
HVB Trust Pensionsfonds AG (share voting rights: 0.0%)[9]	Munich	100.0				
IGEPA Gewerbepark GmbH & Co Vermietungs KG	Fürstenfeldbruck	2.0	2.0	EUR	(6,962)	11,408
Immobilienfonds Objekte Apolda, Kiel, Bergen und						
Sigmaringen GmbH & Co. KG	Oberhaching	0.1	0.1			
Immobilienfonds Objekt Rathenow GmbH & Co. KG	Oberhaching	0.2	0.2	EUR	1,903	935
Industriepalast in Leipzig Verwaltungs-GmbH & Co. KG i.L.						
(share voting rights: 6.3%)	Berlin	6.2				
Interbanking Systems S.A. (Dias S.A.)	Maroussi	0.9		EUR	26,734	0
IPE Tank and Rail Investment 1 S.C.A.	Luxembourg	7.8	7.8			
JBG/BC Investor, L.P.	Chevy Chase	0.5	0.5	USD	78,860	7,558
Kepler Cheuvreux S.A. (share voting rights: 4.6%)	Paris	10.3		EUR	79,092	15,907
Kreditgarantiegemeinschaft der freien Berufe						
Baden-Württemberg Verwaltungs-GmbH	Stuttgart	1.3				
Kreditgarantiegemeinschaft der Industrie,						
des Verkehrsgewerbes und des Gastgewerbes						
Baden-Württemberg Verwaltungs-GmbH	Stuttgart	2.6				
Kreditgarantiegemeinschaft des						
bayerischen Gartenbaues GmbH	Munich	8.1				
Kreditgarantiegemeinschaft des						
bayerischen Handwerks GmbH	Munich	7.2		EUR	4,846	0
Kreditgarantiegemeinschaft des Handels						
Baden-Württemberg Verwaltungs-GmbH	Stuttgart	2.3				
Kreditgarantiegemeinschaft des Handwerks						
Baden-Württemberg Verwaltungsgesellschaft mbH	Stuttgart	2.5				
Kreditgarantiegemeinschaft des Hotel- und						
Gaststättengewerbes in Bayern GmbH	Munich	9.7		EUR	4,359	0
Kreditgarantiegemeinschaft für den Handel in Bayern GmbH	Munich	2.2		EUR	6,317	0
Kreditgarantiegemeinschaft in Baden-Württemberg						
Verwaltungs-GmbH	Stuttgart	5.1				
Life Britannia First LP (share voting rights: 1.0%)	Uxbridge	—	—	GBP	12,988	1,615
Life Britannia Second LP (share voting rights: 1.0%)	Uxbridge	—	—	GBP	17,379	2,217
Life GmbH & Co Erste KG	Munich	>0.0	>0.0	USD	110,569	6,310
Life GmbH & Co. Zweite KG (share voting rights: 0.1%)	Grünwald	>0.0	>0.0	EUR	63,077	(4,436)
Lion Capital Fund I, L.P. (share voting rights: 0.0%)	London	0.9		EUR	2,429	(410)
Martin Schmälzle Grundstücksgesellschaft Objekt Wolfsburg						
GmbH & Co. KG	Munich	>0.0	>0.0	EUR	15,711	921
MBG Mittelständische Beteiligungsgesellschaft						
Baden-Württemberg GmbH	Stuttgart	5.0		EUR	72,488	5,540
MBG Mittelständische Beteiligungsgesellschaft						
Rheinland-Pfalz mbH (share voting rights: 11.1%)	Mainz	9.8		EUR	14,882	1,334

List of Holdings (Continued)

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MBG Mittelständische Beteiligungsgesellschaft						
Schleswig-Holstein mbH	Kiel	3.6		EUR	39,021	2,978
MFP Munich Film Partners GmbH & Co. AZL Productions KG	Grünwald	0.1		EUR	0.2	7,525
MFP Munich Film Partners GmbH & Co. MI 2 Productions KG i.L.	Grünwald	0.1				
Mittelständische Beteiligungsgesellschaft						
Berlin-Brandenburg GmbH	Potsdam	11.6		EUR	20,061	1,783
Mittelständische Beteiligungsgesellschaft						
Mecklenburg-Vorpommern mbH	Schwerin	15.4		EUR	14,429	288
Mittelständische Beteiligungsgesellschaft						
Niedersachsen (MBG) mbH	Hanover	8.2		EUR	13,638	507
Mittelständische Beteiligungsgesellschaft						
Sachsen-Anhalt mit beschränkter Haftung	Magdeburg	12.7		EUR	23,304	434
Mittelständische Beteiligungsgesellschaft Sachsen mbH	Dresden	11.8		EUR	46,694	1,965
Mittelständische Beteiligungsgesellschaft Thüringen mbH	Erfurt	13.4		EUR	24,944	1,214
Motion Picture Production GmbH & Co. Erste KG						
(share voting rights: 0.1%)	Grünwald	>0.0	>0.0	EUR	(28,035)	1,460
Mühoga Münchner Hochgaragen Gesellschaft						
mit beschränkter Haftung[8]	Munich	25.0	25.0	EUR	4,429	2,237
PICIC Insurance Ltd.	Karachi	>0.0		PKR	(4,020)	(42,231)
PRINCIPIA FUND (share voting rights: 0.0%)	Milan	10.0				
ProAreal GmbH i. I.	Wiesbaden	10.0		EUR	(93,513)	(26)
REF IV Associates (Caymans) L.P. Acqua CIV S.C.S.						
(share voting rights: 0.0%)	Luxembourg	38.3	38.3			
Rocket Internet Capital Partners (Euro) SCS						
(share voting rights: 0.0%)	Luxembourg	4.4		EUR	139,611	17,726
Roomstore Inc.	Richmond	7.7	7.7			
Saarländische Kapitalbeteiligungsgesellschaft						
mit beschränkter Haftung (share voting rights: 8.8%)	Saarbrücken	8.7		EUR	7,402	(72)
Social Venture Fund GmbH & Co. KG						
(share voting rights: 0.0%)	Munich	9.6		EUR	3,468	12
Social Venture Fund II GmbH & Co. KG						
(share voting rights: 0.0%)	Munich	4.5		EUR	13,101	(847)
Stahl Group S.A.	Luxembourg	0.4	0.4	EUR	651,494	914,893
SwanCap FLP II SCSp (share voting rights: 37.5%)[10]	Senningerberg	—				
SwanCap FLP SCS (share voting rights: 37.5%)[10]	Senningerberg	—		EUR	849	435
SwanCap TB II SCSp (share voting rights: 0.0%)[11]	Senningerberg	>0.0				
SwanCap Blocker GmbH & Co. KG[11]	Munich	—				
S.W.I.F.T. (Co-operative 'Society for Worldwide						
Interbank Financial Telecommunication')	Brussels	0.3		EUR	469,330	45,119
Texas Energy Future Holdings L.P. (share voting rights: 0.0%)	Fort Worth	1.5	1.5			
True Sale International GmbH	Frankfurt am Main	7.7		EUR	4,928	119
UniCredit Services						
Società Consortile per Azioni	Milan	>0.0		EUR	357,036	8,469
VISA Inc. (share voting rights: 0.0%)	Wilmington	>0.0		USD	34,006,000	10,301,000
WealthCap Aircraft 1 GmbH & Co. KG	Munich	>0.0	>0.0	USD	22,342	(118)
WealthCap Aircraft 25 GmbH & Co. KG	Grünwald	>0.0	>0.0	USD	38,578	(502)
WealthCap Aircraft 26 GmbH & Co. KG	Grünwald	>0.0	>0.0	USD	50,585	(81)
WealthCap Fondsportfolio Private Equity 21 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0.0	>0.0			
WealthCap Fondsportfolio Private Equity 22 GmbH & Co.						
geschlossene Investment KG	Grünwald	0.2	0.2			
WealthCap Immobilien Deutschland 38 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	101,188	15,422

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WealthCap Immobilien Deutschland 39 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	135,498	(7,937)
WealthCap Immobilien Deutschland 40 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0			
WealthCap Immobilien Deutschland 41 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0			
WealthCap Immobilienfonds Deutschland 30 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	45,929	5,664
WealthCap Immobilienfonds Deutschland 31 GmbH & Co. KG						
(share voting rights: 0.1%)	Munich	>0.0	>0.0	EUR	38,156	5,814
WealthCap Immobilienfonds Deutschland 32 GmbH & Co. KG						
(share voting rights: 0.1%)	Munich	>0.0	>0.0	EUR	51,242	3,516
WealthCap Immobilienfonds Deutschland 33 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	59,179	2,566
WealthCap Immobilienfonds Deutschland 34 GmbH & Co. KG						
(share voting rights: 0.1%)	Munich	>0.0	>0.0	EUR	40,195	2,535
WealthCap Immobilienfonds Deutschland 35 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	126,476	7,502
WealthCap Immobilienfonds Deutschland 37 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	63,676	2,443
WealthCap Immobilienfonds Donauwörth 1 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	20,213	1,604
WealthCap Immobilienfonds Donauwörth 2 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	5,067	563
WealthCap Immobilien Nordamerika 16 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	45,462	4,440
WealthCap Immobilien Nordamerika 17 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	36,777	(3,054)
WealthCap Infrastructure Fund I GmbH & Co. KG	Munich	>0.0	>0.0	EUR	4,908	(88)
WealthCap Infrastruktur Amerika GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0.0	>0.0	EUR	4,427	1,517
WealthCap Leasing 1 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	30,005	1,641
WealthCap Leasing 2 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	29,298	1,437
WealthCap Leasing 3 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	28,687	1,516
WealthCap Leasing 4 GmbH & Co. KG	Grünwald	5.5	5.5	EUR	27,482	1,312
WealthCap LebensWert 1 GmbH & Co. KG						
(share voting rights: 0.3%)	Grünwald	>0.0	>0.0	USD	874	999
WealthCap LebensWert 2. GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0.0	>0.0	EUR	5,936	1,291
WealthCap Life Britannia 2. GmbH & Co KG	Munich	>0.0	>0.0	EUR	12,787	(1,173)
WealthCap Life USA 4. GmbH & Co. KG	Grünwald	>0.0	>0.0	USD	59,073	3,064
WealthCap Los Gatos 121 Albright Way L.P.	Wilmington	>0.0	>0.0	USD	64,590	3,523
WealthCap Mountain View I L.P. (share voting rights: 0.1%)	Georgia	—	—	USD	43,701	5,725
WealthCap Objekt Berg-am-Laim GmbH & Co. KG	Munich	5.2	5.2	EUR	121,259	8,173
Wealthcap Objekt Berg-am-Laim II GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Bogenhausen GmbH & Co. KG	Munich	>0.0	>0.0	EUR	132,593	2,566
WealthCap Objekt Essen GmbH & Co. KG	Munich	5.2	5.2	EUR	28,370	960
WealthCap Objekt Frankfurt GmbH & Co. KG	Munich	5.2	5.2	EUR	46,985	2,353
WealthCap Objekt Hackerbrücke GmbH & Co. KG	Munich	5.2	5.2	EUR	33,358	1,857
WealthCap Objekt Hamburg GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Hannover Ia GmbH & Co. KG	Munich	5.2	5.2	EUR	16,100	959
WealthCap Objekt Hannover Ib GmbH & Co. KG	Munich	5.2	5.2	EUR	3,781	513
WealthCap Objekt Hannover II GmbH & Co. KG	Munich	5.2	5.2	EUR	17,022	451
WealthCap Objekt Hufelandstraße GmbH & Co. KG	Munich	5.2	5.2	EUR	11,748	538
WealthCap Objekt Riem GmbH & Co. KG	Munich	5.2	5.2	EUR	30,556	1,597
WealthCap Objekt Riem II GmbH & Co. KG	Munich	5.2	5.2	EUR	44,970	1,103
WealthCap Objekt Schwabing GmbH & Co. KG	Munich	5.2	5.2	EUR	30,572	981
WealthCap Objekt Sendling GmbH & Co. KG	Munich	5.2	5.2	EUR	58,272	2,068
WealthCap Objekt Stuttgart Ia GmbH & Co. KG	Munich	>0.0	>0.0	EUR	18,051	(167)

List of Holdings (Continued)

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WealthCap Objekt Stuttgart Ib GmbH & Co. KG	Munich	>0.0	>0.0	EUR	20,484	809
WealthCap Objekt Stuttgart II GmbH & Co. KG	Munich	5.2	5.2	EUR	24,939	1,022
WealthCap Objekt Theresienhöhe GmbH & Co. KG	Munich	5.2	5.2	EUR	66,084	2,646
WealthCap Objekte Südwest GmbH & Co. KG	Munich	5.1	5.1	EUR	(1,180)	(385)
WealthCap Photovoltaik 1 GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0.0	>0.0	EUR	27,210	2,749
WealthCap Portfolio 3 GmbH & Co. geschlossene Investment KG	Grünwald	>0.0	>0.0	EUR	9,864	(2,835)
WealthCap Private Equity 10 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	10,020	3,543
WealthCap Private Equity 11 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	3,751	1,687
WealthCap Private Equity 12 GmbH & Co. KG	Grünwald	>0.0	>0.0	EUR	57,655	3,015
WealthCap Private Equity 13 GmbH & Co. KG	Grünwald	>0,0	>0,0	EUR	48,423	9,703
WealthCap Private Equity 14 GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0.0	>0.0	EUR	27,989	5,752
WealthCap Private Equity 15 GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0.0	>0.0	USD	17,242	935
WealthCap Private Equity 16 GmbH & Co. KG						
(share voting rights: 0.3%)	Grünwald	>0.0	>0.0	USD	3,691	183
WealthCap Private Equity 17 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0.0	>0.0	EUR	14,878	2,228
WealthCap Private Equity 18 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0.0	>0.0	EUR	10,729	1,596
WealthCap Private Equity 19 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0.0	>0.0	EUR	18,992	(2,549)
WealthCap Private Equity 20 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0.0	>0.0	EUR	5,173	(614)
WealthCap SachWerte Portfolio 1 GmbH & Co. KG	Grünwald	>0.0	>0.0	EUR	32,946	3,115
WealthCap SachWerte Portfolio 2 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0.0	>0.0	EUR	88,674	(833)
WealthCap Spezial-AIF 1 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	169,805	23,317
WealthCap Spezial-AIF 2 GmbH & Co.						
geschlossene Investment KG	Munich	5.2	5.2	EUR	76,615	16,290
WealthCap Spezial-AIF 3 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	257,916	29,752
WealthCap Spezial-AIF 4 GmbH & Co.						
geschlossene Investment KG	Munich	>0.0	>0.0	EUR	151,895	(76)
WealthCap Spezial-AIF 5 GmbH & Co.						
geschlossene Investment KG	Munich	10.5	10.5	EUR	165,733	1,382
Wealthcap Spezial Portfolio Immobilien 1 SA SICAV-SIF	Luxembourg	0.3	0.3			
Wealthcap Spezial Portfolio Immobilien 1 SCS SICAV-SIF	Luxembourg	50.0	50.0			
Wealthcap Spezial Portfolio Private Equity 1 SA SICAV-SIF	Luxembourg	0.1	0.1			
Wealthcap Spezial Portfolio Private Equity 1 SCS SICAV-SIF	Luxembourg	>0.0	>0.0			
WealthCap US Life Dritte GmbH & Co. KG						
(share voting rights: 0.0%)	Grünwald	0.1	0.1	USD	10,808	(16,138)
WealthCap Zweitmarkt 3 BASIS GmbH & Co. KG	Grünwald	>0.0	>0.0	EUR	30,943	1,505
WealthCap Zweitmarkt 3 PLUS GmbH & Co. KG	Grünwald	>0.0	>0.0	EUR	9,390	313
WealthCap ZweitmarktWerte Immobilien 4 GmbH & Co. KG	Munich	>0.0	>0.0	EUR	8,496	433
WH – Erste Grundstücks GmbH & Co. KG	Munich	6.0		EUR	101,807	19,311
Wohnungsbaugesellschaft der Stadt						
Röthenbach a.d.Pegnitz mit beschränkter Haftung	Röthenbach a.d.Pegnitz	5.2		EUR	3,349	118

Exchange rates for 1 euro at the reporting date

Currency abbreviation according to the International Organisation for Standardisation (ISO) code.

Brazil	1 EUR =	4.4440	BRL
China	1 EUR =	7.8751	CNY
UK	1 EUR =	0.89453	GBP
Pakistan	1 EUR =	159.54	PKR
USA	1 EUR =	1.1450	USD

Notes and comments to the list of holdings

Percentages marked < or > are rounded up or down to one decimal place, e.g. < 100.0% = 99.99% or > 0.0% = 0.01%.

1 UniCredit Bank AG has concluded profit and loss agreements with the following companies:

	COMPANY	PROFIT/(LOSS) TRANSFERRED € thousands
1.1	Food & more GmbH, Munich	(1,354)
1.2	HJS 12 Beteiligungsgesellschaft mbH, Munich	(6,103)
	thereof relating to 2018	2
1.3	HVB Capital Partners AG, Munich	(63)
1.4	HVB Immobilien AG, Munich	50,814
	thereof relating to 2018	39,914
1.5	HVB Secur GmbH, Munich	92
1.6	HVB Verwa 4 GmbH, Munich	(86)
1.7	MERKURHOF Grundstücksgesellschaft mit beschränkter Haftung, Munich	1,572
1.8	UniCredit Beteiligungs GmbH, Munich	(9)
1.9	UniCredit Direct Services GmbH, Munich	1,482
1.10	UniCredit Leasing GmbH, Hamburg	62,341
1.11	Verwaltungsgesellschaft Katharinenhof mbH, Munich	263
1.12	Wealth Management Capital Holding GmbH, Munich	21,732

2 Profit and loss transfer to shareholders and partners.

3 The exemption under Section 264b German Commercial Code and under Section 264 (3) German Commercial Code applies to the company.

4 Figures from the 2017 annual accounts are indicated for this consolidated company.

5 Where equity capital and net profit are not stated, the information is omitted due to minor importance compliant with Section 286 (3) 1 No. 1 German Commercial Code.

6 Equity capital amounts to €18,000 and the net profit €29,000.

7 Pursuant to Section 340a (4) No. 2 German Commercial Code, all holdings in large corporations with a share of voting rights greater than 5 percent.

8 Despite a holding of more than 20%, UniCredit Bank AG has no significant influence over the company on account of the ownership structure and the voting patterns to date.

9 The company is held by a trustee on behalf of UniCredit Bank AG.

10 UniCredit Bank AG holds the position of a limited partner under company law and participates in the profit of the company.

11 UniCredit Bank AG holds the position of a limited partner under company law but does not participate in the profit of the company.

Mortgage Banking

64 Coverage

The statement of coverage is as follows:

(€ millions)

	2018	2017
1. Mortgage bonds		
Standard coverage		
1. Loans and receivables with banks	—	—
Mortgage loans	—	—
2. Loans and receivables with customers	26,514	25,930
Mortgage loans	26,514	25,930
Other eligible cover[1]		
1. Other lending to banks	—	—
2. Bonds and other fixed-income securities	533	460
3. Equalisation claims on government authorities	—	—
Subtotal	**27,047**	**26,390**
Total mortgage bonds requiring cover	19,005	16,868
Excess coverage	**8,042**	**9,522**
2. Public-sector bonds		
Standard coverage		
1. Loans and receivables with banks	12	17
Mortgage loans	—	—
Municipal loans	12	17
2. Loans and receivables with customers	5,017	5,243
Mortgage loans	2	4
Municipal loans	5,015	5,239
3. Bonds and other fixed-income securities	269	269
Other eligible cover[2]		
Other lending to banks	—	—
Subtotal	**5,298**	**5,529**
Total public-sector bonds requiring cover	3,713	3,936
Excess coverage	**1,585**	**1,593**

1 Compliant with Section 19 (1) of the German Pfandbrief Act.
2 Compliant with Section 20 (2) of the German Pfandbrief Act.

65 Pfandbriefs outstanding and cover assets used

The following table shows Pfandbriefs outstanding and cover assets, broken down by Mortgage Pfandbriefs and Public Pfandbriefs: (€ millions)

	2018			2017		
	NOMINAL	PRESENT VALUE	RISK PRESENT VALUE[1]	NOMINAL	PRESENT VALUE	RISK PRESENT VALUE[1]
1. Mortgage bonds						
Mortgage bonds	19,005	20,076	19,362	16,868	17,978	17,205
thereof: derivatives	—	—	—	—	—	—
Covering assets[2]	27,047	29,164	27,804	26,390	28,493	27,196
thereof: derivatives	—	—	—	—	—	—
Excess coverage	**8,042**	**9,088**	**8,442**	**9,522**	**10,515**	**9,991**
2. Public-sector bonds						
Public-sector bonds	3,713	4,113	3,932	3,936	4,382	4,154
thereof: derivatives	—	—	—	—	—	—
Covering assets[3]	5,298	5,959	5,675	5,529	6,234	5,910
thereof: derivatives	—	—	—	—	—	—
Excess coverage	**1,585**	**1,846**	**1,743**	**1,593**	**1,852**	**1,756**

1 Dynamic procedure compliant with Section 5 (1) No.2 of the German Pfandbrief Net Present Value Regulation.
2 Including further cover assets compliant with Section 19 (1) of the German Pfandbrief Act with a nominal amount of €533 million as at 31 December 2018 and €460 million at 31 December 2017.
3 Including no further cover assets compliant with Section 20 (2) of the German Pfandbrief Act as at 31 December 2018 and as at 31 December 2017.

66 Maturity structure of Pfandbriefs outstanding and fixed-interest periods of respective cover assets

The following table shows the maturity structure of Pfandbriefs outstanding and fixed-interest periods of cover assets: (€ millions)

	2018		2017	
	MORTGAGE BONDS	COVERING ASSETS	MORTGAGE BONDS	COVERING ASSETS
1. Mortgage bonds[1]	**19,005**	**27,047**	**16,868**	**26,390**
up to 0.5 years	484	1,923	437	1,920
at least 0.5 years but less than 1 year	2,033	1,354	589	1,225
at least 1 year but less than 1.5 years	1,282	1,200	477	1,408
at least 1.5 years but less than 2 years	2,108	1,415	2,032	1,180
at least 2 years but less than 3 years	2,326	2,469	2,390	2,495
at least 3 years but less than 4 years	1,982	2,396	1,804	2,578
at least 4 years but less than 5 years	2,042	2,334	1,977	2,295
at least 5 years but less than 10 years	4,922	9,758	5,423	9,593
10 years or more	1,826	4,198	1,739	3,696
2. Public-sector bonds[2]	**3,713**	**5,298**	**3,936**	**5,529**
up to 0.5 years	297	267	101	405
at least 0.5 years but less than 1 year	133	525	136	264
at least 1 year but less than 1.5 years	130	388	593	286
at least 1.5 years but less than 2 years	636	561	123	431
at least 2 years but less than 3 years	689	528	745	911
at least 3 years but less than 4 years	419	449	136	477
at least 4 years but less than 5 years	289	384	689	418
at least 5 years but less than 10 years	483	1,233	747	1,328
10 years or more	637	963	666	1,009

1 Including further cover assets in accordance with Section 19 (1) of the German Pfandbrief Act; broken down by fixed-interest period and maturity of Pfandbriefs respectively.
2 Including further cover assets in accordance with Section 20 (2) of the German Pfandbrief Act; broken down by fixed-interest period and maturity of Pfandbriefs respectively.

Mortgage Banking (Continued)

67 Volume of claims used as cover for Pfandbriefs, broken down by size class

The following table shows the volume of claims used as cover for Pfandbriefs:

(€ millions)

	2018	2017
1. Mortgage covering assets	**26,514**	**25,930**
up to and including €300,000	10,346	10,576
over €300,000 up to and including €1,000,000	4,241	3,990
over €1,000,000 up to and including €10,000,000	6,272	6,090
more than €10,000,000	5,655	5,274
2. Public-sector bonds[1]	**5,298**	**5,529**
up to and including €10,000,000	1,353	1,511
over €10,000,000 up to and including €100,000,000	1,550	1,742
more than €100,000,000	2,395	2,276

1 Volume of claims used as cover for public Pfandbriefs according to size classes, in each case with respect to a debtor or a guaranteeing entity.

68 Volume of claims used as cover for Mortgage Pfandbriefs, broken down by state in which the real property collateral is located and property type

The following table shows the volume of claims used as cover for Mortgage Pfandbriefs, broken down by state in which the real property collateral is located and property type:

(€ millions)

	2018		2017	
	RESIDENTIAL PROPERTY	COMMERCIAL PROPERTY	RESIDENTIAL PROPERTY	COMMERCIAL PROPERTY
Germany	**18,249**	**8,264**	**17,680**	**8,249**
Condominiums	4,346	—	4,289	—
Single-family and two-family houses	7,165	—	6,992	—
Multiple-family houses	6,598	—	6,261	—
Office buildings	—	4,400	—	4,183
Retail buildings	—	2,494	—	2,543
Industrial buildings	—	368	—	481
Other commercially used buildings	—	801	—	804
New buildings under construction, not yet profitable	82	142	109	166
Building land	58	59	29	72
France	**1**	**—**	**1**	**—**
Single-family and two-family houses	1	—	1	—
Italy	**—**	**—**	**—**	**—**
Single-family and two-family houses	—	—	—	—
Total	**18,250**	**8,264**	**17,681**	**8,249**

69 Volume of claims used as cover for Public Pfandbriefs, broken down by type of debtor or guaranteeing entity and its home country

The following table shows the volume of claims used as cover for Public Pfandbriefs broken down by type of borrower or guaranteeing entity and head office (state) as well as by whether or not the guarantee was granted for reasons of promoting exports:

(€ millions)

	2018	2017
Germany		
Central government	673	355
thereof owed	—	—
thereof guaranteed	673	355
Regional authorities	1,757	2,020
thereof owed	1,292	1,474
thereof guaranteed	465	546
Local authorities	2,603	2,889
thereof owed	2,134	2,338
thereof guaranteed	469	551
Other	25	45
thereof owed	25	28
thereof guaranteed	—	17
Total Germany	**5,058**	**5,309**
thereof owed	3,451	3,840
thereof guaranteed	1,607	1,469
Guarantees for reasons of promoting exports	673	355
Denmark	**20**	**—**
Central government	20	—
thereof owed	—	—
thereof guaranteed	20	—
Guarantees for reasons of promoting exports	20	—
Austria	**220**	**220**
Central government	220	220
thereof owed	200	200
thereof guaranteed	20	20
Total	**5,298**	**5,529**
thereof owed	3,651	4,040
thereof guaranteed	1,647	1,489
Guarantees for reasons of promoting exports	693	355

Mortgage Banking (Continued)

70 Other eligible cover

The following table shows the breakdown of other eligible cover for Pfandbriefs: (€ millions)

	2018	2017
1. Mortgage bonds	**533**	**460**
Equalisation claims according to Section 19 (1) No. 1 PfandBG	—	—
All states	—	—
Money claims according to Section 19 (1) No. 2 PfandBG[1]	—	—
Germany	—	—
thereof: covered bonds according to Article 129 of Regulation (EU) No. 575/2013	—	—
Other states	—	—
Bonds according to Section 19 (1) No. 3 PfandBG[2]	533	460
Germany	533	460
Other states	—	—
2. Public-sector bonds	**—**	**—**
Equalisation claims according to Section 20 (2) No. 1 PfandBG	—	—
All states	—	—
Money claims according to Section 20 (2) No. 2 PfandBG	—	—
All states	—	—
thereof: covered bonds according to Article 129 of Regulation (EU) No. 575/2013	—	—

1 Without cover assets according to Section 4 (1) sentence 2 No. 1 and 2 German Pfandbrief Act.
2 Including cover assets according to Section 19 (1) No. 2 German Pfandbrief Act in conjunction with Section 4 (1) sentence 2 No. 1 and 2 German Pfandbrief Act.

71 Key figures for Pfandbriefs outstanding and associated cover assets

The following table shows the breakdown of key figures for Pfandbriefs outstanding and their respective cover assets:

		2018	2017
1. Mortgage bonds			
Mortgage bonds outstanding	€ millions	19,005	16,868
thereof: share of fixed-interest Pfandbriefs (Section 28 (1) No. 9 PfandBG)	%	81.94	82.11
Eligible cover[1]	€ millions	27,047	26,390
thereof: total amount of loans and receivables exceeding the thresholds according to Section 13 (1) PfandBG (Section 28 (1) No. 7 PfandBG)	€ millions	—	—
thereof: total amount of loans and receivables exceeding the thresholds stated in Section 19 (1) No. 2 PfandBG (Section 28 (1) No. 8 PfandBG)	€ millions	—	—
thereof: total amount of loans and receivables exceeding the thresholds stated in Section 19 (1) No. 3 PfandBG (Section 28 (1) No.8 PfandBG)	€ millions	—	—
thereof: share of fixed-interest cover (Section 28 (1) No. 9 PfandBG)	%	80.06	77.99
Net present value according to Section 6 Pfandbrief Net Present Value Regulation for each foreign currency, in euros (Section 28 (1) No. 10 PfandBG – balance of asset/liability sides)	€ millions	—	—
Volume-weighted average age of the loans and receivables (period passed since loan granting – seasoning) (Section 28 (1) No. 11 PfandBG)	years	7.3	7.6
Average weighted loan-to-value ratio (Section 28 (2) No. 3 PfandBG)	%	41.68	41.20
2. Public-sector bonds			
Public-sector bonds outstanding	€ millions	3,713	3,936
thereof: share of fixed-income Pfandbriefs (Section 28 (1) No. 9 PfandBG)	%	89.23	96.19
Eligible cover[2]	€ millions	5,298	5,529
thereof: total amount of loans and receivables exceeding the thresholds stated in Section 20 (2) No. 2 PfandBG (Section 28 (1) No. 8 PfandBG)	€ millions	—	—
thereof: share of fixed-income cover Section 28 (1) No. 9 PfandBG)	%	76.14	82.41
Net present value according to Section 6 Pfandbrief Net Present Value Regulation for each foreign currency in € millions (Section 28 (1) No. 10 PfandBG – balance of asset/liability sides)	USD	7	—

1 Including further cover assets according to Section 19 (1) German Pfandbrief Act.
2 Including further cover assets according to Section 20 (2) German Pfandbrief Act.

Mortgage Banking (Continued)

72 Payments in arrears

Total amount of payments in arrears for at least 90 days in respect of the claims used as cover for Pfandbriefs and breakdown by states in which the real property collateral is located:

(€ millions)

	2018	2017
1. Mortgage bonds		
Payments in arrears of at least 90 days	(1)	—
Germany	(1)	—
Payments in arrears of at least 90 days, arrears equal at least 5% of the loan	(1)	—
Germany	(1)	—
2. Public-sector bonds		
Payments in arrears of at least 90 days	—	—
All states	—	—
Payments in arrears of at least 90 days, arrears equal at least 5% of the loan	—	—
All states	—	—

73 Foreclosures and sequestrations

The following table shows the breakdown of foreclosures and sequestrations carried out in 2018:

		OF WHICH IN 2018	
	NUMBER OF PROCEEDINGS	COMMERCIAL PROPERTY	RESIDENTIAL PROPERTY
1. Foreclosures and sequestrations			
a) Pending at 31 December 2018			
Foreclosure proceedings	299	47	252
Sequestration proceedings	13	3	10
Foreclosure and sequestration proceedings	229	45	184
	541	**95**	**446**
(comparative figures from 2017	554	99	455)
b) Foreclosures finalised in 2018	**21**	**3**	**18**
(comparative figures from 2017	16	2	14)
2. Properties repossessed			
As in the prevoius year the Pfandbrief bank did not have to repossess any properties during the year under review to prevent losses on mortgage loans.			

74 Interest in arrears

Interest in arrears on mortgage-covering assets due between 1 October 2017 and 30 September 2018 breaks down as follows:

(€ millions)

	2018	2017
Interest in arrears	—	—
Commercial property	—	—
Residential property	—	—

The present annual financial statements were prepared on 12 March 2019.

UniCredit Bank AG
The Management Board

Betocchi Drwenski | Beumer | Dr Buttà | Čortan

Dr Diederich | Kupfer | Zadra

Declaration by the Management

To the best of our knowledge, and in accordance with the applicable reporting principles, the annual financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of HVB, and the Management Report includes a fair review of the development and performance of the business and the position of HVB, together with a description of the principal opportunities and risks associated with the expected development of HVB.

Munich, 12 March 2019

UniCredit Bank AG
The Management Board

Betocchi Drwenski

Beumer

Dr Buttà

Čortan

Dr Diederich

Kupfer

Zadra

Auditor’s Report

INDEPENDENT AUDITOR’S REPORT

To UniCredit Bank AG, Munich

REPORT ON THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND OF THE MANAGEMENT REPORT

Audit Opinions
We have audited the annual financial statements of UniCredit Bank AG, Munich, which comprise the balance sheet as at 31 December 2018, the income statement for the financial year from 1 January to 31 December 2018 and the notes to the financial statements, including the presentation of the accounting and measurement methods. In addition, we have audited the management report of UniCredit Bank AG, Munich, for the financial year from 1 January to 31 December 2018. In accordance with the German legal requirements, we have not audited the content of the statement on business management pursuant to § 289f (4) German Commercial Code (HGB) (gender quota disclosures) included in section “Corporate structure of UniCredit Bank AG” of the management report.

In our opinion, on the basis of the knowledge obtained in the audit,
– the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law applicable to corporations and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2018 and of its financial performance for the financial year from 1 January to 31 December 2018 in compliance with German Legally Required Accounting Principles, and
– the accompanying management report as a whole provides an appropriate view of the Company’s position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the management report does not cover the content of the above-mentioned statement on business management pursuant to § 289f (4) German Commercial Code (HGB) (gender quota disclosures).

Pursuant to § 322 (3) sentence 1 German Commercial Code (HGB), we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and of the management report.

Basis for the Audit Opinions
We conducted our audit of the annual financial statements and of the management report in accordance with § 317 German Commercial Code (HGB) and the EU Audit Regulation (No. 537/2014, referred to subsequently as “EU Audit Regulation”), and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s Responsibilities for the Audit of the Annual Financial Statements and of the Management Report” section of our auditor’s report. We are independent of the Company in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the annual financial statements and on the management report.

Key Audit Matters in the Audit of the Annual Financial Statements
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from 1 January to 31 December 2018. These matters were addressed in the context of our audit of the annual financial statements as a whole and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In the following we present the key audit matters we have determined in the course of our audit:
1. Loan loss provisions in the credit business
2. Determination of the fair value of financial instruments held for trading
3. IT controls related to financial reporting
4. Valuation of significant legal risks from potential breach of financial sanctions
5. Merger of UniCredit Luxembourg S.A. with UniCredit Bank AG

Our presentation of these key audit matters has been structured as follows:
a) Description (including reference to corresponding information in the annual financial statements)
b) Auditor’s response
c) Key observations

1. Loan loss provisions in the credit business

a) UniCredit Bank AG provides loans to customers. In accounting, the valuation of loans to customers regularly requires the use of estimates. In the annual financial statements, loan loss provisions are offset against the balance sheet item "Loans to customers". Furthermore, provisions for credit risks are disclosed under other provisions. The valuation parameters used for the measurement of the loan loss provisions have a significant impact on the recognition respectively the amount of the required provisions for credit risk. In this respect, the determination of the provisions are subject to considerable uncertainty and margin of discretion and therefore this issue was identified as a key audit matter. The disclosures regarding the loan loss provisions are enclosed in section 5 of the notes.

b) As part of the audit of the annual financial statements, we have initially audited the design, implementation and operating effectiveness of the internal controls regarding the recording, processing and valuation of loans as well as the related financial reporting. In doing so, we also took into account the relevant business organisation, including the significant IT systems and valuation models. The audit of the valuation included the assessment of the implemented processes and controls for identifying impaired loans. On a sample basis, we have audited the credit-worthiness of borrowers, the estimated collateral values and the liquidation periods for credit collaterals based on empirical values of comparable collaterals in the past. In addition, we have evaluated the reasonableness of the probabilities of the scenarios used for the loans of our sample. We have used specialists from our Risk Advisory division specialised in credit risk management and IT audit for our audit. For the audit of the valuation of loans and contingent liabilities, as well as other financial commitments related to the credit business, our focus was on the significantly impaired loans, since there are significant areas of judgement and these have a material impact on the valuation of loans and the recognition of loan loss provisions. We have evaluated the valuation of the loans based on bank-internal forecasts of the future income and liquidity position of borrowers and assessed the appropriateness of the information basis used for planning purposes. In doing so, we have critically challenged and assessed the underlying assumptions of the legal representatives, with regard to the various expected cash flows of the audited loans, respectively the recovery of collaterals.

c) We challenged significant assumptions and estimates made by the legal representatives. Overall, the risk provisions are within acceptable ranges.

2. Determination of the fair value of financial instruments held for trading

a) Financial instruments assets, which are valued at fair value, are disclosed net of a risk discount under the balance sheet item "Held-for-trading portfolio" in accordance with § 340e (3) German Commercial Code (HGB) in the annual financial statements. Similarly, financial instruments liabilities at fair value are disclosed under the balance sheet item "Held-for-trading portfolio" in the annual financial statements. The valuation of financial instruments held for trading was identified as a key audit matter as it is subject to complex accounting principles, valuation procedures and -methods and is partially based on estimates and assumptions made by the legal representatives. The disclosures made by the legal representatives regarding the valuation of financial instruments are enclosed in section 7 and 32 of the notes.

b) We have audited the organizational structure and related processes with regards to the determination of the fair value of financial instruments by examination of the adequacy and operating effectiveness of the implemented key controls. We have used valuation specialists from our Risk Advisory division for our audit. In particular, our audit included the independent verification process for pricing, the validation of valuation methods and assumptions, the approval process for new financial instruments, the audit of controls for recording contractual and valuation inputs, the flow of market data, the governance and the reporting processes including the corresponding controls. The calculated fair values are adjusted for the Bank's credit-worthiness, counterparty credit risk, model risk, bid-ask spread, refinancing costs and expected costs in connection with the liquidation of less actively traded instruments. With respect to these adjustments, we audited the Bank's assumptions, procedures and models with regard to the use of valuation techniques used in the industry and a correct and comprehensible valuation. In addition, we have conducted our own independent valuation of selected financial instruments and compared our results with the valuation performed by the Bank. Noteworthy issues from disputes with counterparties and extraordinary gains or losses from the sale of financial instruments were investigated.

c) The valuation methods selected by the legal representatives of the Bank for the determination of the fair value of financial instruments are in line with industry standards.

3. IT controls related to financial reporting

a) As part of the preparation of the annual financial statements, the Bank uses a large number of IT applications that have numerous interfaces. In order to maintain the integrity of the data used for the preparation of the annual financial statements, the Bank has taken various precautionary measurements and implemented controls. The Bank has outsourced its IT services, to a large extent, to UniCredit Services S.C.p.A., Milan (Italy), which has further outsourced a part of these services to other service providers. The IT controls related to financial reporting has been selected as a key audit matter, as the security of information affects many aspects of the accounting and financial reporting process, results in a large audit effort and is characterised by a high level of complexity. We refer to the disclosure of the legal representatives in section 4 Operational Risk in the risk report of the management report with regards to the outsourcing of IT services.

b) Based on our risk assessment, we have audited the design, implementation and operating effectiveness of the controls related to user rights and change management processes for the significant accounting-relevant IT applications by using IT specialists from our Risk Advisory division. In doing so, we agreed the scope of the ISAE 3402 audit with the ISAE 3402 auditor at UniCredit Services S.C.p.A. and the group auditors of UniCredit S.p.A. and used the audit results of those. We have informed ourselves of the professional competence, independence and regulatory governance of these auditors. When using these reports, we have inter alia critically assessed the reporting related to these audit procedures and audit results.

c) IT controls related to financial reporting implemented by the Bank were enhanced over the past years. In the area of individual data processing, the Bank is in the process of further improving controls.

4. Valuation of significant legal risks from potential breach of financial sanctions

a) Provisions for legal risks are disclosed under the balance sheet item "other provisions" in the annual financial statements, of which a part relates to a potential breach of financial sanctions. This issue has been identified as a key audit matter, as the recognition and measurement of these quantitatively material legal risks are based, to a large extent, on estimates and assumptions made by the legal representatives. The disclosures made by the legal representatives regarding the provisions in relation to the legal risks are enclosed in section 41 of the notes to the annual financial statements and in section 4 Operational Risk in the risk report of the management report.

b) As there is an increased risk of misstatements in accounting estimates and the fact that the valuation choices made by the legal representatives have a significant effect on the assets, liabilities, financial position and financial performance, we have audited the operational and organizational structure with regards to the recording and valuation of legal risks. In addition, we have assessed the appropriateness of the amounts stated by comparing with the calculations and assessments provided by the Company's attorneys and requested confirmation letters from them. With the support of a financial sanctions specialist, we have critically considered the underlying assumptions of the legal representatives.

c) The provision created by the legal representatives for the legal risks from a potential breach of financial sanctions reflects the discussions with the US authorities.

5. Merger of UniCredit Luxembourg S.A. with UniCredit Bank AG

a) In the financial year, the subsidiary UniCredit Luxembourg S.A., Luxembourg was cross-border merged with UniCredit Bank AG, Munich. Its business activities continued as a foreign branch of the bank. The merger took place economically effective on 1st of July, whereby the assets, liabilities and accruals were proceed at their carrying amounts, adjusted for German Commercial Law purposes. The transferred net book value of the net assets was higher than the book value of the investment in UniCredit Luxembourg S.A., which had a significant impact on the Bank's net income of the year. The Luxembourg branch has adjusted its financial reporting processes, including IT interfaces, and since then has reported to UniCredit Bank AG in accordance with German Commercial Law. We have identified the cross-border merger as a key audit matter as it was an unusual transaction for the Bank and had a significant impact on the Bank's net income. The information provided by the legal representatives on the merger is enclosed in section 22 of the notes to the annual financial statements and in section corporate structure of UniCredit Bank AG in the management report.

b) As part of our audit, we have audited the design and implementation of financial reporting processes of the Luxembourg Branch to UniCredit Bank AG, in particular with regard to the appropriateness and effectiveness of the implemented key controls. We have included our colleagues from Deloitte Luxembourg and our IT specialists from our Risk Advisory division for our audit. We performed substantive audit procedures for the reconciliation of local GAAP financial reporting to German GAAP financial reporting. We have audited the calculation, recording and presentation of the gain from the merger in the accounting system and in the annual financial statements of the Bank.

c) The merger was recorded in the commercial register on July 20, 2018. The merger has thus become legally effective.

Other Information
The executive directors are responsible for the other information. The other information comprises:
– the statement on business management included in section "Corporate structure of UniCredit Bank AG" of the management report pursuant to § 289f (4) German Commercial Code (HGB) (gender quota disclosures),
– the executive directors' confirmation relating to the annual financial statements and to the management report pursuant to § 264 (2) sentence 3 and § 289 (1) sentence 5 German Commercial Code (HGB) respectively, and
– the remaining parts of the annual report, with the exception of the audited annual financial statements and management report and our auditor's report.

Our audit opinions on the annual financial statements and on the management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information
– is materially inconsistent with the annual financial statements, with the management report or our knowledge obtained in the audit, or
– otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Annual Financial Statements and the Management Report
The executive directors are responsible for the preparation of the annual financial statements, that comply, in all material respects, with the requirements of German commercial law applicable to corporations, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether intentional or unintentional.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the management report that, as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The supervisory board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor's Responsibilities for the Audit of the Annual Financial Statements and of the Management Report
Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 German Commercial Code (HGB) and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also
– Identify and assess the risks of material misstatement of the annual financial statements and of the management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
– Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures relevant to the audit of the management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems of the Company.
– Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
– Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report, or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.
– Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Legally Required Accounting Principles.
– Evaluate the consistency of the management report with the annual financial statements, its conformity with German law, and the view of the Company's position it provides.
– Perform audit procedures on the prospective information presented by the executive directors in the management report. On the basis of sufficient appropriate audit evidence, we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Auditor’s Report (Continued)

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor’s report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Further Information pursuant to Article 10 of the EU Audit Regulation
We were elected as auditor by the annual general meeting on 11 January 2018. We were engaged by the supervisory board on 24 July 2018. We have been the auditor of UniCredit Bank AG, Munich, without interruption since the financial year 2013.

We declare that the audit opinions expressed in this auditor’s report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

In addition to the financial statement audit, we have provided to the Company, respectively to entities controlled by the company, the following services that are not disclosed in the annual financial statements or in the management report:
– Audits and reviews of reporting packages
– Support services in connection with external audits
– Audit of a net asset value calculation
– Audits pursuant to § 36 of the Securities Trading Act
– Audit of the internal control system of a service organization
– Performing agreed upon procedures
– Audits of financial information or their components
– Professional report
– Review of an assignment of findings to process areas

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Martin Kopatschek.

Munich, March 12, 2019

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

(Prof Dr Carl-Friedrich Leuschner)	(Martin Kopatschek)
Wirtschaftsprüfer	Wirtschaftsprüfer
German Public Auditor	German Public Auditor

The translation of the Independent Auditor’s Report is for convenience only; the German version prevails.

Contacts

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