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2020

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

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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 affiliate 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, HVB remains listed on securities exchanges as an issuer of Pfandbriefe, 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. The Management Board is directly responsible for managing the Bank. It is obliged to act in the interests of the company and to sustainably increase its corporate 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 reports at regular intervals, 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 in particular the matters reserved for the Management Board and the requirements for adopting resolutions and the required majorities.

The Supervisory Board of HVB 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.

The following changes occurred in the reporting period:

Supervisory Board

At the Annual General Meeting of Shareholders of UniCredit Bank AG (HVB) on 23 June 2020 the Supervisory Board was newly elected as scheduled with effect from the end of that Annual General Meeting.

The following were elected as new members of the Supervisory Board (shareholder representatives) of HVB:

Ms Finja Kütz, Dr Claudia Mayfeld and Dr Bernd Metzner. Furthermore, Mr Thomas Schöner was elected to the Supervisory Board as a new member in line with the provisions of 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). His term of office also began on 23 June 2020 at the end of the Annual General Meeting.

Mr Paolo Cornetta, Dr Marita Kraemer, Mr Klaus-Peter Prinz and Dr Wolfgang Sprissler resigned from the Supervisory Board of HVB with effect from the end of the Annual General Meeting on 23 June 2020.

The previous Supervisory Board members Gianpaolo Alessandro, Olivier Khayat and Prof Dr Annette G. Köhler were re-elected for a further term of office.

In addition, Mr Florian Schwarz, Ms Claudia Richter, Mr Oliver Skrbot, Mr Christian Staack and Mr Gregor Völkl were re-elected for a further term of office in line with the provisions of MgVG.

Management Board

Dr Emanuele Buttà resigned from the Management Board with effect from the end of 14 April 2020.

Mr Jörg Frischholz was appointed to the Management Board (Commercial Banking – Private Clients Bank) with effect from 15 April 2020. With effect from the end of 30 April 2020, Mr Guglielmo Zadra resigned from the Management Board. Mr Simone Marcucci was appointed a new member of the Management Board with effect from 1 May 2020 and is responsible as the new Chief Financial Officer (CFO). With effect from the end of 31 August 2020, Ms Sandra Betocchi Drwenski resigned from the Management Board and Mr Boris Scukanec Hopinski was newly appointed to the Management Board as the Chief Operating Officer (COO). With effect from the end of 31 October 2020, Ms Ljiljana Čortan resigned from the Management Board and with effect from 1 November 2020, Dr Jürgen Kullnigg was appointed to the Management Board and is responsible as the Chief Risk Officer (CRO).

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 "Members of the Supervisory Board" and the Note "Members of the Management Board" in the notes to this Annual Report.

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

The Supervisory Board of HVB set a target that one-third of the members of the Supervisory Board 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. Until 23 June 2020, three members of the Supervisory Board were women: Dr Marita Kraemer and Prof Dr Annette G. Köhler as shareholder representatives and Ms Claudia Richter as an employee representative. Achieving this target was given priority particularly during the scheduled elections to the Supervisory Board in the 2020 financial year. Since 23 June 2020, four women have been members of the Supervisory Board: Dr Claudia Mayfeld, Prof. Dr Annette G. Köhler, and Ms Finja Kütz as shareholder representatives and Ms Claudia Richter as an employee representative. Thus, the target of one-third has been met.

For the proportion of women on the Management Board, the Supervisory Board adopted a target that one-seventh of the members should be women, 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, 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 Risk Officer - CRO) from 1 January 2018, two sevenths of the members of the Management Board were women. With the retirement of Ms Sandra Betocchi Drwenski with effect from the end of 31 August 2020 and Ms Ljiljana Čortan with effect from end of 31 October 2020 from the Management Board of HVB, the previously achieved target is no longer achieved as from 31 December 2020. A continued effort will be made to achieve the target of filling one-seventh of the Management Board positions with women by 31 December 2021.

Business Situation and Trends (Continued)

The proportion of women in upper management has risen steadily since 2012. Comprehensive measures to empower women, and more balanced leadership teams have been implemented – from local and global talent programmes for the different hierarchical levels to individual personnel-development measures specially designed to support talented women and top performers in their careers and to accord them commensurate visibility. In addition, a binding quota has been established in a range of talent programmes and in promotion and position-filling processes.

For the proportion of women at the first and second management levels below the Management Board respectively, the Management Board set the following targets for the end of 2021: 22 percent of women at the first level and 24 percent of women at the second level below the Management Board. At 31 December 2020, the proportion of women at the first level below the Management Board was 19 percent and 20 percent at the second level below the Management Board. In order to achieve the ambitious targets below the Management Board level, the Bank has adopted effective and sustainable medium-term measures to support and empower women with high potential on their career paths. A steadily growing redressing of imbalances in the candidate pools for the higher leadership positions has already been achieved.

In addition, a gender diversity project comprising various measures was initiated at the end of 2020, aimed particularly at promoting more women to team leader positions and thereby creating a broader and more sustainable basis for succession planning at higher levels. Issues such as the career following the return to work after parental leave, flexible leadership models, further reduction of the gender pay gap, as well as increased and comprehensive initiatives for women to network with each other and to increase their visibility vis-à-vis top management and the Management Board are just a few of the important measures that are dealt with in this project. Efforts will continue to be made to achieve of the target quotas of 22 and 24 percent of women at the two management levels below the Management Board by 31 December 2021.

Non-financial reporting

In the context of transposing the Corporate 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. This non-financial reporting covers labour, social and environmental issues (sustainability), respect for human rights and anti-corruption. As a fully consolidated subsidiary of the UniCredit corporate group, HVB abstains from 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 "A Sustainable Bank" (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 the need for value-based management, the principle of overall bank management is based on earnings, risk, liquidity and capital aspects. This principle 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 HVB's overall bank management are stated at the relevant places in the Management Report.

Business model, main products, sales markets, competitive position and locations in the 2020 financial year

HVB is part of UniCredit, a pan-European commercial bank with integrated corporate & investment banking. It offers its broad customer base a banking network across Western, Central and Eastern Europe that is both regional and international in focus. Its integration into UniCredit enables HVB to exploit its international network and economies of scale. UniCredit has a divisionally and regionally diversified business model. It provides its customers access to commercial banks in 13 countries and other offices worldwide.

As a universal bank, HVB with its subsidiaries is a provider of banking and financial services and focuses on 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 has 339 offices around the world – 324 of which are in Germany which have been adapted to changing customer behaviour in recent years. In addition to its branch network, customers are served irrespective of their location through its remote channels A breakdown of HVB Group's offices by region is shown in the Note "Offices" in this Management Report.

Business segments

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

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, wealth management and private banking customers (including high net worth individuals/ultra high net worth individuals and family offices), 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.

Commercial Banking offers a range of products and services enabling comprehensive customer support in line with the universal bank model. These services range from payment products, mortgage loans, consumer loans, savings-and-loan and insurance products as well as retail banking services through to business loans and foreign trade financing for corporate customers, fund products for all asset classes, advisory and brokerage services in the securities business, liquidity and financial risk management, advisory services for high net worth individuals and 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 organised around a matrix structure.

The success of CIB 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 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)

The customer support units are 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) and Structured Trade and Export Finance (STEF).

Global Transaction Banking (GTB) offers a diverse range of 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, cashflow optimisation, liquidity management and mainly short-term import and export finance.

Markets is a customer-oriented product area that supports the corporate and institutional operations of the UniCredit Group 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.

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. This includes the Chief Financial Office, the Credit Risk Office and the Chief Executive Office business units as well as the profits and losses of holdings 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 customer portfolio.

Other business segment
The Other business segment encompasses the Chief Operating Office (COO). It acts as a central internal service provider for customers and employees. COO activities extend to organisation, process- and project management, corporate & cyber security, strategic real estate management, logistics, cost management and business support e.g. money market and derivatives, know your customer and accounting. Furthermore, the Data Protection Officer (DPO), the Chief Information Officer (CIO) and the Chief Security Officer (CSO) of HVB report directly to the COO. Payments, securities settlement, IT application development and IT operations, procurement and facility management have been outsourced and are monitored via the retained organisation functions in COO.

Team 23
Our four-year Team 23 strategic plan focuses on growth and accelerating our business activities, also in the current COVID-19 environment. We aim to increase and strengthen our customer base, drive forward productivity and expand our digitalisation activities. In doing so, we intend to deliver sustainable yields, operate reliably with integrity and deal responsibly with resources and the environment; we will also aim to do more than “business as usual”. To underpin our growth, in the coming years we will be investing more than previously in further digitalisation, automation and end-to-end process optimisation. In addition, we will create growth opportunities through greater interaction between business segments and the standardisation of customer platforms. At the same time, a further adjustment of our staffing levels is planned. As in the past, we will also do this in the future through socially compatible measures, i. e. to a large extent via natural fluctuation and partial and early retirement solutions. Moreover, new employment prospects will be created by continuing to promote existing initiatives; severance packages will be concluded where this is not possible. An agreement to this effect was concluded between the senior management and the Central Works Council on 5 December 2019. Our four-year planning is embedded in the group-wide Team 23 strategic plan, which is based on four pillars: grow and strengthen client franchise, transform and maximise productivity, disciplined risk management and controls as well as capital and balance sheet management.

Corporate acquisitions and sales

No major corporate acquisitions or sales were made in the 2020 financial year.

Economic report

Underlying economic conditions

According to the International Monetary Fund (IMF), global economic growth declined by 3.5 percent in 2020 compared with the previous year, although there were some differences between countries. One of the main reasons for the weaker global trend was the collapse in world trade. While the USA posted a significant fall in growth, an even sharper decline in growth was seen in the eurozone. In contrast to most countries, China recorded slight economic growth. Apart from monetary and fiscal policy measures, the rapid containment of the COVID-19 pandemic and the accompanying partial opening of the economy that followed particularly spurred China's GDP growth.

In 2020, real GDP growth in the USA declined by 3.5 percent (from plus 2.2 percent in the previous year according to the Bureau of Economic Analysis (BEA)). After a sharp fall in economic output in the first half of 2020, triggered by massive job cuts in the labour market and a severe slump in private consumer spending in the course of the COVID-19 pandemic, the economy recovered somewhat in the second half of the year. The substantial government support of incomes at the beginning of the year including direct payments made to households coupled with a generous increase in unemployment benefits introduced by the CARES Act made a significant contribution to this recovery. On 7 November the democrat Joe Biden was declared the winner of the US presidential elections and at the end of December the US Congress reached an agreement on a new economic stimulus package intended to mitigate the impact of the COVID-19 pandemic with around 900 billion US dollars.

GDP also fell sharply in the eurozone by 6.8 percent in 2020 (The UniCredit Macro & Markets Weekly, "Draghi effect still has legs across assets", published on 12 February 2021). The declines in the countries most affected by the COVID-19 pandemic (such as France, Italy and Spain) had a particularly negative impact. Despite an economic recovery at the beginning of the second half of the year in many countries, triggered by a broad relaxation of restrictions as well as by monetary and fiscal policy support measures, new containment measures during a second wave of infections adversely affected growth in the fourth quarter of 2020. However, more differentiated measures to combat the COVID-19 pandemic meant that the decline in GDP was less pronounced this time than when the pandemic started in the spring. In addition, the manufacturing industry proved to be a supporting factor as it benefitted from pent-up demand for consumer durables after the first shutdown and a convincing economic recovery in China. In December 2020, the EU and the United Kingdom agreed on a joint trade agreement which prevented a no-deal Brexit.

In December 2020, the ECB announced further relaxation measures. The main focus of these measures was an increase in the existing pandemic emergency purchase programme (PEPP) and the preservation of favourable long-term refinancing conditions. In addition, the ECB called on banks to refrain from or limit the payment of dividends to external investors until the end of September 2021. The inflation rate in the eurozone rose to 0.3 percent for the whole of 2020 (according to Eurostat) and was thus below the ECB's target of close to but below 2.0 percent again in this reporting year.

At country level (data according to national statistical offices), the GDP in Germany fell by 5.0 percent in 2020 (2019: plus 0.6 percent), and in France economic activity in 2020 also fell by 8.3 percent (2019: plus 1.5 percent). Italy's economy contracted by 8.9 percent in 2020 compared with plus 0.3 percent in 2019. The economic recovery in Spain, which recorded growth of 2.0 percent in 2019, posted a decline of 11 percent in 2020.

Business Situation and Trends (Continued)

The slump in German economic output in 2020 was primarily due to a noticeable decline in private consumer spending and exports. By contrast, the construction industry and government spending buoyed up economic activity. They allowed Germany to disengage to some extent from developments in other countries in the eurozone (such as France, Italy and Spain). This was possible in part because fewer business sectors were affected by the restrictive measures aimed at containing the COVID-19 pandemic and because the momentum in the manufacturing industry proved to be robust, particularly in the second half of the year. Fiscal measures, such as the temporary reduction in value added tax, also triggered a pull-forward effect in purchases of consumer durables.

Sector-specific developments

The dominant theme in 2020 was the global COVID-19 pandemic. Since March 2020, measures for containing the virus have led to the most severe decline in economic output in Europe since the Second World War. In this context, the banking sector is seen as a key building block to overcoming the crisis, which is why one of the main goals of policymakers and banking supervisors was to encourage the banks' willingness to continue extending lines of credit to the real economy. This has led to a raft of monetary policy and regulatory support measures. Furthermore, national governments and European institutions launched economic stimulus measures and set up guarantee programmes with a focus on corporate lending. Statutory, banking industry-specific and bilateral payment moratoria were also set up for loan instalments. All of these measures had direct or indirect positive effects on the general conditions for banks and their lending activities. In the ECB Bank Lending Survey, it became apparent that on account of the support measures in the second quarter of 2020, the lending standards for companies did not become more stringent. Despite the severe economic contraction, there was no indication of any procyclical constraint to lending, especially on account of the government guarantee programmes. At 30 September 2020, some 7 percent of all corporate loans in the eurozone were already covered by a government guarantee. Lending standards became more stringent in the third and fourth quarter of 2020, driven by the risk assessment of banks and uncertainty about the phasing out of government support measures in 2021. The greater stringency was, however, significantly less pronounced than during the financial crisis from 2007 to 2009 or at the beginning of the sovereign debt crisis at the end of 2011, showing that the extensive measures were having a distinct effect.

In March 2020, the European Central Bank announced far-reaching monetary and regulatory measures. Ample liquidity was made available to banks (new longer-term refinancing operations (LTRO) programmes also in US dollars) and conditions were improved for the existing targeted longer-term refinancing operations (TLTRO III). The modifications benefitting banks included a higher TLTRO borrowing allowance, less stringent requirements for the credit growth target and an improvement of 25 basis points in the borrowing rate. In April, the ECB again lowered the TLTRO III conditions by an additional 25 basis points and introduced a new liquidity facility (the Pandemic Emergency LTRO, or PELTRO). Starting in May 2020, PELTROs can be drawn in seven tranches and will have maturity dates between July and September 2021. In June, banks took advantage of very attractive conditions to borrow a total of €1,308 billion of TLTRO III funds. Transitional LTROs and TLTRO II were rolled into TLTRO III and the additional net demand was €550 billion. In September 2020, banks borrowed further TLTRO III funds totalling €174 billion and €50 billion in December 2020. In 2021, further net borrowings are expected as in December the ECB further improved the TLTRO conditions. Among other things, the improved borrowing rate of 50 basis points below the interest rate on the deposit facility was extended by one year until June 2022 instead of until June 2021 and the maximum total amount that counterparties can borrow was increased by 10 percent.

In March, the ECB also decided to purchase €120 billion in assets by year-end 2020 in addition to the existing asset purchase programme (APP). The ECB also announced another temporary asset purchase programme under the name Pandemic Emergency Purchase Programme (PEPP) in March. The new programme will focus on government and private assets and was originally to have a total volume of €750 billion by the end of 2020. In June, the PEPP programme was expanded by a further €600 billion and in December by yet another €500 billion to a total amount of €1,850 billion. In addition, the ECB will reinvest all maturities in the PEPP programme until at least the end of 2023.

As an additional measure, the ECB approved a package of measures in April 2020 relating to the refinancing of commercial banks with the ECB, which was aimed at temporarily relaxing the criteria for collateral. This package of measures was designed to cushion the increasingly stringent lending conditions in the eurozone and led to a temporary increase in risk tolerance within the euro system to support lending to the economy. Specifically, the following collateral was relaxed for ECB refinancing: loan receivables can be used as collateral, valuation discounts for collateral were reduced and the effects of credit rating downgrades on the availability of collateral were temporarily mitigated.

The comprehensive measures created a significant narrowing of the risk premiums for European sovereign bonds as well as for corporate bonds, as a result of which the risk premiums for bank bonds also indirectly decreased. The spread between risk premiums for 10-year Italian sovereign bonds and German sovereign bonds, for example, widened from 160 basis points to more than 270 basis points in the first quarter of 2020 to narrow again to almost 110 basis points by the end of 2020 – a trend that is continuing in 2021. This development is due to the significant increase of the ECB's purchases on the one hand and to political consensus on the issue of the EU Recovery Fund on the other. Risk premiums for companies with good credit ratings widened from approximately 56 basis points in February 2020 to levels exceeding 200 basis points in March before narrowing again to less than 60 basis points by the end of 2020. Risk premiums for banks followed a similar trend. Volatility was significantly higher for banks' subordinated securities, and the yield on euro-denominated AT1 bonds briefly increased in early 2020 from 3.0 percent to levels exceeding 20 percent and ended in 2020 with an average return of 3.6 percent.

At the same time, interest expectations have changed and the market is assuming negative interest rates for a longer period. In April 2019, the market expectation was that a positive one-month overnight index swap (OIS) rate would be reached by 2022, whereas in June 2020 the market expectation changed such that this would not be the case until 2030. At the same time, the yield curve fell significantly at the long end, which has a negative effect on the profitability of the maturity transformation of banks.

On the regulatory side, there were also comprehensive measures to support bank lending. The ECB relaxed the minimum requirements for the shareholders' equity of banks. Banks can now temporarily allow their capital ratios to fall below Pillar 2 Guidance (P2G) and reduce their capital conservation buffer until at least the end of 2022. There has been a shift in the timing of a number of planned changes in the CRR II, such as the option for banks to fulfil their Pillar 2 Requirements (P2R) with subordinated bonds instead of with Common Equity Tier 1 capital (CET1). At the end of June 2020, further relaxations in the Capital Requirements Regulation (CRR) also came into force relating to the CRR quick fix and could already be used in part for reporting at the reporting date of 30 June 2020. The changes include a series of measures that have a positive effect on the capital ratios of banks, such as supporting factors for exposures to small- and medium-sized enterprises, certain infrastructure financing measures and exemptions for the capital deduction of software. The latter was only applied in the fourth quarter of 2020 based on the technical regulatory standards of the EBA. As regards the leverage ratio, the banking supervisors are entitled, after consulting with the central bank concerned, to allow banks to exclude central bank exposures vis-à-vis central banks from their leverage ratio. In addition, several national regulators reduced countercyclical capital buffers. Pillar 2 Requirements and Pillar 2 Guidance for banks for 2021 have remained largely unchanged compared with 2020, reflecting the pragmatic approach of the ECB's supervision in the 2020 SREP process. Pillar 2 Guidance will only be adjusted in the course of the results for the 2021 bank stress tests.

Business Situation and Trends (Continued)

With regard to liquidity indicators, the minimum requirements for the liquidity coverage ratio have been temporarily relaxed. In addition to the temporary relaxation of capital requirements, banking supervisors have advised banks to adopt a medium-term perspective when recognising credit impairment losses in accordance with IFRS 9. The measures for combatting the COVID-19 pandemic have led to significant distortions in the real economy. As a support measure, borrowers have been given the opportunity – based on legal regulations or by the banks bilaterally – to temporarily postpone the payment of loan instalments (COVID-19 loan moratoria). The medium-term perspective with regard to IFRS 9 enables banks to continue classifying most of the loans affected as performing loans. This reduces the immediate negative impact on balance sheet items, profitability and shareholders' capital. However, the banking supervisors are focusing on identifying weak borrowers within the moratoria and on adequate risk provisioning by banks for possible future defaults.

In addition, the ECB urged banks in March 2020 to refrain from making dividend payments to external investors and share buybacks at top group level until October 2020. This arrangement was extended in July 2020 until the end of 2020. In December 2020, the ECB changed its guidance. In the first three quarters of 2021, dividend payments and share buybacks will be possible again within certain limits. Dividend payments should not account for more than 15 percent of the accumulated profit for 2019 and 2020 and should not exceed 20 basis points of the CET1 ratio. However, banks were given the prospect of ending restrictions on dividends and share buybacks from October 2021. The ECB clearly stated that the distribution restrictions are generally not applicable to dividend payments within the banking groups under the supervision of the ECB.

At the end of March 2020, the Basel Committee on Banking Supervision had already postponed the introduction of the Basel IV standard from 2022 to 2023. Furthermore, the stress test for European banks scheduled for 2020 was postponed for one year to 2021. In the area of state aid law, the framework conditions for possible government support measures for the banking sector were temporarily relaxed. Although the Single Resolution Board (SRB) is adhering to its original MREL timetable despite the COVID-19 pandemic, the focus of the SRB is on meeting both the interim target in 2022 and the final requirements in 2024.

The performance of equity markets was characterised by very high volatility. The Euro STOXX 50 lost more than 38 percent of its value between mid-February and mid-March, for instance. The performance of European bank shares lagged behind the overall market despite comprehensive measures. Although the Euro STOXX 50 declined by 6 percent in 2020, the STOXX Europe 600 Banks fell by 26 percent and at the end of September 2020, the STOXX Europe 600 Banks index reached its all-time low. The main reasons for this were uncertainty about further macroeconomic development, the flatter yield curve and the suspension of dividend payments. However, the STOXX Europe 600 Banks index has again posted above-average gains since the end of September 2020.

In the USA, the yield on ten-year US treasury bonds fell significantly from over 1.8 percent at the end of 2019 to almost 0.5 percent in August 2020, but then increased again to over 0.9 percent. The marked decrease is mainly attributable to the interest rate policy of the American Federal Reserve Bank, which lowered the Federal Funds Rate distinctly from 1.50–1.75 percent at the end of 2019 in two steps to only 0–0.25 percent, while the ECB left interest rates unchanged (interest rate for main refinancing operations at zero and ECB deposit rate at minus 0.5 percent). The yield on the ten-year bonds of the Federal Republic of Germany also fell significantly in 2020 from negative 22 basis points down to negative 86 basis points in March. The yield then rose again substantially to negative 57 basis points by 31 December 2020. The 3-month Euribor remained in the range of negative 40 basis points until mid-March but rose again in April and May to a level of above negative 30 basis points before falling again to below negative 50 basis points in October.

In 2020, the euro appreciated considerably by 9 percent against the US dollar, primarily following the political agreement between the EU Heads of State or Government regarding the Recovery Fund (Next Generation EU) and the new EU multi-annual budget.

Impact of the COVID-19 pandemic

The COVID-19 pandemic has had an impact on the business activities of HVB. HVB responded to the COVID-19 pandemic at a very early stage as the health and safety of our employees and customers had and has top priority. We set up and permanently put in place a crisis team as early as February. HVB immediately began to take protective measures that were adjusted several times over the year to align with the development of the pandemic. Among other things, this included an alternating opening of branches and a widespread shift to employees working from home. We had already created the necessary prerequisites for remote work through past investments in digitalisation and IT. This enabled us to rapidly achieve a high percentage of staff working remotely, which reached up to an estimated 85 percent at peak times. The targeted expansion of our digital channels strengthened our customer service. Despite the pandemic, we were able to make our entire range of products available without restriction. This applies in particular to the distressed state of customers caused by the COVID-19 pandemic when they were dependent on the support of the Bank. Thus, HVB offered substantial support to customers seeking access to government subsidy programmes and subsidised loans, such as those offered by the Kreditanstalt für Wiederaufbau (KfW).

The possibility for consumers and small businesses to apply under certain conditions for deferred payment of instalments for a three-month period, which was provided for in legislation to mitigate the effects of the COVID-19 pandemic, was limited in time from 1 April 2020 until 30 June 2020. Our customers took advantage of this possibility only to a small extent. In addition, HVB took part in the moratoria of development banks and deferred payments for borrowers of subsidised loans in accordance with the guidelines of the development banks. These expire in the first half of 2021. The volume of loans that were still subject to a deferral agreement under a moratorium at year-end 2020 amounts to €6 million.

The COVID-19 pandemic has impacted the profit and loss of HVB and the loan-loss provisions in the lending business. This is indicated in the presentation of HVB's operating performance and the forecast report/outlook in this Management's Discussion and Analysis.

Business Situation and Trends (Continued)

Operating performance

The 2020 income statement and important events in the 2020 financial year

	2020	2019	CHANGE	
INCOME STATEMENT	€ millions	€ millions	€ millions	in %
Net interest income	2,836	3,180	(344)	(10.8)
Net fees and commissions	1,035	1,005	+ 30	+ 3.0
Net income from the held-for-trading portfolio	453	478	(25)	(5.2)
Other operating income less other operating expenses	249	605	(356)	(58.8)
Operating income	**4,573**	**5,268**	**(695)**	**(13.2)**
General administrative expenses	(3,118)	(3,596)	+ 478	(13.3)
Payroll costs	(1,592)	(1,955)	+ 363	(18.6)
Other administrative expenses[1]	(1,526)	(1,641)	+ 115	(7.0)
Operating result before provisions for losses on loans and receivables	**1,455**	**1,672**	**(217)**	**(13.0)**
Provisions	(763)	145	(908)	
Operating result	**692**	**1,817**	**(1,125)**	**(61.9)**
Other income less other expenses	(106)	(368)	+ 262	(71.2)
Extraordinary income/expenses	(4)	1	(5)	
Profit before tax	**582**	**1,450**	**(868)**	**(59.9)**
Tax	(49)	(399)	+ 350	(87.7)
Net income for the year	**533**	**1,051**	**(518)**	**(49.3)**
Transfer to the reserve for shares in a controlling				
or majority interest-holding company	—	(1)	+ 1	+ 100.0
Withdrawal from the reserve for shares in a controlling				
or majority interest-holding company	—	—	—	—
Transfer to other retained earnings	(133)	(263)	+ 130	(49.4)
Withdrawal from other retained earnings	—	2,501	(2,501)	(100.0)
Profit available for distribution	**400**	**3,288**	**(2,888)**	**(87.8)**

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

Net interest income
At €2,836 million, the net interest income generated in the reporting year – net interest income/expenses – including current income from equity securities and other variable-yield securities, participating interests and shares in affiliates as well as income from profit-pooling and profit-and-loss transfer agreements – is significantly lower than the previous year's figure (€3,180 million). This is primarily due to the significantly lower current income from profit-and-loss transfer agreements totalling €42 million (previous year: €522 million). This decline is mainly attributable to gains on the disposal of real estate in these companies realised in the previous year. In contrast, current income increased to €591 million (previous year: €368 million). This is due mainly to gains on the disposal of real estate by affiliates. The net interest income/expenses declined only slightly to €2,203 million (previous year: €2,290 million). In the reporting year, this amount took into account interest income from a tax refund and the positive effects of participation in the TLTRO III programme.

Net fees and commissions
At €1,035 million, net fees and commissions were slightly higher year on year (€1,005 million). The main reason for the rise in fees and commissions is higher net fees and commissions in the securities and portfolio business.

Net income from the held-for-trading portfolio
There has been a slight year-on-year decline in net income from the held-for-trading portfolio from €478 million to €453 million. Profit increases resulting from increased customer demand for standardised values, particularly following the first wave of the COVID-19 pandemic, and also in raw materials trading have had an effect. The somewhat weaker business in certificates, and market conditions in the equity-instruments business had an adverse effect. In addition, there were negative effects of interest-rate development for valuation adjustments, in particular for credit valuation adjustments and funding valuation adjustments.

Other operating income less other operating expenses
Net other operating income less other operating expenses saw a sharp decline of €356 million to €249 million in the 2020 financial year (previous year: €605 million).

In April 2019, the Bank reached a settlement with the US and New York authorities to conclude the proceedings for violations of US financial sanctions in the period from 2002 to 2012. The amounts payable according to the settlement were lower than the provisions set aside for it in previous years, which means that it was possible to reverse the excess last year.

General administrative expenses
General administrative expenses were down year on year by €478 million to €3,118 million (previous year: €3,596 million). The reduction was caused primarily by restructuring costs for early retirement schemes or severance payments in the course of implementing the four-year Team 23 strategic plan recognised in the previous year. In the 2020 financial year, there was a slight increase in these restructuring costs. In addition, pension expenses came down.

Operating result before provisions for losses on loans and receivables
The operating result before provisions for losses on loans and receivables declined by €217 million year on year to €1,455 million. This resulted in a nearly unchanged cost-income ratio (ratio of operating expenses to operating income) to 68.2% after 68.3% in the previous year.

Provisions for losses on loans and receivables
The provisions for losses on loans and receivables amounted to minus €763 million in the reporting period (previous year: plus €145 million). The net valuation expense on lending operations contained in provisions for losses on loans and receivables totals €878 million (previous year: income of €179 million). This was due to various reasons. Whereas in the previous year it was possible to reverse the general loan loss provisions of €233 million, an addition of €212 million was made in the reporting year due to the change in the method used to determine the general loan loss provisions, which has been adjusted to better reflect the risk of future developments. In addition, higher net additions to specific loan loss provisions of €544 million (previous year: €103 million) were necessary. The additions in the report year relate to individual larger credit exposures also caused by the COVID-19 pandemic. A net gain of €115 million was generated with securities held for liquidity purposes (previous year: net loss of €34 million).

Other income less other expenses
The decrease of €106 million (previous year: minus €368 million) in other income less other expenses is largely attributable to two effects. Due to the sale of the BARD Offshore 1 wind farm and the selling price received, it was necessary in the previous year to waive a debt of €280 million on the bonds issued for financing. In addition, a write-down of €104 million to the value of the participating interest in the affiliate UniCredit Leasing GmbH was carried out within the framework of Team 23. This write-down was increased by €35 million in the reporting year. In addition, expenses of €70 million (previous year: €21 million) arose from profit and loss transfer agreements.

Extraordinary income/expenses
The reported extraordinary income/expenses of minus €4 million represents a merger loss.

Profit before tax
Profit before tax decreased significantly year-on-year by €868 million to €582 million. The main reason for this is the much higher provisions for losses on loans and receivables compared with the previous year.

Taxes
There is a tax expense of €49 million in the reporting year (previous year: €399 million). Among other things, tax income for previous years had a reducing effect. The previous-year figure was impacted in particular by non-deductible expenses for legal risks and for impairments on investments.

Net income for the year and appropriation of profit
In the 2020 financial year, the profit available for distribution disclosed in the annual financial statements of HVB, which forms the basis for the appropriation of profit, amounts to €400 million. This consists of the net income for the year of €533 million generated in the reporting year less the transfer to other retained earnings of €133 million. We will propose to the Shareholders' Meeting that a dividend of €400 million be paid in total to UniCredit S. p. A. (UniCredit), Milan, Italy. This represents a dividend of around €0.50 per share after around €4.10 for the 2019 financial year. The profit available for distribution of €3,288 million reported in the previous year was distributed to UniCredit on 2 November 2020 in accordance with a resolution adopted by the Shareholders' Meeting on 23 June 2020.

Business Situation and Trends (Continued)

Assessment of the business situation
In our expectations concerning the development of profit before tax outlined in last year's Management Report outlook, the forecast assumed a significantly higher profit. At €582 million, the profit before tax was a significant €868 million lower than in the previous year. This also applies to profit after tax, although the tax expense in 2020 was significantly lower due to tax income from previous years.

The reporting year 2020 was fundamentally influenced by the COVID-19 pandemic. Although, operationally, HVB succeeded in overcoming the COVID-19 related challenges (among them, a temporary lockdown) and managed to continue providing its customers banking services against the backdrop of a far-reaching transition to remote operations, The COVID-19 pandemic resulted in significant economic limitations. In view of this situation, HVB delivered satisfactory a result in its operating business.

An essential factor in profit before and after tax was the significantly higher level of loan loss provisions. The sharp increase was higher than expected in the context of the economic burdens from the COVID-19 pandemic.

Operating income came in slightly lower than the figure in the previous year, in contrast to the previous year's forecast, which assumed a slight increase. The growth opportunities and improved efficiencies expected to come from the implementation of the measures taken as part of the "Team 23" programme have not yet been realised due to the COVID-19 pandemic. Adjusted for the reversal of provisions in the previous year in connection with the conclusion of legal proceedings for violations US financial sanctions the decline in operating income is mainly due to lower dividends received from affiliates following the sale of real estate.

At 68.2%, the cost-income ratio for 2020 is unchanged over the previous year (in 2019 adjusted for the provisions for legal risks) and thus not slightly improved, as forecast. This is due in particular to the effects on results in operating income described above.

In the reporting year, the CET1 capital ratio amounts to 18.2% in accordance with approved financial statements (previous year: 17.1%). The year-on-year decline of 260 basis points is based on the planned special dividend payout already factored into the calculation of the ratio.

Financial position

Total assets
HVB's total assets amounted to €300.1 billion at 31 December 2020. This represents a year-on-year increase of €27.1 billion.

The balances with central banks contained in the cash and cash balances item (€22.4 billion after €26.1 billion in 2019) were down year on year by €3.7 billion.

Loans and receivables with banks nearly doubled from €25.7 billion to €50.2 billion, which is attributable to the increase of €25.0 billion in overnight deposits under the deposit facility of the Deutsche Bundesbank. This, in turn, is mainly due to a higher volume of customer deposits and securities repurchase transactions.

Loans and receivables with customers declined by €3.2 billion to €116.1 billion. This was due primarily to the decline in fixed-term deposits (down €3.8 billion) and in the syndicate business (down €2.0 billion). In contrast, there was an increase in the business with mortgage loans (up €1.2 billion) and repurchase agreements (up €1.2 billion).

The holdings disclosed under securities (without held-for-trading portfolios) were unchanged at €56.9 billion. While third-party bonds and debt securities in the financial assets portfolio increased by €2.7 billion, by contrast own bonds declined by €2.6 billion.

At €51.3 billion, assets held for trading were higher than the previous year's level of €42.6 billion. The increase is due in large part to the €7.8 billion increase in derivative financial instruments, in particular due to a further decline in interest rate levels. Moreover, receivables from securities repurchase transactions in the held-for-trading portfolio increased by €2.7 billion.

The shareholdings disclosed under participating interests and shares in affiliates came to €1.6 billion as in the previous year.

There was an increase in volumes on the liabilities side in line with the development on the assets side. The change in deposits from banks (up €2.0 billion to €67.1 billion) is the result of two offsetting effects. On the one side, there was an increase in fixed-term deposits (up €8.2 billion). That includes the Bank's participation in the TLTRO III programme and repayments from the TLTRO II programme. On the other side, there was a decline in liabilities from securities repurchase transactions (down €6.6 billion).

This was offset by an increase in securities repurchase transactions with customers (up €6.2 billion), while fixed-term deposits fell (down €2.5 billion). However, deposits from customers rose overall by €17.2 billion to €150.5 billion. The rise is mainly attributable to higher customer current accounts (up €13.3 billion).

Debt securities in issue rose by €1.1 billion to €26.3 billion. There was a very significant increase in liabilities held for trading (up €7.3 billion to €28.7 billion), which in turn is attributable to the falling interest rate levels and concomitant rise in market values of derivative financial instruments. At €2.3 billion, the Provisions item, (previous year €2.4 billion) was almost unchanged.

Shareholders' equity decreased by €2.8 billion to €13.7 billion compared with year-end 2019. The dividend payout of €3.3 billion for the previous year is offset by net income for the year of €0.5 billion in 2020. The subscribed capital and the additional paid-in capital remained unchanged compared with the previous year. An amount of €0.1 billion was transferred to retained earnings.

The return on assets is defined in Section 26a KWG as the ratio of net profit to total assets. This amounted to 0.178% at 31 December 2020 (31 December 2019: 0.385%).

Contingent liabilities and other commitments not recognised in the balance sheet increased significantly to €88.9 billion (previous year: €80.8 billion). This figure includes contingent liabilities (€24.4 billion) from general loan guarantees (0.8 billion), transaction-related guarantees (€21.2 billion) and trading-related guarantees (€2.5 billion). Other commitments of €64.4 billion (previous year: €56.5 billion) consist solely of irrevocable lending commitments, which increased year on year by €9.0 billion.

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 the Capital Requirements Regulation II (Kapitaladäquanzverordnung – CRR II) amounted to €74.1 billion at 31 December 2020 and were thus €4.3 billion lower than at year-end 2019. This is mainly due to the risk-weighted assets for credit risk (including counterparty default risk), which decreased by €2.8 billion to €58.0 billion. The risk-weighted assets for market risk came in €1.1 billion lower at €8.9 billion, while the risk-weighted asset equivalents for operational risk declined by €0.4 billion to €7.2 billion.

Common Equity Tier 1 capital compliant with CRR II excluding hybrid capital (CET1 capital) amounted to €13.5 billion as at 31 December 2020, while Tier 1 capital of HVB stood at €15.2 billion. The increase in Tier 1 capital was due to the issuance of additional Tier 1 capital in the amount of €1.7 billion as compared with year-end 2019. (31 December 2019: Common Equity Tier 1 capital and Tier 1 capital €13.4 billion in both cases 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 CRR II (including market risk and operational risk) amounted to 18.2% at 31 December 2020 and 20.5%, respectively, in accordance with approved financial statements (31 December 2019: 17.1% in both cases). The increase is attributable to the issuance of additional Tier 1 capital and a decline in risk-weighted assets. Own funds came to €16.4 billion at 31 December 2020 (31 December 2019: €13.8 billion in accordance with approved financial statements). The own funds ratio was 22.2% at 31 December 2020 (31 December 2019: 17.7% in accordance with approved financial statements).

Business Situation and Trends (Continued)

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 the 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 4.3% at 31 December 2020 (31 December 2019: 3.8%). Article 500b CRR II introduced through Regulation EU 2020/873 "Temporary exclusion of certain exposures to central banks from the total exposure measure in view of the COVID-19 pandemic" was applied to determine the leverage ratio of HVB as at 31 December 2020. Had the aforementioned article not been applied, the leverage ratio of HVB as at 31 December 2020 would stand at 3.9%.

Ratings

HVB's credit rating is assessed by Moody's Investors Service Inc. (Moody's), Fitch Ratings Limited (Fitch) and Standard & Poor's Credit Market Services Europe Limited (S&P).

The ratings of countries and banks are subject to constant monitoring by rating agencies.

Moody's last affirmed HVB's ratings on 1 April 2020. Among others, the counterparty risk rating (CRR) was, for example, affirmed at A1/P-1, the rating for senior unsecured debt instruments at A2/P-1, the deposit rating at A2/P-1 and HVB's stand-alone rating was also affirmed at 'baa2'. The stand-alone rating is thus one notch higher than that of UniCredit. The higher rating is based on Moody's assessment that the intragroup exposure to UniCredit will remain at a manageable level throughout the credit cycle due to the existing restrictions.

Furthermore, the rating confirmation reflects the resilience of HVB's financial strength, which is mainly due to the capital base and good liquidity position. Therefore, HVB appears well prepared to cope with any potential negative effects on its business environment as a result of the COVID-19 pandemic. The outlook was lowered to "negative" and reflects the probability of a downgrade if UniCredit's stand-alone rating should deteriorate in the course of the COVID-19 pandemic. On account of the (operating) interdependencies, HVB's stand-alone rating can currently only be one notch above that of UniCredit at the maximum.

In view of the strong interdependencies between UniCredit and HVB and following the downgrading of UniCredit S. p. A., which was driven solely by the rating for Italy, Fitch lowered HVB's ratings by one notch on 14 May 2020. Among others, this affected the senior preferred and the deposit rating at BBB+/F2 (previously: A-/F2), the senior non-preferred rating at BBB (previously: BBB+) and the stand-alone rating at bbb (previously: bbb+). Fitch continues to emphasize the very good capital base and the resulting high degree of flexibility to mitigate the possible deteriorations in asset quality as well as in the earnings situation caused by the COVID-19 pandemic. HVB's rating remains one notch above UniCredit's rating. The outlook of the rating remains "negative" as Fitch assumes that the fungibility of capital and liquidity could increase under the European Single Supervisory Mechanism (SSM) and resolution strategies (SRB) and thus the financial flexibility of HVB might be restricted if UniCredit implements its "single-point-of-entry" resolution strategy.

S&P last affirmed HVB's ratings on 12 December 2019. The resolution counterparty rating remains at A-/A-2, the issuer credit rating and the rating for senior unsecured instruments of HVB are affirmed at BBB+/A-2 and the senior subordinated debt rating at BBB. According to S&P the ratings are supported above all by a strong capital base and the Bank's solid market position in corporate banking so that HVB's ratings are one notch above the ratings of UniCredit S. p. A. despite the operating interdependencies between HVB and UniCredit. The still negative outlook for the issuer credit rating of HVB indicates that HVB's ratings might be lowered in the medium term. From the perspective of S&P, this reflects the uncertainties regarding the implementation of UniCredit's "single point-of-entry" resolution strategy and the related effects on the subsidiaries.

Offices by region

		ADDITIONS	REDUCTIONS		
	1/1/2020	NEW OPENINGS	CLOSURES	CONSOLIDATIONS	31/12/2020
Germany	**348**	**—**	**15**	**9**	**324**
Baden-Wuerttemberg	16	—	1	—	15
Bavaria	201	—	4	6	191
Berlin	5	—	—	—	5
Brandenburg	7	—	2	—	5
Bremen	1	—	—	—	1
Hamburg	13	—	—	—	13
Hesse	8	—	—	—	8
Lower Saxony	10	—	—	1	9
Mecklenburg-Western Pomerania	4	—	1	—	3
North Rhine-Westphalia	8	—	—	—	8
Rhineland-Palatinate	14	—	2	—	12
Saarland	4	—	1	—	3
Saxony	8	—	—	1	7
Saxony-Anhalt	9	—	—	—	9
Schleswig-Holstein	35	—	4	1	30
Thuringia	5	—	—	—	5
Other regions					
Europe	**8**	**—**	**—**	**—**	**8**
France	1	—	—	—	1
Greece	1	—	—	—	1
United Kingdom	1	—	—	—	1
Italy	1	—	—	—	1
Luxembourg	1	—	—	—	1
Austria	1	—	—	—	1
Switzerland	2	—	—	—	2
Africa	**—**	**—**	**—**	**—**	**—**
South Africa	—	—	—	—	—
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**	**—**	**—**	**—**	**15**
Total	**363**	**—**	**15**	**9**	**339**

1 Representative offices.

Business Situation and Trends (Continued)

Relations with affiliates

We have prepared a separate report on our relations with affiliates in the 2020 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)

There were no significant events at HVB after 31 December 2020 to report.

Forecast report/Outlook

The Management Report and the annual financial statements include statements, expectations and forecasts concerning the future. These statements, expectations and forecasts 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

The COVID-19 pandemic will continue to weigh on global economic development, as most of the developed economies are currently undergoing a second wave of infections. However, the restrictive measures once again put in place have already begun to flatten the epidemic curves in many countries. According to Johns Hopkins University, more than one hundred million people worldwide have been infected with the SARS-CoV-2 coronavirus (as at January 2021). The USA is by far the country most severely affected in the world by the pandemic, followed by India, Brazil and Russia. Among the most severely affected countries in Europe are the United Kingdom, Spain, Italy, France and Germany.

After the slump of 3.5 percent in global output in 2020, we expect an increase of around 5.4 percent in 2021 since the impact that the COVID-19 pandemic is having on economic activity will gradually taper off (current status as at February 2021; cf. the publication by UniCredit Research, The UniCredit Macro & Markets Weekly, "Transatlantic growth gap set to widen", published on 5 February 2021). The distribution of effective vaccines and new therapies to suppress transmission will probably still take some time but should largely prevent the need for emergency measures to ease the burden on healthcare systems (such as nationwide lockdowns) from autumn 2021 onwards. In the short-term, a rise in COVID-19 cases and new restrictions in Europe and the USA will result in a decline in economic activity in the first quarter of 2021 which, however, will be less severe than at the beginning of the COVID-19 pandemic in 2020. Strong fiscal policy support could mitigate the effects on jobs and incomes. China is likely to maintain its robust recovery. Upside risks to our forecast consist in a stronger than expected increase in vaccine production and accelerated vaccination campaigns before the start of the second half of the year, while new and more contagious virus mutations pose a clear downside risk.

Furthermore, the trade tensions between the USA and China will continue. Although the USA and China have reached a "Phase 1" agreement, we consider such an agreement to be only provisional and incomplete, as it does not address the major issues underlying this dispute. After the election of Joe Biden as US President, we do not expect the USA to impose tariffs on European cars. Even though the United Kingdom reached a Brexit agreement with the EU at the end of 2020, the greater bureaucratic efforts entailed in handling goods are likely to weigh on trade between the two economic areas well into the year. We currently see little risk that the budget negotiations between Italy and the EU Commission could adversely affect the markets this year. After the resignation of Prime Minister Giuseppe Conte, a new cabinet was sworn in under the leadership of former ECB President Mario Draghi.

The US economy is likely to expand by 4.8 percent in 2021 (UniCredit Research, The UniCredit Macro & Markets Weekly, "Transatlantic growth gap set to widen" published on 5 February 2021) after contracting by 3.5 percent in the previous year. We expect the US economy to have recovered to the level before the COVID-19 pandemic in the third quarter of 2021. GDP recovery is likely to begin in the second quarter as the restrictions in place to contain the COVID-19 pandemic are increasingly lifted. In particular, we assume that especially an increase of vaccinations will boost growth from the second half of 2021 and combined with better methods of treatment, the effects that the COVID-19 pandemic is having on the economy will subside. Social expenditure is likely to increase, although consumers will continue to exercise a certain amount of caution. The extremely expansive fiscal policy should also support economic recovery.

During the COVID-19 pandemic, the U.S. Federal Reserve lowered the key interest rate to the range of 0 to 0.25 percent and signalled its intention to keep interest rates close to zero until 2023. In addition, it linked the purchase of assets to a recovery of the economy and will maintain the current pace of purchases until substantial progress is made in achieving its targets (maximum employment and price stability). According to its own statement, however, the economy is still far from reaching these targets. We therefore assume that the Fed will continue purchasing US Treasuries and MBS at the current pace at least until the end of 2021. A tapering off of the bond purchases might then already be announced in December this year provided the mass vaccination continues as scheduled and the economy recovers.

For the eurozone, we forecast a 3.5 percent increase in GDP in 2021 (UniCredit Research, The UniCredit Macro & Markets Weekly, "Transatlantic growth gap set to widen", published on 5 February 2021). At the beginning of the year, economic activity is likely to decline once again on account of a second wave of infections coupled with the related containment measures. Compared with its peak in July 2020, the sentiment in the service sector has already deteriorated considerably and indicates a further slowdown as the restrictive measures are hitting this sector in particular. However, the manufacturing industry, which has proven to be resilient so far, is not expected to be able to disengage from the development in the service sector for too long. We thus expect production activity in the first quarter of 2021 to develop into a damper on GDP growth. The gradual lifting of the containment measures at the beginning of the spring is likely to result in a recovery of macroeconomic activity in the second quarter of 2021, although this is unlikely to fully materialise until the third quarter of 2021 (UniCredit Research, The UniCredit Macro & Markets Weekly, "Transatlantic growth gap set to widen", published on 5 February 2021). The effects of the EU Recovery Fund (Next Generation EU) on growth are likely to be small in 2021 and only increase in the coming years.

The European Central Bank (ECB) has left its refinancing rate unchanged at zero during the COVID-19 pandemic and recently increased its temporary Pandemic Emergency Purchase Programme (PEPP) in the amount of €750 billion by €500 billion. In addition, it announced that it would be extending its longer-term refinancing operations (TLTRO III) until mid-2022. HVB Group assumes that the ECB will extend both the PEPP and the favourable conditions for TLTRO III beyond March 2022 as, until the ECB's decision (probably in September or December this year), GDP is likely to remain below the pre-pandemic level. The rhetoric on euro appreciation remains unchanged and confirms our opinion that the euro exchange rate has not yet reached the ECB's absolute limit.

Business Situation and Trends (Continued)

On a country level (UniCredit Research, The UniCredit Macro & Markets Weekly, "Transatlantic growth gap set to widen", published on 5 February 2021), HVB forecasts an increase in GDP in Germany of 3.3 percent this year compared with the previous year (GDP growth in 2020: down 5.0 percent). In France, GDP in 2021 is set to increase by 4.5 percent compared with the previous year (GDP growth in 2020: down 8.3 percent). This year, HVB Group expects Italy's economic output to increase by 3.4 percent compared with the previous year (GDP growth in 2020: down 8.9 percent), while Spain is likely to record an increase of 4.4 percent (GDP growth in 2020: down 11.0 percent). The UK economy will probably increase by 4.3 percent this year (GDP growth in 2020: down 10.0 percent).

Overall, the German economy showed a solid recovery in the second half of 2020. This is mainly due to the robust development of industry, which benefited more from the recovery in China than its competitors in the eurozone did. In addition, private consumer spending also benefited from the reduction in value added tax that resulted in the pulling forward of purchases of consumer durables. Economic momentum was thus less strong in the fourth quarter of 2020 than anticipated. At the beginning of 2021, however, the downward momentum in Germany is likely to accelerate, although a much smaller decline is expected than in the spring of 2020. In the course of the year, economic activity should pick up again with the GDP possibly already reaching the level before the COVID-19 pandemic in the fourth quarter of 2021.

Sector development in 2021

The COVID-19 pandemic will continue to determine the course of the year 2021. Lockdowns in Europe were extended or made more stringent in the first quarter of 2021 and the gradual phasing out of support measures for borrowers will lead to a rise in loan defaults later in 2021.

The European banking sector was in a good starting situation in 2020 when the crisis began. The capital base had been substantially strengthened in the years previously and the liquidity situation in the banking sector is very good. Relatively low profitability remains a weak point in the European banking sector. In addition, the European banking market presents a highly heterogeneous picture in terms of profitability: While in one half of the countries in Europe, banks were able to earn their cost of equity of an estimated 8 percent on average, in the other half, banks generated returns on equity below the estimated cost of equity of 8 percent.

In 2020, profit development came under additional pressure as banks were required to set aside significantly higher loan-loss provisions. In the first three quarters of 2020, the average return on equity was a mere 1.4 percent (data from the European Banking Authority, EBA). European banks posted loan-loss provisions in the first nine months of 2020 that were more than twice as high as those in 2019. In principle, sound profitability is an initial buffer against higher loan-loss provisions. Conversely, banks with lower profitability are harder hit by a crisis, as a significant increase in loan-loss provisions usually leads to a negative net result and thus weighs on equity directly. However, the mood brightened in the second half of the year and banks and analysts expect a substantial decrease in loan-loss provisions for 2021 compared with 2020 (Bloomberg Consensus estimate).

On the structural side, there were two trends that will improve the profitability of European banks in the medium term. Firstly, strong growth was seen in digital customer interaction, which has led to a further acceleration in the structural adjustment of the branch network. Secondly, another trend seen in 2020 was the increase in larger bank mergers in Spain and Italy, which should also improve profitability in the medium term.

Despite the crisis, asset quality continued to improve in 2020 due to very extensive NPL sales (EBA data). Comprehensive government support measures and loan guarantees as well as payment moratoria for loan payments helped to staunch the flow of impaired loans, despite the strong economic decline. However, the asset quality of European banks will be affected by the crisis with a significant time lag, which means that a more substantial increase in non-performing loans will not occur until mid-2021 and 2022. A major factor in the delayed impact is the extensive use of payment moratoria. At the end of September 2020, €590 billion, or 5 percent, of all the loans to households and companies had a payment moratorium (EBA data). Due to the more medium-term perspective in the application of IFRS 9 encouraged by the supervisory authorities, most loans affected by the payment moratoria are not classified as non-performing, although some of these loans are likely to be non-performing once the payment moratoria expire. The numerous government support programmes for businesses and guarantee programmes for loans have had a positive impact in this respect, on the one hand, by preventing an increase in the default rate of corporate loans and, on the other hand, by reducing the losses for banks when a loan with government guarantee granted as a support measure defaults. Furthermore, the ECB supervision holds the view that implementing the discussed European or national bad bank solution could have a positive impact on the asset quality of the banking sector and clean up balance sheets more quickly, rather than addressing the problem gradually over a longer period of time.

The performance of banks in the area of net interest income is under continued strain due to margin pressure. The improved TLTRO III conditions will compensate in part for the negative influence on net interest income. In addition, 2020 was a record year for the fixed income area in investment banking, driven by very high volatility, which contributed to higher income.

Banks' capital ratios came under pressure in the first quarter of 2020, partly due to record drawings on credit lines granted, resulting in higher risk-weighted assets, and partly due to higher loan-loss provisions. The high volatility on the markets also had a negative effect on the equity of some banks. The ECB's recommendation to suspend dividends and refrain from share buybacks, the CRR quick fix, the government guarantee framework for corporate loans as well as a partial repayment of drawn credit lines by companies had a positive effect on the capital ratios in the course of 2020. European banks' average capital ratio of 15.1 percent at the end of the third quarter was higher than the level at the end of 2019 (EBA data). The capital ratios tended to improve even further in the fourth quarter and the ECB's restrictions concerning the profit distribution of banks continue to apply for the time being until the end of September 2021. This means that there is still a high capital buffer to cushion the expected increase in defaults. The results of the ECB's stress tests, which are expected to be published on 31 July 2021, will provide insight into the resilience of the banking sector as another recession is simulated for 2021 to 2023 (EBA stress test scenario).

Development of HVB

It is to be assumed that the phase of economic weakness will continue in the short term. We project the current wave of COVID-19 and the related lockdown measures to lead to a technical recession in the eurozone in the first quarter of 2021. Due to the increasingly warmer weather and the introduction of a series of vaccines, the summer is expected to bring a loosening of the lockdown measures to a large extent which, in turn, should buoy up market sentiment. This is likely to lead to real economic recovery in the second half of 2021 and in 2022.

Business Situation and Trends (Continued)

As previously described in the "Team 23" section, the new programme is based on the four pillars "Grow and Strengthen Client Franchise", "Transform and Maximise Productivity", "Disciplined Risk Management & Control" and "Capital and Balance Sheet Management". These measures are intended to open up further growth opportunities and efficiency gains. Also due to the changed starting position as a result of the COVID-19 pandemic, the Team 23 strategic plan will be reviewed as part of the usual year-end planning update to determine whether changes are required.

Thanks to its resilient business model and despite the ongoing COVID-19 pandemic, we expect HVB Group to generate profit before tax for the 2021 financial year that we consider to be solid, given the present circumstances. Taking account of non-recurrent effects in 2020, we project a slight recovery in operating income (after eliminating the effects of the sale of real estate in 2020) after the previous year's result was weighed down by the effects of the COVID-19 pandemic. For operating costs, we anticipate a development at a stable level. We thus expect a cost-income ratio for 2021 that is almost unchanged compared with 2020.

After a very significant rise in net write-downs of loans and provisions for guarantees and commitments in 2020, which is also be seen against the backdrop of the COVID-19 pandemic, we project a significant decline for 2021 even if, from today's perspective, we do not expect to return to pre-pandemic levels in 2021.

Together with the decline in net write-downs of loans and provisions for guarantees and commitments, the development in operating profit will ultimately lead to a sharp increase in profit before tax if a comparison with the previous year is adjusted for the successfully completed sale of real estate in 2020. At a tax rate that is almost unchanged compared with 2020, this will lead to a very significant rise in profit after tax for 2021 when an adjustment is carried out for the real estate sold in 2020.

We expect the recovery effect, which was already observed in the second half of 2020, to continue in all areas of business particularly in the second half of 2021. The improvement in the profit before tax in 2021 will be mainly attributable to the lower net write-downs of loans and provisions for guarantees and commitments. The improvement in the result of the Corporate & Investment Banking business segment will be due above all to the recovery in net trading income. For the Commercial Banking business segment, a significant increase is projected in commissions generated in the investment and lending business. The result of the Group Corporate Centre business segment will sharply decline following a non-recurrent effect from a successfully concluded legal dispute in 2020. The non-recurrent effect from the successful sale of real estate in 2020 was accounted for in the Other business segment, which has led to a significant decline in the profit before tax compared with the previous year.

For the 2021 financial year, we anticipate a solid capital base for HVB with a CET1 capital ratio that is slightly lower than the figure in 2020.

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

The opportunities described below are offset by risks, for example the effects of the COVID-19 pandemic and the consistently low level of interest rates, which 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.

The HVB is a member of one of the largest banking groups in Europe, UniCredit. HVB is one of the largest private financial institutions in Germany and has competence for the international markets and investment banking business within UniCredit. HVB operates in a domestic market which is the largest in the whole of Europe in terms of economic power and size of population. 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 thus exploit its regional orientation combined with the international network of a large European banking group.

This gives rise to a number of opportunities:

HVB is pursuing a growth strategy in selected business areas by implementing its Team 23 strategic plan, the main focus of which is leveraging productivity and efficiency potentials and creating unique customer experiences. To underpin our growth, we will therefore be investing in further digitalisation, automation and end-to-end process optimisation in the coming years. Furthermore, growth opportunities will be created through greater interaction between the Private Clients Bank, the Unternehmer Bank and CIB, the standardisation of business platforms and cooperation with external partners. At the same time, we will forge ahead with a comprehensive assessment of sustainability and will also make use of the opportunities to cooperate within UniCredit across country and company lines.

In addition, the possible consolidation wave in the banking sector along with the withdrawal of individual competitors from geographical areas and products, which is widely discussed in public, will create new growth opportunities for HVB. Through selective investments, we plan to make better use of our growth potential in individual regions, customer groups and product areas. This will be supported by an adjustment of structures, locations or roles.

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. Promoting female managers at junior level is an explicit part of the business strategy.

On account of its capital base, HVB is, in our opinion, already well equipped for any tightening of regulatory requirements and can take advantage of the growth opportunities that arise in the market.

The opportunities for the individual business segments are as follows:

Within the Commercial Banking business segment, the Unternehmer Bank business unit is seeking profitable growth and an expansion of market shares in its corporate banking business through its positioning as a principal or core bank and the acquisition of new customers. As a strategic business partner, the Unternehmer Bank supports the entrepreneurial activities of its customers. The most important strategic challenges of customers include, among other things, foreign trade, internationalisation and digitalisation. For this reason, the growth initiatives of the Unternehmer Bank are geared to these customer requirements.

In the Private Clients Bank business unit, we are continuing to pursue our growth strategy following the integration of Wealth Management and Business Customers. In Wealth Management and Private Banking, we intend to establish ourselves as one of Germany's leading providers in the coming years while further accelerating our growth path with upscale retail customers. By shifting the Business Customers segment to the Private Clients Bank, comprehensive customer services in this segment will also focus on the private requirements of entrepreneurs and freelancers in future. Supported by our positioning as a quality provider, we will thus concentrate on growth and on increasing customer loyalty. We are also continuing to fundamentally modernise the Private Clients Bank by adopting an omnichannel business model.

In the CIB business segment, the strategic focus is on expanding and strengthening sustainable and long-term customer relationships. To this end, we will continue to offer advice and product solutions for financing and capital procurement, cash management and investments. We see further business potential in the expansion of the trade finance and working capital business and in an extension and improved use of our international network. To enhance our cross-selling potential, we are intensifying our cooperation with the Commercial Banking business segment. This will enable Mittelstand customers in the Unternehmer Bank to benefit from investment banking solutions and retail customers from an attractive range of CIB's investment products. In addition, we intend to continue making better use of the opportunities afforded by digitalisation.

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

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 a default by the contracting party, meaning it is no longer in a position to meet its contractual obligations.

Market risk is defined as the risk of incurring losses on positions held on and off the balance sheet in the trading or investment books as a result of unfavourable changes in the market value of securities or financial derivatives. The most relevant of these market prices are interest rates (used to determine and discount cash flows), share prices, credit spreads (including, but not limited to, changes in these spreads due to credit defaults or rating changes), spot exchange rates, commodity prices and derived prices such as volatilities and correlations between these parameters.

Liquidity risk is understood to be the danger that the Bank will not be 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 deficient 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 measures taken by supervisory authorities, and private settlements.

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

The following risk types are summarised as other risks:
- **Real estate risk** covers potential losses resulting from fluctuations in the market value of the Bank's own real estate portfolio. This comprises the real estate owned by subsidiaries (owned or leased), real estate holding companies and their special purpose vehicles (SPVs) as well as investment companies. No land or properties are included that are held as collateral. These are included under credit risk.
- **Business risk** is defined as a measure of the gap between unexpected disadvantageous changes in the Bank's future earnings and expected changes over a one-year risk horizon. Business risk can result above all from a serious deterioration in the market environment, changes in the competitive situation or customer behaviour but also from changes in the cost structure.
- **Pension risk** can occur 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 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 in other companies that are not consolidated in HVB's accounts or are not included in market risk.

Risk Report (Continued)

- **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 changed perception may be triggered by a primary risk such as credit risk, market risk, operational risk, liquidity risk, business risk, strategic risk or independently of any triggering primary risk.

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 throughout the Group.

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 (Mindestanforderungen an das Risikomanagement – 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 in the planning process for 2020 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 is based on a disorderly withdrawal of the United Kingdom from the European 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. Adverse planning scenarios are used for the 2021 planning process, taking account of the COVID-19 pandemic.

Implementation of the risk strategy is a task for the Bank as a whole and is essentially carried out by the Chief Risk Officer (CRO) organisation. The CRO organisation is responsible for risk management and risk policy guidelines set by the Management Board and reports on a egular 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.

Separation of functions

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

Risk controlling

Risk controlling is defined as the operational implementation of the risk strategy. The Senior Risk Management – Centralized Credit Underwriting (SRM) unit and the Credit RR & NRR Germany (KCE) 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 Operational & Reputational Risks unit 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 (Bundesanstalt für Finanzdienstleistungsaufsicht – BaFin), specifically by the Insurance and Pension Funds Supervision unit, 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, while operational risk and reputational risk are 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 (continuous monitoring of the liquidity risk situation and compliance with limits). The Strategic Credit & Integrated Risks unit monitors credit risk, business risk, financial investment risk and real estate risk as well as the aggregate economic capital and the internal capital requirement. Financial investment risk is depicted via market risk and credit risk. 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, pension risk and reputational risk (since the first quarter of 2020). 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.

Risk Report (Continued)

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
- identification and control of risk at the preliminary stages in order to reduce risk
- 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 (CCP) has been tasked with central business management and cost controlling of HVB. CCP also prepares and validates the internal segment report in accordance with IFRS and has responsibility for the processes involved in preparing the income budgets and the income projections. Furthermore, CCP includes the segment-related controlling departments for all the segments apart from Corporate & Investment Banking (CIB) and Group Corporate Centre (GCC). Controlling for CIB is the responsibility of the CPA unit. This unit carries out the reconciliation of net trading income for markets jointly with Accounting. The reconciliation of net trading income for Treasury is carried out between Accounting (CFF) and Finance (CDF).

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.

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 test 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 assess HVB's reputational risks. It is the decision-making body for all business transactions and other activities that give rise to a 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

Implementation of overall bank management

Strategy
The business strategy and the risk strategy define the cornerstones 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 strategic cornerstones at overall bank level and the sub-strategies of the individual business segments.

Risk Report (Continued)

The HVB Group risk strategy is derived consistently from the business strategy, supplementing it with the relevant aspects of risk management The risk strategy of HVB Group controls the risk types credit risk (including financial investment risk) and market risk, operational risk, pension risk, reputation risk, real estate risk and business risk using the economic capital. This control is supplemented by risk-type-specific limits in credit risk and market risk. A qualitative description is provided of the strategic objectives for strategic risk, liquidity risk, sustainability risk and for outsourcing. 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 an annual basis and modified when necessary.

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 and 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 internal capital are defined and monitored in order to guarantee 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 remain within the parameters 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 constraints 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 adequate return, the amount of which is derived from the returns expected by the capital market.

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 countermeasures in response to significant 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 12.45%. The expected return on investment is derived from the average used core capital (Common Equity Tier 1).

Management of regulatory capital adequacy requirements

Essentially, the following three processes have been defined from the normative capital perspective to safeguard an adequate capital base over the long term:

Yearly budgeting of the regulatory capital taking account of regulatory requirements, while applying 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
– total capital 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

Quarterly performance of stress tests of the regulatory capital ratios under various scenarios (details on the stress tests can be found in the section entitled "Stress tests").

Monthly performance of a rolling eight-quarter projection to provide an ongoing forecast of the capital ratios of HVB Group.

More details on the development of these capital ratios are presented in the section entitled "Risk-weighted assets, key capital ratios, and leverage ratio" in the Business Situation and Trends of this Management Report.

The total capital ratio of HVB was 22.2% at 31 December 2020 (31 December 2019: 17.7%).

Economic capital adequacy

The internal capital is the sum of the aggregated economic capital for all quantified risk types (with the exception of liquidity risk). The economic capital measures the potential for unexpected loss over a time horizon of one year with a confidence level of 99.90%.

Since the 2019 reporting year, the risk metrics for economic capital were 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. The risk metrics of HVB Group for economic capital are also shown under the respective risk type as HVB's figures.

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.

In addition, the group-wide quantification method for calculating the economic capital of reputational risk was implemented in the first quarter of 2020. The reputational risk contribution is included in the calculation of the ICAAP to determine the aggregate economic capital.

Since September 2020, financial investment risk and the risk entailed in small legal entities have been included under credit risk. For this reason, economic capital is not shown separately for financial investment risk or for the risk entailed in small legal entities from the third quarter of 2020. Since September 2020, pension risk has been included in the calculation of economic capital in the form of an additive component under market risk before aggregation as internal capital.

Risk Report (Continued)

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

Internal capital after portfolio effects (confidence level 99.90%)

	31/12/2020		31/12/2019	
Broken down by risk type	**€ millions**	**in %**	**€ millions**	**in %**
Credit risk	3,109	45.0	3,248	46.1
Market risk	1,858	26.9	1,617	23.0
Pension risk[1]	851	12.3	—	—
Operational risk	472	6.8	412	5.9
Real estate risk	181	2.6	322	4.6
Business risk	239	3.5	354	5.0
Reputational risk	42	0.6	—	—
Aggregated economic capital	**6,751**	**97.8**	**5,952**	**84.6**
Pension risk[1]	—	—	615	8.7
Financial investment risk[2]	—	—	222	3.2
Model risk cushion	152	2.2	158	2.2
Economic capital of small legal entities[2]	—	—	91	1.3
Internal capital of HVB	**6,903**	**100.0**	**7,038**	**100.0**
Available financial resources of HVB	**17,403**		**16,061**	
Risk-taking capacity of HVB, in %		**252.1**		**228.2**

Contains rounding differences.
1 Since September 2020 in the form of an additive component under market risk before aggregation.
2 Since September 2020 included in credit risk.

Internal capital fell by €135 million in comparison to 31 December 2019. Applying the current method/model retrospectively to the reference date of 31 December 2019 would result in internal capital of €6,680 million (with 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%)

	31/12/2020		31/12/2019	
Broken down by business segment	**€ millions**	**in %**	**€ millions**	**in %**
Commercial Banking	1,379	23.4	1,478	23.6
Corporate & Investment Banking	4,201	71.2	4,302	68.7
Group Corporate Centre	85	1.4	166	2.6
Other	235	4.0	319	5.1
Consolidation	—	—	—	—
Internal capital (without pension risk and without the model risk cushion)				
of HVB	**5,900**	**100.0**	**6,265**	**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". For the most part, targets, triggers and limits are defined for these metrics that allow excessive risk to be identified and countermeasures to be initiated at an early stage. The matter is escalated to the appropriate persons with authority, committees and the Management Board of HVB, should the defined limits be exceeded or not reached.

Consistent going concern approach
Since 2019, HVB Group has managed its risk-taking capacity from an economic perspective as part of an approach to the ongoing protection against risks and the continuation of business activities from a capital perspective (continuity of operations). At the same time, targets, triggers and limits are defined for regulatory capital backing as well as for risk-taking capacity.

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 an HVB recovery plan since 2015. For this reason, HVB works in close collaboration 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 2020 and has been in effect since then.

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

HVB Group uses an internal definition for the available financial resources that, like risk measurement, has been based on a going concern approach since 2019. Under this approach, available financial resources are sufficient to protect against risks so as to ensure business operations are maintained. 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 financial resources. When determining the available financial resources, regulatory core capital is taken as the starting point. To maintain consistency with internal risk quantification, certain capital deductions (particularly expected losses and securitisation positions) within the definition of equity are brought into line with the internal economic perspective and some future profits are taken into account.

Since the 2018 reporting year, the risk metrics for economic capital, the available financial resources and the risk-taking capacity are presented based on the calculations for HVB Group and shown as HVB's figures.

The available financial resources at HVB totalled €17,403 million as at 31 December 2020 (31 December 2019: €16,061 million).

With internal capital (including the model risk cushion) of €6,903 million, the risk-taking capacity for HVB is 252.1% (31 December 2019: 228.2%). This figure is higher than the target of 170% that HVB Group set itself in the 2020 risk appetite framework. The rise of 23.9 percentage points in comparison with 31 December 2019 for HVB is attributable to growth of €1,342 million or 8.4% in available financial resources in 2020. The internal capital has fallen by €135 million or 1.9%. The increase in available financial resources is largely due to a change in core capital, which was partly offset by a reduction in the expected future profit.

Risk Report (Continued)

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 each reporting date 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, real estate and reputational risk are currently recorded. In addition, pension risk and any model risks 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 guaranteed at each reporting date.

In order to identify at an early stage any potential overshooting, HVB has specified triggers in the form of early warning indicators in addition to the defined limits. The utilisation of, and hence compliance with, the limits is presented in the Bank's reports on a monthly basis. Any overshooting of limits is immediately escalated and return to compliance with limits is monitored.

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 until the end of March 2020:

- Contagion scenario – focusing on the political tensions within the EU
- 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
- Recession scenario – recession in Germany due to a massive decline in global demand
- US Hard Landing and Hard Brexit – recession in the USA and the UK leaves the EU without a departure agreement.

Taking account of the current macroeconomic developments, particularly in view of the COVID-19 pandemic, the aforementioned downturn scenarios and the underlying baseline scenario were reviewed, and the corresponding macroeconomic parameters and market parameters were adjusted.

The following scenarios were calculated from the second half of 2020:

– Pandemic W scenario (from June 2020) – W-shaped recovery from the COVID-19 pandemic
– Pandemic W+ scenario (from June 2020) – W-shaped recovery from the COVID-19 pandemic, an increase in global protectionist tensions and sovereign debt stress in Europe
– Local U-shaped scenario – local severe U-shaped recession (from September 2020), U-shaped recovery from the COVID-19 pandemic
– Local U-shaped+ scenario – local severe U-shaped recession+ scenario (only in September 2020) – U-shaped recovery from the COVID-19 pandemic with additional turbulence in the German financial system
– Historical scenario (from December 2020) – based on the 2009 financial crisis
– Financial Intermediary scenario – a tougher version of the most severe scenario (in June 2020 the W+ scenario, in September 2020 the U+ scenario, from December 2020 the historical scenario) additionally maps the default of the financial intermediary with the highest stressed counterparty risk exposures.

The stress tests across risk types are presented and analysed on a quarterly basis within the Stress Test Council 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 were met and complied with, even after the occurrence of the stress test scenarios listed. The risk-taking capacity within the scope of the stress test was established with 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 at least once a year 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. Monitoring, the suitability of which is reviewed each year, 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 set up with a view to interlinking risk drivers across the risk types, such that concentration risk is integrated into the assessment and controlling functions.

Risk Report (Continued)

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 each year, 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 2020. The existing and potential new risks are analysed and critically evaluated by means of structured interviews with numerous decision-makers within HVB and by means of questionnaires, among other things. This interview also covers aspects of the current COVID-19 pandemic. The outcome of the 2020 risk inventory was presented to the Risk Committee and HVB's Management Board in September 2020 and included in the calculation and planning of the risk-taking capacity. 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 and in 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. 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 which focus on specific business segments, countries or industries.

Risk types in detail

1 Credit risk

Credit risk consists of 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, 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.

Credit default risk also encompasses counterparty risk and issuer risk.

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
– pre-settlement risk
– money market risk (cash risk)

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)
– transfer and conversion risk

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.

The Industry Credit Risk Strategy includes an assessment of the opportunities and risks for every industry, from which controlling signals and quantitative ceilings for new business are derived.

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 banking entities)

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
– industry concentrations
– concentration limits for countries and regions

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

Risk Report (Continued)

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.

Credit risk mitigation

In new lending, HVB pursues the strategy of applying 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.

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.

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.

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. Typical examples for which transaction ratings are applied are structured loans and securitisations.

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.

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.

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.

Risk Report (Continued)

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 overshooting 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. 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 uses 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 €3,301 million, which is €105 million lower than the total reported value as at 31 December 2019 (€3,406 million). The financial investment risk from holdings in unlisted companies has been included in credit risk since September 2020.

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. 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 €19 million (31 December 2019: €29 million).

Development of metrics by business segment

Broken down by business segment	EXPECTED LOSS[1] € millions 2020	2019	RISK DENSITY in bps[2] 2020	2019
Commercial Banking	182	151	18	15
Corporate & Investment Banking	136	130	8	9
Group Corporate Centre	—	—	10	11
Other	1	—	371	12
Consolidation	—	—	—	—
HVB	**319**	**281**	**12**	**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%.

In 2020, the expected loss of HVB increased by €38 million.

The main contributor to this development was the Commercial Banking business segment, where the expected loss rose by €31 million and risk density by 3bps. This increase can be observed in many industry groups, such as in the machinery, metal, food, beverages, chemicals, pharma, healthcare and automotive industries.

The rise of €6 million in the expected loss in the CIB business segment is likewise attributable to several industries, especially tourism, which was particularly affected by the impact of the COVID-19 pandemic.

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	31/12/2020	31/12/2019	31/12/2020	31/12/2019	31/12/2020	31/12/2019	31/12/2020	31/12/2019
Commercial Banking	103,000	100,293	3,240	3,332	—	—	—	—
Corporate & Investment Banking	165,188	148,672	20,762	19,276	44,778	42,395	2,305	4,097
Group Corporate Centre	105	12	16	5	6	6	—	—
Other	14	97	—	—		—	—	—
Consolidation	—	—	—	—	—	—	—	—
HVB	**268,307**	**249,074**	**24,018**	**22,612**	**44,784**	**42,401**	**2,305**	**4,097**

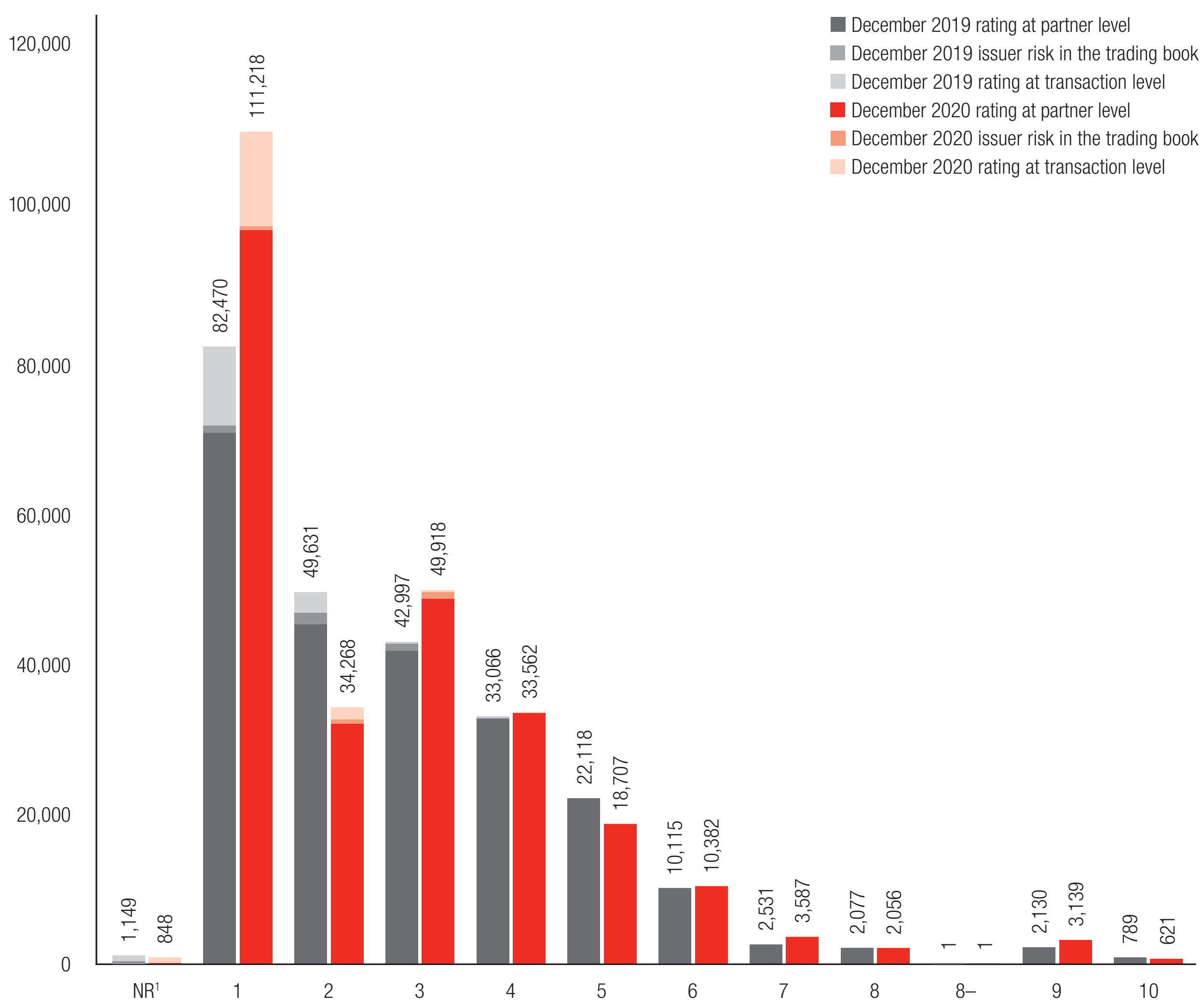
HVB's credit default risk exposure increased by €19,233 million in 2020.

The largest share of this is attributable to the CIB business segment where the exposure rose by €16,516 million, notably as a result of the liquidity reserves built up at Deutsche Bundesbank. There has also been a rise in the exposure with large corporate customers, partly due to the demand for credit lines to ensure liquidity, in addition to greater exposure based on active liquidity management.

In the Commercial Banking business segment, exposure rose by €2,707 million in the private customers, telecommunication and IT industry groups, among others. The increase in exposure in the Commercial Banking business segment was also influenced by our customers' use of the support programmes set up by development institutions such as the KfW.

Risk Report (Continued)

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



1 Not rated.

The rating structure of HVB Group changed over 2020 mainly on account of the development of exposure in the financial institutions (including foreign sovereigns) and public sector (including German sovereign) industry groups.

The greatest change is to be seen in rating class 1 where exposure rose by €28,748 million. This is mainly attributable to the liquidity reserves built up at Deutsche Bundesbank.

Furthermore, the increase in non-performing exposure (rating class 8– to 10) reflects the impact of the COVID-19 pandemic on our customers.

Development of metrics by industry group

Broken down by industry group	CREDIT DEFAULT RISK EXPOSURE € millions 2020	2019	OF WHICH ISSUER RISK IN TRADING BOOK € millions 2020	2019	EXPECTED LOSS[1] € millions 2020	2019	RISK DENSITY in bps[2] 2020	2019
Financial institutions (incl. foreign sovereigns)	83,997	66,973	1,819	3,257	27	35	3	6
Real estate	27,100	27,175	39	64	24	23	9	9
Public sector (German sovereign incl. sub-sovereign/public sector)	24,425	21,629	64	31	—	—	—	—
Special products	15,482	15,361	—	—	5	13	3	8
Energy	12,704	11,902	58	96	12	13	10	11
Chemicals, pharma, healthcare	10,666	11,687	44	141	27	23	26	20
Machinery, metals	10,298	12,497	25	66	31	20	31	17
Automotive	9,071	8,572	45	100	15	11	17	14
Food, beverages	7,145	7,924	20	30	12	8	17	11
Construction, building materials	6,418	6,348	5	17	11	8	17	12
Transport, travel	5,605	4,161	34	41	9	9	18	24
Services	5,599	5,843	37	51	20	16	36	28
Consumer goods	5,015	4,973	8	15	23	15	48	30
Telecommunication, IT	4,673	5,182	50	105	6	9	14	19
Electronics	3,320	3,083	16	26	5	4	14	12
Agriculture, forestry	2,823	2,835	—	—	7	6	26	20
Tourism	2,800	2,352	1	5	21	3	94	15
Media, paper	2,250	2,390	4	23	7	4	34	18
Shipping	1,972	2,409	—	—	10	15	61	77
Textile	1,643	1,524	—	7	6	5	43	32
Private customers	24,105	23,131	—	0	38	40	16	17
Public service companies	1,153	1,089	11	18	2	2	17	14
Others	43	34	25	4	1	—	294	21
HVB	**268,307**	**249,074**	**2,305**	**4,097**	**319**	**281**	**12**	**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%.

There have been some changes in the way industries are presented. Now the industry groups of food, beverages, agriculture, consumer goods, textile and public service companies are shown separately, whereas the machinery and metals industry groups have been combined into a single group.

The impact of the COVID-19 pandemic is monitored in each of the industry groups on a regular basis and taken into account in the 2021 risk strategy.

How the top five industry groups developed within HVB Group is described below

Financial institutions (including foreign sovereigns)
The exposure in the financial institutions (including foreign sovereigns) industry group rose by €17,024 million as at 31 December 2020 compared with the previous year. This development is largely attributable to the liquidity reserves built up at Deutsche Bundesbank.

Risk Report (Continued)

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 31 December 2020 decreased slightly year on year by €75 million, whereby the expected loss increased marginally compared with the previous year's level (up €1 million to €24 million).

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. The effects of the COVID-19 pandemic are taken into account in the lending process (e.g. by taking these into account in the internal reports and in loan applications).

Public sector (including German sovereign)
The public sector (including German sovereign) industry group contains both public entities and private enterprises with public-sector owners. 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.

In the public sector (including German sovereign) industry group, exposure increased by €2,796 million in 2020. This increase is essentially attributable 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 lease transactions and other structured financial transactions (not including project and acquisition financing).

Exposure was kept stable at €15,482 million in the special products industry group in 2020 compared with 2019 despite the COVID-19 pandemic. In this context, the focus remained on customer-related securitisations, which was also in line with the 2020 risk strategy. The latter determined a strategy of growth within clearly defined parameters involving conservative credit standards (for instance in relation to asset classes and rating quality) for sub-segments of the special products portfolio. The expected loss and the risk density continued to decrease compared with 2019 and amount to €5 million or 3bps respectively.

Energy
Exposure in the energy industry group increased by €802 million in 2020.

For new business in the energy industry, we focus on large international companies with strong credit ratings as defined in the risk strategy. Project loans in the area of renewable energy were also in line with the 2020 risk strategy and financing standards, which helped to slightly improve the portfolio quality overall with an expected loss of €12 million and a risk density of 10bps.

Exposure development of countries/regions
The following tables provide a comprehensive view of the 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)

Broken down by eurozone countries	CREDIT DEFAULT RISK EXPOSURE 2020	CREDIT DEFAULT RISK EXPOSURE 2019	OF WHICH ISSUER RISK IN TRADING BOOK 2020	OF WHICH ISSUER RISK IN TRADING BOOK 2019
Germany	178,369	147,366	402	848
Italy	9,975	10,278	530	789
France	9,152	9,040	235	437
Ireland	8,181	7,686	16	27
Spain	7,435	7,281	53	200
Luxembourg	5,105	4,869	59	60
Netherlands	3,823	4,471	55	91
Austria	1,843	1,992	264	341
Belgium	512	1,745	15	37
Finland	293	346	1	20
Greece	116	181	—	—
Cyprus	54	77	0	1
Portugal	34	38	6	4
Estonia	16	6	0	1
Lithuania	15	11	13	10
Slovenia	14	23	2	6
Slovakia	5	3	3	—
Malta	—	21	—	—
Latvia	—	1	—	1
Supranational organisations and multilateral banks	2,532	3,100	71	283
HVB	**227,474**	**198,535**	**1,725**	**3,156**

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. The exposure to Italy also includes the exposure with UniCredit S.p.A.

Risk Report (Continued)

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 2020	CREDIT DEFAULT RISK EXPOSURE 2019	OF WHICH ISSUER RISK IN TRADING BOOK 2020	OF WHICH ISSUER RISK IN TRADING BOOK 2019
USA	9,440	11,710	123	320
UK	8,158	10,496	44	125
Japan	5,777	6,424	—	2
Switzerland	4,831	6,649	107	205
Asia/Oceania (without Japan, China, Hong Kong)	2,739	3,822	1	3
Western Europe (without Switzerland, UK)	2,087	2,205	44	80
China (including Hong Kong)	1,961	1,622	—	—
CIS/Central Asia (without Turkey)	1,214	1,319	63	31
Near Middle East	1,077	1,536	—	—
Eastern Europe (without euro countries)	882	809	153	146
Turkey	818	1,397	2	5
Africa	810	1,266	—	1
North America (including offshore jurisdictions, without USA)	556	737	43	5
Central/South America	483	548	—	18
Without country classification	—	—	—	—
HVB	**40,833**	**50,540**	**580**	**941**

In 2020, the total exposure to countries/regions outside the eurozone fell by €9,707 million.

Financial derivatives

Alongside the goal of generating returns, derivatives are employed to manage market risks resulting from trading activities (in particular, risks arising from interest-rate fluctuations and currency fluctuations), 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 Group 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 2020 totalled €99.6 billion (31 December 2019: €76.0 billion). The year-on-year rise of €23.6 billion is primarily attributable to the increase in exposure in OTC interest rate swaps (€19.5 billion), cross-currency swaps (€2.0 billion) and equity/index options (€1.6 billion).

In accordance with the regulatory provisions under 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 €5.1 billion as at 31 December 2020 (31 December 2019: €4.1 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	2020	2019	2020	2019	2020	2019
Interest rate derivatives	**1,189,117**	**1,375,064**	**1,359,108**	**3,923,289**	**3,292,074**	**81,809**	**63,822**	**75,796**	**59,267**
OTC products									
Forward rate agreements	325,946	1,034	—	326,980	248,732	21	29	23	34
Interest rate swaps	756,326	1,226,037	1,241,415	3,223,778	2,712,259	77,703	58,166	69,717	54,027
Interest rate options									
– purchased	18,036	53,813	53,830	125,679	113,786	3,825	5,178	235	404
– written	13,832	68,637	63,863	146,332	132,936	229	407	5,820	4,779
Other interest rate derivatives	54,014	4	—	54,018	36,579	30	41	1	23
Exchange-traded products									
Interest rate futures	20,652	9,805	—	30,457	47,522	—	—	—	—
Interest rate options	311	15,734	—	16,045	261	1	1	—	—
Foreign exchange derivatives	**214,312**	**32,022**	**2,996**	**249,330**	**270,595**	**3,334**	**2,698**	**3,007**	**2,743**
OTC products									
Foreign exchange forwards	167,645	19,564	2,967	190,176	201,952	2,595	2,169	2,421	2,196
Foreign exchange options									
– purchased	22,151	5,939	16	28,106	34,536	334	221	240	269
– written	24,076	6,519	13	30,608	33,970	303	262	346	278
Other foreign ex-change									
derivatives	338	—	—	338	86	102	46	—	—
Exchange-traded products									
Foreign exchange futures	102	—	—	102	50	—	—	—	—
Foreign exchange options	—	—	—	—	—	—	—	—	—
Cross-currency swaps	**39,441**	**102,527**	**51,365**	**193,333**	**200,351**	**6,226**	**4,262**	**5,026**	**4,082**
Equity/index derivatives	**97,815**	**61,075**	**15,631**	**174,521**	**130,746**	**6,463**	**4,428**	**5,412**	**3,748**
OTC products									
Equity/index swaps	4,525	2,046	844	7,415	9,677	458	280	276	285
Equity/index options									
– purchased	2,564	2,738	2,044	7,346	7,687	194	191	53	49
– written	28,795	10,038	8,126	46,959	29,539	260	140	663	828
Other equity/index derivatives	26,562	59	2	26,623	15,074	1,681	1,519	—	—
Exchange-traded products									
Equity/index futures	9,702	5,493	936	16,131	18,661	—	—	—	—
Equity/index options	25,264	39,991	3,608	68,863	48,601	3,870	2,298	4,420	2,586
Equity swaps	403	710	71	1,184	1,507	—	—	—	—
Credit derivatives[1]	**2,698**	**6,328**	**460**	**9,486**	**12,474**	**82**	**101**	**290**	**235**
Other transactions	**8,666**	**7,114**	**644**	**16,424**	**15,209**	**1,708**	**736**	**1,769**	**853**
HVB	**1,552,049**	**1,584,130**	**1,430,204**	**4,566,383**	**3,921,450**	**99,622**	**76,047**	**91,300**	**70,928**

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 €826,934 million as at 31 December 2020 (of which credit derivatives on a pro-rata basis: €444 million).

Derivative transactions by counterparty type

(€ millions)

	FAIR VALUE			
	POSITIVE		NEGATIVE	
	2020	2019	2020	2019
Central governments and central banks	11,750	9,232	1,364	1,276
Banks	50,362	38,963	51,378	40,769
Financial institutions	32,605	24,695	34,633	26,433
Other companies and private individuals	4,905	3,157	3,925	2,450
HVB	**99,622**	**76,047**	**91,300**	**70,928**

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	2020	2019	2020	2019	2020	2019
Banking book	**55**	**125**	**10**	**189**	**85**	**—**	**—**	**8**	**10**
Protection buyer									
Credit default swaps	55	125	10	189	82	—	—	8	10
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	—	—	—	3	—	—	—	—
Protection seller									
Credit default swaps	—	—	—	—	—	—	—	—	—
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	—	—	—	—	—	—	—	—
Trading book	**2,643**	**6,203**	**450**	**9,297**	**12,389**	**82**	**101**	**282**	**225**
Protection buyer									
Credit default swaps	1,181	3,395	92	4,671	5,507	6	12	109	78
Total return swaps	511	346	45	901	972	2	18	157	128
Credit-linked notes	4	27	12	43	145	—	3	—	1
Protection seller									
Credit default swaps	947	2,415	301	3,662	5,692	74	68	16	15
Total return swaps	—	—	—	—	—	—	—	—	—
Credit-linked notes	—	20	—	20	73	—	—	—	3
HVB	**2,698**	**6,328**	**460**	**9,486**	**12,474**	**82**	**101**	**290**	**235**

Credit derivatives by reference asset

(€ millions)

	NOMINAL AMOUNT				
	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT-LINKED NOTES	TOTAL 2020	TOTAL 2019
Public sector bonds	578	—	—	578	2,488
Corporate bonds	7,783	406	8	8,197	8,834
Equities	—	—	—	—	—
Other assets	161	495	55	711	1,152
HVB	**8,522**	**901**	**63**	**9,486**	**12,474**

Single-name credit derivatives make up 39.5% of the total; multi-name credit derivatives, relating notably to baskets or indices, account for a share of 60.5%.

Stress tests
By carrying out stress tests in the credit portfolio, credit risk managers obtain information on a quarterly basis about the possible consequences of a negative change 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).

2 Market risk

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 2020 was again on customer transactions.

One part of the market risk is entailed in trading books while the other part – mainly invested in interest-bearing-securities – lies in strategic investments or in liquidity reserve portfolios. All positions exposed to market risk are subject to corresponding limits.

Limit system
All market risk-bearing transactions of HVB Group recognised at fair value are aggregated every day to form value-at-risk (VaR) metrics and set against the risk limits for internal control purposes.

In accordance with the 2020 risk strategy, a new framework for managing market risk limits has been implemented. The main purpose of this new framework is to focus on the fluctuation of the values in profit and loss accounting. VaR limits are set for items recognised at fair value through profit or loss (FVTPL) and for items recognised at fair value through other comprehensive income (FVOCI). The risk limits are approved annually by the Management Board of HVB and adjusted as required. Both groups of limits are equally binding and compliance with them is equally enforceable.

When the 2020 risk strategy was adopted, the FVTPL limit for HVB was set at €54 million and the FVOCI limit at €25 million.

Monitoring of the regulatory metrics stressed VaR 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.

Risk Report (Continued)

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 of the last 250 days.

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%.
- In addition, further risks not taken account of in the internal market risk model are covered by the regulatory standard approach. This essentially relates to the specific risk entailed in securitisations and risk positions in the form of units in undertakings for collective investment (UCI) and as of December 2019, risks arising from shares and indices caused by implicit fluctuations in the repo rate.
- Based on the CRR regulations, we calculate risks with regard to the credit valuation adjustment (CVA). The CVA risk shows the risk of losses in value 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 recognised at fair value are monitored using a hierarchical limit system that restricts the potential loss from market risk. This involves restricting the VaR totals from FVTPL and FVOCI positions by setting appropriate limits.

The VaR figures are reported daily along with the limit utilisation and the profit and loss figures (P/L) to the Management Board member responsible and the persons responsible in the CIB business segment. Whenever limits are exceeded, an escalation process is triggered immediately and the reduction of the positions in question monitored.

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 validation and coordination of the P/L on the following day. In this context, both the daily changes in the market price risk profile and the P/L generated from new business 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.

HVB calculates economic capital on the basis of the assumption that operations will continue (continuity of operations). To calculate and allocate the economic capital requirements for market risk, the hypothetical distribution used to determine the VaR is based on an observation period of 500 trading days, in which connection only interest rate movements are taken into account for positions carried at cost. Any hedge effect of the model book for own funds is not included. The results from the credit valuation adjustment (CVA) and funding valuation adjustment (FVA) risk are added to this hypothetical distribution, whereby the FVA risk is derived from the expected future funding costs of derivative transactions. Furthermore, market risks are also added 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%.

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.

Quantification and specification

The economic capital for market risk at HVB, without taking account of diversification effects between risk types, amounts to €1,999 million. The change compared with the figure as at 31 December 2019 (€1,742 million) is mainly due to the severe market fluctuations in the course of great uncertainty regarding the COVID-19 pandemic.

The following table shows the aggregated market risk for internal risk controlling at HVB over the course of the year. Most of the market risk arises from positions of the CIB business segment of HVB.

Market risk of HVB (VaR, 99.00% confidence level, one-day holding period) (€ millions)

	MARKET RISK OF POSITIONS RECOGNISED AT FVTPL			MARKET RISK OF POSITIONS RECOGNISED AT FVOCI		
	AVERAGE	PERIOD END		AVERAGE	PERIOD END	
	2020	31/12/2020	31/12/2019	2020	31/12/2020	31/12/2019
Credit spread risk	14.3	10.3	5.9	12.4	10.9	8.1
Interest rate positions	6.4	6.0	6.1	7.7	7.8	2.9
Foreign exchange positions	1.4	1.8	1.5	0.1	0.2	—
Equity/index positions[1]	4.4	6.2	2.6	—	—	—
HVB[2]	**13.6**	**11.1**	**7.9**	**14.1**	**11.9**	**8.3**

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)

Effects of the COVID-19 pandemic can be seen primarily in the increase in credit risk spreads.

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

Regulatory capital requirements of HVB

(€ millions)

	31/12/2020	30/9/2020	30/6/2020	31/3/2020	31/12/2019
Value at risk	92	133	246	129	81
Stressed value at risk	247	251	429	361	293
Incremental risk charge	220	199	139	264	264
Market risk standard approach	47	56	57	54	55
CVA value at risk	34	35	32	19	10
Stressed CVA value at risk	38	39	39	58	68
CVA standard approach	34	34	31	31	29

The increase in the regulatory risk metrics value at risk and stressed value at risk in the first half of 2020 is mainly due to the severe market fluctuations in the course of great uncertainty regarding the COVID-19 pandemic. The decline in the value at risk and stress value at risk in the second half of the year is mainly attributable to changes in positions in the held-for-trading portfolio.

Regulatory back-testing of the internal model at HVB for 2020
The forecasting quality of the VaR measurement method is reviewed by means of daily back-testing that compares the computed regulatory VaR figures with the changes in the hypothetical portfolio value. Seven reportable back-testing outliers occurred in 2020. The hypothetical loss was larger than the forecast VaR figure on these days. These seven outliers were all caused by severe market fluctuations in the course of great uncertainty regarding the COVID-19 pandemic.

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 2020, there were eight instances of a limit being exceeded, which were due to severe market fluctuations. On the basis of an approval by the regulatory authorities, the back-testing outliers caused by market fluctuations in the course of the COVID-19 pandemic are not included in the calculation of the capital requirement for market risk.

Besides back-testing, further methods are used at quarterly 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 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 relative to market turnover. The CRO organisation is responsible for managing market liquidity risk and conducts advanced market liquidity analyses.

Stress tests
In addition to calculating the VaR and the other risk metrics, we conduct stress tests on a monthly basis 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 Group, 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).

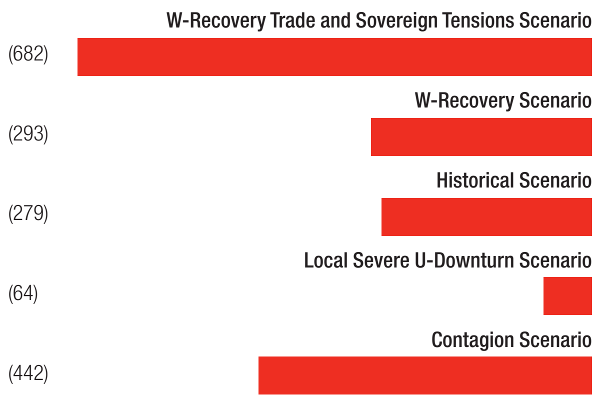
The Historical scenario is calculated to evaluate the effects of a potential financial crisis. This scenario reflects the trend in the financial crisis in 2009. To take account of the low market liquidity, the time horizon for this scenario was extended and covers a period of three months.

Further hypothetical scenarios are based on potential market movements in the future. The Contagion scenario assumes that the debt crisis will worsen in Europe whereas three further hypothetical scenarios "W Recovery", "W Recovery Trade and Sovereign Tensions" and "Local Severe U Downturn" take account of the different effects of the COVID-19 pandemic.

In contrast to previous years, the stress test results also include potential gains and losses on CVA and FundVA income components.

At 31 December 2020, the most significant stress test result of this package of stress test scenarios involves a potential loss of €0.7 billion in the new "W Recovery Trade and Sovereign Tensions" scenario. This scenario is also used in the cross-risk-type stress tests, where it is analysed for risk-taking capacity. On 31 December 2019, the Recession scenario showed the highest stress test loss at €0.6 billion.

HVB stress tests at 31 December 2020 (€ millions)



As described under the sub-header "Stress tests" in the section entitled "Implementation of overall bank management", inverse stress tests were again carried out in 2020. Risks resulting from market risk in the banking portfolio were also included in this analysis.

Interest rate risk in the banking book

The interest rate risk in the banking book is the risk relating to the Bank's capital and income caused by changes in interest rates. The strategy of the interest rate risk in the banking book aims to reduce negative effects on net interest income caused by fluctuations in interest rates over several years and to generate sustainable earnings. The modelling of contractually short-term deposits and non-interest-bearing assets and non-interest-bearing liabilities helps to stabilise the flow of income. Interest rate risk management also takes account of customer behaviour with regard to early repayments of loans. Parameters are based on statistical analyses.

HVB measures and monitors this risk with regard to the change in the economic value as well as the income of the Bank. In this context, it is ensured that the methodologies and models as well as limits or thresholds for the sensitivity of net interest and the present value are consistent. Interest rate risk exposure from commercial banking transactions is managed and hedged by the Treasury department. The market risk of the Treasury department is monitored on a daily basis. Present value-based measurement shows the effects of fluctuations in the interest rate on the economic value of assets and liabilities as a relevant risk measure. In line with regulatory reporting requirements, the absolute change in present value and the coefficients from the change in present value and regulatory own funds are calculated on a monthly basis in the event of a 200bps increase or a 200bps decrease in interest rates. In addition, six further interest rate scenarios are calculated as early warning indicators, in which, however, the changes in present value are considered in relation to the core capital. In December 2020, the plus 200bps increase in interest rates and the parallel shift upwards as an early warning indicator resulted in the greatest negative changes in present value. The interest rate scenarios stated are calculated according to Circular 6/2019 (BA) of the Federal Financial Supervisory Authority on interest rate risks in the banking book. The evaluations are carried out with (management perspective) and without taking account (regulatory perspective) of the hedge effect from the model book for own funds.

Risk Report (Continued)

Information on interest rate risks in the banking book

	REGULATORY PERSPECTIVE		MANAGEMENT PERSPECTIVE	
	31/12/2020	31/12/2019	31/12/2020	31/12/2019
Change in present value + 200 basis points in millions	(331)	(1,697)	(153)	(52)
Interest rate coefficient in %	(2.0)	(12.3)	(0.9)	(0.4)

HVB is well below the specified 20% mark, above which the banking supervisory authorities consider a bank to have increased interest rate risk, and below the 15% mark, which is seen as an early warning indicator. Customer margins are not included. The significant changes in figures compared with year-end 2019 are due to the inclusion of the model components of sight and savings deposits that were not invested on account of the low interest rate environment.

In addition to the present value approach, a simulation of net interest in the banking book is performed for HVB on a monthly basis. The focus of this analysis is the impact of changes in interest rates on net interest income compared with the benchmark scenario over a defined time horizon. The scenarios are limited internally with parallel shifts in the yield curve by plus 100bps or minus 30bps for transactions in euros and other foreign currencies in combination with a minus 100bps interest rate shock for positions in US dollars and British pounds. Assumptions regarding the elasticity of demand and savings deposits are also taken into account. Depending on the contractual agreement with the customer, a floor of 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. Model assumptions are also incorporated into the analysis. This relates notably to products with unknown and/or undefined maturities and included options. The results are below the internal early warning indicator of minus 8.5%.

Effects of changes in the interest rate on net interest

	31/12/2020		31/12/2019	
	€ millions	%	€ millions	%
+100 basis points	179	7.5	144	5.8
–30 basis points/–100 basis points	(31)	(1.3)	(50)	(2.0)

The resulting sensitivity analysis was carried out on the basis of the planned net interest for the 2020 financial year. The change in results compared with the previous year can be explained by the changed positions held by the Bank.

Furthermore, additional stress test scenarios are performed to estimate the basis risk (resulting from the imperfect correlation in reference interest rates for different instruments and products) and the effects of nonparallel shocks.

3 Liquidity risk

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).

Intraday/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) is defined as the risk of not being able to raise the necessary refinancing funds at an appropriate ratio between medium to long-term assets and liabilities (over one year), at acceptable prices and in a stable and sustainable manner without adversely affecting the Bank's day-to-day operations or financial position. It could potentially have an impact on the funding costs (own credit and market funding spread) and thus on the future earnings of the company.

Market liquidity risk
Information on the market liquidity risk is provided in the section entitled "Market risk".

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. The result is the specification of limits, triggers and 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).

Risk Report (Continued)

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 countermeasures 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 test scenario over a period of 30 calendar days.

Funding risk

To measure funding risk, the long-term funding requirements based on the expected business development are determined and updated in a coordinated process. The long-term funding requirements, which are used to set the funding targets and are presented to the Asset Liability Committee (ALCO), take into account the assets and liabilities falling due in the planning period. 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 CRR II requirements. An internal indicator "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. In addition, both the loan-to-depo ratio and the funding gap are recorded.

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 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 regular 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 portfolio of freely disposable securities eligible as collateral for central bank borrowings that can be used at short notice to cover unexpected liquidity outflows as well as concentration risk. Additional market liquidity analyses are carried out by the CRO organization 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 broken down by product, market and investor group. 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 Board 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 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 €56.6 billion at HVB for the three-month maturity bucket at the end of December 2020 (31 December 2019: €43.8 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 €13.5 billion at the end of 2020 (31 December 2019: €21.9 billion).

The liquidity coverage ratio (LCR) of a minimum of 100% to ensure that an institution is able to meet its short-term payment obligations was exceeded at HVB as at 31 December 2020 with a value of more than 100%.

Funding risk

The funding risk of HVB was again low in 2020 thanks to our broad funding base in terms of products, markets and investor groups. This ensured that we were able to obtain adequate funding for our lending operations in terms of volume and maturity within the framework of our limit system. By the end of December 2020, HVB had obtained longer-term funding with a volume of €38.3 billion (31 December 2019: €10.5 billion), €25.7 billion of which was concluded via the Targeted Longer-Term Refinancing Operation of the ECB (TLTRO III). This was offset by the maturity of €7.0 billion (June 2020) and the premature repayment of €5.6 billion (maturity: March 2021) of the TLTRO II. There is a regulatory minimum ratio of 100% to be complied with from June 2021 for the NSFR. HVB adhered to a ratio of over 100% in 2020 based on CRR II requirements. The internal indicator “adjusted NSFR greater than three years” was over 100% in 2020. On account of their ratings, our Pfandbriefe 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 2020 showed that the available liquidity reserves were sufficient to cover the funding requirements over the minimum period demanded.

4 Operational risk

Strategy

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. 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 managed overall for HVB based on an internal capital limit of HVB Group.

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.

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 including cyber 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. In addition, the emergency precautions are adapted constantly to accommodate new threats. The business continuity and crisis management function coped successfully with the COVID-19 pandemic in 2020.

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 (as a second line of defence) that helps the Management Board to manage compliance risk. According to the three lines of defence, however, the business units (first line of defence) have the task of identifying and mitigating their own compliance risks.

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.

Risk Report (Continued)

Legal risks
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.

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 a loss is considered likely, and it is possible to reliably estimate the amount of possible losses, provisions have been set up based on the circumstances and consistent with Handelsgesetzbuch (HGB) accounting principles applied by HVB.

VIP 4 Medienfonds
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 the Bank provided inadequate disclosure 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.

Proceedings related to claims for withholding tax credits
On 31 July 2014 the Supervisory Board of HVB concluded its internal investigations 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 of individuals. The Supervisory Board has brought proceedings for compensation against three individual former members of the Management Board, not seeing reasons to take any action against the current members. In line with the suggestion of the Regional Court of Munich I, the conflicting parties settled the dispute out of court in 2020.

In addition, criminal investigations have been conducted 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 alleged 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 were closed in November 2015 with, inter alia, the payment of a fine of €9.8 million by HVB. The investigations by the Frankfurt/Main Prosecutor against HVB under section 30 of the Administrative Offences Act (the Ordnungswidrigkeitengesetz) were closed in February 2016 by the payment of a fine of €5 million. The investigation by the Munich Prosecutor against HVB was closed in April 2017 with legally binding effect following the payment of a forfeiture of €5 million.

In December 2018, in connection with an ongoing investigation against other financial institutions and former Bank employees, HVB was informed by the Cologne Prosecutor of the initiation of an investigation in connection with an administrative offence regarding “cum-ex” transactions involving Exchange Traded Funds (“ETF”). In April 2019 these investigations were extended to so called ex/ex-transactions, in which an involvement of the Bank in the sourcing of cum/ex transactions of other market participants on the ex-day is suspected. The facts are being examined internally. HVB is cooperating with the authorities.

The Munich tax authorities are currently performing a regular field audit of HVB for the years 2013 to 2016 which includes, among other things, a review of other transactions in equities around the dividend record date. During these years HVB performed, among other things, securities-lending transactions with different domestic counterparties which include, but are not limited to, different types of security 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 dividend record dates, and what the further consequences for the Bank will be in the event of different tax treatment. 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 the competent tax authorities regarding these matters. HVB has made provisions.

Claim in relation to collateral enforcement
In late 2019, a holding company of a German industrial group brought a claim against HVB, in its capacity as security agent for a group of noteholders and lenders, aiming at obtaining the annulment and/or damages in relation to an allegedly fraudulent collateral enforcement. In December 2020, the case was formally registered before the District Court of Luxembourg. The alleged claim is still under evaluation.

Financial sanctions matters
Following the settlement in April 2019 with the U.S. and New York Authorities, HVB has implemented additional requirements and controls, about which the bank makes periodic reports to the authorities.

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 U.S. 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 U.S. Bankruptcy Court held a hearing on 4 May 2016 on an omnibus motion to dismiss filed by the Noteholder Defendants, and the decision of Bankruptcy Judge Chapman on the omnibus motion was issued on 28 June 2016. In her decision, Judge Chapman dismissed the case against HVB and the other Noteholder Defendants. LBSF unsuccessfully appealed against such decision to the U.S. 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 appeal hearing was held on 26 June 2019 and decided on 11 August 2020. In its decision the Second Circuit Court of Appeals affirmed the decision of the District Court, which was a complete dismissal of LBSF's claims. LBSF was entitled to file a motion for a re-hearing en banc before the entire Second Circuit Court of Appeals within 14 days of the judgment date but such deadline has now passed. Additionally, within 150 days after the entry of the judgment (i.e. no later than 8 January 2021), Lehman was entitled to file a petition for certiorari with the Supreme Court of the United States but this deadline has now passed. LBSF has no further rights of appeal.

Euro-denominated bonds issued by EU countries
On 31 January 2019, UniCredit S.p.A. and HVB received a Statement of Objections from the European Commission referring to the investigation by the European Commission of a suspected violation of antitrust rules in relation to European government bonds. The subject matter of the investigation extends to certain periods from 2007 to 2012, and includes alleged activities by HVB in a part of this period. The Statement of Objections does not prejudge the outcome of the proceeding; should the Commission conclude that there is sufficient evidence of an infringement, a decision prohibiting the conduct and imposing a fine could be adopted, with any fine subject to a statutory maximum of 10% of company's annual worldwide turnover.

HVB had access to the entirety of the European Commission's file on the investigation from 15 February 2019 onwards. As a result of the assessment of the files, the Bank regards it no longer remote but possible, even though not likely, that a cash outflow might be required to fulfil a potential fine arising from the outcome of the investigation. On the basis of the current information, it is not possible to reliably estimate the amount of any potential fine at the present date.

UniCredit S.p.A. and HVB have responded to the raised objections on 29 April 2019 and participated in a hearing before the European Commission on 22-24 October 2019. Proceedings are ongoing. There is no legal deadline for the Commission to complete antitrust inquiries.

Risk Report (Continued)

On 11 June 2019, HVB and UniCredit Capital Markets LLC were named, among other financial institutions, as defendants in a putative class action already pending in the United States District Court for the Southern District of New York. The third amended class action complaint, filed on 3 December 2019, alleges a conspiracy among dealers of Euro-denominated bonds issued by European central banks to fix and manipulate the prices of those bonds, among other things by widening the bid-ask spreads they quoted to customers. The putative class consists of those who purchased or sold Euro-denominated bonds issued by European central banks in the US between 2007 and 2012. On July 23, 2020, the court granted motions to dismiss the third amended complaint by certain defendants, including HVB and UniCredit Capital Markets LLC, without prejudice. Plaintiffs filed their fourth amended class action complaint on 9 February 2021, repleading their claim against HVB and UniCredit Capital Markets LLC and other financial institutions. Like earlier pleadings, the fourth amended class action complaint does not include a quantification of damages claimed. Exchange of correspondence concerning motions to dismiss the fourth amended complaint is scheduled to commence in March 2021.

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 subsidiaries in the respective area of application.

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 method used to aggregate the individual data sources is based on the Bayesian model and is applied to the loss distribution parameters for each model risk category.

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

In line with UniCredit's approach, operational risk capital is calculated based on the Advanced Measurement Approach (AMA) at the level of the UniCredit corporate group as a whole and then distributed as a first step to the subgroups (known as hubs), including HVB Group, and as a second step, to the 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 at regular intervals. The AMA model is validated on an annual basis to ensure that it is appropriate.

Stress tests

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

5 Other risks

In the section entitled "Other risks", HVB collates together the following types of quantifiable risk as other risks: real estate risk, business risk, pension risk, reputational risk and financial investment risk (which is shown via market and credit risk) as well as the risk type strategic risk, which is 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

A fundamental distinction is made in real estate risk between real estate required for operations (used by the Bank) and real estate that is not used for operations (not used by the Bank). In 2019, real estate in the bank-used location of Tucherpark was sold and rented back.

Investing in an alternative location for the Tucherpark site which was sold is planned in the short to medium term. The longer-term orientation for real estate used by the Bank 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. At HVB-owned locations, mainly maintenance work and repairs were carried out in 2020.

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 main risks for the Bank-owned portfolio primarily stem from the development of the market value. The risk drivers are the future usage by the Bank, market rents, rental contract periods, occupancy rate, required investment and the price development on the real estate market. The scale of the impact of the COVID-19 pandemic is currently being intensively monitored and also discussed with external experts. No clear picture is emerging as yet. This means that the effect on the real estate risk of HVB Group cannot be foreseen at the present time.

Real estate risk is managed overall for HVB on the basis of an internal capital limit of HVB Group. In addition, economic capital limits adjusted for diversification effects were allocated to the business segments for 2020 in the context of overall bank management. Based on these limits, early warning indicators have been additionally defined in the form of targets and triggers in order to identify in advance any overshooting.

To quantify real estate risk, the Bank uses an empirical Bayesian model (a group-wide real estate risk model) with a confidence level of 99.90%. This model applies an expected-shortfall approach which also takes account of the possible risk of extreme values (tail risk) (i.e. losses in excess of the VaR).

The economic capital for the real estate risk is measured by the Credit Risk Modelling & Systems (CRS) unit and calculated by the Chief Data Office (CDO). 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 real estate risk at HVB, without taking account of diversification effects between the risk types and without the model risk cushion, amounts to €322 million at 31 December 2020, which represents a decrease of €104 million (31 December 2019: €426 million). The fully diversified economic capital for the real estate risk at HVB stands at €181 million (31 December 2019: €322 million). The change in economic capital is mainly attributable to the sale of the Tucherpark site.

The risk figures relate to a portfolio valued at €2,960 million.

Breakdown of the real estate portfolio by type

	PORTFOLIO VALUE € millions		SHARE in %	
	2020	2019	2020	2019
Real estate used by the Bank	2,262	2,207	76.4	56.7
Real estate not used by the Bank	698	1,687	23.6	43.3
HVB	**2,960**	**3,894**	**100.0**	**100.0**

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

Risk Report (Continued)

Business risk
The strategy for business risk is based on the direction of business over the medium term and is reflected in planning. As part of its general cost and income management, each business unit is responsible for the operational management of business risk.

Business risk is managed overall for HVB on the basis of an internal capital limit of HVB Group. Based on this limit, early warning indicators have been additionally defined in the form of targets and triggers in order to identify in advance any overshooting.

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 measured by the Credit Risk Modelling & Systems (CRS) unit and calculated by the Chief Data Office (CDO). 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's business risk, without taking account of diversification effects between the risk types and without the model risk cushion, amounted to €346 million at 31 December 2020 (31 December 2019: €526 million). The fully diversified economic capital for HVB's business risk totals €239 million as at 31 December 2020 (31 December 2019: €354 million).

Pension risk
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 plan assets and the cash flows on the obligations side. A figure of €911 million was determined as at 31 December 2020 for the total pension risk of HVB (31 December 2019: €612 million). The increase compared with year-end 2019 is primarily due to the introduction of a new group-wide model which assumes a significantly higher potential interest rate shock on benefit obligations. Upon application of the new model at 31 December 2019, the back-calculated pension risk would have amounted to €863 million. The risk figure is incorporated in the calculation of the risk-taking capacity in the form of an additive component in market risk before aggregation as the internal capital. In addition, the impact on pension risk is analysed at regular intervals as part of the cross-risk-type stress tests.

Low interest rates continue to be seen as the main negative factor for both the amount of the pension obligations 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 quite possible that new historically low levels will be reached and the pension obligations will thus increase.

Financial investment risk
The financial investment portfolio mainly consists of holdings in unlisted companies, equity derivatives and other fund shares (real estate funds and other closed-end funds). All the investments to be included in 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.

Financial investment risk is controlled at a higher level on the basis of a limit for internal capital for HVB Group. In addition, the business segments have been allocated limits for economic capital for the year 2020 that were adjusted for diversification effects for the purpose of overall bank management. On the basis of these limits, early warning indicators have been additionally defined in the form of target values and triggers in order to indicate in advance any overshooting. As holdings from unlisted companies were subsumed under credit risk in September 2020, a limit has no longer been directly allocated to this part of the financial investment risk from 2021.

The risk from holdings in unlisted companies has been included under credit risk since September 2020. The following risk drivers are relevant for financial investment risk: the carrying amounts of investments and the related residual capital contribution liabilities and the macroeconomic situation. In addition, risks from hedge funds, private equity funds (including issuer risks from the trading book) and FX risks from the investment portfolio are included in the calculation of the market risk.

The economic capital for financial investment risk is measured by the Credit Risk Modelling & Systems (CRS) unit and calculated by the Chief Data Office (CDO). 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 until June 2020 also included a comparison of the actual values with the limits.

The economic capital from holdings in unlisted companies for financial investment risk at HVB Group has been included under credit risk since September 2020.

Breakdown of the financial investment portfolio

	PORTFOLIO VALUE € millions		SHARE in %	
	2020	2019	2020	2019
Private equity investments	10	19	4.1	4.5
Other investments[1]	225	212	95.9	95.5
HVB	**235**	**222**	**100.0**	**100.0**

1 Listed and unlisted investments.

The impact of macroeconomic scenarios on financial investment risk within credit risk is examined in the course of cross-risk-type stress tests.

Strategic risk

As a universal bank, HVB focuses on the one hand on the regional development of the German market, on the other hand, it is the centre of competence for the investment banking of the whole of UniCredit. Therefore, HVB's profitability and risk profile of are influenced in particular by the economic development in Germany and the development of international financial and capital markets. In this context, 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 following areas are currently classified as relevant for the occurrence of strategic risk:

– Economic environment – If, among other things, the stabilising measures taken by the German government and central banks in the eurozone, particularly in the course of the COVID-19 pandemic, do not take effect and economic growth slows in Europe on a sustained basis, this could have negative effects on the operating result of HVB.
– Strategic orientation of the business model of HVB – The persistently low level of interest rates could, for example, lead to imbalances in the earnings contributions of the business segments.
– Bank-specific risks – The intensification of competition in the financial sector could, for example, lead to further shifts in market shares.

– Regulatory and legal framework – Should HVB or one of its subsidiaries not fully comply with the regulatory requirements of the supervisory authorities, this could lead to sanctions by the competent supervisory authority.
– Rating of UniCredit Bank AG – A rating change downwards (downgrade) could make refinancing costs more expensive or have a negative impact on business opportunities as a counterparty in the interbank market or with rating-sensitive customers.

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, the national and international environment in which HVB operates is continually monitored (for example, political, economic, regulatory or specific banking market conditions) and the Bank's own strategic positioning is continually reviewed.

Strategic risk is monitored 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 as required. 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.

Reputational risk
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 special purpose vehicles) 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.

Within the framework of the "run-the-bank" approach, the risk is classified in accordance with a three-tier system (traffic light logic). 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 yearly RepRisk Report covering the largest reputational risks at HVB.

In addition to the "change-the-bank" and the "run-the-bank" approach, UniCredit's method for quantifying reputational risk was introduced at HVB Group in the first quarter of 2020. For the purposes of quantification, reputation risk is defined as the impact of "negative sentiment" in the opinion-forming media (press, television, online media) on UniCredit's future profits generated by the reporting of an event that has a negative impact on the Bank's reputation.

UniCredit's method for quantifying reputational risk is based on measuring the semi-elasticity between the development of the Media Tonality Index (a measure, the development of which reflects changes in UniCredit's reputation) and the development of the idiosyncratic portion of the expected profits. The economic capital for reputational risk is based on the value-at-risk (VaR) measure, which is calculated at a confidence level of 99.90% and is derived from the distribution of expected declines in profit.

The economic capital for reputational risk is calculated on a quarterly basis at UniCredit level and – based on the ratio of the capital for reputational risk to the capital for the operational risk of UniCredit – distributed between the subsidiaries of UniCredit S.p.A.

The Operational & Reputational Risks department checks the results obtained from calculating the economic capital for the reputational risk of HVB Group on a quarterly basis for their plausibility. The method for the quantification of reputational risk is validated at regular intervals.

The impact on reputation risk stemming from a change in sentiment about UniCredit in the opinion-forming media is examined in the course of cross-risk-type stress tests. The extent of this change is determined by assessing the severity of the respective macroeconomic scenario.

Risks arising from outsourcing activities

Outsourcing involves the transfer of activities and processes to intragroup and external service providers. Parts of the operational risk can also be mitigated by transferring the liability, while contractual risks arising from the outsourcing arrangement remain within HVB or a subsidiary of HVB Group. 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 critical/material" and "critical/material". An in-depth risk analysis covering the other risk types as well as operational risk is performed for all outsourcing. A retained organisation (RTO) responsible for the arrangement is set up for each 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.

Three new outsourcing arrangements at HVB in the Luxembourg branch were put in place with UniCredit International Bank S.A. relating to tasks completed before the transformation of the subsidiary UniCredit Luxembourg Bank S.A into the Luxembourg branch within the subsidiary itself. These outsourcing arrangements relate to (i) back-office services covering data maintenance and transaction execution (master data, securities, payments), (ii) application support for various ICT applications and (iii) support for compliance activities. In addition, HVB set up an outsourcing arrangement with Amundi Deutschland GmbH for the Premium Invest asset management mandate. This did not give rise to any material change to the risk for HVB. These outsourcing arrangements were classified as material without significant impact at the time when the arrangements were set up, now they are classified as critical/material.

In 2020, a new critical/material outsourcing arrangement was agreed at HVB. The payment service provider Betriebscenter für Banken AG, previously classified as critical/material, was replaced from 1 November 2020 by the provider equensWorldLine SE Germany, which is also classified as critical/material. This did not result in a significant change in the risk.

ICS – Internal Control System

Internal control system with regard to the financial reporting process

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.

As part of UniCredit, HVB is additionally 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; Law 262 in the United States). Alongside the internal CFO controls, there are also checking and control steps in the upstream processes and organisations.

Definitions and objectives

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 HVB 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".

The ICS encompasses the policies, processes and measures needed to ensure the financial reporting process and compliance with the applicable legal provisions. It is intended to ensure 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.

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 give a true and fair view of the assets, liabilities, financial position and profit or loss. These risks might possibly entail legal penalties and, in addition, the erosion of stakeholders' confidence and thus damage to the Bank's reputation. The purpose of the internal control system with regard to the financial reporting process is to implement controls that ensure with an adequate degree of certainty that the annual financial statements and the Management Report are prepared in compliance with regulations despite the identified risks.

The method of the ICS in relation to the financial reporting process and thus the introduction of processes including risk and monitoring assessment is based on the international "Internal Control – Integrated Framework" issued by the Treadway Commission's Committee of Sponsoring Organizations (COSO). 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: Mapping of all relevant transactions such as assets, liabilities and provisions that have an effect on the financial reports.
- Measurement: Recognition of the relevant items at their correct amounts in the financial reports.
- Presentation and disclosure: The financial reports are correctly classified and discussed regarding recognition, structure and disclosures in the notes to the financial statements, comply with legal requirements and are published on schedule.

Even the extensive 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 consolidation and monitoring of all projects and measures under the key topic of the Internal Control Business Committee (ICBC).

Responsibility for the financial reporting process and, in particular, for the preparation of the annual and consolidated financial statements rests with the Chief Financial Officer (CFO). The CFO receives significant support in this context from the Chief Risk Officer (CRO) 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 extend 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 of the Chief Operating Officer (COO).

Organisational structure and tasks of the CFO organisation

For purposes of the financial reporting processes, the CFO organisation is essentially broken down into the following areas:

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, it prepares the annual financial statements and is also responsible for the financial reporting in the Annual Report of HVB. The management and administration of shareholdings for financial reporting purposes and the regulatory reporting for HVB to the banking supervisory authorities is positioned in this unit.

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

Regional Planning & Controlling (CCP) is tasked with central business management and cost controlling 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 Corporate & Investment Banking (CIB) and the Group Corporate Centre (GCC) 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 production for the CFO organisation are amalgamated in CDO 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.

ICS – Internal Control System (Continued)

Controls in the ICS for risk minimisation

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. To reduce the risk of misrepresentation in financial reporting, various preventive and investigative controls are carried out which are documented in process descriptions. Attention is paid to compliance with the separation of functions and with approval authority regulations in the definition of controls. The controls comprise both manually operated system-based controls and purely manual controls. Alongside the internal CFO controls, there are also checking and control steps in the upstream processes and organisations.

The focus of risk and monitoring analysis is on identifying and evaluating the risks and controls relevant to financial reporting. Identified risk potential is to be sufficiently mitigated through defined control steps. In periodic representative spot checks, those responsible for the controls document the implementation of these controls and provide adequate records. If no controls are implemented or if controls are identified that do not sufficiently reduce risk, or there is insufficient documentation of the controls, measures are initiated to eliminate the identified deficiencies. The timely implementation and documentation of these measures are reviewed on a quarterly basis.

In a half-yearly certification process, the management of the departments in charge of processes confirms to the CFO of HVB Group and the CFO to UniCredit S.p.A., that controls to ensure correct reporting have been carried out.

Furthermore, a yearly analysis is carried out on the basis of what are known as "company level controls". This is a list of questions based on the international COSO framework, the answers to which are used to check the existence of comprehensive control measures in HVB that are suitable for reducing the risk of incorrect external presentation or incorrect actions, not only with regard to financial reporting.

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 carried out 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 to be agreed by the CRO and CFO organisations.
– 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. 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.

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 in accordance with 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.

ICS – Internal Control System (Continued)

The required protection against unauthorised access, and compliance with the principles of functional separation when using the Bank's financial reporting application systems are to be ensured in particular 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 implies a time restriction of no more than one year.

Furthermore, contingency plans are in place to ensure the availability of human and technical resources to handle processes regarding financial reporting. These contingency plans are updated and refined regularly and on an ad hoc basis.

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 Spokesman of the Management Board (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. 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.

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 to audited units and the responsible Management Board members, the Management Board as a whole receives quarterly reports and an annual report which include an 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 management of the Internal Audit department informs the Audit Committee and the Risk Committee of the Supervisory Board on a quarterly basis at the meetings of these committees on 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 by reviewing and approving the annual financial statements, the Management Report and the proposal for the appropriation of the net profit. 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 an impact on the accounting processes, a corresponding project is set up to cover 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 update of the ICS in relation to the accounting process, the documented processes are subject to half-yearly reviews and adjustments for organisational changes and changes in content by the persons responsible for the process and controls.

Income Statement

EXPENSES

(€ millions)

				1/1–31/12/2020	1/1–31/12/2019
1	Interest payable			767	1,215
	of which: netted positive interest on borrowings				
	€407 million				(241)
2	Fees and commissions payable			307	279
3	Net expense from the held-for-trading portfolio			—	—
4	General administrative expenses				
	a) payroll costs				
	aa) wages and salaries	1,106			1,383
	ab) social security costs and expenses for				
	pensions and other employee benefits	486			572
			1,592		1,955
	including: for pensions				
	€309 million				(401)
	b) other administrative expenses		1,513		1,621
				3,105	3,576
5	Amortisation, depreciation and impairment losses				
	on intangible and tangible assets			15	22
6	Other operating expenses			66	78
7	Write-downs and impairments for receivables and				
	certain securities as well as additions to provisions				
	for losses on guarantees and indemnities			763	—
8	Write-downs and impairments on participating				
	interests, shares in affiliates				
	and investment securities			34	345
9	Expenses from absorbed losses			70	21
10	Extraordinary expenses			4	3
11	Taxes on income			38	394
12	Other taxes, unless shown under item 6			11	5
13	Net income for the year			533	1,051
	Total expenses			**5,713**	**6,989**

INCOME

(€ millions)

			1/1–31/12/2020	1/1–31/12/2019
1	**Interest income from**			
	a) loans and money market operations	2,736		3,181
	of which: netted negative interest on investments			
	€208 million			(150)
	b) fixed-income securities and government-inscribed debt	234		324
			2,970	3,505
2	**Current income from**			
	a) equity securities and other variable-yield securities	135		285
	b) participating interests	21		5
	c) shares in affiliates	435		78
			591	368
3	**Income earned under profit-pooling**			
	and profit-and-loss transfer agreements		42	522
4	**Fees and commissions receivable**		1,342	1,284
5	**Net income from the held-for-trading portfolio**		453	478
	including: transfer as per Section 340e (4) 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		—	145
7	**Write-ups on participating interests,**			
	shares in affiliates and investment securities		—	—
8	**Other operating income**		315	683
9	**Extraordinary income**		—	4
10	**Net loss for the year**		—	—
	Total income		**5,713**	**6,989**
1	**Net income for the year**		533	1,051
2	**Withdrawal from retained earnings**			
	a) from the reserve for shares in a controlling			
	or majority interest-holding company	—		—
	b) from other retained earnings	—		2,501
			—	2,501
3	**Transfer to retained earnings**			
	a) to the reserve for shares in a controlling			
	or majority interest-holding company	—		1
	b) to other retained earnings	133		263
			133	264
4	**Profit available for distribution**		**400**	**3,288**

Balance Sheet

ASSETS

(€ millions)

		31/12/2020	31/12/2019
1 **Cash and cash balances**			
a) cash on hand	6,020		6,044
b) balances with central banks	16,388		20,040
including: with Deutsche Bundesbank			
€12,757 million			(16,117)
		22,408	26,084
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	—		—
including: eligible for refinancing with			
Deutsche Bundesbank			
€— million			(—)
b) bills of exchange	—		—
		—	—
3 **Loans and receivables with banks**			
a) repayable on demand	27,394		3,801
b) other loans and receivables	22,779		20,629
		50,173	24,430
including: mortgage loans			
€— million			(—)
municipal loans			
€22 million			(37)
against pledged securities			
€— million			(—)
4 **Loans and receivables with customers**		116,086	119,238
including: mortgage loans			
€45,852 million			(44,681)
municipal loans			
€7,990 million			(6,753)
against pledged securities			
€585 million			(719)
Amount carried forward:		**188,667**	**169,752**

LIABILITIES

(€ millions)

			31/12/2020	31/12/2019
1 **Deposits from banks**				
a) repayable on demand		12,002		5,944
b) with agreed maturity dates or periods of notice		55,088		59,190
			67,090	65,134
including: registered Mortgage Pfandbriefe in issue				
€472 million				(599)
registered Public Pfandbriefe in issue				
€206 million				(294)
bonds given to lender as				
collateral for funds borrowed:				
registered Mortgage Pfandbriefe				
€— million				(—)
and registered Public Pfandbriefe				
€— million				(—)
2 **Deposits from customers**				
a) savings deposits				
aa) with agreed period of notice of three months	13,512			13,544
ab) with agreed period of notice				
of more than three months	61			90
		13,573		13,634
b) registered Mortgage Pfandbriefe in issue		3,800		3,931
c) registered Public Pfandbriefe in issue		1,835		1,964
d) other debts				
da) repayable on demand	97,442			83,359
db) with agreed maturity dates or periods of notice	33,892			30,488
including: Pfandbriefe given to lender as				
collateral for funds borrowed:				
registered Mortgage Pfandbriefe				
€— million				(—)
and registered Public Pfandbriefe				
€— million				(—)
		131,334		113,847
			150,542	133,376
Amount carried forward:			**217,632**	**198,510**

ASSETS

(€ millions)

			31/12/2020	31/12/2019
Amount brought forward:			**188,667**	**169,752**
5 Bonds and other				
fixed-income securities				
a) money market paper				
aa) issued by public authorities	59			4
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€— million				(—)
ab) issued by other borrowers	58			151
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€— million				(—)
		117		155
b) bonds and notes				
ba) issued by public authorities	20,452			18,398
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€16,115 million				(13,506)
bb) issued by other borrowers	32,639			32,016
including: those eligible for collateral for				
Deutsche Bundesbank advances				
€24,259 million				(23,818)
		53,091		50,414
c) own bonds		3,715		6,311
nominal value €3,700 million				(6,300)
			56,923	56,880
6 Equity securities and other variable-yield securities			31	707
6a Held-for-trading portfolio			51,287	42,615
7 Participating interests			101	109
including: in banks				
€8 million				(8)
in financial service institutions				
€28 million				(28)
8 Shares in affiliates			1,457	1,502
including: in banks				
€— million				(—)
in financial service institutions				
€349 million				(384)
Amount carried forward:			**298,466**	**271,565**

LIABILITIES

(€ millions)

			31/12/2020	31/12/2019
Amount brought forward:			**217,632**	**198,510**
3 Debt securities in issue				
a) bonds				
aa) Mortgage Pfandbriefe	17,847			17,770
ab) Public Pfandbriefe	1,198			1,540
ac) other bonds	7,248			5,911
		26,293		25,221
b) other debt securities in issue		—		—
including: money market paper				
€— million				(—)
acceptances and promissory notes				
€— million				(—)
			26,293	25,221
3a Held-for-trading portfolio			28,650	21,376
4 Trust liabilities			268	4
including: loans taken out on a trust basis				
€268 million				(4)
5 Other liabilities			7,409	7,673
6 Deferred income				
a) from issuing and lending operations		81		76
b) other		166		185
			247	261
6a Deferred tax liabilities			—	—
7 Provisions				
a) provisions for pensions				
and similar commitments		—		—
b) tax provisions		414		523
c) other provisions		1,864		1,866
			2,278	2,389
8 Subordinated liabilities			1,340	571
8a Additional Tier 1 capital			1,700	—
9 Participating certificates outstanding			—	—
including: those due in less than two years				
€— million				(—)
10 Fund for general banking risks			638	638
of which: Special items as per Section 340e (4) HGB				
€347 million				(347)
Amount carried forward:			**286,455**	**256,643**

ASSETS

(€ millions)

			31/12/2020	31/12/2019
	Amount brought forward:		**298,466**	**271,565**
9	**Trust assets**		268	4
	including: loans granted on a trust basis			
	€268 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	3		4
	c) goodwill	—		—
	d) advance payments	1		1
			4	5
11	**Property, plant and equipment**		141	148
12	**Other assets**		967	1,113
13	**Prepaid expenses**			
	a) from issuing and lending operations	74		44
	b) other	184		166
			258	210
14	**Deferred tax assets**		—	—
15	**Excess of plan assets over pension liabilities**		1	3
	Total assets		**300,105**	**273,048**

LIABILITIES

(€ millions)

			31/12/2020	31/12/2019
Amount brought forward:			**286,455**	**256,643**
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	11			11
cc) reserve provided for in the Articles of Association	—			—
cd) other retained earnings	1,041			908
		1,052		919
d) profit available for distribution		400		3,288
			13,650	16,405
Total liabilities and shareholders' equity			**300,105**	**273,048**
1 Contingent liabilities				
a) contingent liabilities on rediscounted				
bills of exchange credited to borrowers		—		—
b) liabilities under guarantees and				
indemnity agreements		24,433		25,373
c) contingent liabilities on assets pledged				
as collateral for third-party debts		—		—
			24,433	25,373
2 Other commitments				
a) commitments from the sale of assets				
subject to repurchase agreements		—		—
b) placing and underwriting commitments		—		—
c) irrevocable lending commitments		64,448		55,457
			64,448	55,457

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 affiliate of UniCredit S. p. A., Milan, Italy (ultimate parent company).

The annual financial statements of UniCredit Bank AG for the 2020 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.

Change in the reporting of net commission income
The internal processes for mapping the Rosenkavalier transactions were optimized as part of the structuring of the new Rosenkavalier 2020 transactions. In three securitization transactions, HVB sold loan assets to Rosenkavalier special purpose vehicles (SPVs) and bought back all the securities issued by the Rosenkavalier SPVs in order to generate collateral in the form of senior ABS bonds for refinancing transactions with the European Central Bank through these securitization transactions. The volume of transactions is €7.5 billion as at 31 December 2020. As consumer loans have been securitized for the first time as part of the new transaction, the structure of the securitization has also changed: the pure interest portion that is calculated for the provision of capital has decreased, while the relevance of credit defaults and services has increased. This effect is reinforced by the current low level of interest rates. Accordingly, the fees charged by HVB to the Rosenkavalier SPVs are reported in the reporting year for the first time as commission income and no longer as interest income as in the past. As a result, fees of €51.2 million are reported as commission income for the first time in the reporting year, and the previous year's figures have been corrected accordingly (reduction in interest income and increase in commission income of €43.4 million).

IBOR reform: Change in the context of the IBOR transition
The change in the interest rate benchmark has no impact on legal and economic ownership of the asset or liability in question. Although the interest rate benchmark is a key feature of a floating rate instrument, the character of the instrument does not change and the instrument continues to be reported in the balance sheet, as all other essential features do not change due to the mere change in the interest rate benchmark under the IBOR reform. Accordingly, no asset or liability affected by the change is to be recognised. As a result, the change in the interest rate benchmark lead to a prospective adjustment of the instrument's interest rate.

For instruments that are part of a valuation unit, the change in an interest rate benchmark does not affect the .hedge eligibility, hedging intention or the intention to hold with respect to the financial instruments, so that the valuation unit is continued. When assessing the prospective effectiveness, the consequences of a time delay in the adjustment dates for the interest rate benchmark may not be take into account. If there are any effects on the valuation of the instruments themselves, these must be recorded as part of a valuation.

For free-standing derivatives that are neither allocated to the trading portfolio nor part of a valuation unit, the principle remains that a provision is only to be set up in the event of an impending loss. The effects of the change in interest rate benchmarks must be taken into account when assessing any provision that may be required.

Settlement payment received/paid, for example in connection with the transition from EONIA rates to €STR rates in relation to financial instruments are recognised directly in equity and deferred/accrued over the term of the instruments concerned. The settlement due to clearing houses on account of the discounting switch (transition from discounting of cash collateral from EONIA to €STR had an effect on the fair value determination of derivatives without changing the compatible cash flows of the derivatives) was recognised in the income statement.

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.

Accounting, Valuation and Disclosure (Continued)

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 at 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. We take account of deferred credit risks by recognising general loan-loss provisions. In the reporting year, we calculated the general loan-loss provision for loans and receivables with customers unchanged. As a basic principle, the determination of the general loan-loss provision is now based on the expected credit losses that are also used for the purposes of valuation in accordance with IFRS. Therefore, the determination of the general loan-loss provision follows the Bank's risk measurement. Up until last year, the principles of the German fiscal authorities were applied to determine the general loan-loss provision.

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) HGB 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.

Securities held for liquidity purposes are measured at amortised cost, taking account of the lower of cost or market principle (Section 253 (4) 1 HGB) and if necessary, written down to the market value or fair value at the balance sheet date, whichever is lower. Premiums and discounts are amortised over the remaining term of the securities holdings upon addition.

In observance of the lower of cost or market principle, appropriate write-downs are made 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.

The Bank sets up portfolio valuation units documented in advance for certain interest-bearing securities, promissory notes (with a carrying amount of €26,288 million (previous year: €33,197 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 €574 million (previous year: €574 million) for the portfolios whose hedged items encompass securities and promissory notes. The change is largely attributable to a higher volume and the lower level of interest rates. 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 the release of provisions for losses on guarantees and indemnities.

Accounting, Valuation and Disclosure (Continued)

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%; two-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.

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.

Accounting, Valuation and Disclosure (Continued)

8 Participating interests and shares in affiliates
Participating interests and shares in affiliates (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 affiliates 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 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.

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.

	2020	2019
Discount rate (10-year average)	2.30%	2.71%
Discount rate (7-year average)	1.60%	1.97%
Pension trend	1.40%	1.50%
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 tables to		
Mortality		
Men	80%	80%
Women	95%	95%
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.

Accounting, Valuation and Disclosure (Continued)

13 Additional Tier 1 regulatory capital instruments
Included are HVB issued regulatory own funds in the form of two additional Tier 1 issues (AT1 bonds). Die AT1 bonds are fully subscribed by UniCredit S.p.A. These are subordinated unsecured bonds.

They have a volume of €1,000 million and €700 million and an indefinite term, and the AT1 bonds can only be terminated by the issuer. As the issuer, HVB has the right to waive interest in whole or in part at its own discretion. Should HVB decide to pay interest for a given financial year, it is recognised as interest expense. The bond terms stipulate a temporary write-down in the event that the Bank's CET 1 ratio falls below the 5.125% mark on a stand-alone basis or consolidated basis pursuant to the CRR. Under certain conditions, a (re-)write-up is possible at HVB's discretion.

In addition, the issues have the following features:
– The issue of €1,000 million can be called in for the first time after five years and initially bears 5.794% interest for five years; from 20 October 2025 the interest rate corresponds to the 5-year EUR mid-market swap rate of +6.250% p.a. until the next interest rate adjustment date after five years.
– The issue of €700 million can be called in for the first time after six years and initially bears 5.928% interest for six years; from 20 October 2026 the interest rate corresponds to the 5-year EUR mid-market swap rate of +6.350% p.a. until the next interest rate adjustment date after five years.

The AT1 bonds are shown as additional Tier 1 capital (AT1) under regulatory own funds.

14 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.

15 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 31.76%. 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, loans and receivables with customers as well as prepaid expenses and deferred income.

16 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.

17 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 affiliates
– fees and commissions receivable
– net income from the held-for-trading portfolio and
– other operating income

(€ millions)

	2020	2019
Total income	**5,671**	**6,318**
Germany	4,673	5,011
Italy	186	303
United Kingdom	323	372
Rest of Europe	222	247
Americas	206	285
Asia	61	100

18 Net interest income

(€ millions)

	2020	2019
Net interest income	**2,836**	**3,180**
Interest income from		
lending and money market transactions	2,736	3,181
including: netted negative interest on investments	208	150
fixed-income securities and government-inscribed debt	234	324
Current income from equity securities and other variable-yield securities,		
participating interests and shares in affiliates	591	368
Income from profit-pooling and profit-and-loss-transfer agreements	42	522
Interest expenses	767	1,215
including: netted positive interest on borrowings	407	241

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

In addition, the negative interest for financial liabilities includes €113 million relating to the participation in the ECB's TELTRO III programme set up in the reporting year. In the course of calculating the effective interest for these liabilities, expected premiums are included that depend on the increase in net lending of eligible loans (loans to the non-financial sector in the eurozone without private construction finance).

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

Notes to the Income Statement (Continued)

19 Services performed for third parties
HVB performed significant services for third parties, notably in portfolio, asset and trust 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.

20 Net income from the held-for-trading portfolio
Net income from the held-for-trading portfolio (net trading income) of €453 million (previous year: €478 million) includes the netted 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 (referred to as 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.

21 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 (€102 million, previous year: €499 million),
– cross-charged payroll costs and cost of materials (€86 million, previous year: €83 million) and
– the recognition of income from services performed in earlier years (€7 million, previous year: €16 million).

Other operating expenses primarily include the following:
– additions to provisions other than provisions for lending and securities operations (€24 million, previous year: €51 million),
– compensation and ex gratia payments (€15 million, previous year: €9 million),
– expenses arising from the compounding and discounting of other provisions in the non-lending business (€7 million, previous year: €5 million) and
– expenses related to other periods (€4 million, previous year: €5 million).

22 Expenses from absorbed losses
In the reporting period there was an expense of €39 million (previous year: €– million) from losses absorbed in other accounting periods.

23 Extraordinary income/expenses
In the reporting year, expenses amounted to €4 million, whereas income amounting to €1 million was reported in the same period of the previous year.

24 Taxes on income
The expense from current taxes on income of €38 million includes a net tax income of €99 million from previous years.

25 Net income for the year
In the financial statements of HVB, the profit available for distribution from the financial year 2020, which is decisive for the appropriation of profit, amounts to €400 million. This is made up of net income of €533 million generated in the reporting year less transfers to other retained earnings of €133 million. We will propose to the Shareholders' Meeting that a dividend of €400 million be paid to UniCredit S. p. A. (UniCredit), Milan, Italy. This represents a dividend of around €0.50 per share after around €4.10 in the 2019 financial year. In accordance with a resolution adopted by the Shareholders' Meeting on 23 June 2020, the profit available for distribution of €3,288 million reported in the previous year was distributed to UniCredit on 2 November 2020.

Notes to the Balance Sheet

26 Breakdown by maturity of selected asset items

(€ millions)

		2020	2019
A 3 b)	Other loans and receivables with banks		
	with residual maturity of less than 3 months	15,625	11,421
	at least 3 months but less than 1 year	2,800	5,861
	at least 1 year but less than 5 years	4,335	3,149
	5 years or more	19	198
A 4	Loans and receivables with customers		
	with residual maturity of less than 3 months	13,334	16,664
	at least 3 months but less than 1 year	14,053	9,888
	at least 1 year but less than 5 years	40,553	41,058
	5 years or more	41,403	41,896
	No fixed maturity	6,743	9,732
A 5	Bonds and other fixed-income securities, amounts due in the following year	4,944	5,794

27 Breakdown by maturity of selected liability items

(€ millions)

		2020	2019
L 1	Deposits from banks		
L 1b)	with agreed maturity dates or periods of notice		
	with residual maturity of less than 3 months	20,161	31,208
	at least 3 months but less than 1 year	2,287	11,284
	at least 1 year but less than 5 years	27,019	11,252
	5 years or more	5,621	5,447
L 2	Deposits from customers		
L 2 ab)	savings deposits with agreed periods of notice of at least 3 months		
	with residual maturity of less than 3 months	10	1
	at least 3 months but less than 1 year	34	31
	at least 1 year but less than 5 years	17	58
	5 years or more	—	—
L 2 b)	registered Mortgage Pfandbriefe in issue		
L 2 c)	registered Public Pfandbriefe in issue		
L 2 db)	other debts with agreed maturity dates or periods of notice		
	with residual maturity of less than 3 months	18,694	12,840
	at least 3 months but less than 1 year	8,183	9,764
	at least 1 year but less than 5 years	6,011	6,632
	5 years or more	6,639	7,146
L 3	Debt securities in issue		
L 3 a)	bonds, amounts due in following year	3,869	5,070
L 3 b)	other debt securities in issue		
	with residual maturity of less than 3 months	—	—
	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)

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

(€ millions)

	2020		2019	
	AFFILIATES	PARTICIPATING INTERESTS	AFFILIATES	PARTICIPATING INTERESTS
Loans and receivables with banks	11,249	20	2,628	49
of which UniCredit S. p. A.	10,247	—	1,515	—
Loans and receivables with customers	1,527	923	2,195	1,443
Bonds and other fixed-income securities	3	7,623	3	6,771
of which UniCredit S. p. A.	—	—	—	—
Deposits from banks	1,491	142	2,649	63
of which UniCredit S. p. A.	456	—	1,947	—
Deposits from customers	1,487	3,432	1,242	3,288
Debt securities in issue	1,000	—	1,000	—
of which UniCredit S. p. A.	1,000	—	1,000	—
Subordinated liabilities	2,974	—	473	—

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. This involves hedge derivatives of UniCredit group companies that are externalised on the market by HVB.

29 Trust business

(€ millions)

	2020	2019
Trust assets	**268**	**4**
Loans and receivables with banks	—	—
Loans and receivables with customers	268	4
Equity securities and other variable-yield securities	—	—
Participating interests	—	—
Other assets	—	—
Trust liabilities	**268**	**4**
Deposits from banks	268	4
Deposits from customers	—	—
Debt securities in issue	—	—
Other liabilities	—	—

KfW Schnellkredit loans in the amount of €264 million are reported. KfW Schnellkredit loans were set up by the federal government during the reporting year as a special programme of KfW to secure liquidity for companies. The Bank issues the KfW Schnellkredit loans in its own name at the expense of KfW. To this extent, the KfW Sonderkredit loans are accounted for as loans taken out on a trust basis in accordance with Section 6 of the Ordinance Regarding Accounting for Banks (Verordnung über die Rechnungslegung der Kreditinstitute und Finanzdienstleistungsinstitute – RechKredV).

30 Foreign-currency assets and liabilities

(€ millions)

	2020	2019
Assets	**33,400**	**42,512**
Cash and cash balances	3,631	3,924
Treasury bills and other bills eligible for refinancing with central banks	—	—
Loans and receivables with banks	1,434	3,571
Loans and receivables with customers	12,039	18,784
Bonds and other fixed-income securities	7,459	8,546
Equity securities and other variable-yield securities	—	—
Held-for-trading portfolio (assets held for trading purposes)	8,636	7,466
Participating interests	9	10
Shares in affiliates	75	80
Trust assets	—	—
Intangible assets	—	—
Property, plant and equipment	2	3
Other assets	111	124
Prepaid expenses	4	4
Liabilities	**23,674**	**25,226**
Deposits from banks	5,585	9,874
Deposits from customers	13,065	10,540
Debt securities in issue	995	1,163
Held-for-trading portfolio (liabilities held for trading purposes)	3,658	3,183
Trust liabilities	—	—
Other liabilities	119	175
Deferred income	47	67
Provisions	58	65
Subordinated liabilities	147	159

The amounts shown represent the euro equivalents of all currencies.

The recognition of financial assets held for trading and financial liabilities held for trading takes account of the offsetting in the balance sheet. The previous year’s figures have been adjusted.

31 Subordinated asset items

(€ millions)

	2020	2019
Subordinated asset items	**2,255**	**2,341**
Loans and receivables with banks	—	—
Loans and receivables with customers	15	136
Bonds and other fixed-income securities	2,236	2,070
Equity securities and other variable-yield securities	—	—
Held-for-trading portfolio	4	135

Notes to the Balance Sheet (Continued)

32 Marketable debt and investments

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

	2020			2019		
	TOTAL MARKETABLE SECURITIES	OF WHICH: LISTED	OF WHICH: UNLISTED	TOTAL MARKETABLE SECURITIES	OF WHICH: LISTED	OF WHICH: UNLISTED
Bonds and other fixed-income securities	56,825	44,268	12,557	56,733	45,070	11,663
Equity securities and other						
variable-yield securities	23	—	23	26	—	26
Held-for-trading portfolio	19,471	16,091	3,380	19,734	16,272	3,462
Participating interests	—	—	—	—	—	—
Shares in affiliates	—	—	—	—	—	—

Non-current marketable securities contain financial instruments carried at an amount higher than their fair value: (€ millions)

	2020		2019	
	CARRYING AMOUNT	FAIR VALUE	CARRYING AMOUNT	FAIR VALUE
Non-current securities	**6,277**	**6,204**	**4,483**	**4,451**
Bonds and other fixed-income securities	6,277	6,204	4,483	4,451
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.

33 Held-for-trading portfolio

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

	2020	2019
Assets held for trading	**51,287**	**42,615**
Derivative financial instruments (positive fair values)	21,322	13,557
Loans and receivables	4,789	2,049
Bonds and other fixed-income securities	11,462	12,325
Equity securities and other variable-yield securities	9,679	9,371
Other assets	4,065	5,335
Less risk discount (for entire portfolio of assets held for trading purposes)	(30)	(22)

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

	2020	2019
Liabilities held for trading	**28,650**	**21,376**
Derivative financial instruments (negative fair values)	12,612	9,165
Liabilities (including delivery obligations arising from short sales of securities)	16,038	12,211

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 €80.2 billion (previous year: €58.2 billion) with negative fair values of €81.7 billion (previous year: €59,8 billion) on derivatives held for trading with the associated receivables (€14.6 billion, previous year: €11.6 billion) and liabilities (€13.1 billion, previous year: €10.0 billion) from collateral provided.

34 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)

	2020				2019			
	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	**754**	**754**	**—**	**5.4**	**1,107**	**1,112**	**5**	**2.8**
Equity funds	140	140	—	0.5	241	241	—	—
Mixed funds	317	317	—	3.6	358	363	5	1.4
Index funds	155	155	—	0.3	288	288	—	0.5
Bond funds	7	7	—	—	33	33	—	—
Funds of funds	135	135	—	1.0	187	187	—	0.9

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)

35 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	515	1	—	516	230	223	453	21
Additions from merger	—	—	—	—	—	—	—	—
Additions	1	1	—	2	—	7	7	—
Disposals	4	—	—	4	3	8	11	—
Reclassifications[1]	1	(1)	—	—	—	(4)	(4)	—
Post-capitalization	—	—	—	—	—	—	—	—
Balance at 31/12	513	1	—	514	227	218	445	21
Depreciation/amortisation								
Balance at 1/1	511	—	—	511	128	177	305	—
Additions from merger	—	—	—	—	—	—	—	—
Additions	3	—	—	3	3	9	12	—
of which non-scheduled	—	—	—	—	—	2	2	—
Disposals	4	—	—	4	2	3	5	—
Reclassifications[1]	—	—	—	—	—	(4)	(4)	—
Write-ups	—	—	—	—	4	—	4	—
Balance at 31/12	510	—	—	510	125	179	304	—
Net book value								
Balance at 1/1	4	1	—	5	102	46	148	21
Balance at 31/12	3	1	—	4	102	39	141	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 €102 million (previous year: €102 million) at 31 December 2020.

(€ millions)

	ACQUISITION COST	CHANGES +/–[1]	NET BOOK VALUE 31/12/2020	NET BOOK VALUE 31/12/2019
Participating interests	169	(68)	101	109
Shares in affiliates	1,759	(302)	1,457	1,502
Investment securities	10,675	(124)	10,551	10,675

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

36 Other assets

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

(€ millions)

	2020	2019
Claims to dividends from affiliates	473	559
Claims to tax reimbursements	125	148
of which:		
claims from income tax	110	130
claims from non-income tax	15	18
Proportion of income from commission/interest not yet received	113	110
Trade debtors	31	51
Capital investments with life insurers	26	28
Works of art	21	21
Collateralisation of listed derivatives	14	90
Proportion of income from portfolio fees	11	10

37 Prepaid expenses

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

(€ millions)

	2020	2019
Discounts on funds borrowed	74	44
Premiums on amounts receivable	—	—

38 Excess of plan assets over pension liabilities

An amount payable of €1,942 million arising from liabilities due to pension and similar commitments was set against offsetting plan assets with a fair value of €1,943 million. The excess of assets over commitments is disclosed in the balance sheet as the excess of plan assets over pension liabilities (€1 million). The acquisition cost of the offsetting plan assets totalled €1,623 million. The assets involved are essentially fund shares, subordinated bonds, investments, and cash and cash equivalents.

(€ millions)

	2020	2019
Amount payable for offset pension and similar commitments (average interest rate 7 years)	2,251	2,031
Amount payable for offset pension commitments (average interest rate 10 years)	1,942	1,738
Fair value of offsetting plan assets	1,943	1,741
Omitted transitional allocation	—	—
Excess of plan assets over the commitments, including the shortfall	1	3
Acquisition cost of the offsetting plan assets	1,623	1,495

The following table shows the excess of pension commitments contained in other operating income/expenses:

(€ millions)

	2020	2019
Surplus from pension commitments	**46**	**15**
Income from plan assets used to offset pension and similar commitments	94	69
Expense component of the change in provisions for pensions and similar commitments	47	51
Expenses from plan assets used to offset pension and similar commitments	1	3

Notes to the Balance Sheet (Continued)

39 Assets assigned or pledged as security for own liabilities

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

(€ millions)

	2020	2019
Assets assigned or pledged as security for own liabilities	**38,431**	**40,497**
Deposits from banks	29,594	37,501
Deposits from customers	8,837	2,996

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 €23.7 billion (previous year: €15.7 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 €25.8 billion (previous year: €27.3 billion) to its funding partners. The total includes €5.6 billion (previous year: €8.3 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 €13.7 billion (previous year: €13.7 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.

40 Other liabilities

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

(€ millions)

	2020	2019
Amounts owed to special purpose entities	7,500	6,640
Obligations arising from debts assumed	185	179
Other amounts owed to employees	47	58
Taxes payable	97	43
Liabilities from losses absorbed from subsidiaries	31	21
Trading book valuation reserves	—	11
Amounts yet to be distributed from outplacements, etc.	2	2

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 contain obligations arising from the liquidation of media funds.

The taxes payable include liabilities from other taxes of €44 million (previous year: €42 million).

41 Deferred income

Discounts on amounts receivable shown at nominal value totalled €7 million (previous year: €10 million). Furthermore, other deferred income includes processing fees of €103 million (previous year: €91 million), interest of €41 million (previous year: €64 million) collected in advance, and accrued commissions of €7 million (previous year: €12 million).

Notes to the Balance Sheet (Continued)

42 Provisions

Other provisions include the following items:

(€ millions)

	2020	2019
Total other provisions	**1,864**	**1,866**
Provisions for losses on guarantees and indemnities	355	186
Payments to employees	283	332
Restructuring	264	350
Valuation units	185	196
Payments for early retirement, semi-retirement, e.g.	163	163
Legal risks	146	213
Anniversary bonus payments	25	26
Bonuses on saving plans	1	3
Other	442	397

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

43 Subordinated liabilities

This item includes accrued interest of €14 million (previous year: €1 million). At the reporting date, interest expenses on subordinated liabilities amounted to €31 million (previous year: €20 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.

HVB issued regulatory own funds in the form of a Tier 2 bond at the end of June 2020, which was fully subscribed by UniCredit S.p.A. This is contained in the balance sheet item "Debt securities in issue". The Bank is optimising its capital structure with the issue, also against the backdrop of the changes in regulatory requirements by the European Banking Authority (EBA). The subordinate bond meets the criteria set out in the Capital Requirements Regulation (CRR II) as Tier 2 capital and can also be used to meet MREL requirements (SRMR II).

The subordinate bond has a volume of €800 million and a term of ten years with a repayment option for the issuer after five years. The bond has a fixed-interest rate of 3.469% for the first five years that is re-fixed after five years based on the then valid 5-year swap rate plus a spread of 380 basis points provided the bond is not repaid after five years. The conditions at the time of issuance (at arm's length) are in line with the market.

Shareholders’ Equity

44 Analysis of shareholders’ equity shown in the balance sheet

(€ millions)

a) Called-up capital		
Subscribed capital		
Balance at 1 January 2020	2,407	
Balance at 31 December 2020		2,407
b) Additional paid-in capital		
Balance at 1 January 2020	9,791	
Balance at 31 December 2020		9,791
c) Retained earnings		
ca) Legal reserve		
Balance at 1 January 2020	—	
Balance at 31 December 2020		—
cb) Reserve for shares in a controlling or majority interest-holding company		
Balance at 1 January 2020	11	
Withdrawal from reserve for shares in a controlling or		
majority interest-holding company	—	
Balance at 31 December 2020		11
cc) Reserve provided for in the Articles of Association		
Balance at 1 January 2020	—	
Balance at 31 December 2020		—
cd) Other retained earnings		
Balance at 1 January 2020	908	
Transfer from the reversal of the reserve for shares in a controlling or		
majority interest-holding company	—	
Withdrawal from other retained earnings	—	
Transfer to other retained earnings	133	
Balance at 31 December 2020		1,041
d) Profit available for distribution		
Balance at 1 January 2020	3,288	
Dividend payout of HVB for 2019	3,288	
Net income for the year 2020	533	
Withdrawal from other retained earnings	—	
Transfer to other retained earnings	133	
Balance at 31 December 2020		400
Shareholders’ equity		
Balance at 31 December 2020		13,650

Shareholders' Equity (Continued)

45 Holdings of HVB stock in excess of 5%

(in %)

	2020	2019
UniCredit S.p.A.	100.0	100.0

Compliant with Section 271 (2) HGB, HVB is an affiliate 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.

46 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 €320 million (previous year: €246 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 €310 million as at the reporting date (previous year: €294 million). Freely disposable provisions have been set up to cover the amount not available for distribution.

47 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

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

There were no significant events at HVB after 31 December 2020 to report.

49 Contingent liabilities and other financial commitments

The following table shows the breakdown of contingent liabilities arising from guarantees and indemnity agreements totalling €24,433 million:

(€ millions)

	2020	2019
Guarantees and indemnities	21,179	20,438
Loan guarantees	789	942
Documentary credits	2,465	3,993
Total	**24,433**	**25,373**
of which to:		
affiliates	2,410	2,643
associates	44	—

Irrevocable lending commitments totalling €64,448 million break down as follows:

(€ millions)

	2020	2019
Book credits	58,482	49,720
Mortgage and municipal loans	2,362	2,830
Guarantees	3,604	2,907
Bills of exchange	—	—
Total	**64,448**	**55,457**
of which to:		
affiliates	279	331
associates	—	—

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.

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). Accordingly, irrevocable payment commitments of €22 million (previous year: €18 million) were newly entered into and secured in the reporting year. The cash collateral provided in this regard amounted to €104 million at year-end in the reporting period (previous year: €82 million).

As in previous years, HVB has made use of the option to provide up to 30% of the annual contribution to the bank deposit insurance fund in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 5 (10) of the German Statute of the Deposit Protection Fund (Statut des Einlagensicherungsfonds – SESF). Accordingly, irrevocable payment commitments of €5 million (previous year: €17 million) were newly entered into and secured in the reporting year. The cash financial collateral provided for this purpose amounted to €22 million in the reporting period (previous year: €17 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 €39 million in the reporting year (previous year: €30 million).

Other Information (Continued)

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 aside. 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 €53 million at year-end 2020 after €91 million at year-end 2019.

Euro-denominated bonds issued by EU countries

On 31 January 2019, UniCredit S. p. A. and HVB received a Statement of Objections from the European Commission referring to the investigation by the European Commission of a suspected violation of antitrust rules in relation to European government bonds. The subject matter of the investigation extends to certain periods from 2007 to 2012 and includes alleged activities by HVB in a part of this period. The Statement of Objections does not prejudge the outcome of the proceeding; should the Commission conclude that there is sufficient evidence of an infringement, a decision prohibiting the conduct and imposing a fine could be adopted, with any fine subject to a statutory maximum of 10% of company's annual worldwide turnover.

HVB had access to the entirety of the European Commission's file on the investigation from 15 February 2019 onwards. As a result of the assessment of the files, the Bank regards it no longer remote but possible, even though not likely, that a cash outflow might be required to fulfil a potential fine arising from the outcome of the investigation. On the basis of the current information, it is not possible to reliably estimate the amount of any potential fine at the present date.

UniCredit S. p. A. and HVB have responded to the raised objections on 29 April 2019 and participated in a hearing before the European Commission on 22-24 October 2019. Proceedings are ongoing. There is no legal deadline for the Commission to complete antitrust inquiries.

On 11 June 2019, HVB and UniCredit Capital Markets LLC were named, among other financial institutions, as defendants in a putative class action already pending in the United States District Court for the Southern District of New York. The third amended class action complaint, filed 3 December 2019, alleges a conspiracy among dealers of Euro-denominated bonds issued by European central banks to fix and manipulate the prices of those bonds, among other things by widening the bid-ask spreads they quoted to customers. The putative class consists of those who purchased or sold Euro-denominated bonds issued by European central banks in the US between 2007 and 2012. On 23 July 2020, the court granted motions to dismiss the third amended complaint by certain defendants, including HVB and UniCredit Capital Markets LLC, without prejudice. Plaintiffs filed their fourth amended class action complaint on 9 February 2021, repleading their claim against HVB and UniCredit Capital Markets LLC and other financial institutions. Like earlier pleadings, the fourth amended class action complaint does not include a quantification of damages claimed. Exchange of correspondence concerning motions to dismiss the fourth amended complaint is scheduled to commence in March 2021.

Other financial commitments arising in particular from real estate and IT operations total €621 million (previous year: €714 million). A large part of the total relates to contracts with subsidiaries (€491 million (previous year: €564 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 €2,240 million (previous year: €1,990 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 and pre-emptive rights 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 €15 million in the reporting year (previous year: €24 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 Limited Liability Companies Act (Gesetz betreffend Gesellschaften mit beschränkter Haftung – 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 2015 to 2020 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 €145 million were set aside in the income statement at 31 December 2020 (previous year: €158 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 from the participating interest 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.

50 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 to the extent as HVB’s shareholding decreases in the future with regard to those contractual obligations of the company that arose only after HVB’s shareholding decreased. In case HVB is no longer a shareholder in the company listed above, our commitment arising from the above Statement of Responsibility with regard to such liabilities of the company that arose only after our shareholding ceased ends on the date on which 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.

51 Auditor’s fees

HVB has exercised the option provided by Section 285 No. 17 HGB and refers to the disclosures regarding the fees paid to the independent auditor made in the section of the consolidated financial statements at 31 December 2020 entitled “Other Information”.

52 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.

Other Information (Continued)

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 Group.

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 affiliates, 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.

53 Regulatory disclosure requirements (Disclosure Report)
HVB has been classified as a significant subsidiary of UniCredit S. p. A. within the meaning of Article 13 (1) of the Capital Requirements Regulation (CRR II), making it subject to the scope of the CRR II (Article 13 (1) and Part 8 CRR II) 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 as at 31 December and in addition at each quarter-end during the year and published on HVB’s website under About us > Investor Relations > Reports. The publication for the reporting date of 31 December is scheduled for shortly after the 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 HVB’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 as 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.

54 Own funds
Pursuant to Article 72 CRR II, for regulatory purposes own funds consists of Tier 1 capital and Tier 2 capital; they amounted to €16,440 million at year-end 2020 (previous year: €13,838 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) 71b in conjunction with Article 494 CRR II is used primarily to determine thresholds for large exposures and loans to executive board members and for investment limits. It amounted to €16,440 million at year-end 2020 (previous year: €13,838 million).

55 Derivative financial instruments

(€ 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	2020	2019	2020	2019	2020	2019
Interest rate derivatives	**1,189,117**	**1,375,064**	**1,359,108**	**3,923,289**	**3,292,074**	**81,809**	**63,822**	**75,796**	**59,267**
OTC products									
Forward rate agreements	325,946	1,034	—	326,980	248,732	21	29	23	34
Interest rate swaps	756,326	1,226,037	1,241,415	3,223,778	2,712,259	77,703	58,166	69,717	54,027
Interest rate options									
– purchased	18,036	53,813	53,830	125,679	113,786	3,825	5,178	235	404
– written	13,832	68,637	63,863	146,332	132,936	229	407	5,820	4,779
Other interest									
rate derivatives	54,014	4	—	54,018	36,579	30	41	1	23
Exchange-traded products									
Interest rate futures	20,652	9,805	—	30,457	47,522	—	—	—	—
Interest rate options	311	15,734	—	16,045	261	1	1	—	—
Foreign exchange derivatives	**214,312**	**32,022**	**2,996**	**249,330**	**270,595**	**3,334**	**2,698**	**3,007**	**2,743**
OTC products									
Foreign exchange forwards	167,645	19,564	2,967	190,176	201,952	2,595	2,169	2,421	2,196
Foreign exchange options									
– purchased	22,151	5,939	16	28,106	34,536	334	221	240	269
– written	24,076	6,519	13	30,608	33,970	303	262	346	278
Other foreign									
exchange derivatives	338	—	—	338	86	102	46	—	—
Exchange-traded products									
Foreign exchange futures	102	—	—	102	50	—	—	—	—
Foreign exchange options	—	—	—	—	—	—	—	—	—
Cross-currency swaps	**39,441**	**102,527**	**51,365**	**193,333**	**200,351**	**6,226**	**4,262**	**5,026**	**4,082**
Equity/index derivatives	**97,815**	**61,075**	**15,631**	**174,521**	**130,746**	**6,463**	**4,428**	**5,412**	**3,748**
OTC products									
Equity/index swaps	4,525	2,046	844	7,415	9,677	458	280	276	285
Equity/index options									
– purchased	2,564	2,738	2,044	7,346	7,687	194	191	53	49
– written	28,795	10,038	8,126	46,959	29,539	260	140	663	828
Other equity/index									
derivatives	26,562	59	2	26,623	15,074	1,681	1,519	—	—
Exchange-traded products									
Equity/index futures	9,702	5,493	936	16,131	18,661	—	—	—	—
Equity/index options	25,264	39,991	3,608	68,863	48,601	3,870	2,298	4,420	2,586
Equity swaps	403	710	71	1,184	1,507	—	—	—	—
Credit derivatives	**2,698**	**6,328**	**460**	**9,486**	**12,474**	**82**	**101**	**290**	**235**
Other transactions	**8,666**	**7,114**	**644**	**16,424**	**15,209**	**1,708**	**736**	**1,769**	**853**
HVB	**1,552,049**	**1,584,130**	**1,430,204**	**4,566,383**	**3,921,450**	**99,622**	**76,047**	**91,300**	**70,928**

Most of the derivatives are held for trading purposes.

The banking book contains derivatives with positive fair values of €1.1 billion (previous year: €0.9 billion) and negative fair values of €0.2 billion (previous year: €0.3 billion).

Other Information (Continued)

56 Employees

AVERAGE NUMBER OF PEOPLE EMPLOYED BY US	2020	2019
Employees (excluding trainees)	12,022	12,007
of whom:		
Full-time	8,759	8,734
Part-time	3,263	3,273
Trainees	265	274

(in %)

	WOMEN	MEN	2020	2019
LENGTH OF SERVICE OF EMPLOYEES	(EXCLUDING TRAINEES)		TOTAL	TOTAL
25 years or more	38.0	25.7	32.0	30.9
15 to 25 years	28.8	24.3	26.6	20.4
10 to 15 years	10.7	13.7	12.2	19.8
5 to 10 years	10.2	14.7	12.4	13.1
less than 5 years	12.3	21.6	16.8	15.7

57 Emoluments

(€ thousands)

	2020						
	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	4,321	565	254	267	1,179	—	6,586
Members of the Supervisory Board of UniCredit Bank AG for Supervisory Board activities	824	—	—	—	—	—	824
Members of the Supervisory Board of UniCredit Bank AG for activities as employee representatives	561	40	—	—	33	—	634
Former members of the Management Board of UniCredit Bank AG and their surviving dependants	248	58	114	1,814	15,955	—	18,189

(€ thousands)

	2019						
	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	4,336	924	101	109	1,243	—	6,713
Members of the Supervisory Board of UniCredit Bank AG for Supervisory Board activities	800	—	—	—	—	—	800
Members of the Supervisory Board of UniCredit Bank AG for activities as employee representatives	459	35	—	—	30	—	524
Former members of the Management Board of UniCredit Bank AG and their surviving dependants	626	190	235	1,740	11,688	1,228	15,707

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 of 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. Five members of the Management Board took part in the employer-financed, fund-linked pension scheme for executives (known as AgFA) in 2019. The Bank will provide/has provided 35% of the fixed salary contributions (2020: €1,014 thousand; 2019: €980 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 2020, there were provisions of €42 million (previous year: €30 million) for pensions payable to former members of the Management Board and retired members of the Management Board of HVB and their surviving dependants, 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	2020	2019
Number of shares granted	16,168	7,948
Fair value on grant date (€)	6.802	11.838

58 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)

	2020			2019		
	LOANS AND ADVANCES	CONTINGENT LIABILITIES	LIABILITIES	LOANS AND ADVANCES	CONTINGENT LIABILITIES	LIABILITIES
Members of the Management Board						
and their related parties	2,941	791	2,894	2,314	593	4,148
Members of the Supervisory Board						
and their related parties	—	—	1,080	—	—	2,735

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 0.08% and 2.03% were granted to members of the Management Board and their immediate family members falling due in the period from 2021 to 2049 as well as an overdraft facility at 6% per annum until further notice.

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

59 Supervisory Board

Gianpaolo Alessandro (Chairman until 23 June 2020, since 26 June 2020)	Chairman
Florian Schwarz (Deputy Chairman until 23 June 2020, since 26 June 2020)	Deputy Chairmen
Dr Bernd Metzner since 23 June 2020 (Deputy Chairman since 26 June 2020)	
Dr Wolfgang Sprissler until 23 June 2020	
Paolo Cornetta until 23 June 2020	Members
Olivier Khayat	
Prof Dr Annette G. Köhler	
Dr Marita Kraemer until 23 June 2020	
Finja Kütz since 23 June 2020	
Dr Claudia Mayfeld since 23 June 2020	
Klaus-Peter Prinz until 23 June 2020	
Claudia Richter	
Thomas Schöner since 23 June 2020	
Oliver Skrbot	
Christian Staack	
Gregor Völkl	

60 Management Board

Sandra Betocchi Drwenski until 31 August 2020	Chief Operating Officer (COO)
Markus Beumer	Commercial Banking – Unternehmer Bank
Dr Emanuele Buttà until 14 April 2020	Commercial Banking – Private Clients Bank
Ljiljana Čortan until 31 October 2020	Chief Risk Officer (CRO)
Dr Michael Diederich	Board Spokesman of the Management Board Human Capital/Labour and Social Affairs
Jörg Frischholz since 15 April 2020	Commercial Banking – Private Clients Bank
Dr Jürgen Kullnigg since 1 November 2020	Chief Risk Officer (CRO)
Jan Kupfer	Corporate & Investment Banking
Simone Marcucci since 1 May 2020	Chief Financial Officer (CFO)
Boris Scukanec Hopinski since 1 September 2020	Chief Operating Officer (COO)
Guglielmo Zadra until 30 April 2020	Chief Financial Officer (CFO)

List of Executives and Outside Directorships

61 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]
Gianpaolo Alessandro Group General Counsel, Head of Group Legal and Secretary of the Board of Directors of UniCredit S.p.A., Milan Chairman (until 23 June 2020, since 26 June 2020)		Compagnia Aerea Italiana S.p.A., Rome MidCo S.p.A., Rome
Florian Schwarz Employee of UniCredit Bank AG, Munich Deputy Chairman (until 23 June 2020, since 26 June 2020)		
Dr Wolfgang Sprissler until 23 June 2020 Former Board Spokesman of UniCredit Bank AG Sauerlach Deputy Chairman		Dr. Pfleger Arzneimittel, Bamberg (Deputy Chairman)
Dr Bernd Metzner[1,2] since 23 June 2020 Chief Financial Officer of Gerresheimer AG, Düsseldorf Deputy Chairman (since 26 June 2020)	Gerresheimer Bünde GmbH, Bünde (Deputy Chairman) Gerresheimer Regensburg GmbH, Regensburg (Deputy Chairman) Gerresheimer Tettau GmbH, Tettau (Deputy Chairman)	Gerresheimer Glass Inc., Vineland (USA) Centor US Holding Inc., Perrysburg (USA) Centor Inc., Perrysburg (USA) Centor Pharma Inc., Perrysburg (USA) Corning Pharmaceutical Packaging LLC, Wilmington (USA) Senile Medical AG, Olten (Switzerland)
Paolo Cornetta until 23 June 2020 Head of Group Human Capital of UniCredit S.p.A., Milan		
Olivier Khayat Co-CEO Commercial Banking Western Europe of UniCredit S.p.A., Milan		UniCredit Bank Austria AG, Vienna UniCredit International Bank (Luxembourg) S.A., Luxemburg (Deputy Chairman) Kepler Cheuvreux S.A., Paris
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, until 29 February 2020 GEA Group Aktiengesellschaft, Düsseldorf, since 1 October 2020	DKSH Holding AG, Zurich

1 As at 31 December 2020.
2 Other directorships (compare Article 435 (2a) CRR): Dr Bernd Metzner holds three other directorships within the Gerresheimer Group.

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]
Dr Marita Kraemer until 23 June 2020 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, until 19 March 2020	Allianz France S.A., Paris
Finja Kütz since 23 June 2020 Group Chief Transformation Officer and Deputy COO of UniCredit S.p.A. Munich		UniCredit Services S.C.p.A, Milan
Dr Claudia Mayfeld since 23 June 2020 Lawyer, Dortmund		
Klaus-Peter Prinz until 23 June 2020 Employee of UniCredit Bank AG, Luxembourg Branch, Trier		
Claudia Richter Employee of UniCredit Bank AG, Fürth		
Thomas Schöner since 23 June 2020 Employee of UniCredit Bank AG Luxembourg Branch, Saarwellingen		
Oliver Skrbot Employee of UniCredit Bank AG, Buttenwiesen		
Christian Staack Employee of UniCredit Bank AG, Hamburg		
Gregor Völkl Unit manager of Vereinte Dienstleistungsgewerkschaft ver.di Unit 1 – Financial Services Munich district, Munich		

1 As at 31 December 2020.

List of Executives and Outside Directorships (Continued)

62 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 until 31 August 2020 Chief Operating Officer (COO)	HVB Immobilien AG, Munich (Chairwoman)[2], until 12 July 2020	UniCredit Services S.C.p.A., Milan, until 7 April 2020
Markus Beumer born 1964 Commercial Banking – Unternehmer Bank	DAW SE, Ober-Ramstadt	UniCredit Leasing GmbH, Hamburg (Chairman)[2] UniCredit Leasing Finance GmbH, Hamburg (Chairman)[2]
Dr Emanuele Buttà born 1966 until 14 April 2020 Commercial Banking – Private Clients Bank	WealthCap Kapitalverwaltungsgesellschaft mbH, Munich (Deputy Chairman)[2], until 31 March 2020	Wealth Management Capital Holding GmbH, Munich (Deputy Chairman)[2], until 31 March 2020
Ljiljana Čortan born 1971 until 31 October 2020 Chief Risk Officer (CRO)	HVB Immobilien AG, Munich[2], until 31 October 2020 WealthCap Kapitalverwaltungsgesellschaft mbH, Munich[2], until 31 March 2020	Wealth Management Capital Holding GmbH, Munich[2], 31 March 2020
Dr Michael Diederich born 1965 Board Spokesman Human Capital/Labour & Social Affairs		ESMT European School of Management and Technology GmbH, Berlin FC Bayern München AG, Munich
Jörg Frischholz born 1976 since 15 April 2020 Commercial Banking – Private Clients Bank		
Dr Jürgen Kullnigg born 1961 since 1 November 2020 Chief Risk Officer (CRO)	HVB Immobilien AG, Munich[2], since 9 November 2020	

1 As at 31 December 2020.
2 Group directorship.

NAME	POSITIONS ON STATUTORY SUPERVISORY BOARDS OF OTHER GERMAN COMPANIES[1]	POSITIONS ON COMPARABLE BOARDS OF GERMAN AND FOREIGN COMPANIES[1]
Jan Kupfer born 1964 Corporate & Investment Banking	Bayerische Börse Aktiengesellschaft, Munich	
Simone Marcucci born 1966 since 1 May 2020 Chief Financial Officer (CFO)		Zagrebačka banka d.d., Zagreb (Chairman)
Boris Scukanec Hopinski born 1981 since 1 September 2020 Chief Operating Officer (COO)	HVB Immobilien AG, Munich (Chairman)[2], since 13 July 2020 WealthCap Kapitalverwaltungsgesellschaft mbH, Munich (Deputy Chairman since 29 June 2020)[2]	UniCredit Services S.C.p.A., Milan, since 7 April 2020 Wealth Management Capital Holding GmbH, Munich (Deputy Chairman since 29 June 2020)[2]
Guglielmo Zadra born 1972 until 30 April 2020 Chief Financial Officer (CFO)		

63 List of employees and outside directorships

NAME	POSITIONS ON STATUTORY SUPERVISORY BOARDS OF OTHER COMPANIES[1]
Dr Auerbach, Christoph	HVB Trust Pensionsfonds AG, Munich
Aurich, Peter	CAM AG, Munich
Biebl, Matthias	Wacker Chemie AG, Munich
Dr Fischer, Jochen	HVB Trust Pensionsfonds AG, Munich
Glückert, Matthias	OECHSLER AG, Ansbach
Höllinger, Marion	UniCredit Direct Services GmbH, Munich[2]
Dr Jungemann, Lars	HVB Trust Pensionsfonds AG, Munich
Dr Wegener, Richard	UniCredit Direct Services GmbH, Munich[2]

1 As at 31 December 2020.
2 Group directorship.

List of Holdings

64 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	142	260
Acis Immobilien- und Projektentwicklungs GmbH & Co.						
Parkkolonnaden KG[3]	Grünwald	100.0	100.0	EUR	32	125
Acis Immobilien- und Projektentwicklungs GmbH & Co.						
Stuttgart Kronprinzstraße KG[3]	Grünwald	100.0	100.0	EUR	39	(1,467)
Argentaurus Immobilien-Vermietungs- und Verwaltungs GmbH[3]	Munich	100.0	100.0	EUR	793	(1,616)
Atlanterra Immobilienverwaltungs GmbH	Munich	90.0	90.0	EUR	(34,462)	950
A&T-Projektentwicklungs GmbH & Co.						
Potsdamer Platz Berlin KG[3]	Munich	100.0	100.0	EUR	(37,243)	—
Bayerische Wohnungsgesellschaft für Handel und Industrie,						
Gesellschaft mit beschränkter Haftung	Munich	100.0	100.0	EUR	243	[2]
BIL Leasing-Fonds GmbH & Co VELUM KG						
(Stimmrechtsanteil 66.7%, davon mittelbar 33.3%)	Grünwald	100.0	—	EUR	412	282
BIL Leasing-Fonds Verwaltungs-GmbH	Grünwald	100.0	100.0	EUR	27	(1)
Delpha Immobilien- und Projektentwicklungs GmbH & Co.						
Großkugel Bauabschnitt Alpha Management KG[3]	Munich	100.0	100.0	EUR	(22,880)	—
Delpha Immobilien- und Projektentwicklungs GmbH & Co.						
Großkugel Bauabschnitt Gamma Management KG[3]	Munich	100.0	100.0	EUR	(59,493)	—
Food & more GmbH[3]	Munich	100.0	—	EUR	237	[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	1,206
HAWA Grundstücks GmbH & Co. OHG Hotelverwaltung[3]	Munich	100.0	100.0	EUR	276	19,436
HAWA Grundstücks GmbH & Co OHG Immobilienverwaltung[3]	Munich	100.0	100.0	EUR	54	485
H.F.S. Immobilienfonds GmbH	Munich	100.0	100.0	EUR	26	[2]
H.F.S. Leasingfonds Deutschland 1 GmbH & Co. KG						
(Immobilienleasing)[3]	Munich	100.0	100.0	EUR	22,188	(292)
H.F.S. Leasingfonds Deutschland 7 GmbH & Co. KG[3]	Munich	99.4	99.4	EUR	(9,524)	(2,517)
H.F.S. Leasingfonds GmbH	Grünwald	100.0	100.0	EUR	26	30
HVB Capital LLC	Wilmington	100.0	—	USD	1,128	87
HVB Capital LLC II	Wilmington	100.0	—	GBP	3	—
HVB Capital LLC III	Wilmington	100.0	—	USD	1,107	90
HVB Funding Trust II	Wilmington	100.0	—	GBP	3	—
HVB Gesellschaft für Gebäude mbH & Co. KG[3]	Munich	100.0	—	EUR	871,401	432,082
HVB Hong Kong Limited	Hongkong	100.0	—	USD	3,136	(394)
HVB Immobilien AG[3]	Munich	100.0	—	EUR	86,644	[1.2]
HVB Projekt GmbH[3]	Munich	100.0	94.0	EUR	72,151	[2]
HVB Secur GmbH[3]	Munich	100.0	—	EUR	126	[1.3]
HVB Tecta GmbH[3]	Munich	100.0	94.0	EUR	1,751	[2]
HVB Verwa 4 GmbH[3]	Munich	100.0	—	EUR	10,358	[1.4]

		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
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	4,856
Hypo-Bank Verwaltungszentrum GmbH & Co. KG						
Objekt Arabellastraße[3]	Munich	100.0	100.0	EUR	26	(1,647)
Interra Gesellschaft für Immobilienverwaltung mbH[3]	Munich	100.0	93.9	EUR	51	[2]
MERKURHOF Grundstücksgesellschaft						
mit beschränkter Haftung[3]	Munich	100.0	—	EUR	16,692	[1.5]
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]
Omnia Grundstücks-GmbH & Co. Objekt Haidenauplatz KG[3]	Munich	100.0	94.0	EUR	26	—
Omnia Grundstücks-GmbH & Co. Objekt Perlach KG[3]	Munich	100.0	100.0	EUR	4,720	764
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)	—
Othmarschen Park Hamburg GmbH & Co. Gewerbepark KG[3]	Munich	100.0	100.0	EUR	(44,083)	—
Portia Grundstücks-Verwaltungsgesellschaft mbH & Co.						
Objekt KG[3]	Munich	100.0	100.0	EUR	500,014	394,490
Rolin Grundstücksplanungs- und						
-verwaltungsgesellschaft mbH	Munich	100.0	100.0	EUR	64	16
Salvatorplatz-Grundstücksgesellschaft mbH & Co. oHG						
Saarland[3]	Munich	100.0	100.0	EUR	1,534	351
Salvatorplatz-Grundstücksgesellschaft mbH & Co. OHG						
Verwaltungszentrum[3]	Munich	100.0	100.0	EUR	2,301	70,382
Selfoss Beteiligungsgesellschaft mbH[3]	Grünwald	100.0	100.0	EUR	25	[2]
Simon Verwaltungs-Aktiengesellschaft i. L.	Munich	100.0	—	EUR	2,950	(26)
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	(61,806)	925
Spree Galerie Hotelbetriebsgesellschaft mbH[3]	Munich	100.0	100.0	EUR	249	[2]
Structured Invest Société Anonyme	Luxembourg	100.0	—	EUR	8,071	514
T & P Frankfurt Development B.V.[4]	Amsterdam	100.0	100.0	EUR	(7,271)	3
T & P Vastgoed Stuttgart B.V.[4]	Amsterdam	87.5	87.5	EUR	(14,485)	11
TERRENO Grundstücksverwaltung GmbH & Co.						
Entwicklungs- und Finanzierungsvermittlungs-KG[3]	Munich	75.0	75.0	EUR	(268,579)	—
TIVOLI Grundstücks-Aktiengesellschaft	Munich	100.0	100.0	EUR	497,438	489,922
TRICASA Grundbesitz Gesellschaft mbH & Co.						
1. Vermietungs KG[3]	Munich	100.0	100.0	EUR	13,634	1,352
TRICASA Grundbesitzgesellschaft						
des bürgerlichen Rechts Nr. 1	Munich	100.0	100.0	EUR	24,254	(1,735)
UniCredit Beteiligungs GmbH[3]	Munich	100.0	—	EUR	1,175	[1.6]
UniCredit Capital Markets LLC	New York	100.0	100.0	USD	164,749	19,685
UniCredit Direct Services GmbH[3]	Munich	100.0	—	EUR	993	[1.7]
UniCredit Leasing Aviation GmbH	Hamburg	100.0	100.0	EUR	30,258	1,949
UniCredit Leasing GmbH[7]	Hamburg	100.0	—	EUR	452,026	[1.8]
UniCredit U.S. Finance LLC	Wilmington	100.0	—	USD	115,541	(634)
Vermietungsgesellschaft mbH & Co. Objekt MOC KG[3]	Munich	89.3	89.3	EUR	(94,736)	1,656
Verwaltungsgesellschaft Katharinenhof mbH[3]	Munich	100.0	—	EUR	708	[1.9]
V.M.G. Vermietungsgesellschaft mbH	Munich	100.0	100.0	EUR	96	[2]
Wealth Management Capital Holding GmbH	Munich	100.0	—	EUR	20,656	[1.10]
WealthCap Entity Service GmbH	Munich	100.0	100.0	EUR	1,243	(2)
WealthCap Equity GmbH	Munich	100.0	100.0	EUR	337	—

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
WealthCap Equity Management GmbH	Munich	100.0	100.0	EUR	690	555
WealthCap Fonds GmbH	Munich	100.0	100.0	EUR	1	(667)
WealthCap Immobilien 1 GmbH & Co. KG	Munich	100.0	100.0	EUR	287	596
WealthCap Immobilien 2 GmbH & Co. KG	Munich	100.0	100.0	EUR	1,757	462
Wealthcap Immobilien 43 Komplementär GmbH	Munich	100.0	100.0	EUR	26	1
Wealthcap Immobilienankauf Komplementär GmbH	Munich	100.0	100.0	EUR	27	2
WealthCap Immobilienfonds Deutschland 36						
Komplementär GmbH	Munich	100.0	100.0	EUR	(141)	35
WealthCap Immobilienfonds Deutschland 38						
Komplementär GmbH	Munich	100.0	100.0	EUR	106	2
WealthCap Initiatoren GmbH	Munich	100.0	100.0	EUR	1,152	(424)
WealthCap Investment Services GmbH	Munich	100.0	90.0	EUR	5,662	[2]
WealthCap Investments, Inc.	Wilmington	100.0	100.0	EUR	2,687	(23)
WealthCap Investorenbetreuung GmbH	Munich	100.0	100.0	EUR	2,511	[2]
WealthCap Kapitalverwaltungsgesellschaft mbH	Grünwald	100.0	100.0	EUR	13,000	[2]
WealthCap Leasing GmbH	Grünwald	100.0	100.0	EUR	(39)	41
WealthCap Management Services GmbH	Munich	100.0	100.0	EUR	(995)	(1,046)
Wealthcap Objekt Dresden GmbH & Co. KG	Munich	100.0	100.0	EUR	(2,219)	(1,400)
Wealthcap Objekt Essen II GmbH & Co. KG	Munich	100.0	100.0	EUR	1,243	(3)
Wealthcap Objekt Mainz GmbH & Co. KG	Munich	100.0	100.0	EUR	(491)	(500)
Wealthcap Objekt Stuttgart III GmbH & Co. KG	Munich	100.0	100.0	EUR	4,888	173
Wealthcap Objekt-Vorrat 25 GmbH & Co. KG	Munich	100.0	100.0	EUR	10	469
WealthCap PEIA Komplementär GmbH	Grünwald	100.0	100.0	EUR	39	(17)
WealthCap PEIA Management GmbH	Munich	100.0	94.0	EUR	2,093	839
WealthCap Real Estate Management GmbH	Munich	100.0	100.0	EUR	(4,511)	[2]
WealthCap Vorrats-2 GmbH	Munich	100.0	100.0	EUR	12	(2)
Weicker S. à r.l.	Luxembourg	100.0	—	EUR	21,870	2,942
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	Munich	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	(14,972)	950
ANWA Gesellschaft für Anlagenverwaltung mbH	Munich	95.0	93.9			
Arena Stadion Beteiligungsverwaltungs-GmbH	Munich	100.0	—			
ARRONDA Immobilienverwaltungs GmbH	Munich	100.0	100.0	EUR	(38,676)	950
A&T-Projektentwicklungs-Verwaltungs GmbH	Munich	100.0	100.0			
Aufbau Dresden GmbH	Munich	100.0	100.0	EUR	(22,994)	—
Bertram Projekt Unodecima Technikzentrum GmbH & Co. KG	Munich	94.0	94.0	EUR	43	2,221
B.I. International Limited	George Town	100.0	100.0			
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	USD	(113)	217
Delpha Immobilien- und Projektentwicklungs GmbH & Co.						
Großkugel Bauabschnitt Beta Management KG	Munich	100.0	100.0	EUR	(53,477)	—
Erste Onshore Windkraft Beteiligungsgesellschaft mbH & Co.						
Windpark Grefrath KG (share of voting rights: 68.3%)	Oldenburg	68.5	68.5	EUR	151	(358)
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			
Golf- und Country Club Seddiner See Immobilien GmbH	Munich	100.0	100.0	EUR	(15,507)	—
Großkugel Immobilien- und Projektentwicklungs GmbH	Munich	100.0	100.0	EUR	(3,354)	[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
H.F.S. Immobilienfonds Deutschland 1 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 3 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 4 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 6 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 7 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 8 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 9 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 10 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 11 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 12 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 15 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 16 Komplementär GmbH	Munich	100.0	100.0			
H.F.S. Immobilienfonds Deutschland 18 Komplementär GmbH	Munich	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 Komplementär GmbH	Munich	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	Munich	100.0	100.0			
H.F.S. Leasingfonds Deutschland 7 Komplementär GmbH	Munich	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			
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 London Investments (AVON) Limited	London	100.0	—			
HVBFF International Greece GmbH	Munich	100.0	100.0			
HVBFF Internationale Leasing GmbH	Munich	100.0	100.0	EUR	93	252
HVBFF Kapitalvermittlungs GmbH	Munich	100.0	100.0	EUR	19	[2]
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			
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			
Life Britannia Management GmbH	Grünwald	100.0	100.0	EUR	47	467
Life Management Erste GmbH	Munich	100.0	100.0	EUR	24	[2]
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			
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)	—
Quinterra Gesellschaft für Immobilienverwaltung mbH	Munich	100.0	100.0	EUR	26	[2]
Redstone Mortgages Limited	London	100.0	—	GBP	324	(258)
RHOTERRA Gesellschaft für Immobilienverwaltung mbH	Munich	100.0	93.9	EUR	26	[2]
Roncasa Immobilien-Verwaltungs GmbH	Munich	100.0	100.0	EUR	(34,270)	950

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
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)	(3)
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			
VCI Volta Center Immobilienverwaltungs GmbH	Munich	100.0	100.0	EUR	(19,197)	950
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	Munich	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 Fondsportfolio Immobilien International 1						
Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Fondsportfolio Private Equity 23 GmbH & Co.						
geschlossene Investment KG	Grünwald	100.0	100.0			
Wealthcap Fondsportfolio Private Equity 24 GmbH & Co.						
geschlossene Investment KG	Grünwald	100.0	100.0			
WealthCap Immobilien Deutschland 39 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien Deutschland 45 GmbH & Co.						
geschlossene Investment KG	Munich	100.0	100.0			
Wealthcap Immobilien Deutschland 47 GmbH & Co.						
geschlossene Investment KG	Munich	100.0	100.0			
WealthCap Immobilien Nordamerika 16 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilien Nordamerika 17 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilien Services GmbH	Munich	100.0	100.0	EUR	50	2
WealthCap Immobilien und Verwaltung Sekundär GmbH	Munich	100.0	100.0			
WealthCap Immobilien 40 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilien 41 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 42 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 44 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 45 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Immobilien 47 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Immobilienfonds Deutschland 36 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Immobilienfonds Deutschland 37						
Komplementär GmbH	Munich	100.0	100.0			
WealthCap Los Gatos 121 Albright Way GP, Inc.	Wilmington	100.0	100.0			
WealthCap Management, Inc.	Wilmington	100.0	100.0			
WealthCap Mountain View GP, Inc.	Atlanta	100.0	100.0			
WealthCap Objekt-Vorrat 13 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 17 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 20 GmbH & Co. KG	Munich	100.0	100.0	EUR	353	8,532
WealthCap Objekt-Vorrat 20 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Objekt-Vorrat 21 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 25 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 33 GmbH & Co. KG	Munich	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 Objekt-Vorrat 35 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 36 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 37 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 39 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 40 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 41 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 42 GmbH & Co. KG	Munich	100.0	100.0			
Wealthcap Objekt-Vorrat 43 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Portfolio 3 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Portfolio 4 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Portfolio 5 Komplementär GmbH	Grünwald	100.0	100.0			
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 Private Equity 23 Komplementär GmbH	Grünwald	100.0	100.0			
Wealthcap Private Equity 24 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 Büro 6 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Spezial Büro 7 Komplementär GmbH	Munich	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	Munich	100.0	100.0			
WealthCap Spezial 3 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial 4 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Spezial 5 Komplementär GmbH	Munich	100.0	100.0			
Wealthcap Spezial-AIF Büro 9 GmbH & Co. KG	Munich	100.0	100.0			
WealthCap Spezial-AIF 1 Komplementär GmbH	Munich	100.0	100.0			
WealthCap Stiftungstreuhand GmbH	Munich	100.0	100.0			
WealthCap USA Immobilien Verwaltungs GmbH	Munich	100.0	100.0	EUR	216	166
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 23/24 Equity GmbH & Co. KG	Grünwald	100.0	100.0			
WealthCap 39 Komplementär GmbH	Munich	100.0	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. – Compartment 1	Luxembourg	0	EUR	31
Elektra Purchase No. 33 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. 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. 64 DAC	Dublin	0	EUR	< 1
Elektra Purchase No. 69 DAC	Dublin	0	EUR	< 1
Elektra Purchase No. 71 DAC	Dublin	0	EUR	< 1
Elektra Purchase No. 74 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	—
GELDILUX-TS-2015 S.A.	Luxembourg	0	EUR	31
GEMMA Verwaltungsgesellschaft mbH & Co.				
Vermietungs KG (held indirectly)[4, 6.1]	Pullach	6.1	EUR	68,272
H.F.S. Leasingfonds GmbH & Co. Deutschland 8 KG				
(held indirectly)[6.2]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 9 KG				
(held indirectly)[6.3]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 10 KG				
(held indirectly)[6.4]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 11 KG				
(held indirectly)[6.5]	Ebersberg	0.1	EUR	—
H.F.S. Leasingfonds GmbH & Co. Deutschland 12 KG				
(held indirectly)[6.6]	Ebersberg	0.1	EUR	—
HVB Funding Trust	Wilmington	0	USD	—
HVB Funding Trust III	Wilmington	0	USD	—
Ice Creek Pool No. 1 DAC	Dublin	0	EUR	< 1
Ice Creek Pool No. 2 DAC	Dublin	0	EUR	< 1
MOC Verwaltungs GmbH & Co. Immobilien KG				
(held indirectly)[4, 6.7]	Munich	23	EUR	5,113
Rosenkavalier 2008 GmbH	Frankfurt am Main	0	EUR	25
Rosenkavalier 2015 UG	Frankfurt am Main	0	EUR	8
Rosenkavalier 2020 UG	Frankfurt am Main	0	EUR	3
Wealthcap Spezial-AIF-SV Büro 8	Grünwald	0	EUR	—

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]						
Heizkraftwerke-Pool Verwaltungs-GmbH	Munich	33.3				
WealthCap Portfolio Finanzierungs-GmbH & Co. KG						
(share of voting rights: 50.0%)	Grünwald	—	—	EUR	71,922	2,236
3 Associates						
3.1. Associates valued at equity						
Comtrade Group B.V.[4]	Rotterdam	21.1		EUR	60,871	7,860
3.2. Minor associates[5]						
MOC Verwaltungs GmbH	Munich	23.0	23.0			
paydirekt Beteiligungsgesellschaft						
privater Banken mbH	Berlin	24.0				
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	253,193	10,621
BBB Bürgschaftsbank zu Berlin-Brandenburg GmbH	Berlin	4.3		EUR	12,055	163
BGG Bayerische Garantiegesellschaft mbH						
für mittelständische Beteiligungen	Munich	10.5		EUR	55,374	2,023
Bürgschaftsbank Brandenburg GmbH	Potsdam	7.8		EUR	31,024	1,188
Bürgschaftsbank Mecklenburg-Vorpommern GmbH	Schwerin	9.1		EUR	16,899	262
Bürgschaftsbank Nordrhein-Westfalen GmbH -						
Kreditgarantiegemeinschaft -	Düsseldorf	0.6		EUR	38,223	1,463
Bürgschaftsbank Rheinland-Pfalz GmbH	Mainz	1.4		EUR	17,184	358
Bürgschaftsbank Saarland Gesellschaft						
mit beschränkter Haftung,						
Kreditgarantiegemeinschaft für den Handel,						
Handwerk und Gewerbe	Saarbrücken	1.3		EUR	4,388	54
Bürgschaftsbank Sachsen-Anhalt GmbH	Magdeburg	8.9		EUR	16,436	437
Bürgschaftsbank Sachsen GmbH (share voting rights: 5.4%)	Dresden	4.7		EUR	44,085	489
Bürgschaftsbank Schleswig-Holstein GmbH	Kiel	5.4		EUR	41,825	651
Bürgschaftsbank Thüringen GmbH	Erfurt	8.7		EUR	27,219	637
Bürgschaftsgemeinschaft Hamburg GmbH	Hamburg	10.5		EUR	26,783	505
MCB Bank Limited	Lahore	>0		PKR	168,914,783	38,598,014
Niedersächsische Bürgschaftsbank GmbH	Hannover	3.0		EUR	30,102	1,818
Saarländische Investitionskreditbank AG	Saarbrücken	3.3		EUR	65,636	351
4.2. Other companies						
ABE Clearing S.A.S.	Paris	2.0		EUR	31,181	3,267
Acton GmbH & Co. Heureka II KG	Munich	8.9		EUR	80,461	1,172
Amstar Liquidating Trust (share voting rights: 0.0%)	New York	>0	>0			
Babcock & Brown Limited	Sydney	3.2				
BayBG Bayerische Beteiligungsgesellschaft[8]	Munich	22.5		EUR	242,372	5,160
Bayerischer BankenFonds GbR[8]	Munich	25.6				
BIL Leasing-Fonds GmbH & Co. Altstadtsanierung Freiberg KG						
(share voting rights: 0.3%)	Grünwald	—	—	EUR	1,057	935
Bil Leasing-Fonds GmbH & Co Objekt Verwaltungssitz						
Bankenverband KG (share voting rights: 0.2%)	Grünwald	—	—			
BIL Leasing GmbH & Co Objekt Verwaltungsgebäude Halle KG						
(share voting rights: 0.1%)	Grünwald	—	—			

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
BioM Aktiengesellschaft Munich Bio Tech Development	Planegg	8.5		EUR	3,094	(415)
Blue Capital Equity I GmbH & Co. KG i.L.	Munich	>0	>0			
Blue Capital Equity II GmbH & Co. KG i.L.	Munich	>0	>0	EUR	1,664	13
Blue Capital Equity III GmbH & Co. KG (share voting rights: >0.0%)	Munich	0.8	0.8	EUR	4,507	(590)
Blue Capital Equity IV GmbH & Co. KG	Munich	>0	>0	EUR	10,567	(923)
Blue Capital Equity IX GmbH & Co. KG (share voting rights: 0.6%)	Munich	0.7	0.7	EUR	3,166	162
Blue Capital Equity V GmbH & Co. KG						
(share voting rights: >0.0%)	Munich	0.1	0.1			
Blue Capital Equity VI GmbH & Co. KG	Munich	>0	>0	EUR	11,412	4,144
Blue Capital Equity VII GmbH & Co. KG	Munich	>0	>0	EUR	5,416	1,762
Blue Capital Equity VIII GmbH & Co. KG						
(share voting rights: 0.0%)	Munich	0.7	0.7	EUR	7,119	118
Blue Capital Europa Immobilien GmbH & Co.						
Fünfte Objekte Österreich KG	Munich	0.1	0.1	EUR	5,162	10,881
Blue Capital Europa Immobilien GmbH & Co.						
Siebte Objekte Österreich KG	Munich	0.1	0.1	EUR	6,613	26,935
Blue Capital Metro Amerika Fund, L.P.	Wilmington	0.1	0.1	EUR	111,955	(36,681)
Blue Capital Metropolitan Amerika GmbH & Co. KG	Munich	>0	>0	EUR	100,541	13,174
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	2,021	(1,004)
BTG Beteiligungsgesellschaft Hamburg mbH	Hamburg	13.6		EUR	5,141	495
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	EUR	2,615,490	365,328
Carlyle U.S. Equity Opportunity Fund, L.P.						
(share voting rights: 0.0%)	Wilmington	0.9	0.9	EUR	845,151	143,045
Charme II (share voting rights: 0.0%)	Milan	7.7		EUR	1,645	151
China International Packaging Leasing Co., Ltd.	Peking	17.5		CNY	(101,056)	553
China Investment Incorporations (BVI) Ltd.	Tortola	10.8	10.8	HKD	79,631	26,623
CLS Group Holdings AG	Lucerne	1.2		GBP	338,053	(28,280)
CMC-Hertz Partners, L.P.	Wilmington	7.1				
CME Group Inc.	Wilmington	>0		USD	26,128,900	2,116,500
EDD AG (share voting rights: 3.1%)	Düsseldorf	3.0		EUR	21,601	(891)
Einkaufsgalerie Roter Turm Beteiligungs GmbH & Co. KG	Munich	10.8	10.8	EUR	5,720	291
Einkaufsgalerie Roter Turm Chemnitz GmbH & Co. KG	Munich	10.8	10.8	EUR	47,520	2,629
EPI Interim Company SE	Brussels	4.8				
EURO Kartensysteme GmbH	Frankfurt	6.0		EUR	12,187	151
Film & Entertainment VIP Medienfonds 4 GmbH & Co. KG	Grünwald	10.8	10.8	EUR	21,098	(1,290)
H.F.S. Immobilienfonds						
Bahnhofspassagen Potsdam GmbH & Co. KG	Munich	6.0	6.0	EUR	21,279	2,688
H.F.S. Immobilienfonds						
"Das Schloss" Berlin-Steglitz GmbH & Co. KG	Munich	6.0	6.0	EUR	132,536	119,759
H.F.S. Immobilienfonds Deutschland 4 GmbH & Co. KG	Munich	0.2	0.2	EUR	(894)	(276)
H.F.S. Immobilienfonds Deutschland 8 GmbH & Co. KG	Munich	0.1	0.1	EUR	13,427	2,417
H.F.S. Immobilienfonds Deutschland 9 GmbH & Co. KG	Munich	0.1	0.1	EUR	2,250	(327)
H.F.S. Immobilienfonds Deutschland 10 GmbH & Co. KG	Munich	1.4	1.4	EUR	88,822	257,288
H.F.S. Immobilienfonds Deutschland 12 GmbH & Co. KG	Munich	3.9	3.9	EUR	80,875	2,776
H.F.S. Immobilienfonds Deutschland 15 GmbH & Co. KG	Munich	0.1	0.1	EUR	14,195	1,648
H.F.S. Immobilienfonds Deutschland 16 GmbH & Co. KG	Munich	0.1	0.1	EUR	18,905	37,332
H.F.S. Immobilienfonds GmbH & Co. Europa 3 KG	Munich	0.1	0.1	EUR	3,138	254
H.F.S. Immobilienfonds Köln GmbH & Co. KG	Munich	>0	>0	EUR	1,743	(5)
H.F.S. Immobilienfonds Köln Supplier-Park GmbH & Co. KG	Munich	>0	>0	EUR	3,005	35,515
H.F.S. Immobilienfonds Schweinfurt GmbH & Co. KG	Munich	>0	>0			
H.F.S. Zweitmarktfonds Deutschland 1 GmbH & Co. KG	Ebersberg	0.1	0.1	EUR	17,440	4,557
H.F.S. Zweitmarktfonds Deutschland 2 GmbH & Co. KG	Ebersberg	>0	>0	EUR	79,713	15,143
HVBFF Life Britannia GmbH & Co Erste KG	Grünwald	>0	>0	EUR	1,976	(208)

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
HVB Trust Pensionsfonds AG (share voting rights: 0.0%)[9]	Munich	100.0	—	EUR	4,288	13
IGEPA Gewerbepark GmbH & Co Vermietungs KG	Fürstenfeldbruck	2.0	2.0	EUR	(6,962)	11,408
Industriepalast in Leipzig Verwaltungs-GmbH & Co. KG i.L.						
(share voting rights: 6.3%)	Berlin	6.2				
Innovation Group Holdings Limited	Fareham	13.1	13.1	GBP	(61,365)	(71,398)
Interbanking Systems S.A. (Dias S.A.)	Maroussi	0.9		EUR	26,734	—
IPE Tank and Rail Investment 1 S.C.A.	Luxembourg	7.8		EUR	1,187	(220)
JBG/BC Investor, L.P.	Chevy Chase	0.5	0.5	EUR	70,944	15,598
Kepler Cheuvreux S.A. (share voting rights: 8.3%)	Paris	10.0		EUR	88,000	12,577
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	—
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	—
Kreditgarantiegemeinschaft für den Handel in Bayern GmbH	Munich	2.2		EUR	6,317	—
Kreditgarantiegemeinschaft in						
Baden-Württemberg Verwaltungs-GmbH	Stuttgart	5.1				
Life Britannia First LP (share voting rights: 1.0%)	Uxbridge	—	—	EUR	3,679	716
Life Britannia Second LP (share voting rights: 1.0%)	Uxbridge	—	—	EUR	7,038	984
Life GmbH & Co Erste KG	Munich	>0	>0	EUR	95,594	23,043
Life GmbH & Co. Zweite KG	Grünwald	>0	>0	EUR	53,514	(4,916)
Lion Capital Fund I, L.P.	London	0.9				
LME Holdings Limited	London	>0		USD	57,671	88,005
Martin Schmälzle Grundstücksgesellschaft						
Objekt Wolfsburg GmbH & Co. KG	Munich	>0	>0	EUR	15,711	—
MBG Mittelständische Beteiligungsgesellschaft						
Baden-Württemberg GmbH	Stuttgart	5.0		EUR	81,296	4,303
MBG Mittelständische Beteiligungsgesellschaft						
Rheinland-Pfalz mbH (share voting rights: 11.1%)	Mainz	9.8		EUR	15,991	664
MBG Mittelständische Beteiligungsgesellschaft						
Schleswig-Holstein mbH (share voting rights: 3.7%)	Kiel	3.6		EUR	43,486	2,193
Mittelständische Beteiligungsgesellschaft						
Berlin-Brandenburg GmbH	Potsdam	11.6		EUR	22,891	1,056
Mittelständische Beteiligungsgesellschaft						
Mecklenburg-Vorpommern mbH	Schwerin	15.4		EUR	16,618	668
Mittelständische Beteiligungsgesellschaft						
Niedersachsen (MBG) mbH	Hannover	8.2		EUR	14,731	422
Mittelständische Beteiligungsgesellschaft						
Sachsen-Anhalt mit beschränkter Haftung	Magdeburg	12.7		EUR	24,249	217
Mittelständische Beteiligungsgesellschaft Sachsen mbH	Dresden	11.8		EUR	49,169	1,567
Mittelständische Beteiligungsgesellschaft Thüringen mbH	Erfurt	13.4		EUR	26,842	928
Motion Picture Production GmbH & Co. Erste KG						
(share voting rights: 0.1%)	Grünwald	>0		EUR	(27,904)	1,460
Mühoga Münchner Hochgaragen Gesellschaft						
mit beschränkter Haftung[8]	Munich	25.0	25.0	EUR	4,314	1,922

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
PICIC Insurance Ltd.	Karachi	>0				
PRINCIPIA FUND (share voting rights: 0.0%)	Mailand	10.0				
ProAreal GmbH i. I.	Wiesbaden	10.0				
Pro Health AG	Munich	4.0		EUR	735	(2,257)
REF IV Associates (Caymans) L.P. Acqua CIV S.C.S.						
(share voting rights: 0.0%)	Luxembourg	38.3				
Rocket Internet Capital Partners (Euro) SCS						
(share voting rights: 0.0%)	Luxembourg	4.4		EUR	397,355	46,000
Saarländische Kapitalbeteiligungsgesellschaft						
mit beschränkter Haftung (share voting rights: 8.8%)	Saarbrücken	8.7		EUR	7,823	230
Social Venture Fund GmbH & Co. KG						
(share voting rights: 0.0%)	Munich	9.6		EUR	2,023	(57)
Social Venture Fund II GmbH & Co. KG						
(share voting rights: 0.0%)	Munich	4.5		EUR	12,624	(1,591)
Special Product Company Holding Corp.	Wilmington	4.9	4.9	USD	(4,444)	973
Stahl Group S.A.	Luxembourg	0.4	0.4	EUR	291,540	53,878
SwanCap FLP II SCSp (share voting rights: 37.5%)[10]	Senningerberg	—		EUR	397	3,253
SwanCap FLP SCS (share voting rights: 37.5%)[10]	Senningerberg	—		EUR	475	1,936
SwanCap TB II SCSp (share voting rights: 0.0%)[11]	Senningerberg	>0				
S.W.I.F.T. SC	La Hulpe	0.3		EUR	442,950	39,830
True Sale International GmbH	Frankfurt	7.7		EUR	4,864	248
UniCredit Services Società Consortile per Azioni	Milan	>0		EUR	298,410	5,472
VISA Inc. (share voting rights: 0.0%)	Wilmington	>0		USD	36,210,000	10,866,000
WealthCap Aircraft 1 GmbH & Co. KG	Munich	>0	>0	EUR	16,729	(5,612)
WealthCap Aircraft 25 GmbH & Co. KG	Grünwald	>0	>0	EUR	32,295	342
WealthCap Aircraft 26 GmbH & Co. KG	Grünwald	>0	>0	USD	43,850	(150)
Wealthcap Büro Spezial-AIF 6 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0			
Wealthcap Fondsportfolio Immobilien International 1 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0			
WealthCap Fondsportfolio Private Equity 21 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	6,174	(3,103)
WealthCap Fondsportfolio Private Equity 22 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	859	(470)
WealthCap Immobilien Deutschland 38 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	117,848	20,714
WealthCap Immobilien Deutschland 39 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	155,271	21,638
WealthCap Immobilien Deutschland 40 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	80,933	7,386
WealthCap Immobilien Deutschland 41 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	40,073	5,752
Wealthcap Immobilien Deutschland 42 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0			
Wealthcap Immobilien Deutschland 44 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0			
WealthCap Immobilienfonds Deutschland 30 GmbH & Co. KG	Munich	>0	>0	EUR	46,680	4,773
WealthCap Immobilienfonds Deutschland 31 GmbH & Co. KG						
(share voting rights: 0.1%)	Munich	>0	>0	EUR	36,942	1,785
WealthCap Immobilienfonds Deutschland 32 GmbH & Co. KG						
(share voting rights: 0.1%)	Munich	>0	>0	EUR	51,219	3,024
WealthCap Immobilienfonds Deutschland 33 GmbH & Co. KG	Munich	>0	>0	EUR	58,597	2,614
WealthCap Immobilienfonds Deutschland 34 GmbH & Co. KG						
(share voting rights: 0.1%)	Munich	>0	>0	EUR	40,809	2,619
WealthCap Immobilienfonds Deutschland 35 GmbH & Co. KG	Munich	>0	>0	EUR	125,892	5,456

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 Immobilienfonds Deutschland 37 GmbH & Co. KG	Munich	>0	>0	EUR	62,921	2,429
WealthCap Immobilienfonds Donauwörth 1 GmbH & Co. KG	Munich	>0	>0	EUR	18,592	1,636
WealthCap Immobilienfonds Donauwörth 2 GmbH & Co. KG	Munich	>0	>0	EUR	4,664	591
WealthCap Immobilien Nordamerika 16 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	USD	49,886	6,950
WealthCap Immobilien Nordamerika 17 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	49,715	(3,348)
WealthCap Infrastructure Fund I GmbH & Co. KG	Munich	>0	>0	EUR	1,879	(218)
WealthCap Infrastruktur Amerika GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0	>0	USD	1,361	(227)
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	EUR	(1,139)	545
WealthCap LebensWert 2. GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0	>0	USD	3,520	1,820
WealthCap Life Britannia 2. GmbH & Co KG	Munich	>0	>0			
WealthCap Life USA 4. GmbH & Co. KG	Grünwald	>0	>0	USD	60,903	1,924
WealthCap Los Gatos 121 Albright Way L.P.	Wilmington	>0	>0	USD	62,809	5,362
WealthCap Mountain View I L.P. (share voting rights: 0.1%)	Atlanta	—	—	EUR	48,845	7,347
WealthCap Objekt Berg-am-Laim GmbH & Co. KG	Munich	5.2	5.2	EUR	121,259	6,018
Wealthcap Objekt Berg-am-Laim II GmbH & Co. KG	Munich	10.1	10.1	EUR	84,576	910
Wealthcap Objekt Berlin I GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Berlin II GmbH & Co. KG	Munich	10.1	10.1	EUR	(540)	(774)
WealthCap Objekt Bogenhausen GmbH & Co. KG	Munich	>0	>0	EUR	132,593	2,566
Wealthcap Objekte Grasbrunn und Ismaning GmbH & Co. KG	Munich	10.1	10.1	EUR	(916)	1,837
WealthCap Objekt Essen GmbH & Co. KG	Munich	5.2	5.2	EUR	26,624	1,548
WealthCap Objekte Südwest GmbH & Co. KG	Munich	5.1	5.1	EUR	64,877	2,832
WealthCap Objekt Frankfurt GmbH & Co. KG	Munich	5.2	5.2	EUR	46,984	1,036
Wealthcap Objekt Freiburg GmbH & Co. KG	Munich	10.1	10.1			
Wealthcap Objekt Fürstenfeldbruck GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Hackerbrücke GmbH & Co. KG	Munich	5.2	5.2	EUR	33,358	1,683
WealthCap Objekt Hamburg GmbH & Co. KG	Munich	10.1	10.1	EUR	21,172	97
WealthCap Objekt Hannover Ia GmbH & Co. KG	Munich	5.2	5.2	EUR	14,880	1,451
WealthCap Objekt Hannover Ib GmbH & Co. KG	Munich	5.2	5.2	EUR	3,663	248
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	582
Wealthcap Objekt Ludwigsburg GmbH & Co. KG	Munich	10.1	10.1			
Wealthcap Objekt Nürnberg GmbH & Co. KG	Munich	10.1	10.1			
Wealthcap Objekt Ottobrunn GmbH & Co. KG	Munich	10.1	10.1			
WealthCap Objekt Riem GmbH & Co. KG	Munich	5.2	5.2	EUR	30,298	1,519
WealthCap Objekt Riem II GmbH & Co. KG	Munich	5.2	5.2	EUR	41,309	2,304
WealthCap Objekt Schwabing GmbH & Co. KG	Munich	5.2	5.2	EUR	29,251	1,718
WealthCap Objekt Sendling GmbH & Co. KG	Munich	5.2	5.2	EUR	59,044	2,405
WealthCap Objekt Stuttgart Ia GmbH & Co. KG	Munich	>0	>0	EUR	17,466	1,165
WealthCap Objekt Stuttgart Ib GmbH & Co. KG	Munich	>0	>0	EUR	19,733	1,194
WealthCap Objekt Stuttgart II GmbH & Co. KG	Munich	5.2	5.2	EUR	24,939	962
WealthCap Objekt Theresienhöhe GmbH & Co. KG	Munich	5.2	5.2	EUR	64,248	2,714
Wealthcap Objekt Tübingen GmbH & Co. KG	Munich	0.1	0.1			
WealthCap Photovoltaik 1 GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0	>0	EUR	28,633	2,984
WealthCap Portfolio 3 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0	EUR	31,114	7,270
Wealthcap Portfolio 4/5 GmbH & Co. KG	Grünwald	0.1	0.1			

List of Holdings (Continued)

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
Wealthcap Portfolio 4 GmbH & Co. geschlossene Investment KG	Grünwald	>0	>0			
Wealthcap Portfolio 5 GmbH & Co. geschlossene Investment KG	Grünwald	0.2	0.2			
WealthCap Private Equity 10 GmbH & Co. KG	Munich	>0	>0	EUR	4,451	353
WealthCap Private Equity 11 GmbH & Co. KG	Munich	>0	>0	EUR	1,643	325
WealthCap Private Equity 12 GmbH & Co. KG	Grünwald	>0	>0	EUR	56,802	2,854
WealthCap Private Equity 13 GmbH & Co. KG	Grünwald	>0	>0	EUR	45,549	1,785
WealthCap Private Equity 14 GmbH & Co. KG	Grünwald	>0	>0	EUR	26,438	1,198
WealthCap Private Equity 15 GmbH & Co. KG						
(share voting rights: 0.1%)	Grünwald	>0	>0	EUR	10,844	1,161
WealthCap Private Equity 16 GmbH & Co. KG						
(share voting rights: 0.3%)	Grünwald	>0	>0	EUR	2,353	273
WealthCap Private Equity 17 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	13,316	795
WealthCap Private Equity 18 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	9,513	580
WealthCap Private Equity 19 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	31,856	(310)
WealthCap Private Equity 20 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	9,155	(98)
WealthCap SachWerte Portfolio 1 GmbH & Co. KG	Grünwald	>0	>0	EUR	22,001	1,370
WealthCap SachWerte Portfolio 2 GmbH & Co.						
geschlossene Investment KG	Grünwald	>0	>0	EUR	92,608	3,933
WealthCap Spezial-AIF 1 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	169,805	23,317
WealthCap Spezial-AIF 2 GmbH & Co.						
geschlossene Investment KG	Munich	5.2	5.2	EUR	79,250	5,739
WealthCap Spezial-AIF 3 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	257,916	29,752
WealthCap Spezial-AIF 4 GmbH & Co.						
geschlossene Investment KG	Munich	>0	>0	EUR	151,895	(76)
WealthCap Spezial-AIF 5 GmbH & Co.						
geschlossene Investment KG	Munich	10.1	10.1	EUR	165,733	1,382
Wealthcap Spezial-AIF Büro 7 GmbH & Co.						
geschlossene Investment KG	Munich	0.1	0.1			
Wealthcap Spezial Portfolio Immobilien 1 SCS SICAV-SIF	Luxembourg-Findel	>0	>0			
Wealthcap Spezial Portfolio Private Equity 1 SCS SICAV-SIF	Luxembourg-Findel	>0	>0	EUR	4,330	(170)
WealthCap US Life Dritte GmbH & Co. KG						
(share voting rights: >0%)	Grünwald	0.1	0.1	USD	3,940	(6,861)
Wealthcap Wohnen 1a GmbH & Co. KG	Munich	10.1	10.1	EUR	(405)	(409)
Wealthcap Wohnen 1 GmbH & Co. KG	Munich	10.1	10.1	EUR	(906)	64,034
Wealthcap Wohnen Spezial-AIF 1 GmbH & Co.						
geschlossene Investment KG	Munich	0.1	0.1			
WealthCap Zweitmarkt 3 BASIS GmbH & Co. KG	Grünwald	>0	>0	EUR	30,813	(130)
WealthCap Zweitmarkt 3 PLUS GmbH & Co. KG	Grünwald	>0	>0	EUR	14,550	5,241
WealthCap ZweitmarktWerte Immobilien 4 GmbH & Co. KG	Munich	>0	>0	EUR	8,458	(39)
Wohnungsbaugesellschaft der Stadt Röthenbach a. d. Pegnitz						
mit beschränkter Haftung	Röthenbach	5.2		EUR	3,893	196

Exchange rates for 1 euro at the reporting date

Currency code according to the International Organisation for Standardisation (ISO code).

China	1 EUR =	8.0225	CNY
UK	1 EUR =	0.89903	GBP
Hong Kong	1 EUR =	9.5142	HKD
Pakistan	1 EUR =	196.5729	PKR
USA	1 EUR =	1.2271	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 UniCreditBank AG has concluded profit and loss agreements with the following companies:

	Company	Profit/(loss) transferred € thousands
1.1	Food & more GmbH, Munich	(53)
1.2	HVB Immobilien AG, Munich	(8,337)
	of which relating to 2019	1,200
1.3	HVB Secur GmbH, Munich	731
1.4	HVB Verwa 4 GmbH, Munich	(399)
1.5	MERKURHOF Grundstücksgesellschaft mit beschränkter Haftung, Munich	2,645
1.6	UniCredit Beteiligungs GmbH, Munich	(15)
1.7	UniCredit Direct Services GmbH, Munich	3,353
1.8	UniCredit Leasing GmbH, Hamburg	34,154
1.9	Verwaltungsgesellschaft Katharinenhof mbH, Munich	28
1.10	Wealth Management Capital Holding GmbH, Munich	(20,515)

2 Profit and loss transfer to shareholders and partners.

3 The exemption under Section 264b HGB and under Section 264 (3) HGB applies to the company.

4 Figures from the 2019 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 HGB.

6.1 Equity capital amounts to €17,682 thousand and the net profit €4,466 thousand.
6.2 Equity capital amounts to minus €3,176 thousand and the net loss (€3,176 thousand).
6.3 Equity capital amounts to minus €3,304 thousand and the net loss (€3,304 thousand).
6.4 Equity capital amounts to minus €2,483 thousand and the net loss (€2.483 thousand).
6.5 Equity capital amounts to minus €2,151 thousand and the net loss (€2,151 thousand).
6.6 Equity capital amounts to minus €2,743 thousand and the net loss (€2,743 thousand).
6.7 Equity capital amounts to €127 thousand and the net profit/loss €– thousand.

7 Pursuant to Section 340a (4) No. 2 HGB, 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

65 Coverage

The statement of coverage for Mortgage Pfandbriefe and Public Pfandbriefe is as follows:

(€ millions)

	2020	2019
Mortgage Pfandbriefe		
Standard coverage		
1. Loans and receivables with banks	—	—
Mortgage loans	—	—
2. Loans and receivables with customers	28,909	27,847
Mortgage loans	28,909	27,847
Other eligible cover[1]		
1. Other lending to banks	—	—
2. Bonds and other fixed-income securities	648	713
3. Equalisation claims on government authorities	—	—
Subtotal	**29,557**	**28,560**
Total Mortgage Pfandbriefe requiring cover	22,011	22,182
Excess coverage	**7,546**	**6,378**
Public Pfandbriefe		
Standard coverage		
1. Loans and receivables with banks	7	9
Mortgage loans	—	—
Municipal loans	7	9
2. Loans and receivables with customers	4,876	5,193
Mortgage loans	—	1
Municipal loans	4,876	5,192
3. Bonds and other fixed-income securities	223	415
Other eligible cover[2]		
Other lending to banks	—	—
Subtotal	**5,106**	**5,617**
Total Public Pfandbriefe requiring cover	3,205	3,758
Excess coverage	**1,901**	**1,859**

1 Compliant with Section 19 (1) of the German Pfandbrief Act.
2 Compliant with Section 20 (2) of the German Pfandbrief Act.

66 Pfandbriefe outstanding and cover assets committed

The following table shows Pfandbriefe outstanding and cover assets, broken down by Mortgage Pfandbriefe and Public Pfandbriefe: (€ millions)

	2020			2019		
	NOMINAL	PRESENT VALUE	RISK PRESENT VALUE[1]	NOMINAL	PRESENT VALUE	RISK PRESENT VALUE[1]
Mortgage Pfandbriefe						
Mortgage Pfandbriefe	22,011	23,787	22,438	22,182	23,653	22,508
of which: derivatives	—	—	—	—	—	—
Cover assets[2]	29,557	33,394	31,558	28,560	31,291	29,731
of which: derivatives	—	—	—	—	—	—
Excess coverage	**7,546**	**9,607**	**9,120**	**6,378**	**7,638**	**7,223**
Public Pfandbriefe						
Public Pfandbriefe	3,205	3,576	3,520	3,758	4,150	4,053
of which: derivatives	—	—	—	—	—	—
Cover assets[3]	5,106	5,800	5,615	5,617	6,376	6,119
of which: derivatives	—	—	—	—	—	—
Excess coverage	**1,901**	**2,224**	**2,095**	**1,859**	**2,226**	**2,066**

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 €648 million as at 31 December 2020 and €713 million as at 31 December 2019.
3 Including no further cover assets compliant with Section 20 (2) of the German Pfandbrief Act as at 31 December 2020 and as at 31 December 2019.

67 Maturity structure of Pfandbriefe outstanding and fixed-interest periods of respective cover assets

The following table shows the maturity structure for outstanding Pfandbriefe and fixed-interest periods of cover assets for Mortgage Pfandbriefe and Public Pfandbriefe: (€ millions)

	2020		2019	
	MORTGAGE PFANDBRIEFE	COVERING ASSETS	MORTGAGE PFANDBRIEFE	COVERING ASSETS
Mortgage Pfandbriefe[1]	**22,011**	**29,557**	**22,182**	**28,560**
up to 0.5 years	1,028	1,404	790	1,873
at least 0.5 years but less than 1 year	965	1,389	2,108	1,400
at least 1 year but less than 1.5 years	1,214	1,209	1,521	1,389
at least 1.5 years but less than 2 years	779	1,387	965	1,254
at least 2 years but less than 3 years	1,435	2,562	1,992	2,419
at least 3 years but less than 4 years	1,921	2,726	2,033	2,598
at least 4 years but less than 5 years	2,175	2,722	2,421	2,495
at least 5 years but less than 10 years	7,710	9,984	6,841	9,853
10 years or more	4,784	6,174	3,511	5,279
Public Pfandbriefe[2]	**3,205**	**5,106**	**3,758**	**5,617**
up to 0.5 years	59	394	134	475
at least 0.5 years but less than 1 year	384	295	637	597
at least 1 year but less than 1.5 years	250	292	305	356
at least 1.5 years but less than 2 years	578	523	384	294
at least 2 years but less than 3 years	539	578	865	686
at least 3 years but less than 4 years	628	421	539	461
at least 4 years but less than 5 years	138	428	127	405
at least 5 years but less than 10 years	222	1,488	360	1,317
10 years or more	407	687	407	1,026

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 Pfandbriefe 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 Pfandbriefe respectively.

Mortgage Banking (Continued)

68 Volume of claims used as cover for Pfandbriefe, broken down by size class

The following table shows the volume of claims used as cover for Pfandbriefe:

(€ millions)

	2020	2019
Mortgage covering assets	**28,909**	**27,847**
up to and including €300,000	10,987	10,337
over €300,000 up to and including €1 million	4,771	4,467
over €1 million up to and including €10 million	6,478	6,415
more than €10 million	6,673	6,628
Public Pfandbriefe[1]	**5,106**	**5,617**
up to and including €10 million	1,180	1,276
over €10 million up to and including €100 million	1,627	1,472
more than €100 million	2,299	2,869

1 Volume of claims used as cover for Public Pfandbriefe according to size classes, in each case with respect to a debtor or a guaranteeing entity.

69 Volume of claims used as cover for Mortgage Pfandbriefe, 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 Pfandbriefe, broken down by state in which the real property collateral is located and property type:

(€ millions)

	2020		2019	
	RESIDENTIAL PROPERTY	COMMERCIAL PROPERTY	RESIDENTIAL PROPERTY	COMMERCIAL PROPERTY
Germany	**20,241**	**8,668**	**19,091**	**8,756**
Condominiums	4,747	—	4,417	—
Single-family and two-family houses	8,354	—	7,543	—
Multiple-family houses	7,009	—	6,951	—
Office buildings	—	4,596	—	4,618
Retail buildings	—	2,715	—	2,571
Industrial buildings	—	302	—	329
Other commercially used buildings	—	735	—	829
New buildings under construction, not yet profitable	69	186	80	268
Building land	62	134	100	141
France	**—**	**—**	**—**	**—**
Single-family and two-family houses	—	—	—	—
Italy	**—**	**—**	**—**	**—**
Single-family and two-family houses	—	—	—	—
Total	**20,241**	**8,668**	**19,091**	**8,756**

70 Volume of claims used as cover for Public Pfandbriefe, 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 Pfandbriefe 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)

	2020	2019
Germany		
Central government	874	954
of which owed	—	—
of which guaranteed	874	954
Regional authorities	1,440	1,432
of which owed	1,080	1,010
of which guaranteed	360	422
Local authorities	2,357	2,594
of which owed	2,058	2,219
of which guaranteed	299	375
Other	13	21
of which owed	13	21
of which guaranteed	—	—
Total Germany	**4,684**	**5,001**
of which owed	3,151	3,250
of which guaranteed	1,533	1,751
Guarantees for reasons of promoting exports	874	954
Denmark	**15**	**18**
Central government	15	18
of which owed	—	—
of which guaranteed	15	18
Guarantees for reasons of promoting exports	15	18
France	**268**	**262**
Central government	268	262
of which owed	—	—
of which guaranteed	268	262
Guarantees for reasons of promoting exports	268	262
UK/Northern Ireland	**99**	**116**
Central government	99	116
of which owed	—	—
of which guaranteed	99	116
Guarantees for reasons of promoting exports	99	116
Austria	**40**	**220**
Central government	40	220
of which owed	20	200
of which guaranteed	20	20
Guarantees for reasons of promoting exports	—	—
Total	**5,106**	**5,617**
of which owed	3,171	3,450
of which guaranteed	1,935	2,167
Guarantees for reasons of promoting exports	1,256	1,350

Mortgage Banking (Continued)

71 Other eligible cover

The following table shows the breakdown of other eligible cover for Mortgage Pfandbriefe and Public Pfandbriefe:

(€ millions)

	2020	2019
Mortgage Pfandbriefe	**648**	**713**
Equalisation claims according to Section 19 (1) No. 1 PfandBG	—	—
All states	—	—
Money claims according to Section 19 (1) No. 2 PfandBG[1]	—	—
Germany	—	—
of which covered bonds according to Article 129 of Regulation (EU) No. 575/2013	—	—
Other states	—	—
Bonds according to Section 19 (1) No. 3 PfandBG[2]	648	713
Germany	648	713
Other states	—	—
Public Pfandbriefe	**—**	**—**
Equalisation claims according to Section 20 (2) No. 1 PfandBG	—	—
All states	—	—
Money claims according to Section 20 (2) No. 2 PfandBG	—	—
All states	—	—
of which 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.

72 Key figures for Pfandbriefe outstanding and associated cover assets

The following table shows the breakdown of key figures for Mortgage Pfandbriefe outstanding and Public Pfandbriefe:

		2020	2019
Mortgage Pfandbriefe			
Mortgage Pfandbriefe outstanding	€ millions	22,011	22,182
of which share of fixed-interest Pfandbriefe (Section 28 (1) No. 9 PfandBG)	%	95.29	90.71
Eligible cover[1]	€ millions	29,557	28,560
of which total amount of loans and receivables exceeding the thresholds			
according to Section 13 (1) PfandBG (Section 28 (1) No. 7 PfandBG)	€ millions	—	—
of which total amount of loans and receivables exceeding the thresholds			
stated in Section 19 (1) No. 2 PfandBG (Section 28 (1) No. 8 PfandBG)	€ millions	—	—
of which total amount of loans and receivables exceeding the thresholds			
stated in Section 19 (1) No. 3 PfandBG (Section 28 (1) No.8 PfandBG)	€ millions	—	—
of which share of fixed-interest cover (Section 28 (1) No. 9 PfandBG)	%	80.99	79.76
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	7.0	7.1
Average weighted loan-to-value ratio (Section 28 (2) No. 3 PfandBG)	%	42.06	41.74
Public Pfandbriefe			
Public Pfandbriefe outstanding	€ millions	3,205	3,758
of which share of fixed-income Pfandbriefe (Section 28 (1) No. 9 PfandBG)	%	99.84	92.68
Eligible cover[2]	€ millions	5,106	5,617
of which total amount of loans and receivables exceeding the thresholds			
stated in Section 20 (2) No. 2 PfandBG Section 28 (1) No. 8 PfandBG)	€ millions	—	—
of which share of fixed-income cover (Section 28 (1) No. 9 PfandBG)	%	64.93	66.21
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	(59)	(37)

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)

73 Payments in arrears

Total amount of payments in arrears for at least 90 days in respect of the claims used as cover for Pfandbriefe and breakdown by states in which the real property collateral is located:

(€ millions)

	2020	2019
Mortgage Pfandbriefe		
Payments in arrears of at least 90 days	—	—
Germany	—	—
Payments in arrears of at least 90 days, arrears equal at least 5% of the loan	—	—
Germany	—	—
Public Pfandbriefe		
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	—	—

74 Foreclosures and sequestrations

The following table shows the breakdown of foreclosures for mortgage cover assets carried out in 2020:

		OF WHICH IN 2020	
	NUMBER OF PROCEEDINGS	COMMERCIAL PROPERTY	RESIDENTIAL PROPERTY
1. Foreclosures and sequestrations			
a) Pending at 31 December 2020			
Foreclosure proceedings	1	—	1
Sequestration proceedings	—	—	—
Foreclosure and sequestration proceedings	—	—	—
	1	**—**	**1**
Comparative figures from 2019	12	1	11
b) Foreclosures finalised in 2020	**1**	**—**	**1**
Comparative figures from 2019	12	—	12
2. Properties repossessed			
As in the prevoius year the Pfandbrief bank did not have to repossess any properties during the reporting year to prevent losses on mortgage loans.			

An internal audit has shown that foreclosures and sequestrations were also recorded in previous years whose loans had previously been withdrawn from the cover pool. As a result, the number of measures for the loans in the cover pool was overstated. The disclosure has been corrected accordingly and the previous year's figures adjusted.

75 Interest in arrears

Interest in arrears on mortgage cover assets due between 1 October 2019 and 30 September 2020 breaks down as follows:

(€ millions)

	2020	2019
Interest in arrears	—	—
Commercial property	—	—
Residential property	—	—

The present annual financial statements were prepared on 9 March 2021.

UniCredit Bank AG
The Management Board

Beumer   Dr Diederich   Frischholz   Dr Kullnigg

Kupfer   Marcucci   Scukanec Hopinski

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, 9 March 2021

UniCredit Bank AG
The Management Board

Beumer	Dr Diederich	Frischholz	Dr Kullnigg

Kupfer	Marcucci	Scukanec Hopinski

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 2020, the income statement for the financial year from 1 January to 31 December 2020 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 2020. 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 and give a true and fair view of the assets, liabilities and financial position of the Company as at 31 December 2020 and of its financial performance for the financial year from 1 January to 31 December 2020 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 ful-filled 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.

Note on the use of § 289b (2) of the German Commercial Code (HGB)
The Company has not included a non-financial statement in accordance with § 289b (2) of the German Commercial Code (HGB) in the management report. At the time of completion of our audit, it was not possible to conclusively assess whether the exemption of § 289b (2) German Commercial Code (HGB) had been justifiably invoked because the requirements of § 289b (2) sentence 1 or sentence 2 German Commercial Code (HGB), by their nature, can only be complied at a later stage. Our audit opinion regarding the management report is not modified in this respect.

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 2020. 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

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 the bank's annual financial statements, loan loss provisions are offset against the balance sheet item "Loans and receivables with customers". Furthermore, provisions for credit risks are disclosed under other provisions. In the reporting year, the Bank replaced the German tax-based method previously used to determine the general allowance for losses on loans and advances with a methodology based on the expected credit loss. This is based on the IFRS 9 methodology already used by the Bank. The main characteristic of the general allowance is the allocation of loans to stage 1 or stage 2 based on a comparison of the current default risk with the default risk at initial recognition of the financial instrument. The allocation leads to the recognition of the allowance for losses on loans and advances in the amount of the expected one-year credit loss or the expected lifetime credit loss of the financial instrument. The general allowance is therefore largely determined by the models used to determine the stage transfer, the models used to calculate the expected one-year credit loss or the expected life-time credit loss of the financial instrument respectively, and the parameters used. Significant parameters within the calculation models that affect the expected credit loss are the considerable macroeconomic scenarios, the probability of default, the exposure at default and the loss given default. The specific valuation allowance is based on assumptions regarding various scenarios for the expected cash flows from the defaulted loans and the estimated probability of occurrence of these scenarios. Both the valuation parameters used and the models for the general allowance have a significant impact on the amount of loan loss provision. Since the determination of the loan loss provision is subject to uncertainty and margin of discretion, this was a key audit matter in our audit. The disclosures regarding valuation of the loans with customers are enclosed in section 5 of the notes.

b) As part of the audit of the annual financial statements, we have initially audited the adequacy 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 organization, including the significant IT systems and valuation models. The audit of the valuation of loans included the assessment of the implemented processes and controls for identifying impaired loans, as well as an assessment of the models used to determine the stage transfer between stage 1 and stage 2 and the evaluation of the models used to determine the expected one-year credit loss or the expected life time credit loss of the financial instrument. We have used specialists from our Risk Advisory division specialised in credit risk management and IT audit for our audit. The group-wide valuation models for the determination of the loan loss provision of stage 1 and stage 2 were audited by our colleagues from Deloitte & Touche S.p.A., Milan (Italy), as these models were developed and validated by the Bank's parent company in Milan. We have used the results of their audit for our purposes. Likewise, we have used the validation reports and third-party audit reports. In addition, as part of our audit of the general allowances, we audited both the stage allocation and the calculated expected losses for a sample of loans. 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 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 for a sample 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 Executive Directors, with regard to the various expected cash flows of the audited loans, respectively the recovery of collaterals. Similarly, we assessed for the loans in our sample the probabilities of occurrence of the used scenarios with regard to their comprehensibility.

c) We challenged significant assumptions and estimates made by the Executive Directors. 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 Executive Directors. The disclosures made by the Executive Directors regarding the valuation of financial instruments are enclosed in section 7 of the notes.

b) We have audited the organizational structure and related processes with regards to the determination of the fair value of trading financial instruments by examination of the adequacy and operating effectiveness of the implemented key controls. 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. The calculated fair values are adjusted for the Bank’s creditworthiness, 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 examined whether the Bank’s assumptions, procedures and models are in line with standard industry practice and we audited whether the valuations are correct and comprehensible. In addition, we have conducted our own independent valuation on a sample of financial instruments and compared our results with the valuation performed by the Bank. We have used valuation specialists from our Risk Advisory division for our audit. 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 Executive Directors of the Bank for the determination of the fair value of financial instruments held for trading are in line with industry standards.

3. IT controls related to financial reporting

a) For 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 Executive Directors 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.

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 regarding 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
– all the remaining parts of the published annual report,
– except the annual financial statement, the content of the audited management report disclosures and our related 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 above mentioned other information and, in so doing, to consider whether the other information
– is materially inconsistent with the annual financial statements, the content of the audited management report disclosures 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, 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 scepticism 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.

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

Report on the audit of the electronic reproductions of the annual financial statements and management report prepared for disclosure purposes in accordance with § 317 (3b) of the German Commercial Code (HGB)

Audit Opinion

In accordance with § 317 (3b) of the German Commercial Code (HGB), we have performed an audit with reasonable assurance to determine whether the reproductions of the annual financial statements and the management report (hereinafter also referred as "ESEF documents") contained in the attached electronic file, which has the SHA-256 value 7859B9FAFA702A0574913359FC5885DF1C 3AC2D4A36582D0864C36B3DBF7966D and prepared for disclosure purposes comply in all material respects with the requirements of § 328 (1) of the German Commercial Code (HGB) on electronic reporting format ("ESEF format"). In accordance with German legal requirements, this audit extends only to the conversion of the information contained in the annual financial statement and the management report into the ESEF format and therefore neither to the information contained in these reproductions nor to any other information in the above mentioned electronic file.

In our opinion, the reproductions of the annual financial statements and the management report contained in the above mentioned attached electronic file prepared for disclosure purposes comply in all material respect with the electronic reporting format requirement of § 328 (1) German Commercial Code (HGB). We do not express any opinion on the information contained in these reproductions nor on any other information contained in the above-mentioned electronic file beyond this audit opinion and our audit opinion on the accompanying annual financial statements and the accompanying management report for the financial year from January 1 to December 31, 2020 contained in the "Report on the Audit of the Annual Financial Statements and of the Management Report" above.

Basis for the audit opinion

We conducted our audit of the reproductions of the annual financial statements and the management report contained in the above mentioned attached electronic file in accordance with § 317 (3b) German Commercial Code (HGB) and in compliance with the Exposure Draft IDW Audit Standard: Audit of electronic reproductions of financial statements and management reports prepared for the purpose of disclosure pursuant to § 317 (3b) HGB (IDW EPS 410). Our responsibility therefor is further described in the Section "Auditor's responsibility for the audit of the ESEF documents". Our audit firm has complied with the quality assurance system requirements of the IDW quality assurance standard: Requirements for quality assurance in the audit firm (IDW QS 1).

Responsibility of the Executive Directors and the Supervisory Board for the ESEF documents

The company's Executive Directors are responsible for the preparation of the ESEF documents containing the electronic reproductions of the annual financial statements and the management report in accordance with § 328 (1) sentence 4 no. 1 German Commercial Code (HGB).

Furthermore, the company's Executive Directors are responsible for internal controls, which are determined to be necessary to enable the preparation of the ESEF documents free from material – intentional or unintentional – non-compliance with the requirements of § 328 (1) German Commercial Code (HGB) for the electronic reporting format.

The company's Executive Directors are also responsible for the submission of the ESEF documents together with the auditor's report and the attached audited annual financial statements and audited management report as well as other documents to be disclosed to the operator of the federal gazette ("Bundesanzeiger").

The Supervisory Board is responsible for monitoring the preparation of the ESEF documents as part of the financial reporting process.

Auditor's responsibility for the Audit of the ESEF documents
Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material – intentional or unintentional – non-compliance with the requirements of § 328 (1) German Commercial Code (HGB). We exercise professional judgment and maintain professional skepticism throughout the audit. In addition, we

- identify and assess the risks of material – intentional or unintentional – non-compliance with the requirements of § 328 (1) German Commercial Code (HGB), plan and perform audit procedures in response to those risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- obtain an understanding of internal controls relevant to the audit of the ESEF documents in order to plan audit procedures that are appropriate in the circumstances, but not for expressing an opinion on the operating effectiveness of these controls.
- evaluate the technical validity of the ESEF documents, i.e. whether the electronic file containing the ESEF documents comply with the requirements of the Delegated Regulation (EU) 2019/815, as applicable at the date of the financial statements, regarding the technical specification for that electronic file.
- evaluate whether the ESEF documents allow an identical XHTML reproduction of the audited annual financial statements and the audited management report.

Further Information pursuant to Article 10 of the EU Audit Regulation
We were elected as auditor by the annual general meeting on June 23, 2020. We were engaged by the Supervisory Board on July 17, 2020. 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
- Audits pursuant to § 89 of the Securities Trading Act
- Audit of the internal control system of a service organization
- Performing agreed upon and audit procedures
- Audits of financial information or their components
- 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 Christian Schweitzer.

Munich, 12 March, 2021

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

(Christian Schweitzer)	(Stefan Trenzinger)
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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