One Bank, One Team, One UniCredit.

Capital and balance sheet management

Transform

Enhanced service model

Ethics and Respect

Team 23

Compliance

Grow and strengthen client franchise

Process optimisation

Sustainable results

Sustainability

Paperless bank

2020

Growth engines

Customer experience

Disciplined risk management

“Go-to” bank for SMEs

“Do the right thing!”

Half-yearly Financial Report at 30 June 2020

Banking that matters.

HypoVereinsbank

Member of UniCredit

Disclaimer
This edition of our half-yearly financial 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.

Contents

Financial Highlights

Key performance indicators

	1/1–30/6/2020	1/1–30/6/2019
Net operating profit	€507m	€376m
Cost-income ratio (based on operating income)	59.1%	79.0%
Profit before tax	€496m	€677m
Consolidated profit	€329m	€390m
Earnings per share	€0.41	€0.48

Balance sheet figures/Key capital ratios

	30/6/2020	31/12/2019
Total assets	€318,039m	€303,598m
Shareholders' equity	€15,977m	€18,915m
Common Equity Tier 1 capital[1]	€14,583m	€14,987m
Core capital (Tier 1 capital)[1]	€14,583m	€14,987m
Risk-weighted assets (including equivalents for market risk and operational risk)	€89,667m	€85,454m
Common Equity Tier 1 capital ratio[1,2]	16.3%	17.5%
Core capital ratio (Tier 1 ratio)[1,2]	16.3%	17.5%
Leverage ratio in accordance with Commission Delegated Regulation[1,3]	3.9%	4.3%

1 31 December 2019: in accordance with approved financial statements.
2 Calculated on the basis of risk-weighted assets, including equivalents for market risk and operational risk.
3 Ratio of core capital to the sum total of the exposure values of all assets and off-balance-sheet items.

	30/6/2020	31/12/2019
Employees (in FTEs)	12,070	12,194
Branch offices	498	498

Ratings

	LONG-TERM	SHORT-TERM	OUTLOOK		CHANGE/ CONFIRMATION
Fitch Ratings					
Bank Ratings					
Derivative Counterparty Rating	BBB+(dcr)	—	—		14/5/2020
Deposit Rating	BBB+	F2	—		14/5/2020
Issuer Default Rating	BBB	F2	negative		14/5/2020
Stand-alone Rating	—	—	—	bbb	14/5/2020
Issue Ratings (unsecured)					
Preferred Senior Unsecured Debt/ Senior Preferred Debt Issuance Programme	BBB+	F2	—		14/5/2020
Non-preferred Senior Unsecured Debt/ Issuer Default Rating	BBB	—	—		14/5/2020
Subordinated Debt	BB+	—	—		14/5/2020
Issue Ratings (secured)					
Public Sector Covered Bonds	AAA	—	stable		31/10/2019
Mortgage Covered Bonds	AAA	—	negative		19/5/2020
Moody's					
Bank Ratings					
Counterparty Rating	A1	P-1	—		1/4/2020
Deposit Rating	A2	P-1	negative		1/4/2020
Issuer Rating	A2	—	negative		1/4/2020
Stand-alone Rating	—	—	—	baa2	1/4/2020
Issue Ratings (unsecured)					
Preferred Senior Unsecured Debt/ Senior Unsecured	A2	P-1	negative		1/4/2020
Non-preferred Senior Unsecured Debt/ Junior Senior Unsecured	Baa3	—	—		1/4/2020
Subordinated debt	Baa3	—	—		1/4/2020
Issue Ratings (secured)					
Public Sector Covered Bonds	Aaa	—	—		23/6/2015
Mortgage Covered Bonds	Aaa	—	—		23/6/2015
Standard & Poor's					
Bank Ratings					
Resolution Counterparty Ratings	A–	A-2	—		12/12/2019
Issuer Credit Rating	BBB+	A-2	negative		12/12/2019
Stand-alone Rating	—	—	—	bbb+	12/12/2019
Issue Ratings (unsecured)					
Preferred Senior Unsecured Debt/ Senior Unsecured	BBB+	A-2	—		12/12/2019
Non-preferred Senior Unsecured Debt/ Senior Subordinated	BBB	—	—		12/12/2019
Subordinated Debt	BBB–	—	—		12/12/2019

Financial Review

Corporate structure

Legal corporate structure and organisation of management and control

In the first half of 2020, the legal corporate structure and the organisation of management and control remained unchanged compared with year-end 2019. Please refer to the "Corporate structure" section of Management's Discussion and Analysis in 2019 for statements in this connection.

The following changes occurred in the first half of 2020:

Supervisory Board

At the Annual General Meeting 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.

New members were elected to the Supervisory Board (shareholder representatives) of HVB:

Ms Finja Kütz, Dr Claudia Mayfeld and Dr Bernd Metzner. Furthermore, Mr Thomas Schöner was elected as a new member of the Supervisory Board in line with the provisions of the German Act on the Codermination of Employees in a Cross-border Merger (Gesetz über die Mitbestimmung der Arbeitnehmer bei einer grenzüberschreitenden Verschmelzung – MgVG). Their 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 Mr 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 for the area of the Chief Financial Officer (CFO).

The members of the Supervisory Board and Management Board of HVB are listed in the notes to the consolidated financial statements of this Half-yearly Financial Report in the notes "Members of the Supervisory Board" and "Members of the Management Board".

Team 23

Our new four-year Team 23 strategic plan focuses on growth, also in the current coronavirus environment. We aim to increase and strengthen our customer base, drive forward productivity and accelerate 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 next four 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 do this also 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.

Also, due to the changed initial situation as a result of the coronavirus pandemic, the Team 23 strategic plan will be reviewed to assess whether revisions are required as part of the routine year-end planning review.

Corporate acquisitions and sales, and other major changes in the group of companies included in consolidation

No major corporate acquisitions or sales were made in the first half of 2020.

Information on changes in the group of companies included in consolidation is provided in the Note "Companies included in consolidation" in the notes to the consolidated financial statements.

Economic report

Underlying economic conditions

Economic growth[1]	First half 2020[2]	Full year 2019	Main drivers of development in the first half of 2020
Global economy[3]	(5.1%)	2.9%	Global economic growth declined sharply in the first half of the year due to the coronavirus pandemic. The eurozone and the USA recorded the strongest slumps.
Eurozone countries	(11.7%)	1.2%	In the eurozone, GDP in France, Italy and Spain slumped. These countries were particularly hard hit by the coronavirus pandemic.
including: Germany	(9.3%)	0.6%	The collapse in economic activity in Germany in the first half of the year was mainly attributable to a marked decline in private consumption and export activity. By contrast, the construction sector and government consumption had a bolstering effect.
USA	(7.5%)	2.3%	The sharp fall in US growth in the first half of the year was due mainly to the sharp decline in private consumption, triggered by massive job cuts. The sharp downturn in corporate investments also had a negative impact.

1 Change in real GDP (in % compared with the previous year).
2 Sources: national authorities, UniCredit research forecasts.
3 Source: full year value expected by UniCredit Research (figures for first half of 2020 are not available).

Financial Review (Continued)

Sector-specific developments
The dominant theme in the first half year was the global coronavirus 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. Unlike the 2009 financial crisis, this crisis was not triggered by the banking sector. Rather, the banks are seen as a key building block to overcoming the crisis, which is why one of the main goals of policy makers and banking supervisory authorities 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 established economic stimulus programmes and set up guarantee programmes with a focus on corporate lending. All of these measures had direct or indirect positive effects on the general conditions for banks and their lending activities. In the last ECB Bank Lending Survey in July, the success of these measures was already apparent. Despite the severe economic contraction, European banks managed to maintain their lending activities and there was no indication of any procyclical constraint to lending.

On 12 March 2020, the European Central Bank announced far-reaching monetary and regulatory measures. Ample liquidity was made available to banks (a new long-term refinancing operations (LTRO) programme) and conditions were improved for the existing targeted long-term refinancing operations (TLTRO III). The modifications benefitting banks included a higher TLTRO draw-down framework, less stringent requirements for the credit growth target and an improvement to the pricing scheme of 25 basis points. Furthermore, in March, the ECB approved €120 billion in asset purchases by the end of 2020 in addition to its existing asset purchase programme (APP).

On 18 March 2020, the ECB announced another temporary asset purchase programme under the name of Pandemic Emergency Purchase Programme (PEPP). 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 the year. In June, the PEPP programme was expanded by a further €600 billion to a total of €1,350 billion. In addition, the ECB announced that it would reinvest all maturities until at least the end of 2022 in the PEPP programme. In April, the ECB again lowered the TLTLRO 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 draw a total of €1,308 billion of TLTLRO III funds. Transitional LTROs and TLTRO II were rolled into TLTLRO III and the additional net demand was €550 billion.

As an additional measure, the ECB approved a package of measures in April aimed at temporarily relaxing the criteria for collateral. This package of measures is designed to soften the increasingly stringent lending conditions in the eurozone leading to a temporary increase in risk tolerance within the euro system to support lending to the economy. Specifically, criteria for using loan receivables as collateral have been relaxed, valuation discounts for collateral have been reduced and the effects of credit-rating downgrades on the availability of collateral have been temporarily eased.

The comprehensive measures created a significant narrowing of the risk premiums for European sovereign bonds as well as corporate and bank bonds. The spread between risk premiums for 10-year Italian sovereign bonds and German sovereign bonds widened by a significant 119 basis points in the first quarter of 2020 before narrowing again in the second quarter of 2020 to 112 basis points. This development is due in part to the significant expansion of purchases by the ECB and by political progress on the issue of the EU Reconstruction Fund. 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 100 basis points in July. 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 by 2.2 percent to levels exceeding 20 percent.

At the same time, interest expectations have changed and the market is currently assuming negative interest rates over the long term. At the end of 2019, the market expectation was that a positive overnight index swap (OIS) rate would be reached by 2022, whereas in June 2020, this was not expected until 2030.

On the regulatory side, there were also comprehensive measures. The ECB eased 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 to reduce their capital conservation buffer. There has been a shift in the timing of a number of planned changes, 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). In addition, several national regulators reduced countercyclical capital buffers. With regard to liquidity indicators, the minimum requirements for the liquidity coverage ratio have been temporarily eased. In addition to the temporary easing of the capital requirements, supervisory authorities have advised banks to adopt a medium-term perspective with regard to building up loan-loss provisions in accordance with IFRS 9. The measures for combatting the coronavirus pandemic have led to significant distortions in the real economy. As a support measure, borrowers have been given the opportunity – either by the banks bilaterally or based on legal regulations – to temporarily postpone the payment of loan instalments (coronavirus loan moratorium). The flexibility with regard to IFRS 9 enables banks to continue classifying most loans affected by temporary moratoriums as performing loans. This softens the immediate negative impact on their profitability and shareholders' capital.

In addition, the ECB urged banks to refrain from making dividend payments to external investors and share buybacks at top group level until the end of 2020. At the end of June, further relief entered into force under what is known as the CRR quick fix. The amendments adopted to the Capital Requirements Regulation (CRR) came into force at the end of June 2020 and can be used for reporting as of the reporting date of 30 June 2020. The amendments include a series of measures that have a positive effect on the capital ratios of banks.

The Basel Committee had postponed the introduction of the finalised Basel IV standard from 2022 to 2023 by the end of March. 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 eased. Although the Single Resolution Board (SRB) is adhering to its original MREL timetable despite the coronavirus 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 the comprehensive measures. Although the Euro STOXX 50 declined by 18 percent in the first half of the year, the STOXX Europe 600 Banks fell by 36 percent over the same period. The below-average performance of the bank shares reflects the high degree of uncertainty about future macroeconomic development, the medium-term performance of non-performing loans and the expectation that interest rates will remain low over the long term.

In the USA, the yield on ten-year US treasury bonds fell significantly from over 1.8 percent at the end of 2019 to as low as 0.58 percent at the end of June 2020. The marked decrease is mainly attributable to the interest-rate policies of the American Federal Reserve Bank, which significantly cut the Federal Funds Rate from 1.75 percent at the end of 2019 in in two steps to only 0.25 percent, while the ECB left

Financial Review (Continued)

interest rates unchanged. The yield on the ten-year bonds of the Federal Republic of Germany also fell significantly in 2020 from a negative 22 basis points down to 86 negative basis points in March. The yield then rose again substantially to negative 48 basis points by the end of the year. The 3-month Euribor remained in the range of negative 40 basis points until mid-March but then rose again briefly to negative 16 basis points before falling again in mid-June to less than negative 40 basis points.

Up to May 2020, the euro depreciated slightly against the US dollar but starting in mid-May it appreciated very significantly, primarily following the political agreement between the EU Heads of State or Government regarding the Reconstruction Fund (Next Generation EU) and the new EU multi-annual budget.

Impact of the coronavirus pandemic

The coronavirus pandemic has impacted the business of HVB Group. HVB Group responded to the coronavirus at a very early stage and set up a crisis team, initiated protective measures, closed some branches, and shifted employees proactively to working from home as early as February. 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 – up to 80 percent at peak times – while maintaining our entire range of products and services for our customers. This applies in particular with regard to the crisis situations of borrowers caused by the coronavirus pandemic, in which customers were and continue to be dependent on the support of the Bank. Thus, HVB Group offered substantial support to customers seeking access to government subsidy programmes and quickly approved subsidised loans, such as those offered by the Kreditanstalt für Wiederaufbau (KfW).

Very few clients took advantage of 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 coronavirus pandemic. As such, instalments on loans with a volume of €0.5 billion were deferred for up to three months based on this legal moratorium. Furthermore, the Bank established a programme offering a three-month deferment on redemption payments for small and medium-sized enterprises. Under this programme, loans with a total volume of €0.1 billion were deferred for a period of up to three months. In addition, HVB took part in moratoriums of the development banks, deferring payments for borrowers of subsidised loans in accordance with the guidelines of the development banks. Loans, mainly from the KfW, with a volume of €7 million are affected by this moratorium.

The coronavirus pandemic has impacted the profit and loss of HVB Group; for instance, with regard to loan-loss provisions in the lending business. This is indicated in the presentation of HVB Group's operating performance and the forecast report/outlook in this Interim Management Report. Additional extraordinary effects to be addressed in the half-yearly financial report in conformity with the guidelines of the European Securities and Markets Authority (ESMA) in its additional requirements for disclosures of the effects of the coronavirus pandemic can currently be ruled out: HVB Group has not and will not apply for reduced hours for its staff. HVB Group will fulfil all of its liabilities in conformity with its contractual obligations. No write-downs of capital assets due to the coronavirus pandemic are necessary and the continuation of the Bank's operations is of course in no way called into question.

Operating performance of HVB Group

All the statements regarding the operating performance of HVB Group in this Interim Management Report refer to the structure of our income statement.

With effect from the end of 2019, HVB changed its measurement method and retrospectively introduced a fair value measurement of investment properties with subsequent correction. The retrospective adjustments are implemented in the following table. For further information on the changes in measurement methods, please refer to the “Accounting and Valuation” section in the notes to our 2019 consolidated financial statements.

INCOME/EXPENSES	1/1–30/6/2020 € millions	1/1–30/6/2019 € millions	CHANGE € millions	CHANGE in %
Net interest	1,291	1,149	+ 142	+ 12.4
Dividends and other income from equity investments	6	2	+ 4	>+ 100.0
Net fees and commissions	526	488	+ 38	+ 7.8
Net trading income	258	338	(80)	(23.7)
Net gains/(losses) on financial assets and liabilities at fair value	(206)	2	(208)	
Net gains/(losses) on derecognition of financial instruments measured at cost	2	5	(3)	(60.0)
Net other expenses/income	504	191	+ 313	>+ 100.0
of which: net valuation/disposal of investment properties	(1)	97	(98)	
OPERATING INCOME	**2,381**	**2,175**	**+ 206**	**+ 9.5**
Payroll costs	(725)	(723)	(2)	+ 0.3
Other administrative expenses	(620)	(617)	(3)	+ 0.5
Amortisation, depreciation and impairment losses				
on intangible and tangible assets	(62)	(379)	+ 317	(83.6)
Operating costs	**(1,407)**	**(1,719)**	**+ 312**	**(18.2)**
OPERATING PROFIT/(LOSS)	**974**	**456**	**+ 518**	**>+ 100.0**
Credit impairment losses IFRS 9	(467)	(80)	(387)	>+ 100.0
NET OPERATING PROFIT/(LOSS)	**507**	**376**	**+ 131**	**+ 34.8**
Provisions for risks and charges	8	288	(280)	(97.2)
Restructuring costs	(19)	—	(19)	
Net gains/(losses) on disposals of investments	—	13	(13)	(100.0)
PROFIT/(LOSS) BEFORE TAX AND IMPAIRMENT ON GOODWILL	**496**	**677**	**(181)**	**(26.7)**
Impairment on goodwill	—	—	—	—
PROFIT/(LOSS) BEFORE TAX	**496**	**677**	**(181)**	**(26.7)**
Income tax for the period	(167)	(287)	+ 120	(41.8)
PROFIT/(LOSS) AFTER TAX	**329**	**390**	**(61)**	**(15.6)**
CONSOLIDATED PROFIT/(LOSS)	**329**	**390**	**(61)**	**(15.6)**
attributable to the shareholder of UniCredit Bank AG	329	389	(60)	(15.4)
attributable to minorities	—	1	(1)	(100.0)

Financial Review (Continued)

Net interest

In the first half of 2020, net interest came to €1,291 million compared with €1,149 million in the previous-year period and was thus €142 million or 12.4% higher than last year's figure. The rise in net interest is based in part on interest income arising from a tax refund and an expansion of the lending business in the Corporate & Investment Banking business segment (CIB).

Dividends and other income from equity investments

Dividends and other income from equity investments amounted to €6 million in the reporting period, which represents a significant increase of €4 million. The income is solely attributable to income from dividends in both the reporting and the previous-year period.

Net fees and commissions

In the reporting period, net fees and commissions amount to €526 million and are thus a slight €38 million or 7.8% higher than the previous-year period. The main reason for the rise in net fees and commissions is greater demand from companies for equity and borrowings using capital market products.

Net trading income

In the first half of 2020, there was a significant decline of €80 million, or 23.7%, to €258 million in net trading income. Net trading income was weighed down by valuation discounts in the context of the fair value measurement of derivatives, particularly credit value adjustments and funding value adjustments, which are partly due to the market turbulence surrounding the coronavirus pandemic.

Net gains/(losses) on financial assets and liabilities at fair value

The result from financial assets and liabilities at fair value shows a loss of €206 million for the reporting period, which is a very substantial €208 million lower than the gain of €2 million reported in the previous-year period. This was impacted in the first half of 2019 by the increase of €11 million to €50 million in losses from the fair value measurement of financial assets that are required to be measured at fair value. The key driver in this connection was the widening of the credit spreads of the securities holdings affected. Even though these are issuers with first-class credit ratings, such as German federal states, the spreads have widened to the bonds issued by the Federal Republic of Germany against the background of the coronavirus pandemic. In addition, the fair value measurement of financial liabilities designated at FVTPL resulted in losses of €158 million, which represents a sharp rise of €120 million compared with the previous-year period.

Net gains/(losses) on derecognition of financial instruments measured at cost

This item reports a gain of €2 million, which is a very substantial decline of €3 million compared with the previous-year figure of €5 million. It mainly includes gains on the sale of assets measured at cost. These are generally intended to be held so that they are sold only in exceptional cases.

Net other expenses/income

Net other expenses/income reports an income of €504 million in the reporting period and is thus a very distinct €313 million higher than the comparable figure of €191 million in the previous-year period. This total contains income from the sale of land and buildings of €549 million as well as expenses of €126 million for the bank levy. On account of the sales in the previous year, there has been a sharp decline in other income (revenue from the BARD Offshore 1 wind farm, among others). For details, please refer to the Note "Net other expenses/income" in the notes to the consolidated financial statements.

Operating costs

Operating costs amounted to €1,407 million in the first half of 2020 and were thus a significant €312 million or 18.2 percent down on the previous-year figure of €1,719 million. This is mainly due to the decline of €317 million to €62 million in amortisation, depreciation and impairment losses on intangible and tangible assets. The previous-year period contains the unscheduled write-down on the Bard Offshore 1 wind farm, which was classified as IFRS 5. Payroll costs and the various other administrative expenses increased only very slightly compared with the previous-year period.

Operating profit (before credit impairment losses IFRS 9)
Operating profit (before credit impairment losses IFRS 9) amounted to €974 million in the reporting period and thus rose sharply by €518 million compared with the previous-year figure of €456 million. The rise in operating income is mainly due to the positive net amount from net other income/expenses in connection with the proceeds from the sale of land and buildings. Both net interest and net fees and commissions contributed to operating profit with a rise in income whereas the decline in net trading income and the slight rise in payroll costs had a negative effect. Other administrative expenses fell significantly due to the non-recurrence of the unscheduled depreciation on the BARD Offshore 1 wind farm in the previous-year period.

The cost-income ratio (ratio of operating expenses to operating income) thus improved very significantly to 59.1% in the first half of 2020 after 79.0% in the previous-year period.

Credit impairment losses IFRS 9
While credit impairment losses IFRS 9 came to €80 million in the first half of 2019, thus benefiting from the positive economic development in Germany in recent years, this figure rose sharply to €467 million in the first half of 2020. The increase is mainly attributable to a rise in portfolio valuation allowances of €274 million where especially the adjustment of the assumptions used to reflect future economic conditions had an effect. In particular, the assumption that Germany's gross national product would contract by 10 percent in 2020 followed by an anticipated increase in the German gross national product by 10 percent in 2021 was a key parameter among several that was adjusted in the model. These adjustments were the cause of the increase in portfolio valuation allowances. This scenario is one of three scenarios taken into account when calculating anticipated credit losses. The parameters were updated in the context of periodic parameter adjustment in the second half of the year. Part of this adjustment involves adapting to new estimates of gross national product development, such as the updated forecasts for German gross national product growth rates published by the economic research unit of HVB in late June 2020. By contrast, transfers to the specific allowances in the first half of 2020 (net €193 million) are mainly based on a few large individual cases.

Provisions for risks and charges
In the first half of 2020, net income from the reversal of provisions for risks and charges amounted to €8 million. The net income of €288 million reported in the previous-year period from the reversal of provisions is related to a settlement the Bank reached in April 2019 with the US and New York authorities to conclude the proceedings for violations of US financial sanctions in the period from 2002 to 2012. Since the amounts payable according to the settlement were lower than the provisions set up for it in the previous years, it was possible to reverse the excess last year.

Net gains/(losses) on disposals of investments
While in the first half of 2020 there were no relevant sales and thus no gains or losses on the disposal of investments, this item in the previous-year period reports a net gain of €13 million, which is largely attributable to the sale of SwanCap Partners GmbH, an associated company accounted for using the equity method.

Profit before tax and impairment on goodwill
In the first half of 2020, HVB Group generated a solid profit before tax and impairment on goodwill of €496 million, which represents a significant decline of €181 million or 26.7% on the previous-year period. The rise in operating income and the decline in operating costs could only offset to a limited extent the sharp increase in credit impairment losses IFRS 9 compared with the previous-year period. A comparison with the previous-year period must take account of the amortisation, depreciation and impairment losses on intangible and tangible assets and the positive net amount for provisions for risks and charges reported in the previous year.

Financial Review (Continued)

Impairment on goodwill
There was no impairment on goodwill in the reporting period or in the previous-year period.

Profit before tax, income tax for the period and consolidated profit
In the first half of 2020, HVB Group generated a solid profit before tax of €496 million, which, however, is a significant €181 million or 26.7% lower than the profit before tax of €677 million generated in the previous-year period.

Income tax expense amounted to €167 million in the reporting period and was thus €120 million or 41.8% sharply down on the income tax expense of €287 million in the previous-year period, particularly as a result of the decline in profit.

After deducting income tax, HVB Group generated a consolidated profit of €329 million in the first half of 2020, which represents a significant decline of €61 million or 15.6% compared with the consolidated profit of the previous-year period of €390 million.

Return on allocated capital
The profitability ratio return on allocated capital (RoAC) shows the annualised consolidated profit of HVB Group (accruing to the HVB shareholder) as a ratio of allocated capital. With RoAC, allocated capital is determined on the basis of the average risk-weighted assets (including equivalents for market risk and operational risk) whereby 12.45 percent equity is allocated to the average risk-weighted assets. In the reporting year, this ratio slipped to 6.0 percent compared with 7.5 percent in the previous year.

Segment results by business segment
The structure of the income statement used for internal management purposes is shown; any deviations to the presentation in the operating performance as well as comments on the economic performance of the individual business segments are shown in the Note "Income statement, broken down by business segment" in the notes to the consolidated financial statements. For a detailed description of the tasks of each business segment, please refer to the Note "Components of segment reporting by business segment" in the notes to the 2019 consolidated financial statements.

(€ millions)

OPERATING INCOME	1/1–30/6/2020	1/1–30/6/2019
Commercial Banking	1,092	1,101
Corporate & Investment Banking	613	885
Group Corporate Centre	87	62
Other	32	40
Consolidation	(4)	(11)
Total	**1,820**	**2,077**

(€ millions)

PROFIT/(LOSS) BEFORE TAX	1/1–30/6/2020	1/1–30/6/2019
Commercial Banking	17	348
Corporate & Investment Banking	(152)	164
Group Corporate Centre	86	119
Other	545	48
Consolidation	—	(2)
Total	**496**	**677**

(€ millions)

CONSOLIDATED PROFIT/(LOSS)	1/1–30/6/2020	1/1–30/6/2019
Commercial Banking	7	209
Corporate & Investment Banking	(149)	49
Group Corporate Centre	103	94
Other	368	39
Consolidation	—	(1)
Total	**329**	**390**

Financial situation

Total assets

The total assets of HVB Group increased by €14.4 billion, or 4.8%, to €318.0 billion at 30 June 2020 compared with year-end 2019.

On the assets side, cash and cash balances fell sharply by €8.3 billion to €17.9 billion, which is exclusively due to the decrease in credit balances at central banks.

By contrast, financial assets held for trading increased by a substantial €10.6 billion to €80.5 billion, mainly on account of higher positive fair values of derivative financial instruments (up €11.2 billion) and other financial assets held for trading (up €1.2 billion). There were declines of €0.9 billion in both fixed-income securities and in equity instruments respectively.

The portfolio of financial assets at FVTPL fell slightly by €0.8 billion to €14.7 billion compared with year-end 2019.

Financial assets at FVTOCI also declined marginally by €1.2 billion to €13.5 billion compared with the previous year.

Loans and receivables with banks rose slightly by €3.8 billion to €35.6 billion, which is mainly attributable to the increase in the reverse repo volume (up €2.2 billion), cash collateral (up €1.0 billion) and securities (up €0.5 billion).

Loans and receivables with customers increased by €10.7 billion to €150.4 billion. This slight rise is primarily due to larger volumes of securities (up €4.2 billion), other loans and receivables (up €4.4 billion) and reverse repos (up €1.3 billion). An increase of €0.7 billion was reported in mortgage loans.

The item "Non-current assets or disposal groups held for sale" was down by €0.4 billion to €4 million as a result of disposals carried out in the first quarter of 2020 (essentially the sale of the "Am Tucherpark" site).

On the liabilities side, the item "deposits from banks" rose a slight €0.7 billion to €69.6 billion. The main increases were €11.2 billion in deposits from central banks and €5.2 billion in other liabilities whereas decreases were posted in repos of €13.3 billion and in term deposits of €4.2 billion. Deposits from central banks were affected by the participation in the TLTRO III programme, under which HVB Group raised significantly higher funds than were simultaneously required for repayment under the TLTRO II programme.

There was a slight rise of €5.8 billion to €131.2 billion in deposits from customers. This increase is primarily due to the volume of current accounts (up €2.8 billion), term deposits (up €2.1 billion) and cash collateral (up €1.6 billion). By contrast, there was a decline of €0.5 billion in repos.

Compared with year-end 2019, there was a slight increase in debt securities in issue, which were up by €2.3 billion to €30.6 billion.

Financial liabilities held for trading rose significantly by €10.2 billion to €56.9 billion compared with year-end 2019. The increase is attributable the negative fair values from derivative financial instruments amounting to €7.9 billion and other financial liabilities held for trading in the amount of €2.3 billion.

Financial Review (Continued)

Shareholders' equity shown in the balance sheet decreased by €2.9 billion to €16.0 billion at the reporting date. The main reason for the decline is the resolution adopted at the Annual Shareholders' Meeting held on 23 June 2020 on the distribution of the 2019 profit of €3.3 billion available for distribution. Even though the payment will not be made to UniCredit S.p.A., Milan, Italy, until 2 November 2020, UniCredit S.p.A. has a claim to the payment based on the resolution that was passed so this obligation is reported as a liability. Other comprehensive income of €0.02 billion and consolidated profit of €0.3 billion for the first half of 2020 were unable to offset this decline.

Further and more detailed information on the individual items of the balance sheet is contained in the "Notes to the Balance Sheet" and in "Other Information" in the notes to the consolidated financial statements.

Contingent liabilities and other commitments not recognised in the balance sheet amounted to €83.4 billion at the reporting date compared with €77.5 billion at the end of the previous year. This figure includes contingent liabilities in the form of financial guarantees of €25.2 billion (year-end 2019: €25.7 billion) and other commitments of €58.2 billion (year-end 2019: €51.8 billion) almost exclusively related to irrevocable credit commitments. These contingent liabilities are offset by contingent assets of the same amount.

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

The total risk-weighted assets of HVB Group (including market risk and operational risk) determined in accordance with the Capital Requirements Regulation (Kapitaladäquanzverordnung – CRR II) amounted to €89.7 billion at 30 June 2020 and were thus €4.2 billion higher than at year-end 2019. This is mainly due to the risk-weighted assets for credit risk (including counterparty default risk), which rose by €2.1 billion to €68.2 billion and the risk-weighted assets for market risk, which increased by €2.1 billion to €12.3 billion, while the risk-weighted asset equivalents for operational risk remained almost constant (€9.1 billion).

At 30 June 2020, Common Equity Tier 1 capital compliant with the CRR II excluding hybrid capital (CET1 capital) and Tier 1 capital of HVB Group amounted to €14.6 billion and thus fell compared with year-end 2019 (31 December 2019: €15.0 billion in accordance with approved consolidated 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 the CRR II (including market risk and operational risk) amounted to 16.3% at 30 June 2020 (31 December 2019: 17.5% in both cases). The decline is attributable to the decrease in Common Equity Tier 1 capital and an increase in risk-weighted assets. Own funds came to €16.1 billion at 30 June 2020 (31 December 2019: €15.5 billion in accordance with approved consolidated financial statements). The own funds ratio was 17.9% at 30 June 2020 (31 December 2019: 18.1%).

The leverage ratio is determined by setting the Tier 1 capital measure against the total exposure measure. The total exposure measure is the sum total of the exposure values of all assets and off-balance sheet items. In accordance with the Commission Delegated Regulation (EU) 2015/62, the leverage ratio of HVB Group in accordance with approved consolidated financial statements amounted to 3.9% at 30 June 2020 (31 December 2019: 4.3%).

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.

On 1 April Moody's confirmed HVB's ratings. The counterparty risk rating (CRR) A1/P-1, the senior unsecured rating A2/P-1, the issuer credit rating A2, the deposit rating A2/P-1 and the stand-alone rating baa2 were affirmed. At the same time, the outlook was set from "stable" to "negative". Adjusting the outlook to "negative" indicates that in the event of a downgrade of the stand-alone rating of UniCredit S.p.A. as a result of a deterioration in the operating environment caused by the coronavirus pandemic, HVB's stand-alone rating might also be lowered. On account of the interdependence between UniCredit S.p.A. and HVB, Moody's sets HVB's stand-alone rating at a maximum of one notch below the stand-alone rating of UniCredit S.p.A.

Fitch lowered HVB's ratings by one notch in May 2020. Among others, the counterparty risk rating was lowered from A-(dcr) to BBB+(dcr), the senior preferred and the deposit rating from A-/F2 to BBB+/F2, the senior non-preferred rating from BBB+ to BBB, the issuer default rating from BBB+/F2 to BBB/F2 and the viability rating (stand-alone rating) from bbb+ to bbb. Fitch made the decision to lower ratings after the parent company UniCredit S.p.A. was downgraded to "BBB-"/stable/"F3" from "BBB"/negative/"F2" as Fitch sees an increased risk in HVB's financial strength deteriorating due to the weaker parent company on account of the interdependence between UniCredit S.p.A. and HVB. The outlook 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, particularly in view of UniCredit's preferred "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 is BBB+/A-2 and the senior subordinated debt rating at BBB. The negative outlook for the issuer credit rating of HVB indicates that HVB's rating might be lowered and reflects the uncertainties regarding the implementation of UniCredit's resolution strategy and its effects on HVB.

Financial Review (Continued)

Report on subsequent events (events after the reporting period)

There were no significant events at HVB Group after 30 June 2020 to report.

Forecast report/Outlook

The following comments on the outlook are to be viewed in connection with those in the Financial Review and the Risk Report in Management's Discussion and Analysis of the 2019 Annual Report.

General economic outlook
The coronavirus pandemic will continue to have profound consequences for global economic development. The pandemic has not only had a negative impact on global supply chains but has also triggered a substantial decline in overall economic demand, which is only slowly recovering. The introduction of restrictive measures has flattened the epidemic's curve in many countries. The current gradual lifting of these measures will increasingly revitalise economic activity, yet it is causing uncertainty regarding the possibility of a second wave of infections. According to Johns Hopkins University, more than fourteen million people have been infected with the SARS-CoV-2 coronavirus (as at July 2020). The USA is by far the country most severely affected by the pandemic worldwide, followed by Brazil, India and Russia. Among the most severely affected countries in Europe are the United Kingdom, Spain, Italy, France and Germany.

The restrictive measures put in place worldwide are likely to cause a heavy slump in the global economy in 2020 (status as at June 2020; cf. publication of UniCredit Research 2020 The UniCredit Economics Chartbook, "The trough is behind us, but it is a long way back to normal", third quarter 2020, published in June 2020). Following 2.9 percent growth in global economic output in 2019, we expect a decline of 5.1 percent in 2020. In addition to the USA, the eurozone will also enter into recession this year. This is due to a severe economic contraction in the first half of 2020 and the fact that the acceleration of economic activity is proceeding at such a slow pace in the second half of the year following the gradual lifting of coronavirus restrictions. In addition to the negative effects of the coronavirus pandemic, the contraction in Chinese growth for structural reasons coupled with the ongoing trade conflict between the USA and China are having a dampening effect on the global economy. However, the monetary and fiscal measures to boost the economy, initiated in 2019, should help to protect economic activity in China from a recession this year.

In our baseline scenario we assume that the infection-rate curves in developed economies will continue to flatten over the course of the second half of the year and that restrictions (such as social-distancing measures) will continue to be relaxed. 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. Moreover, we still do not expect the USA to impose tariffs on European cars, even though the threats of possible tariffs are likely to continue. Following Boris Johnson's win in the Brexit election, the United Kingdom ended its EU membership on 31 January 2020 and has since entered a transition phase lasting until the end of 2020. During this phase, the long-term relationship between the United Kingdom and the EU is to be renegotiated, yet the progress of the negotiations is very slow. Due to the short transition period only a limited trade agreement between the two parties is likely to be concluded so that considerable uncertainties remain with regard to an exit without any agreement. We currently anticipate that there is little risk that the budget negotiations between Italy and the EU Commission in autumn 2020 could weigh on the markets. We also consider it unlikely that Italy will hold early elections in 2020 or 2021.

The predicted sharp decline in the US economy will have a marked negative impact on the global economy in 2020. We expect that the after-effects of the coronavirus pandemic, such as the growing number of new coronavirus cases in the southern and western United States and the associated reintroduction of restrictive measures will weigh on GDP in the USA in the second half of the year. We also suspect that the fiscal stimulus initiated by the government totalling nearly three trillion USD (13.5 percent of 2019 GDP), is not adequately targeted. On the one hand, very generous unemployment benefits could slow the rebuilding of the labour market and, on the other hand, a premature withdrawal of crisis-related loans as well as increased support for the unemployed could have a negative impact on the economic activity in the second half of the year. In addition, we expect the continuing trade tensions between the USA, China and Europe to continue to undermine the confidence of US companies.

During the coronavirus 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 2022. In addition, it promised to maintain its bond purchases at the current rate of USD 80 billion per month in the coming months. We also expect the Fed to introduce flexible average inflation targeting and yield curve control later this year, up to a maturity of two to three years.

For the eurozone, we forecast an 11 percent decline in GDP in 2020. After a considerable slump in the first half of the year, economic activity should pick up again significantly in the third quarter of 2020, when the pent-up demand will gradually be released. However, since the pent-up demand will probably come to an end in the fourth quarter of 2020, we expect a rather weak rebound in economic activity towards the end of the year, especially as fear of a second wave of infection is already likely to be having a negative impact. As a result of the restrictive measures due to the coronavirus pandemic, the savings ratio in the eurozone has increased significantly. Although there are initial signs of a recovery in private consumption, further "precautionary savings" by households and subdued labour market prospects are likely to dampen household consumption expenditure this year. Weak business prospects coupled with high uncertainty are also likely to dampen business investment, while the weakness of the global economy will hamper external demand for eurozone goods and services. The construction sector, by contrast, has proven to be quite resilient and we do not expect any significant change in these trends, especially as the Reconstruction Fund proposed by the EU Commission provides for the promotion of promising investments, such as the expansion of modern infrastructure.

Financial Review (Continued)

The European Central Bank (ECB) has left its refinancing rate unchanged at zero during the coronavirus pandemic, introduced a temporary Pandemic Emergency Purchase Programme (PEPP) for bonds in the amount of €750 billion and expanded its longer-term refinancing operations (TLTRO III). In view of the increasing downward pressure on inflation, the ECB increased the size of the PEPP by €600 billion to a total of €1.35 trillion at its meeting on 4 June 2020 and extended its duration until at least the end of June 2021. The ECB also announced that it would reinvest maturing PEPP bonds until at least the end of 2022. As we expect underlying inflation to remain weak in the foreseeable future and large new issues of debt instruments, the ECB is likely to remain active in financial markets for a long time, so it can be assumed that the term of the PEPP will be extended. The first TLTRO III operation with improved conditions, allowing banks to borrow at interest rates as low as minus 1 percent, received a record allocation of €1.3 trillion. This will help to keep the maturity structure of money market rates close to the deposit rate.

On a country level, we forecast a decline in GDP in Germany of 8.0 percent (calendar-adjusted: down 8.3 percent) this year compared with the previous year (GDP growth in 2019: up 0.6 percent). In France, on the other hand, GDP in 2020 is expected to fall more sharply by 12.3 percent compared with the previous year (GDP growth in 2019: up 1.5 percent). This year, we expect Italy's economic output to decline by 14.0 percent compared with the previous year (GDP growth in 2019: up 0.3 percent), while the decline in Spain is likely to be somewhat more severe at 14.5 percent (GDP growth in 2019: up 2.0 percent). The UK economy will probably contract by 9.0 percent this year (GDP growth in 2019: up 1.4 percent).

The coronavirus pandemic also hit Germany hard in the first half of the year. Overall, however, the German economy, including the industrial sector, has made a good recovery since its low in April. This is indicated by the latest publications of the truck toll mileage index, which signals a revival of industrial activity after May in June and July. However, despite the recent recovery, GDP will decline significantly in the second quarter of 2020. In the second half of 2020, however, we expect economic activity in Germany to recover significantly, which is likely to be due primarily to increased consumer spending by private households and an upturn in companies' export activities. Even so, economic activity in the second half of the year will probably remain below pre-crisis level. The second stimulus package adopted by the German government, which includes a temporary reduction in VAT, is worth €130 billion (almost 4 percent of GDP) and is only slightly lower than the level of the first package adopted in March (€156 billion). It consists of two parts, the first of which is aimed at stimulating the economy in the short term (almost €80 billion), while the second is what is referred to as a "pact for the future", which includes longer-term objectives such as climate protection and digitisation (over €50 billion). The volume of the VAT reduction amounts to €20 billion (0.6 percent of GDP), two-thirds of which we expect businesses to pass on to consumers in the form of lower prices. Sooner or later, the reduction in VAT should then be reflected in higher private consumption expenditure.

Banking sector development in 2020

The first half of 2020 was marked by the coronavirus pandemic. The measures taken to contain the spread of the virus led to a very sharp slump in economic performance, with an equally negative impact on banks.

However, European banks were in a good starting situation when the crisis began. Non-performing loans were reduced significantly from 6.4 percent in 2014 to 2.7 percent at the end of 2019, especially in countries with high NPL ratios, such as Portugal, Italy and Ireland. In addition, equity has been strengthened in recent years and the liquidity situation is very good. A weak point in the European banking market remains the relatively low profitability, which is subject to additional pressure in 2020. The largest European banks generated a return on equity of 6.5 percent in 2019, which is significantly below the profitability of the largest US banks, at 12 percent. In addition, the European banking market presents a highly heterogeneous picture in terms of profitability. More than half of the European countries achieved an equity return of more than 8 percent in 2019, while other markets report equity returns well below the cost of equity.

In the first quarter of 2020, European banks posted significantly higher loan-loss provisions, which on average were about three times higher than the level of the previous year. The high level of loan-loss provisioning will continue in the second quarter of 2020. In addition, the price of oil fell very sharply, which led to additional loan-loss provisions for some banks in the first quarter. The higher loan-loss provisions put additional pressure on the profitability of European banks. 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.

The asset quality of European banks will most likely be affected by the crisis with a significant time lag, which means a more substantial increase in non-performing loans will not occur until the end of 2020 and 2021. The numerous government guarantee programmes 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 bridging loan with partial government guarantee granted as a support measure defaults. In addition, 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 credit moratoriums are a major uncertainty. In some countries more than 10 percent of outstanding loans are affected and it is difficult to estimate how many borrowers will actually default after the moratoriums expire. Due to the flexibility in the application of IFRS 9 encouraged by the supervisory authorities, most loans affected by the credit moratoriums are not yet classified as non-performing loans. Hence, it is very likely that the reported asset quality figures of banks in the first and second quarter of 2020 underestimate the imminent significant deterioration in asset quality.

Financial Review (Continued)

The performance of banks in the area of net interest income is positively influenced by the very favourable TLTRO III conditions and the resulting opportunities for the banks in the ALCO portfolio to offset part of the pressure on margins and the effects of the low interest rate environment. In addition, for some banks the fixed income area in investment banking contributed to a stabilisation of operating results in the first half of the year.

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 capital of some banks. The suspension of dividends, the CRR quick fix, the government guarantee framework for corporate loans and a partial repayment of drawn credit lines by companies will again have a positive effect on the equity ratio in the second quarter of 2020.

Development of HVB Group

For the macroeconomic environment in Europe and worldwide we expect an upswing in the second half of 2020 after the severe recession caused by the coronavirus pandemic in the second quarter of 2020. Against the overall backdrop of the continuing coronavirus pandemic, forward-looking statements on performance are unreliable.

In this environment, we expect to generate a profit before tax in the 2020 financial year, which we believe will be a solid result in view of this very environment. In particular, the sale of real estate realised in early 2020 will contribute to this result.

As previously described in the "Team 23" section, the new plan is based on the four pillars, "Grow and Strengthen Client Franchise", "Transform and Maximise Productivity", "Disciplined Risk Management & Controls" and "Capital and Balance Sheet Management". These measures are intended to open up further growth opportunities and efficiency gains. Due also to the change in the starting situation as a result of the coronavirus pandemic, the Team 23 strategic plan will be checked in the course of the usual year-end planning review to determine whether there is a need for adjustment.

In the context of the support measures made available to our customers as a result of the pandemic, we have seen few customers availing of the option to defer loans to date. Customers have applied in large numbers for the loans offered as assistance through the KfW.

For 2020, due mainly to the effects of the coronavirus pandemic, we expect a very significant rise in net write-downs of loans and provisions for guarantees and commitments in the first half of 2020 compared with the low level in 2019.

Despite the environment that has been severely affected by the coronavirus pandemic, we nevertheless expect HVB Group to generate profit before tax for the 2020 financial year that we consider to be solid, given the present circumstances. Although we assume a recovery in operating income in view of the effects of the coronavirus pandemic, which impacted particularly net trading income in the first quarter, operating income will fall short of the previous year's level overall, which is also a result of the previous year's sales (among others, proceeds from the sale of the BARD Offshore 1 wind farm). Due to the sale of our wind farm, a decline in operating costs is also expected compared with the previous year. Together with the sharp rise in net write-downs of loans and provisions for guarantees and commitments, the development in operating profit will ultimately lead to a decline in profit before tax that cannot be offset by the successfully completed sale of real estate. The profit before tax will therefore be markedly lower than the profit of the previous year.

We expect all business segments to recover in the second half of 2020. For the CIB business segment in particular, we forecast a significant improvement in profits due to the recovery in net trading income. The Commercial Banking business segment benefited from a strong start to the year, which will probably lead to a stable level of operating income compared with the previous year. The result of the Group Corporate Centre (GCC) business segment includes the positive effect from a successfully concluded legal dispute, which can however only partly offset the decline in rental income after the sale of real estate, which was successfully completed in early 2020. This sale will be shown in the Other business segment and has resulted there in a very significant increase in profit before tax compared with the previous year.

As regards HVB Group's capital base, we anticipate that the CET1 capital ratio will remain unchanged in a range of between 15% and 17% for the 2020 financial year.

The opportunities in terms of future business policy and corporate strategy, performance and other opportunities were described in detail in the 2019 Management's Discussion and Analysis of HVB Group in the section entitled "Forecast report/Outlook". The statements made in that report continue to apply in principle.

Risk Report

HVB Group as a risk-taking entity

By their very nature, the business activities of HVB Group are subject to risk. HVB Group 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 our Group. 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 Group. The opportunities are presented separately in Management's Discussion and Analysis of the 2019 Annual Report in the section entitled "Opportunities in terms of future business policy and corporate strategy, performance and other opportunities". The statements made in that section basically remain valid.

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

The income statements for each business segment and comments on their economic performance are provided in the Note "Income statement, broken down by business segment" in the notes to the consolidated financial statements. The contents and objectives of the individual business segments are described in detail in the Note "Components of segment reporting by business segment" and the Note "Method of segment reporting by business segment" in the 2019 Annual Report.

All HVB Group companies that are included in the consolidated financial statements of HVB Group prepared in accordance with International Financial Reporting Standards (IFRS) are incorporated in the risk management programme of HVB Group. As part of the Internal Capital Adequacy Assessment Process (ICAAP), these Group companies are classified into the categories "large", "medium", "small plus" and "small" by applying various criteria such as market position, scope of business activities and complexity of the risk profile or portfolio structure. With the exception of the Group companies classified as "small", which are subject to a simplified approach to risk measurement, the economic capital is measured differently for the individual risk types.

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 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 Group 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 Group 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 changes in the fair value of the real estate portfolio of HVB Group. Besides the real estate owned by HVB, the HVB Group portfolio also includes the real estate owned by the real estate holding companies, the subsidiaries (group of companies included in consolidation according to IFRS) and special purpose vehicles (SPVs). No land or properties are included that are held as collateral in lending transactions.
- **Business risk** is defined as losses from unexpected negative changes in the business volume and/or margins that are not attributed to other risk types. It can lead to long-term losses in earnings, thereby diminishing the fair value of the company. Business risk can result above all from a serious deterioration in the market environment, changes in the competitive situation or customer behaviour, changes in the cost structure, and changes in the underlying legal conditions.
- **Pension risk** can occur 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 Group's equity interests. HVB Group'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 included in the consolidated financial statements according to IFRS principles or are not included in market risk.
- **Strategic risk** results from management either not recognising early enough or not correctly assessing significant developments or trends in the Bank's environment. As a consequence, fundamental management decisions could, in retrospect, prove to be disadvantageous in terms of the bank's long-term goals. In addition, some decisions may be difficult to reverse or cannot be reversed at all. In the worst case, this can negatively impact the profitability and risk profile of HVB Group.
- **Reputational risk** is defined as the risk of negative effects on the income statement caused by adverse reactions by stakeholders due to a changed perception of the Bank. This altered perception may be triggered by a primary risk such as credit risk, market risk, operational risk, liquidity risk, business risk, strategic risk or independently of any triggering primary risk.

Risk Report (Continued)

Integrated overall bank management

Risk management

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

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.

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 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.

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

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

Functional separation

In addition to Bank-wide risk management, integrated overall bank management is accompanied by comprehensive functionally and organisationally independent risk controlling and risk monitoring 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 senior management is responsible for controlling operational risk and reputational risk with the support of the relevant operational risk managers.

Controlling the business risk consists mainly of the planning of earnings and costs by the individual business segments, which the CFO organisation proactively coordinates. The relevant business segments are responsible for controlling the financial investments. The real estate risk arising from the property portfolio within the Group is controlled centrally by the Chief Operating Office (COO) unit. Within HVB Group, this is performed by the Real Estate unit, HVB Immobilien AG and the UniCredit Services S.C.p.A., which was engaged by HVB Immobilien AG by way of a service level agreement. HVB Group 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 Group. 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. 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.

Implementation of overall bank management

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

Risk Report (Continued)

The HVB Group risk strategy is derived consistently from the business strategy, supplementing it with the relevant aspects of risk management. In this context, HVB Group's risk strategy encompasses the risk types of credit risk and market risk together with their controlling using the economic capital and risk-type-specific limits, as well as operational risk, financial investment risk, real estate risk and business risk, which are controlled using only the economic capital. In addition, a qualitative description is provided of the strategic objectives for reputational risk, strategic risk, liquidity risk, pension risk and 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 metrics defined for the overall bank management of HVB Group are reviewed in the annual budgeting process; they are used to assess the success of the business strategy and the risk strategy. Earnings targets, risk targets, liquidity targets and capital targets are defined in the budgeting process together with the targeted risk-taking capacity at overall bank level. The limits for 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 groupwide 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 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, liquidity and leverage ratio of HVB Group" in the Financial Review of this Interim Management Report of HVB Group.

It has been agreed with the relevant regulators that HVB and HVB Group will not fall below a total capital ratio of 13%. This agreement will remain in force until further notice. The total capital ratio of HVB Group was 17.9% at the end of June 2020 (31 December 2019: 18.1%).

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), a premium for pension risk and financial investment risk and the economic capital for small legal entities. The economic capital measures the potential for unexpected loss over a time horizon of one year with a confidence level of 99.90%. 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. The economic capital for small legal entities of HVB Group is calculated with no differentiation by risk type.

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.

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%)

	30/6/2020		31/12/2019	
Broken down by risk type	€ millions	in %	€ millions	in %
Credit risk	3,273	44.0	3,248	46.1
Market risk	1,870	25.1	1,617	23.0
Operational risk	418	5.6	412	5.9
Real estate risk	200	2.7	322	4.6
Business risk	376	5.1	354	5.0
Reputational risk	47	0.6	n/a	
Aggregated economic capital	**6,184**	**83.1**	**5,952**	**84.6**
Pension risk	770	10.3	615	8.7
Financial investment risk	239	3.2	222	3.2
Model risk cushion	159	2.1	158	2.2
Economic capital of small legal entities	91	1.2	91	1.3
Internal capital of HVB Group	**7,442**	**100.0**	**7,038**	**100.0**
Available financial resources of HVB Group	**15.655**		**16,061**	
Risk-taking capacity of HVB Group, in %	**210.4**		**228.2**	

Contains rounding differences.

Internal capital rose by €404 million in comparison to 31 December 2019.

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%)

	30/6/2020		31/12/2019	
Broken down by business segment	€ millions	in %	€ millions	in %
Commercial Banking	1,574	24.1	1,478	23.6
Corporate & Investment Banking	4,559	70.0	4,302	68.7
Group Corporate Centre	174	2.7	166	2.6
Other	207	3.2	319	5.1
Consolidation	—	—	—	—
Internal capital (without pension risk and without the model risk cushion) of HVB Group	**6,513**	**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". 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 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 Group 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 2019 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. The available financial resources at HVB Group totalled €15,655 million as at 30 June 2020 (31 December 2019: €16,061 million).

With internal capital (including the model risk cushion) of €7,442 million, the risk-taking capacity for HVB Group is 210.4% (31 December 2019: 228.2%). This figure is higher than the target of 170% HVB Group set itself in the 2020 risk appetite framework. The decline of 17.9 percentage points in comparison with 31 December 2019 for HVB Group is attributable to a rise of €404 million or 5.7% in internal capital in the first half of 2020. The available financial resources have fallen by €406 million or 2.5%. The decline in available financial resources is largely due to a reduction in the core capital.

Risk Report (Continued)

Limit concept

The risk limit system is a key component of the ICAAP at HVB Group. Its purpose is to guarantee 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, financial investment risk, any model risks and the economic capital for small legal entities are included in the internal capital by means of a cushion.

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

The internal capital limits are allocated at the level of HVB Group broken down by risk type and for the internal capital as a whole. Based on the aggregate limit set for internal capital, the risk-taking capacity of HVB Group is guaranteed at each reporting date.

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

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 in the first half of 2020, particularly in view of the coronavirus pandemic, the aforementioned downturn scenarios and the underlying baseline scenario are reviewed, and the corresponding macroeconomic parameters and market parameters are adjusted.

The stress tests across risk types are presented and analysed within the Stress Test Council on a quarterly basis and any measures required are presented to the Risk Committee and the Management Board of HVB. Both the risk-taking capacity and the minimum requirements for regulatory capital ratios of HVB Group 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.

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 Group 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 Group and by means of questionnaires, among other things. This interview also covers aspects of the current coronavirus pandemic. The outcome of the 2020 risk inventory is expected to be 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 Group. 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. The portfolio sections used in this connection were defined for the purpose of risk controlling and are not congruent with the portfolio sections that are defined for accounting purposes in the context of the classification of financial instruments. Within the framework of the internal reporting system, information is provided on the overall risk to HVB's Management Board, the Risk Committee of the Supervisory Board and the Risk Committee on a monthly basis, to the full Supervisory Board at least on a quarterly basis and also on an ad hoc basis. In addition, further monthly risk reports are created, which focus on specific business segments, countries or industries.

Risk Report (Continued)

Risk types in detail

We provided extensive details on the management (strategy, limitation, risk mitigation, measurement), monitoring and control of the individual types of risk in HVB Group in the 2019 Annual Report. Where the measurement methods for individual risk types have meanwhile been refined, details are presented under the risk type concerned.

1 Credit risk

The economic capital for credit risk at HVB Group, without taking account of diversification effects between the risk types and without the model risk cushion, amounts to €3,478 million, which is €72 million higher than the total reported value as at 31 December 2019 (€3,406 million).

Credit default risk

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

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

The remaining exposures assigned to the former Real Estate Restructuring business segment are excluded from the analysis because the portfolio does not include any further new business and is earmarked for elimination. The portfolio has been reduced consistently in recent years and now stands at €23 million (31 December 2019: €29 million).

Development of metrics by business segment

Broken down by business segment	EXPECTED LOSS[1] € millions		RISK DENSITY[2] in BPS		ECONOMIC CAPITAL[3] € millions	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Commercial Banking	194	169	18	16	1,089	1,032
Corporate & Investment Banking	140	130	10	9	2,388	2,373
Group Corporate Centre	0	0	11	11	1	0
Other	0	0	9	12	0	1
Consolidation	—	—	—	—	—	—
HVB Group	**334**	**299**	**13**	**12**	**3,478**	**3,406**

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%.
3 Without taking account of diversification effects.

In the first half of 2020, the expected loss of HVB Group increased by €35 million and risk density by 1bp. This reflects the initial effects of the coronavirus pandemic on our portfolio, primarily due to the first rating downgrades.

The main contributor to this development was the Commercial Banking business segment, where the expected loss rose by €25 million and risk density by 2bps. An increase can be observed in many industries, such as in the automotive, food, beverages, machinery, metals and other industries.

The rise of €10 million in the expected loss in the CIB business segment is likewise attributable to several industries, particularly to tourism as well as to chemicals, pharma, healthcare.

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

Broken down by business segment	CREDIT DEFAULT RISK EXPOSURE		OF WHICH COUNTERPARTY RISK		OF WHICH ISSUER RISK IN BANKING BOOK		OF WHICH ISSUER RISK IN TRADING BOOK	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Commercial Banking	107,436	104,115	3,588	3,332	—	—	—	—
Corporate & Investment Banking	147,152	148,802	23,171	19,276	45,557	42,520	2,157	4,097
Group Corporate Centre	21	12	15	5	6	6	—	—
Other	69	97	0	0	—	—	—	—
Consolidation	—	—	—	—	—	—	—	—
HVB Group	**254,678**	**253,026**	**26,774**	**22,613**	**45,563**	**42,526**	**2,157**	**4,097**

HVB Group's credit default risk exposure increased by €1,652 million in the first half of 2020.

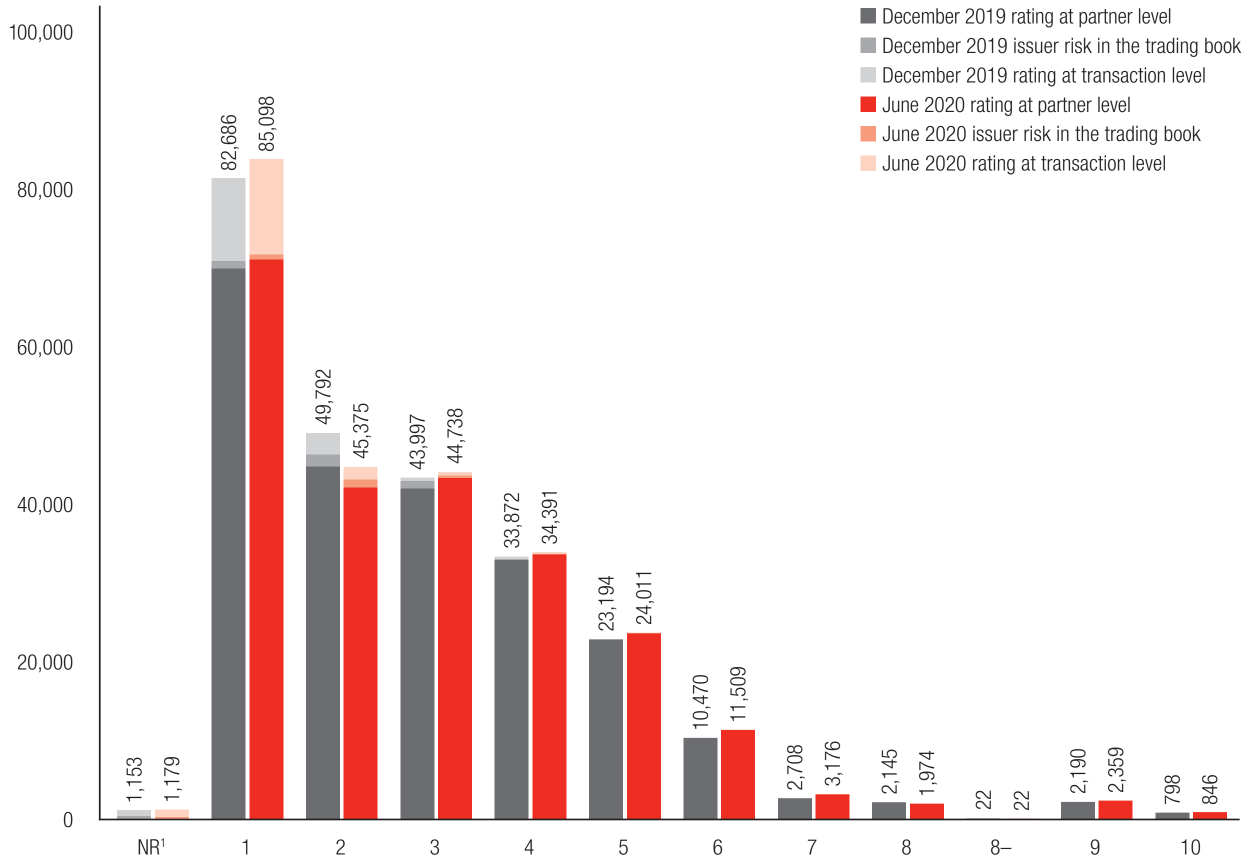
In the Commercial Banking business segment in particular, exposure rose by €3,321 million in the private customers, automotive and construction, building materials industry groups, among others.

By contrast, exposure fell by €1,650 million in the CIB business segment, notably as a result of the reduction in liquidity reserves.

The increase in exposures in the Commercial Banking business segment is attributable to our customers' use of the support programmes set up by development institutions such as the KfW. In the CIB business segment, there has been a rise in 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.

Risk Report (Continued)

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



1 Not rated.

The rating structure of HVB Group changed in the course of the first half of 2020, primarily as a result of the development of exposure in the financial institutions (including foreign sovereigns) and public sector (including German sovereign) industry groups.

In rating class 1, exposure increased by €2,412 million, which is mainly attributable to the public sector (incl. German sovereign, excl. public service companies) industry group.

Development of metrics by industry group

Broken down by industry group	CREDIT DEFAULT RISK EXPOSURE € millions		OF WHICH ISSUER RISK IN TRADING BOOK € millions		EXPECTED LOSS[1] € millions		RISK DENSITY[2] in bps	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Financial institutions (incl. foreign sovereigns)	58,569	67,324	1,750	3,257	30	36	5	6
Real estate	27,422	27,416	41	64	26	26	9	10
Public sector (incl. German sovereign excl. public service companies)	24,911	21,629	94	31	0	0	0	0
Special products	15,522	15,361	0	0	6	13	4	8
Energy	13,594	12,070	40	96	15	14	11	12
Machinery, metals	13,081	13,097	15	66	29	23	23	18
Chemicals, pharma, healthcare	11,780	11,838	47	141	30	24	26	21
Automotive	10,678	8,683	18	100	19	12	18	14
Food, beverages	7,715	8,130	4	30	13	9	17	11
Construction, building materials	7,566	6,671	12	17	12	9	16	13
Services	5,815	5,983	29	51	16	16	29	29
Transport, travel	5,705	5,121	25	41	14	12	28	27
Consumer goods	5,476	5,047	22	15	18	15	33	31
Telecommunication, IT	5,007	5,223	20	105	10	9	20	19
Electronics	3,929	3,116	18	26	5	4	13	12
Agriculture, forestry	3,262	3,051	0	0	8	7	25	23
Tourism	3,048	2,453	3	5	13	3	45	15
Shipping	2,484	2,561	0	0	18	16	90	77
Media, paper	2,446	2,426	4	23	6	4	25	19
Textile	1,672	1,538	2	7	5	5	36	32
Public service companies	1,128	1,111	10	18	1	2	6	14
Private customers	23,859	23,143	—	—	40	40	17	17
Others	9	34	3	4	0	0	37	21
HVB Group	**254,678**	**253,026**	**2,157**	**4,097**	**334**	**299**	**13**	**12**

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

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.

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

Risk Report (Continued)

Financial institutions (including foreign sovereigns)
The exposure in the financial institutions (including foreign sovereigns) industry group fell by €8,755 million in the first half of 2020. This development is largely attributable to the reduction in liquidity reserves.

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 Group 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, both the exposure and the expected loss as at the reporting date of 30 June 2020 remained at an almost unchanged level compared with 31 December 2019.

Public sector (including German sovereign, excl. public service companies)
The public sector (including German sovereign) industry group only contains public entities. Private enterprises with public-sector owners (public service companies) have formed a separate industry group since January 2020. 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 Group's own liquidity reserves.

In the public sector (including German sovereign) industry group, exposure increased by €3,282 million in the first half of 2020. This increase is essentially attributable to liquidity reserves, in respect of which use was made of suitable investment opportunities.

Energy
As at 30 June 2020, exposure in the energy industry rose by €1,524 million. The expected loss rose slightly by €1 million and the risk density by 1bp, which means the portfolio quality remained substantially stable.

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

Exposure was increased by a slight €161 million in the special products industry group in the first half of 2020 compared with year-end 2019. In this context, amortisations and repayments in the existing portfolio of customer-related securitisations and ABS bond investments almost equalled the increases in regular business and the conclusion of new transactions in these business units. In line with the 2020 risk strategy, a strategy of growth within clearly defined parameters involving conservative credit standards (for instance in relation to asset classes and rating quality) was determined for sub-segments of the special products portfolio. The expected losses and the risk density fell sharply to €6 million or 4bps compared with year-end.

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		OF WHICH ISSUER RISK IN TRADING BOOK	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Germany	151,381	150,953	530	848
France	10,666	9,040	184	437
Italy	10,146	10,340	383	789
Ireland	8,358	7,686	19	27
Spain	7,232	7,306	44	200
Luxembourg	5,063	4,884	57	60
Netherlands	4,799	4,481	31	91
Austria	2,057	1,995	337	341
Belgium	599	1,745	26	37
Finland	359	346	5	20
Greece	158	181	—	—
Cyprus	55	77	—	1
Portugal	35	38	4	4
Slovakia	19	3	3	0
Slovenia	17	23	4	6
Estonia	15	6	0	1
Lithuania	8	11	7	10
Malta	1	21	—	—
Latvia	0	1	—	1
Supranational organisations and multilateral banks	2,991	3,100	66	283
HVB Group	**203,959**	**202,237**	**1,700**	**3,156**

Risk Report (Continued)

Italy

The size of the portfolio results from HVB Group'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.

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		OF WHICH ISSUER RISK IN TRADING BOOK	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019
USA	11,595	11,840	71	320
UK	9,793	10,522	101	125
Japan	7,547	6,424	0	3
Switzerland	6,843	6,705	97	205
Asia/Oceania (without Japan, China, Hong Kong)	3,845	3,822	2	3
China (including Hong Kong)	2,232	1,622	0	0
Western Europe (without Switzerland, UK)	2,216	2,243	26	80
Near Middle East	1,241	1,536	—	—
CIS/Central Asia (without Turkey)	1,222	1,319	16	31
Turkey	1,037	1,396	2	5
Africa	1,010	1,266	0	1
Eastern Europe (without euro countries)	829	809	96	146
Central/South America	764	548	0	18
North America (including offshore jurisdictions, without USA)	545	737	45	4
Without country classification	0	—	—	—
HVB Group	**50,719**	**50,789**	**456**	**941**

In the first half of 2020, the total exposure to countries/regions outside the eurozone fell by €70 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 Group as at 30 June 2020 totalled €102.4 billion (31 December 2019: €76.0 billion). The rise of €26.4 billion compared with the previous year is primarily attributable to interest rate swaps (€22.6 billion) and exchange-traded stock/index options (€2.4 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 Group's derivative business results in risk-weighted assets arising from counterparty risk of €4.9 billion as at 30 June 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 Group.

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	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Interest rate derivatives	1,268,824	1,236,248	1,203,666	3,708,738	3,291,999	85,811	63,825	79,745	59,248
Foreign exchange derivatives	199,383	37,873	2,738	239,994	270,161	2,814	2,694	2,688	2,742
Cross-currency swaps	42,036	104,625	54,717	201,378	200,351	4,810	4,262	4,969	4,080
Equity/index derivatives	77,135	66,052	16,301	159,489	130,713	7,272	4,423	5,247	3,746
Credit derivatives	5,747	7,616	602	13,964	12,474	110	101	223	235
– Protection buyer	3,223	4,775	314	8,312	6,709	48	33	183	217
– Protection seller	2,524	2,841	288	5,652	5,765	61	68	40	18
Other transactions	6,849	8,470	947	16,267	15,209	1,598	736	1,134	853
HVB Group	**1,599,974**	**1,460,884**	**1,278,971**	**4,339,830**	**3,920,907**	**102,415**	**76,041**	**94,006**	**70,904**

Derivative transactions with a residual maturity of up to three months accounted for a nominal total amount of €704,737 million as at 30 June 2019 (of which for credit derivatives: €705 million).

Derivative transactions by counterparty type

(€ millions)

	FAIR VALUE			
	POSITIVE		NEGATIVE	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Central governments and central banks	11,848	9,232	1,447	1,276
Banks	50,728	38,962	51,984	40,755
Financial institutions	35,014	24,690	37,360	26,424
Other companies and private individuals	4,825	3,157	3,215	2,449
HVB Group	**102,415**	**76,041**	**94,006**	**70,904**

Risk Report (Continued)

2 Market risk

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 Group 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.

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 Group has been calculating 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, excluding credit spread movements for positions carried at cost. 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. Unlike in internal risk controlling, any hedge effect of the model book for equity is not included in the economic capital. Furthermore, market risks are also included that arise from the Incremental Default Risk Charge (IDRC), which in contrast to the regulatory IRC approach only takes account of issuer default, the market risk standard approach, add-ons for ABS risks and for gap option risks. All risks, with the exception of the add-ons, are scaled accordingly to obtain a holding period of one year and a confidence level of 99.90%.

The regulatory capital requirement for market risk encompasses the VaR and stressed VaR for a 10-day holding period in each case 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 Group, without taking account of diversification effects between the risk types, amounts to €2,094 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 coronavirus pandemic.

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

Market risk of HVB Group (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	30/6/2020	31/12/2019	2020	30/6/2020	31/12/2019
Credit spread risk	14.1	17.6	5.9	13.7	13.2	8.1
Interest rate positions	6.1	5.8	6.1	7.1	9.3	2.9
Foreign exchange positions	1.6	1.1	1.5	0.0	0.1	0.0
Equity/index positions[1]	3.5	3.0	2.6	—	—	—
HVB Group[2]	**14.6**	**16.3**	**7.9**	**16.2**	**14.8**	**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.

Effects of the coronavirus 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 Group (€ millions)

	30/6/2020	31/3/2020	31/12/2019	30/9/2019	30/6/2019
Value at risk	246	129	81	76	62
Stressed value at risk	429	361	293	266	219
Incremental risk charge	139	264	264	253	248
Market risk standard approach	71	68	68	23	24
CVA value at risk	32	19	10	12	12
Stressed CVA value at risk	39	58	68	89	89
CVA standard approach	31	31	29	28	25

The increase in the regulatory risk metrics value at risk, stressed value at risk and incremental risk charge in 2020 is mainly due to the severe market fluctuations in the course of great uncertainty regarding the coronavirus pandemic.

Risk Report (Continued)

Regulatory back-testing of the internal model at HVB for the first half of 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 have occurred in the first half of 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 coronavirus 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 the first half of 2020, there were six instances of a limit being exceeded, which were due to severe market fluctuations.

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 Group 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.

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 historical data as well as trend analyses.

HVB Group 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, which monitors market risk 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. According to Circular 6/2019 (BA) of the Federal Financial Supervisory Authority on interest rate risks in the banking book, the calculations of the +/–200 basis points interest rate shocks have been adjusted and the collection of early warning indicators was also included. These evaluations are carried out with (management perspective) and without (regulatory perspective) taking account of the hedge effect from the model book for own funds.

Information on interest rate risks in the banking book

	REGULATORY PERSPECTIVE		MANAGEMENT PERSPECTIVE	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Change in present value +/–200 basis points in millions	(1,151)	(1,713)	(13)	(68)
Interest rate coefficient in %	(7.0)	(11.0)	(0.1)	(0.4)

HVB Group 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. These figures include HVB's positions as well as the positions of the material group companies, customer margins are not included. The changes in figures compared with year-end 2019 are due to the inclusion of the floor components of commercial banking products in the calculation.

In addition to the present value approach, a simulation of net interest in the banking book is performed for HVB Group 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

	30/6/2020		31/12/2019	
	€ millions	%	€ millions	%
+ 100 basis points	251	10.0	145	5.7
– 30 basis points/– 100 basis points	(60)	(2.5)	(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 and persistently low interest rates.

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.

Risk Report (Continued)

3 Liquidity risk

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 €52.7 billion at HVB Group for the three-month maturity bucket at the end of June 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 €23.6 billion at the end of the first half of 2020 (31 December 2019: €21.9 billion).

Our stress tests are calculated using institution-specific, market-wide and combined scenarios. The calculations at the end of the first half of 2020 showed that the available liquidity reserves cover the funding requirements beyond the minimum period required in each case.

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 30 June 2020 with a value of more than 100%.

Funding risk

The funding risk of HVB Group was again low in the first half of 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 June 2020, HVB Group had obtained longer-term funding with a volume of €32.2 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 programme). 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 to be complied with from 2021 for the NSFR. HVB adhered to a ratio of over 100% in the first half of 2020 based on CRRII requirements. The internal indicator "adjusted NSFR greater than three years" was over 100% in the first half of 2020. On account of their ratings, our Pfandbriefe still remain an important funding instrument.

4 Operational risk

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, economic 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.

Information technology (IT)
UniCredit Services S.C.p.A. provides most of HVB's IT services. HVB's Information and Communication Technology (ICT) management processes require continual adjustments to be made to the internal control system (ICS) for IT to allow for all significant IT risks within the ICT management processes, among other things, to be monitored and managed appropriately. This also includes the processes in the field of the IT infrastructure which are 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.) for which separate controls were defined 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 successfully navigated the coronavirus pandemic in the first half of 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. Part of the ICS is the compliance function (second line of defence), which helps the Management Board to manage compliance risk. In terms of the three lines of defence, however, the business units have the task (first line of defence) of knowing 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 a compliance function should be structured. At HVB, both functions are combined in the Compliance unit in order to ensure a uniform approach. Money-laundering and fraud prevention as well as preventive measures against infringements of financial sanctions and embargos are also assigned to the Compliance unit. Comprehensive risk assessment is ensured by this approach. On account of its high degree of specialisation, tax compliance is managed and refined within the CFO organisation exclusively by the Tax Affairs unit.

Legal risks
HVB and other companies belonging to HVB Group are involved in various legal proceedings. The following is a summary of cases against HVB and other companies belonging to HVB Group, 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 it is possible to reliably estimate the amount of possible losses, and the loss is considered likely, provisions have been set up based on the circumstances and consistent with IFRS accounting principles applied by HVB Group.

Risk Report (Continued)

VIP 4 Medienfonds Fund

Various investors in Film & Entertainment VIP Medienfonds 4 GmbH & Co. KG to whom the Bank issued loans to finance their participation, brought legal proceedings against HVB. In the context of the conclusion of the loan agreements, the plaintiffs claim that 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.

Derivative transactions

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

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 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 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 cooperates 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. The alleged claim is still under evaluation.

Financial sanctions matters

On 15 April 2019 HVB reached a resolution with U.S. and New York authorities regarding investigations concerning historical compliance with applicable U.S. sanctions law and regulations. No further enforcement actions are expected relating to the subject of the resolved investigation.

As part of the settlements with the U.S. and New York authorities, HVB made certain commitments to implement remedial compliance controls and conduct risk assessments relating to the global business lines, to provide periodic reports and certifications concerning the implementation and effectiveness of the compliance program to the U.S. and New York authorities, and to engage an independent external party to conduct an annual review of the effectiveness of the compliance program whose findings will be shared with the U.S. and New York authorities.

Risk Report (Continued)

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 parties exchanged pleadings. The appeal hearing was held on 26 June 2019 and we await the judgement.

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 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. The third amended class action complaint does not include a quantification of damages claimed. 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 must inform the court by 12 August 2020, whether they will seek to further amend their complaint to replead the case against the dismissed defendants.

5 Other risks

In the section entitled "Other risks", HVB Group groups together the following types of quantifiable risk as other risks: real estate risk, business risk, pension risk and financial investment risk as well as the strategic risk and reputational risk types, which are described exclusively in qualitative terms. The risk arising from outsourcing activities is not treated as a separate risk type at HVB Group, 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 (strategic) real estate required for operations and (non-strategic) real estate that is not used for operations. In 2019, large parts of the non-strategic portfolio were sold. In addition, the sale of the Tucherpark site constitutes the largest disposal from the portfolio and was realised at the beginning of 2020. Investing in an alternative location for the Tucherpark site is planned in the short to medium term. The longer-term orientation for strategic real estate corresponds with the Bank's strategy of preferring Bank-owned properties over rented properties for own use and making such properties available for the banking operations of HVB Group at market terms on a cost-optimised basis.

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

The 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, property rents/Bank rents, market rents, rental contract periods, occupancy rate and required investment. The medium-term goal for the non-strategic real estate portfolio, on the other hand, is to realise the best possible value upon disposal of the portfolio; in this regard, the impact on both the income statement and the Bank's other management instruments is crucial for the individual decisions. This tallies with the overarching strategy for dealing with real estate risk. The extent to which the coronavirus pandemic will affect the real estate market and thus the real estate risk of HVB Group cannot be foreseen at the present time.

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 at HVB Group, without taking account of diversification effects between the risk types and without the model risk cushion, amounts to €354 million at 30 June 2020, which represents a decrease of €72 million (31 December 2019: €426 million). The fully diversified economic capital for the real estate risk at HVB Group stands at €200 million (31 December 2019: €322 million). The change in economic capital is mainly attributable to the sale of the Tucherpark site.

The risk figures are based on a portfolio valued at €3,061 million.

Risk Report (Continued)

Breakdown of the real estate portfolio by type

	PORTFOLIO VALUE € millions		SHARE in %	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Strategic real estate	2,180	2,207	71.2	56.7
Non-strategic real estate	881	1,687	28.8	43.3
HVB Group	**3,061**	**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.

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.

HVB Group 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 HVB Group's business risk, without taking account of diversification effects between the risk types and without the model risk cushion, amounted to €531 million at 30 June 2020 (31 December 2019: €526 million). The fully diversified economic capital for HVB Group's business risk totals €376 million as at 30 June 2020 (31 December 2019: €354 million).

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

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 capital investments and the cash flows on the obligations side. A figure of €770 million was determined as at 30 June 2020 for the total pension risk of HVB Group (31 December 2019: €615 million). The increase compared with year-end 2019 is primarily due to a potential interest rate shock on benefit obligations of a much greater magnitude than assumed. The risk figure is incorporated in the calculation of the risk-taking capacity in the form of an additive component to the internal capital. In addition, the impact on pension risk is analysed at regular intervals as part of the cross-risk-type stress tests.

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 the discount rate will fall to the historically low levels reached in the course of 2019 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 the financial investment risk are either considered strategic and allocated to a business segment or competence line, or deemed non-strategic and connected with the fundamental goal of reduction.

The economic capital for financial investment risk at HVB Group, without taking into account any diversification effects between the risk types and without the model risk cushion, rose by €17 million and stands at €239 million as at 30 June 2020 (31 December 2019: €222 million). HVB Group's fully diversified economic capital amounts to €239 million as at 30 June 2020 (31 December 2019: €222 million).

Breakdown of the financial investment portfolio

	PORTFOLIO VALUE € millions		SHARE in %	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Private equity investments	10	10	4.2	4.5
Other holdings[1]	229	212	95.8	95.5
HVB Group	**239**	**222**	**100.0**	**100.0**

1 Listed and unlisted investments.

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

Strategic risk

The statements made on strategic risk in the 2019 Annual Report still apply. Changes in the performance of the overall economy and the ratings of HVB are shown in the economic report in this Interim Management Report.

Risk Report (Continued)

Reputational risk

HVB and its most important subsidiaries apply 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 that reflects changes in UniCredit's reputation) and the development of 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 of 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.

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 Group 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 arrangements. 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 Group'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.

No new critical/material outsourcing arrangements were put in place in HVB Group in the first half of 2020.

Consolidated Income Statement

Consolidated Income Statement

INCOME/EXPENSE	NOTES	1/1–30/6/2020 € millions	1/1–30/6/2019 € millions	CHANGE € millions	CHANGE in %
Interest income[1]		1,880	1,813	+ 67	+ 3.7
Negative interest on financial assets		(66)	(68)	+ 2	(2.9)
Interest expense		(681)	(709)	+ 28	(3.9)
Negative interest on financial liabilities		158	113	+ 45	+ 39.8
Net interest	6	1,291	1,149	+ 142	+ 12.4
Dividends and other income from equity investments	7	6	2	+ 4	>+ 100.0
Net fees and commissions	8	526	488	+ 38	+ 7.8
Net trading income	9	258	338	(80)	(23.7)
Net gains/(losses) on financial assets and liabilities at fair value	10	(206)	2	(208)	
Net gains/(losses) on derecognition of financial instruments measured at cost	11	2	5	(3)	(60.0)
Net other expenses/income	12	504	191	+ 313	>+ 100.0
Payroll costs		(725)	(723)	(2)	+ 0.3
Other administrative expenses		(620)	(617)	(3)	+ 0.5
Amortisation, depreciation and impairment losses on intangible and tangible assets		(62)	(379)	+ 317	(83.6)
Operating costs	13	(1,407)	(1,719)	+ 312	(18.2)
Credit impairment losses IFRS 9	14	(467)	(80)	(387)	>+ 100,0
Provisions for risks and charges	15	8	288	(280)	(97.2)
Restructuring costs		(19)	—	(19)	
Net gains/(losses) on disposals of investments	16	—	13	(13)	(100.0)
PROFIT/(LOSS) BEFORE TAX AND IMPAIRMENT ON GOODWILL		**496**	**677**	**(181)**	**(26.7)**
Impairment on goodwill		—	—	—	—
PROFIT/(LOSS) BEFORE TAX		**496**	**677**	**(181)**	**(26.7)**
Income tax for the period		(167)	(287)	+ 120	(41.8)
PROFIT/(LOSS) AFTER TAX		**329**	**390**	**(61)**	**(15.6)**
CONSOLIDATED PROFIT/(LOSS)		**329**	**390**	**(61)**	**(15.6)**
attributable to the shareholder of UniCredit Bank AG		329	389	(60)	(15.4)
attributable to minorities		—	1	(1)	(100.0)

1 The item "Interest income" contains interest of €1,327 million calculated using the effective interest method (previous-year period: €1,460 million). The figure is based on classification according to IFRS 9.

Earnings per share

(in €)

	NOTES	1/1–30/6/2020	1/1–30/6/2019
Earnings per share (undiluted and diluted)	17	0.41	0.48

Consolidated Statement of Total Comprehensive Income

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Consolidated profit recognised in the income statement	**329**	**390**
Income and expenses recognised in other comprehensive income		
Income and expenses not to be reclassified to the income statement in future periods		
Actuarial profit/(loss) on defined benefit plans (pension commitments)	38	(347)
Allocation to/withdrawal from the revaluation surplus for owner-occupied property (IAS 16)	(1)	—
Change in the fair value of financial liabilities at FVTPL attributable to changes		
in the default risk (own credit spread reserve)	59	10
Other changes	—	—
Taxes on income and expenses not to be reclassified to the income statement in future periods	(31)	106
Income and expenses to be reclassified to the income statement in future periods		
Changes from foreign currency translation	—	—
Changes from companies accounted for using the equity method	—	—
Changes in the measurement of financial instruments (hedge reserve)	(12)	3
Unrealised gains/(losses)	(12)	3
Gains/(losses) reclassified to the income statement	—	—
Changes in the measurement of financial instruments at FVTOCI (FVTOCI reserve)	(47)	10
Unrealised gains/(losses)	(35)	15
Gains/(losses) reclassified to the income statement	(12)	(5)
Other changes	(4)	(4)
Taxes on income and expenses to be reclassified to the income statement in future periods	18	(2)
Total income and expenses recognised in equity through other comprehensive income	**20**	**(224)**
Total comprehensive income	**349**	**166**
of which:		
attributable to the shareholder of UniCredit Bank AG	349	165
attributable to minorities	—	1

Consolidated Balance Sheet

ASSETS	NOTES	30/6/2020 € millions	31/12/2019 € millions	CHANGE € millions	CHANGE in %
Cash and cash balances		17,942	26,215	(8,273)	(31.6)
Financial assets held for trading	18	80,474	69,853	+ 10,621	+ 15.2
Financial assets at FVTPL	19	14,685	15,474	(789)	(5.1)
Financial assets at FVTOCI	20	13,522	14,673	(1,151)	(7.8)
Loans and receivables with banks (at cost)	21	35,599	31,842	+ 3,757	+ 11.8
Loans and receivables with customers (at cost)	22	150,377	139,632	+ 10,745	+ 7.7
Hedging derivatives	23	314	264	+ 50	+ 18.9
Hedge adjustment of hedged items					
in the portfolio fair value hedge		56	40	+ 16	+ 40.0
Investments in associates and joint ventures					
accounted for using the equity method	24	10	10	—	—
Property, plant and equipment	25	2,466	2,507	(41)	(1.6)
Investment properties	26	350	353	(3)	(0.8)
Intangible assets	27	13	15	(2)	(13.3)
of which: goodwill		—	—	—	—
Tax assets		1,210	1,184	+ 26	+ 2.2
Current tax assets		205	103	+ 102	+ 99.0
Deferred tax assets		1,005	1,081	(76)	(7.0)
Non-current assets or disposal groups held for sale	28	4	444	(440)	(99.1)
Other assets	29	1,017	1,092	(75)	(6.9)
TOTAL ASSETS		**318,039**	**303,598**	**+ 14,441**	**+ 4.8**

LIABILITIES	NOTES	30/6/2020 € millions	31/12/2019 € millions	CHANGE € millions	in %
Deposits from banks	30	69,601	70,321	(720)	(1.0)
Deposits from customers	31	131,190	125,394	+ 5,796	+ 4.6
Debt securities in issue	32	30,594	28,256	+ 2,338	+ 8.3
Financial liabilities held for trading	33	56,856	46,665	+ 10,191	+ 21.8
Financial liabilities at FVTPL	34	5,540	5,936	(396)	(6.7)
Hedging derivatives	35	907	813	+ 94	+ 11.6
Hedge adjustment of hedged items					
in the portfolio fair value hedge	36	2,035	1,636	+ 399	+ 24.4
Tax liabilities		1,250	1,062	+ 188	+ 17.7
Current tax liabilities		830	548	+ 282	+ 51.5
Deferred tax liabilities		420	514	(94)	(18.3)
Liabilities of disposal groups held for sale		—	—	—	—
Other liabilities		1,418	1,857	(439)	(23.6)
Provisions	37	2,671	2,743	(72)	(2.6)
Shareholders' equity		15,977	18,915	(2,938)	(15.5)
Shareholders' equity attributable to the shareholder					
of UniCredit Bank AG		15,985	18,925	(2,940)	(15.5)
Subscribed capital		2,407	2,407	—	—
Additional paid-in capital		9,791	9,791	—	—
Other reserves		3,443	3,379	+ 64	+ 1.9
Currency reserves		17	17	—	—
Changes in valuation of financial instruments		(2)	43	(45)	
Hedge reserve		15	28	(13)	(46.4)
FVTOCI reserve		(17)	15	(32)	
Consolidated profit 2019		—	3,288	(3,288)	(100.0)
Net profit 1/1–30/6/2020[1]		329	—	+ 329	—
Minority interests		(8)	(10)	+ 2	(20.0)
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES		**318,039**	**303,598**	**+ 14,441**	**+ 4.8**

1 Attributable to the shareholder of UniCredit Bank AG.

The 2019 profit available for distribution disclosed in the annual financial statements of HVB, which forms the basis for the appropriation of profit, amounts to €3,288 million. This consists of HVB's net income of €1,051 million generated in 2019 less the transfer of €263 million to other retained earnings and a withdrawal from other retained earnings of €2,500 million. On 23 June 2020, the Shareholders' Meeting of HVB adopted a resolution to pay a dividend of €3,288 million to UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a dividend of around €4.10 per share after around €0.65 for the 2018 financial year. According to a resolution adopted by the Shareholders' Meeting on 23 June 2020, the 2019 profit available for distribution will be distributed on 2 November 2020. Until the date of distribution the profit available for distribution will be shown as a liability.

Statement of Changes in Shareholders' Equity

			OTHER RESERVES			
	SUBSCRIBED CAPITAL	ADDITIONAL PAID-IN CAPITAL	TOTAL OTHER RESERVES	OF WHICH: OWN CREDIT SPREAD	OF WHICH: REVALUATION RESERVE FOR OWN PROPERTIES	OF WHICH: PENSIONS AND SIMILAR OBLIGATIONS (IAS 19)
Shareholders' equity at 1/1/2020	**2,407**	**9,791**	**3,379**	**(13)**	**852**	**(1,658)**
Consolidated profit recognised in the consolidated income statement	**—**	**—**	**—**	**—**	**—**	**—**
Total income and expenses recognised in equity through other comprehensive income[4]	**—**	**—**	**64**	**40**	**(1)**	**26**
Unrealised gains/(losses) due to changes in the measurement of financial instruments	—	—	39	40	(1)	—
Gains/(losses) reclassified to the income statement	—	—	—	—	—	—
Actuarial gains/(losses) on defined benefit plans	—	—	26	—	—	26
Changes from foreign currency translation	—	—	—	—	—	—
Other changes	—	—	(1)	—	—	—
Total other changes in equity	**—**	**—**	**—**	**—**	**(5)**	**—**
Reclassification from equity reserves to retained earnings	—	—	—	—	(5)	—
Dividend payouts	—	—	—	—	—	—
Transfers to/withdrawals from consolidated profit	—	—	—	—	—	—
Changes in group of consolidated companies	—	—	—	—	—	—
Capital decreases	—	—	—	—	—	—
Shareholders' equity at 30/6/2020	**2,407**	**9,791**	**3,443**	**27**	**846**	**(1,632)**
Shareholders' equity at 1/1/2019	**2,407**	**9,791**	**5,465**	**—**	**—**	**(1,230)**
Consolidated profit recognised in the consolidated income statement	**—**	**—**	**—**	**—**	**—**	**—**
Total income and expenses recognised in equity through other comprehensive income[4]	**—**	**—**	**(231)**	**7**	**—**	**(238)**
Unrealised gains/(losses) due to changes in the measurement of financial instruments	—	—	7	7	—	—
Gains/(losses) reclassified to the income statement	—	—	—	—	—	—
Actuarial gains/(losses) on defined benefit plans	—	—	(238)	—	—	(238)
Changes from foreign currency translation	—	—	—	—	—	—
Other changes	—	—	—	—	—	—
Effect of first-time adoption upon transition to revaluation model IAS 16	—	—	—	—	—	—
Total other changes in equity	**—**	**—**	**(1)**	**—**	**—**	**—**
Dividend payouts	—	—	—	—	—	—
Transfers to/withdrawals from consolidated profit	—	—	—	—	—	—
Changes in group of consolidated companies	—	—	—	—	—	—
Capital decreases	—	—	(1)	—	—	—
Shareholders' equity at 30/6/2019	**2,407**	**9,791**	**5,233**	**7**	**—**	**(1,468)**

1 The Shareholders' Meeting of 23 June 2020 resolved to distribute the 2019 consolidated profit in the amount of €3,288 million to our sole shareholder UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a dividend of around €4.10 per share.
The Shareholders' Meeting of 3 June 2019 resolved to distribute the 2018 consolidated profit in the amount of €520 million to our sole shareholder UniCredit S.p.A. (UniCredit), Milan, Italy. This represents a dividend of around €0.65 per share.
2 Attributable to the shareholder of UniCredit Bank AG.
3 UniCredit Bank AG (HVB).
4 See consolidated statement of total comprehensive income.

(€ millions)

		CHANGE IN MEASUREMENT OF FINANCIAL INSTRUMENTS						
	CURRENCY RESERVE	HEDGE RESERVE	FVTOCI RESERVE	CONSOLIDATED PROFIT[1]	PROFIT 1/1–30/6[2]	TOTAL SHAREHOLDERS' EQUITY ATTRIBUTABLE TO THE SHAREHOLDER OF HVB[3]	MINORITY INTEREST	TOTAL SHAREHOLDERS' EQUITY
	17	**28**	**15**	**3,288**	**—**	**18,925**	**(10)**	**18,915**
	—	**—**	**—**	**—**	**329**	**329**	**—**	**329**
	—	**(13)**	**(32)**	**—**	**—**	**19**	**—**	**19**
	—	(10)	(24)	—	—	5	—	5
	—	—	(8)	—	—	(8)	—	(8)
	—	—	—	—	—	26	—	26
	—	—	—	—	—	—	—	—
	—	(3)	—	—	—	(4)	—	(4)
	—	**—**	**—**	**(3,288)**	**—**	**(3,288)**	**2**	**(3,286)**
	—	—	—	—	—	—	—	—
	—	—	—	(3,288)	—	(3,288)	—	(3,288)
	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	2	2
	—	—	—	—	—	—	—	—
	17	**15**	**(17)**	**—**	**329**	**15,985**	**(8)**	**15,977**
	16	**28**	**4**	**520**	**—**	**18,231**	**36**	**18,267**
	—	**—**	**—**	**—**	**389**	**389**	**1**	**390**
	1	**—**	**7**	**—**	**—**	**(223)**	**—**	**(223)**
	—	3	10	—	—	20	—	20
	—	—	(3)	—	—	(3)	—	(3)
	—	—	—	—	—	(238)	—	(238)
	1	—	—	—	—	1	—	1
	—	(3)	—	—	—	(3)	—	(3)
	—	—	—	—	—	—	—	—
	—	**—**	**—**	**(520)**	**—**	**(521)**	**(1)**	**(522)**
	—	—	—	(520)	—	(520)	(1)	(521)
	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
	—	—	—	—	—	(1)	—	(1)
	17	**28**	**11**	**—**	**389**	**17,876**	**36**	**17,912**

Consolidated Cash Flow Statement (abridged version)

(€ millions)

	2020	2019
Cash and cash equivalents at 1/1	26,215	19,990
Cash flows from operating activities	(6,809)	(1,412)
Cash flows from investing activities	1,793	(49)
Cash flows from financing activities	(3,257)	(886)
Effects of exchange rate changes	—	—
Less non-current assets or disposal groups held for sale	—	—
Cash and cash equivalents at 30/6	17,942	17,643

Legal Basis

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

As a universal bank, HVB with its subsidiaries is one of the leading providers of banking and financial services in Germany. It offers a comprehensive range of banking and financial products and services to private, corporate and public-sector customers, international companies and institutional customers.

We did not avail ourselves of the possibility of reviewing the present Half-yearly Financial Report of HVB Group compliant with Section 115 (5) of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG).

The current consolidated financial statements comprise UniCredit Bank AG and its subsidiaries (HVB Group) and are prepared in euros, which is the reporting currency of the corporate group.

The amounts shown in the tables and texts below relate to the period from 1 January to 30 June of the respective year for disclosures regarding the income statement and to the reporting date of 30 June 2020 for disclosures regarding balance sheet items and totals, or to 31 December 2019 for disclosures regarding the previous year.

Accounting and Valuation

1 Accounting and valuation principles

The present Half-yearly Financial Report for HVB Group has been prepared in accordance with the regulations defined in the International Financial Reporting Standards (IFRS) and complies with IAS 34, which covers interim reporting. Thus, the present Half-yearly Financial Report meets the requirements of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG) for the half-yearly financial reporting of capital-market-oriented companies.

IFRS to be applied for the first time in the financial year

No new standards or interpretations issued by the IASB were applicable in the 2020 financial year.

The amendments to the following standards revised by the IASB are mandatorily applicable in the European Union (EU) for the first time in the 2020 financial year:

- Amendments to IFRS 3 “Business combinations” – Definition of a business
- Amendments to IFRS 9 “Financial Instruments”, IAS 39 “Financial instruments: recognition and measurement” and IFRS 7 “Financial instruments: disclosures” – Interest Rate Benchmark Reform
- Amendments to IAS 1 “Presentation of Financial Statements” and IAS 8 “Accounting policies, changes in accounting estimates and errors” – Definition of material
- Amendments to References to the Conceptual Framework in IFRS Standards

The amendments to IFRS 9 “Financial Instruments”, IAS 39 “Financial instruments: recognition and measurement” and IFRS 7 “Financial instruments: disclosures” – Interest Rate Benchmark Reform are applicable for the first time for financial years beginning on or after 1 January 2020. These amendments are intended to eliminate uncertainties arising from the replacement of reference interest rates in the context of the Interbank Offered Rates (IBOR) reform.

HVB Group thus assumes that hedged cash flows based on reference interest rates will remain unchanged in the course of the reform and thus continue to be seen as highly probable. It is also assumed that cash flows of the hedging instrument and the hedged item based on reference interest rates will remain unchanged following the reform which means that the prospective assessment of the efficiency of the hedge is not required to be adjusted as a result of the reference interest rate reform. Moreover, it is assumed that the reference interest rate reform will not affect the identification of the independent components designated as hedged risk.

This affects both the hedging of interest rate risks by both micro fair value hedges and the portfolio fair value hedge, which are presented in the Note “Net gains/losses on financial assets and liabilities at fair value”.

New or amended accounting and valuation methods compared with the previous year
The new or amended rules to be applied for the first time in the reporting period that are relevant for HVB Group are shown below and the related effects discussed:

Change to the revaluation model for owner-occupied land and buildings
With effect as of 31 December 2019, HVB Group changed the subsequent measurement of the properties used by the Bank (land and buildings) falling within the scope of IAS 16 that are classified as property, plant and equipment from the previous cost model to the revaluation model pursuant to IAS 16.31. In the context of the first-time application of the revaluation method, carrying amounts were adjusted to the fair value on the revaluation date of 31 December 2019. The related effects at year-end 2019 on the consolidated financial statements of HVB Group were described in detail in the note "Consistency" in the notes to the consolidated financial statements of the 2019 Annual Report. The change in accounting method was carried out prospectively in accordance with IAS 8.17 in conjunction with IAS 16.80A. The accounting and valuation changes associated with the revaluation model for the current reporting year and subsequent periods and their effects are presented below.

Instead of the previous measurement at amortised acquisition or production cost, owner-occupied land and buildings will be accounted for from now on at a revalued amount upon subsequent measurement, which will generally be the fair value at the date of revaluation less any subsequent accumulated scheduled depreciation and impairment losses. Regular revaluations will be carried out to ensure that the carrying amount calculated in this way does not deviate significantly from the fair value.

A prerequisite for the application of the revaluation model is that the fair value can be reliably determined. According to the definition in IAS 16.6, the fair value of property, plant and equipment is the price that would be received for the sale of an asset or paid for the transfer of a debt in an orderly transaction between market participants at the measurement date. The fair value is determined in accordance with the provisions of IFRS 13.

The carrying amounts for owner-occupied property were divided into separate carrying amounts for land on the one hand and buildings on the other, which are measured separately as classes of property, plant and equipment. For the revaluation of properties used by the Bank, valuation reports are generally prepared by independent external experts. HVB Group carries out the valuation itself only for non-essential properties. Revaluations are made with sufficient regularity to ensure that the carrying amount of a revalued asset does not differ materially from its fair value.

The revalued amount (fair value) determined for the land or buildings at the revaluation date is the new carrying amount. The difference to the previous carrying amount of the asset is recognised as follows, taking account of previous periods:

– If the fair value is higher than the carrying amount due to an increase in value, the difference is generally to be reported in the consolidated statement of total comprehensive income under other comprehensive income (OCI) and accumulated in equity as a revaluation surplus without affecting profit or loss. However, if a revaluation loss was recognised as an expense in the consolidated income statement in previous periods, in exceptional cases a write-up up to the amortised acquisition or production cost must be recognised in the income statement in the event of a new increase in value. All increases in value beyond this are to be recognised in other comprehensive income and thus increase the revaluation surplus in equity. Consequently, a revaluation gain in excess of amortised acquisition or production cost is never recognised in profit or loss.

– By contrast, if the fair value is lower than the carrying amount due to a decrease in value, the carrying amount must be written down to the lower fair value. If a revaluation surplus exists for the asset concerned as a result of revaluation gains in previous periods, it is reversed by recognising the impairment loss in other comprehensive income in the event of a new revaluation loss. Any revaluation loss beyond this is recognised in profit or loss.

Accounting and Valuation (Continued)

Revaluation effects recognised directly in equity are reported in the consolidated statement of comprehensive income under the item "Allocation to/withdrawal from the revaluation surplus for owner-occupied property (IAS16)" as components of the income and expense items recognised in other comprehensive income that will not be reclassified to the consolidated income statement in future periods (no recycling). The revaluation surplus is recognised under the item "Revaluation surplus for owner-occupied property" as a component of other reserves in equity in the consolidated balance sheet and reported separately in the statement of changes in consolidated shareholders' equity.

After revaluation, buildings subject to wear and tear are depreciated on a straight-line basis over their expected useful lives in accordance with the subsequent measurement method applicable to other tangible assets. The revalued amount constitutes the new basis of measurement for depreciation. At HVB Group, the initial revaluation of land and buildings used by the Bank at 31 December 2019 resulted in an increase in the volume of depreciation, which leads to comparatively higher depreciation expenses in subsequent periods. Depreciation on revalued buildings is recognised in the consolidated income statement. Scheduled depreciation is not taken on land as it is a non-depreciable asset.

The difference between depreciation based on the carrying amount revalued at fair value and depreciation based on the amortised acquisition or production costs is transferred each year within equity from the revaluation surplus to retained earnings. Any revaluation surplus thus corresponds to the difference between the fair value and the amortised acquisition or production costs.

Scheduled and unscheduled depreciation and write-downs as well as write-ups recognised in the consolidated income statement are generally reported in the item "Amortisation, depreciation and impairment losses on intangible and tangible assets" within operating costs.

HVB Group adjusts the reported acquisition costs and the accumulated depreciation accrued up to the revaluation date in the statement of changes in non-current assets in proportion to the change in the carrying amount, so that the (net) carrying amount reflects the fair value (restatement approach). For example, if a revaluation increases the carrying amount by 10% to the fair value determined at the revaluation date, both the acquisition costs and the accumulated depreciation are increased by this factor (10%) in the statement of changes in non-current assets.

The carrying amount of land or a building is derecognised on disposal or when no future economic benefits are expected from its use or disposal. In the event of the sale of revalued land or a revalued building, the revaluation excess recognised in and allocable to the revaluation surplus is transferred in full to equity in retained earnings.

Excluded from the application of the revaluation model are owner-occupied properties that are in the process of being sold and are recognised as "Non-current assets or disposal groups held for sale"; the measurement requirements of IFRS 5 must be applied to these properties. However, the property must be revalued for the last time at the time of reclassification if the carrying amount differs from the fair value at that time.

Statement of changes in equity – Currency reserve
In the course of adjusting the statement of changes in equity due to the changeover to the revaluation method for owner-occupied property, we have decided to also show the currency reserve as a separate item in equity. Exchange rate differences resulting from the translation of the financial statements of foreign business units are recognised directly in equity in the currency reserve item. Previously, these effects were included in other reserves. The figures for the previous year have been adjusted. The change increases the transparency of the presentation of equity for the reader of the financial statements, so that these changes in recognition provide more reliable and relevant information.

Other new or amended accounting rules
We have also applied the remaining new or amended accounting rules. These have had no effect or no material effect on the consolidated financial statements.

Apart from the amendments described, the accounting and measurement methods have been applied unchanged compared with the previous year. These are described in the notes to the consolidated financial statements in the 2019 Annual Report.

Published IFRS that are not yet the subject of mandatory adoption and that have not been the subject of early adoption
HVB Group has decided against the early voluntary adoption of the standards and interpretations adopted or revised by the IASB, which become the subject of mandatory adoption for the 2021 financial year or thereafter. HVB Group will apply these standards and interpretations for the first time in the financial year in which the new provisions in question become mandatory for EU-based enterprises for the first time.

The EU has not yet adopted any IFRS accounting rules that have been published but are not yet mandatory.

The EU has not yet transposed the following into European law:
– IFRS 17 "Insurance Contracts". The provisions are the subject of mandatory adoption for the first time for financial years beginning on or after 1 January 2023.
– Amendments to IAS 1 "Presentation of Financial Statements" – Classification of Liabilities as Current or Non-current. The provisions are the subject of mandatory adoption for the first time for financial years beginning on or after 1 January 2022.
– Amendments to IFRS 3 "Business Combinations", IAS 16 "Property, Plant and Equipment", IAS 37 "Provisions, contingent liabilities and contingent assets", annual improvements to the IFRS – cycle 2018–2020. The provisions are the subject of mandatory adoption for the first time for financial years beginning on or after 1 January 2022.
– Amendments to IFRS 16 "Leases" – Rent concessions related to the coronavirus pandemic. The provisions are the subject of mandatory adoption for the first time for financial years beginning on or after 1 June 2020.
– Amendments to IFRS 4 "Insurance Contracts" – Extension of the Temporary Exemption from Applying IFRS 9 "Financial Instruments" up until 1 January 2023. The provisions are the subject of mandatory adoption for the first time for financial years beginning on or after 1 January 2021.

We do not expect these new or amended accounting rules, which are to be applied in the future, to have any material effects on the consolidated financial statements.

2 Companies included in consolidation
The following companies were added to the group of companies included in consolidation in the first half of 2020:
– Elektra Purchase No. 69 DAC, Dublin
– Ice Creek Pool No. 2 DAC, Dublin
– Wealthcap Objekt Tübingen GmbH & Co. KG, Munich
– Wealthcap Objekt-Vorrat 38 GmbH & Co. KG, Munich
– Wealthcap Spezial-AIF-SV Büro 8, Grünwald
– Wealthcap Wohnen Spezial-AIF 1 GmbH & Co. geschlossene Investment KG, Munich

The following companies left the group of companies included in consolidation in the first half of 2020 due to merger, imminent or completed liquidation, or loss of control:
– Elektra Purchase No. 63 DAC, Dublin
– HJS 12 Beteiligungsgesellschaft mbH, Munich
– WealthCap Wohnen 1 GmbH & Co. KG, Munich
– Wealthcap Wohnen 1a GmbH & Co. KG, Munich
– Wealthcap Wohnen Spezial-AIF 1 GmbH & Co. geschlossene Investment KG, Munich

The following companies left the group of companies included in consolidation in the first half of 2020 for reasons of materiality:
– Adler Funding LLC, Dover
– Bertram Projekt Unodecima Technikzentrum GmbH & Co. KG, Munich

The deconsolidation of these companies does not have any material impact. The share of these companies in the total assets of the Group stood at 0.0002% as at 31 December 2019.

Segment Reporting

3 Notes to segment reporting by business segment

In segment reporting, the activities of HVB Group are divided into the following business segments and consolidation effects:

– Commercial Banking
– Corporate & Investment Banking (CIB)
– Group Corporate Centre
– Other

The information provided in the segment reports is based on HVB's internal management. Income and expenses can thus be recognised here for internal management purposes that are not based solely on external business activities but on internal transfers etc. Where such internal income and/or expenses between the respective segments are recognised in identical items of the segmented income statement, they are netted across all the segments. Any effects remaining from internal transfers are eliminated in the consolidation so that only external income/expenses remain as the result in the total amount of the segmented income/expenses across all segments, including the consolidation.

Method of segment reporting

The same principles are being applied in the 2020 financial year as were used at year-end 2019. We use risk-weighted assets compliant with CRR II as the criterion for allocating tied equity capital. In 2020, the core capital allocated to the business segments of HVB as a proportion of risk-weighted assets compliant with CRR II was changed to the core capital ratio of 12.45%. The interest rate used to assess the equity capital allocated to companies assigned to several business segments was 0.98% in the 2019 financial year. This interest rate was redetermined for the 2020 financial year and has been 0.91% since 1 January 2020.

The figures in previous periods affected by this reorganisation have been adjusted accordingly.

4 Income statement, broken down by business segment

Income statement, broken down by business segment for the period from 1 January to 30 June 2020 (€ millions)

INCOME/EXPENSES	COMMERCIAL BANKING	CORPORATE & INVESTMENT BANKING	GROUP CORPORATE CENTRE	OTHER	CONSOLIDATION	HVB GROUP
Net interest	732	484	77	(2)	—	1,291
Dividends and other income from equity investments	3	3	—	—	—	6
Net fees and commissions	366	161	(1)	—	—	526
Net trading income	18	29	(7)	—	—	40
Net other expenses/income	(27)	(64)	18	34	(4)	(43)
OPERATING INCOME	**1,092**	**613**	**87**	**32**	**(4)**	**1,820**
Payroll costs	(304)	(180)	(180)	(61)	—	(725)
Other administrative expenses	(521)	(357)	163	88	7	(620)
Amortisation, depreciation and impairment losses						
on intangible and tangible assets	(7)	(5)	(4)	(46)	—	(62)
Operating costs	**(832)**	**(542)**	**(21)**	**(19)**	**7**	**(1,407)**
OPERATING PROFIT/(LOSS)	**260**	**71**	**66**	**13**	**3**	**413**
Net write-downs of loans and provisions for						
guarantees and commitments	(244)	(243)	20	—	—	(467)
NET OPERATING PROFIT/(LOSS)	**16**	**(172)**	**86**	**13**	**3**	**(54)**
Provisions for risks and charges	1	6	2	(1)	—	8
Restructuring costs	—	(3)	(1)	(15)	—	(19)
Net income from investments	—	17	(1)	548	(3)	561
PROFIT/(LOSS) BEFORE TAX	**17**	**(152)**	**86**	**545**	**—**	**496**
Income tax for the period	(10)	3	17	(177)	—	(167)
PROFIT/(LOSS) AFTER TAX	**7**	**(149)**	**103**	**368**	**—**	**329**
Impairment on goodwill	—	—	—	—	—	—
CONSOLIDATED PROFIT/(LOSS)	**7**	**(149)**	**103**	**368**	**—**	**329**
attributable to the shareholder of UniCredit Bank AG	7	(149)	103	368	—	329
attributable to minorities	—	—	—	—	—	—

Segment Reporting (Continued)

Reconciliation of the segmented income statement to the income statement (€ millions)

INCOME/EXPENSES	INCOME STATEMENT, BROKEN DOWN BY BUSINESS SEGMENT	RECLASSIFICATION	CONSOLIDATED INCOME STATEMENT
Net interest	1,291	—	1,291
Dividends and other income from equity investments	6	—	6
Dividends from assets mandatorily at FVTPL		—	
Net fees and commissions	526	—	526
Net trading income	40	218	258
Financial assets mandatorily at FVTPL		50	
Financial liabilities designated at FVTPL		158	
Buy-backs of securities issued		—	
Effects arising from hedge accounting		20	
Fair value equity		(10)	
Dividends from assets mandatorily at FVTPL		—	
Net gains/(losses) on financial assets and liabilities at fair value	—	(206)	(206)
Financial assets mandatorily at FVTPL		(50)	
Financial liabilities designated at FVTPL		(158)	
Net gains/(losses) on the sale of securities (held-for-sale business model)		12	
Effects arising from hedge accounting		(20)	
Fair value equity		10	
Net gains/(losses) on derecognition of financial instruments measured at cost	—	2	2
Net gains/(losses) on the sale of performing loans and receivables and securities		2	
Buy-backs of securities issued		—	
Net other expenses/income	(43)	547	504
Net gains/(losses) on the sale of performing loans and receivables and securities		(2)	
Income from the sale of land and buildings		549	
Income from the valuation/disposal of investment properties		—	
Income from the sale of other assets		—	
OPERATING INCOME	**1,820**	**—**	**2,381**
Payroll costs	(725)	—	(725)
Other administrative expenses	(620)	—	(620)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(62)	—	(62)
Operating costs	**(1,407)**	**—**	**(1,407)**
OPERATING PROFIT/(LOSS)	**413**	**—**	**974**
Net write-downs of loans and provisions for guarantees and commitments IAS 39/	(467)	—	(467)
credit impaired losses IFRS 9			
NET OPERATING PROFIT/(LOSS)	**(54)**	**—**	**507**
Provisions for risks and charges	8	—	8
Restructuring costs	(19)	—	(19)
Net income from investments	561	(561)	n/a
Net gains/(losses) on the sale of securities (held-for-sale business model)		(12)	
Income from the sale of land and buildings		(549)	
Income from the valuation/disposal of investment properties		—	
Income from the sale of other assets		—	
Net gains/(losses) on disposal of investments		—	
Net gains/(losses) on disposal of investments	n/a	—	—
PROFIT/(LOSS) BEFORE TAX AND IMPAIRMENT ON GOODWILL	**—**	**—**	**496**
Impairment on goodwill	—	—	—
PROFIT/(LOSS) BEFORE TAX	**496**	**—**	**496**
Income tax for the period	(167)	—	(167)
PROFIT/(LOSS) AFTER TAX	**329**	**—**	**329**
Impairment on goodwill	—	—	—
CONSOLIDATED PROFIT/(LOSS)	**329**	**—**	**329**
attributable to the shareholder of UniCredit Bank AG	329	—	329
attributable to minorities	—	—	—

Income statement, broken down by business segment for the period from 1 January to 30 June 2019 (€ millions)

INCOME/EXPENSES	COMMERCIAL BANKING	CORPORATE & INVESTMENT BANKING	GROUP CORPORATE CENTRE	OTHER	CONSOLIDATION	HVB GROUP
Net interest	745	393	27	(3)	(13)	1,149
Dividends and other income from equity investments	2	—	—	—	—	2
Net fees and commissions	362	130	(2)	—	(2)	488
Net trading income	10	320	2	9	—	341
Net other expenses/income	(18)	42	35	34	4	97
OPERATING INCOME	**1,101**	**885**	**62**	**40**	**(11)**	**2,077**
Payroll costs	(292)	(198)	(182)	(51)	—	(723)
Other administrative expenses	(521)	(353)	170	78	9	(617)
Amortisation, depreciation and impairment losses						
on intangible and tangible assets	(6)	(327)	(3)	(43)	—	(379)
Operating costs	**(819)**	**(878)**	**(15)**	**(16)**	**9**	**(1,719)**
OPERATING PROFIT/(LOSS)	**282**	**7**	**47**	**24**	**(2)**	**358**
Net write-downs of loans and provisions for						
guarantees and commitments	(29)	(54)	4	(1)	—	(80)
NET OPERATING PROFIT/(LOSS)	**253**	**(47)**	**51**	**23**	**(2)**	**278**
Provisions for risks and charges	86	195	7	—	—	288
Restructuring costs	—	—	—	—	—	—
Net income from investments	9	16	61	25	—	111
PROFIT/(LOSS) BEFORE TAX	**348**	**164**	**119**	**48**	**(2)**	**677**
Income tax for the period	(139)	(115)	(25)	(9)	1	(287)
PROFIT/(LOSS) AFTER TAX	**209**	**49**	**94**	**39**	**(1)**	**390**
Impairment on goodwill	—	—	—	—	—	—
CONSOLIDATED PROFIT/(LOSS)	**209**	**49**	**94**	**39**	**(1)**	**390**
attributable to the shareholder of UniCredit Bank AG	209	49	93	39	(1)	389
attributable to minorities	—	—	1	—	—	1

Segment Reporting (Continued)

Development of the Commercial Banking business segment (€ millions)

INCOME/EXPENSES	1/1–30/6/2020	1/1–30/6/2019
Net interest	732	745
Dividends and other income from equity investments	3	2
Net fees and commissions	366	362
Net trading income	18	10
Net other expenses/income	(27)	(18)
OPERATING INCOME	**1,092**	**1,101**
Payroll costs	(304)	(292)
Other administrative expenses	(521)	(521)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(7)	(6)
Operating costs	**(832)**	**(819)**
OPERATING PROFIT/(LOSS)	**260**	**282**
Net write-downs of loans and provisions for guarantees and commitments	(244)	(29)
NET OPERATING PROFIT/(LOSS)	**16**	**253**
Provisions for risks and charges	1	86
Restructuring costs	—	—
Net income from investments	—	9
PROFIT/(LOSS) BEFORE TAX	**17**	**348**
Income tax for the period	(10)	(139)
PROFIT/(LOSS) AFTER TAX	**7**	**209**
Impairment on goodwill	—	—
CONSOLIDATED PROFIT/(LOSS)	**7**	**209**
attributable to the shareholder of UniCredit Bank AG	7	209
attributable to minorities	—	—
Cost-income ratio in %[1]	76.2	74.4

1 Ratio of operating costs to operating income.

In the first half of 2020, the Commercial Banking business segment generated operating profit (before net write-downs of loans and provisions for guarantees and commitments) of €260 million, which is thus a slight €22 million or 7.8% lower than the previous year's level.

At €1,092 million, operating income almost matched the level of the previous-year period (€1,101 million, down 0.8%). The net interest of €732 million contained in operating income was only slightly lower than the previous-year period (€745 million, down 1.7%) despite the still extremely low level of interest rates. These persistently ultra-low interest rates continued to weigh heavily on the customer deposit business that was, however, partially compensated by a significant increase in real estate financing in the retail banking business and by a slight rise in income from the lending business in corporate customer activities.

Net fees and commissions rose slightly by €4 million, or 1.1%, to €366 million compared with the previous-year period.

In net trading income, there was a substantial rise of €8 million, or 80%, from €10 million in the previous-year period to €18 million in the reporting period. This increase in net trading income is attributable to better profit contributions from the Wealth Cap subsidiary coupled with positive effects from value adjustments in the derivatives business with corporate customers.

Net other expenses/income reports an expense of €27 million for the reporting period. This represents a marked rise of €9 million or 50% compared with the previous-year period and is attributable to a higher charge for the European bank levy.

Dividends and other income from equity investments contributed €2 million to operating income in the current reporting period, the same as in the previous-year period.

In the first half of 2020, operating costs were up by €13 million, or 1.6%, to €832 million compared with the previous-year period. This is largely due to higher payroll costs, which increased by €12 million, or 4.1%, to €304 million compared with the previous-year period. The increase is attributable to higher contributions to pension schemes in addition to regular salary adjustments and additional capacities in the growth regions.

The cost-income ratio rose slightly to 76.2% in the current reporting period compared with 74.4% in the previous-year period.

At €244 million, the item net write-downs of loans and provisions for guarantees and commitments shows a significant increase in net additions of €215 million compared with the previous-year period (down €29 million).

Net operating profit of €16 million in the first half of 2020 was thus 93.7% or €237 million sharply below the profit of €253 million generated in the previous year.

In the first half of 2020, there was net income of €1 million from the reversal of provisions after €86 million in the previous year. In April 2019, the Bank reached a settlement with the US and New York authorities to conclude the proceedings for violations of US economic 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 allowed the excess to be reversed in the previous year.

There were no restructuring costs in the reporting period or in the previous-year period.

Net income from investments shows no income or expenses in the current reporting period after reporting €9 million in the previous-year period.

Overall, the Commercial Banking business segment generated a profit before tax of €17 million in the first half of 2020, which is very markedly lower than the previous-year figure of €348 million as a result of the net addition to net write-downs of loans and provisions for guarantees and commitments.

Income tax for the reporting period shows an income tax expense of €10 million, whereas an income tax expense of €139 million was reported in the previous-year period.

The Commercial Banking business segment reports a profit after tax of €7 million for the first half of 2020, which is very substantially lower than the comparative figure of the previous-year period (€209 million).

Segment Reporting (Continued)

Development of the Corporate & Investment Banking business segment (€ millions)

INCOME/EXPENSES	1/1–30/6/2020	1/1–30/6/2019
Net interest	484	393
Dividends and other income from equity investments	3	—
Net fees and commissions	161	130
Net trading income	29	320
Net other expenses/income	(64)	42
OPERATING INCOME	**613**	**885**
Payroll costs	(180)	(198)
Other administrative expenses	(357)	(353)
Amortisation, depreciation and impairment losses on intangible and tangible assets	(5)	(327)
Operating costs	**(542)**	**(878)**
OPERATING PROFIT/(LOSS)	**71**	**7**
Net write-downs of loans and provisions for guarantees and commitments	(243)	(54)
NET OPERATING PROFIT/(LOSS)	**(172)**	**(47)**
Provisions for risks and charges	6	195
Restructuring costs	(3)	—
Net income from investments	17	16
PROFIT/(LOSS) BEFORE TAX	**(152)**	**164**
Income tax for the period	3	(115)
PROFIT/(LOSS) AFTER TAX	**(149)**	**49**
Impairment on goodwill	—	—
CONSOLIDATED PROFIT/(LOSS)	**(149)**	**49**
attributable to the shareholder of UniCredit Bank AG	(149)	49
attributable to minorities	—	—
Cost-income ratio in %[1]	88.4	99.2

1 Ratio of operating costs to operating income.

In the first half of 2020, the Corporate & Investment Banking business segment generated operating income of €613 million and thus remained a significant 30.7% below the income of €885 million in the previous-year period.

The primary cause of this development in the first half of 2020 is the sharp decline in net trading income, which is down by 90.9%, or €291 million, to €29 million compared with the previous-year period. This decline is primarily attributable to market turbulence relating to the coronavirus pandemic and the associated valuation discounts. In addition, valuation adjustments, which include credit value adjustments and funding value adjustments, weighed heavily on net trading income. However, the retail banking business proved to be largely stable, showing a slight upward trend.

Net other expenses/income reported an expense of €64 million in the first half of 2020, whereas income of €42 million was reported in the previous-year period. The year-ago result contains a positive non-recurrent effect from the Bard Offshore 1 wind farm.

These declines could only be partially offset by the significant increase in net interest of €91 million, or 23.2%, to €484 million compared with the previous-year period. This trend is attributable on the one hand to an increase in demand for credit in the crisis-ridden market environment and on the other hand to higher trade-induced interest.

Net fees and commissions rose significantly by €31 million, or 23.8%, to €161 million compared with the previous-year period. This development is due to higher commissions and advisory fees as a result of greater demand from companies for equity or borrowings using capital market products, such as bonds or share issues.

Dividends and other income from equity investments amounted to €3 million in the first half of 2020 (previous-year period: €0 million).

Operating costs fell a sharp €336 million, or 38.3%, to €542 million after €878 million in the previous-year period. This is mainly due to the decline of €322 million in depreciation. In the previous-year period, this item still contained the depreciation on the BARD Offshore 1 wind farm, for which an unscheduled write-down of €259 million was taken in addition to the scheduled depreciation for the first half of 2019. Furthermore, payroll costs fell slightly by €18 million, or 9.1%, to €180 million compared with the previous-year period whereas other administrative expenses rose slightly by €4 million, or 1.1%, to €357 million.

Despite the decline in the earnings trend based on lower costs, the cost-income ratio fell to 88.4% after 99.2% in the 2019 financial year.

At €243 million, the item net write-downs of loans and provisions for guarantees and commitments reports a substantial increase of €189 million in net additions compared with the previous-year period (down €54 million).

The net operating loss recognised in the current reporting period amounts to €172 million, after a loss of €47 million was also posted in the previous-year period.

In the first half of 2020, net income from the reversal of provisions for risks and charges totalled €6 million after €195 million in the previous-year period. In April 2019, the Bank reached a settlement with the US and New York authorities to conclude the proceedings for violations of US economic sanctions in the period from 2002 to 2012. The amounts payable according to the settlement were lower than the provisions set aside for in previous years, which allowed the excess to be reversed in the previous year.

At €17 million, net income from investments in the reporting period almost matched the level of €16 million in the previous-year period.

The Corporate & Investment Banking business segment generated a loss before tax of €152 million in the first half of 2020, which is well below the previous-year figure of €164 million.

Income tax for the current reporting period shows tax income of €3 million. In the previous-year period there was a tax expense of €115 million.

The Corporate & Investment Banking business segment generated a loss before tax of €149 million in the first half of 2020 compared with the profit after tax of €49 million in the previous-year period.

Segment Reporting (Continued)

Development of the Group Corporate Centre business segment

(€ millions)

INCOME/EXPENSES	1/1–30/6/2020	1/1–30/6/2019
Net interest	77	27
Dividends and other income from equity investments	—	—
Net fees and commissions	(1)	(2)
Net trading income	(7)	2
Net other expenses/income	18	35
OPERATING INCOME	**87**	**62**
Payroll costs	(180)	(182)
Other administrative expenses	163	170
Amortisation, depreciation and impairment losses on intangible and tangible assets	(4)	(3)
Operating costs	**(21)**	**(15)**
OPERATING PROFIT/(LOSS)	**66**	**47**
Net write-downs of loans and provisions for guarantees and commitments	20	4
NET OPERATING PROFIT/(LOSS)	**86**	**51**
Provisions for risks and charges	2	7
Restructuring costs	(1)	—
Net income from investments	(1)	61
PROFIT/(LOSS) BEFORE TAX	**86**	**119**
Income tax for the period	17	(25)
PROFIT/(LOSS) AFTER TAX	**103**	**94**
Impairment on goodwill	—	—
CONSOLIDATED PROFIT/(LOSS)	**103**	**94**
attributable to the shareholder of UniCredit Bank AG	103	93
attributable to minorities	—	1
Cost-income ratio in %[1]	24.1	24.2

1 Ratio of operating costs to operating income.

In the reporting period, the Group Corporate Centre business segment generated operating income of €87 million, which has thus risen sharply by €25 million, or 40.4% compared with the previous-year period.

In the first half of 2020, net interest improved very significantly by €50 million to €77 million compared with €27 million in the previous-year period. This is largely due to extraordinary interest income on account of concluded fiscal court proceedings.

There were no dividends and other income from equity investments in the reporting or in the previous-year period.

Net fees and commissions improved by €1 million or 50.0% compared with the first half of 2019 and report a commission expense of €1 million for the current reporting period.

On account of IFRS 9 fair value adjustments, net trading income fell significantly by €9 million from trading income of €2 million in the previous-year period to a trading loss of €7 million in the current reporting period.

With a sharp rise of €6 million or 40.0% in operating costs compared with the previous-year period, operating profit amounted to €66 million after €47 million in the previous-year period, which represents a very significant increase of 40.4%.

There were net reversals of €20 million in net write-downs of loans and provisions for guarantees and commitments in the reporting period and of €4 million in the previous-year period, In the first half of 2020, net operating profit totalled €86 million after €51 million in the previous-year period and thus reports a very substantial increase of 68.6%.

With a loss of €1 million, net income from investments was €62 million lower than the same period last year (€61 million). This mainly relates to the sale of a purchase option (€40 million) and write-ups (€22 million) in two real estate companies in the previous-year period.

Despite the very sharp rise in net interest and the decline in other administrative expenses, the profit before tax of €86 million for the Group Corporate Centre business segment was substantially lower than the figure of €119 million in the previous-year period, which is largely attributable to the income generated under net income from investments.

Tax income of €17 million was posted under income tax for the reporting period, whereas there was a tax expense of €25 million in the previous-year period.

The Group Corporate Centre business segment reports a profit after tax of €103 million for the first half of 2020, which slightly exceeds the comparative figure of the previous year (€94 million) by 9.6%.

There were no expenses for the impairment of goodwill.

The cost-income ratio for the reporting period amounts to 24.1% and has thus remained at the same level as the previous-year period (24.2%).

Segment Reporting (Continued)

Development of the Other business segment (€ millions)

INCOME/EXPENSES	1/1–30/6/2020	1/1–30/6/2019
Net interest	(2)	(3)
Dividends and other income from equity investments	—	—
Net fees and commissions	—	—
Net trading income	—	9
Net other expenses/income	34	34
OPERATING INCOME	**32**	**40**
Payroll costs	(61)	(51)
Other administrative expenses	88	78
Amortisation, depreciation and impairment losses on intangible and tangible assets	(46)	(43)
Operating costs	**(19)**	**(16)**
OPERATING PROFIT/(LOSS)	**13**	**24**
Net write-downs of loans and provisions for guarantees and commitments	—	(1)
NET OPERATING PROFIT/(LOSS)	**13**	**23**
Provisions for risks and charges	(1)	—
Restructuring costs	(15)	—
Net income from investments	548	25
PROFIT/(LOSS) BEFORE TAX	**545**	**48**
Income tax for the period	(177)	(9)
PROFIT/(LOSS) AFTER TAX	**368**	**39**
Impairment on goodwill	—	—
CONSOLIDATED PROFIT/(LOSS)	**368**	**39**
attributable to the shareholder of UniCredit Bank AG	368	39
attributable to minorities	—	—
Cost-income ratio in %[1]	59.4	40.0

1 Ratio of operating costs to operating income.

The Other business segment generated operating income of €32 million in the first half of 2020 and is thus €8 million or 20.0% lower than the figure of €40 million in the previous-year period.

The change in operating costs by €3 million, or 19%, to €19 million is largely due to an increase of €3 million, or 7%, to €46 million in amortisation, depreciation and impairment losses compared with €43 million in the previous-year period. The increase in payroll costs is attributable to the reorganisation of the workforce, regular salary adjustments and higher pension contributions.

The Other business segment generated operating profit of €13 million in the reporting period, which is a sharp €11 million or 45.8% below the previous-year period of €24 million.

On account of the lower operating income and the higher operating costs, the cost-income ratio increased to 59.4% in the reporting period after 40.0% in the first half of the previous year.

In the Other business segment, no expenses arose for net write-downs of loans and provisions for guarantees and commitments in the reporting period, whereas an expense of €1 million arose in the previous-year period.

Net operating profit thus totalled €13 million and is €10 million or 43.5% lower than the previous-year figure of €23 million.

In the current reporting period, the expense from "Provisions for risks and charges" comes to €1 million, after no income from reversals or expenses from additions were incurred in the previous year. "Restructuring costs" amounted to €15 million in the first half of 2020, whereas no income or expenses were reported in the previous-year period.

At €548 million, net income from investments posted a very significant increase of €523 million compared with the previous-year period. The income recognised under this item in the reporting period is largely attributable to the sale of the "Am Tucherpark" site, which was completed in early 2020.

Overall, the Other business segment generated profit before tax of €545 million in the first half of 2020, which is primarily due to net income from investments.

On account of the net income generated from investments, the income tax expense for the reporting period rose to €177 million after €9 million in the previous-year period.

For the first half of 2020, the Other business segment reported profit after tax of €368 million, which represents a very substantial increase of €329 million compared with the previous year's figure of €39 million.

Segment Reporting (Continued)

5 Balance-sheet figures, broken down by business segment

(€ millions)

	COMMERCIAL BANKING	CORPORATE & INVESTMENT BANKING	GROUP CORPORATE CENTRE	OTHER	CONSOLIDATION	HVB GROUP
Loans and receivables with banks (at cost)						
30/6/2020	553	31,342	83	1,041	(1,153)	31,866
31/12/2019	30	30,701	371	272	(402)	30,972
Loans and receivables with customers (at cost)[1]						
30/6/2020	88,052	46,540	1,626	—	(2,064)	134,154
31/12/2019	86,294	43,168	1,100	—	(2,484)	128,078
Deposits from customers						
30/6/2020	93,487	35,511	2,815	—	(1,153)	130,660
31/12/2019	88,244	35,178	1,907	—	(402)	124,927
Risk-weighted assets compliant						
with Basel III (including equivalents for						
market risk and operational risk)						
30/6/2020	32,980	48,446	4,725	3,296	220	89,667
31/12/2019	31,334	45,370	4,819	3,715	217	85,455

1 "Loans and receivables with customers (at cost)" do not contain any securities holdings for internal management purposes.

Notes to the Income Statement

6 Net interest

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Interest income	1,880	1,813
from financial assets at cost	1,299	1,446
from financial assets at FVTOCI	28	14
from financial assets at FVTPL and hedging derivatives	255	224
from financial assets held for trading	187	83
other interest income	111	46
Negative interest on financial assets	(66)	(68)
Interest expense	(681)	(709)
from financial liabilities at cost	(384)	(493)
of which from lease liabilities	(3)	(2)
from financial liabilities at FVTPL and hedging derivatives	(45)	(40)
from financial liabilities held for trading	(220)	(169)
other interest expense	(32)	(7)
Negative interest on financial liabilities	158	113
Total	**1,291**	**1,149**

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

Net interest attributable to related parties

The item "Net interest" includes the following amounts attributable to related parties:

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Non-consolidated affiliated companies	11	14
of which:		
UniCredit S.p.A.	2	6
sister companies	9	8
subsidiaries	—	—
Joint ventures	—	4
Associated companies	1	1
Other participating interests	5	7
Total	**17**	**26**

Notes to the Income Statement (Continued)

7 Dividends and other income from equity investments

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Dividends and other similar income	6	2
Companies accounted for using the equity method	—	—
Total	**6**	**2**

8 Net fees and commissions

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Fee and commission income	699	641
Securities services for clients	336	276
Payment transactions	144	145
Lending business	79	78
Guarantees	63	62
Distribution of third party products	49	54
Other commission income	28	26
Fee and commission expense	(173)	(153)
Securities services for clients	(91)	(77)
Payment transactions	(33)	(34)
Lending business	(4)	(9)
Guarantees	(2)	(2)
Distribution of third party products	—	—
Other commission expense	(43)	(31)
Net fees and commissions	**526**	**488**

Net fees and commissions from related parties

The item “Net fees and commissions” includes the following amounts attributable to related parties:

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Non-consolidated affiliated companies	(7)	(14)
of which:		
UniCredit S.p.A.	3	(2)
sister companies	(11)	(12)
subsidiaries	1	—
Joint ventures	—	—
Associated companies	—	—
Other participating interests	—	—
Total	**(7)**	**(14)**

9 Net trading income

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Net gains on financial instruments held for trading[1]	258	338
Total	**258**	**338**

1 Including dividends on financial instruments held for trading.

Net trading income was negatively affected by valuation discounts resulting from the fair value measurement of derivatives, particularly credit value adjustments and funding value adjustments, which were partly attributable to market turbulence surrounding the coronavirus pandemic.

10 Net gains/losses on financial assets and liabilities at fair value

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Financial assets mandatorily at FVTPL	(50)	(11)
Financial liabilities designated at FVTPL	(158)	(38)
Derecognition from OCI	12	5
Effects arising from hedge accounting	(20)	26
Fair value equity	10	20
Total	**(206)**	**2**

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Fair value hedges	(20)	26
Changes in fair value of hedged items	(145)	(592)
Portfolio fair value hedges	(267)	(783)
Micro fair value hedges	122	191
Changes in fair value of hedging derivatives	125	618
Portfolio fair value hedges	247	809
Micro fair value hedges	(122)	(191)
Cash flow hedges	—	—
Net gains/(losses) of the cash flow hedge (only ineffective part)	—	—
Total	**(20)**	**26**

Notes to the Income Statement (Continued)

The hedge accounting effects of the main hedge accounting approaches of HVB Group are described below:

Micro fair value hedge for holdings at FVTOCI

(€ millions)

	REMAINING TERM			CUMULATIVE AMOUNT OF THE HEDGE-RELATED ADJUSTMENT TO THE FAIR VALUE INCLUDED IN THE CARRYING AMOUNT OF THE HEDGED ITEM RECOGNISED IN THE BALANCE SHEET		CARRYING AMOUNT		CHANGE IN FAIR VALUE USED TO RECOGNISE AN INEFFECTIVENESS IN THE HEDGE FOR THE PERIOD
	LESS THAN 1 YEAR	1 YEAR TO 5 YEARS	MORE THAN 5 YEARS	ASSETS	LIABILITIES	ASSETS	LIABILITIES	
Balance at 30/6/2020								
Nominal								
Hedged items	—	10,189	2,425	—	—	—	—	—
Hedging transactions	—	10,189	2,425	—	—	—	—	—
Interest rate sensitivities in BPV								
Hedged items	—	(3)	(2)	—	—	—	—	—
Hedging transactions	—	3	2	—	—	—	—	—
Balance sheet values								
Hedged items	—	—	—	336	—	13,130	—	—
Hedging transactions	—	—	—	—	—	—	421	—
Hedge result								—
Hedged items	—	—	—	—	—	—	—	122
Hedging transactions	—	—	—	—	—	—	—	(122)
Balance at 31/12/2019								
Nominal								
Hedged items	550	10,167	3,533	—	—	—	—	—
Hedging transactions	550	10,167	3,533	—	—	—	—	—
Interest rate sensitivities in BPV								
Hedged items	—	(4)	(2)	—	—	—	—	—
Hedging transactions	—	4	2	—	—	—	—	—
Balance sheet values								
Hedged items	—	—	—	142	—	14,370	—	—
Hedging transactions	—	—	—	—	—	2	357	—
Hedge result								1
Hedged items	—	—	—	—	—	—	—	113
Hedging transactions	—	—	—	—	—	—	—	(112)

The table above compares the nominal amounts of the hedged items and the hedging transactions. In addition, the interest rate sensitivities are stated in basis point values (BPV). This means that if the interest rate changes by one basis point (0.01%), the fair value will change by the amount stated in euro millions. The statement of interest sensitivities in BPV is a suitable instrument for describing the effectiveness of a hedge.

Securities holdings, which are allocated to the balance sheet item "Financial assets at FVTOCI", are hedged against interest rate risks separately for each transaction through a hedging transaction. This includes up-front payments on conclusion of the interest rate swaps to compensate for premiums and discounts in the purchase price of the securities which means that their fair value is not equal to zero at the inception of the hedge. Furthermore, the fair value of the derivatives also contains accrued interest (dirty fair value) whereas accrued interest for the hedged items is allocated to these directly and is thus not included in the cumulative amount of the hedge-related adjustments to the carrying amount of the hedged items. Consequently, the net fair value of the hedging derivatives does not reflect the cumulative amount of the hedge-related adjustments to the carrying amount of the hedged items.

Portfolio fair value hedge

(€ millions)

	REMAINING TERM			CUMULATIVE AMOUNT OF THE HEDGE-RELATED ADJUSTMENT TO THE FAIR VALUE INCLUDED IN THE CARRYING AMOUNT OF THE HEDGED ITEM RECOGNISED IN THE BALANCE SHEET		CARRYING AMOUNT		CHANGE IN FAIR VALUE USED TO RECOGNISE AN INEFFECTIVENESS IN THE HEDGE FOR THE PERIOD
	LESS THAN 1 YEAR	1 YEAR TO 5 YEARS	MORE THAN 5 YEARS	ASSETS	LIABILITIES	ASSETS	LIABILITIES	
Balance at 30/6/2020								
Interest rate sensitivities in BPV								
Hedged items								
EUR	1	5	12	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
GBP	—	—	—	—	—	—	—	—
Hedging transactions								
EUR	(1)	(6)	(11)	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
GBP	—	—	—	—	—	—	—	—
Balance sheet values								
Hedged items	—	—	—	56	2,035	—	—	—
Hedging transactions	—	—	—	—	—	314	486	—
Hedge result								(20)
Hedged items	—	—	—	—	—	—	—	(267)
Hedging transactions	—	—	—	—	—	—	—	247
Balance at 31/12/2019								
Interest rate sensitivities in BPV								
Hedged items								
EUR	1	5	12	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
GBP	—	—	—	—	—	—	—	—
Hedging transactions								
EUR	(1)	(6)	(11)	—	—	—	—	—
USD	—	—	—	—	—	—	—	—
CHF	—	—	—	—	—	—	—	—
GBP	—	—	—	—	—	—	—	—
Balance sheet values								
Hedged items	—	—	—	40	1,636	—	—	—
Hedging transactions	—	—	—	—	—	262	456	—
Hedge result								48
Hedged items	—	—	—	—	—	—	—	(415)
Hedging transactions	—	—	—	—	—	—	—	463

Notes to the Income Statement (Continued)

HVB Group has exercised the option of continuing to apply the provisions of IAS 39 on hedge accounting. The portfolio fair value hedge will thus be continued.

In line with the standard bank risk management procedures for the hedging of fixed interest rate risks, the interest rate risks entailed in the hedged items are managed on a cross-item basis in the portfolio fair value hedge. For this purpose, the interest-relevant cash flows of the hedged items are allocated separately by currency to maturity buckets and the net position is determined. The interest rate hedging derivatives concluded thus relate to net interest rate risk positions across several items in the respective maturity buckets and not to specific hedged items. As a hedged item may thus have different effects in the respective maturity bucket, the effects of hedge accounting are presented by reference to interest sensitivity. The statement of interest sensitivity by maturity bucket represents an adequate measure for determining the hedged interest rate risks. The table shows the changes in fair value in € millions if the interest rate changes by one basis point (BPV or 0.01%).

11 Net gains/losses on derecognition of financial instruments measured at cost

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Loans and receivables (performing)	(1)	4
Buy-backs of securities issued	—	1
Promissory notes (assets side)	3	—
Total	**2**	**5**

12 Net other expenses/income

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Other income	671	380
Disposal of land and buildings	549	4
Rental income	36	77
Valuation/disposal of investment properties	7	98
Other	79	201
Other expenses	(167)	(189)
Disposal of land and buildings	—	—
Valuation/disposal of investment properties	(8)	(1)
Expenses of investment properties	(8)	(21)
Bank levy	(126)	(104)
Other	(25)	(63)
Total	**504**	**191**

With regard to recognition of rental income and current operating expenses for investment properties, we switched last year to the gross method of recognition. Consequently, rental income is shown in the table as other operating income and current operating expenses as other operating expenses.

Income from the disposal of land and buildings recognised in the reporting period is mainly from the sale of the "Am Tucherpark" site, which was completed at the beginning of 2020. The decline in rental income and the ongoing expenses for investment properties are attributable to the disposals made in 2019, as a result of which there has been a significant reduction in the investment property portfolio in 2020.

At year-end 2019, the valuation of investment properties was changed retrospectively to fair value measurement through profit or loss. In the context of the ongoing fair-value measurement, current valuation reports have been generated to determine the fair values of investment properties as at 30 June 2020. However, the coronavirus pandemic has had two effects: one is that the transaction volume for commercial properties has declined significantly in the second quarter and the other is that uncertainty with regard to the potential impact of the coronavirus pandemic on property values has increased sharply. It is currently unclear whether the increase in home-office work will reduce the demand for office space or whether the demand will grow due to the need for increased distancing; and what the net effects will ultimately be. Further, these effects may vary greatly depending on the location (central/decentral) and the lessee. Due to the reduced transaction volume, there is no expectation that the observable transaction prices already fully reflect all of the possible effects of the coronavirus pandemic. Although the valuation reports cover all of the discernible changes in value of each property as at the reporting date, the reports note higher uncertainty over whether effects of the coronavirus pandemic could lead to significant changes in fair value in the short term. Overall, we do not expect any notable impact on attractive commercial locations in the cities of Berlin, Cologne, Dusseldorf, Frankfurt, Hamburg, Munich, Stuttgart and Luxembourg. Because negative changes to office space requirements due to the coronavirus pandemic will, in our view, be offset by other positive effects due to the attractiveness of these locations, we have applied a valuation discount in the very low double-digit-millions range at portfolio level for the remaining properties in order to take into account the heightened uncertainty with regard to the short-term development of market values. The increase in fair value determined by the individual valuation reports almost completely compensates for the valuation discount. The remaining effects from the measurement of investment properties relate to individual properties with positive income of €7 million and expenses of €8 million. In this context, it should be taken into account that the increase in land value offsets the decline in value of the building standing on the same property. Land and buildings are recognised separately.

In the previous year, the item "Other" included income of €139 million, while the item "Other" included expenses of €35 million in connection with the disposal of the BARD Offshore 1 wind farm at the end of 2019.

Net other expenses/income attributable to related parties

The item "Net other expenses/income" includes the following amounts attributable to related parties: (€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Non-consolidated affiliated companies	37	44
of which:		
UniCredit S.p.A.	5	6
sister companies	32	38
Joint ventures	—	—
Associated companies	—	—
Other participating interests	—	—
Total	**37**	**44**

Notes to the Income Statement (Continued)

13 Operating costs

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Payroll costs	(725)	(723)
Wages and salaries	(571)	(580)
Social security costs	(90)	(89)
Expenses for pensions and similar employee benefits	(64)	(54)
Other administrative expenses	(620)	(617)
Amortisation, depreciation and impairment losses	(62)	(379)
on property, plant and equipment	(33)	(350)
on software and other intangible assets, excluding goodwill	(4)	(4)
on right-of-use assets (leases)	(25)	(25)
Total	**(1,407)**	**(1,719)**

In the previous-year period, amortisation, depreciation and impairment losses on intangible and tangible assets contains an unscheduled write-down of €259 million in connection with the reclassification of the BARD Offshore 1 wind farm to the item "Non-current assets or disposable groups held for sale".

Operating costs of related parties

The item "Operating costs" includes the following amounts attributable to related parties:

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Non-consolidated affiliated companies	(312)	(311)
of which:		
UniCredit S.p.A.	(9)	(8)
sister companies	(303)	(303)
Joint ventures	—	—
Associated companies	—	—
Other participating interests	—	—
Total	**(312)**	**(311)**

14 Credit impairment losses IFRS 9

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Additions	(732)	(438)
Allowances for losses on loans and receivables at cost	(578)	(335)
Allowances for losses on loans and receivables at FVTOCI	(2)	—
Allowances for losses on guarantees and indemnities	(152)	(103)
Reversals	244	340
Allowances for losses on loans and receivables at cost	166	250
Allowances for losses on loans and receivables at FVTOCI	—	—
Allowances for losses on guarantees and indemnities	78	90
Gains/(losses) from non-substantial modification	—	1
Recoveries from write-offs of loans and receivables	21	17
Gains/(losses) on the disposal of impaired loans and receivables	—	—
Total	**(467)**	**(80)**

While credit impairment losses IFRS 9 came to €80 million in the first half of 2019, thus benefiting from the positive economic development in Germany in recent years, this figure rose sharply to €467 million in the first half of 2020. The increase is mainly attributable to a rise in portfolio valuation allowances of €274 million where especially the adjustment of the assumptions used to reflect future economic conditions had an effect. In particular, the assumption that Germany's gross national product would contract by 10 percent in 2020 followed by an anticipated increase in the German gross national product by 10 percent in 2021 was a key parameter among several that was adjusted in the model. These adjustments were the cause of the increase in portfolio valuation allowances. This scenario is one of three scenarios taken into account when calculating anticipated credit losses. The parameters were updated in the context of periodic parameter adjustment in the second half of the year. Part of this adjustment involves adapting to new estimates of gross national product development, such as the updated forecasts for German gross national product growth rates published by the economic research unit of HVB in late June 2020. By contrast, transfers to the specific allowances in the first half of 2020 (net €193 million) are mainly based on a few large individual cases.

Credit impairment losses IFRS 9 attributable to related parties

The item "Credit impairment losses IFRS 9" includes the following amounts attributable to related parties:

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Non-consolidated affiliated companies	—	—
of which:		
UniCredit S.p.A.	—	—
sister companies	—	—
Joint ventures	—	—
Associated companies	—	—
Other participating interests	—	—
Total	**—**	**—**

Notes to the Income Statement (Continued)

15 Provisions for risks and charges

In the first half of 2020, net income from the reversal of provisions for risks and charges amounted to €8 million. The net income of €288 million reported in the previous-year period from the reversal of provisions is related to a settlement the Bank reached in April 2019 with the US and New York authorities to conclude the proceedings for violations of US financial sanctions in the period from 2002 to 2012. Since the amounts payable according to the settlement were lower than the provisions set up for it in the previous years, it was possible to reverse the excess last year.

16 Net gains/losses on disposals of investments

(€ millions)

	1/1–30/6/2020	1/1–30/6/2019
Shares in affiliated companies	—	—
Disposal of companies accounted for using the equity method	—	15
Write-downs	—	(2)
Total	**—**	**13**

The disposal of companies accounted for using the equity method contains the gain in the previous year of €15 million on the sale of our associated company SwanCap Partners GmbH, Munich.

17 Earnings per share

	1/1–30/6/2020	1/1–30/6/2019
Consolidated profit attributable to the shareholder (€ millions)	329	389
Average number of shares	802,383,672	802,383,672
Earnings per share (€) (undiluted and diluted)	0.41	0.48

Notes to the Balance Sheet

18 Financial assets held for trading

(€ millions)

	30/6/2020	31/12/2019
Balance-sheet financial instruments	22,399	22,966
Fixed-income securities	7,029	7,958
Equity instruments	4,759	5,641
Other financial assets held for trading	10,611	9,367
Positive fair value from derivative financial instruments	58,075	46,887
Total	**80,474**	**69,853**
of which: subordinated assets	23	135

Financial assets held for trading of related parties

The item "Financial assets held for trading" includes the following amounts attributable to related parties:

(€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	16,677	12,538
of which:		
UniCredit S.p.A.	11,908	8,541
sister companies[1]	4,769	3,997
Joint ventures	—	147
Associated companies	33	39
Other participating interests	3	5
Total	**16,713**	**12,729**

1 Mostly derivative transactions involving UniCredit Bank Austria AG.

Notes to the Balance Sheet (Continued)

19 Financial assets at FVTPL

(€ millions)

	30/6/2020	31/12/2019
Fixed-income securities	12,870	13,359
Equity instruments	309	283
Loans and promissory notes	1,439	1,757
Other	67	75
Total	**14,685**	**15,474**
of which:		
subordinated loans and receivables	23	32
past-due loans and receivables	1	1

20 Financial assets at FVTOCI

(€ millions)

	30/6/2020	31/12/2019
Fixed-income securities	13,522	14,673
Total	**13,522**	**14,673**

Development of loss allowance

(€ millions)

	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance at 1/1/2020	**14,673**	**—**	**—**	**—**	**14,673**
Transfers to another stage due to deterioration in credit quality	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	—	—	—	—	—
Changes due to modification not leading to derecognition	—	—	—	—	—
Changes within the stage (net)[1]	(1,164)	13	—	—	(1,151)
Derecognition (due to uncollectibility)	—	—	—	—	—
Other changes	—	—	—	—	—
Balance at 30/6/2020	**13,509**	**13**	**—**	**—**	**13,522**
Balance at 1/1/2019	**7,370**	**—**	**—**	**—**	**7,370**
Transfers to another stage due to deterioration in credit quality	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	—	—	—	—	—
Changes due to modification not leading to derecognition	—	—	—	—	—
Changes within the stage (net)[1]	7,303	—	—	—	7,303
Derecognition (due to uncollectibility)	—	—	—	—	—
Other changes	—	—	—	—	—
Balance at 31/12/2019	**14,673**	**—**	**—**	**—**	**14,673**

1 Changes within the stage (net) include additions from purchases and disposals from sales and repayments.

The holding or the change in impairment of the securities holdings is €2 million (previous year: lower than €0.5 million in each case).

No modifications to fixed-income securities were made in the reporting period, as also in the previous year.

No collateral was provided for assets held at FVTOCI in the reporting period or the previous year.

21 Loans and receivables with banks (at cost)

(€ millions)

	30/6/2020	31/12/2019
Current accounts	2,281	2,539
Cash collateral and pledged credit balances	9,182	8,203
Reverse repos	17,457	15,278
Securities	1,451	915
Other loans to banks	5,228	4,907
Non-performing loans and receivables	—	—
Total	**35,599**	**31,842**
of which subordinated assets	—	—

Other loans to banks consist mostly of term deposits and bonds.

Notes to the Balance Sheet (Continued)

Development of gross carrying amounts

(€ millions)

	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance at 1/1/2020	**31,809**	**38**	**1**	**—**	**31,848**
Change in carrying amount within the stage					
(including additions from new business and disposals)	3,465	(8)	—	—	3,457
Transfers to another stage due to deterioration in credit quality	(17)	17	—	—	—
from Stage 1 to Stage 2	(17)	17	—	—	—
from Stage 2 to Stage 3	—	—	—	—	—
from Stage 1 to Stage 3	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	—	—	—	—	—
from Stage 2 to Stage 1	—	—	—	—	—
from Stage 3 to Stage 2	—	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—	—
Increase in gross carrying amounts reported directly in equity					
for interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Foreign currency movements and other changes	—	—	—	—	—
Balance at 30/6/2020	**35,257**	**47**	**1**	**—**	**35,305**
Balance at 1/1/2019	**33,191**	**464**	**40**	**—**	**33,695**
Change in carrying amount within the stage					
(including additions from new business and disposals)	(1,362)	(446)	(39)	—	(1,847)
Transfers to another stage due to deterioration in credit quality	(34)	34	—	—	—
from Stage 1 to Stage 2	(34)	34	—	—	—
from Stage 2 to Stage 3	—	—	—	—	—
from Stage 1 to Stage 3	—	—	—	—	—
Transfers to another stage due to improvement in credit quality	14	(14)	—	—	—
from Stage 2 to Stage 1	14	(14)	—	—	—
from Stage 3 to Stage 2	—	—	—	—	—
from Stage 3 to Stage 1	—	—	—	—	—
Increase in gross carrying amounts reported directly in equity					
for interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Foreign currency movements and other changes	—	—	—	—	—
Balance at 31/12/2019	**31,809**	**38**	**1**	**—**	**31,848**

Analysis of allowances (€ millions)

	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance at 1/1/2020	**5**	**—**	**1**	**—**	**6**
Addition due to new business	1	—	—	—	1
Change in carrying amount within the same stage (netted)[1]	—	—	—	—	—
Increase in impairment reported directly in equity for					
interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivable)	—	—	—	—	—
Disposals (utilisation of impairments)	(1)	—	—	—	(1)
Reversal of the discounted amount and recognition of					
interest claims previously not recognised in profit or loss	—	—	—	—	—
Foreign currency movements and other changes	—	—	—	—	—
Balance at 30/6/2020	**5**	**—**	**1**	**—**	**6**
Balance at 1/1/2019	**6**	**1**	**40**	**—**	**47**
Addition due to new business	6	—	—	—	6
Change in carrying amount within the same stage (netted)[1]	(2)	—	—	—	(2)
Increase in impairment reported directly in equity for					
interest claims not recognised in profit or loss	—	—	—	—	—
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivable)	(5)	(1)	—	—	(6)
Disposals (utilisation of impairments)	—	—	(40)	—	(40)
Reversal of the discounted amount and recognition of					
interest claims previously not recognised in profit or loss	—	—	—	—	—
Foreign currency movements and other changes	—	—	1	—	1
Balance at 31/12/2019	**5**	**—**	**1**	**—**	**6**

1 Transfers between the individual stages are also shown here (disposal at the previous stage, addition at the new stage).

Loans and receivables with related parties

The item “Loans and receivables with banks (at cost)” includes the following amounts attributable to related parties: (€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	2,682	2,336
of which:		
UniCredit S.p.A.	1,774	1,515
sister companies[1]	908	821
Joint ventures	—	36
Associated companies	35	8
Other participating interests	57	6
Total	**2,774**	**2,386**

1 Mainly due from UniCredit Bank Austria AG.

Notes to the Balance Sheet (Continued)

22 Loans and receivables with customers (at cost)

(€ millions)

	30/6/2020	31/12/2019
Current accounts	6,444	7,154
Cash collateral and pledged cash balances	3,559	2,770
Reverse repos	4,996	3,685
Mortgage loans	49,659	48,967
Finance leases	1,725	1,767
Securities	17,465	13,221
of which asset-backed securities (ABS)	11,004	10,216
Other loans and receivables	65,262	60,853
Non-performing loans and receivables	1,267	1,215
Total	**150,377**	**139,632**
of which: subordinated assets	16	103

Other loans and receivables largely comprise miscellaneous other loans, instalment loans, term deposits and refinanced special credit facilities.

Loans and receivables with customers (at cost) include an amount of €4,916 million (previous year: €4,887 million) funded under the fully-consolidated Arabella conduit programme. This essentially involves buying short-term accounts payable and medium-term receivables under lease agreements from customers and funding them by issuing commercial paper on the capital market. The securitised loans and receivables essentially reflect loans and receivables of European borrowers, with the majority of the loans and receivables relating to German borrowers.

Development of gross carrying amounts (€ millions)

	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance at 1/1/2020	**127,733**	**11,060**	**2,669**	**—**	**141,462**
Change in carrying amount within the stage					
(including additions from new business and disposals)	14,821	(2,834)	(1,024)	—	10,963
Transfers to another stage due to deterioration in credit quality	(14,460)	13,376	1,084	—	—
from Stage 1 to Stage 2	(13,492)	13,492	—	—	—
from Stage 2 to Stage 3	—	(116)	116	—	—
from Stage 1 to Stage 3	(968)	—	968	—	—
Transfers to another stage due to improvement in credit quality	1,649	(1,613)	(36)	—	—
from Stage 2 to Stage 1	1,639	(1,639)	—	—	—
from Stage 3 to Stage 2	—	26	(26)	—	—
from Stage 3 to Stage 1	10	—	(10)	—	—
Increase in gross carrying amounts reported directly in equity					
for interest claims not recognised in profit or loss	—	—	86	—	86
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Foreign currency movements and other changes	—	—	—	—	—
Balance at 30/6/2020	**129,743**	**19,989**	**2,779**	**—**	**152,511**
Balance at 1/1/2019	**124,753**	**7,915**	**2,984**	**—**	**135,652**
Change in carrying amount within the stage					
(including additions from new business and disposals)	9,217	(2,173)	(1,313)	—	5,731
Transfers to another stage due to deterioration in credit quality	(8,318)	7,297	1,021	—	—
from Stage 1 to Stage 2	(7,444)	7,444	—	—	—
from Stage 2 to Stage 3	—	(147)	147	—	—
from Stage 1 to Stage 3	(874)	—	874	—	—
Transfers to another stage due to improvement in credit quality	2,081	(1,979)	(102)	—	—
from Stage 2 to Stage 1	2,031	(2,031)	—	—	—
from Stage 3 to Stage 2	—	52	(52)	—	—
from Stage 3 to Stage 1	50	—	(50)	—	—
Increase in gross carrying amounts reported directly in equity					
for interest claims not recognised in profit or loss	—	—	79	—	79
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Foreign currency movements and other changes	—	—	—	—	—
Balance at 31/12/2019	**127,733**	**11,060**	**2,669**	**—**	**141,462**

Notes to the Balance Sheet (Continued)

Analysis of allowances

(€ millions)

	STAGE 1	STAGE 2	STAGE 3	POCI	TOTAL
Balance at 1/1/2020	**139**	**237**	**1,454**	**—**	**1,830**
Addition due to new business	45	—	—	—	45
Change in carrying amount within the same stage (netted)[1]	14	235	213	—	462
Increase in impairment reported directly in equity for interest					
claims not recognised in profit or loss	—	—	86	—	86
Changes due to modification of assets not leading to derecognition	—	—	—	—	—
Disposals (reversal due to disposal of receivables)	(26)	(24)	(130)	—	(180)
Disposals (utilisation of impairments)	—	—	(92)	—	(92)
Reversal of the discounted amount and recognition of					
interest claims previously not recognised in profit or loss	—	—	(12)	—	(12)
Foreign currency movements and other changes	2	—	(7)	—	(5)
Balance at 30/6/2020	**174**	**448**	**1,512**	**—**	**2,134**
Balance at 1/1/2019	**139**	**187**	**1,620**	**—**	**1,946**
Addition due to new business	72	—	—	—	72
Change in carrying amount within the same stage (netted)[1]	(31)	91	300	—	360
Increase in impairment reported directly in equity for interest					
claims not recognised in profit or loss	—	—	79	—	79
Changes due to modification of assets not leading to derecognition	—	—	1	—	1
Disposals (reversal due to disposal of receivables)	(40)	(40)	(271)	—	(351)
Disposals (utilisation of impairments)	—	—	(253)	—	(253)
Reversal of the discounted amount and recognition of					
interest claims previously not recognised in profit or loss	—	—	(29)	—	(29)
Foreign currency movements and other changes	(1)	(1)	7	—	5
Balance at 31/12/2019	**139**	**237**	**1,454**	**—**	**1,830**

1 Transfers between the individual stages are also shown here (disposal at the previous stage, addition at the new stage).

Loans and receivables with related parties

The item “Loans and receivables with customers (at cost)” includes the following amounts attributable to related parties: (€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	47	4
of which:		
sister companies	46	2
subsidiaries	1	2
Joint ventures	—	11
Associated companies	53	45
Other participating interests	410	422
Total	**510**	**482**

23 Hedging derivatives

(€ millions)

	30/6/2020	31/12/2019
Micro fair value hedge	—	2
Portfolio fair value hedge[1]	314	262
Total	**314**	**264**

1 The cross-currency interest rate swaps used in hedge accounting are carried at their aggregate fair value in the portfolio fair value hedge.

24 Investments in associates and joint ventures accounted for using the equity method

(€ millions)

	30/6/2020	31/12/2019
Associated companies accounted for using the equity method	10	10
of which: goodwill	—	—
Joint ventures accounted for using the equity method	—	—
Total	**10**	**10**

Notes to the Balance Sheet (Continued)

25 Property, plant and equipment

(€ millions)

	30/6/2020	31/12/2019
Land	951	951
Buildings	958	964
Plant and office equipment	278	307
Right-of-use assets (leases)	279	285
of which: land and buildings	268	273
Other property, plant and equipment	—	—
Total	**2,466**	**2,507**

The land and buildings shown here are used by the Bank itself and are measured based on the revaluation model in accordance with IAS 16. Measurement was changed prospectively to the revaluation model with effect from 31 December 2019. Consequently, an initial review of the revaluation is to be carried out at the reporting date to ensure that the carrying amount does not deviate significantly from the fair value of the land and buildings. To this end, current valuation reports were prepared to determine the fair values of the owner-occupied real estate as at 30 June 2020. However, the coronavirus pandemic has had a twofold effect: on the one hand, the transaction volume for commercial real estate declined significantly in the second quarter and, on the other hand, uncertainty regarding the possible effects of the coronavirus pandemic on real estate valuation increased significantly. It is currently uncertain, for example, whether increased work from home offices will reduce the demand for space or whether it will increase due to the need for more distance or what the net effects will be in the end. The effects are also likely to considerably differ depending on the location (central/decentral) and lessee. Since the real estate is used by the Bank itself, possible risks that could arise in relation to the Bank as the user of the real estate (such as the risk of default on rents) are more likely to be negligible, so that only the general market-related effects remain as a risk. Due to the reduced transaction volume it is not expected that the observable transaction prices already fully reflect all possible coronavirus-related effects. Although the valuation reports cover all changes in value observable on the reporting date for the respective real estate, the reports refer to an increased uncertainty that corona-related effects could lead to significant changes in fair values in the short term. While we do not expect this to have any noteworthy impact on the attractive commercial locations in the cities of Berlin, Cologne, Dusseldorf, Frankfurt, Hamburg, Munich, Stuttgart and Luxembourg – as we believe that negative corona-virus related changes in space requirements will be offset by other positive effects due to the attractiveness of the locations – we have applied a valuation discount in the mid-double-digit million range at portfolio level to the remaining real estate in order to take account of the greater uncertainty regarding the short-term development of market values. The increase in fair values that was determined by the individual reports and the valuation discount that was applied almost completely offset each other. As a result, no adjustment was made to the carrying amounts when we reviewed the necessity of a possible revaluation.

Development of property, plant and equipment (€ millions)

	LAND	BUILDINGS	PLANT AND OFFICE EQUIPMENT	RIGHT-OF-USE ASSETS (LEASES)	TOTAL INTERNALLY USED PROPERTY, PLANT AND EQUIPMENT	OTHER PROPERTY, PLANT AND EQUIPMENT	TOTAL PROPERTY, PLANT AND EQUIPMENT[1]
Acquisition costs at 1/1/2020 (before adjustment)	**121**	**1,463**	**861**	**352**	**2,797**	**—**	**2,797**
Adjustment due to change to revaluation model	830	981	—	—	1,811	—	1,811
Acquisition costs at 1/1/2020 (after adjustment)	**951**	**2,444**	**861**	**352**	**4,608**	**—**	**4,608**
Write-downs and write-ups from previous years							
(before adjustment)	—	(886)	(554)	(67)	(1,507)	—	(1,507)
Adjustment due to change to revaluation model	—	(594)	—	—	(594)	—	(594)
Write-downs and write ups from previous years							
(after adjustment)	—	(1,480)	(554)	(67)	(2,101)	—	(2,101)
Carrying amounts at 1/1/2020	**951**	**964**	**307**	**285**	**2,507**	**—**	**2,507**
Additions							
Acquisition/production costs	—	12	26	47	85	—	85
Write-ups	—	—	—	—	—	—	—
Changes from currency translation	—	—	—	—	—	—	—
Other additions[2]	—	—	1	8	9	—	9
Disposals							
Sales	—	—	(8)	—	(8)	—	(8)
Depreciation and write-downs	—	(16)	(22)	(25)	(63)	—	(63)
Impairments	—	(1)	—	(1)	(2)	—	(2)
Changes from currency translation	—	—	—	—	—	—	—
Non-current assets or disposal groups							
held for sale	—	(1)	—	—	(1)	—	(1)
Other disposals[2]	—	—	(26)	(35)	(61)	—	(61)
Carrying amounts at 30/6/2020	**951**	**958**	**278**	**279**	**2,466**	**—**	**2,466**
Write-downs and write-ups from previous years plus							
the reporting period (before adjustment)	—	1,496	498	90	2,084	—	2,084
Adjustment due to revaluation							
in reporting period	—	(1)	—	—	(1)	—	(1)
Write-downs and write-ups from previous years plus							
the reporting period (after adjustment)	—	1,495	498	90	2,083	—	2,083
Acquisition costs at 30/6/2020							
(before adjustment)	**951**	**2,453**	**776**	**369**	**4,549**	**—**	**4,549**
Adjustment due to revaluation							
in reporting period	—	(1)	—	—	(1)	—	(1)
Acquisition costs at 30/6/2020 (after adjustment)	**951**	**2,452**	**776**	**369**	**4,548**	**—**	**4,548**

Notes to the Balance Sheet (Continued)

Development of property, plant and equipment

(€ millions)

	LAND	BUILDINGS	PLANT AND OFFICE EQUIPMENT	RIGHT-OF-USE ASSETS (LEASES)	TOTAL INTERNALLY USED PROPERTY, PLANT AND EQUIPMENT	OTHER PROPERTY, PLANT AND EQUIPMENT	TOTAL PROPERTY, PLANT AND EQUIPMENT[1]
Acquisition costs at 1/1/2019	**178**	**1,873**	**890**	**341**	**3,282**	**1,735**	**5,017**
Write-downs and write-ups from previous years	—	(1,129)	(561)	(18)	(1,708)	(497)	(2,205)
Carrying amounts at 1/1/2019	**178**	**744**	**329**	**323**	**1,574**	**1,238**	**2,812**
Additions							
Acquisition/production costs	—	24	30	32	86	3	89
Write-ups	1	7	—	—	8	—	8
Changes from currency translation	—	—	—	—	—	—	—
Other additions[3]	5	1	3	6	15	—	15
Disposals							
Sales	(1)	—	(6)	—	(7)	—	(7)
Depreciation and write-downs	—	(27)	(45)	(47)	(119)	(58)	(177)
Impairments	—	—	(4)	(6)	(10)	(259)	(269)
Changes from currency translation	—	—	—	(1)	(1)	—	(1)
Non-current assets or disposal groups held for sale	(62)	(152)	—	(16)	(230)	(924)	(1,154)
Other disposals[2]	—	(20)	—	(6)	(26)	—	(26)
Carrying amount at 31/12/2019 (measurement at amortised cost)	**121**	**577**	**307**	**285**	**1,290**	**—**	**1,290**
Effects from remeasurement compliant with IAS 16	830	387	—	—	1,217	—	1,217
Carrying amounts at 31/12/2019	**951**	**964**	**307**	**285**	**2,507**	**—**	**2,507**
Write-downs and write-ups from previous years plus the reporting year, adjusted for remeasurement effects	(830)	499	554	67	290	—	290
Acquisition costs at 31/12/2019	**121**	**1,463**	**861**	**352**	**2,797**	**—**	**2,797**

1 Including leased assets. More information about leases is contained in Note "Information regarding lease operations" in the notes to the 2019 consolidated financial statements.
2 Including changes in the group of companies included in consolidation.

26 Investment properties

Investment properties are measured at fair value. As each property is unique and the fair value is determined by expert opinions that take into account the special features of the property being valued, all fair values for investment properties reported in this balance sheet item are allocated to Level 3.

The net carrying amount of right-of-use assets from lease agreements classified as investment properties under this balance sheet item is €61 million at the reporting date (previous year: €61 million).

Development of investment properties (€ millions)

	2020	2019
Carrying amounts at 1/1	**353**	**563**
Additions		
Purchases	—	—
Valuation gains	7	109
Subsequent expenses	—	—
Changes from currency translation	—	—
Other additions[1]	—	16
Disposals		
Sales	—	(13)
Valuation losses	(8)	(39)
Changes from currency translation	—	—
Non-current assets or disposal groups held for sale	(1)	(94)
Other disposals[1]	(1)	(189)
Carrying amounts at 30/6/2020/31/12/2019	**350**	**353**

1 Also including changes in the group of companies included in consolidation.

Notes to the Balance Sheet (Continued)

27 Intangible assets

(€ millions)

	30/6/2020	31/12/2019
Goodwill	—	—
Other intangible assets	13	15
Internally generated intangible assets	8	9
Other intangible assets	5	6
Total	**13**	**15**

Development of intangible assets

(€ millions)

	GOODWILL FROM AFFILIATED COMPANIES		INTERNALLY GENERATED INTANGIBLE ASSETS		OTHER INTANGIBLE ASSETS	
	2020	2019	2020	2019	2020	2019
Acquisition costs at 1/1	**1,042**	**1,042**	**389**	**387**	**178**	**183**
Write-downs and write-ups from previous years	(1,042)	(912)	(380)	(375)	(172)	(176)
Carrying amounts at 1/1	**—**	**130**	**9**	**12**	**6**	**7**
Additions						
Purchases/in-house production costs	—	—	1	2	—	2
Write-ups	—	—	—	—	—	—
Changes from currency translation	—	—	—	—	—	—
Other additions	—	—	—	—	—	—
Disposals						
Sales	—	—	—	—	—	—
Amortisation and write-downs	—	—	(2)	(5)	(1)	(3)
Impairments	—	(130)	—	—	—	—
Changes from currency translation	—	—	—	—	—	—
Non-current assets or disposal groups						
held for sale	—	—	—	—	—	—
Other disposals[1]	—	—	—	—	—	—
Carrying amounts at 30/6/2020/31/12/2019	**—**	**—**	**8**	**9**	**5**	**6**
Write-downs and write-ups from previous years						
plus the reporting year	1,042	1,042	382	380	169	172
Acquisition costs at 30/6/2020/31/12/2019	**1,042**	**1,042**	**390**	**389**	**174**	**178**

1 Also including changes in the group of companies included in consolidation.

HVB no longer generates any software internally. Software is provided to HVB by the UniCredit-wide service provider UniCredit Services S.C.p.A.

28 Non-current assets or disposal groups held for sale

(€ millions)

	30/6/2020	31/12/2019
Cash and cash balances	—	—
Financial assets at FVTPL	—	—
Financial assets at FVTOCI	—	—
Loans and receivables with banks (at cost)	—	—
Loans and receivables with customers (at cost)	—	—
Investments in associates and joint ventures accounted for using the equity method	—	—
Property, plant and equipment	1	215
Investment properties	3	229
Tax assets	—	—
Other assets	—	—
Total	**4**	**444**

In the reporting period, all property, plant and equipment classified as “Non-current assets or disposal groups held for sale” in the previous year and generally all investment properties, with the exception of a smaller property (allocated to Level 2), were sold. In the first half of 2020 a property used for business purposes and two smaller investment properties (allocated to Level 2) were reclassified as “Non-current assets or disposal groups held for sale”. The sale of all properties is scheduled for the second half of 2020.

Fair value level hierarchy

Assets or liabilities whose valuation is derived from directly observable (prices) or indirectly observable (derived from prices) input data (valuation parameters) are generally shown in Level 2. No price can be observed on an active market for the assets or liabilities concerned themselves. As real estate represents a unique item, no trading is conducted in the same property. Nor is there an observable price available on an active market. However, offers submitted within the scope of a selling process constitute observable input data for a fair value calculation, as the real estate may be sold at this price on the basis of binding or reliable non-binding offers.

Level 3 fundamentally relates to assets or liabilities, whose fair value is not calculated exclusively on the basis of observable market data (non-observable input data). External valuation reports are based on generally recognised valuation procedures that refer to parameters for the property that are determined by external assessors (such as the current market rent assumed for the property). The respective fair values therefore feature valuation parameters that are based on model assumptions.

The following table shows the allocation of the investment properties measured at fair value to the respective fair value level hierarchy:

(€ millions)

	FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2)		FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3)	
	30/06/2020	31/12/2019	30/06/2020	31/12/2019
Investment properties, classified as non-current assets or				
disposal groups held for sale	3	229	—	—

Development of investment properties allocated to Level 3:

(€ millions)

	2020	2019
Carrying amount at 1/1	**—**	**685**
Additions to the portfolio (classified as Level 3)	—	—
Additions due to reclassification from Level 2 to Level 3	—	—
Disposals from the portfolio (classified as Level 3)	—	—
Disposals due to reclassification from Level 3 to Level 2	—	(685)
Carrying amount at 30/6/2020/31/12/2019	**—**	**—**

Reclassification from Level 3 to Level 2 concerns properties for which the fair value is not determined on the basis of external valuation reports but on the basis of binding or reliable non-binding offers received in the course of the selling process. The investment properties reclassified in the previous year from Level 3 to Level 2 were sold at the end of 2019 and the start of 2020.

There were no reclassifications from Level 2 to Level 3.

Notes to the Balance Sheet (Continued)

29 Other assets

Other assets include prepaid expenses of €106 million (previous year: €124 million).

This item also includes real estate of €307 million (previous year: €388 million) which is purchased by the WealthCap group belonging to HVB in order to either transfer it to funds and place the fund units with investors or sell it directly to institutional investors. These assets are recognised at cost. There are no reasons for a write-down to lower disposal proceeds.

30 Deposits from banks

(€ millions)

	30/6/2020	31/12/2019
Deposits from central banks	28,734	17,562
Deposits from banks	40,867	52,759
Current accounts	2,906	3,095
Cash collateral and pledged credit balances	8,624	8,074
Repos	8,527	21,786
Term deposits	2,563	6,713
Other liabilities	18,247	13,091
Total	**69,601**	**70,321**

Deposits from central banks were affected by the participation in the TLTRO III programme in the amount of €25.7 billion, under which HVB Group raised significantly higher funds than were simultaneously required for repayment under the TLTRO II programme.

Amounts owed to related parties

The item "Deposits from banks" includes the following amounts attributable to related parties:

(€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	8,403	5,114
of which:		
UniCredit S.p.A.	4,935	2,757
sister companies[1]	3,468	2,357
Joint ventures	—	—
Associated companies	137	29
Other participating interests	20	20
Total	**8,560**	**5,163**

1 Largest single items relate to UniCredit Bank Austria AG.

31 Deposits from customers

(€ millions)

	30/6/2020	31/12/2019
Current accounts	82,219	79,414
Cash collateral and pledged credit balances	7,430	5,824
Savings deposits	13,610	13,634
Repos	2,361	2,841
Term deposits	22,809	20,731
Promissory notes	1,304	1,382
Lease liabilities	530	467
Other liabilities	927	1,101
Total	**131,190**	**125,394**

Amounts owed to related parties

The item “Deposits from customers” includes the following amounts attributable to related parties:

(€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	338	325
of which:		
sister companies	335	271
subsidiaries	3	54
Joint ventures	1	3
Associated companies	—	—
Other participating interests	322	294
Total	**661**	**622**

Notes to the Balance Sheet (Continued)

32 Debt securities in issue

(€ millions)

	30/6/2020	31/12/2019
Bonds	28,587	25,770
of which:		
registered Mortgage Pfandbriefe	4,360	4,529
registered Public-sector Pfandbriefe	2,126	2,258
Mortgage Pfandbriefe	14,108	12,125
Public-sector Pfandbriefe	792	778
registered bonds	4,359	4,120
Other securities	2,007	2,486
Total	**30,594**	**28,256**

Debt securities in issue, payable to related parties

The item “Debt securities in issue” includes the following amounts attributable to related parties:

(€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	1,800	1,000
of which:		
UniCredit S.p.A.	1,800	1,000
sister companies	—	—
Joint ventures	—	—
Associated companies	—	—
Other participating interests	—	—
Total	**1,800**	**1,000**

33 Financial liabilities held for trading

(€ millions)

	30/6/2020	31/12/2019
Negative fair values arising from derivative financial instruments	49,074	41,201
Other financial liabilities held for trading	7,782	5,464
Total	**56,856**	**46,665**

The negative fair values arising from derivative financial instruments are carried as financial liabilities held for trading purposes. Also included under other financial liabilities held for trading purposes are warrants, certificates and bonds issued by our trading department as well as delivery obligations arising from short sales of securities held for trading purposes.

34 Financial liabilities at FVTPL

The item contains exclusively own structured issues of €5,540 million (previous year: €5,936 million).

35 Hedging derivatives

(€ millions)

	30/6/2020	31/12/2019
Micro fair value hedge	421	357
Portfolio fair value hedge[1]	486	456
Total	**907**	**813**

1 The cross-currency interest rate swaps used in hedge accounting are carried at their aggregate fair value in the portfolio fair value hedge.

36 Hedge adjustment of hedged items in the portfolio fair value hedge

The hedge adjustment of interest rate hedged receivables and liabilities in the portfolio fair value hedge totals €2,035 million net (previous year: €1,636 million). The fair value of the netted portfolio fair value hedge derivatives represents a net comparable amount resulting from a countermovement.

37 Provisions

(€ millions)

	30/6/2020	31/12/2019
Provisions for pensions and similar obligations	1,259	1,339
Allowances for losses on guarantees and commitments and irrevocable credit commitments	300	225
Restructuring provisions	358	378
Other provisions	754	801
Payroll provisions	329	356
Provisions related to tax disputes (without income taxes)	37	38
Provisions for rental guarantees and dismantling obligations	90	95
Other provisions	298	312
Total	**2,671**	**2,743**

Provisions for pensions and similar obligations

As at 30 June 2020, the provisions for pensions and similar obligations were remeasured on the basis of updated actuarial assumptions and market values of the plan assets. Compared with year-end 2019, pension provisions recognised in the consolidated balance sheet have decreased by €80 million (down 6.0%) to €1,259 million. The recognised pension provisions thus correspond to the net defined benefit liability from the defined benefit plans, resulting from netting the present value of the defined benefit obligation (DBO) of €5,602 million with the fair value of the plan assets of €4,343 million.

The key reason for the decrease in the pension provisions was the increase by 5 basis points of the discount rate (weighted average) to 1.25% (31 December 2019: 1.20%) due to the capital market performance in the first half of 2020. A higher discount rate results in stronger discounting of the liabilities from the defined benefit obligations and hence to a decrease in the present value of liability.

The actuarial profits on the reporting date resulting from the calculation of the estimated present value of the defined benefit obligations, offset by the losses from the current market measurement of the plan assets (difference between standardised earnings and earnings actually realised), resulted in a positive total effect from remeasurements of €38 million, which was recognised immediately in shareholders' equity without affecting profit or loss and in other comprehensive income (OCI) within total comprehensive income.

38 Subordinated capital

The following table shows the breakdown of subordinated capital included in the balance-sheet items "Deposits from banks", "Deposits from customers" and "Debt securities in issue":

(€ millions)

	30/6/2020	31/12/2019
Subordinated liabilities	1,212	410
Hybrid capital instruments	53	54
Total	**1,265**	**464**

At the end of June 2020, HVB issued regulatory own funds in the form of a Tier 2 capital bond (Tier 2 bond), which was fully subscribed by UniCredit S.p.A. With this issue, the Bank is optimising its capital structure, also against the backdrop of the changing regulatory requirements of the European Banking Authority (EBA). The subordinated bond fulfils the requirements for Tier 2 capital specified in the Capital Requirements Regulation (CRR II) and can also be included to fulfil the MREL requirements (SRMR II).

The subordinated bond has a volume of €800 million and a maturity of ten years with a call provision after five years. The bond has a fixed interest rate of 3.469% for the first five years, which is re-determined after five years based on the valid five-year swap rate plus a 380-basis-point spread, as long as the bond has not been paid back after five years. The conditions at the time of issuance (at arm's length) are in line with the market.

Other Information

39 Events after the reporting period

At HVB there were no noteworthy events after 30 June 2020.

40 Fair value hierarchy

The development of financial instruments measured at fair value and recognised at fair value in the balance sheet is described below, notably with regard to the fair value hierarchy.

This fair value hierarchy is divided into the following levels:

Level 1 contains financial instruments measured using prices of identical assets or liabilities listed on active markets. These prices are incorporated unchanged. We have assigned mostly listed equity instruments, bonds and exchange-traded derivatives to this category.

Assets and liabilities whose valuation is derived from directly observable (prices) or indirectly observable (derived from prices) input data (valuation parameters) are shown in Level 2. No price can be observed on an active market for the assets and liabilities concerned themselves. As a result of this, we notably show the fair values of interest rate and credit derivatives in this level together with the fair values of ABS bonds, provided a liquid market exists for the asset class in question.

Financial assets or liabilities of €822 million (previous year: €652 million) were transferred between Level 1 and Level 2. At the same time, financial assets or liabilities of €1,337 million (previous year: €2,317 million) were transferred between Level 2 and Level 1. Most of the transfers relate to securities, resulting from an increase or decrease in the actual trading taking place in the securities concerned and the associated change in the bid-offer spreads.

The following table shows transfers between Level 1 and Level 2 for financial instruments where fair value is determined on a recurring basis:

(€ millions)

		TO LEVEL 1	TO LEVEL 2
Financial assets held for trading			
	Transfer from Level 1	—	92
	Transfer from Level 2	89	—
Financial assets at FVTPL			
	Transfer from Level 1	—	707
	Transfer from Level 2	681	—
Financial assets at FVTOCI			
	Transfer from Level 1	—	21
	Transfer from Level 2	567	—
Financial liabilities held for trading			
	Transfer from Level 1	—	2
	Transfer from Level 2	—	—
Financial liabilities at FVTPL			
	Transfer from Level 1	—	—
	Transfer from Level 2	—	—

1 January is considered the transfer date for instruments transferred between the levels in the reporting period (1 January to 30 June).

Level 3 relates to assets or liabilities for which the fair value cannot be calculated exclusively on the basis of observable market data (non-observable input data). The amounts involved are stated in Level 2 if the impact of the non-observable input data on the determination of fair value is insignificant. Thus, the respective fair values also incorporate valuation parameters based on model assumptions. This includes derivatives and structured products that contain at least one "exotic" component, such as foreign currency or interest rate derivatives on illiquid currencies, derivatives without standard market terms, structured products with an illiquid underlying as reference and ABS bonds of an asset class for which no liquid market exists.

If the value of a financial instrument is based on non-observable valuation parameters, the value of these parameters may be selected from a range of possible appropriate alternatives at the reporting date. Appropriate values, which are calibrated according to the principle of prudent evaluation, are determined for these non-observable parameters and applied for valuation purposes, when the annual financial statements are prepared. In addition, individual parameters that cannot be incorporated separately as standalone valuation parameters are taken into account by applying a model reserve.

The following measurement methods are applied for each product type, broken down by the individual classes of financial instrument. The measurements of financial instruments in fair value Level 3 depend upon the following significant parameters that cannot be observed on the market:

PRODUCT TYPE	MEASUREMENT METHOD	SIGNIFICANT NON-OBSERVABLE PARAMETERS	RANGE
Fixed-income securities and other debt instruments	Market approach	Price	0.7bps – 76.5bps
Equities	Market approach	Price	0% – 37%
Asset-backed securities (ABS)	DCF method	Credit spread curves	10bps – 416bps
		Residual value	0% – 28%
		Default rate	0% – 1.3%
		Prepayment rate	0% – 9%
Commodity/equity derivatives	Option price model	Commodity price volatility/equity volatility	2% – 11%
		Correlation between commodity/equities	2% – 20%
	DCF method	Dividend yields	0% – 20%
Interest rate derivatives	DCF method	Swap interest rate	0.32bps – 37.6bps
		Inflation swap interest rate	2.9bps – 6.3bps
	Option price model	Inflation volatility	0% –2%
		Interest rate volatility	2% – 35%
		Correlation between interest rates	0% – 20%
Credit derivatives	Hazard rate model	Credit spread curves	1.3bps – 329.3bps
		Residual value	0% – 5%
Currency derivatives	DCF method	Yield curves	0.32bps – 37.6bps
	Option price model	FX volatility	0% – 7%

Other Information (Continued)

The impact of changing possible appropriate alternative parameter values on the fair value of the financial instruments classified as Level 3 is shown in the sensitivity analysis presented below. The level of variation of the unobservable parameters reflects the prevailing market conditions regarding the valuation of sensitivities. For portfolios at fair value through profit or loss, the positive and negative fair value changes would amount to a plus or minus of €39 million respectively at the reporting date (previous year: a plus or minus of €37 million respectively).

The following table shows the significant sensitivity effects, broken down by the individual classes of financial instrument for the various product types:

(€ millions)

	30/6/2020		31/12/2019	
	POSITIVE	NEGATIVE	POSITIVE	NEGATIVE
Fixed-income securities and other debt instruments	—	—	—	—
Equities	—	—	—	—
Asset-backed securities	—	—	—	—
Commodity/equity derivatives	29	(29)	27	(27)
Interest rate derivatives	—	—	—	—
Credit derivatives	10	(10)	10	(10)
Currency derivatives	—	—	—	—
Total	**39**	**(39)**	**37**	**(37)**

For fixed-income securities and other debt instruments as well as asset-backed securities, the credit spread curves were varied as part of the sensitivity analyses in line with the ratings. For equities, the spot price is varied using a relative value.

The following non-observable parameters were varied (stress test) for the sensitivity analysis for equity derivatives included in Level 3: spot prices for hedge funds, implicit volatility, dividends, implicit correlations and the assumptions regarding the interpolation between individual parameters observable on the market, such as volatilities. For interest rate products, interest rates, interest rate correlations and implicit volatilities were varied as part of the sensitivity analysis. For credit derivatives, rating-dependent shifts in the risk premium curves for credit risk were assumed together with changes in implicit correlations and increases in default rates. Foreign currency derivatives were varied in terms of the implicit volatility.

Where trades are executed for which the trade price deviates from the fair value at the trade date and non-observable parameters are employed to a considerable extent in valuation models, the financial instrument concerned is recognised at the trade price. This difference between the trade price and the fair value of the valuation model is defined as the trade date gain/loss. Corresponding gains and losses determined at the trade date are deferred and recognised in the income statement over the term of the trade. As soon as a reference price can be determined for the trade on an active market, or the significant input parameters are based on observable market data, the deferred trade date gain is taken directly to the income statement in net trading income.

The following table shows a year-on-year comparison of changes in trade date gains and losses that were deferred on account of the application of significant non-observable parameters for financial instruments recognised at fair value:

(€ millions)

	2020	2019
Balance at 1/1	**14**	**18**
New trades during the period	10	6
Write-downs	2	6
Expired trades	2	—
Retroactive change in observability	1	4
Exchange rate changes	—	—
Balance at 30/6/2020 / 31/12/2019	**19**	**14**

The following table shows the assignment of the financial assets and financial liabilities recognised in the balance sheet at fair value to the respective levels of the fair value hierarchy:

(€ millions)

	FAIR VALUE OBSERVED ON AN ACTIVE MARKET (LEVEL 1)		FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2)		FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3)	
	30/6/2020	31/12/2019	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Financial assets recognised						
in the balance sheet at fair value						
Financial assets held for trading	15,656	16,184	63,422	52,443	1,396	1,226
of which derivatives	4,857	2,470	52,458	43,949	760	468
Financial assets at FVTPL	7,121	7,746	6,946	6,783	618	945
Financial assets at FVTOCI	11,057	11,830	2,465	2,843	—	—
Hedging derivatives	—	—	314	264	—	—
Financial liabilities recognised in the						
balance sheet at fair value						
Financial liabilities held for trading	6,107	4,397	49,904	41,429	845	839
of which derivatives	4,327	2,794	44,319	37,900	428	507
Financial liabilities at FVTPL	—	—	5,064	5,604	476	332
Hedging derivatives	—	—	907	813	—	—

Other Information (Continued)

The following table shows the development of the financial assets that are assigned to Level 3 in the fair value hierarchy: (€ millions)

	FINANCIAL ASSETS HELD FOR TRADING	FINANCIAL ASSETS AT FVTPL	FINANCIAL ASSETS AT FVTOCI	HEDGING DERIVATIVES
Balance at 1/1/2020	**1,226**	**945**	**—**	**—**
Additions				
Purchases	199	268	—	—
Realised gains[1]	234	17	—	—
Transfer from other levels	33	—	—	—
Other additions[2]	5	10	—	—
Disposals				
Sales	(153)	(551)	—	—
Repayment	—	—	—	—
Realised losses[1]	(88)	(18)	—	—
Transfer to other levels	(39)	(13)	—	—
Other disposals	(21)	(40)	—	—
Balance at 30/6/2020	**1,396**	**618**	**—**	**—**
Balance at 1/1/2019	**1,961**	**875**	**—**	**—**
Additions				
Purchases	373	537	—	—
Realised gains[1]	53	81	—	—
Transfer from other levels	21	13	—	—
Other additions[2]	27	35	—	—
Disposals				
Sales	(914)	(16)	—	—
Repayment	—	(539)	—	—
Realised losses[1]	(71)	(30)	—	—
Transfer to other levels	(207)	(7)	—	—
Other disposals	(17)	(4)	—	—
Balance at 31/12/2019	**1,226**	**945**	**—**	**—**

1 In the income statement and shareholders' equity.
2 Also including changes in the group of companies included in consolidation.

Additions from purchases are mainly due to new syndicated loans and illiquid promissory notes. Disposals are primarily a result of the transfer of syndicated loans.

The following table shows the change in the financial liabilities assigned to Level 3 in the fair value hierarchy: (€ millions)

	FINANCIAL LIABILITIES HELD FOR TRADING		FINANCIAL LIABILITIES AT FVTPL		HEDGING DERIVATIVES	
	2020	2019	2020	2019	2020	2019
Balance at 1/1	**839**	**1,250**	**332**	**203**	**—**	**—**
Reclassification of financial liabilities						
held for trading to financial liabilities at FVTPL	—	—	—	—	—	—
Balance at 1/1 (after reclassification)	**839**	**1,250**	**332**	**203**	**—**	**—**
Additions						
Sales	61	315	—	—	—	—
Issues	169	179	144	208	—	—
Realised losses[1]	41	102	2	4	—	—
Transfer from other levels	89	46	97	97	—	—
Other additions[2]	21	9	2	4	—	—
Disposals						
Buy-back	(67)	(642)	(5)	(9)	—	—
Repayment	(18)	(24)	(15)	(40)	—	—
Realised gains[1]	(167)	(42)	(47)	(6)	—	—
Transfer to other levels	(115)	(343)	(31)	(127)	—	—
Other disposals	(8)	(11)	(3)	(2)	—	—
Balance at 30/6/2020/31/12/2019	**845**	**839**	**476**	**332**	**—**	**—**

1 In the income statement and shareholders' equity.
2 Also including changes in the group of companies included in consolidation.

Most of the additions can be attributed to structured issues. The transfers from other levels are primarily due to the lower observability of market liquidity of the instruments underlying structured equity and credit-linked issues.

Other Information (Continued)

41 Fair values of financial instruments compliant with IFRS 7

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. It is assumed in this context that the transaction takes place on the principal market for the instrument or the most advantageous market to which the Bank has access.

The calculation of the fair value for performing loans is explained to begin with. The fair value of loans is calculated as the sum total of the discounted, risk-adjusted anticipated cash flows discounted on the basis of the swap curve. Cash flows are determined on the basis of the conditions of the loan agreement (interest and redemption), whereby rights of termination are taken into account. In this context, the anticipated, risk-adjusted cash flows are based on the survival probability and the loss given default. The survival probability is determined on the basis of the risk-neutral probability of default, while the proceeds upon realisation are determined on the basis of the internal loss given default parameters. In turn, the risk-neutral probability of default is determined on the basis of the internally calculated one-year default rate (real-world probability of default), the market risk premium and the correlation between the respective loan and the general market risk. The market risk premium represents a factor used to cover the difference between the real-world probability of default and the market's return expectations for the risk assumed. The loan portfolio is divided into five sectors (sovereign loans, loans to banks, corporate loans, syndicated loans and retail loans) in order to take account of the specific features of each sector. For each of these sectors with exception of retail loans, first of all the market risk premium is determined on the basis of a portfolio of specific, liquid CDS prices for the respective sector. Only for retail loans is the market risk premium derived from the market risk premiums for the other sectors due to the lack of a CDS market (except for syndicated loans). Furthermore, the fair value calculated by the model is calibrated in order to take account of the difference between this value and the fair value upon addition. This is in line with the assumption based on IFRS 13.58 according to which the transaction price reflects the fair value.

The proceeds upon realisation estimated by the Bank are taken as a basis to determine the fair value of non-performing loans. These already take account of the expected credit default. The maturities of the expected proceeds upon realisation are determined using model assumptions. These cash flows are discounted at a market interest rate in order to establish the fair value.

The fair value calculation for loans and receivables is built around the risk-neutral credit spread, which takes account of all relevant factors on the market. Further parameters besides the risk-neutral credit spread and the risk-free return on investment are not included. Provided the markets are liquid and no relevant market disruptions are evident, as is currently the case, the arbitrage between the markets on which credit risks are traded leads to a narrowing of the credit spreads. Accordingly, the CDS market is defined as the relevant exit market for loans and receivables. Otherwise, the parameters used to determine the real-world probability of default (PD) and loss given default (LGD) are determined on the basis of internal procedures.

Levels are now allocated based on a sensitivity analysis for which a range is determined, when calculating the respective fair value, for the internal parameters within which the internal parameters may fluctuate based on realistic assumptions. In order to calculate the sensitivity, the internal parameter is now replaced with the value with the highest deviation in the estimated range, and based on that figure the fair value is recalculated. As long as the deviation of the fair value determined using this method is not significant compared with the originally determined fair value, the financial instrument is allocated to Level 2; otherwise, it is allocated to Level 3.

Investments in joint ventures and associates are accounted for using the equity method, provided they are not of minor significance. Investments in non-consolidated companies and listed companies not accounted for using the equity method are normally carried at their fair value.

Quoted market prices are used for securities and derivatives traded on an exchange as well as for listed debt instruments. These instruments are allocated to Level 1. The fair value of the remaining securities is calculated as the net present value of anticipated future cash flows. The methods used to determine the fair value levels as described in the Note "Fair value hierarchy" are employed for this purpose.

The fair values of single-currency and cross-currency swaps and interest rate futures are calculated on the basis of discounted, anticipated future cash flows. In doing so, we apply the market rates applicable for the remaining maturity of the financial instruments. The fair value of forward exchange transactions is computed on the basis of current forward rates. Options are valued using price quotations or generally accepted models used to calculate the price of options. The common Black & Scholes model and the Bachelier model are used to value simple European options. In the case of more complex instruments, the interest is simulated using term-structure models with the current interest rate structure as well as caps and swaption volatilities as parameters relevant for valuation. The disbursement structure of the equities or indexes for the complex instruments is valued using either Black & Scholes or a stochastic volatility model with equity prices, volatilities, correlations and dividend expectations as parameters. The methods used to determine the fair value levels described in the Note "Fair value hierarchy" are employed for this purpose.

Please refer to the Note "Fair value hierarchy" for a description of the methods used to determine the fair value levels for unlisted derivatives.

The anticipated future cash flows of the liabilities (deposits from banks and customers, and debt securities in issue, provided these are not listed) are discounted to the present value using current interest rates taking into account internally determined funding premiums. The funding premiums correspond to the parameters that the Bank uses when setting the prices for its own issues. These funding premiums represent internally determined parameters that are essential for the determination of the fair value; the other liabilities are allocated to Level 3 accordingly.

The fair values are calculated using the market information available at the reporting date as well as specific company valuation methods.

(€ billions)

	CARRYING AMOUNT		FAIR VALUE	
ASSETS	30/6/2020	31/12/2019	30/6/2020	31/12/2019
Cash and cash balances	17.9	26.2	17.9	26.2
Financial assets held for trading	80.5	69.9	80.5	69.9
Financial assets at FVTPL	14.7	15.5	14.7	15.5
Financial assets at FVTOCI	13.5	14.7	13.5	14.7
Loans and receivables with banks (at cost)	35.6	31.8	35.7	31.5
Loans and receivables with customers (at cost)	150.4	139.6	153.5	143.5
of which finance leases	1.7	1.8	1.7	1.8
Hedging derivatives	0.3	0.3	0.3	0.3
Total	**312.9**	**298.0**	**316.1**	**301.6**

Other Information (Continued)

(€ billions)

ASSETS	FAIR VALUE OBSERVED ON AN ACTIVE MARKET (LEVEL 1) 30/6/2020	31/12/2019	FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2) 30/6/2020	31/12/2019	FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3) 30/6/2020	31/12/2019
Financial assets not carried at						
fair value in the balance sheet						
Cash and cash balances	—	—	17.9	26.2	—	—
Loans and receivables with banks (at cost)	0.9	0.4	31.4	29.6	3.4	1.5
Loans and receivables with customers (at cost)	5.3	1.4	70.2	73.1	78.0	69.0
of which finance leases	—	—	—	—	1.7	1.8

(€ billions)

LIABILITIES	CARRYING AMOUNT 30/6/2020	31/12/2019	FAIR VALUE 30/6/2020	31/12/2019
Deposits from banks	69.6	70.3	69.5	70.2
Deposits from customers	131.2	125.4	131.4	125.6
Debt securities in issue	30.6	28.3	33.4	30.7
Financial liabilities held for trading	56.9	46.7	56.9	46.7
Financial liabilities at FVTPL	5.5	5.9	5.5	5.9
Hedging derivatives	0.9	0.8	0.9	0.8
Total	**294.7**	**277.4**	**297.6**	**279.9**

(€ billions)

LIABILITIES	FAIR VALUE OBSERVED ON AN ACTIVE MARKET (LEVEL 1) 30/6/2020	31/12/2019	FAIR VALUE BASED ON VALUATION PARAMETERS OBSERVED ON THE MARKET (LEVEL 2) 30/6/2020	31/12/2019	FAIR VALUE BASED ON VALUATION PARAMETERS NOT OBSERVED ON THE MARKET (LEVEL 3) 30/6/2020	31/12/2019
Financial liabilities not carried at fair value						
in the balance sheet						
Deposits from banks	0.1	0.1	52.2	55.9	17.2	14.2
Deposits from customers	—	—	126.9	121.8	4.5	3.8
Debt securities in issue	12.3	9.5	7.0	6.5	14.1	14.7

The difference in HVB Group between the fair values and carrying amounts totals €3.2 billion (previous year: €3.6 billion) for assets and €2.9 billion (previous year: €2.5 billion) for liabilities. The net balance of these amounts is €0.3 billion (previous year: €1.1 billion). When comparing carrying amounts and fair values of the hedged items, it should be noted that part of the undisclosed reserves/charges has already been included in the hedge adjustment amount.

42 Disclosures regarding the offsetting of financial assets and liabilities

The following two tables separately show the recognised financial assets and financial liabilities that have already been netted in the balance sheet in accordance with IAS 32.42 together with the financial instruments that are subject to a legally enforceable master netting arrangement or similar arrangement but that do not satisfy the criteria for offsetting in the balance sheet.

Financial assets that are netted in the balance sheet or subject to a legally enforceable master netting arrangement or similar arrangement: (€ millions)

				AMOUNTS NOT RECOGNISED			
	FINANCIAL ASSETS (GROSS)	FINANCIAL LIABILITIES NETTED IN THE BALANCE SHEET (GROSS)	RECOGNISED FINANCIAL ASSETS (NET)	EFFECTS OF MASTER NETTING ARRANGEMENTS	FINANCIAL INSTRUMENTS AS COLLATERAL	CASH COLLATERAL	NET AMOUNT
Derivatives[1]	102,414	(44,025)	58,389	(32,856)	(170)	(12,952)	12,411
Reverse repos[2]	27,475	(1,077)	26,398	—	(26,241)	—	157
Loans and receivables[3]	97,246	(5,290)	91,956	—	—	—	91,956
Total at 30/6/2020	**227,135**	**(50,392)**	**176,743**	**(32,856)**	**(26,411)**	**(12,952)**	**104,524**
Derivatives[1]	76,042	(28,891)	47,151	(27,661)	(114)	(10,232)	9,144
Reverse repos[2]	24,725	(3,875)	20,850	—	(20,386)	—	464
Loans and receivables[3]	90,065	(3,639)	86,426	—	—	—	86,426
Total at 31/12/2019	**190,832**	**(36,405)**	**154,427**	**(27,661)**	**(20,500)**	**(10,232)**	**96,034**

1 Derivatives are included in the balance sheet items “Financial assets held for trading” and “Hedging derivatives”.
2 Reverse repos are covered in the Notes “Loans and receivables with banks (at cost)” and “Loans and receivables with customers (at cost)”. They are also included in “Financial assets held for trading” with an amount of €3,945 million (previous year: €1,888 million).
3 Only relates to current accounts, cash collateral or pledged credit balances and other loans and receivables (including cumulative variation margins), as covered in the Notes “Loans and receivables with banks (at cost)” and “Loans and receivables with customers (at cost)”.

Financial liabilities that are netted in the balance sheet or subject to a legally enforceable master netting arrangement or similar arrangement: (€ millions)

				AMOUNTS NOT RECOGNISED			
	FINANCIAL LIABILITIES (GROSS)	FINANCIAL ASSETS NETTED IN THE BALANCE SHEET (GROSS)	RECOGNISED LIABILITIES (NET)	EFFECTS OF MASTER NETTING ARRANGEMENTS	FINANCIAL INSTRUMENTS AS COLLATERAL	CASH COLLATERAL	NET AMOUNT
Derivatives[1]	96,389	(46,408)	49,981	(32,856)	(635)	(11,967)	4,523
Reverse repos[2]	16,772	(1,077)	15,695	—	(15,695)	—	—
Liabilities[3]	123,259	(2,906)	120,353	—	—	—	120,353
Total at 30/6/2020	**236,420**	**(50,391)**	**186,029**	**(32,856)**	**(16,330)**	**(11,967)**	**124,876**
Derivatives[1]	72,693	(30,679)	42,014	(27,661)	(527)	(10,140)	3,686
Reverse repos[2]	29,986	(3,875)	26,111	—	(26,111)	—	—
Liabilities[3]	112,449	(1,850)	110,599	—	—	—	110,599
Total at 31/12/2019	**215,128**	**(36,404)**	**178,724**	**(27,661)**	**(26,638)**	**(10,140)**	**114,285**

1 Derivatives are included in the balance sheet items “Financial liabilities held for trading” and “Hedging derivatives”.
2 Repos are covered in the Notes “Deposits from banks” and “Deposits from customers”. They are also included in financial liabilities held for trading with an amount of €3,249 million (previous year: €540 million).
3 Only relates to current accounts, cash collateral or pledged credit balances and other liabilities (including cumulative variation margins), as covered in the Notes “Deposits from banks” and “Deposits from customers”.

Other Information (Continued)

Compliant with IAS 32.42, financial assets and liabilities with the same counterparty are to be offset and recognised in the balance sheet at the net amount if such offsetting of the amounts recognised at the present date is legally enforceable and the intention is to settle on a net basis during the normal course of business or to realise the asset and settle the liability simultaneously. The tables show a reconciliation from the gross amounts prior to netting and the set-off amounts to the net amounts after offsetting for these set-offs in the balance sheet. At HVB Group, the set-offs in the balance sheet relate to transactions with central counterparties (CCPs), being OTC derivatives (set-off of the balancing positive and negative fair values at currency level) and the receivables and liabilities arising from reverse repos and repos concluded with the same central counterparty. At the same time, nettable receivables and liabilities repayable on demand with the same counterparties in the banking business are also offset in the balance sheet. In addition, cumulative changes in the fair value of listed future-styled derivatives are netted with the cumulative variation margin payments.

The column “Effects of master netting arrangements” shows the financial instruments that are subject to a legally enforceable master netting arrangement or similar arrangement, but which are not netted in the balance sheet as they do not satisfy the IAS 32.42 offsetting requirements as described above. At HVB Group, this includes OTC derivatives and repo transactions with individual counterparties with which legally enforceable master netting arrangements have been concluded allowing netting in the event of default.

In addition, collateral in the form of financial instruments and cash collateral pledged or received in this context is presented in the tables. Furthermore, securities lending transactions shown off the balance sheet without cash collateral are not included in the above netting tables.

43 Securities sale and repurchase and securities lending transactions by balance sheet item

(€ millions)

	30/6/2020		31/12/2019	
	CARRYING AMOUNT	OF WHICH: TRANSFERRED AS COLLATERAL	CARRYING AMOUNT	OF WHICH: TRANSFERRED AS COLLATERAL
Financial assets held for trading	80,474	1,160	69,853	1,718
Financial assets at FVTPL	14,685	764	15,474	1,662
Financial assets at FVTOCI	13,522	561	14,673	1,515
Loans and receivables with banks (at cost)	35,599	31	31,842	—
Loans and receivables with customers (at cost)	150,377	1,126	139,632	1,025
Total	**294,657**	**3,642**	**271,474**	**5,920**

44 Contingent liabilities and other commitments

(€ millions)

	30/6/2020	31/12/2019
Contingent liabilities[1]	25,192	25,707
Guarantees and indemnities	25,192	25,707
Other commitments	58,181	51,835
Irrevocable credit commitments	58,159	51,811
Other commitments	22	24
Total	**83,373**	**77,542**

1 Contingent liabilities are offset by contingent assets of the same amount.

HVB has made use of the option to provide some of the annual contribution to the bank restructuring fund in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 12 of the German Bank Restructuring Fund Act (Restrukturierungsfondsgesetz – RStruktFG). The cash collateral provided in this regard amounted to €104 million at the reporting date (previous year: €82 million).

HVB has made use of the option to provide up to 30% of the annual contribution to the deposit guarantee scheme of German banks (Entschädigungseinrichtung deutscher Banken) in the form of fully secured payment claims (irrevocable payment commitments) in accordance with Section 19 of the German Regulation on Financing the Deposit Guarantee Scheme (Entschädigungseinrichtungs-Finanzierungsverordnung – EntschFinV). The financial security provided in this regard amounted to €30 million at the reporting date (previous year: €30 million).

Contingent liabilities payable to related parties

(€ millions)

	30/6/2020	31/12/2019
Non-consolidated affiliated companies	1,927	1,848
of which:		
UniCredit S.p.A.	1,102	1,037
sister companies	825	811
subsidiaries	—	—
Joint ventures	—	26
Associated companies	7	—
Other participating interests	70	33
Total	**2,004**	**1,907**

Other Information (Continued)

45 Information on relationships with related parties

Besides the relationships with consolidated, affiliated companies, there are a number of transactions involving UniCredit S.p.A. and other affiliated but not consolidated UniCredit companies as a result of the integration of HVB Group into the UniCredit group of companies. The quantitative information in this regard can be found in the notes to the balance sheet and the income statement.

HVB has been assigned the role of centre of competence for the markets and investment banking activities of the entire UniCredit corporate group. Among other things, HVB acts as counterparty for derivative transactions conducted by UniCredit companies in this role. For the most part, this involves hedge derivatives that are externalised on the market via HVB. Information regarding the exposure to UniCredit and its subsidiaries is described in the Interim Management Report → Risk Report → "Risk types in detail" → "Credit risk".

Like other affiliated companies, HVB has outsourced IT activities to UniCredit Services S.C.p.A., Milan, a company that is affiliated with the Bank. The goal is to exploit synergies and enable the Bank to offer fast, high-quality IT services by means of a service level agreement. HVB incurred expenses of €251 million for these services in the reporting year (previous-year period: €239 million). This was offset by income of €12 million (previous-year period: €16 million) from services rendered and internal charges. Moreover, software products worth €38 thousand (previous-year period: €0 million) were purchased from UniCredit Services S.C.p.A.

Furthermore, HVB Group has transferred certain back office activities to UniCredit Services S.C.p.A. In this context, UniCredit Services S.C.p.A. provides settlement services for HVB and other affiliated companies in line with a standard business and operating model. HVB Group incurred expenses of €67 million for these services in the reporting year (previous-year period: €52 million).

Transactions involving related parties are generally conducted on an arm's length basis.

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

	30/6/2020			31/12/2019		
	LOANS AND RECEIVABLES	CONTINGENT LIABILITIES ASSUMED	LIABILITIES	LOANS AND RECEIVABLES	CONTINGENT LIABILITIES ASSUMED	LIABILITIES
Members of the Management Board of UniCredit Bank AG	2,292	584	4,811	2,312	593	4,148
Members of the Supervisory Board of UniCredit Bank AG	1	—	1,060	—	—	2,735
Members of the Executive Management Committee[1]	—	10	634	—	—	4,978

1 Excluding members of the Management Board and Supervisory Board of UniCredit Bank AG.

Members of the Supervisory Board and Management Board at HVB as well as members of the Executive Management Committee of UniCredit S.p.A. and their respective immediate family members are considered related parties.

Mortgage loans were granted to members of the Management Board and their immediate family members with interest rates of between 0.6% and 1.74% falling due in the period from 2020 to 2051.

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

Other Information (Continued)

46 Supervisory Board

Chairman

Gianpaolo Alessandro
(Chairman until 23 June 2020,
since 26 June 2020)

Deputy Chairmen

Florian Schwarz
(Deputy Chairman until 23 June 2020,
since 26 June 2020)

Dr Bernd Metzner
since 23 June 2020
(Deputy Chairman since 26 June 2020)

Dr Wolfgang Sprissler
until 23 June 2020

Members

Paolo Cornetta
until 23 June 2020

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

47 Management Board

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

Munich, 4 August 2020

UniCredit Bank AG
The Management Board

Betocchi Drwenski Beumer Čortan Dr Diederich

Frischholz Kupfer Marcucci

Declaration by the Management Board

To the best of our knowledge, and in accordance with the applicable reporting principles for interim financial reporting, the interim consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Interim Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group for the remaining months of the financial year.

Munich, 4 August 2020

UniCredit Bank AG
The Management Board

Betocchi Drwenski　　Beumer　　Čortan　　Dr Diederich

Frischholz　　Kupfer　　Marcucci

Contacts
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