



Volksbanken Raiffeisenbanken
cooperative financial group



2019 annual report and CSR report

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Foreword



Dear readers and shareholders,

The coronavirus pandemic is bringing sweeping changes to our country. We are facing significant economic and social change. Nevertheless, we at Union Investment are optimistic about the future. We are confident that we can make our contribution for the welfare of the Genossenschaftliche FinanzGruppe. Although we and our clients are often occupied with other questions right now, the fundamental situation has not changed: In this low-interest environment, clients continue to seek high-yield alternative investments in investment funds more than ever.

On this basis, the last decade and the last year in particular have been good for us. The good market performance and the strength of our fund management helped our funds' one-year performance across all asset classes to 12.8%.

Moreover, 2019 was one of the best years for sales in the company's history, with net new business of EUR 19.4 billion. As a result of the sales and the strong fund performance, Union Investment's assets under management rose by 13.9% to a new high of EUR 368.2 billion. Earnings before taxes grew to a new record of EUR 650 million, including EUR 73 million from the sale of the Polish subsidiary TFI.

In retail client business, net inflows amounted to EUR 8.1 billion. The volume increased to EUR 160.4 million. Investor interest was mainly directed at open-ended real-estate funds with net inflows of EUR 3.5 billion as well as mixed and equity funds. An ever larger portion of new business is coming from instalment-based saving. The number of traditional fund savings plans grew by 404,000 to nearly 2.7 million contracts. At the end of the year, Union Investment managed a total of 5.2 million savings contracts in the form of traditional fund savings plans, employer-funded capital formation schemes and Riester savings plans with a volume of over EUR 45 billion.

Our institutional clients were particularly interested in open-ended real-estate funds, equities, corporate bonds and securitisations. Union Investment's net sales with institutional clients grew considerably to EUR 11.3 billion. At EUR 207.8 billion, the volume of institutional funds managed exceeded EUR 200 billion for the first time. In addition, there was continued significant interest in sustainable investments. The volume across all client groups increased from EUR 41.4 billion to EUR 53.1 billion.

Looking ahead again, our successful active management, our many years of expertise in sustainable investment and our true proximity to clients put us in an excellent position in the cooperative funds business. We have already proven that we can develop solutions to complex challenges together with our partners. The last ten years were the decade of cooperatives and the cooperative funds business. Why not the next?

Happy reading

A handwritten signature in blue ink, appearing to read 'H.J. Reinke', written in a cursive style.

Hans Joachim Reinke
Chief Executive Officer
Union Asset Management Holding AG

Report of the Supervisory Board



Supervisory Board and Executive Committee

In the 2019 financial year, the Supervisory Board and its Executive Committee monitored the management activities of the Board of Managing Directors in accordance with the applicable legal provisions and the Articles of Association and decided on items of business that required their consent.

To carry out its responsibilities and in compliance with the applicable legal provisions, the Supervisory Board formed an Executive Committee that operates, in particular, as a Human Resources Committee and Audit Committee and prepares the

resolutions of the Supervisory Board. The Executive Committee met three times in 2019. The Supervisory Board was regularly reported to on its activities.

The former CEO of DZ BANK AG, Wolfgang Kirsch, who has been Chairman of the Supervisory Board and the Executive Committee since 7 November 2007, left the Supervisory Board and the Executive Committee on 31 December 2018. With effect from 1 January 2019, Dr Cornelius Riese, Co-CEO of DZ BANK AG, was elected as new Chairman of the Supervisory Board and the Executive Committee. Dr Cornelius Riese was previously already a member of the Supervisory Board and the Executive Committee.

At the request of the Board of Managing Directors, the Frankfurt am Main Local Court appointed Ulrike Brouzi, member of the Board of Managing Directors of DZ BANK AG, as a member of the Supervisory Board of Union Asset Management Holding AG with effect from 8 April 2019 until the end of the next Annual General Meeting. The next Annual General Meeting took place on 10 May 2019 and elected Ulrike Brouzi as a member of the Supervisory Board. With effect from 1 August 2019, the Supervisory Board then also elected Ulrike Brouzi as a member of the Executive Committee of Union Asset Management Holding AG's Supervisory Board. The Supervisory Board would like to wish Ulrike Brouzi all the best and every success in her role as member of the Supervisory Board and the Executive Committee.

At the end of 31 August 2019, the employee representative Roland Müller left the Supervisory Board and the Executive Committee and retired. To replace him, Thorsten Bartsch was appointed to the Supervisory Board as an employee representative with effect from 1 September 2019 and David Milleker was appointed to the Executive Committee as an employee representative with effect from 1 September 2019. The Supervisory Board would like to thank Roland Müller for

his dedicated and valuable support and wish Thorsten Bartsch and David Milleker all the best and every success in their roles as members of the Supervisory Board and the Executive Committee, respectively.

Cooperation with the Board of Managing Directors

The Board of Managing Directors provided the Supervisory Board with regular, timely and comprehensive written and oral reports on the position and performance of the company and the group and on general business developments. The Board of Managing Directors also regularly informed the Supervisory Board about ongoing operations and future business policy, including the corporate strategy and organisational structures of the Union Investment Group.

The Supervisory Board reviewed the risk position of the company and the group and examined other material risks specific to fund management business.

Supervisory Board meetings

The Supervisory Board held four meetings and one telephone conference in the past financial year. At these meetings and by way of regular reports, in particular the quarterly reports, the Supervisory Board was regularly and comprehensively informed of the current position of the company and the group, primarily with regard to general business performance, key individual transactions and any personnel developments. The Supervisory Board was informed comprehensively and promptly of the work carried out by the Executive Committee. The Supervisory Board also approved material business action plans. Other key issues covered in the Supervisory Board meetings included budgeting, the effect of regulatory changes on the Union Investment Group's business, and various equity investment matters.

Between its meetings, the Supervisory Board was informed by the Board of Managing Directors in writing about important events such as personnel matters. In urgent cases, the Supervisory Board approved significant transactions between meetings by adopting resolutions by written procedure. Outside the meetings, the Chairman of the Supervisory Board, who also chairs the Executive Committee, also held regular discussions with the Chief Executive Officer regarding important decisions and specific individual transactions.

Report in accordance with Section 289f (4) in conjunction with (2) no. 4 of the German Commercial Code (HGB)

The company's Supervisory Board has set targets for the proportion of women on the company's Supervisory Board and Board of Managing Directors pursuant to Section 111 (5) of the German Stock Corporation Act (AktG), to be met by 31 December 2021.

The target set for the Supervisory Board is 20 % (3 out of 15). In the period under review, the proportion of women on the Supervisory Board was 26.7 % after 8 April 2019 (4 out of 15) and 20 % prior to that (3 out of 15).

The proportion of women on the Board of Managing Directors in the reporting period was 0 %. The Supervisory Board has set a target of not setting a binding, higher target until 31 December 2021.

In addition, the Board of Managing Directors has defined targets in accordance with Section 76 (4) AktG for the two management levels below the Board of Managing Directors; these targets are to be met by 31 December 2021.

The target is 25 % at head of division level (the first level below the Board of Managing Directors) and 0 % at head of department level (the second level below the Board of Managing Directors). The aforementioned targets were met in the period under review.

Cooperation with the auditors

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Eschborn, Frankfurt am Main, was elected as the auditor by the Annual General Meeting on 10 May 2019 and subsequently engaged by the Supervisory Board to perform the audit.

In its capacity as the auditor, Ernst & Young GmbH confirmed that the separate financial statements for the company prepared and submitted by the Board of Managing Directors, the consolidated financial statements including the accounting system and the management reports for the company and the group for the 2019 financial year, and the report on relationships with affiliated companies as prepared and submitted by the Board of Managing Directors complied with the applicable legal provisions. The auditors issued an unqualified audit opinion for each of these items. In connection with the audit of the report submitted by the Board of Managing Directors on relationships with affiliated companies, Ernst & Young GmbH confirmed that, after due audit and assessment, the actual disclosures in the report were accurate, the consideration paid by the company for the transactions listed in the report was not inappropriately high and, as regards the activities listed in the report, there were no circumstances that would support an assessment materially different from that arrived at by the Board of Managing Directors.

The audit reports were submitted to the members of the Supervisory Board, who discussed them in detail. The Supervisory Board agrees with the findings of the audit.

Adoption of the annual financial statements

The Executive Committee (Audit Committee) chaired by Dr Cornelius Riese prepared for the final examination of the Supervisory Board by reviewing the separate financial statements, the management report, the dependent company report by the Board of Managing Directors and the proposal for the appropriation of profits which was then given a detailed

review by the full Supervisory Board, which also held detailed discussions on these matters in the presence of the auditors. No reservations were expressed. The Supervisory Board also reviewed in detail the consolidated financial statements and the group management report and, here too, held detailed discussions on these matters in the presence of the auditors. No reservations were expressed here either.

The Supervisory Board also acknowledged and approved the findings of the audit of the separate financial statements, the consolidated financial statements, the management report for the company, the group management report and the dependent company report conducted by the auditors. In a resolution adopted on 28 February 2020, the Supervisory Board approved the separate financial statements prepared by the Board of Managing Directors; these financial statements were thereby formally adopted. The Supervisory Board also agreed with the proposed appropriation of profits. In a resolution adopted today, the Supervisory Board approved the consolidated financial statements prepared and submitted by the Board of Managing Directors.

Following the concluding findings of the review conducted by the Supervisory Board, no reservations were expressed regarding the concluding statement by the Board of Managing Directors in the dependent company report.

The Supervisory Board wishes to thank the Board of Managing Directors and all employees for their valuable contribution in 2019.

Frankfurt am Main, 26 March 2020

**Union Asset Management Holding AG,
Frankfurt am Main**



Dr Cornelius Riese
Chairman of the Supervisory Board

Group management report

2018 financial year

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Group management report of Union Asset Management Holding AG for the financial year from 1 January to 31 December 2019

Note

This management report should be read in the context of the audited financial data and disclosures in the notes to the consolidated financial statements. The management report also includes forward-looking statements that are based on current planning, assumptions and estimates rather than on historical facts. Forward-looking statements always apply to the time the statements are made. Union Asset Management Holding AG (UMH) is under no obligation to revise these statements when new information becomes available. Forward-looking statements are always subject to risks and uncertainty. We therefore explicitly note that actual events can differ significantly from those forecast as a result of a number of factors. Factors that currently appear to be material are described under 'Forecast, report on risks and opportunities' and in other sections of this report.

Note: Tables and references may contain rounding differences compared with the precise mathematical figures (monetary units, percentages, etc.).

A Basic information on the group

Union Asset Management Holding AG and its subsidiaries (Union Investment) form part of the Genossenschaftliche FinanzGruppe Volksbanken Raiffeisenbanken cooperative financial network. The objectives and strategies pursued by Union Investment are therefore shaped by the guiding principles of the Genossenschaftliche FinanzGruppe, which focus on mutual benefit and decentralisation. In this structure, the local primary banks and their members are supported by specialist service providers that pool expertise in particular types of products and services and operate at a national level. The range of services provided by Union Investment is aimed at both retail and institutional clients.

In retail business, Union Investment services are exclusively available to the retail clients of the partner banks ('Verbund first'). Union Investment follows a two-stage sales approach, offering needs-based support for the client advisory process conducted by the partner banks. It then supports distribution partners across the entire value chain with suitable products and services, enabling partners to offer a range of asset management options.

The portfolio of services for institutional clients is designed with institutional investors of varying sizes in mind. These clients are partner banks, the other specialist institutions of the Genossenschaftliche FinanzGruppe and the corporate clients of the cooperative partner banks. Union Investment also competes for institutional investors' investment capital outside of the Genossenschaftliche FinanzGruppe group, for example with pension funds.

The core geographical area of the retail client activities of Union Investment is the territory covered by the Genossenschaftliche FinanzGruppe (Germany) and by the cooperative banks in Austria. The institutional clients business also has a regional focus in Germany, although there are some activities in other markets on a selective basis. The main locations of the Union Investment asset management units are Frankfurt, Hamburg, Luxembourg, Vienna and Paris.

The Union Investment Group comprises various single entities, with Union Asset Management Holding AG (UMH) as the parent holding company. The consolidated group of UMH currently consists of 19 entities.¹⁾ The most significant equity investments in the UMH portfolio can be broken down as follows:

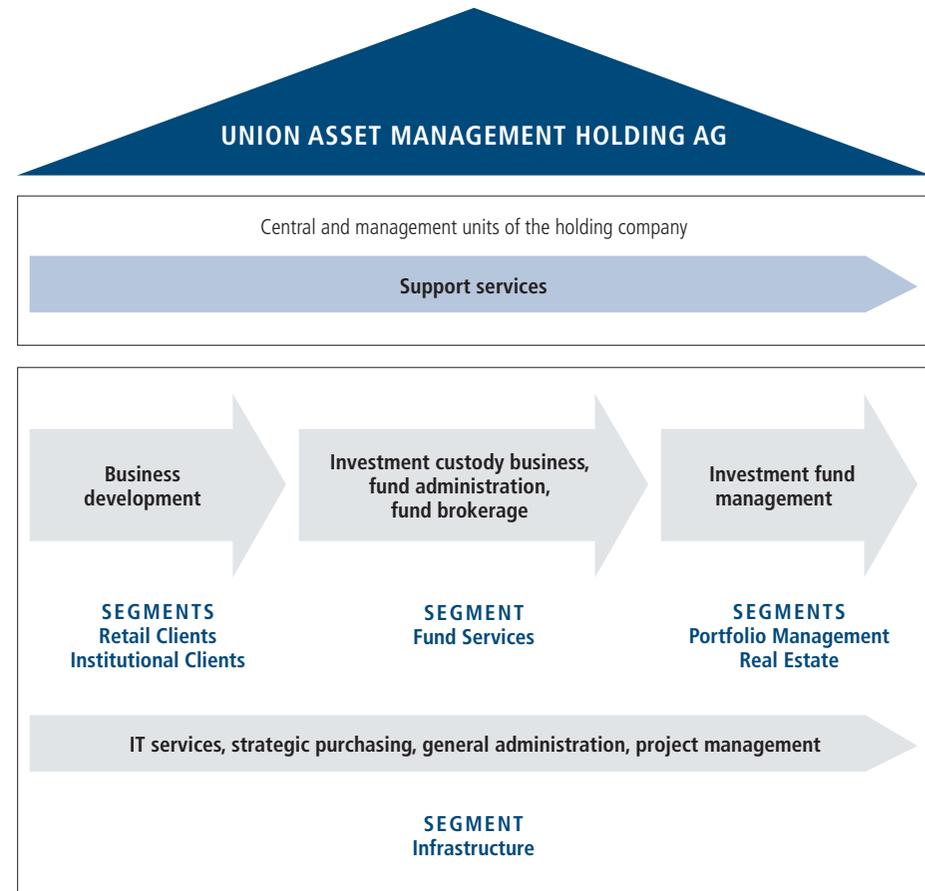
- **Asset management companies in Germany and abroad:**
Bundling of asset management expertise for different management styles, asset classes or regional capital markets.
- **Financial service providers:**
Offering of sophisticated portfolio management, investment consulting, sales and support services.
- **Banks:**
Provision of investment accounts for retail clients.
- **Service companies:**
Provision of fund management services and infrastructure.
- **Securities trading companies:**
Bundling of fund brokerage, investment custody business and funds sales for various companies based in Luxembourg.

¹⁾ Comprises the companies included in the UMH Group's scope of consolidation as at 31 December 2019.

Specifically, there are the following companies:

UNION ASSET MANAGEMENT HOLDING AG				
Germany			Rest of world	
Asset management companies	Service companies	Financial service providers	Asset management companies	Financial service providers
Union Investment Privatfonds	Union IT-Services	Quoniam Asset Management	Union Investment Luxembourg	Union Investment Austria Vienna
Union Investment Institutional	Union Service-Gesellschaft	VisualVest	BEA Union Investment Hong Kong	Securities trading companies
Union Investment Real Estate	UIR Verwaltungsgesellschaft		Union Investment Real Estate Austria Vienna	Union Investment Financial Services Luxembourg
Union Investment Institutional Property				attrax Luxembourg
Banks	Associates			
Union Investment Service Bank	R+V Pensionsfonds	ZBI Partnerschafts-Holding		
	compertis			

For external purposes, the Union Investment Group is managed by the individual companies as legal entities. Internally, the management concept at Union Investment is defined by uniform company- and location-wide organisation according to segments. The core competencies of business development and portfolio management are both organised into two segments: Retail Clients and Institutional Clients for the former, and Portfolio Management and Real Estate for the latter. There are two further segments known as Fund Services (fund administration, investment custody business, fund brokerage) and Infrastructure (IT, strategic purchasing, general administration, project management).



All the companies of the Union Investment Group are allocated to these segments. In some cases, individual units within a company are assigned to different segments. Exceptions to this are non-integrated companies, such as joint ventures on account of the ownership structure, and Union Investment equity investments in which self-contained management is beneficial because of the business model involved. These companies are managed through their respective supervisory bodies.

As an asset manager, Union Investment focuses on the investment needs of retail and institutional clients. It offers retail investors products and services covering a range of requirements, including personal pension products, investment solutions and asset accumulation. Currently, the most successful solutions are the Riester pension plan product from Union Investment, UniProfiRente and the PrivatFonds series. Other options offered to retail investors include equity funds, fixed-income funds, money-market funds, open-ended real-estate funds, mixed funds, funds of funds and capital preservation funds.

As one of the largest fund management companies in Germany, it is able to offer an extensive range of diverse investment strategies for institutional investors. These strategies include traditional special funds, a number of institutional funds with varying structures, advisory and outsourcing mandates and institutional asset management.

UMH's business purpose is essentially the acquisition, management and disposal of equity investments, in particular in asset management companies in Germany and abroad, for its own account. Furthermore, its business purpose is the performance of other services exclusively for its subsidiaries, provided that the law does not require a special permit for this, and transactions and activities directly or indirectly necessary or useful for achieving its business purpose.

The companies included in UMH's consolidated group are often subject to changes under company law or material changes in business policy. The sale of the subsidiary Union Investment TFI S.A., Warsaw, was concluded in the 2019 reporting year. Furthermore, VR Consultingpartner GmbH, Frankfurt am Main, is no longer consolidated as an associate using the equity method as it was in the previous year and will instead be reported as a non-consolidated subsidiary.

B Economic report

I. General economic and industry conditions

1. Capital markets

Weak global economic momentum, political uncertainties surrounding Brexit, the trade disputes instigated by the USA and increasing US interest rates led to a significant correction on the capital markets in the fourth quarter of 2018. Only safe havens such as gold, German Bunds and US Treasury bonds escaped the negative trend.

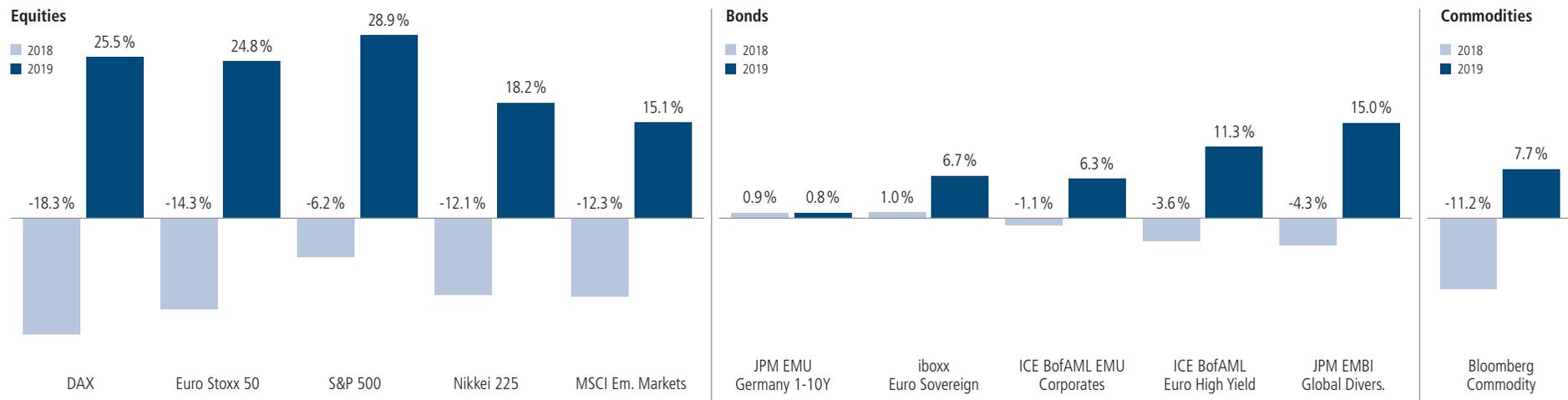
There was a change in sentiment at the start of 2019, driven mainly by the key central banks. The US Federal Reserve (Fed) had already taken a more muted tone in early January, when it announced that the key interest rates would not be increased as sharply in 2019 as they were in 2018. In March, it then spoke of steady rates over the rest of the year. The turnaround in monetary policy was completed when interest rates were cut three times in the second half of 2019. This was a response to the persistently difficult environment, as hopes of accelerating growth over the course of the year had been dashed. Data from the manufacturing sector

remained particularly weak, while the service and construction sectors did well thanks to persistently robust consumption and the lower interest rates. The industry weakness is also a reflection of the uncertainty regarding the trade policy dispute between the USA and China. So far, signs of rapprochement have been followed by fresh escalation, and vice versa. The “Phase 1” trade deal agreed in December pointed to de-escalation at the end of the year – Donald Trump was perhaps nudged into this step towards rapprochement by the weak US economy and his consequently declining chance of re-election.

In Europe, the Brexit deadline was postponed twice during the year, finally to 31 January 2020. Prime Minister Theresa May stepped down in the summer and was succeeded by the Brexiteer Boris Johnson. After some political infighting, a general election was scheduled for 12 December. Johnson’s Conservatives were the clear winners of this election and are likely to see Brexit through in 2020. In Italy, Lega quit the governing coalition and, with the Five Star Movement agreeing a new coalition with Partito Democratico, soon found itself back on the opposition benches. There was a surprising level of agreement in questions of EU personnel, e.g. with Ursula von der Leyen appointed President of the European Commission and Christine Lagarde as Mario

2019: Positive performance in all asset classes

Performance in local currency



Source: Refinitiv, Union Investment; correct as at 31 December 2019.

Draghi’s successor as President of the European Central Bank (ECB). This raised hopes, with economic growth continuing to slow, of better coordination of expansionary monetary and fiscal policy in the eurozone. In September, the ECB cut the deposit rate to minus 0.5 % and introduced a tiered interest rate system to mitigate the effects of negative interest rates on the banking sector. At the beginning of November, however, it again started purchasing securities at a volume of EUR 20 billion a month. The ECB thus departed from a more restrictive course of monetary policy – before it had even adopted it.

Although the hoped-for acceleration in growth failed to materialise, the monetary policy outlooks of the Fed and ECB in particular have led to a significant increase in prices in all asset classes since the start of the year. On balance, the equity markets in Europe and the USA have grown by rates well into double digits since the start of the year and thus have a significant lead over their counterparts in Asia and the emerging markets, which have been more significantly harmed by trade tensions over the course of the year. The reason for the equity rally in western industrialised nations is the expectation that monetary policy easing will effectively avert a lengthy economic slowdown or even recession.

The expectation of interest rate cuts by the key central banks resulted in falling yields and risk premiums on the bond markets. This particularly benefited bonds from the euro periphery, corporate bonds and hard-currency bonds from emerging markets. In this environment, yields on safe-haven German Bunds temporarily fell into negative territory across all outstanding maturities. A turnaround only came when economic data turned out better than expected and statements from certain members of the councils of the ECB and Fed lowered market expectations.

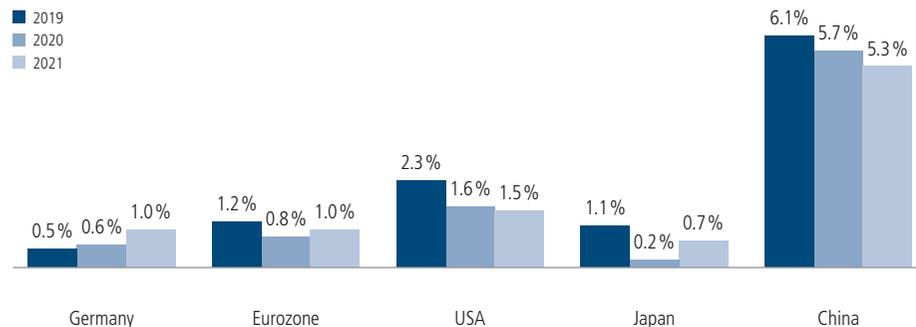
In commodities, the gold price benefited from the prospect of looser monetary policy and the decline of real interest rates in the USA. Industrial metals and energy commodities grew significantly in the first quarter, but shed most of the gains again in the subsequent months on account of the weak global economy. The oil price responded to the attacks on infrastructure in Saudi Arabia with a double-digit increase for a time. Looking forward, a higher geopolitical risk premium is expected in the oil price.

A key driver for the stock exchanges in 2020 will be the issue of the sustainability of the US economic cycle. The global economy will continue to grow, but probably with a loss of momentum. In the USA, the waning effects of the 2017 tax reform and the impact of the trade dispute with China will cause growth to slow from 2.3 % in 2019 to 1.6 % in 2020.

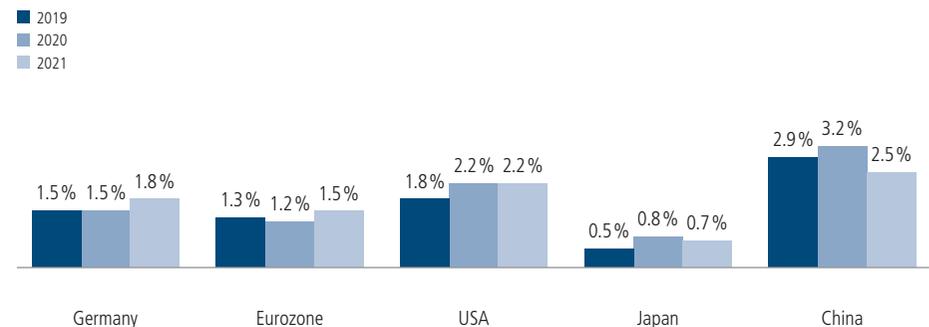
The economic environment is also becoming more challenging in other regions. This especially applies to the eurozone, where our economists expect gross domestic product (GDP) to grow by 1.1 % in 2019 following weak economic momentum since the end of 2018. Due to the weakness in world trade and special effects in the automotive sector, the growth forecast for Germany is even lower at 0.5 %. In 2020, they are forecasting a further slowdown in growth to 0.8 % in the eurozone and stabilisation in Germany (+0.6 %). The peripheral risk of a no-deal Brexit is off the cards following Johnson’s election win. However, Brexit remains a political risk for Europe, as all the key questions regarding the United Kingdom’s future relationship with the European Union are still unresolved.

Global economic growth weakens further in 2020

GDP forecasts



Inflation forecasts



Source: Union Investment; correct as at 10 January 2020.

Given the combination of declining economic momentum and inflationary pressure that remains relatively weak, the key central banks have made a monetary policy U-turn and returned to a looser interest rate policy. In the USA, the Fed is likely to respond with up to two further interest rate cuts in 2020 if growth continues to weaken. For the ECB, the potential is very limited after the round of easing in autumn 2019, which comprised an interest rate cut, the introduction of tiered interest rates and the resumption of the purchase programme. As inflation rates remain low, however, the monetary policy environment remains clearly geared towards growth stimulation, but is likely to drive the capital market less than in 2019.

Thanks to monetary policy, yields on safe-haven fixed-interest securities such as German Bunds and US Treasuries with short maturities are well secured. Neither a sustained rise nor a significant fall below the yield lows of the last few months is expected. At the end of 2020, 10-year US Treasuries and 10-year German Bunds are likely to have yields of 1.5% and -0.5% respectively. Overall, the negative interest rates in the core countries of the eurozone thus seem to have become entrenched for the time being. The negative interest rates and the central banks' unorthodox measures are expected to sustain demand for the spread segments and allow yield premiums to be earned.

The tailwind for equities is easing in the late-cycle capital market environment. The global economy has already lost a lot of momentum, and an end to this trend is not currently in sight. In combination with increasing labour and commodity costs, businesses are finding it harder to widen their profit margins. Profits are therefore likely to grow by just 3% globally in 2020, with the trend gap between individual industries remaining wide. The central banks' expansionary monetary policy and the low or negative yields on fixed-income investments support equity valuations, so price-earnings ratios slightly above the historical average are realistic. Overall, activity in portfolio construction and the selection of particularly successful business models in the late-cycle environment on the equity markets therefore remain the key factors for investment success.

The weak global economic growth is reducing demand for cyclical commodities such as industrial metals and energy. However, both sectors have prospective market deficits and are valued favourably in some cases. In the energy sector, attractive roll yields can be earned. Investors continue to focus on precious metals as safe havens, but market prices are unlikely to get much higher owing to technical positioning and a slight decline in geopolitical risks.

2. Real estate markets

The majority of international real estate markets developed positively over the course of 2019. Vacancy rates fell and prime rents increased in many places. Investor demand for commercial real estate also remained high, so the global transaction volume grew year-on-year once again.

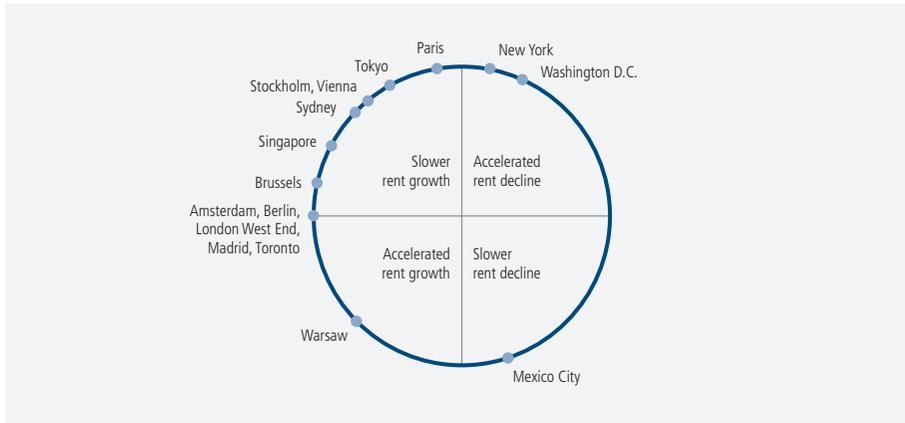
The office real estate markets in Europe continued their upward trend in 2019. The persistently high demand for office space at the same time as mostly moderate completions of new buildings led to falling vacancy rates and rising prime office rents in nearly all locations. At the end of 2019, the average prime office rent in the European locations was 3.7% higher than in the previous year. The rent growth was especially high in Paris, Amsterdam and Madrid. The German office markets also continued to see encouraging development. The positive performance of the US office real estate markets also continued. Despite some slight increases in vacancy rates, rents grew in nearly all locations. In 2019, vacancy rates declined in the five largest office markets of the Asia-Pacific region, except Kuala Lumpur. The high demand for space caused a year-on-year increase in rents in all locations.

In light of continually low interest rates and cheap financing for real estate investments, international real estate investors' demand for commercial properties remained high in 2019. The global transaction volume for commercial real estate was EUR 717 billion, 6.4% above the already very good figure for the previous year. Worldwide, the highest transaction volume in 2019 was registered on the American continent. Up to the end of the year, around EUR 311 billion was invested in commercial real estate here; this equates to a year-on-year increase of 16.6%. In Europe, the transaction volume reached around EUR 253 billion, down 3.4% on the previous year. In the Asia-Pacific region, around EUR 152 billion was invested in commercial real estate. This represents a 5.6% increase in the transaction volume compared with 2018.

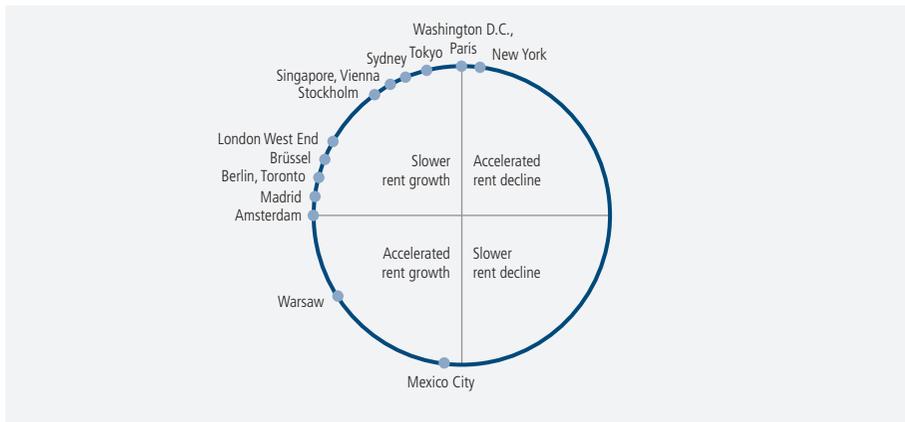
Due to the current direction of the central banks' monetary policy, interest rates will remain low, further bolstering demand for real estate investments. As a result, net initial yields on the international real estate markets will fall slightly again. Despite the somewhat weaker economic outlook, demand for space is generally still high, so rents are likely to continue rising in the coming quarters, especially for office properties.

Global markets: dominated by rent growth

Office property clock – Q4 2018



Office property clock – Q4 2019



The local market

- The clock shows where the respective office market is within the rent cycle.
- The local market can move in various directions.
- The positions are not necessarily representative of the investment market.

Source: Jones Lang LaSalle; Union Investment; correct as at 31 December 2019.

3. Sales and fund assets

Sector situation: mutual funds

The German investment industry reported total net inflows of EUR 6.8 billion in mutual securities funds in 2019. In particular, this benefited mixed funds (EUR 10.5 billion) and equity funds (EUR 4.4 billion). Investors primarily sold fixed-income funds (EUR -3.7 billion) and capital preservation funds (EUR -2.9 billion). The other asset classes in the area of mutual securities funds together accounted for net outflows of EUR 1.5 billion. Open-ended real-estate funds achieved net sales of EUR 10.7 billion (Source: BVI investment statistics, December 2019).

Sector situation: special funds

The German investment industry generated net inflows of EUR 72.5 billion in the open-ended special securities funds under its management in 2019 (as at 30 November 2019). This was up on the previous year's figure of EUR 69.4 billion (as at 30 November 2018). The volume under management in open-ended special securities funds totalled EUR 1,757.3 billion at the end of November 2019, and was therefore up on the previous year's figure of EUR 1,540.1 billion (as at 30 November 2018) (source: BVI statistics).

Sector situation: real-estate funds

As in 2018, the market for German open-ended real-estate funds remained divided in the 2019 financial year. According to BVI, 15 of the 62 open-ended real-estate funds (not including open-ended special funds) were being closed at the end of November 2019. Products being actively marketed brought the industry a net total of approximately EUR 10.0 billion in new funds by the end of November 2019. This is proof positive of investors' fundamental confidence in this asset class.

II. Specific business performance

1. Overview of assets under management and performance

1.1 Fund business/assets under management

The number of products set up by or managed by UMH investees under fund management mandates was 1,116 in 2019, down slightly on the prior-year level of 1,160.

The volume of assets under management climbed from EUR 323.4 billion as at 31 December 2018 to EUR 368.2 billion in 2019, an increase of EUR 44.8 billion. This increase resulted from the positive performance on international capital markets as well as positive net inflows.

The development of assets under management in 2019 can be summarised as follows:

The volume of mutual funds increased by EUR 26.5 billion to EUR 210.1 billion.

The volume of special funds increased by EUR 16.8 billion to EUR 117.8 billion.

The volume of other formats (advisory mandates and asset management) less outsourced mandates was up year-on-year at EUR 40.4 billion (previous year: EUR 38.7 billion).

Volume of assets under management

The volume of assets under management within the Union Investment Group was as follows as at the end of the reporting period:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Fund assets	327,829,763	284,648,502	43,181,261
Volume in other formats	54,606,199	50,082,791	4,523,408
of which unit-linked asset management	2,206,442	1,686,748	519,694
of which institutional asset management	10,349,506	9,961,356	388,150
of which advisory and outsourcing	42,050,250	38,434,687	3,615,563
Accounts managed by third parties	-14,227,571	-11,361,446	-2,866,125
Total	368,208,391	323,369,848	44,838,543

Under the UMH banner, the Union Investment Group had total assets under management of EUR 368,208,391 thousand as at the end of the reporting period (previous year: EUR 323,369,848 thousand). The fund assets comprise equity funds, fixed-income funds, money-market funds, mixed funds, other securities funds, capital preservation funds, real-estate funds, alternative investment funds and hybrid funds issued by the Union Investment Group.

The Union Investment Group also manages assets as part of its unit-linked asset management and institutional asset management business, under advisory and outsourcing mandates and private banking. The volume of the funds issued by the Union Investment Group for which portfolio management has been outsourced is shown as a deduction. The definition of assets under management is based on the aggregate statistics of the German Investment Funds Association (BVI), Frankfurt am Main.

Net inflows to assets under management

The table below gives a breakdown of the net inflows to assets under management within the Union Investment Group:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Net inflows (fund assets)	20,754,181	12,516,894	8,237,287
Net inflows (other formats)	-259,475	2,811,098	-3,070,573
of which institutional asset management	-457,038	709,043	-1,166,081
of which advisory and outsourcing	-73,291	1,857,292	-1,930,583
Net change in accounts managed by third parties	-1,122,029	-12,371	-1,109,658
Total	19,372,677	15,315,621	4,057,056

Net inflows to assets under management constitute the balance of inflows to and outflows from the product formats that make up assets under management. This figure was EUR 19,372,677 thousand in the financial year (previous year: EUR 15,315,621 thousand).

Volume of fund assets

The volume of fund assets of the Union Investment Group was as follows as at the end of the reporting period:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Mutual funds	210,056,615	183,607,343	26,449,272
Equity funds	56,216,994	41,947,604	14,269,390
Fixed-income funds	44,605,645	42,851,407	1,754,238
Money-market funds	823,633	3,257,964	-2,434,331
Mixed funds	59,300,085	49,708,142	9,591,943
Other securities funds	1,710,697	1,440,628	270,069
Capital preservation funds	5,590,752	7,019,845	-1,429,093
Open-ended real-estate funds	39,288,920	35,398,738	3,890,182
Alternative investment funds	1,653,758	1,192,708	461,050
Hybrid funds	866,130	790,307	75,823
Special funds	117,773,149	101,041,158	16,731,991
Equity funds	631,657	586,768	44,889
Fixed-income funds	17,070,156	15,269,983	1,800,173
Mixed funds	76,213,675	64,493,238	11,720,437
Other securities funds	585,728	716,029	-130,301
Capital preservation funds	14,524,845	13,130,116	1,394,729
Alternative investment funds	267,341	181,843	85,498
Special real-estate funds	8,479,747	6,663,181	1,816,566
Total	327,829,763	284,648,502	43,181,261

Net inflows to fund assets

The table below gives a breakdown of the net inflows to the fund assets of the Union Investment Group:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Mutual funds	10,175,999	4,430,183	5,745,816
Equity funds	3,453,541	924,587	2,528,954
Fixed-income funds	540,630	-3,640,343	4,180,973
Money-market funds	-201,376	210,745	-412,121
Mixed funds	3,974,844	6,298,494	-2,323,650
Other securities funds	58,035	247,191	-189,156
Capital preservation funds	-1,657,769	-1,388,415	-269,354
Open-ended real-estate funds	3,776,881	1,945,460	1,831,420
Alternative investment funds	225,814	-27,260	253,074
Hybrid funds	5,399	-140,277	145,676
Special funds	10,578,183	8,086,711	2,491,472
Equity funds	-74,619	36,024	-110,643
Fixed-income funds	1,249,077	1,089,414	159,663
Mixed funds	6,972,219	4,800,227	2,171,992
Other securities funds	-104,249	-5,050	-99,199
Alternative investment funds	66,769	18,095	48,674
Capital preservation funds	806,777	830,666	-23,889
Special real-estate funds	1,662,209	1,317,334	344,874
Total	20,754,182	12,516,894	8,237,288

Number of investment funds managed

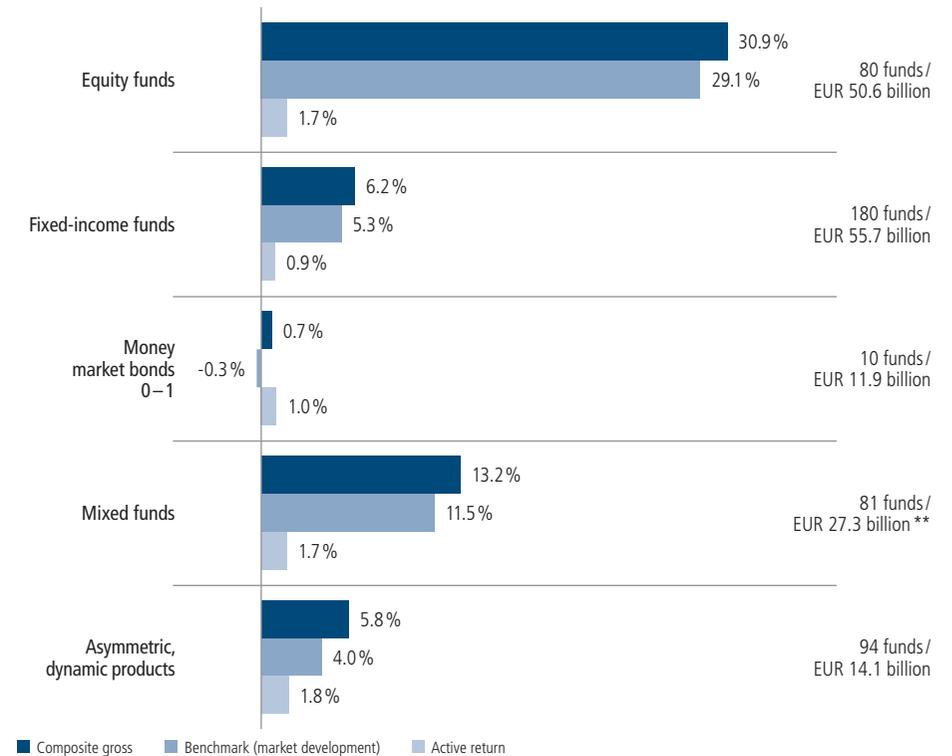
The number of investment funds managed at the end of the reporting period was as follows:

	2019 Number	2018 Number	Change Number
Mutual funds	835	849	-14
Equity funds	216	205	11
Fixed-income funds	160	170	-10
Money-market funds	5	11	-6
Mixed funds	361	364	-3
Other securities funds	15	15	–
Capital preservation funds	33	45	-12
Open-ended real-estate funds	18	17	1
Alternative investment funds	24	20	4
Hybrid funds	3	2	1
Special funds	420	394	26
Equity funds	6	6	–
Fixed-income funds	41	40	1
Mixed funds	275	252	23
Other securities funds	2	2	–
Alternative investment funds	3	3	–
Capital preservation funds	69	71	-2
Special real-estate funds	24	20	4
Total	1,255	1,243	12

1.2 Performance of Union Investment Group funds

The very positive development of the capital markets over the course of 2019 is reflected in the absolute figures for equity and fixed-income funds. After the difficult market environment at the end of 2018, positive relative performance was achieved over the course of the current year in all main composites. For the year as a whole, the volume-weighted outperformer ratio across all funds was 87.1 %.

Union funds compared to benchmark (one year)*



* Performance since 31 December 2018; rounding differences are possible.

** PrivatFonds: Kontrolliert/PrivatFonds: Kontrolliert pro no longer included in composites due to realignment.

Source: Union Investment; correct as at 31 December 2019.

The equity funds under management increased by an average of 30.9% in absolute terms, 1.7 percentage points above the average of their benchmarks. The funds with a focus on Aktien Nordamerika (+35.2%) and Aktien Euroland (+32.5%) performed most positively. Like all other equity composites, the global (+31.8%), European (+27.4%) and German (+29.3%) equity funds also gained by more than 20%. In addition, all main equity composites outperformed their benchmarks. The alpha was particularly large for Aktien Emerging Markets (+6.4 percentage points), Aktien Euroland (+4.6 percentage points) and Aktien Deutschland (+2.4 percentage points).

The fixed-income funds of the key composites Renten EUR Aggregate (+4.7%) and Renten EUR Staatsanleihen (2.5%) grew, as did the funds with a focus on EUR IG corporate bonds (with no fixed time to maturity) at +7.3%. They are therefore between 0.6 and 1.1 percentage points above their benchmarks – as are all the other fixed-income composites with very few exceptions. Funds with a focus on emerging market bonds in hard currency also saw substantial absolute growth of +10.8% and relative growth of +0.7 percentage points. International fixed-income funds likewise grew substantially with high single-digit or double-digit growth rates. Money-market and fixed-income funds with a remaining term of less than one year grew by 0.7% and were therefore one percentage point ahead of their benchmarks.

The mixed funds gained 13.2% on average, 1.7 percentage points more than their benchmarks. Asymmetric, dynamic capital preservation products gained 5.8% and were therefore 1.8 percentage points ahead of their benchmarks. In terms of absolute return, the funds were up by 2.5% on average, 2.8 percentage points above than their money market benchmarks.

Real-estate funds for retail investors

The open-ended real-estate mutual funds managed by Union Investment for retail investors reported annual returns of +3.2% (Unilmmo: Deutschland), +2.5% (Unilmmo: Europa) and +1.7% (Unilmmo: Global) as at 31 December 2019. While Unilmmo: Europa proved stable over the year, the annual performance of Unilmmo: Deutschland continually increased and came to + 42 bp compared with the end of the previous year. This was due to performance that exceeded expectations, sales results significantly above the appraisal values and more favourable interest on liquidity than planned. In contrast, the performance of Unilmmo: Global fell by - 36 bp at the end of 2019. This development is due to a negative base effect, arising primarily from the October 2018 net remeasurement income of EUR +16.9 million. immofonds 1 reported a stable performance and (as in the previous year) an annual return of 2.3% as at the end of the reporting period. In July 2017, Union Investment and Zentral Boden Immobilien AG entered into a strategic partnership to set up the Unilmmo: Wohnen ZBI fund, which reported an annual return of +2.0% at the end of the year. All the funds successfully acquired properties over the course of the year.

Real-estate funds for institutional investors

Business with institutional real estate investors continued to expand in 2019. The institutional mutual funds Unilnstitutional European Real Estate and Unilnstitutional German Real Estate achieved gains of +2.8% and +3.2% respectively by the end of December. Performance contributions by the special funds managed, DEFO-Immobilienfonds 1, UII Hotel Nr. 1, UII Shopping Nr. 1, DIFAFonds Nr. 3 and UII German^M, were greater than planned. The Urban Campus Nr. 1 fund as well as the Urban Living Nr. 1 fund launched in the 2017 financial year fell short of their planned values at the end of the year. Six of the funds for institutional investors successfully acquired properties in 2019.

The special real-estate funds Real Value Berlin (formerly Residential Value), Residential Value Germany, R+V Deutschland Real, VGV Immobilienfonds II, Redos Einzelhandel Deutschland, Redos Einzelhandel Deutschland II, Wannsee Immo Fonds I, Property Invest Germany and Wohnen Deutschland Spezial, which were created as service asset management mandates, are in the continuing investment phase. The AuM in the service asset management sector grew to around EUR 7 billion. An initial acquisition was made for the newly launched special real-estate funds Redos Einzelhandel Deutschland III (target volume: EUR 1.0 billion) and German Small Asset Invest (EUR 500 million). The investor brought two additional properties into PSD KN ImmoInvest Geschlossene Investment KG. PSD Bank Nürnberg eG was launched as a new company, one property was brought in and preparations were made to transfer seven additional properties to this company in the first quarter of 2020 and to contribute this company and other assets to a newly founded Investment-KG. BAEV Immobilienfonds I is being partially wound up due to restructuring of the allocation of real estate by the investor and initial sales are in the pipeline. As in the previous years, VPV Invest enjoyed positive development. New investments were indirectly made in the target fund and another target fund when a subscription commitment of EUR 93.9 million was subscribed.

The capital pledged for the two Unilnstitutional Infrastruktur SICAV-SIF subfunds has been drawn in full since 2016. The fund liquidity was used to make a total of nine investments in the areas of wind power and photovoltaics. The portfolio is highly diversified in terms of investment locations and technologies and has installed capacity of 146.5 MW.

In 2019, subfund 1 generated a return of 7.38% and subfund 2 a return of 8.68% (both adjusted for distributions). In December 2019, a sum of EUR 26 was paid out to the investors in subfund 1 and a sum of EUR 28 was paid out to the investors in subfund 2.

At 352.6 million kWh, production amounted to 96.5% of the figure forecast for 2019, which is chiefly attributable to slightly below-average wind speeds all over Europe.

Production output in the last twelve months meets the energy requirements of over 108,150 households and over 217,000 tonnes of CO₂ were saved compared to conventional power generation (source: the German Environment Agency (UBA)). The purchase of a further turbine for the Carrowleagh wind farm (Ireland) is being reviewed for 2020.

1.3 Awards, rankings and ratings

For the 17th time in a row, the renowned German business magazine Capital awarded Union Investment the highest rating of five stars in 2019 – it is the only investment company to achieve this. The company also received ten 2019 Euro Fund Awards from the Euro financial magazine and two Refinitiv Lipper Fund Awards for individual funds. In the field of sustainability, Union Investment was recognised as a German Fund Champion 2020 by f-fex & finanzen.net in December and was also awarded the 2020 FNG seal, both generally and for six individual funds.

In the ranking of asset management companies performed by Scope as at 31 December 2019, Union Investment was ranked 5th with a ratio of 54.0 % of funds with a top rating, making it the second-best German asset management company (Deka: 3rd place, 55.4 %; Allianz Global Investors: 28th place, 35.4 %; DWS: 29th place, 35.3 %).

In the rankings issued by the Morningstar ratings agency as at 31 December 2019 that compare Union Investment against its main competitors in Germany, Union Investment was ranked third over both one and three years and fourth over five years. The proportion of funds in the upper half of each peer group was 56.2 % over a one-year period, and 51.7 % and 44.7 % respectively over the longer analysis periods.

2. Development in sales and fund assets

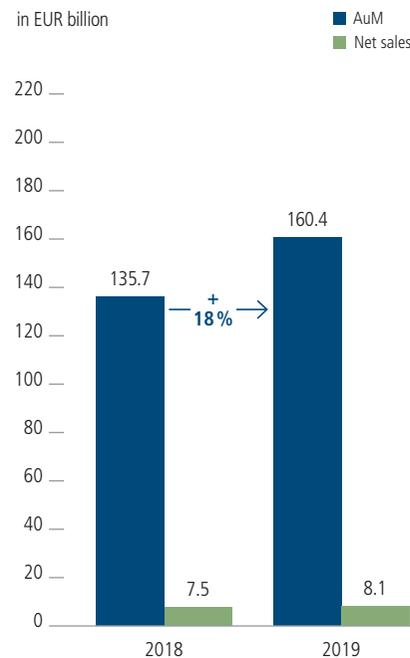
2.1 Union Investment Group sales and fund assets

The Union Investment Group had total assets under management of EUR 368.2 billion as at 31 December 2019 (2018: EUR 323.4 billion). As at the end of December 2019, it achieved a market share of 14.7 % of the assets under management across the sector according to the investment statistics of the German Investment Funds Association (BVI) (as at December 2018: 14.7 %); this equates to second place overall in the market (2018: second place). Its assets were distributed across the two business divisions of Retail Clients and Institutional Clients.

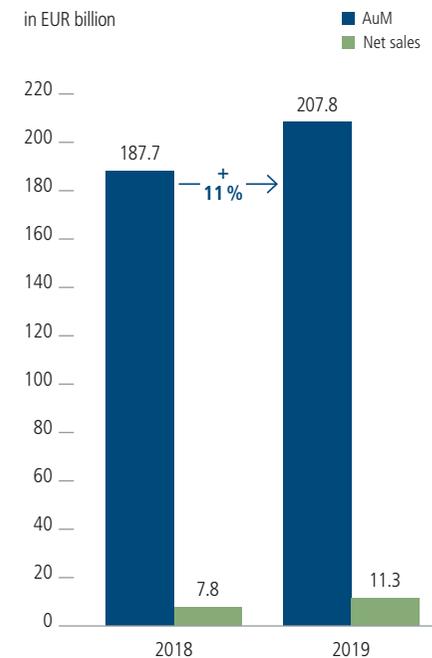
Retail investors – development in sales and assets

All funds under the Union Investment brand are offered to retail clients exclusively via our partner banks in the cooperative financial network. This approach distinguishes Union Investment from most of its competitors.

Assets under management and net sales in the Retail Clients segment

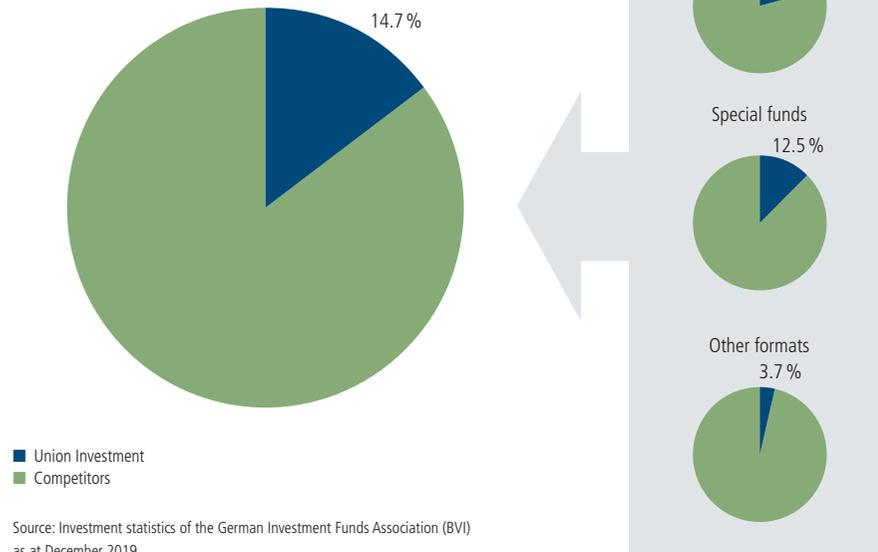


Assets under management and net sales in the Institutional Clients segment



Market shares

Assets under management



Historically, this strategy of focusing purely on the Genossenschaftliche FinanzGruppe Volksbanken Raiffeisenbanken cooperative financial network has formed the basis for the successful performance of the Union Investment Group. The close cooperation within the Genossenschaftliche FinanzGruppe again proved its worth in 2019.

At EUR 27.7 billion, gross sales in retail client business were once again high in 2019 (2018: EUR 26.5 billion). Net inflows amounted to EUR 8.1 billion (2018: EUR 7.5 billion). The inflows were aimed at the asset classes of mixed funds, equity funds and open-ended real-estate funds in particular. By contrast, clients withdrew funds from money-market and especially from capital preservation funds.

The volume of assets under management in business with retail clients increased considerably to EUR 160.4 billion as at 31 December 2019 (2018: EUR 135.7 billion).

According to the investment statistics of the German Investment Funds Association (BVI), the Union Investment Group's share of the managed mutual funds market was 21.1 % in December 2019 (2018: 20.6 %). Union Investment was therefore the largest manager of mutual funds in Germany for the first time (2018: second-largest).

Institutional investors – development in sales and assets

The volume of assets under management for institutional investors grew to EUR 207.8 billion in 2019 (2018: EUR 187.7 billion). The assets in special funds included therein increased to EUR 106.4 billion (2018: EUR 93.1 billion). Assets under management in other institutional business formats (mutual funds, advisory and institutional asset management) amounted to EUR 101.4 billion (2018: EUR 94.5 billion).

In 2019, institutional business generated net inflows of EUR 11.3 billion (2018: EUR 7.8 billion). Special funds, institutional mutual funds and advisory services were particularly sought after.

According to the BVI investment statistics, the Union Investment Group's share of the special funds market was 12.5 % in December 2019 (2018: 12.8 %). The group is therefore still the second-largest manager of special funds in Germany.

2.2 Custody business and fund brokerage

As at the end of 2019, the Union Investment Group managed more than 4.6 million client custody accounts with portfolios of the group's own and third-party investment funds. The portfolio volume was increased by EUR 23.0 billion from EUR 121.1 billion in total to EUR 144.1 billion.

The number of managed custody accounts with third-party funds (funds from asset management companies outside the group) was around 387,000 as at the end of the period under review (2018: 357,000 custody accounts). The volume of assets invested in third-party funds was EUR 7.9 billion at the end of 2019 (2018: EUR 6.3 billion).

Union Investment Service Bank AG handled a total of around 73.4 million customer transactions in 2019, which can be broken down as follows:

- 55.8 million savings plans, withdrawal plans, employer-funded capital formation schemes, etc.,
- 15.1 million income distributions/reinvestment and custody account fees,
- 2.1 million online transactions, and
- 0.3 million manual, offline-only special postings.

1.9 million transactions were entered directly by the end investor and banks using the online service. Automated processing accounts for 99.2 % of the transactions processed (previous year: 99.3 %), still the optimum level from a business perspective.

The fund brokerage business processed a total of around 1.8 million attrax S.A. client orders with a volume of approximately EUR 47.3 billion in the year under review. 0.1 million orders worth EUR 6.7 billion were posted in Union Investment Group funds.

The volume of assets held in custody for attrax clients was EUR 69.7 billion as at the end of the year under review (previous year: EUR 60.1 billion). EUR 22.8 billion of this was held for cooperative partner banks (previous year: EUR 19.2 billion) and EUR 46.9 billion for institutional clients (previous year: EUR 40.9 billion). The volume of fees and commission paid as trail commission in 2019 amounted to approximately EUR 134.3 million (previous year: EUR 127.8 million).

The fund brokerage business actively managed 166 cooperative banks, while the number of institutional clients managed rose from 137 to 141 as at the end of 2019.

III. Business environment

At the start of 2019, the Governing Council of the ECB, consisting of the six members of the Executive Board of the European Central Bank (ECB) and the presidents of the national central banks of the 19 member states of the eurozone, continued to assume that bank lending must be further stimulated by low key interest rates in order to boost the economy in euro countries.

Under these circumstances, it was decided at the meeting on 24 January 2019 to leave the interest rates on the Eurosystem's main refinancing operations, the marginal lending facility and the deposit facility unchanged at 0.00 %, 0.25 % and -0.40 % respectively. The Governing Council of the ECB expected the ECB interest rates to remain at their present levels only through the end of 2019, but in any case for as long as necessary to ensure the continued sustained convergence of inflation to levels that are below, but close to, 2 % over the medium term. This assessment was confirmed at subsequent meetings of the Governing Council of the ECB.

At the meeting of 6 June 2019, the above assessment was changed insofar as the ECB interest rates were now expected to remain at their present low levels at least through the first half of 2020. On 12 September 2019, the interest rate on the deposit facility was lowered by as much as 10 basis points to -0.50 %. In addition, approval was granted for the European Central Bank to restart purchases under its asset purchase programme (APP) at EUR 20 billion a month from 1 November 2019. The ECB will thus purchase newly issued bonds. Furthermore, the principal repayments from securities purchased under the APP can be used to purchase such securities in order to maintain favourable liquidity conditions and an ample degree of monetary accommodation.

The further cut in the deposit facility, the interest rate at which banks can deposit excess liquidity with the ECB in the short term, increased the number of banks charging investors a "custodial fee" or penalty rate when their accounts are kept in credit. This is increasingly affecting not only very wealthy retail and corporate clients. Individual banks are charging such "management fees" from the first euro. Therefore, investors have to take greater risks to generate an adequate return after deducting inflation and taxes.

According to the 2019 Annual Economic Report, the German government expects an increase in price-adjusted gross domestic product (GDP) of 1.0 % for the year as a whole. The German Council of Economic Experts (Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung) estimates real GDP at 0.5 %. The OECD forecasts that German economic output will grow by 0.4 % in 2020 and only 0.9 % in 2021, as continuing trade disputes and Brexit uncertainty are weighing on business confidence and investment.

Union Investment is increasingly playing an active, purposeful and successful part in shaping the conditions for investment funds at both national and international level. For example, at European level Union Investment is involved in a wide variety of working groups set up by the European Fund and Asset Management Association (EFAMA). Subsidiaries participate in all countries in which they are based in the local committees of the relevant associations at national level. In Germany, Union Investment participated as a member in the committees of the BVI and the National Association of German Cooperative Banks (BVR). In addition, there was an increasingly direct dialogue with the Federal Financial Supervisory Authority and the Deutsche Bundesbank. A similar exchange of opinions took place with other European regulatory authorities. In addition, information was successfully shared among political representatives at both regional and European levels.

Tax regulations

Further amendments were made to the German Investment Tax Act (InvStG) in force since 2018 in the German Act on Further Tax Incentives for Electromobility and Amendment of Further Tax Provisions (Gesetz zur weiteren steuerlichen Förderung der Elektromobilität und zur Änderung weiterer steuerlicher Vorschriften; formerly the "Annual Tax Act 2019" ("Jahressteuergesetz 2019")). With regard to (mutual) investment funds, a comprehensive circular from the German Federal Ministry of Finance (BMF) explaining the individual regulations was published in May 2019. With regard to the special investment funds, a final, comprehensive BMF circular is expected to explain the various aspects that have not yet been finally clarified for 2020; a revised draft has been available since mid-December 2019.

In addition, European Amending Directive 2018/822/EU (DAC 6) on the new reporting obligation for model cross-border tax arrangements also has effects on the finance sector. Member states must transpose this EU Directive into national law by 31 December 2019. In Germany, this was accomplished with the German Act to Introduce an Obligation to Report Cross-Border Tax Arrangements (Gesetz zur Einführung einer Pflicht zur Mitteilung grenzüberschreitender Steuergestaltungen), which adds relevant provisions to the Fiscal Code of Germany (Abgabenordnung). From 1 July 2020, any cross-border tax arrangement that meets certain criteria must therefore be reported to the financial authorities within 30 days. The reporting obligation applies to such cross-border tax arrangements for which the first step towards implementation was made after 24 June 2018. The intermediary that markets the cross-border tax arrangement, designs it for third parties, organises it, makes it available for use or manages its use is subject to the reporting obligation. However, reporting obligations can also apply to the user of the tax arrangement. An explanatory BMF circular is expected in 2020.

A draft bill for the transposition of EU Directive 2016/1164 of 12 July 2016 (Anti-Tax Avoidance Directive/ATAD) into national law was also introduced in mid-December 2019, which, among other things, is to adjust the relationship between taxation according to the German Investment Tax Act and according to the German External Tax Relations Act from 1 January 2020.

Requirements of the Benchmark Regulation

The particular aim of European Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (known as the Benchmark Regulation) is to ensure that benchmarks created or used within the EU are robust, reliable, representative and suitable for their intended purpose. In this context a benchmark is understood to mean an index or an indicator for pricing financial instruments and financial contracts or measuring the performance of investment funds.

From 1 January 2020, supervised entities can use a benchmark or a combination of benchmarks in the EU only if the benchmark is provided by an administrator and entered in a public register kept by the European Securities and Markets Authority (ESMA) or the benchmark is entered accordingly.

For “critical benchmarks”, meaning in particular widely used interest rates such as LIBOR, EURIBOR and EONIA, the European Council and the European Parliament have decided to extend the transition period for registration until the end of 2021. Benchmarks provided by an administrator located in a third country and already used within the EU as a reference for financial instruments and financial contracts or to measure the performance of investment funds may also be used without registration until the end of 2021.

Legislative proposals for promoting a sustainable financial system

The legislative proposals for promoting a sustainable financial system put forward by the European Commission on 24 May 2018 were adopted in 2019, and some of the final legislative texts have already been published in the Official Journal of the European Union. The legislative package is based on the action plan on financing sustainable growth published on 8 March 2018.

The action plan is based on a “taxonomy”, which means the introduction of a standard EU classification system for environmentally sustainable economic activities. The taxonomy is to be developed in stages, in that it will first be confined to climate change aspects, then extended to other environmental issues and subsequently, if required, to the social dimension. With regard to the specific criteria, a technical expert group put forward an extremely comprehensive draft report for consultation on 18 June 2019, the final version of which is to be published in February 2020. The report is currently confined to climate protection and climate change adaptation.

On 18 December 2019, the European Parliament, the EU member states and the European Commission reached political agreement on the accompanying framework (Taxonomy Regulation). Based on harmonised criteria the taxonomy is to make it possible to determine whether an economic activity is “sustainable”. The taxonomy is particularly relevant for environmental, social and governance (ESG) products.

In the future, however, not just ESG products but all investment products will have to refer to the taxonomy – either by stating the percentage of “taxonomy compliance” or by publishing a disclaimer stating that the financial product in question does not meet the EU criteria for environmentally sustainable investments. Another milestone in the Taxonomy Regulation are the reporting obligations for the real economy, intended to solve the issue of limited data.

The aforementioned political agreement still has to be formally confirmed in 2020 and published in the Official Journal of the European Union. Thereafter, the taxonomy is to be applied from the end of 2021 and, among other things, serve as a foundation for the planned EU Ecolabel for retail finance products and for the EU Green Bond Standard.

In addition, the Disclosure Regulation was published in the Official Journal of the European Union on 9 December 2019, which contains various sustainability-related disclosure obligations for the financial services sector and is to be implemented from 10 March 2021. The CO₂ Benchmark Regulation was also published in the Official Journal of the European Union on 9 December 2019. This introduced two new types of benchmark: an EU Climate Transition Benchmark and the EU Paris-aligned Benchmark.

Furthermore, the European Commission put forward its revised draft of the delegated act on MiFID II regarding the mandatory ascertainment of sustainability preferences in January 2019. A final resolution on this was not adopted in 2019, but is expected in the first quarter of 2020. It is expected that clients' sustainability preferences must be ascertained when investment advice is provided from spring 2021.

Implementation of the Money Market Funds Regulation

Due to EU Regulation 2017/1131 on money-market funds (known as the Money Market Funds Regulation), a project was implemented to examine the existing product range to determine whether and which investment funds invest in short-term assets and focus on returns in line with the money market rate and/or maintaining the value of the investment and therefore qualify as money-market funds within the meaning of the Regulation. Within the Union Investment Group, only the special fund called UnionGeldmarktFonds, which is managed by Union Investment Privatfonds GmbH, is subject to the strict investment rules of the Money Market Funds Regulation.

Due to the new categorisation of money-market funds, UnionGeldmarktFonds was designed as a fund with variable net asset value (VNAV) as at 1 March 2019. In accordance with the European regulations, this fund may invest only in money market instruments, securitisations, asset-backed commercial papers (ABCP), bank balances, units or shares of other money-market funds and derivatives to hedge currency, interest and exchange rates and conclude repurchase and reverse repurchase agreements. The restriction of investment options aims to ensure money-market funds are set up in such a way as to render them more stable and less vulnerable to potential crises.

MiFID amendment

The second European financial market directive (Directive 2014/65 EU – MiFID II) was transposed into German law at the beginning of 2018. Because of the large number of regulatory areas affected and the supplementary regulations and regulatory areas enacted, the implementation of the new rules within Union Investment was managed via a group-wide project.

The MiFID II project initiated within Union Investment in April 2015 is largely complete. The full implementation of the requirements for ex post cost information required a selective project extension. The existing MiFID II in the BVR and the associated, intensive cooperation of Union Investment in the respective sub-projects is also not yet entirely complete, as there is still an ongoing adjustment requirement, especially with regard to the suitability statement, cost transparency and inducements, due to specifying rules from the Federal Financial Supervisory Authority (BaFin) and the European Securities and Markets Authority (ESMA).

With the implementation of MiFID II, BaFin further increased the requirements for granting and receiving inducements. In addition to the rule that investment services enterprises may not generate profits from inducement-based investment services, investment services enterprises must record the inducements together with the persons and services to which they are connected. Inducements may only be used for the benefit of the same customer group and the same investment service for which they were received. The regulatory authorities and the investment sector are still discussing whether there is a legal basis for these requirements for connection. If BaFin pushes through its view, this recording of inducements in connection with customer groups and investment services could mean that investment services enterprises generate profits in certain customer groups and investment services and losses in others, which may not be offset. In combination with the existing ban on profit and a resulting partial return of inducements to Union Investment, this could result in a decline in the attractiveness of inducement-based investment business among the distribution partners of the Genossenschaftliche FinanzGruppe.

Key information documents for packaged investment products for retail investors

European Regulation (EU) No 1286/2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs Regulation) came into force on 1 January 2018. Details regarding the presentation, content, review and revision of these key information documents are provided in Commission Delegated Regulation (EU) 2017/653, which likewise came into force on 1 January 2018. In particular, packaged investment products include investment funds. A standard key information document must be issued for these products. The PRIIPs Regulation specifies both the form and content of this key information document and the requirements for the provision of the key information document by the manufacturer and/or persons advising on or selling a packaged product. UCITS funds and investment funds for which the investor information significant under national law is prepared in line with the provisions for UCITS funds were initially subject to a transitional provision until 31 December 2019.

On 3 December 2018, the ECON committee resolved to extend the transitional provision for these investment funds by two years until 31 December 2021. The ECON committee also resolved to postpone the scheduled review of the PRIIPs Regulation by one year until the end of 2019. These postponements were implemented with Regulation (EU) 2019/1156 of 20 June 2019. Therefore, the key investment information for the investment funds can still be provided until 31 December 2021.

On 16 October 2019, the European regulatory authorities submitted the revision of Commission Delegated Regulation (EU) 2017/653 on the PRIIPs Regulation for consultation. A review of the PRIIPs Regulation by the European Commission has not yet begun.

Requirements of the Shareholder Rights Directive

Directive (EU) 2017/828 of the European Parliament and of the Council of 17 May 2017 amending Directive 2007/36/EC as regards the encouragement of long-term shareholder engagement was transposed into German law on 1 January 2020.

Overall, the Directive aims to further improve shareholder engagement in listed companies and to make it easier to provide cross-border information and exercise shareholder rights. For this purpose, the Directive includes a range of regulations on shareholders' rights to a say on supervisory and executive board pay ("say on pay"), related-party transactions, the better identification of and provision of information to shareholders ("know your shareholder") and the improvement of transparency on the part of institutional investors, asset managers and proxy advisors.

Union Investment is ensuring that the effects of this, especially with regard to transparency, are examined and any necessary adjustments are implemented in due time.

Whistleblower Directive

On 7 October 2019, the Council of the European Union approved the EU Whistleblower Directive (Directive 2019/1937), which was published in the Official Journal of the European Union on 26 November 2019. This is intended in particular to create a single legal regulation for reporting breaches of Union law and protecting whistleblowers. The EU member states have two years to transpose the Directive into national law. The scope of application covers entities that have more than 50 employees, operate in the financial services sector or are vulnerable to money laundering or terrorist financing.

In the Union Investment Group, there is already an established whistleblower process, which is located in the Compliance unit under the direction of a centralised body. The centralised body, which as part of its responsibilities coordinates all measures for the prevention of money laundering and terrorist financing as well as other prosecutable activities or legal violations, will supervise the national implementation of the new Directive, identify any obstacles to its implementation and adjust the existing process where necessary.

IV. Research and development

1. Retail Clients

In 2019, product policy in the Retail Clients segment continues to focus primarily on the clients' needs. Business development continues to focus on investing and optimising assets, old-age provision and savings. Sustainability likewise plays a major role in business development. Product policy issues for retail business are handled collectively by the Product Management department of Union Investment Privatfonds GmbH (UIP), also comprising the funds of the affiliates Union Investment Luxemburg S.A. (UIL) and Union Investment Real Estate GmbH (UIR) and cooperative business with R+V.

Developments in the product range

Development of new launches

On 2 January 2019, the PrivatFonds product family was supplemented by **PrivatFonds: Nachhaltig**, which combines the dynamic volatility management of PrivatFonds: Kontrolliert with a comprehensive sustainability approach. In the selection of investments, the fund predominantly considers ethical, social and environmental criteria.

The **UniAnlageMix: Konservativ** fund was launched on 1 April 2019. The globally investing multi-asset fund with a focus on fixed-interest securities follows the proven M4 approach (various asset classes and instruments, numerous sources of income and the knowledge and experience of many experts) with active asset allocation.

Ten years after the launch of the UniNachhaltig Aktien Global fund, it was completed with the launch of the **UniNachhaltig Aktien Global -net-** unit class with no front-end fees on 15 November 2019.

As at the end of December 2019, these funds took net inflows of EUR 654.3 million altogether. As at 31 December 2019 the fund volume amounted to EUR 672.1 million, with 26.5 thousand savings plans concluded for the funds to date.

In the first half of 2019, four other funds were also launched as a component of the **VermögenPlus** financial portfolio management. In addition, the **UniGarant80: Dynamik** fund was launched at the beginning of the year, which serves exclusively as a component in the occupational pension provision as part of the cooperative business with R+V Versicherung.

Financial portfolio management

The **MeinInvest** solution has been widely available as a white label solution for all distribution partners since April 2018. On the basis of the client's details and investment objectives, MeinInvest recommends one of three portfolios with different risk orientations. The portfolios include Union and third-party funds (ETFs). As at the reporting date of 31 December 2019, 337 banks had actively introduced MeinInvest, via which 16,572 custody accounts had been concluded at that time. Almost 87 % of these are associated with a savings plan. The investment volume amounted to EUR 40.6 million and the savings instalments paid in up to that point totalled EUR 12.2 million.

The existing financial portfolio management offering was expanded by the **VermögenPlus** product solution in 2019. After the successful pilot phase with selected pilot banks, a broad roll-out took place on 1 July 2019, which granted all distribution partners access to VermögenPlus. The target group of fund-based financial portfolio management is the premium segment of customers requiring a high level of support. Personal advice for the customer is supported with modern technology for the advisor. VermögenPlus is based on an active portfolio management approach. Exclusively managed Union Investment multi-asset funds in combination with third-party funds and the targeted use of ETFs are key features of the new financial portfolio management. As at the reporting date of 31 December 2019, 57 banks had actively introduced VermögenPlus and concluded 2,906 new contracts. The average size of the one-time payments into the custody accounts was EUR 36,000. The investment volume totalled EUR 69.3 million.

Fund measures

In terms of **fund measures**, over the course of 2019 seven static and two dynamic guarantee funds were repaid as scheduled. In addition, four fixed-term bond funds were closed at the end of their terms.

The merger of five funds (a total of seven unit classes) enables the investors to participate in lot size advantages. The UniProInvest: Struktur and UniKonzept: Portfolio A / -net- A funds were merged into the UniStruktur fund. The UniProInvest: Chance fund was merged into the UniFavorit: Aktien fund. In addition, the advantages of merging the UniStrategie: Flexibel / -net-fund into the UniStrategie: Ausgewogen fund outweighed the disadvantages. The UniKonzept: Dividenden A / -net- A dividend fund was merged with the UniGlobal: Dividende A / -net- A fund.

Five of the funds offered in Austria were merged into central mutual funds in order to exploit synergy effects. Furthermore, the UniPremium Evolution 100 and UniRent Global funds were closed as at 24 June 2019.

2. Institutional investors

In the company, 34 new special AIFs and four advisory or insourcing mandates were developed and launched or transferred to management functions in 2019. The company continues to exhibit steady growth in advisory and insourcing mandates. To this end, it already provides portfolio management services for numerous master asset management companies and clients. For the acquisition of portfolio management services in the context of outsourcing mandates and the associated services, effective and efficient control processes were certified by an audit firm, which confirms the constant compliance with the company's high quality standards (audit in accordance with ISAE 3402).

The Institutional Clients segment of Union Investment was extremely successful in the past financial year. Its net sales (including advisory and institutional asset management mandates) amounted to EUR 7.9 billion (compared with EUR 7.2 billion in the previous year). It gained a total of 70 new clients in the reporting year (2018: 64), 70 of which came from outside the cooperative sector. Net sales generated by new clients amounted to EUR 3.4 billion.

Given the significant reduction in risk budgets, the key challenge for institutional investors is to achieve the minimum required rates of return in a risk-controlled manner in a sustained low-interest environment. This has affected asset allocation. As an alternative to the previously dominant eurozone government bonds, investors are looking for investments with higher yields.

Quoniam Asset Management GmbH, Frankfurt am Main, (Quoniam), which is part of the Union Investment Group, posted a net outflow in the year under review. Nevertheless, its customer base was strengthened by eight new clients with additional assets under management of EUR 0.6 billion. Quoniam operates as a specialist in quantitative investment strategies across all asset classes. The company currently manages assets of EUR 31.1 billion in 146 institutional portfolios.

Union Investment TFI S.A., Warsaw, which was formerly part of UIG, is still included with net sales of EUR 0.2 billion in the 2019 financial year.

BEA Union Investment Management Limited, Hong Kong, the joint venture set up with Hong Kong-based The Bank of East Asia Limited, generated net sales of around EUR 0.9 billion (not including funds of funds) and therefore remains successful. Its assets under management rose by 24.9% compared with 2018 to the equivalent of around EUR 8.1 billion.

3. 2020 outlook

3.1 Retail Clients

In addition to regularly adjusting its product range, Union Investment also updates its existing products. Against a backdrop of legislative changes and persistently low interest rates, the Retail Clients segment is endeavouring to offer investors funds and solutions that reflect the current market environment and that make the most of all available opportunities to generate attractive value added.

New product ideas are presented in the Retail Clients segment's innovation process known as ideas screening, with the best being selected for launch. As part of this process, three new funds are to be launched in the 2020 financial year. UniAusschüttung Konservativ A / -net- A is to be launched at Union Investment Luxembourg S.A. The globally investing multi-asset fund focuses on the generation of regular income through the flexible combination of various asset classes and the use of different distribution sources. The product concept for the UniNordamerika XS fund (incl. unit class) is also being worked on. The funds' launch is scheduled for 31 January 2020. The launch of the UniNachhaltig Unternehmensanleihen (working title) fund is also planned for 1 April 2020. The fund will predominantly invest in corporate bonds with a focus on euro issuers. Thanks to the inclusion of sustainability criteria, this will be the first sustainable fixed-income fund in the product range of central mutual funds.

As the fund volume of the UniEuroRenta 5J fund is too low to achieve the investment objectives in the long term, it was decided to merge it into the UniEuroRenta Corporates fund as at 15 January 2020.

3.2 Institutional Clients

It seems increasingly unlikely that the earnings dilemma in the eurozone will end in the foreseeable future. Institutional investors are having to spread their investments more broadly and use existing investment opportunities more flexibly in order to achieve the yields that they urgently require. Above all, this means adopting a more international investment focus, generating more market-based and market-neutral risk premiums, and properly networking their yield sources. Sufficient yields are now only possible by taking greater risks. Against this backdrop, there is greater demand than ever for active-dynamic asset management and risk management – not only defensively in order to limit losses but also and in particular offensively in terms of seizing the opportunities for yields in the market.

Union Investment supports institutional investors by providing them with solutions for the present capital environment. Union Investment will continue to expand its role as a leading provider of sustainable products in 2020.

V. Dependent company report

The company received appropriate consideration for the transactions and measures listed in the dependent company report, based on the circumstances known to the Board of Managing Directors at the time such transactions and measures were performed or taken. The company was not disadvantaged as a result of measures being taken.

The company has not, at the instigation or in the interests of DZ BANK AG Deutsche Zentral-Genossenschaftsbank (DZ BANK AG), Frankfurt am Main, or one of its affiliated companies, neglected to carry out any measure that could have been beneficial to the company based on the circumstances known to the Board of Managing Directors at the time.

VI. Position of the company

1. Result of operations

	2019 EUR million	2018 EUR million	Change EUR million
Interest-based business			
Interest income from lending and money market business and from fixed-income securities	-1.2	-0.7	-0.5
Current income from variable-yield securities	9.8	9.6	0.2
Interest expenses	-2.3	-1.0	-1.3
Allowances for losses on loans and receivables	-0.1	0	-0.1
Net interest income after allowances for losses on loans and receivables	6.2	7.9	-1.7
Commission-based business			
Fee and commission income	2,629.1	2,448.3	180.8
Fee and commission expenses	-1,161.1	-1,032.4	-128.7
Net fee and commission income	1,468.0	1,415.9	52.1
Net income from investment securities	2.4	-23.0	25.4
Other net remeasurement income on financial instruments	-43.4	-50.9	7.5
Net income from companies accounted for using the equity method	33.9	17.1	16.8

	2019 EUR million	2018 EUR million	Change EUR million
Administrative expenses			
Staff costs	-428.0	-405.6	-22.4
Other administrative expenses	-412.7	-450.6	37.9
Depreciation and amortisation expense	-68.7	-38.5	-30.2
Administrative expenses	-909.4	-894.7	-14.7
Other operating result	92.5	29.4	63.1
Consolidated earnings before taxes	650.2	501.7	148.5
Income taxes	-169.7	-154.8	-14.9
Consolidated net income	480.5	346.9	133.6
Attributable to:			
Shareholders of Union Asset Management Holding AG	472.3	339.0	133.3
Non-controlling interests	8.2	7.9	0.3

	2019	2018	Change
Assets under management (final volumes) in EUR billion	368.2	323.4	44.8
Cost/income ratio (CIR)	58.3%	64.1%	-5.8%

Net interest income after allowances for losses on loans and receivables in the year under review was close to the previous year's level at EUR 6.2 million.

Net fee and commission income breaks down as follows:

	2019 EUR million	2018 EUR million	Change EUR million
Fee and commission income	2,629.1	2,448.3	180.8
from sales commission	391.7	310.0	81.7
from management fees	2,070.3	1,979.8	90.5
from securities investment funds	1,704.8	1,649.7	55.1
of which performance-related fees	9.2	16.4	-7.2
from real-estate investment funds	365.5	330.1	35.4
from securities custody accounts	53.6	52.3	1.3
Other	113.5	106.2	7.3
Fee and commission expenses	-1,161.1	-1,032.4	-128.7
for volume-based commission	-729.4	-680.1	-49.3
Other	-431.7	-352.3	-79.4
Total	1,468.0	1,415.9	52.1

The key drivers in net fee and commission income are the assets under management for the respective financial year. Growth in assets under management is mainly determined by net new business and the performance of the capital markets. Assets under management increased sharply by EUR 44.8 billion in 2019 to EUR 368.2 billion at the end of the year – a new record high. This increase resulted from the positive developments on the international capital markets as well as the high net inflows.

More than 80 % of net fee and commission income, specifically the main share of income from management fees (not including performance fees) and expenses for volume-related fees and commission (comprising trail commission, sales commission and other fees and commission), is determined by the volume of assets under management. In net terms, these two items increased slightly by EUR +48.4 million. This was as a result of the considerably higher average volume of assets under management (up +5.6 %).

The increase in management fees from real-estate investment funds was due in particular to the significantly higher average volume of real-estate investment funds (up +7.5 %). The transaction fees in the property sector were on a par with the previous year.

Income from performance-based management fees was down sharply year-on-year at EUR 9.2 million (EUR 16.4 million).

Income from sales commission primarily contained the gross amount of the front-end fees generated. The shares paid to distribution partners as sales commission are included in other fee and commission expenses. On balance, these were much higher than in the previous year. Gross sales of investment funds with a front-end fee were also much higher than in the previous year.

The increase in net income from investment securities of EUR +25.4 million to EUR 2.4 million (previous year: EUR -23.0 million) is primarily due to the negative net income realised on the sale of Union Investment's own-account fund investments in the previous year.

Other net remeasurement income on financial instruments amounted to EUR -43.4 million after EUR -50.9 million in the previous year. The increase was primarily the result of a positive value contribution from own-account fund investments and the absence of expenses recognised in the previous year in connection with the acquisition of shares in ZBI Partnerschafts-Holding GmbH, Erlangen. This was offset by higher expenses from the measurement of guarantee pledges for investment products and from the measurement of options in connection with the acquisition of shares in an equity investment.

Net income from companies accounted for using the equity method was considerably higher year-on-year at EUR 33.9 million (EUR 17.1 million) and primarily related to the share of the profit or loss of ZBI Partnerschafts-Holding GmbH, Erlangen, and of BEA Union Investment Management Limited, Hong Kong. This item also reflects the Union Investment Group's share of the profit or loss of R+V Pensionsfonds Aktiengesellschaft, Wiesbaden, compertis Beratungsgesellschaft für betriebliches Vorsorgemanagement mbH, Wiesbaden, and VR Consultingpartner GmbH, Frankfurt am Main.

Administrative expenses were slightly higher year-on-year at EUR -909.4 million, rising by EUR -14.7 million (previous year: EUR -894.7 million).

The moderate increase in staff costs is largely attributable to the recruitment for new positions and the full-year effects of appointments. In addition, the development of the company's key figures was reflected in the variable salary components and the average salary adjustments.

Other administrative expenses were considerably lower year-on-year at EUR -412.7 million, falling by EUR 37.9 million (previous year: EUR -450.6 million):

	2019 EUR million	2018 EUR million	Change EUR million
Total	-412.7	-450.6	37.9
IT expenses	-105.5	-104.9	-0.6
Public relations/marketing	-75.2	-78.1	2.9
Consulting	-57.9	-66.0	8.1
Office expenses	-45.9	-51.2	5.3
Property and occupancy costs	-21.8	-42.0	20.2
Miscellaneous	-106.4	-108.4	2.0

General administrative expenses declined due primarily to the accounting reclassification to depreciation and amortisation, resulting from the first-time implementation of IFRS 16 and the first-time recognition of rental software in accordance with IAS 38. Expenses for consulting and other administrative expenses (recognised under "Miscellaneous") also declined.

Depreciation and amortisation expense was significantly higher year-on-year at EUR -68.7 million, rising by EUR -30.2 million (previous year: EUR -38.5 million). Depreciation and amortisation expense increased significantly because of the aforementioned accounting reclassification and capitalisations from completed projects.

The **other operating result** amounted to EUR 92.5 million in the period under review and was therefore well above the previous year's figure of EUR 29.4 million. The rise resulted primarily from the deconsolidation gain realised on the sale of Union Investment Towarzystwo Funduszy Inwestycyjnych S.A. (TFI), Poland.

Based on a group tax rate of 31.26 %, the effective tax rate within the UMH Group was 26.10 % (previous year: 30.86 %). **Income tax expense** increased by EUR -14.9 million year-on-year to EUR -169.7 million in the year under review. It comprises current tax expense of EUR -187.3 million (previous year: EUR -175.5 million) and deferred tax income of EUR 17.6 million (previous year: tax income of EUR 20.7 million). The increase in current tax expense was caused by the higher consolidated earnings before taxes. The deferred tax income was largely due to the recognition of deferred tax assets for liability derivatives and the reversal of deferred tax liabilities for asset derivatives.

Overall, the developments described led to a significant year-on-year increase in **consolidated earnings** of EUR 133.6 million to EUR 480.5 million (2018: EUR 346.9 million).

In addition, the low **cost / income ratio** (CIR) of 58.3 % is testimony to the efficient use of resources within the Union Investment Group. The CIR fell by -5.8 percentage points year-on-year.

Comparison with earnings originally forecast for 2019

The original forecasts for consolidated earnings in 2019 were significantly exceeded. This positive development was the result of the significant decline in administrative expenses compared with the original planning. This was primarily due to the lower expenses for other administrative expenses, public relations/marketing, consulting, IT costs and property and occupancy costs. In addition, slightly higher volume-based income was generated as a result of slightly higher average assets under management. A rise in performance-related management fees also resulted in a further increase in income. In net terms, this resulted in a strong improvement in earnings and a significantly improved CIR compared with the original planning.

Distribution

The payment of a dividend of EUR 6.89 per share will be proposed at the Annual General Meeting on 15 May 2020. This would equate to a total dividend payment of EUR 200.1 million. The Supervisory Board of UMH AG approved the proposed appropriation of profit at its meeting held on 28 February 2020.

2. Liquidity management and financial position

2.1 Liquidity management

As well as ensuring that the companies of the Union Investment Group can meet their payment obligations at all times, the aim of liquidity management is the return- and risk-oriented investment of available financial resources.

The management is based on constant monitoring and analysis of all financial resources and cash flows of the companies. Building on this, regular liquidity planning determines the short- and medium-term liquidity situation. The planning is supported by IT systems (SAP Business Warehouse). It has a monthly rolling structure covering a planning period of 15 months based on the latest earnings forecasts. The planned cash inflows and outflows are thus derived from the budgeted income and expenses and from the foreseeable changes in statement of financial position items that affect liquidity.

The results of liquidity planning serve as the basis for the allocation of financial resources within the following four categories.

- **Investments for short-term liquidity management:**
Financial resources with an expected investment duration of less than three years include bank balances as well as investments in money-market funds, fixed-income funds investing in short-term fixed-interest securities and other products suitable for short-term investment.
- **Funding:**
Investments as initial funding of funds are often necessary to place a new investment product on the market. The amount required is decided upon on a case-by-case basis after a review of necessity. Funding is generally repaid within six months. This category also includes financial resources with contractual commitments.
- **Strategic investments (long-term investments):**
Strategic investments have an expected investment duration of at least three years and comprise investments in funds or securities that are selected on the basis of risk/reward criteria. The expected term of each investment is determined when the group enters into the specific transaction.
- **Employee investments:**
Employee investments comprise all cash invested for employees of the company as part of pension plans and employee retention programmes.

On the basis of the forecast cash flows from operating activities, the specific selection of investment alternatives is performed as part of tactical liquidity management. The investment decision incorporates regular stress tests as a further element in this strategy in order to assess the effect of changes in interest rates on the group's cash positions. The investment strategy is generally a conservative one.

The four categories of financial resources are subject to constant risk monitoring.

2.2 Group financial position

The table below shows total cash and cash equivalents:

	31 Dec. 2019		31 Dec. 2018		Change EUR million
	EUR million	%	EUR million	%	
Securities holdings	1,508.7	73.7	992.9	56.0	515.8
Bank holdings	537.0	26.3	781.5	44.0	-244.5
Total cash and cash equivalents	2,045.7	100.0	1,774.4	100.0	271.3

The securities holdings break down as follows into the four categories of financial resources:

	31 Dec. 2019		31 Dec. 2018		Change EUR million
	EUR million	%	EUR million	%	
Short-term investments for liquidity management purposes	453.8	30.1	346.1	34.9	107.7
of which fixed-income funds	453.8	30.1	326.3	32.9	127.5
of which money-market funds	0	0	19.8	2.0	-19.8
Strategic investments	953.4	63.2	586.9	59.1	366.5
of which fixed-income funds	862.6	57.2	548.3	55.2	314.3
of which money-market funds	38.4	2.5	33.7	3.4	4.7
of which equity funds	31.2	2.1	0.4	0	30.8
of which mixed funds	16.7	1.1	0	0	16.7
of which real-estate funds	4.5	0.3	4.5	0.5	0.0
Funding	98.9	6.6	57.5	5.8	41.4
of which mixed funds	45.6	3.0	3.9	0.4	41.7
of which fixed-income funds	39.8	2.6	38.9	3.9	0.9
of which alternative investment funds	8.0	0.5	7.0	0.7	1.0
of which equity funds	2.6	0.2	2.3	0.2	0.3
of which hybrid funds	0.9	0.1	0	0	0.9
of which real-estate funds	0	0	1.1	0.1	-1.1
of which other funds	2.0	0.1	4.3	0.4	-2.3

	31 Dec. 2019		31 Dec. 2018		Change EUR million
	EUR million	%	EUR million	%	
Employee investments	2.6	0.2	2.4	0.2	0.2
of which fixed-income funds	2.1	0.1	1.9	0.2	0.2
of which mixed funds	0.5	0.1	0.5	0	0.0
of which equity funds	0	0	0	0	0.0
Total securities	1,508.7	100.0	992.9	100.0	515.8
of which fixed-income funds	1,358.3	90.0	915.4	92.2	442.9
of which mixed funds	62.8	4.2	4.4	0.4	58.4
of which money-market funds	38.4	2.5	53.5	5.4	-15.1
of which equity funds	33.8	2.2	2.7	0.3	31.1
of which alternative investment funds	8.0	0.5	7.0	0.7	1.0
of which real-estate funds	4.5	0.3	5.6	0.6	-1.1
of which hybrid funds	0.9	0.1	0	0	0.9
of which other funds	2.0	0.1	4.3	0.4	-2.3

Taking into account the balance of financial resources available as at the end of the reporting period and the changes in liquidity forecast by the monthly rolling 15-month liquidity planning process, if the planned level of performance is achieved the companies within the Union Investment Group at the time at which the management report was prepared will be able to meet their financial obligations becoming due in the said planning period from the available cash and cash equivalents at all times.

3. Net assets

3.1 Overview of net assets

The following table shows a summary of the individual items of the consolidated statement of financial position by financial category.

Assets	31 Dec. 2019		31 Dec. 2018		Change EUR million
	EUR million	%	EUR million	%	
Liabilities and advances to					
Banks	541.5	18.4	772.6	31.1	-231.1
Customers	109.4	3.7	83.6	3.4	25.8
Asset derivatives	28.1	1.0	48.9	2.0	-20.8
Investment securities	1,503.5	51.2	998.1	40.2	505.4
Shares in companies accounted for using the equity method	130.2	4.4	111.3	4.5	18.9
Property, plant and equipment and intangible assets	174.7	6.0	164.2	6.6	10.5
Income tax assets	90.4	3.1	61.9	2.5	28.5
Right of use assets	103.0	3.5	0	0.0	103.0
Miscellaneous assets	217.2	7.4	197.6	8.0	19.6
Assets held for sale	37.7	1.3	43.1	1.7	-5.4
Total assets	2,935.7	100.0	2,481.3	100.0	454.4

Equity and liabilities	31 Dec. 2019		31 Dec. 2018		Change EUR million
	EUR million	%	EUR million	%	
Liabilities to					
Banks	26.9	0.9	19.6	0.8	7.3
Customers	1.2	0.0	1.2	0.0	–
Liability derivatives	96.6	3.3	64.3	2.6	32.3
Provisions	228.7	7.8	208.8	8.4	19.9
Income tax liabilities	68.5	2.3	77.0	3.1	-8.5
Lease liabilities	104.1	3.5	0	0.0	104.1
Miscellaneous liabilities	855.2	29.2	761.8	30.8	93.4
Liabilities held for sale	0	0.0	10.4	0.4	-10.4
Equity	1,554.5	53.0	1,338.2	53.9	216.3
Total equity and liabilities	2,935.7	100.0	2,481.3	100.0	454.4

Consolidated total assets increased by 18 % year-on-year to EUR 2,935.7 million. As is typical for the industry, the assets managed by the Union Investment Group for its clients – investment funds and other asset management formats – are not reported in the statement of financial position.

Due to the sale of the previously fully consolidated Union Investment Towarzystwo Funduszy Inwestycyjnych S.A. (TFI), Poland, net assets totalling EUR 15.1 million left the consolidated group in July. Currency translation reserves of EUR 3.5 million were derecognised under equity. The gain on deconsolidation amounted to EUR 73.0 million and is recognised under other operating result.

The assets side of the consolidated statement of financial position is dominated by **cash and cash equivalents**, bank holdings and securities. Total cash and cash equivalents increased by EUR 271.3 million to EUR 2,045.7 million. Bank holdings are included in the **loans and advances to banks** item and fell by EUR 244.5 million to EUR 537.0 million. Securities are mainly recognised under **investment securities**. The securities portfolio moved in the opposite direction, increasing by EUR 515.8 million to EUR 1,508.7 million. The breakdown of cash and cash equivalents is explained in the 'Financial position' section.

Asset derivatives include a measured option that entitles UMH to purchase shares in a company in the future.

EUR 16.8 million of the increase in **shares in companies accounted for using the equity method** relates to ZBI Partnerschafts-Holding GmbH, Erlangen, EUR 2.4 million to BEA Union Investment Ltd, Hong Kong, and EUR 0.5 million to R+V Pensionsfonds AG, Wiesbaden. An opposing effect of EUR 0.8 million results from VR Consultingpartner GmbH, which was still accounted for using the equity method until the acquisition of the remaining shares in October.

Additions to property, plant and equipment of EUR 8.0 million were offset by depreciation of EUR -4.8 million. Including other changes, the net carrying amount of property, plant and equipment increased by EUR 3.1 million from EUR 22.3 million in the previous year to EUR 25.4 million.

Additions to intangible assets of EUR 46.5 million were offset by amortisation in the amount of EUR -39.1 million in the year under review. Including other changes, the net carrying amount increased by EUR 7.4 million from EUR 141.9 million in the previous year to EUR 149.3 million.

Miscellaneous assets include receivables from funds of EUR 166.5 million (previous year: EUR 137.6 million) and receivables from other taxes of EUR 22.9 million (previous year: EUR 31.8 million). The receivables from funds largely comprised deferred receivables from management fees and flat-rate fees for the month of December.

EUR 23.4 million of the decline in **assets held for sale** relates to the sale of TFI. In contrast, funding increased by EUR 18.0 million.

Liabilities to banks and customers increased by EUR 7.2 million from EUR 20.8 million to EUR 28.0 million, primarily as a result of commission liabilities in connection with fund unit trading.

Liability derivatives included EUR 87.2 million relating to measured capital preservation commitments in accordance with the German Personal Pension Plan Certification Act (AltZertG) and minimum payment commitments in connection with actual guarantee funds (previous year: EUR 56.5 million). The item also includes an amount of EUR 9.5 million relating to measured options under which shares in a company can be tendered to UMH in the future (previous year: EUR 7.8 million).

	31 Dec. 2019 EUR million	31 Dec. 2018 EUR million	Change EUR million
Provisions for employee benefits	211.9	191.9	20.0
Provisions for defined benefit obligations	137.6	121.7	15.9
Provisions for other long-term employee benefits	73.7	69.5	4.2
Provisions for termination benefits	0.6	0.7	-0.1
Other provisions	16.8	16.9	-0.1
Total	228.7	208.8	19.9

Provisions increased by EUR 19.9 million from EUR 208.8 million to EUR 228.7 million. Provisions for defined benefit obligations rose by EUR 15.9 million from EUR 121.7 million to EUR 137.6 million. Provisions for other long-term employee benefits increased by EUR 4.2 million from EUR 69.5 million to EUR 73.7 million. Termination benefits fell by EUR -0.1 million from EUR 0.7 million to EUR 0.6 million, while other provisions fell by EUR -0.1 million from EUR 16.9 million to EUR 16.8 million.

The decline in **liabilities held for sale** (EUR 10.4 million) relates entirely to the sale of TFI.

Equity increased by EUR 216.3 million from EUR 1,338.2 million to EUR 1,554.5 million. The increase was primarily due to the dividend for the previous year paid out in the financial year (EUR 246.0 million) compared with total comprehensive income in the year under review (EUR 478.7 million). The **equity ratio** was 53.0 %, down -0.9 percentage points on the prior-year figure of 53.9 %.

3.2 Non-financial performance indicators

Employees

The Union Investment Group's workforce is critical to its performance, future profitability and competitiveness. The Union Investment Group pursues an innovative, needs-driven professional development strategy in order to provide the best possible framework in which it can nurture the capabilities and commitment of its employees in line with their responsibilities and potential. A total of around EUR 3.8 million was invested in human resource development activities in the 2019 financial year (2018: EUR 4.2 million). Target-driven people management and the use of performance-related remuneration help to ensure that employees at all levels learn to think and act from a business perspective. Employee motivation and commitment to this target-based approach are also encouraged by variable remuneration components based on individual performance targets.

As at 31 December 2019, UMH employed 317 people (2018: 305 employees) with an average age of 42.9 (2018: 42.6) and an average period of service of 10.8 years (2018: 10.5 years). The Union Investment Group employed 3,200 people as at the end of 2019 (2018: 3,102). Across the group, the average age of employees was 42.8 (2018: 42.6) and the average period of service was 10.7 years (2018: 10.6 years).

Brand performance

The figures based on traditional parameters for measuring brand performance remained at a very high level in 2019. Population-based aided awareness of the Union Investment brand climbed from 57.0% in November 2018 to 62.4% as at November 2019. Aided advertising recall fell to 33.4% in November 2019 after 39.5% as at November 2018, while willingness to purchase increased from 26.1% to 34.0% in the same period.

In 2013, UMH started to record brand strength index data for all target groups relevant to the brand as part of its strategic brand management activities. This index is determined from well-established brand management parameters and is expressed as a value between 0 and 100. Among UIP's target groups, the index value for retail investors rose by three points to 71 index points in 2019, while the figure for broker banks dropped by one point from its extremely high level to 92. The brand strength index figure for institutional investors was 85 in 2019 – one point higher than in the previous survey in 2017. It was not possible to determine the index in the institutional investors target group in 2018 for technical reasons relating to data collection. Due to technical reasons relating to data collection it was not possible to determine the index value for real estate business partners in 2018 either – in 2017 the index figure declined marginally by one point year-on-year to 84 index points. In 2019, the figure is unchanged at 84 points. The brand strength index figure for tenants in properties of UIR/UII was 72 index points in 2018. The figure for this target group was 71 points at the time of the last survey in 2016. The brand strength index figure for tenants was not ascertained in 2019.

Given the varying relevance of the brand in the decision-making process within the different target groups, the current values for all the target groups are seen as positive from a brand management perspective.

As brand is becoming more important in the course of digitalisation and has high priority at Union Investment and given that numerous measures are being pursued to strengthen the brand, we expect to consolidate these very good values further in the future.

In a comparison with the performance of competitor brands, the picture established over the last few years has remained largely unchanged: Union Investment remains well ahead of most of its competitors in terms of the strength of its brand. This brand therefore constitutes a valuable asset for the Union Investment Group over the long term.

Client satisfaction

In the 2019 financial year, the satisfaction values for UMH's customer groups remained at a high level while moving in different directions. Client satisfaction among employees of UIP broker banks in the retail business stayed at a high level with slight declines. In the latest round of surveys at the end of 2018, the average satisfaction score for Geno bank executives was 2.0, compared to 1.8 at the time of the last customer satisfaction survey in 2015. The figure for Geno bank consultants was 2.2 when measured at the beginning of 2019 and thus 0.1 points above the 2017 figure (2.1). As in the previous year, the average satisfaction score for retail investors in 2019 was 2.2.

Internal satisfaction surveys are carried out among Union Investment's institutional investors on a two-year cycle. The surveys are conducted in odd numbered years; accordingly there are no current survey results for the reporting year. On a scale of 1 = exceptionally happy to 5 = unhappy, the score for the overall satisfaction of institutional investors with their business relationship with Union Investment changed marginally from an excellent 1.80 in 2017 to 1.81 in the most recent survey, which was carried out in 2019.

The highly regarded independent company Greenwich Associates carries out studies of the German institutional asset management market on an annual basis. Institutional investors are surveyed on the performance of the asset managers they are currently working with. The detailed results must be treated in strict confidence. The Greenwich Overall Quality Index, which includes numerous parameters relating to satisfaction with asset management services and customer service, fell slightly from 569 points in 2018 to 550 points in 2019.

Satisfaction surveys are conducted on a two-year cycle among tenants of Union Investment Real Estate GmbH and Union Investment Institutional Property GmbH properties in Germany. In 2018 the satisfaction values remained at a good level compared with the time of the previous measurement. On a scale of 1 = exceptionally happy to 5 = unhappy, in 2018 the score for

the satisfaction of tenants in Union Investment Real Estate GmbH/Union Investment Institutional Property GmbH properties in Germany was 2.3. This target group was not surveyed in 2019.

We are setting ourselves the ambitious goal of maintaining the high customer satisfaction levels in all our target groups in the 2020 financial year. This is due to the fact that customers soon become accustomed to the level of service offered and require this on a permanent basis. For example, a new service feature that entuses customers the year it is introduced is subsequently required as a normal part of the service and no longer leads to excellent satisfaction scores.

Employee volunteering with the mitMenschen initiative

Socially responsible volunteering by employees forms part of the Union Investment Group's sustainability strategy. The mitMenschen initiative was launched in the 2006 anniversary year, driven by a desire to give something back to the community.

Since November 2012, employees have been able to organise such activities themselves. To this end, Union Investment maintains a database of socially responsible activities on its intranet, and employees are able to add their own activities or register for proposed projects.

16 projects were initiated by employees in 2019, including two projects in Luxembourg, two in Hamburg and 12 in the Frankfurt region. Group-wide, 770 employees from all hierarchy levels and the Frankfurt, Hamburg and Luxembourg locations devoted around 3,010 hours of their own time to volunteer for 16 organisations. This work helped socially disadvantaged children, young people and adults and people with disabilities.

For example, employees support the child-protection organisation Frankfurter Kinderschutz-bund or the Streetangels, or help schoolchildren get started in the world of work through application training. At Christmas, a wishing tree campaign across all the locations makes the Christmas dreams of socially disadvantaged children come true.

3.3 Statement of cash flows

The purpose of the statement of cash flows is to determine and present cash flows generated or used by the Union Investment Group in its operating activities, investing activities and financing activities in the financial year.

A statement of cash flows is not particularly meaningful as far as investment companies are concerned. The Union Investment Group's statement of cash flows does not replace liquidity or financial planning, nor is it used as a management tool.

	31 Dec. 2019 EUR million	31 Dec. 2018 EUR million
Cash flow from operating activities	758.5	21.1
Cash flow from investing activities	-469.5	304.2
Cash flow from financing activities	-289.0	-325.3
= Changes in cash and cash equivalents	0	0
+ Cash and cash equivalents at start of year	0	0
= Cash and cash equivalents at end of year	0	0

Cash and cash equivalents in the statement of cash flows correspond to the cash and cash equivalents item in the statement of financial position, which comprises cash in hand and balances at central banks, plus debt instruments from public sector entities and bills of exchange eligible as collateral for central bank funding if the residual maturity is less than three months and the amounts concerned are deemed to be the retention of liquidity. Loans and advances to banks that are repayable on demand are not included; these items are assigned to operating activities.

Cash flow from operating activities was determined using the indirect method and provides information on cash flows from the results of the main activities recognised in the income statement and from changes in items of the statement of financial position from the Union Investment Group's business activities that are not attributable to investing or financing activities. This cash flow demonstrates the Union Investment Group's ability to generate cash from its operating activities and from its own resources in order to meet its obligations, maintain its operations, pay dividends and support capital expenditure without having to resort to external sources of funding.

The main features of **cash flow from investing activities** in the year under review were proceeds of EUR 336.3 million from the disposal of investment securities and payments of EUR 843.0 million to acquire investment securities. The sale of consolidated companies generated proceeds of EUR 91.6 million. There were also payments of EUR 46.5 million for the acquisition of intangible assets and payments of EUR 8.0 million for the acquisition of property, plant and equipment.

In accordance with the definition in IAS 7.17, **cash flow from financing activities** comprised cash flows arising from transactions with equity holders and other shareholders in consolidated subsidiaries, from other capital, from the repayment of lease liabilities and from the utilisation and repayment of loans and other borrowings. Cash flow from financing activities was primarily accounted for by the payment by UMH of the dividend for the 2019 financial year amounting to EUR 246.0 million and the payment of dividends from subsidiaries of UMH to non-controlling interests amounting to EUR 7.4 million. Cash payments for the principal portion of lease liabilities amounted to EUR 24.8 million, and changes in cash from other capital amounted to EUR 10.8 million.

C Corporate governance declaration ¹⁾

Report in accordance with Section 289f (4) in conjunction with (2) no. 4 of the German Commercial Code (HGB)

The company's Supervisory Board has set targets for the proportion of women on the company's Supervisory Board and Board of Managing Directors pursuant to Section 111 (5) of the German Stock Corporation Act (AktG), to be met by 31 December 2021.

The target set for the Supervisory Board is 20 % (3 out of 15). In the period under review, the proportion of women on the Supervisory Board was 26.7 % after 8 April 2019 (4 out of 15) and 20 % prior to that (3 out of 15).

The proportion of women on the Board of Managing Directors in the reporting period was 0 %. The Supervisory Board has set a target of maintaining the status quo until 31 December 2021.

In addition, the Board of Managing Directors has defined targets in accordance with Section 76 (4) AktG for the two management levels below the Board of Managing Directors; these targets are to be met by 31 December 2021.

The target is 25 % at head of division level (the first level below the Board of Managing Directors) and 0 % at head of department level (the second level below the Board of Managing Directors). The aforementioned targets were met in the period under review.

¹⁾ In line with the requirements of German law, the content of the corporate governance declaration in accordance with Section 289f (4) of the German Commercial Code (HGB) (disclosures on the proportion of women) has not been audited.

D Forecast, report on risks and opportunities

I. Report on opportunities

At UMH, the group's business performance is particularly reflected in the current result on equity investments, within which a distinction must be drawn between profit and loss transfer and income from equity investments. In the case of profit and loss transfer, the profit or loss generated by the subsidiary is transferred directly to UMH, while income from equity investments comprises dividends paid by the subsidiary to UMH, which can differ from the profit or loss generated for the year. The following opportunities are seen in this context and would primarily affect UMH's current result on equity investments.

The current low level of interest rates, to which there remains no end in sight, means there are only negligible returns on investment. As such, investors can only generate a return if they are prepared to take controlled risks. Union Investment believes there is an opportunity in this environment for it to further consolidate its position as an active risk manager both for retail investors and institutional client groups, and to expand its fund business.

For the client group of retail investors, the focus remains on generating value added via funds and solutions that reflect the current market environment. This includes best exploiting the trend towards net asset value by offering open-ended real-estate funds, equity funds and mixed funds, highlighting the opportunities of instalment-based investment funds in particular. Institutional investors are focusing on flexible products in order to take advantage of the available investment opportunities. In particular, this means adopting a more international investment focus, generating more risk premiums, and properly networking their yield sources. This is accompanied by a shift away from conventional benchmark thinking and towards active and dynamic management.

The topic of sustainability remains important to the target group of institutional clients. At the same time, the economic benefits of sustainability are becoming increasingly important too. Union Investment offers socially responsible investments (SRI) across many asset classes and provides active assistance in the area of corporate governance.

In recent years a large number of legislative provisions have already been implemented or initiated with a significant impact on securities business; additional measures are in preparation. In light of these developments, Union Investment believes that there is an opportunity to develop customised, solution-oriented products and to strengthen customer loyalty in both retail and institutional client business. Union Investment offers institutional providers solutions that minimise regulatory effort and expense and save equity. Specific reporting solutions can further reduce the effort and expense for investors of meeting regulatory requirements.

Digital transformation is steadily coming to all areas of society and business. This development gives Union Investment the potential to create new customer benefits and to improve processes at all stages of the value chain.

Based on the identified opportunities, Union Investment believes there is the prospect of continually boosting its net sales and the volume of assets under management, thereby further increasing the resulting fee and commission income for the group. Union Investment is also constantly working to improve its processes, thereby saving time and costs. Overall, this results in both expense- and income-based opportunities to generate an excellent earnings performance.

II. Report on risks

1. Proven systems for identifying and managing risks

The Union Investment Group is an asset manager, and its performance is therefore influenced to a large degree by trends in the real estate and capital markets and by the investment behaviour of fund investors. It acts in the interests of fund investors and pursues a value-driven business policy with the long-term objective of generating a sustained increase in enterprise value, taking into account a balance of risks and rewards.

The internal management systems are designed such that risks can be identified, monitored on a regular basis and actively managed, among other things. The systems aim to ensure that risks potentially leading to negative variances from predicted performance are identified as early as possible and that corrective action is initiated to mitigate the risk. At the same time, the aim is also to ensure that the group can exploit business opportunities, taking into account profitability and the group's risk-bearing capacity.

The Union Investment Group's risk management system (RMS) is a continuous process that incorporates all organisational measures and procedures for identifying, measuring, monitoring and managing risks. The RMS is organised in compliance with regulatory requirements. UMH is a company within the DZ BANK Group and is thus integrated into the risk management system of this group.

The Board of Managing Directors of UMH bears responsibility for risk management within the Union Investment Group. The risk strategy categorises the material types of risk identified, defines the fundamental risk measurement methods used and provides detailed guidance on how to deal with the risk in question. The risk strategy is consistent with the risk strategies implemented within the DZ BANK Group. Risk measurement and management procedures have been devised for all the material risk types, risk concentrations and interaction with

investment fund assets identified in the risk inventory. The Risk and Data Quality Management Committee is the central risk committee within the Union Investment Group. At its meetings, it discusses the group's risk situation and prepares decisions for the Board of Managing Directors of UMH. The Risk Manager and the central Risk Management unit are charged by the Board of Managing Directors with ensuring the integrity of the group-wide RMS. Quarterly risk reports on UMH and the main companies within the Union Investment Group are prepared for their senior management teams and supervisory boards as part of the regular reporting cycle.

The details of the RMS, including all policies and strategies, are documented in the Union Investment Group's risk manual.

The Internal Audit department carries out an annual review of the RMS to ensure that it is fully operational.

The following sections describe the key components of the RMS within the Union Investment Group:

Analysis of risk-bearing capacity

In order to ensure that the Union Investment Group and its companies continue to survive as going concerns, their ability to bear risk is regularly monitored as part of the economic risk and capital management system. The material types of risk are limited in accordance with the risk strategy and the aggregate risk cover available and are backed by risk capital. This involves limiting the maximum risk permitted by risk propensity in the form of an overall limit in such a way that the survival of UMH and the Union Investment Group as going concerns is not put at risk. This process incorporates the effects of diversification between the different risk types. Independent experts use industry standards and methods to calculate the risk capital requirements and monitor the limits. Union Investment carries out regular stress tests in respect of the main types of risk. The methods used are subject to an annual adequacy review.

Early-warning system

Data on risk indicators is regularly collected and aggregated into 13 categories as part of the early-warning system. If predefined tolerance limits are exceeded or a risk is classed as elevated, an early warning is triggered that prompts those responsible for risk management to conduct a causal analysis and implement risk mitigation measures. The early warnings generated by the system therefore guarantee that corrective action will be initiated in good time. The risk indicator system essentially covers operational risks, business risks, market risks and risks that can arise from outsourced functions. In addition, the group has an ad hoc reporting system for the early identification of exceptional risk situations that require immediate action.

Risk reporting

The Board of Managing Directors of UMH receives quarterly written reports on changes in the risk position in the reporting period. The risk report describes and assesses the overall risk position. It highlights any critical areas of potential risk and, if necessary, recommends action to eliminate such potential risk. The Board of Managing Directors uses this report as the basis for the information it forwards to the Supervisory Board. In addition to these regular risk reports, any critical risk information is passed to the Board of Managing Directors without delay and, if necessary, is also escalated to the Supervisory Board.

2. Presentation of material risks

The Union Investment Group's risk strategy applies to the risks identified and classified as material in the annual risk inventory. These risks are regularly monitored and managed with the help of the risk management system on the basis of the guidance specified in the risk strategy.

Operational risk

Operational risk is defined as the risk of losses arising from human behaviour, technological failure, process or project management weaknesses or external events. Legal risk and IT risk are included in this definition. Compared to other risks, operational risk is extremely important within the Union Investment Group because the group's activities focus on the provision of services for third parties and not on the assumption of risk on its own account.

Operational risk is quantified centrally by DZ BANK AG using an economic portfolio model. A risk contribution of EUR 122.0 million was calculated for UMH as at 31 December 2019 (previous year: EUR 94.6 million). The limit was EUR 141 million (previous year: EUR 135 million). During the year on 30 September 2019, the risk contribution briefly exceeded the limit of EUR 110 million applicable at that date.

The additional risk indicator system triggered warnings for various risk indicators as intended. Corrective action to facilitate risk management was derived from these. There were no indications in the course of the year of any critical situations likely to represent a risk to the group as a going concern.

The group records all losses of EUR 1,000 (gross) or more arising in connection with operational risks in its internal loss database. If such a risk materialises, it can cause not only losses but also delays or interruptions to operations or even subsequently give rise to reputational risks. The recording of loss events enables Union Investment to analyse operational risks that have become critical and identify trends and concentrations. The action subsequently specified to mitigate the risk or prevent such risk from materialising can then also be refined. Over the course of time, there are regular fluctuations in the pattern of losses as the probability of

relatively large losses occurring in individual cases is very low. Losses did not reach a critical level relative to the warning threshold at any time during the reporting period.

The risk profile in connection with operational risks is honed as part of an annual risk self-assessment in which scenario-based analyses are applied. Worst-case scenarios play a key role in this process. They provide indications as to how the group should manage extreme risk events.

The group has implemented various organisational precautions to mitigate or avoid the effects of operational risks.

For all material business transactions, there are guidelines that stipulate people's responsibilities and the procedures. These guidelines are regularly reviewed by the Internal Audit division to ensure that they remain adequate and up to date.

The Union Investment Group's practice of bundling activities and the associated specialisation at individual stages of the value chain fundamentally help to reduce operational risks. For example, IT services and related tasks are outsourced to a specialist IT service provider within the group. Back-office activities are also pooled in the organisational structure.

In addition to the pooling of tasks internally, some services are outsourced to specialist third-party providers. This is the case, for example, in IT operations. The main IT service providers for UMH are T-Systems, Fiducia & GAD, Ratiodata and Computacenter AG & Co. oHG. Other activities, such as in custody business and portfolio management, have also been outsourced.

All planned outsourcing is subject to a standardised outsourcing process, which also includes an analysis of the risks arising in connection with the outsourcing project concerned. Depending on the outcome of the analysis, outsourced activities and processes are included in the risk management system. Existing outsourcing arrangements are monitored and reports are regularly submitted to senior management teams. Any necessary corrective action is initiated, where appropriate.

Various organisational, technical and HR measures have been put in place to improve the stability of processes and reduce risks. These include an internal control system, a centralised body responsible for the prevention of other prosecutable activities, the separation of duties all the way up to the level of the Board of Managing Directors, an appropriate technical infrastructure, the use of suitably skilled and qualified employees and the provision of adequate HR resources.

Within the Union Investment Group, the structure of the remuneration systems is the responsibility of the group HR division and is enshrined in the remuneration policy. The aim of the remuneration systems is to recognise the employees' achievements accordingly and to offer

them effective performance incentives. One of the express provisions in the policy and systems is that targets leading to the assumption of excessive risk must not be agreed. This helps to minimise operational risks. The remuneration systems are designed such that they comply with the applicable regulatory requirements.

Insurance policies have been taken out to cover certain risks, some of which cannot be managed or controlled.

Union Investment has a business continuity plan covering emergencies and critical situations. The aim of the plan is to reduce the impact of external risks that could lead to extremely high losses or damage, or even jeopardise the continued existence of the group as a going concern.

Market risk

Market risk comprises market risk in the narrow sense of the term and market liquidity risk.

Market risk in the narrow sense of the term is defined as the risk of losses on financial instruments or other assets arising from changes in market prices or in the parameters that influence prices (for example, interest rate risk, spread risk, migration risk, currency risk, equity risk, real estate risk, fund price risk and asset management risk). Market liquidity risk is the risk of loss arising from adverse changes in market liquidity, for example as a result of a reduction in market depth or market disruption. Market liquidity risk is only of minor significance.

Fund price risk and asset management risk are particularly important for UMH and the Union Investment Group. Fund price risk arises from the own-account investing activities undertaken by the companies within the group. The Union Investment Group adopts a conservative approach to its own-account investing activities, investing primarily in the group's funds. Heightened volatility in financial markets can lead to changes in the value of fund assets, which are then reflected in the income statement. UMH uses a planning committee to monitor and manage its own-account investing and does not undertake trading activities specifically in pursuit of short-term gain. Fund price risk also includes interest rate risks in connection with the measurement of pension obligations. The fund price risk from own-account investment is calculated centrally by DZ BANK AG.

Asset management risk is the risk arising from contractually agreed obligations to make additional capital payments to fund investors or clients if there is a shortfall in the funds. This risk category is relevant because the risk of such payments may arise in connection with subsidised pension plan products (Riester pension plan products, particularly UniProfiRente) and guarantee funds. Such additional payments to investors would represent expenses for the company. The risk relating to the pension products is calculated using a simulation of the expected future obligations to make additional capital payments. The risk of possible additional

capital payments in connection with guarantee funds is quantified using suitable models and statistical methods depending on the structure of the product concerned. The performance of pension plan products and guarantee funds is constantly monitored.

UMH's market risk is managed directly at the risk capital requirements level and limited by a limit covering both the fund price risk and asset management risk as well as the decentral capital buffer. The latter amounts to EUR 50 million (previous year: EUR 45 million) and anticipates the expected rise in risk capital requirements based on the adjustment of asset management risk methods planned. The economic risk capital requirements for fund price risk and asset management risk were calculated as EUR 183.7 million as at 31 December 2019 (previous year: EUR 286.0 million). The risk capital requirements for market risk, including the capital buffer, thus amounted to EUR 233.7 million as at 31 December 2019 (previous year: EUR 331.0 million). The limit was EUR 463.0 million (previous year: EUR 314.0 million). The risk did not exceed the limit at any point during the course of the year.

Equity investment risk

Equity investment risk is defined as the risk of losses arising from negative changes in the fair value of that portion of the equity investments portfolio in which the risks are not covered by other types of risk. Equity investment risk only includes equity investments that are not integrated into the differentiated risk measurement process with a look-through approach for the individual risks. If the risk materialises, there may be a need to recognise impairment losses to reduce the carrying amounts of the equity investments concerned. Equity investment risk is quantified centrally by DZ BANK AG. A risk contribution of EUR 69.2 million was calculated for UMH as at 31 December 2019 (previous year: EUR 70.1 million). The warning threshold was EUR 85 million (previous year: EUR 80 million). The risk contribution did not exceed the warning threshold at any point during the course of the year.

Business risk

Business risk is the risk of losses arising from earnings volatility for a given business strategy and not covered by other types of risk. In particular, this comprises the risk that, as a result of changes in material circumstances (such as economic conditions, product environment, customer behaviour, market competitors) corrective action cannot be taken solely at an operational level to prevent the losses. The company would thus report an operating loss if such a risk should materialise.

The economic risk capital requirements are calculated using an earnings-at-risk approach as a value at risk with a one-year time frame and a confidence level of 99.9%. The risk capital requirements were reported as EUR 0 as at 31 December 2019 (previous year: EUR 0 million). The upper loss limit was EUR 15 million (previous year: EUR 15 million). The risk capital requirements did not exceed the upper loss limit at any point during the course of the year. The additional risk indicator system triggered warnings for various risk indicators as intended. Corrective action

to facilitate risk management was derived from these. There were no indications in the course of the year of any critical situations likely to represent a risk to the group as a going concern.

Reputational risk

Reputational risk is defined as the risk of losses from events that damage confidence, particularly the confidence of clients, distributors, investors, employees, the labour market, the general public and supervisors, in the companies of the Union Investment Group or in the products and services they offer.

Reputational risks affecting the group or the group companies may arise from the management of investment fund assets. If reputational risks were to materialise, this could lead to an outflow of client funds and therefore to lower income in the future. The effects of reputational risks are factored into the measurement of business risk and are covered by the risk capital determined for the latter.

Liquidity risk

Liquidity risk is defined as the loss that can arise if insufficient funds are available to meet payment obligations when due (liquidity risk in the narrow sense of the term) or if any necessary funding can only be obtained on unfavourable terms (refinancing risk). The main items that can give rise to liquidity risk are the payment obligations of the companies within the group. If liquidity risks materialise, the settlement of payment obligations by the group companies could be delayed. To avoid any such scenario, liquidity items are subject to continuous liquidity management. Active planning and control of liquidity aims to ensure that the companies can meet their payment obligations at all times. The liquidity of the Union Investment Group was not in jeopardy at any time in the reporting period.

Credit risk

Credit risk is the risk of unexpected losses due to the default of counterparties. UMH's credit risk primarily results from own-account investments in funds, bank deposits/time deposits, loans and advances to clients and other exposures. The risk is currently not limited at UMH level but is instead included in the central capital buffer requirement at DZ BANK level. Credit risk is quantified semi-annually by UMH on the basis of capital requirements according to the standardised approach to credit risk. This uses all exposures relevant to credit risk to calculate the capital buffer. The central capital buffer requirement for credit risk amounted to EUR 91.5 million as at 31 December 2019 (previous year: EUR 77.7 million).

Longevity risk

Longevity risk results from commitments to pay pension benefits on retirement. The risk is that the value of the provisions for pension obligations could increase due to changes in life expectancy. Longevity risk is currently not limited at UMH level but is instead included in the central capital buffer requirement at DZ BANK level. Longevity risk is calculated using the

customary actuarial methods and mortality tables. The central capital buffer requirement for longevity risk amounted to EUR 14.4 million as at 31 December 2019 (previous year: EUR 0).

Total risk

Total risk is calculated on the basis of the individual risk types. Diversification effects are taken into account in aggregation. The central capital buffer requirement is added to the correlated value both on the limit and the risk side. The total capital requirements amounted to EUR 508.8 million as at 31 December 2019 (previous year: EUR 550.4 million). The overall limit was EUR 775.5 million in the reporting period (previous year: EUR 587.5 million). The total capital requirements did not exceed the overall limit at any point during the course of the year.

Risk cover is calculated quarterly using the liquidation approach in line with DZ BANK specifications. Risk cover amounted to EUR 1,106.1 million as at 31 December 2019 (previous year: EUR 879.6 million). Utilisation of risk cover by the overall limit was 70.1 % as at 31 December 2019 (previous year: 66.8 %). The Union Investment Group's risk-bearing capacity was ensured at all times during the year.

3. Summary of the risk position in the year under review

The results from the risk monitoring process were discussed at regular meetings of the Risk and Data Quality Management Committee and suitable action was initiated where appropriate. The Board of Managing Directors of UMH was kept abreast of developments relevant to risk by means of the quarterly risk reports and ad hoc notification of any critical issues as necessary. Based on these details, the Board of Managing Directors took action to manage risks and reported to the Supervisory Board of UMH on the risk situation. Individual high-risk trends were mitigated by specific corrective actions taken as part of the risk management process.

Over the 2019 financial year as a whole, there were no risks to UMH or the Union Investment Group as a going concern. The analysis of risk-bearing capacity does not highlight any obvious trends that could not be countered by the corrective action taken. The Union Investment Group's risk-bearing capacity was ensured at all times. As dictated by prudent business practice, provisions were recognised in the annual financial statements to cover business and tax risks. The liquidity of UMH and the companies within the Union Investment Group was never in jeopardy at any point in the year under review.

III. Forecast

Please refer to the details in section B VI. 3.2.

This forecast covers the 2020 financial year.

Following the highest consolidated earnings in the company's history and the highest volume of assets under management in the 2019 financial year, UMH has again set itself ambitious targets for the 2020 financial year.

Against the backdrop of the persistently difficult environmental conditions in politics and the capital market – the United Kingdom's upcoming exit from the EU, the trade dispute between the USA and China, the persistently low interest rates in Europe and many parts of the world, the expected slowdown of the growth rate in the USA and the eurozone – UMH wants to consistently continue to take opportunities for positive business performance. Moreover, the outbreak of coronavirus at the start of the new year is an event that is currently having no material negative effects on the Union Investment Group, but whose implications for the global economy and thus for the international capital markets cannot yet be foreseen.

UMH is again aiming for a very high level of assets under management at the end of the 2020 financial year, even if they are expected to decline slightly. New business will continue at a high level. The overall performance assumptions are expected to be slightly positive in the subsequent year.

Net fee and commission income is expected to increase slightly in the 2020 financial year. This is mainly due to the expectations of slightly higher volume-based income as a result of the slightly higher level of average assets under management.

The financial result – comprising net interest income, net income from investment securities and other net remeasurement income on financial instruments – is expected to rise sharply in the 2020 financial year. This is primarily due to a significant reduction in expenses from the measurement of guarantee pledges for investment products and the absence of expenses from the measurement of options in connection with the acquisition of shares in an equity investment. In contrast, a sharp decline is expected in the value contribution from own-account investment.

Administrative expenses are expected to rise substantially in the 2020 financial year. Staff costs will increase slightly, due primarily to growth-based recruitment and planned salary adjustments. The decline in variable salary components on the basis of the company's key figures will have the opposite effect. General administrative expenses will increase sharply as a result of consulting and office expenses. Depreciation and amortisation expense is rising significantly, mainly due to building costs and the first-time capitalisation of investments from completed projects.

A sharp decline is expected in the other operating result. This will primarily result from the absence of the deconsolidation gain realised on the sale of Union Investment Towarzystwo Funduszy Inwestycyjnych S.A. (TFI), Poland, in the 2019 financial year.

Given the factors described above, earnings before taxes for the 2020 financial year are expected to be high again, but significantly lower than in the current financial year. In line with this, the CIR is expected to rise sharply.

E Non-financial statement

For non-financial reporting, please refer to the Non-Financial Report in the management report of DZ BANK AG, in which the Union Investment Group is consolidated. The non-financial corporate statement is available in German at the following website: www.berichte2019.dzbank.de. The reference is indicated without acknowledgement of a legal obligation and is in particular not to be understood as a reference for the purpose of exemption from the reporting obligation according to Section 289b (2) HGB. Neither Union Asset Management Holding AG nor its German subsidiaries fall under the scope of Section 289b HGB, so there is no obligation to provide a non-financial report. The reference to the Non-Financial Report of DZ BANK AG is therefore voluntary. This does not affect the voluntary continuation of the previous sustainability reporting according to the GRI 4.0 standard outside of the management report.

Frankfurt am Main, 10 March 2020

Union Asset Management Holding AG



Hans Joachim Reinke
(Chief Executive Officer)



Alexander Schindler
(Member of the Board
of Managing Directors)



Jens Wilhelm
(Member of the Board
of Managing Directors)



Alexander Lichtenberg
(Member of the Board
of Managing Directors)

Consolidated financial statements

2019 financial year

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Consolidated financial statements (IFRS) of Union Asset Management Holding AG for the financial year from 1 January to 31 December 2019

Consolidated income statement for the financial year from 1 January to 31 December 2019

UMH Group	Note	2019 EUR thousand	2018 EUR thousand
Net interest income	[26]	6,255	7,922
Interest income and current income		8,583	8,880
Interest expenses		-2,328	-958
Allowances for losses on loans and receivables	[27]	-54	-27
Net interest income after allowances for losses on loans and receivables		6,201	7,895
Net fee and commission income	[28]	1,467,998	1,415,869
Fee and commission income		2,629,086	2,448,308
Fee and commission expenses		-1,161,088	-1,032,439
Net income from investment securities	[29]	2,443	-23,027
Other net remeasurement income on financial instruments	[30]	-43,410	-50,839
Net income from companies accounted for using the equity method	[31]	33,871	17,111
Administrative expenses	[32]	-909,448	-894,684
Other operating result	[33]	92,531	29,419
Consolidated earnings before taxes		650,186	501,744
Income taxes	[24], [34]	-169,674	-154,817
Consolidated net income		480,512	346,927
Attributable to:			
Shareholders of Union Asset Management Holding AG		472,330	339,059
Non-controlling interests		8,182	7,868

Statement of comprehensive income for the financial year from 1 January to 31 December 2019

UMH Group	Note	2019 EUR thousand	2018 EUR thousand
Consolidated net income		480,512	346,927
Other comprehensive income		-1,858	-3,228
Amounts reclassified to profit or loss		1,655	1,234
Exchange differences on currency translation of foreign subsidiaries	[35], [36], [57]	-8	-1,657
Share of other comprehensive income of joint ventures and associates accounted for using the equity method	[36], [57]	1,663	2,922
Income taxes relating to components of other comprehensive income	[36]	0	-31
Amounts not reclassified to profit or loss		-3,513	-4,462
Gains and losses from equity instruments for which the fair value OCI option was exercised	[36], [57]	1,882	-2,136
Actuarial gains and losses on defined benefit plans		-12,676	-9,202
Share of other comprehensive income of joint ventures and associates accounted for using the equity method	[36], [57]	-	-152
Income taxes relating to components of other comprehensive income	[36]	7,281	7,028
Total comprehensive income		478,654	343,699
Attributable to:			
Shareholders of Union Asset Management Holding AG		470,789	336,480
Non-controlling interests		7,865	7,219

Consolidated statement of financial position as at 31 December 2019

Assets	Note	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Cash reserve	[9], [37]	17	30
Loans and advances to banks	[10], [38]	541,495	772,643
Loans and advances to customers	[10], [39]	109,442	83,561
Asset derivatives	[19], [40]	28,136	48,924
Investment securities	[12], [41]	1,503,473	998,052
Shares in companies accounted for using the equity method	[13], [42]	130,187	111,302
Property, plant and equipment	[14], [43]	25,440	22,287
Intangible assets	[15], [44]	149,300	141,863
Income tax assets	[24], [45]	90,450	61,933
Other assets	[46]	217,063	197,539
Right of use assets	[47]	102,963	–
Assets held for sale	[17], [48]	37,740	43,136
Total assets		2,935,706	2,481,270

Equity and liabilities	Note	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Liabilities to banks	[18], [49]	26,884	19,635
Liabilities to customers	[18], [50]	1,167	1,221
Liability derivatives	[19], [51]	96,641	64,345
Provisions	[20], [21], [52]	228,659	208,826
Income tax liabilities	[24], [53]	68,506	76,974
Other liabilities	[54]	855,183	761,621
Lease liabilities	[55]	104,140	–
Liabilities held for sale	[17], [56]	–	10,399
Equity	[57]	1,554,526	1,338,249
Issued capital		87,130	87,130
Capital reserves		18,617	18,617
Retained earnings		919,363	843,017
Fair value OCI reserve		20,496	18,701
Currency translation reserve		12,811	11,148
Reserve from assets held for sale		–	-3,500
Consolidated net profit		472,330	339,059
Non-controlling interests		23,779	24,077
Total equity and liabilities		2,935,706	2,481,270

Statement of changes in equity for the financial year from 1 January to 31 December 2019

UMH Group	Note	Issued capital	Capital reserves	Retained earnings	Fair value OCI reserve	Currency translation reserve	Reserve from assets held for sale	Consolidated net profit	Equity before non-controlling interests	Non-controlling interests	Total equity
		EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand
1 Jan. 2018		87,130	18,617	751,331	20,371	6,413	–	413,889	1,297,751	23,169	1,320,920
Consolidated net income		–	–	–	–	–	–	339,059	339,059	7,868	346,927
Other comprehensive income	[57]	–	–	-2,138	-1,676	1,235	–	–	-2,579	-649	-3,228
Total comprehensive income		–	–	-2,138	-1,676	1,235	–	339,059	336,480	7,219	343,699
Dividends paid	[57]	–	–	-320,059	–	–	–	–	-320,059	-6,311	-326,370
Appropriation to retained earnings		–	–	413,889	–	–	–	-413,889	–	–	–
Reclassifications within equity		–	–	-6	6	3,500	-3,500	–	–	–	–
31 Dec. 2018		87,130	18,617	843,017	18,701	11,148	-3,500	339,059	1,314,172	24,077	1,338,249
1 Jan. 2019		87,130	18,617	843,017	18,701	11,148	-3,500	339,059	1,314,172	24,077	1,338,249
Consolidated net income		–	–	–	–	–	–	472,330	472,330	8,182	480,512
Other comprehensive income	[57]	–	–	-4,997	1,801	1,663	-8	–	-1,541	-317	-1,858
Total comprehensive income		–	–	-4,997	1,801	1,663	-8	472,330	470,789	7,865	478,654
Acquisition / disposal of non-controlling interests		–	–	-11,724	–	–	–	–	-11,724	-764	-12,488
Changes in the consolidated group		–	–	–	–	–	3,508	–	3,508	–	3,508
Dividends paid	[57]	–	–	-245,998	–	–	–	–	-245,998	-7,399	-253,397
Appropriation to retained earnings		–	–	339,059	–	–	–	-339,059	–	–	–
Reclassifications within equity	[57]	–	–	6	-6	–	–	–	–	–	–
31 Dec. 2019		87,130	18,617	919,363	20,496	12,811	–	472,330	1,530,747	23,779	1,554,526

Statement of cash flows for the financial year from 1 January to 31 December 2019

UMH Group	2019 EUR thousand	2018 EUR thousand
Consolidated net income	480,512	346,927
Non-cash items included in consolidated net income and reconciliation to cash flows from operating activities		
Depreciation, amortisation, impairment losses and reversals of impairment losses on assets and measurement changes on financial assets and liabilities	96,788	63,110
Non-cash changes in provisions and deferred liabilities	751,302	678,415
Other non-cash income and expenses	19,449	132,924
Gains and losses on the disposal of assets and liabilities	3,022	2,294
Other adjustments (net)	-6,256	-7,924
Subtotal	1,344,817	1,215,746
Cash changes in assets and liabilities arising from operating activities		
Loans and advances to banks	229,463	-413,565
Loans and advances to customers	-25,935	-8,266
Other assets	-3,999	-22,821
Liabilities to banks	7,250	4,993
Liabilities to customers	-54	3
Asset/liability derivatives	-5,227	-2,256
Other liabilities	-640,633	-624,096
Interest and dividends received	25,937	22,631
Interest paid	-3,406	-2,043
Income taxes paid	-169,688	-149,206
Cash flow from operating activities	758,525	21,120

UMH Group	2019 EUR thousand	2018 EUR thousand
Proceeds from the disposal of:		
Investment securities	336,286	1,117,096
Property, plant and equipment	3	160
Intangible assets	–	24
Payments for the acquisition of:		
Investment securities	-842,966	-764,286
Property, plant and equipment	-7,963	-6,698
Intangible assets	-46,518	-42,145
Effects of changes in the consolidated group		
Proceeds from the sale of consolidated companies	91,630	–
Cash paid for the sale of consolidated companies	-1	–
Cash flow from investing activities	-469,529	304,151
Dividend payments to the shareholders of UMH AG and other shareholders	-253,397	-326,370
Payments for the redemption component of lease liabilities	-24,779	–
Changes in cash from other capital	-10,833	1,111
Cash flow from financing activities	-289,009	-325,259
Cash and cash equivalents at the beginning of the year	30	18
Cash flow from operating activities	758,525	21,120
Cash flow from investing activities	-469,529	304,151
Cash flow from financing activities	-289,009	-325,259
Cash and cash equivalents at the end of the year	17	30

Cash and cash equivalents in the statement of cash flows correspond to the cash and cash equivalents item in the statement of financial position, which comprises cash in hand and balances at central banks, plus debt instruments from public sector entities and bills of exchange eligible as collateral for central bank funding if the residual maturity is less than three months and the amounts concerned are deemed to be the retention of liquidity. Loans and advances to banks that are repayable on demand are not included; these items are assigned to operating activities.

The statement of cash flows shows a breakdown of, and changes in, cash and cash equivalents during the financial year. It is broken down into operating activities, investing activities and financing activities.

Cash flows from operating activities comprise cash transactions (cash inflows and outflows) in connection with loans and advances to banks and customers, other assets, asset and liability derivatives, liabilities to banks and customers and other liabilities. Interest and dividend payments, together with current income tax payments, are also assigned to cash flow from operating activities.

Cash flow from investing activities shows cash transactions relating to investment securities, property, plant and equipment and intangible assets. This item also includes the effects from changes in the consolidated group.

Cash flow from financing activities comprises proceeds from capital increases, proceeds from the utilisation of loans, loan repayments, dividend payments, repayment of lease liabilities and changes in cash related to other capital.

A statement of cash flows is not particularly meaningful as far as companies in the asset management sector are concerned. The statement of cash flows for the UMH Group does not replace liquidity and financial planning, nor is it used as a management tool.

Notes to the consolidated financial statements

Basis of preparation

[1] Principles of group accounting

Union Asset Management Holding AG (UMH AG) is the holding company of the Union Investment Group. It is a subsidiary of DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main (DZ BANK). The primary purpose of UMH AG's subsidiaries, joint ventures and associates is to issue and sell investment funds, hold these funds in safe custody and provide associated services. The Union Investment Group is also the centre of competence for asset management within the Genossenschaftliche FinanzGruppe.

The registered office of UMH AG is Weissfrauenstrasse 7, 60311 Frankfurt am Main, Germany. The company was entered in the commercial register of the Frankfurt am Main Local Court on 16 June 1999 under HRB 47289. The shares in UMH AG are not publicly traded.

The consolidated financial statements of UMH AG are included in the consolidated financial statements of DZ BANK, which in turn prepares the consolidated financial statements covering the greatest number of entities included in the overall group and is entered in the commercial register of the Frankfurt am Main Local Court under HRB 45651. DZ BANK's annual financial statements are published in the Federal Gazette.

The consolidated financial statements of UMH AG comprise the consolidated income statement, the statement of comprehensive income, the statement of financial position, the statement of changes in equity, the statement of cash flows and the notes to the consolidated financial statements. They comprise the separate financial statements of UMH AG and its subsidiaries (hereinafter also referred to as the "UMH Group" or "Union Investment Group"). The consolidated financial statements have been prepared as at the end

of UMH AG's reporting period, 31 December 2019. The subsidiaries included share the same reporting period.

In accordance with standard international practice, the consolidated income statement and statement of financial position are presented in a condensed and clearly structured format in compliance with the requirements of IAS 1. Statement of financial position items are shown in order of liquidity.

The consolidated financial statements have been prepared in euros (EUR). Unless stated otherwise, amounts are presented in thousands of euros (EUR thousand) to ensure that the consolidated financial statements are clear and comprehensible. Rounding differences can occur in tables.

All items in the consolidated financial statements are recognised and measured under the assumption of the going concern principle. Income and expenses are recognised using the accrual method, i.e. they are recognised in the period to which they relate.

With the exception of the contractual maturity analysis as required by IFRS 7.39 (note [64]), the gross carrying amounts pursuant to IFRS 7.35I (note [60]) and the risk concentration of financial assets pursuant to IFRS 7.35M (note [59]), the disclosures on the nature and extent of risks arising from financial instruments (IFRS 7.31 – 42) are included in the risk report in the group management report.

[2] Accounting policies

The consolidated financial statements and the group management report for the financial year from 1 January to 31 December 2019 have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union (EU) and the additional

requirements of German commercial law pursuant to Section 315e (1) of the German Commercial Code (HGB) in conjunction with Section 315e (3) HGB.

The financial statements of the companies consolidated in the UMH Group have been prepared using uniform accounting policies.

Changes in accounting policies

- First-time adoption of IFRS changes in the 2019 financial year

The following new financial reporting standards, amendments to IFRSs, interpretations of the IFRS Interpretations Committee (IFRIC interpretations) and the named improvements to IFRSs were adopted for the first time in the UMH consolidated financial statements for the 2019 financial year:

- IFRS 16 Leases
- Amendments to IFRS 9 Prepayment features with negative compensation
- Amendments to IAS 28 – Long Term Interests in Associates and Joint Ventures
- Amendments to IAS 19 – Plan Amendment, Curtailment or Settlement
- IFRIC 23 Uncertainty over Income Tax Treatments
- Annual Improvements to IFRSs 2015-2017 Cycle

The provisions set out in IFRS 16 Leases replace IAS 17 Leases and the interpretations IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating leases – incentives, and SIC-27 Evaluating the Substance of Transactions Involving the Legal form of a Lease. The new regulations are effective and mandatory for annual periods beginning on or after 1 January 2019. IFRS 16 is applied within the UMH Group on the basis of the modified retrospective application

method, which recognises any cumulative adjustment amounts from the first-time application as at 1 January 2019 in retained earnings, taking into account the transition provisions. With this method, IFRS 16 is applied to new and existing contracts not yet fulfilled at the time of the standard's initial application.

While the IFRS 16 accounting provisions for lessors are virtually unchanged in comparison to the previous regulations under IAS 17 (with the exception of expanded notes disclosures), accounting for the lessee's leases is now again based on a right of use assets model. The lessor transfers the right to use the leased object to the lessee at the beginning of the lease. The lessee enters into a corresponding payment obligation for the period of use. Accordingly, lessees must recognise right of use assets and lease liabilities for almost all leases. In the income statement, this results in depreciation on right of use assets and interest expense on lease liabilities as opposed to the previous lease payments under an operating lease as per IAS 17. Application exemptions are granted in the case of low-value assets and short-term leases. In addition, the new standard also includes other regulations on the definition of a lease, presentation and disclosures in the notes. The new regulations of IFRS 16 affect all group companies that have rented or leased properties.

In accordance with IFRS 16.C10(a), a single discount rate was used for portfolios of leases with similar characteristics. In accordance with IFRS 16.C10(c), leases for which the lease term ends within twelve months of initial application were accounted for as at 1 January 2019 as if they were short-term leases. Pursuant to IFRS 16.C10(d), initial direct costs were not calculated and taken into account retrospectively. In addition, the exercising of renewal or termination options was assessed based on current evidence and not according to the probability of exercise at the start of the contract to be determined retrospectively (IFRS 16.C10(e)). The optional practical expedient under IFRS 16.5, which excludes leases of low-value assets from recognition, was selected. The UMH Group reassessed existing leases as part of the initial application of IFRS 16. The practical expedient under IFRS 16.C3 was not applied.

At the UMH Group, right of use assets are measured at the amount of the lease liabilities, adjusted to take account of any prepaid or accrued lease payments for the lease in question. Initial direct costs are not taken into account. As part of initial application, the UMH Group examined whether there are any provisions for onerous contracts, which in accordance with the practical expedient under IFRS 16.C10(b)

may be included in the right of use asset. The analysis found that no provisions for onerous contracts were identified at the time of initial application.

While minimum lease payments under operating leases in accordance with IAS 17 came to EUR 434.7 million as at 31 December 2018, liabilities from non-cancellable leases under the IFRS 16 definition of a lease amounted to EUR 118.7 million at the time of initial application as at 1 January 2019. The liabilities from non-cancellable leases to be taken into account upon initial recognition are measured at the present value of the remaining lease payments, discounted using the company-specific incremental borrowing rate of the lessee as at 1 January 2019. The weighted average incremental borrowing rate for land and buildings is 0.9 % and 0.4 % respectively.

Based on lease liabilities under operating leases as at 31 December 2018, the table below shows the reconciliation to the lease liabilities recognised as at 1 January 2019:

	EUR thousand
Off-balance sheet lease obligations as at 31 Dec. 2018	434,736
Of which not relevant to IFRS 16	-52,038
Application exemptions are granted in the case of low-value and short-term leases.	-31,363
Other	-228,060
Gross lease liabilities as at 1 Jan. 2019	123,275
Discount	-4,607
Total lease liabilities as at 1 Jan. 2019	118,668

The Other effect essentially results from new contracts that have already been concluded but not yet capitalised, primarily in connection with the leasing of space in the WINX building.

The initial application of IFRS 16 led to the first-time recognition of right of use assets from leases totalling EUR 118.1 million and lease liabilities of EUR 118.7 million. At the time of initial application, no effects to be recognised in retained earnings through other comprehensive income were identified as part of the transition to IFRS 16. The implementation of IFRS 16 has no material impact on the UMH consolidated financial statements.

No figures for the comparative period were restated on account of applying the modified retrospective method. Prior-year figures in connection with right of use assets, lease liabilities, interest expenses on lease liabilities and amortisation of right of use assets are thus shown in the tables as a dash. Under IAS 17, a lease was classified as an operating lease if substantially all the risks and rewards incidental to ownership were not transferred to the lessee. In operating leases, the lessor accounted for the assets. By contrast, a finance lease was a lease that transferred substantially all the risks and rewards incidental to ownership of the asset concerned to the lessee. Lease payments under an operating lease were recognised on a straight-line basis over the term of the lease and reported as administrative expenses. In accordance with IAS 17, there were no contractual arrangements classified as finance leases in the previous year.

The amendment to IFRS 9 regarding prepayment features with negative compensation clarified ambiguity concerning the categorisation and measurement of financial instruments with symmetric termination rights. Accordingly, the cash flow criterion of IFRS 9 is not explicitly breached even in the case of an appropriate negative repayment penalty. The amendments have been effective and mandatory for the first time since 1 January 2019. There was no impact on the UMH consolidated financial statements.

The amendments to IAS 28 Long-Term Investments in Associates and Joint Ventures clarify that an entity is to apply IFRS 9 to long-term investments in an associate or joint venture that form part of the net investment in the associate or joint venture but to which the equity method is not applied. The date of first-time application of the amendments is 1 January 2019. There was no impact on the UMH consolidated financial statements.

Owing to the amendments to IAS 19 Plan Amendment, Curtailment or Settlement, it is required that in the event of a change, reduction or settlement of a defined benefit plan, the current service cost and the net interest for the remainder of the financial year should be remeasured using the current actuarial assumptions which have been used for the required remeasurement of net debt (asset). Additions were also made to clarify how a change, reduction or settlement affects the requirements of the asset ceiling. The amendments have been effective and mandatory since 1 January 2019. The implementation of the amendments to IAS 19 has no material impact on the UMH consolidated financial statements.

Interpretation IFRIC 23 Uncertainty over Income Tax Treatments includes regulations on the recognition and measurement of tax risk items and thus closes existing regulatory loopholes in IAS 12 Income Taxes. In particular, IFRIC 23 addresses whether an entity should consider each tax treatment independently or whether some tax treatments should be considered together, with assumptions that an entity makes regarding the review of tax treatment by the taxation authorities. In addition, IFRIC 23 sets out regulations regarding the determination of taxable profit (tax loss), the tax bases, unused tax losses, unused tax credits and tax rates, and taking into account changes in facts and circumstances. Tax risks shall be measured at the most probable value or expected value. In accordance with IFRIC 23, the measurement method that best reflects the existing risk should be used. The adoption of IFRIC 23 is not expected to result in any significant accounting changes as in the past tax risk items have been recognised at their best possible value or there was no case of lower probability of occurrence. The

Interpretation has been effective and mandatory for the first time since 1 January 2019.

In the event that, following the amendments to IFRS 3 Business Combinations as part of the Annual Improvements to IFRSs 2015-2017 Cycle, an entity gains control over a former joint operation within the meaning of IFRS 10 Consolidated Financial Statements by purchasing additional shares, the regulations under IFRS 3 regarding a business combination achieved in stages are to be applied. Accordingly, the interests held previously must be remeasured. During this process, all interests in the joint operation must be remeasured, not merely the assets and liabilities previously recognised on a pro rata basis. The amendments are to be applied prospectively for business combinations that occur in financial years beginning on or after 1 January 2019.

In the event that, following the amendments to IFRS 11 Joint Arrangements as part of the Annual Improvements to IFRSs 2015-2017, an entity gains obtains joint control over a joint operation by purchasing additional shares, it is not necessary to remeasure the interest previously held in the joint operation. The amendments are to be applied prospectively for business combinations that occur in financial years beginning on or after 1 January 2019.

The amendments to IAS 12 Income Taxes as part of the Annual Improvements to IFRSs 2015-2017 Cycle specify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to shareholders. Therefore, an entity recognises the income tax consequences of dividends in the income statement, in net income through other comprehensive income or in equity, depending on where it originally recognised these past transactions or events. The amendments are effective for annual periods beginning on or after 1 January 2019.

The amendments to IAS 23 Borrowing Costs as part of the Annual Improvements to IFRSs 2015-2017 Cycle clarify that any outstanding borrowings originally entered into to acquire

a specific qualifying asset must be included in determining the general borrowing cost capitalisation rate for other qualifying assets for which no specific borrowings have been entered into from the date on which the respective asset is substantially ready for its intended use or sale. The amendments are to be applied prospectively to borrowing costs that arise in financial years beginning on or after 1 January 2019.

The Annual Improvements to IFRSs 2015-2017 Cycle described above have no material impact on the UMH consolidated financial statements.

- **Endorsed IFRS changes not applied**

The following new changes to IFRS standards were not applied early voluntarily:

- Amendments to References to the Conceptual Framework in IFRS Standards
- Amendments to IAS 1 and IAS 8 – Definition of “Material”
- Amendments to IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform (IBOR reform)

The changes included in the Amendments to References to the Conceptual Framework in IFRS Standards were required following the revision of the conceptual framework because many standards and other statements from the IASB include quotations from the conceptual framework or references to it.

In addition to these amendments, some of which are editorial changes, the amendment standard includes clarifications as to which version of the conceptual framework applies in specific cases. Depending on the issue, users must apply the 2001, 2010 or 2018 version of the conceptual framework. Where necessary, a date of initial application for the amendments is included, which is standardised for financial years beginning on or after 1 January 2020. Early adoption is permitted provided this is applied to all amendments to this standard. The UMH Group will not apply the amendments early. The implementation of the amendments has no material impact on the UMH consolidated financial statements.

The amendments to IAS 1 and IAS 8 aim to improve the definition of materiality without fundamentally altering the application of the materiality principle. In particular, the amendments led to the new characteristic of concealing information, which resulted in the omission or misrepresentation of information. The amendments shall be applied prospectively for financial years beginning on or after 1 January 2020. There was no impact on the UMH consolidated financial statements.

The amendments to IFRS 9, IAS 39 and IFRS 7 published in the Official Journal of the European Union on 16 January 2019, which grant temporary relief for hedge accounting prior to the reform of key benchmark rates such as the EURIBOR, LIBOR and EONIA (IBOR reform), are to be applied for the first time for financial years beginning on or after 1 January 2020. These may be applied early. These amendments are not relevant to the UMH Group as it does not use hedge accounting.

- **IFRS changes not yet endorsed**

The following new accounting standards issued by the IASB and amendments to accounting standards have not yet been endorsed by the EU:

- IFRS 17 Insurance Contracts
- Amendments to IFRS 3 Business Combinations

IFRS 17 Insurance Contracts replaces IFRS 4 Insurance Contracts and pursues the aim of a consistent, principle-based accounting for all insurance contracts. It sets out principles for the recognition, measurement, presentation and disclosure of insurance contracts and requires the measurement of insurance liabilities at the current settlement value. The measurement generally takes place using a general model according to a 3-component approach. Insurance contracts with a term of less than one year can be shown using the simplified allocation method (Premium Allocation Approach). The effects on the UMH consolidated financial statements are currently being examined by the Group companies. IFRS 17 is effective and mandatory for annual periods beginning on or after 1 January 2021. The IASB is

currently proposing that the application of IFRS 17 be postponed by one year until 1 January 2022. Early adoption of IFRS 17 is permitted.

The intention of the amendments to IFRS 3 is to make it easier to distinguish acquisitions of business activities from acquisitions of a group of assets. To be considered as a business activity, an acquisition as defined by the new definition of business activities must include resources and a substantive process that together create the opportunity to generate output. The amended definition shall be applied to acquisitions for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after 1 January 2020. Early adoption is permitted subject to the pending endorsement in EU law.

The effects on the UMH consolidated financial statements of the amendments to IFRSs listed above are currently being examined.

The dates of first-time adoption for the approved IFRS amendments are subject to their being endorsed in EU law.

- **Voluntary changes in accounting policies**

There were no voluntary changes in accounting and measurement policies in the financial year.

[3] Consolidated group

In addition to UMH AG as the parent company, the UMH consolidated financial statements include 15 subsidiaries (previous year: 16) in which UMH AG directly or indirectly holds more than 50% of the shares or voting rights. Ten of these subsidiaries (previous year: ten) have their registered office in Germany, while five (previous year: six) are headquartered in other countries.

The subsidiary Union Investment Towarzystwo Funduszy Inwestycyjnych S.A., Warsaw, was sold in June 2019. The company, which was classified as a disposal group that does

not represent a component of an entity as at 31 December 2018, was deconsolidated as at 30 June 2019. Gains from deconsolidation came to EUR 73,006 thousand. At the time of disposal, the company accounted for assets held for sale of EUR 24,757 thousand and liabilities held for sale of EUR 9,641 thousand.

12 subsidiaries (previous year: ten) that are not material to an understanding of the net assets, financial position and results of operations of the UMH Group have not been consolidated and are reported as investments in subsidiaries under investment securities.

The consolidated financial statements of UMH AG do not include any subgroups that prepare their own subgroup financial statements.

In the financial year, one investment fund (previous year: one) was included in the consolidated financial statements as a consolidated structured entity in accordance with IFRS 10.

One joint venture (previous year: one) – one of which is outside Germany (previous year: one) – is accounted for using the equity method.

Three associates (previous year: four) – three of which are in Germany (previous year: four) – are accounted for using the equity method.

In the financial year, there is no investment fund (previous year: none) that is not included in the consolidated group but is recognised as a subsidiary in financial assets under which UMH AG is in a position to exercise control and which is of minor importance for an understanding of the net assets, financial position and results of operations of the UMH Group.

Five investment funds (previous year: seven) that UMH AG controls were held for sale as at the end of the reporting period.

A complete list of the subsidiaries, joint ventures, associates and investment funds included in the consolidated financial statements can be found in the list of shareholdings (note [69]).

[4] Principles of consolidation

Subsidiaries and investment funds are consolidated using the acquisition method. This method requires all of a subsidiary's assets and liabilities to be recognised at fair value at the acquisition date or at the date on which control is acquired (note [68]).

Any difference between the cost and the fair value of the assets and liabilities is recognised as goodwill under intangible assets. The carrying amount of goodwill is tested for impairment at least once a year or more frequently if there are any indications of possible impairment. An impairment loss is recognised if goodwill is found to be impaired.

Any negative goodwill is recognised immediately in profit or loss.

Intragroup assets, liabilities, income and expenses are eliminated in full. Profits or losses resulting from transactions within the group are eliminated unless the amounts concerned are immaterial.

Joint ventures and associates are accounted for using the equity method and are reported as shares in companies accounted for using the equity method. The cost of these equity investments and any goodwill are determined at the time the investments are included in the consolidated financial statements for the first time. The same rules are applied as for subsidiaries.

The carrying amount of equity is adjusted over time based on the associates' and joint ventures' financial statements, which have been prepared in accordance with local accounting standards and reconciled to IFRS.

Occasionally, the UMH Group has holdings of funding provided for a number of investment funds, as a result of which the group is in a position to exercise control over the fund concerned. These holdings are consolidated unless they satisfy the criteria specified in IFRS 5 and are therefore to be reported as assets held for sale.

Investments in subsidiaries, joint ventures and associates that are of no material significance and are therefore not consolidated and equities and other shareholdings are recognised under investment securities and measured at fair value.

[5] Estimates

Assumptions and estimates must be made in accordance with the relevant financial reporting standards in order to determine the carrying amounts of assets, liabilities, income and expenses recognised in these consolidated financial statements. These assumptions and estimates are based on past experience, planning and expectations or forecasts of future events.

Assumptions and estimates are mainly used in determining the fair value of financial assets and financial liabilities and in identifying any impairment on financial assets. In addition, estimates have a significant influence on determining the carrying amounts of goodwill and intangible assets acquired in the course of business combinations. Assumptions and estimates also have an impact on the measurement of provisions for employee benefits and other provisions in addition to the recognition and measurement of income tax assets and income tax liabilities.

Fair values of financial assets and financial liabilities

If there are no prices available for certain financial instruments on active markets, the fair values of such financial assets and financial liabilities have to be determined on the basis of estimates, resulting in some uncertainty. Estimation uncertainty mainly arises if fair values are calculated using measurement methods involving significant measurement

parameters that are not observable on the market. This affects both financial instruments measured at fair value and financial instruments measured at amortised cost whose fair values are disclosed in the notes. The assumptions underlying the determination of fair values for the measurement parameters and measurement methods used are presented in the notes on financial instruments in note [62].

Impairment of financial assets

When testing financial assets in the “financial assets measured at amortised cost” category and the “financial assets measured at fair value through other comprehensive income” and financing lease receivables for impairment, the estimated future cash flows from interest payments, the repayment of principal and the recovery of collateral must be determined. This requires estimates and assumptions regarding the amount and timing of future cash flows, which in turn give rise to some uncertainty. Factors influencing evidence of impairment, which are determined by discretionary decisions, include, for example, economic conditions, the financial performance of the counterparty and the amount of collateral held. In addition, as part of determining evidence of impairment for portfolios, parameters such as probability of default, which are calculated using statistical models, are included in the estimates and assumptions.

Goodwill and intangible assets

Recognition of goodwill is essentially based on anticipated income and synergy effects and on intangible assets that cannot be recognised resulting from or acquired in the course of business combinations. Its carrying amount is reviewed using forecast figures based primarily on estimates. Identifiable intangible assets acquired in the course of business combinations are recognised on the basis of their future economic benefit. This is assessed by the management by means of appropriate and justified assumptions.

Provisions for employee benefits and other provisions

Uncertainty associated with estimates in connection with provisions for employee benefits primarily arises from the measurement of defined benefit pension obligations, on which actuarial assumptions have a material effect. Actuarial assumptions are based on a large number of long-term, forward-looking factors, such as salary increases, annuity trends and average life expectancy.

Actual future cash outflows due to items for which other provisions have been recognised may differ from the forecast utilisation of the provisions.

The measurement bases and the assumptions and estimates used to determine the amount to be recognised for provisions are shown in note [52].

Income tax assets and liabilities

Deferred income tax assets and liabilities are calculated on the basis of estimates of the future taxable income of taxable entities. In particular, these estimates affect any assessment of the extent to which it will be possible to utilise deferred income tax assets in future. The calculation of current income tax assets and liabilities for the purposes of preparing HGB financial statements still requires estimates of details relevant to income tax (note [24]).

Estimate whether variable considerations within the meaning of IFRS 15 are limited

The fee for the asset management service, which consists of current remuneration (and parts of the lump-sum remuneration and the performance-related management fee), should be recognised over the term in equal amounts for the term intervals of the range of services. Since the ongoing remuneration and the flat-rate fee are variable fees depending on the assets under management, this uncertainty is related to the total amount of the remuneration due over the term of the investment fund or an asset management agreement. The

development of assets under management depends on the development of the fair value of the assets under management, on payments made or paid out to shareholders or deposits or disbursements on asset management mandates. Owing to the regulations of IFRS 15 for the limitation of the recognition of variable consideration, the variable remuneration in this case should not be fully included in the transaction price from the beginning. It is included only at the time in which the uncertainty is overcome, which is the case at each respective settlement date (usually monthly).

If performance-based remuneration components have been agreed, they are influenced, among other things, by market developments and thus by factors beyond the company's control. Since this income is subject to a large number and a wide range of possible outcomes due to significant risks of a downturn on the capital markets which cannot be excluded, it can only then be included in the amount of the transaction price subject to the provisions of IFRS 15 on the limitation of the recognition of variable consideration if the out-performance criteria agreed for a defined benchmark and the agreed assessment period have been met as there is no significant risk of cancellation up until this date.

If investment compensation has been agreed for property funds or other AIF property funds, it can only then be included in the amount of the transaction price due to the provisions of IFRS 15 on the limitation of the recognition of variable consideration if benefits and encumbrances have been transferred or in the case of portfolio developments as soon as payments in the investment funds are settled according to the construction progress.

[6] Financial instruments

All financial assets and financial liabilities, including all derivatives, are recognised in the statement of financial position in accordance with IFRS 9. All financial instruments are measured at fair value on first-time recognition. The amounts initially recognised for financial assets and financial liabilities not measured at fair value through profit or loss

include transaction costs directly attributable to the acquisition of the assets or liabilities concerned. The subsequent measurement of financial assets and financial liabilities depends on the IFRS 9 category to which they are assigned on addition. For financial assets, the category is determined by the business model and the fulfilment of the cash flow criterion.

Categories of financial instruments

- **Financial assets at fair value through profit or loss (fair value PL)**

Financial assets that are not measured at amortised cost or at fair value through other comprehensive income should be categorised as “financial assets at fair value through profit or loss”. This category comprises the subcategories below:

Financial assets mandatorily measured at fair value through profit or loss

The subcategory “financial assets mandatorily measured at fair value through profit or loss” includes financial assets that do not meet the cash flow condition under IFRS 9 or that are acquired with the intention to subsequent disposal in the near future. For this purpose, these financial assets must be part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking or they must be derivative financial instruments that are not designated as hedges in effective hedging relationships.

The UMH group assigns units in investment funds and part of the loans and advances to banks to this category. This category also includes debt instruments that also come under the “hold to collect and sell” business model but that do not fulfil the criterion for cash flows. Derivative financial instruments also come under this category.

Financial assets from contingent consideration through business combinations

This subcategory includes contingent considerations that the acquirer has classified as financial assets in a business

combination or analogous application of IFRS 3 for transactions based on IAS 28.

There are currently no cases of this being applied at the UM Group.

Financial assets designated at fair value through profit or loss (fair value option)

Financial assets classified at fair value through profit or loss may be assigned to the sub-category “financial assets at fair value through profit or loss” if they are used to eliminate or substantially reduce recognition or measurement inconsistencies (accounting mismatches). The fair value option is used to eliminate or substantially reduce accounting mismatches resulting from the different measurement of non-derivative financial instruments and derivative financial instruments used to hedge them. Derivative financial instruments are measured at fair value through profit or loss, while non-derivative financial instruments are measured at amortised cost or changes in the fair value can be recognised through other comprehensive income. Failure to use hedge accounting will result in accounting mismatches that are significantly reduced by exercising the fair value option. In connection with avoiding accounting mismatches, the fair value option is exercised on financial assets for loans and advances to banks and customers as well as bearer shares and bonds.

The fair value option was not used within the UMH Group.

- **Financial assets measured at fair value through other comprehensive income (fair value OCI)**

The category comprises the subcategories below:

Financial assets mandatorily measured at fair value through other comprehensive income

Allocation to this category takes place if the financial asset is held within the framework of a business model whose objective is both the recognition of contractual cash flows and the sale of financial assets. In addition, the contractual terms of the financial asset on specified dates must result in

cash flows that are solely payments of principal and interest on the principal amount outstanding.

Due to the cash flow conditions, these financial assets consist exclusively of debt instruments. They are measured at fair value. Interest income, impairment losses and effects from the currency translation reserve should be recognised in profit or loss. Differences between amortised cost and fair value are recognised in other comprehensive income. The amounts recognised in other comprehensive income must be reclassified to profit and loss (recycling).

In the UMH Group, no debt instruments are measured at fair value through other comprehensive income as at the end of the reporting period.

Financial assets designated at fair value through other comprehensive income (fair value OCI option)

For equity instruments, the irrevocable option of designation is recognised as “financial assets at fair value through profit or loss” (fair value OCI option). Except for dividends not transferred to capital, changes in fair value are recognised in consolidated other comprehensive income. Cumulative consolidated other comprehensive income is not subsequently reclassified to the income statement (recycling), for example due to the disposal of the instrument. After disposal of these equity instruments, the accumulated other comprehensive income is reclassified to retained earnings. The general option to exercise the fair value OCI only applies to equity instruments that are not held for trading or are contingent consideration recognised by an acquirer in a business combination under IFRS 3.

For each new addition of an equity instrument, the UMH Group checks whether the option should be exercised. The option is currently being exercised for all equity instruments.

- **Financial assets measured at amortised cost**

It is classified in this category if the financial asset is held within a business model whose objective is to hold financial

assets for the recognition of contractual cash flows. The contractual terms of the financial asset results in contractual cash flows that are solely payments of principal and interest on the principal amount outstanding (so-called cash flow condition). Financial assets in this category consist exclusively of debt instruments due to the cash flow condition. They are measured at amortised cost using the effective interest rate method. Interest income, impairment losses and effects from the currency translation reserve should be recognised in profit or loss.

The UMH Group assigns the majority of its loans and advances to banks and customers and trade receivables recognised under other assets.

- **Financial liabilities measured at fair value through profit or loss (fair value PL)**

Financial liabilities that are not measured at amortised cost should be categorised as “financial assets measured at fair value through other profit or loss”. The category comprises the subcategories below:

Financial liabilities mandatorily measured at fair value through profit or loss

The subcategory “financial liabilities mandatorily measured at fair value through profit or loss” includes financial liabilities that do not meet the cash flow condition under IFRS 9 or that are acquired with the intention to repayment in the near future. For this purpose, these financial liabilities must be part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking or they must be derivative financial instruments that are not designated as hedges in effective hedging relationships.

In the UMH Group, only derivative financial instruments are required to be measured at fair value through profit or loss on a regular basis.

Financial assets from contingent consideration through business combinations)

This subcategory includes contingent considerations that the acquirer has classified as financial liabilities in a business combination or analogous application of IFRS 3 for transactions based on IAS 28.

Financial liabilities measured at fair value through profit or loss (fair value option)

Financial liabilities measured at fair value through profit or loss may be assigned to the sub-category “financial liabilities at fair value through profit or loss” if they eliminate or significantly reduce recognition or measurement inconsistencies (accounting mismatches), which are managed as a portfolio based on the fair value or one or more embedded derivatives subject to separation.

For financial liabilities measured at fair value through profit or loss, the result from changes in the fair value of the financial liability attributable to changes in the credit risk of that liability must be recognised in other comprehensive income. The remainder of the change in fair value of the liability is recognised in profit or loss. The amounts recognised in other comprehensive income are not reclassified to profit or loss if the relevant financial liabilities are disposed of.

No financial liabilities are measured at fair value through profit or loss in the UMH Group.

- **Financial liabilities measured at amortised cost (AC)**

Financial liabilities are to be categorised as “financial liabilities measured at amortised cost” for subsequent measurement. This excludes “financial liabilities measured at fair value through profit or loss”, financial liabilities that arise when a transfer of a financial asset does not meet the derecognition requirement or the accounting is based on its continuing involvement, financial guarantees, credit commitments with a below-market interest rate and contingent consideration that is recognised by a purchaser in a business combination in accordance with IFRS 3.

The UMH Group allocates all its liabilities to banks and customers and recognises trade payables under other liabilities in the statement of financial position.

Initial recognition and derecognition of financial assets and liabilities

Derivatives are initially recognised on the trade date. Regular way purchases and sales of non-derivative financial assets are accounted for at the settlement date. Changes in fair value between the trade date and settlement date are recognised in accordance with the category of the financial instrument.

Differences between transaction prices and fair values are recognised in profit or loss on initial recognition if the fair value equals the quoted market price for an identical asset or liability in an active market or is based on a measurement method that uses data only from observable markets. If the fair value at the time of acquisition is derived from transaction prices and this is also used as a measure in the subsequent measurement, changes in the fair value are only recognised in profit or loss if they can be attributed to the change in observable market data. Differences not recognised upon initial recognition are distributed over the term of the relevant financial instruments and recognised accordingly.

Financial assets are derecognised if the contractual rights to cash flows from them expire or are transferred to third parties and there are no significant opportunities and risks associated with the financial assets. If the derecognition criteria for financial assets are not met, the transfer to third parties is accounted for as secured borrowing. Financial liabilities are derecognised if the contractual obligations have been settled, cancelled or expired.

Impairment losses and reversals of impairment losses on financial assets

Impairment losses in accordance with IFRS 9 apply only to financial assets that are debt instruments. However, equity instruments are not within the scope of IFRS 9. Impairment

losses must be recognised for the financial assets below:

- Financial assets pursuant to the IFRS 9 category “financial assets measured at amortised cost”
- Financial assets (only debt instruments) assigned to the IFRS 9 category “financial assets measured at fair value through other comprehensive income”
- Open credit commitments for a currently existing legal obligation to lend (irrevocable credit commitments) if these are not measured at fair value through profit and loss
- Financial guarantees if they are not measured at fair value through profit or loss
- Lease receivables
- Trade receivables and contract assets that come under the scope of IFRS 15

All financial assets are initially assigned to level 1. Purchased or originated credit-impaired assets (POCI) are an exception. 12-month expected credit losses are the minimum risk assessment measurement for level 1 assets.

At the end of each reporting period, the credit risk for each instrument is determined and checked to see whether it has significantly increased since the end of the previous reporting period. For debt instruments, important objective evidence includes financial difficulties on the part of the issuer or debtor, delay or default on interest payments or repayments of principal, failure to comply with ancillary contractually agreed arrangements or the contractually agreed provision of collateral, a significant downgrading in credit rating or issue of a default rating. Macroeconomic factors are not taken into account here as the volume of receivables that are not due daily is of minor importance.

Assets for which the credit risk has increased significantly since initial recognition but there is not any objective evidence that the assets are impaired are assigned to level 2. The impairment for these assets should be measured at the amount of the lifetime expected credit losses.

It can simply be assumed that the credit risk on a financial instrument has not increased significantly since initial

recognition if the financial instrument is determined to have low credit risk at the reporting date (low credit risk exemption). For loans and thus also for promissory note loans, the application of low credit risk exemption in the UMH Group is excluded. However, securities with a low default risk are not subject to an examination for a significant increase in default risk. Investment grade securities are assigned to level 1.

Financial assets that are classified as impaired on the basis of objective evidence must be assigned to level 3. The impairment for these assets should be measured at the amount of the lifetime expected credit losses.

Purchased or originated credit-impaired financial assets (POCI) must initially be recognised at their carrying amount less the expected credit losses over the full term and amortised accordingly at a risk-adjusted effective interest rate. As at the end of the reporting period, only the cumulative changes in lifetime expected credit losses since initial recognition shall be recognised as a loss allowance. These assets are not expected to transfer levels.

The UMH Group uses a standardised default definition to assess the credit-impaired status of a financial asset. The definition of default is based on Article 178 CRR. This definition states that a default event has occurred after 90 days of default.

If a financial asset is more than 30 days past due, the presumption under IFRS 9.5.5.11 may be refuted, according to which the past due risk leads to a significant increase in default risk. Unrated receivables are based on expert assessments. Otherwise, the rating of the counter party available is included.

The expected credit losses of receivables to customers and receivables to investment funds are determined on a collective basis.

In calculating the expected credit losses, the derivation of the expected probability of default to be stated is based on publicly available ratings. If it is determined at the end of the

reporting period that there is no longer a significant increase in the default risk compared with previous reporting dates, the affected financial assets will be transferred back to level 1 and risk provisions reduced to the level of the expected 12-month credit loss. For a return back from level 3, the default status is reversed in accordance with the regulatory definition only after a corresponding period of good conduct.

The simplified approach in accordance with IFRS 9.5.5.15 is used at the UMH Group, whereby for receivables within the scope of application of IFRS 15 and other trade receivables, the expected credit loss over the entire term is initially determined.

For receivables in the scope of the simplified approach, the provision rates to be applied are based on the past experience of the UMH Group. Commission receivables are predominantly current receivables in accordance with IFRS 15, the carrying amount of which, in the experience of the UMH Group, is not influenced by macroeconomic factors.

Direct impairment losses directly reduce the carrying amount of assets. Direct write-downs are recognised if it is expected that the receivable has become uncollectible. These are generally insignificant minimum amounts.

If significant contractual adjustments are made to financial assets, these are derecognised and initially recognised as a new asset. To assess whether there is a substantial modification, a quantitative criterion is used in addition to various qualitative criteria. The threshold here is a change in the present value of the renegotiated contractual cash flows compared to the present value of the original contractual cash flows, which is significant at more than 10%. We consider a significant modification to be appropriate if it involves one of the following types of contractual adjustments: Currency conversion, inclusion or adjustment of equity conversion rights, change of debtor, inclusion of collateral agreements with which the cash flow criterion of IFRS 9 is no longer met. We also consider a significant modification to be appropriate if other contractual adjustments, taking into account the

overall circumstances, have changed the nature of a financial asset to such an extent that a new financial instrument exists within the meaning of IFRS 9. For impaired assets (level 3), the regulations for POCI apply. If contractual adjustments of financial assets have no material impact, they are reviewed for a significant increase in default risk compared to the original date of acquisition.

In the current reporting period, no changes have been made to the assumptions for the calculation or the input factors of expected credit losses.

Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative financial instrument (host) – with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. A derivative that is attached to a financial instrument but is contractually transferable independently of that instrument, or has a different counterparty, is not an embedded derivative, but a separate financial instrument.

If a hybrid contract contains a host contract that is a financial asset, the requirements governing the categorisation of financial assets apply to the entire hybrid contract.

If a hybrid contract contains a host contract that is a financial liability, a derivative should be separated from the host contract and accounted for separately if:

- the economic characteristics and risks of the derivative are not closely related to the economic characteristics and risks of the host contract;
- the separate instrument with the same terms as the derivative would meet the definition of a derivative; and
- the host contract is not measured at fair value through profit or loss.

If these requirements are not met cumulatively, the embedded derivative may not be separated from the host contract. If an embedded derivative is separated, the host contract shall be accounted for in accordance with the appropriate Standards.

If a contract contains one or more embedded derivatives and the host contract is not a financial asset, the entire hybrid contract can be designated at fair value through profit or loss. This does not apply to cases in which embedded derivatives only insignificantly change the contractual cash flows, or if when initially assessing comparable hybrid instruments with little or no analysis it is apparent that embedded derivatives should be separated.

Classes of financial instruments

The classes of financial instruments correspond to line items in the statement of financial position (note [58]).

[7] Fair value measurement of financial instruments

Fair value is the price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants at the measurement date. The fair value of financial instruments is determined on the basis of market prices or observable market data at the end of the reporting period or by using recognised measurement models. Investment fund units are measured at the redemption price less a redemption charge, if such a charge is stipulated in the contractual terms. If securities and derivatives can be traded with sufficient liquidity on active markets, i.e. market prices are available, or tradable prices can be established by active market participants, then these prices are used as the basis for determining fair value. If no prices are available from liquid markets, fair value is determined using techniques whose parameters are based on observable market data. Financial instruments with short remaining terms or repayable on demand are measured at their nominal amount. These instruments include cash in hand, current account credit balances and trade receivables.

[8] Currency translation

All monetary assets and liabilities are translated at the closing rate at the end of the reporting period into the relevant functional currency of the entities in the UMH Group. The translation of non-monetary assets and liabilities depends on the way in which these assets and liabilities are measured. If non-monetary assets are measured at amortised cost, they are translated using the historical exchange rate. Non-monetary assets measured at fair value are translated at the closing rate. Income, expenses, gains and losses are translated at the prevailing closing rate when they are recognised either in profit or loss or in other comprehensive income.

If the functional currency of subsidiaries included in the financial statements of the UMH Group is different from the group's reporting currency (euro), all assets and liabilities are translated at the closing rate. Equity is translated at the historical rate. The resulting difference is reported in the currency translation reserve. Income and expenses are translated at the average rate. In most cases, the functional currency of the entities included in the consolidated financial statements is the euro, i.e. the group's reporting currency.

[9] Cash reserve

Cash and cash equivalents are cash in hand and balances with central banks and other government institutions. Cash and cash equivalents are measured at their nominal amount.

[10] Loans and advances to banks and customers

Loans and advances to banks and customers include all receivables that are categorised either as "financial assets measured at amortised cost", "financial assets at fair value through profit or loss", "financial assets measured at fair value through other comprehensive income".

Loans and advances to banks and customers are measured at amortised cost using the effective interest method if they meet the cash flow criterion of IFRS 9 and are managed

within the “hold” business model. Apart from a few exceptions, this is the case in the receivables portfolio of the UMH Group. The fair value option was not used by the UMH Group for receivables.

Interest income from loans and advances to banks and customers is recognised under interest income from lending and money market operations.

Premiums, discounts and transaction costs are recognised in the income statement under net interest income. Deferred interest on receivables and premiums and discounts are reported with the respective loans and receivables under the corresponding statement of financial position items. Premium and discount amounts are allocated over the term of the loan or receivable using the effective interest method.

[11] Allowances for losses on loans and receivables

Allowances for losses on loans and receivables for cash reserve, loans and advances to banks and customers, financial assets and other assets, which are categorised at amortised cost or classified as finance leases, are deducted from assets as a separate item in the statement of financial position. Additions to and reversals of risk provisions for these financial position items are recognised in profit or loss as allowances for losses.

Impairment losses on loans and advances to banks and customers are determined in accordance with the regulations of IFRS 9 applicable to the respective category of financial assets and, depending on this, are disclosed as a separate item in the statement of financial position or recognised in the reserve from other comprehensive income.

Uncollectible loans and receivables are written off immediately; any subsequent receipts from loans and receivables already written off are recognised in the income statement.

Loan loss provisions also include changes to provisions for financial guarantees. Additions to and reversals of provisions

for financial guarantees are also recognised through profit or loss in allowances for losses on loans and receivables.

In the past financial year, no allowances for losses on loans and receivables were recognised in accordance with IFRS 9.5.5.

[12] Investment securities

Investment securities comprise bearer bonds and other fixed income securities, equities and other variable-yield securities and other shareholdings and investments in companies that are not materially significant, except where such securities or shares are not classified as held for trading. Investment securities also include shares in subsidiaries and investments in joint ventures and associates.

This item mainly consists of investment fund units. These investments comprise short-term investments for the purposes of liquidity management (liquidity), initial funding for newly launched funds (funding), investments in pension plans or employee retention programmes (employee investments) or longer-term capital investments (strategic investments). In addition, temporary investments in funds used to protect the liquidity of these funds are allocated to the ‘funding’ category.

The initial recognition of investment securities is generally based on fair value. The subsequent measurement of these financial assets depends on the IFRS 9 category to which they are assigned on acquisition. Gains and losses on the remeasurement of investment securities are reported under other net remeasurement income on financial instruments.

If these portfolios are equity instruments, they must be measured at fair value through profit and loss. In the UMH Group, the fair value OCI option was used for investments and unconsolidated subsidiaries held as at 1 January 2018. In the event of acquisitions of new equity instruments after 1 January 2018, the decision on whether to use the fair value OCI option is made on a case-by-case basis. If this item is a debt instrument, as is regularly the case with our own

investments in investment fund units, it must be measured at fair value through profit or loss because the cash flow criterion of IFRS 9 is not met for these assets.

[13] Shares in companies accounted for using the equity method

Investments in associates and joint ventures are recognised at cost in the consolidated statement of financial position when significant influence is acquired or the entity is established. In subsequent years, the carrying amount of the equity is adjusted to take into account the group’s share of the changes in equity. The equity carrying amount is reduced by dividend payments received. The group’s share of the profit or loss from the associate or joint venture is recognised in the consolidated income statement as net income from companies accounted for using the equity method; the group’s share of other comprehensive income is recognised in other comprehensive income. Gains, losses, impairment losses and reversals of impairment losses on investments in associates and investments in joint ventures accounted for using the equity method are recognised in net income from investment securities.

[14] Property, plant and equipment

Property, plant and equipment comprise the following assets used by the group for its own purposes: land and buildings that are expected to be used over more than one period and operating and office equipment.

Property, plant and equipment are measured at cost less depreciation, which is reduced by cumulative depreciation and cumulative impairment losses in subsequent financial years. Depreciation is calculated on a straight-line basis over the useful life. Land is not depreciated.

The normal useful lives of property, plant and equipment are determined by taking into account expected physical wear and tear, technical obsolescence and legal and contractual restrictions.

If there are indications due to facts or circumstances that the assets may be impaired, the recoverable amount is determined. An impairment loss is recognised if the recoverable amount is less than the carrying amount at which the asset is recognised. The recoverable amount is the higher of the fair value less costs to sell and value in use.

The depreciation expense on property is recognised as an administrative expense. Impairment losses and gains are recognised in other operating income (note [33]).

[15] Intangible assets

In addition to purchased software, intangible assets also include distribution and exclusive rights, customers and any goodwill.

Intangible assets are recognised at cost less depreciation. For the purpose of subsequent measurement, software, purchased customer relationships and other intangible assets with a finite useful life are reduced by cumulative depreciation and cumulative impairment losses.

If there are indications at the end of the reporting period that an intangible asset with a finite useful life may be impaired, the asset is tested for impairment. Intangible assets with indefinite useful lives, intangible assets not yet ready for use and goodwill are not amortised but are instead tested for impairment once a year. The Union Investment Group does not develop any of its own software as part of its software projects.

However, standard software products are customised, resulting in expenses that are regularly capitalised as ancillary costs for purchased software licenses.

The amortisation expense on intangible assets is included in administrative expenses (note [32]). Impairment losses, reversals of impairment losses and gains and losses on disposals of intangible assets are recognised under other operating result (note [33]).

[16] Right of use assets

Right of use assets under rental and lease agreements that have been capitalised under IFRS 16 are recognised under this item.

The right of use asset is initially measured at cost. During subsequent measurement, the right of use asset is measured at amortised cost less accumulated depreciation and impairment losses and taking into account any remeasurements of the lease liabilities.

Contractually granted renewal options extending beyond the basic lease term are taken into account at the time of initial acquisition, provided it is probable at the time of acquisition that the renewal option will be exercised. In the case of renewal options where the rent after renewal is equal to or higher than the rent during the basic lease term, it is not considered sufficiently certain that the renewal option will be exercised. This assumption can be refuted in an individual case if the economic consequences for the lessee of not exercising the renewal option, taking into account factors specific to the contract, the asset and the company and market-based factors, would be significant. The probability of renewal options for individual contracts being exercised is regularly assessed with the departments responsible at the time of initial acquisition and for subsequent measurement purposes.

They are depreciated in accordance with IAS 16 over the expected term of the lease. Depreciation is recognised in administrative expenses (note [32]).

The company elected not to capitalise these right of use assets for short-term leases with a term of less than one year and for leases of low-value assets.

If there are indications due to facts or circumstances that the assets may be impaired, the recoverable amount is determined. An impairment loss is recognised if the recoverable amount is less than the carrying amount at which the asset is recognised. The recoverable amount is the higher of the fair value

less costs to sell and value in use. Impairment losses and gains are recognised in other operating income (note [33]). The provisions set out in IAS 36 Impairment of Assets are to be used to calculate impairment.

[17] Assets and liabilities held for sale

The carrying amount of non-current assets or disposal groups for which a sale is planned is recovered principally through a sale transaction rather than through their continuing use. These assets and disposal groups therefore need to be classified as held for sale if the criteria set out below are satisfied.

To be classified as held for sale, the assets or disposal groups must be available for immediate sale in their present condition, subject only to terms that are usual and customary for sales of such assets or disposal groups, and it must be highly probable that a sale will take place. A sale is deemed to be highly probable if there is a commitment to a plan to sell the asset or disposal group, an active programme to locate a buyer and complete the plan has been initiated, the asset or disposal group is being actively marketed for sale at a price that is reasonable in relation to the current fair value, and a sale is expected to be completed within one year of the date on which the asset or disposal group is classified as held for sale.

Assets classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. The assets are no longer depreciated or amortised from the date on which they are classified as held for sale.

Assets and disposal groups classified as held for sale are shown separately in the statement of financial position under non-current assets and disposal groups classified as held for sale and liabilities included in disposal groups classified as held for sale. Gains and losses arising on remeasurement at the lower of carrying amount and fair value less costs to sell and gains and losses on the sale of these assets or disposal groups that represent a component of an entity are recognised in the consolidated income statement under net income from

discontinued operations. Gains and losses arising on remeasurement and on the sale of assets or disposal groups that do not represent a component of an entity are recognised in the consolidated income statement under other operating result (note [33]).

Occasionally, the UMH Group has holdings of funding provided for a number of investment funds, as a result of which the group is in a position to exercise control over the fund concerned. These holdings are consolidated unless they satisfy the criteria to be classified as “held for sale” as a disposal group and are reported according to IFRS 5. This is the case if the UMH Group actively endeavours to sell off the holdings immediately in order to ensure that the funding is repaid and if it is highly probable that the investment funds concerned will no longer be under the control of the UMH Group within one year of the initial acquisition of the holdings. They are measured at fair value in line with IFRS 9 in accordance with IFRS 5.5(c).

[18] Liabilities to banks and customers

Liabilities to banks and customers include all registered liabilities which are not classified as “held for trading”. Liabilities to banks and customers are generally recognised at cost using the effective interest method. The fair value option was not used by the UMH Group for financial liabilities.

Interest expenses for liabilities to banks and customers are recognised separately in net interest income.

[19] Asset and liability derivatives

Derivative financial instruments with positive and negative fair values are assigned to the statement of financial position items ‘Asset derivatives’ and ‘Liability derivatives’ if, despite the intention to hedge, the requirements for hedge accounting have not been met. Gains and losses on the remeasurement of these items are reported under other net remeasurement income on financial instruments.

Figures reported in the item “Liability derivatives” represent funding gaps in capital preservation commitments in accordance with Section 1 (1) no. 3 of German Personal Pension Plan Certification Act (AltZertG) in connection with the UniProfiRente product issued by Union Investment Privatfonds GmbH to the extent that such funding gaps arise on the measurement of each individual contract as specified in Section II no. 1 in conjunction with Section V of circular 2/2007 (BA) issued by Germany’s Federal Financial Supervisory Authority (BaFin) on 18 January 2007. The amounts recognised as liabilities in each case represent the difference between the present value of the pension plan contributions guaranteed in accordance with Section 1 (1) no. 3 AltZertG and the market value of the customer portfolio, provided that this difference is positive.

In addition, the ‘Liability derivatives’ statement of financial position item includes funding gap risks arising from guarantee funds that were issued by asset management companies belonging to the group. The carrying amount is recognised as the difference between the present value of the guarantee commitments at the next guarantee date of a fund and the net asset value of the fund, provided that this difference is positive.

Under the ‘Asset derivatives’ statement of financial position item, a call option is capitalised that entitles UMH AG to acquire additional shares in ZBI Partnerschafts-Holding GmbH and can be exercised on 14 May 2022 at the earliest. In addition, UMH AG has recognised put options, as the writer, that entitle the option holder to offer UMH AG shares in ZBI Partnerschafts-Holding GmbH on 30 April 2022 at the earliest. These are reported under the ‘Liability derivatives’ item.

The exercise price of the call and put options is the normalised EBT (earnings before taxes) attributable to the optioned shares multiplied by a contractually agreed factor. The normalised EBT equals the company’s average annual consolidated earnings before taxes for the last three full financial years before the exercise of the respective option. On this basis, the Black-Scholes model is used to measure

these options, the key parameters of which include the expected normalised EBT for the last three full financial years before the expected exercise date and the current enterprise value of the ZBI Group (strike price).

When determining the carrying amounts of market values from derivative financial instruments, valuation haircuts for credit risk or own credit risk are taken into account, if necessary.

[20] Provisions for employee benefits

Provisions for employee benefits are recognised in accordance with IAS 19.

A distinction is made in occupational pension schemes between defined contribution plans and defined benefit plans. In defined contribution plans, the entity concerned has no obligation other than to pay contributions to an external pension provider. The providers covering the pension entitlements of employees in the Union Investment Group’s German companies are as follows: BVV Versicherungsverein des Bankgewerbes a.G., Berlin (BVVaG), BVV Versorgungskasse des Bankgewerbes e.V., Berlin (BVVeV), R+V Pensionsversicherung a.G., Wiesbaden (RVPaG), R+V Pensionsfonds Aktiengesellschaft, Wiesbaden (RVP) and Versorgungskasse genossenschaftlich orientierter Unternehmen VGU e.V., Wiesbaden (VGUeV). All these plans are defined benefit plans, but they are treated as defined contribution plans in accordance with the rules for multi-employer plans specified in IAS 19.34.

Under defined benefit plans, the entity concerned has an obligation to pay the benefits promised to current and former employees, although there is a distinction between plans funded by provisions and those funded by third-party arrangements.

In accordance with IAS 19, the Union Investment Group recognises provisions for obligations arising in connection with pension entitlements and current benefits payable to eligible current and former employees of the group and their

surviving dependants (the plans being funded by both employer and employees). There are various different pension systems in operation at the individual Union Investment Group sites depending on local legal, financial and tax circumstances. However, all the systems are generally based on the length of service and the individual employee's level of remuneration.

Since 1 November 2007, the remaining pension obligations under employer-funded pension commitments to retirees and former employee beneficiaries with vested pension entitlements and to a significant proportion of the beneficiaries who are still employed have been funded via VGUEV or RVP. As these remaining obligations are funded via external pension providers, the UMH Group does not have any direct payment obligations in respect of these people.

The defined benefit obligation of UMH Group companies is measured in accordance with IAS 19 using the projected unit credit method and is based on actuarial reports. The calculation of the obligation takes into account current projections of mortality, invalidity and employee turnover, expected increases in salaries, entitlements and pensions, and uses a realistic discount rate. The discount rate is based on interest rates currently available for long-term corporate bonds from investment-grade issuers, and was set at 1.00 % (previous year: 1.75 %). Mortality and invalidity assumptions are derived from the Heubeck 2018 G mortality tables. Irrespective of the investment structure of the existing plan assets and pension insurance policies, the expected return for the financial year on the plan assets and pension insurance policies was determined using a discount factor of 1.75 %.

The employer-funded pension obligations are covered by VGUEV and RVP assets, which may be used solely for the purposes of meeting the pension commitments and are protected from the claims of any creditors. The VGUEV and RVP assets are plan assets as defined by IAS 19 and are netted against the pension obligations. If the assets exceed the pension obligations, an asset item is reported in accordance with IAS 19. If the assets do not cover the obligation, the net obligation is recognised under provisions for pensions.

In some cases in the past, pension insurance policies were taken out to cover the risks arising from pension obligations. Some of these policies are pledged to employees. The premiums are paid by the Union Investment Group.

The obligations arising from the deferred compensation scheme (employee-funded) are covered by investments in Union Investment Group investment fund units. Since September 2013, these investment fund units have been held in a contractual trust arrangement (CTA) by R+V Treuhand GmbH, Wiesbaden. They are plan assets as defined by IAS 19 and are netted against the corresponding pension obligations.

Actuarial gains or losses can arise from increases or decreases in the present value of the defined benefit obligation, the fair value of plan assets or reimbursement rights. The reasons for these actuarial gains or losses can include changes in the calculation parameters, changes in the estimates of risk from pension obligations, differences between the actual and expected return on plan assets and differences between the actual and expected return on reimbursement rights.

Actuarial gains and losses on defined benefit obligations, plan assets and reimbursement rights are recognised in other comprehensive income in accordance with IAS 19.120(c).

Provisions are recognised to cover obligations arising from partial retirement schemes. Since 2015, the investment fund units to secure partial retirement claims have been held in a contractual trust arrangement (CTA) by R+V Treuhand GmbH, Wiesbaden. The provisions for partial retirement arrangements are netted against the fair value of the investment units.

[21] Other provisions

Other provisions are recognised in accordance with IAS 37.

When determining the amount to be recognised for provisions, the UMH Group must make assumptions regarding the probability of an outflow of resources. Although these

assumptions are a best estimate based on the prevailing circumstances in each case, the need to make assumptions means that a degree of uncertainty is involved. When measuring provisions, assumptions also have to be made regarding the likely amount of the outflow of resources. A change in the assumptions used can alter the amount recognised for the provisions.

Provisions for financial guarantees that fall within the scope of IFRS 9 are measured at fair value on initial recognition. They are subsequently measured at the higher of any provision recognised in accordance with IAS 37 and the amount initially recognised.

[22] Lease liabilities

Liabilities under non-cancellable leases and rental agreements in accordance with IFRS 16 are to be disclosed under this item. They are measured at the present value of the remaining lease payments, discounted using the interest rate implicit in the rental agreement or, if this interest rate cannot be readily determined, using the lessee's company-specific incremental borrowing rate. Taking into account the lease term, the incremental borrowing rates are calculated on the basis of observable swap curves (base curve) with the same currency, supplemented by a credit spread.

Interest expenses on lease liabilities are reported in net interest income (note [26]).

[23] Income

Interest and dividends

Interest is recognised using the effective interest method and recognised on an accrual basis.

The cash flows used to calculate the effective interest rate used take account of contractual arrangements in connection with the respective financial assets and financial liabilities.

Dividend income from unconsolidated subsidiaries, equity investments and distributions from investment fund units are recognised at the date that the legal entitlement to the payment arises.

Revenue from contracts with customers

In the UMH Group, contracts are concluded that may include the provision of multiple services. The resulting revenue is posted separately if a service is to be classified as a separately definable performance obligation.

Revenue from contracts with customers is recognised when the underlying services have been performed, it is probable that the economic benefits will flow to the group and the amount of the income can be reliably determined. Thus, income is either recognised over the period in which the underlying services are performed or recognised directly in profit or loss after the service has been performed.

In the UMH Group, revenue from contracts with customers is primarily commission income.

Commissions earned over the period of the performance obligations include, in particular, fees for the management of investment funds or for asset management in other formats, as well as for the holding of securities ("union depots").

The UMH Group receives performance-based management fees from some contracts. These are contingent upon exceeding agreed absolute or relative outperformance criteria that vary from product to product and may include monthly, quarterly, annual or longer measurement periods. In the case of performance-based management fees, revenue is received when the amount of that provision can be reliably estimated and it is highly likely that there will be no significant reversal in the recognised revenue as soon as uncertainty ceases to exist. Due to the risks of a downturn on the capital markets which cannot be excluded, these commissions are therefore regularly collected if the agreed outperformance criteria have been met in relation to the defined benchmark and the measurement

period, as there is no significant risk of cancellation up until this date.

For some contracts with customers, the asset management companies of the UMH Group have the option of involving third parties in the provision of services to customers. In these cases, with few exceptions, the UMH Group is generally regarded as the originator ("principal") of these agreements because it has the power to dispose of the services promised to the customers.

The practical expedient waiver to adjust consideration to impact from a financing component (IFRS 15.63), recognition of costs of obtaining a contract as an expense (IFRS 15.94) and waiver of performance obligations (IFRS 15.121) are applied.

[24] Income taxes

Current and deferred tax assets are reported under income tax assets; current and deferred tax liabilities are reported under income tax liabilities.

Current income tax assets and liabilities are calculated using current tax rates. A corporation tax rate of 15.0 % (previous year: 15.0 %) and a solidarity surcharge of 5.5 % (previous year: 5.5 %) of corporation tax is used for the German companies. The trade tax rate for the subsidiaries was 16.1 % (previous year: 16.1 %). Deferred tax assets and liabilities arose in connection with differences between the carrying amounts of assets and liabilities in accordance with IFRS and those in the tax base. These differences are expected to affect income tax liabilities or refunds in the future (temporary differences). Deferred taxes were measured using the tax rates expected to apply in the country of the company concerned in the period in which the taxes will actually be paid or recovered. Deferred tax assets for as yet unused tax loss carry-forwards are only recognised if it is probable that there will be sufficient future taxable profits in the same tax entity against which the losses can be utilised. Current tax receivables and payables are reported separately and are not netted, nor are they discounted.

Deferred tax assets and liabilities are recognised either in profit or loss (under income taxes) or in equity, depending on the treatment of the items to which they relate. Deferred tax assets and deferred tax liabilities are netted in the statement of financial position if they relate to the same tax authorities.

Other, non-income-related taxes are reported under other operating result (note [33]).

There were no changes to tax rates or tax legislation after the end of the reporting period that could have a significant impact on the UMH Group's income tax assets or liabilities.

The income tax expense represents the total of the current tax expense and the deferred taxes. The current tax expense is calculated on the basis of the taxable income for the year. Taxable income is different from the net income for the year reported in the income statement because taxable income disregards income and expense that is not taxable / deductible for tax purposes or that is only taxable/deductible for tax purposes in subsequent years. The UMH Group's current tax liabilities were calculated using the tax rates in force at the end of the reporting period or enacted prior to the end of the reporting period.

The UMH Group is required to pay income taxes in various countries, and the basis for measuring this liability varies from country to country. Provisions for taxes worldwide were recognised on the basis of profits determined in accordance with local stipulations and locally applicable tax rates. However, there are some transactions whose final taxation cannot be definitively determined during the normal course of business. The amount of the provisions set aside for these matters is based on estimates as to the probability of additional tax becoming due in the future and the amount of such liabilities. An appropriate provision is recognised for any risks arising from different tax treatment. If the final taxation of these transactions differs from the tax originally assumed, this will affect the current and deferred taxes recognised in the period in which the taxation is definitively determined.

The UMH Group also needs to make estimates to determine whether any impairment losses need to be recognised on deferred tax assets. There are two key elements in deciding whether deferred tax assets are impaired: an assessment of the probability that temporary measurement differences will reverse and an assessment as to whether the loss carry-forwards that have given rise to the recognition of deferred tax assets can be utilised. These factors depend on the availability of future taxable profits during the periods in which the temporary measurement differences reverse and the tax loss carry-forwards can be utilised. The interpretation of complex tax legislation and the amount and timing of future taxable income are subject to a degree of uncertainty. There may be changes to the taxes payable in future periods as a consequence of differences between actual outcomes and assumptions or future changes in these assumptions, especially in view of the increasing interdependence of international markets.

[25] Contingent liabilities

Contingent liabilities are possible obligations arising from past events. The existence of these obligations will only be confirmed by future events outside the control of the UMH Group. Present obligations arising out of past events but not recognised because of the improbability of an outflow of resources embodying economic benefits also constitute contingent liabilities.

The amount of contingent liabilities is disclosed in the notes, unless the possibility of an outflow of resources embodying economic benefits is extremely low.

Contingent liabilities are measured at the best estimate of possible future outflows of resources embodying economic benefits.

Contingent liabilities for litigation risks are recognised when it is more likely than not to believe that there is no present obligation, but the possibility that the litigation will result in a liability for a UMH Group entity is not unlikely. Risks from legal disputes are measured according to the probability of them occurring.

Consolidated income statement disclosures

[26] Net interest income

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest income and current income	8,583	8,880	-297
from lending and money market operations	116	283	-167
from negative interest on financial assets	-1,335	-952	-383
from investment fund units	8,180	8,342	-162
from other receivables	14	–	14
from equity investments	8	6	2
from investments in subsidiaries	1,600	1,201	399
Interest expenses	-2,328	-958	-1,370
for liabilities to banks and customers	-1,077	-1,090	13
for lease liabilities	-994	–	-994
for other liabilities	-257	132	-389
Total	6,255	7,922	-1,667

Interest income collected using the effective interest method amounts to EUR 116 thousand (previous year: EUR 283 thousand).

[27] Allowances for losses on loans and receivables

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Allowances for losses on loans and receivables to banks	–	–	–
Addition	–	–	–
Reversal	–	–	–
Net income from modification	–	–	–
Directly recognised impairment losses	–	–	–
Receipts from directly recognised loans and receivables	–	–	–
Allowances for losses on loans and receivables to customers	-54	-27	-27
Addition	–	–	–
Reversal	–	–	–
Net income from modification	–	–	–
Directly recognised impairment losses	-55	-29	-26
Receipts from directly recognised loans and receivables	1	2	-1
Allowances for other receivables	–	–	–
Addition	–	–	–
Reversal	–	–	–
Net income from modification	–	–	–
Directly recognised impairment losses	–	–	–
Receipts from directly recognised loans and receivables	–	–	–
Total	-54	-27	-27

Contracts with customers within the meaning of IFRS 15 account for an impairment loss of EUR -55 thousand (previous year: EUR -29 thousand).

[28] Net fee and commission income

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Fee and commission income	2,629,086	2,448,308	180,778
from sales commission	391,705	310,042	81,663
from management fees	2,070,272	1,979,838	90,434
from securities custody accounts	53,616	52,349	1,267
Other	113,493	106,079	7,414
Fee and commission expenses	-1,161,088	-1,032,439	-128,649
for volume-based commission	-729,382	-680,074	-49,308
for revenue-based commission	-351,680	-282,455	-69,225
for securities custody accounts	-4,715	-4,169	-546
Other	-75,311	-65,741	-9,570
Total	1,467,998	1,415,869	52,129

Commission income is attributable to revenue from contracts with customers including funds.

The volume-based sales commission generated from the sale of fund units with a front-end fee, which is dependent on the transaction volume is used, among other things, to cover sales and marketing expenses. The amount of front-end fees is calculated in each case according to a percentage surcharge on the net asset value of the fund unit issued under investment conditions. Front-end fees are recognised at the date of the sale.

The management fees represent the payment of consideration for the management of mutual funds, special funds, individual portfolios and portfolios forming part of advisory agreements with institutional clients. Management fees vary depending on the asset classes being managed

and sometimes include performance-based components. In the case of performance-based management fees, revenue is received if the agreed outperformance criteria have been met in relation to a defined benchmark and the agreed measurement period, as there is no significant risk of cancellation up until this date. Flat-rate payments are partly levied to cover costs defined in the contract. The ongoing management fees and lump-sum payments, which are contractually agreed as a percentage of the assets under management, are recognised over a period of time and generally settled on a monthly basis.

Management fees also include investment compensation agreed for the management of the property funds or other alternative investment vehicles. These are collected at the time of the transfer of benefits and encumbrances or, in the case of project developments, at the time the payments are settled in the investment funds in accordance with construction progress.

The management fees shown in the table above include commission income from securities lending transactions which the management companies of the UMH Group recognised for the account of the customers. Any income is received over the period in which the service was performed. The commission income from securities lending transactions is distributed between the Group's management companies and investment funds or the assets managed for clients in other formats, from which the securities are lent.

Income from securities custody accounts are primarily attributable to recognising custody account fees over a period for the union depots held by Union Investment Service Bank AG, Frankfurt am Main. These custody account fees are accrued monthly as receivables and are usually collected in December. This also includes fees for other services provided as part of the custody account management, which are collected at the time the service is provided.

Other fee and commission income includes income from the brokerage of investment funds of external asset management companies.

[29] Net income from investment securities

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Gains and losses from the disposal of shares and other variable-yield securities (including other shareholdings)	2,443	-23,027	25,470
Gains and losses from the disposal of investment fund units	2,443	-23,027	25,470
Total	2,443	-23,027	25,470

[30] Other net remeasurement income on financial instruments

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Gains and losses on derivatives used for purposes other than trading	-58,311	-22,728	-35,583
Fair value gains and losses on derivatives used for purposes other than trading	-52,850	-20,472	-32,378
Realised gains and losses on derivatives used for purposes other than trading	-5,461	-2,256	-3,205
Gains and losses from contingent consideration through business combinations	-	-11,000	11,000
Remeasurement income on financial liabilities from contingent consideration	-	-5,000	5,000
Realised gains and losses on liabilities from contingent consideration	-	-6,000	6,000
Income from financial assets mandatorily measured at fair value through profit or loss	14,901	-17,111	32,012
Income from financial assets mandatorily measured at fair value through profit or loss	14,901	-17,111	32,012
Net remeasurement income from investment units mandatorily measured at fair value through profit or loss	14,901	-17,111	32,012
Total	-43,410	-50,839	7,429

Gains and losses from contingent consideration through business combinations in the previous year relate to a transaction pursuant to IAS 28 and depends on the sales targets achieved.

[31] Net income from companies accounted for using the equity method

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Joint ventures	6,578	6,221	357
Associates	27,293	10,890	16,403
Total	33,871	17,111	16,760

[32] Administrative expenses

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Staff costs	-428,002	-405,649	-22,353
Wages and salaries	-374,560	-354,805	-19,755
Social security contributions	-38,728	-36,330	-2,398
Pensions and other post-employment benefit expenses	-14,714	-14,514	-200
Other administrative expenses	-412,742	-450,488	37,746
IT expenses	-105,488	-104,880	-608
Public relations/marketing	-75,246	-78,119	2,873
Consulting	-57,883	-66,037	8,154
Office expenses	-45,867	-51,171	5,304
Property and occupancy costs	-21,834	-41,985	20,151
Miscellaneous	-106,424	-108,296	1,872
Depreciation and amortisation expense	-68,704	-38,547	-30,157
Property, plant and equipment	-4,807	-5,463	656
Intangible assets	-38,603	-33,084	-5,519
Right of use assets	-25,294	–	-25,294
Total	-909,448	-894,684	-14,764

[33] Other operating result

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Other operating income	33,133	37,827	-4,694
Income from the reversal of deferred liabilities	11,839	13,328	-1,489
Income from the refund of other taxes	6,637	6,890	-253
Income from the reversal of provisions	979	3,293	-2,314
Income from exchange differences on currency translation	176	241	-65
Income from deconsolidation	847	–	847
Rental income	471	460	11
Other income from leases	1	–	1
Miscellaneous other operating income	12,183	13,615	-1,432
Other operating expenses	-13,608	-8,408	-5,200
Expenses for other taxes	-9,392	-2,041	-7,351
Write-downs on purchased customer relationships	-474	-474	–
Expenses for exchange differences on currency translation	-331	-357	26
Other expenses from leases	-36	–	-36
Impairment losses on intangible assets	–	-3,502	3,502
Impairment losses on property, plant and equipment	–	-85	85
Expenses for restructuring measures	–	-26	26
Miscellaneous other operating expenses	-3,375	-1,923	-1,452
Net earnings from non-current assets held for sale and disposal groups that do not represent a component of an entity	73,006	–	73,006
Net earnings from disposal groups held for sale that do not represent a component of an entity	73,006	–	73,006
Total	92,531	29,419	63,112

[34] Income taxes

The breakdown of income taxes is as follows:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Current tax expense	-187,254	-175,562	-11,692
Deferred taxes	17,580	20,745	-3,165
Total	-169,674	-154,817	-14,857

The following reconciliation shows the relationship between consolidated earnings before taxes and income taxes in the financial year:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Consolidated earnings before taxes	650,186	501,744	148,442
× income tax rate	31.260 %	31.190 %	0.070 %
= expected income tax expense in financial year	203,248	156,494	46,754
Deduction from tax owing to tax-exempt income	-41,169	-9,708	-31,461
Additional taxes due to non-deductible expenses	5,936	6,497	-561
Trade tax variance	5,423	4,097	1,326
Tax rate differences on income subject to taxation in other countries	-4,274	-3,723	-551
Effects of tax rate changes and new taxes	-17	–	-17
Current tax expense/income relating to prior periods	-914	-631	-283
Deferred tax expense/income relating to prior periods	256	-72	328
Change in impairment of deferred tax assets	-155	-184	29
Other	1,340	2,047	-707
Tax expense in accordance with IFRS	169,674	154,817	14,857

The deferred tax income attributable to temporary differences or the reversal thereof that did not result from either loss carry-forwards or tax rate differences amounted to EUR 17,836 thousand (previous year: EUR 20,674 thousand).

The deferred tax expense/income attributable to tax rate changes or the introduction of new types of tax is shown separately in the reconciliation.

Statement of comprehensive income disclosures

[35] Amounts reclassified to profit or loss

Exchange differences on currency translation of foreign subsidiaries held for sale in the amount of EUR -3,508 thousand were reclassified to the consolidated income statement in the financial year due to the change in the consolidated group. EUR -8 thousand was incurred in losses from the currency translation of foreign subsidiaries held for sale in the financial year (previous year: EUR -1,688 thousand).

As in the previous year, there were no additional reclassifications from other comprehensive income to the consolidated income statement in the financial year.

[36] Income taxes relating to components of other comprehensive income

Income taxes relating to components of other comprehensive income:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
The table below shows the income taxes relating to the various components of other comprehensive income:	1,655	1,265	390
Income taxes relating to components of other comprehensive income	0	-31	31
The table below shows the income taxes relating to the various components of other comprehensive income (after taxes)	1,655	1,234	421
Exchange differences on currency translation of foreign subsidiaries (before taxes)	-8	-1,657	1,649
Income taxes relating to components of other comprehensive income	0	-31	31
Exchange differences on currency translation of foreign subsidiaries (after taxes)	-8	-1,688	1,680
Share of other comprehensive income of joint ventures and associates accounted for using the equity method (before taxes)	1,663	2,922	-1,259
Income taxes relating to components of other comprehensive income	-	-	-
Share of other comprehensive income of joint ventures and associates accounted for using the equity method (after taxes)	1,663	2,922	-1,259
Amounts not reclassified to profit or loss (before taxes)	-10,794	-11,490	696
Income taxes relating to components of other comprehensive income	7,281	7,028	253
Amounts not reclassified to profit or loss (after taxes)	-3,513	-4,462	949

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Gains and losses from equity instruments for which the fair value OCI option was exercised (before taxes)	1,882	-2,136	4,018
Income taxes relating to components of other comprehensive income	-21	22	-43
Gains and losses from equity instruments for which the fair value OCI option was exercised (after taxes)	1,861	-2,114	3,975
Actuarial gains and losses on defined benefit plans (before taxes)	-12,676	-9,202	-3,474
Income taxes relating to components of other comprehensive income	7,302	7,004	298
Actuarial gains and losses on defined benefit plans (after taxes)	-5,374	-2,198	-3,176
Share of other comprehensive income of joint ventures and associates accounted for using the equity method (before taxes)	-	-152	152
Income taxes relating to components of other comprehensive income	-	-	-
Share of other comprehensive income of joint ventures and associates accounted for using the equity method (after taxes)	-	-152	152
Other comprehensive income (before taxes)	-9,139	-10,225	1,086
Income taxes relating to components of other comprehensive income	7,281	6,997	284
Other comprehensive income (after taxes)	-1,858	-3,228	1,370

Consolidated statement of financial position disclosures

[37] Cash reserve

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Cash in hand	17	30	-13
Total	17	30	-13

[38] Loans and advances to banks

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks in Germany	510,566	475,724	34,842
of which repayable on demand	509,188	473,778	35,410
Loans and advances to banks outside Germany	30,929	296,919	-265,990
of which repayable on demand	27,837	293,791	-265,954
Total	541,495	772,643	-231,148

The maximum risk for receivables is the carrying amount.

[39] Loans and advances to customers

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to customers in Germany	66,779	50,395	16,384
Loans and advances to customers outside Germany	42,663	33,166	9,497
Total	109,442	83,561	25,881

The carrying amount is the maximum credit risk for all receivables. In the previous year, loans and advances to customers included loans of EUR 16 thousand secured by mortgages. There were no secured receivables in the financial year.

There were no employer loans to salaried staff (previous year: EUR 16 thousand).

In addition, they include receivables from customers of EUR 5,869 thousand (previous year: EUR 7,115 thousand) in respect of deferred custody account fees for investment accounts under Germany's Capital Accumulation Act (VermBG).

[40] Asset derivatives

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
From other transactions	28,136	48,924	-20,788
Total	28,136	48,924	-20,788

[41] Investment securities

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Equities and other variable-yield securities	1,477,112	975,205	501,907
Equities	31	32	-1
Investment fund units	1,470,948	969,640	501,308
Other shareholdings	6,133	5,533	600
Investments in subsidiaries	26,361	22,847	3,514
Total	1,503,473	998,052	505,421

Changes in investment securities

	Equities and other variable-yield securities	Investments in subsidiaries	Total
	EUR thousand	EUR thousand	EUR thousand
Carrying amount as at 1 Jan. 2018	1,338,642	29,203	1,367,845
Cost as at 1 Jan. 2018	1,331,068	21,202	1,352,270
Additions	763,319	968	764,287
Reclassifications	3,336	-1,149	2,187
Disposals	-1,106,877	-14,338	-1,121,215
Currency translation	-163	-33	-196
Cost as at 31 Dec. 2018	990,683	6,650	997,333
Cumulative changes resulting from measurement at fair value as at 1 Jan. 2018	7,574	8,001	15,575
Changes recognised in other comprehensive income resulting from measurement at fair value in reporting period	3,858	-5,993	-2,135
Changes resulting from measurement at fair value through profit or loss in reporting period	-17,360	-19	-17,379
Reclassifications (measurement at fair value)	560	-1	559
Disposals (measurement at fair value)	-10,091	14,209	4,118
Changes resulting from currency translation (measurement at fair value)	-19	0	-19
Cumulative changes resulting from measurement at fair value as at 31 Dec. 2018	-15,478	16,197	719
Carrying amount as at 31 Dec. 2018	975,205	22,847	998,052

	Equities and other variable-yield securities	Investments in subsidiaries	Total
	EUR thousand	EUR thousand	EUR thousand
Cost as at 1 Jan. 2019	990,683	6,650	997,333
Additions	840,727	2,239	842,966
Reclassifications	-13,992	–	-13,992
Disposals	-337,379	–	-337,379
Currency translation	0	–	0
Cost as at 31 Dec. 2019	1,480,039	8,889	1,488,928
Cumulative changes resulting from measurement at fair value as at 1 Jan. 2019	-15,478	16,197	719
Changes recognised in other comprehensive income resulting from measurement at fair value in reporting period	607	1,275	1,882
Changes resulting from measurement at fair value through profit or loss in reporting period	12,431	–	12,431
Reclassifications (measurement at fair value)	-4,023	–	-4,023
Disposals (measurement at fair value)	3,536	–	3,536
Changes resulting from currency translation (measurement at fair value)	0	–	0
Cumulative changes resulting from measurement at fair value as at 31 Dec. 2019	-2,927	17,472	14,545
Carrying amount as at 31 Dec. 2019	1,477,112	26,361	1,503,473

[42] Shares in companies accounted for using the equity method

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Investments in joint ventures	59,060	56,712	2,348
Investments in associates	71,127	54,590	16,537
Total	130,187	111,302	18,885

There are no active markets for the investments accounted for using the equity method, nor can their fair value be reliably determined by using a measurement method based on assumptions that do not rely on available observable market data. There are no other suitable markets elsewhere. The investments in joint ventures and associates are intended to support the operating activities of the UMH Group over the long term.

Changes in shares in companies accounted for using the equity method

	Investments in joint ventures EUR thousand	Investments in associates EUR thousand	Total EUR thousand
Carrying amount as at 1 Jan. 2018	52,981	51,435	104,416
Changes resulting from measurement under the equity method	3,731	3,155	6,886
of which changes recognised in other comprehensive income	-2,490	-7,735	-10,225
of which changes recognised in profit or loss	6,221	10,890	17,111
Carrying amount as at 31 Dec. 2018	56,712	54,590	111,302
Changes resulting from measurement under the equity method	2,348	17,166	19,514
of which changes recognised in other comprehensive income	-4,230	-10,127	-14,357
of which changes recognised in profit or loss	6,578	27,293	33,871
Change in the consolidated group	–	-629	-629
Carrying amount as at 31 Dec. 2019	59,060	71,127	130,187

The changes recognised in equity relating to investments in joint ventures accounted for using the equity method include EUR 1,663 thousand (previous year: EUR 2,602 thousand) attributable to currency translation, EUR – thousand (previous year: EUR -28 thousand) attributable to the remeasurement of financial assets at fair value through profit or loss and EUR -5,893 thousand (previous year: EUR -5,064 thousand) attributable to distributions.

The changes recognised in equity relating to investments in associates accounted for using the equity method comprised EUR -10,127 thousand (previous year: EUR -7,735 thousand) attributable to distributions.

[43] Property, plant and equipment

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Land and buildings	16,346	14,331	2,015
Operating and office equipment	9,094	7,956	1,138
Total	25,440	22,287	3,153

Changes in property, plant and equipment

	Land and buildings EUR thousand	Operating and office equipment EUR thousand	Total EUR thousand
Carrying amount as at 1 Jan. 2018	12,611	9,795	22,406
Cost as at 1 Jan. 2018	24,452	39,918	64,370
Additions	3,388	3,310	6,698
Reclassifications	–	-3,509	-3,509
Disposals	-2,190	-16,575	-18,765
Currency translation	–	-161	-161
Cost as at 31 Dec. 2018	25,650	22,983	48,633
Amortisation and impairment losses as at 1 Jan. 2018	-11,841	-30,123	-41,964
Additions – amortisation	-1,413	-4,050	-5,463
Additions (impairment losses)	-60	-25	-85
Reclassifications	–	2,485	2,485
Disposals – depreciation	1,901	16,547	18,448
Disposals – impairment losses	94	25	119
Currency translation	–	114	114
Amortisation and impairment losses as at 31 Dec. 2018	-11,319	-15,027	-26,346
Carrying amount as at 31 Dec. 2018	14,331	7,956	22,287

	Land and buildings EUR thousand	Operating and office equipment EUR thousand	Total EUR thousand
Cost as at 1 Jan. 2019	25,650	22,983	48,633
Additions	3,271	4,693	7,964
Reclassifications	–	0	0
Disposals	–	-2,738	-2,738
Cost as at 31 Dec. 2019	28,921	24,938	53,859
Amortisation and impairment losses as at 1 Jan. 2019	-11,319	-15,027	-26,346
Additions – amortisation	-1,256	-3,550	-4,806
Reclassifications	–	0	0
Disposals – depreciation	–	2,733	2,733
Amortisation and impairment losses as at 31 Dec. 2019	-12,575	-15,844	-28,419
Carrying amount as at 31 Dec. 2019	16,346	9,094	25,440

The normal useful life for operating and office equipment is between three and 13 years.

The “Land and buildings” item includes leasehold improvements, the normal useful life of which is based on the respective lease term.

[44] Intangible assets

	31 Dec. 2019 EUR thousand	31 Dec. 2019 EUR thousand	Change EUR thousand
Software	117,248	106,769	10,479
Purchased customer relationships	3,793	4,267	-474
Miscellaneous intangible assets	28,259	30,827	-2,568
Total	149,300	141,863	7,437

No goodwill has been recognised by the UMH Group. All intangible assets have a finite useful life.

Changes in intangible assets

	Software EUR thousand	Purchased customer relationships EUR thousand	Miscellaneous intangible assets EUR thousand	Total EUR thousand
Carrying amount as at 1 Jan. 2018	94,990	4,742	37,189	136,921
Cost as at 1 Jan. 2018	300,019	5,690	42,909	348,618
Additions	42,145	–	–	42,145
Reclassifications	-2,066	–	–	-2,066
Disposals	-9,915	–	–	-9,915
Currency translation	-96	–	–	-96
Cost as at 31 Dec. 2018	330,087	5,690	42,909	378,686
Amortisation and impairment losses as at 1 Jan. 2018	-205,029	-948	-5,720	-211,697
Additions (amortisation)	-30,224	-475	-2,860	-33,559
Additions (impairment losses)	–	–	-3,502	-3,502
Reclassifications	1,954	–	–	1,954
Disposals	9,892	–	–	9,892
Currency translation	89	–	–	89
Amortisation and impairment losses as at 31 Dec. 2018	-223,318	-1,423	-12,082	-236,823
Carrying amount as at 31 Dec. 2018	106,769	4,267	30,827	141,863

	Software EUR thousand	Purchased customer relationships EUR thousand	Miscellaneous intangible assets EUR thousand	Total EUR thousand
Cost as at 1 Jan. 2019	330,087	5,690	42,909	378,686
Additions	46,517	–	–	46,517
Reclassifications	0	–	–	0
Disposals	-6,741	–	–	-6,741
Cost as at 31 Dec. 2019	369,863	5,690	42,909	418,462
Amortisation and impairment losses as at 1 Jan. 2019	-223,318	-1,423	-12,082	-236,823
Additions (amortisation)	-36,035	-474	-2,568	-39,077
Reclassifications	0	–	–	0
Disposals – depreciation	2,053	–	–	2,053
Disposals – impairment losses	4,685	–	–	4,685
Amortisation and impairment losses as at 31 Dec. 2019	-252,615	-1,897	-14,650	-269,162
Carrying amount as at 31 Dec. 2019	117,248	3,793	28,259	149,300

The normal useful life of most software is four or five years, for purchased customer relationships twelve years and for miscellaneous intangible assets 15 years. Amortisation is recognised on a straight-line basis.

[45] Income tax assets

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Current income tax assets	7,904	4,686	3,218
Germany	2,242	3,826	-1,584
Rest of world	5,662	860	4,802
Deferred income tax assets	82,546	57,247	25,299
Deferred tax assets (recognised in profit or loss)	117,651	67,193	50,458
Deferred tax assets (recognised in equity)	43,333	31,148	12,185
Netting	-78,438	-41,094	-37,344
Total	90,450	61,933	28,517

Deferred tax assets that were only expected to be realised after twelve months amounted to EUR 76,212 thousand (based on their net value; previous year: EUR 53,602 thousand).

Deferred tax assets represent the potential income tax relief from temporary differences between the carrying amounts of assets and liabilities in the IFRS consolidated statement of financial position and the tax accounts in accordance with local tax regulations for the companies in the UMH Group.

No deferred taxes were recognised in respect of loss carry-forwards of EUR 512 thousand (previous year: EUR 1,133 thousand) as it is not currently considered certain that they can be utilised.

Deferred tax assets were recognised in connection with the following statement of financial position items:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets			
Loans and advances to banks	–	10	-10
Investment fund units	4,131	3,271	860
Investments in subsidiaries and equity investments	96	104	-8
Property, plant and equipment	119	119	–
Intangible assets	10	10	–
Other assets	1,483	308	1,175
Equity and liabilities			
Liability derivatives	25,410	16,496	8,914
Provisions for employee benefits	82,853	70,411	12,442
Other provisions	639	631	8
Other liabilities	13,368	6,981	6,387
Lease liabilities	32,875	–	32,875
Total	160,984	98,341	62,643

[46] Other assets

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Other financial receivables	170,528	141,666	28,862
Trade receivables	169,296	140,142	29,154
of which from investment funds	166,508	137,579	28,929
Miscellaneous other receivables	1,232	1,524	-292
Other tax assets	22,865	31,759	-8,894
Miscellaneous other assets	13,880	11,153	2,727
of which funding surplus for defined benefit plans	–	153	-153
of which reimbursement rights recognised as assets in accordance with IAS 19.116	11,011	9,515	1,496
Prepaid expenses	9,790	12,961	-3,171
Total	217,063	197,539	19,524

The maximum risk for other financial receivables is the carrying amount.

[47] Right of use assets

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Right of use assets for land and buildings	97,025	–	97,025
Right of use assets for operating and office equipment	5,938	–	5,938
Total	102,963	–	102,963

Changes in right of use assets

	Land and buildings EUR thousand	Operating and office equipment EUR thousand	Total EUR thousand
Carrying amount as at 1 Jan. 2019	111,198	6,869	118,067
Additions	2,939	1,888	4,827
Remeasurement	5,607	-225	5,382
Depreciation and amortisation	-22,719	-2,575	-25,294
Disposals	–	-19	-19
Carrying amount as at 31 Dec. 2019	97,025	5,938	102,963

The remeasurements essentially reflect the extension to the term of a property.

[48] Assets held for sale

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks	–	13,903	-13,903
Intangible assets	–	144	-144
Investment securities	37,740	23,246	14,494
Property, plant and equipment	–	1,247	-1,247
Income tax assets	–	1,453	-1,453
Other assets	–	3,143	-3,143
Total	37,740	43,136	-5,396

The change was primarily the result of deconsolidating a subsidiary (note [3]).

[49] Liabilities to banks

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liabilities to banks in Germany	26,884	19,635	7,249
Total	26,884	19,635	7,249

[50] Liabilities to customers

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liabilities to customers in Germany	1,137	1,221	-84
Liabilities to customers outside Germany	30	–	30
Total	1,167	1,221	-54

[51] Liability derivatives

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
In connection with guarantee commitments	87,166	56,507	30,659
From other transactions	9,475	7,838	1,637
Total	96,641	64,345	32,296

[52] Provisions

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Provisions for employee benefits	211,924	191,934	19,990
Provisions for defined benefit pension obligations	137,642	121,685	15,957
Provisions for other long-term employee benefits	73,726	69,574	4,152
of which provisions for partial retirement schemes	21,737	21,284	453
of which miscellaneous provisions for other long-term employee benefits	51,989	48,290	3,699
Provisions for termination benefits	556	675	-119
of which provisions for termination benefits linked with restructuring	556	675	-119
Other provisions	16,735	16,892	-157
Provisions for restructuring	–	100	-100
Miscellaneous provisions	16,735	16,792	-57
Total	228,659	208,826	19,833

Provisions for defined benefit pension obligations

The provisions for defined benefit plans comprise both closed pension schemes that are no longer accepting new participants and open schemes for, among others, board members and managing directors. New employees in Germany are almost always offered only defined contribution pension plans, for which no provisions have to be recognised. The picture outside Germany is more varied because there are both defined contribution and defined benefit plans that are open to a small proportion of new employees. Overall, the proportion of the group's total obligations accounted for by obligations outside Germany is not material.

The cost of defined contribution plans was EUR -5,486 thousand in the financial year (previous year: EUR -5,226 thousand) and is recognised in administrative expenses under pensions and other post-employment benefit expenses.

The present value of defined benefit obligations is broken down by risk class as follows:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Germany	358,527	309,903	48,624
Final salary-dependent plans	165,306	139,503	25,803
Defined benefit contribution plan	193,221	170,400	22,821
Rest of world	6,972	5,828	1,144
Final salary-dependent plans	–	–	–
Defined benefit contribution plan	6,972	5,828	1,144
Total	365,499	315,731	49,768

The final salary-dependent pension obligations are the employer's pension obligations to employees, the amount of which depends on the employee's final salary before the insured event occurred. For the most part, they can be assumed to constitute a life-long payment obligation. In Germany, Section 16 (1) of the Occupational Pensions Act (BetrAVG) requires the pension amount to be adjusted every three years to reflect the change in consumer prices or net wages. The main risk factors for final salary-dependent pension plans are therefore longevity, changes in salary, inflation risk and the discount rate.

A significant risk factor – over which the company has no influence – is the level of market interest rates for investment-grade fixed-income corporate bonds because the resulting interest affects both the amount of the obligations and the measurement of the plan assets. This risk can be limited by means of appropriate plan structuring or asset investment in order to match the obligations and the plan assets.

The majority of defined benefit contribution plans comprise obligations to pay fixed capital amounts or amounts at fixed interest rates, part of which are paid by the employee and part by the employer. The most prevalent pension scheme is funded by employees paying part of their salary into the scheme. Under the other significant scheme, the contributions are linked to remuneration and must be paid by the employer. However, this pension scheme is closed to new employees.

The pension plans in Germany are not subject to minimum funding requirements. Some pension plans outside Germany are governed by local regulations, but these do not include minimum funding requirements.

The changes in the present value of the defined benefit obligations were as follows:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	315,731	303,209	12,522
Current service cost	6,718	7,197	-479
Interest cost	5,540	5,314	226
Current pension payments	-5,985	-5,427	-558
Employee contributions	4,675	5,470	-795
Actuarial gains (-)/losses (+)	38,820	-32	38,852
of which from experience adjustments	10,118	-1,611	11,729
of which from changes to demographic assumptions	–	1,579	-1,579
of which from changes to financial assumptions	28,702	–	28,702
Closing balance as at 31 Dec.	365,499	315,731	49,768

The following actuarial assumptions were used in the measurement of defined benefit pension obligations:

	31 Dec. 2019 %	31 Dec. 2018 %	Change Percentage points
Discount rate	1.00	1.75	-0.75
Salary increases	0.00 – 2.50	0.00 – 2.50	–
Pension increases	0.00 – 3.00	0.00 – 3.00	–
Staff turnover	0.00 – 6.00	0.00 – 6.00	–

Based on the present value of the defined benefit pension obligations, the weighted absolute percentages for the salary increase parameter and pension increase parameter are 1.48 % (previous year: 1.47 %) and 1.47 % (previous year: 1.46 %) respectively. The weighted absolute percentage for staff turnover is 0.83 % (previous year: 0.87 %).

Sensitivity analysis

The following table shows the sensitivity of the defined benefit pension obligations to the main actuarial assumptions. The effects shown are based on an isolated change to one assumption, with the other assumptions remaining the same. Correlation effects between individual parameters are not considered.

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Change in the present value of defined benefit pension obligations as at the end of the reporting period if	365,499	315,731	49,768
the discount rate was 100 basis points higher	-40,154	-36,717	-3,437
the discount rate was 100 basis points lower	54,234	48,191	6,043
the future salary increases were 50 basis points higher	3,313	3,764	-451
the future salary increases were 50 basis points lower	-5,134	-3,565	-1,569
the future pension increases were 25 basis points higher	5,831	4,676	1,155
the future pension increases were 25 basis points lower	-5,554	-4,461	-1,093
the future life expectancy was one year longer	6,352	5,201	1,151
the future life expectancy was one year shorter	-6,540	-5,376	-1,164

The duration of the defined benefit obligations as at the end of the financial year was 14 years for Germany (previous year: 14 years) and eleven years for the rest of the world (previous year: twelve years).

Plan assets

The funding status of the defined benefit pension obligations is shown in the following table:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Present value of defined benefit pension obligations	365,499	315,731	49,768
of which not funded by plan assets	79,729	70,568	9,161
of which funded by plan assets	285,770	245,163	40,607
Defined benefit pension obligations (net)	-227,857	-194,199	-33,658
Defined benefit pension obligations (net)	137,642	121,532	16,110
Funding surplus	–	153	-153
Provisions recognised for defined benefit pension obligations	137,642	121,685	15,957
Fair value of reimbursement rights	11,011	9,515	1,496

The following table shows the changes in plan assets:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	194,199	194,076	123
Interest income	3,458	3,452	6
Income from/expenses for plan assets (not including interest income)	25,955	-9,034	34,989
Funding of plan assets	9,161	9,718	-557
of which contributions by employers	4,499	4,259	240
of which contributions by employees	4,662	5,459	-797
Pension benefits paid	-4,916	-4,013	-903
Closing balance as at 31 Dec.	227,857	194,199	33,658

The actual income from plan assets amounted to EUR 29,413 thousand in the year under review (previous year: EUR -5,582 thousand).

Additional contributions to plan assets of EUR 8,904 thousand are expected in the subsequent financial year (previous year: EUR 9,691 thousand).

The plan assets mainly comprise entitlements arising from insurance contracts and investment fund units with broadly diversified portfolios. The risks attached to plan assets in connection with entitlements arising from insurance contracts are reviewed regularly by the pension providers VGUEV and RVP in order to determine the funding ratio for the obligation.

The pension obligations and the plan assets are in the eurozone.

The fair value of the plan assets is broken down by asset class as follows:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Investment fund units (securities funds) – no market price quoted on an active market	133,815	104,377	29,438
Investment fund units (real estate funds) – no market price quoted on an active market	500	368	132
Entitlements arising from insurance contracts	93,542	89,454	4,088
Total	227,857	194,199	33,658

Reimbursement rights

The following table shows the changes in reimbursement rights:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	9,515	8,430	1,085
Interest income	166	147	19
Income from / expenses for reimbursement rights (not including interest income)	189	-200	389
Funding of reimbursement rights	1,280	1,159	121
of which contributions by employers	1,267	1,147	120
of which contributions by employees	13	12	1
Pension benefits paid	-139	-21	-118
Closing balance as at 31 Dec.	11,011	9,515	1,496

The actual income from reimbursement rights amounted to EUR 355 thousand in the year under review (previous year: EUR -53 thousand).

Changes in other provisions

	Provisions for restructuring EUR thousand	Miscellaneous provisions EUR thousand	Total EUR thousand
Opening balance as at 1 Jan. 2019	100	16,792	16,892
Additions	–	762	762
Utilisation	-100	-531	-631
Reversals	–	-545	-545
Effect from the increase in the discounted amount over time and change in the discount rate	–	257	257
Closing balance as at 31 Dec. 2019	–	16,735	16,735

The remaining terms of other provisions are shown in the table below:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Provisions for restructuring	–	100	-100
Up to three months	–	–	–
Three months to one year	–	100	-100
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	–	–	–
Miscellaneous provisions	16,735	16,792	-57
Up to three months	–	–	–
Three months to one year	604	1,009	-405
One year to five years	7,300	7,042	258
More than five years	8,604	8,347	257
Indefinite	227	394	-167

[53] Income tax liabilities

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Current income tax liabilities	66,531	75,366	-8,835
Provisions for income taxes	66,290	75,208	-8,918
Income tax liabilities	241	158	83
Deferred tax liabilities	1,975	1,608	367
Deferred tax liabilities (recognised in profit or loss)	73,284	40,476	32,808
Deferred tax liabilities (recognised in equity)	7,129	2,226	4,903
Netting	-78,438	-41,094	-37,344
Total	68,506	76,974	-8,468

Provisions for income taxes are tax liabilities for which a final and binding tax assessment notice has not yet been issued. Income tax liabilities include payment obligations for current income taxes owed to tax authorities both in Germany and in other countries.

Deferred tax liabilities represent the potential income tax expense from temporary differences between the carrying amounts of assets and liabilities in the IFRS consolidated statement of financial position and the tax accounts in accordance with local tax regulations for the companies in the UMH Group. Deferred tax liabilities that were only expected to be incurred after twelve months amounted to EUR 1,159 thousand (based on their net value; previous year: EUR 575 thousand).

Deferred tax liabilities were recognised in connection with the following statement of financial position items:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets			
Asset derivatives	–	5,243	-5,243
Investment fund units	1,426	749	677
Investments in subsidiaries and equity investments	346	297	49
Property, plant and equipment	11	18	-7
Intangible assets	4,004	1,067	2,937
Other assets	589	100	489
Right of use assets	32,520	–	32,520
Equity and liabilities			
Provisions for employee benefits	41,355	35,225	6,130
Other provisions	90	–	90
Other liabilities	72	3	69
Total	80,413	42,702	37,711

[54] Other liabilities

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Other financial liabilities	18,391	6,204	12,187
Liabilities from capitalised rental software	5,780	–	5,780
Trade payables	576	2,824	-2,248
Miscellaneous other liabilities	12,035	3,380	8,655
Financial liabilities from contingent consideration through business combinations	5,000	5,000	–
Other tax liabilities	51,159	47,716	3,443
Deferred liabilities	780,460	702,227	78,233
of which for sales commission	596,377	530,205	66,172
Miscellaneous other liabilities	148	25	123
Prepaid expenses	25	449	-424
Total	855,183	761,621	93,562

Financial liabilities from contingent consideration through business combinations relate to a transaction pursuant to IAS 28.

[55] Lease liabilities

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Land and buildings	98,174	–	98,174
Operating and office equipment	5,966	–	5,966
Total	104,140	–	104,140

[56] Liabilities held for sale

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Income tax liabilities	–	295	-295
Other liabilities	–	10,104	-10,104
Total	–	10,399	-10,399

The change was the result of deconsolidating a subsidiary (note [3]).

[57] Equity

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Issued capital	87,130	87,130	–
Capital reserves	18,617	18,617	–
Retained earnings	919,363	843,017	76,346
Fair value OCI reserve	20,496	18,701	1,795
Currency translation reserve	12,811	11,148	1,663
Reserve from assets held for sale	–	-3,500	3,500
Consolidated net profit	472,330	339,059	133,271
Non-controlling interests	23,779	24,077	-298
Total	1,554,526	1,338,249	216,277

Issued capital

The issued capital corresponds to the share capital of UMH AG. It amounts to EUR 87,130 thousand (previous year: EUR 87,130 thousand) and is divided into 29,043,466 (previous year: 29,043,466) fully paid, registered no-par-value shares. The UMH Group did not hold any treasury shares at the end of the reporting period. There were no preferential rights or restrictions in relation to the distribution of dividends.

A dividend of EUR 8.47 per share (previous year: EUR 11.02 per share) was distributed to shareholders in the reporting year in accordance with the resolution adopted by the Annual General Meeting on 10 May 2019. This equates to a total dividend payment of EUR 245,998 thousand (previous year: EUR 320,059 thousand).

The payment of a dividend of EUR 6.89 per share will be proposed at the Annual General Meeting on 15 May 2020. This equates to a total dividend payment of EUR 200,109 thousand. The Supervisory Board of UMH AG approved the proposed appropriation of profit at its meeting held on 28 February 2020.

Capital reserves

The capital reserves comprise the premiums arising on the issue of shares in the company.

Retained earnings

Retained earnings comprise the undistributed earnings from prior years, actuarial gains and losses on defined benefit plans and plan assets in accordance with IAS 19.120(c), and on reimbursement rights in accordance with IAS 19.116, together with the effects of the first-time application of IFRS.

Breakdown of changes in retained earnings by component of other comprehensive income:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Actuarial gains and losses on defined benefit plans	-4,997	-2,138	-2,859
Total	-4,997	-2,138	-2,859

Fair value OCI reserve

The fair value OCI reserve comprises the effects from the remeasurement of the fair value of financial instruments "at fair value through profit or loss" (net of the associated deferred taxes) before these effects can be recognised in profit or loss. These instruments are not recognised through profit or loss.

Breakdown of changes in fair value OCI reserve by component of other comprehensive income:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Gains and losses from equity instruments for which the fair value OCI option was exercised	1,801	-1,524	3,325
Share of other comprehensive income of joint ventures and associates accounted for using the equity method	–	-152	152
Total	1,801	-1,676	3,477

Currency translation reserve

The effects of exchange rates arising when the financial statements of group companies denominated in foreign currency are translated into the group reporting currency (euro) are reported in the currency translation reserve.

Breakdown of changes in the currency translation reserve by component of other comprehensive income:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Exchange differences on currency translation of foreign subsidiaries	–	-1,688	1,688
Share of other comprehensive income of joint ventures and associates accounted for using the equity method	1,663	2,923	-1,260
Total	1,663	1,235	428

Reserve from assets held for sale

These items include components of equity of a subsidiary held for sale that do not represent a component of equity.

Change in reserve from assets held for sale:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Exchange differences on currency translation of foreign subsidiaries	-8	–	-8
Total	-8	–	-8

Non-controlling interests

Non-controlling interests comprise the share of subsidiaries' equity not attributable to UMH AG.

Breakdown of changes in non-controlling interests by component of other comprehensive income:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Gains and losses from equity instruments for which the fair value OCI option was exercised	61	-591	652
Actuarial gains and losses on defined benefit plans	-378	-58	-320
Total	-317	-649	332

Financial instruments disclosures

[58] Categories of financial instruments

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Financial assets measured at amortised cost	818,432	754,421	64,011
Loans and advances to banks	538,462	512,296	26,166
Loans and advances to customers	109,442	83,561	25,881
Other financial receivables	170,528	141,666	28,862
Assets held for sale	–	16,898	-16,898
Financial liabilities measured at amortised cost	40,663	27,688	12,975
Liabilities to banks	26,884	19,635	7,249
Liabilities to customers	1,167	1,221	-54
Other financial obligations	12,612	6,205	6,407
Liabilities held for sale	–	627	-627
Lease liabilities	104,140	–	104,140
Financial assets mandatorily measured at fair value through profit or loss	1,539,905	1,302,206	237,699
Loans and advances to banks	3,033	260,347	-257,314
Investment securities	1,470,996	969,688	501,308
Asset derivatives	28,136	48,924	-20,788
Assets held for sale	37,740	23,247	14,493
Financial assets measured at fair value through other comprehensive income	32,477	28,364	4,113
Investment securities			
Equities and other variable-yield securities (including other shareholdings)	6,116	5,517	599
Investments in subsidiaries	26,361	22,847	3,514

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Financial liabilities at fair value through profit or loss	101,641	69,345	32,296
Liability derivatives	96,641	64,345	32,296
Financial liabilities from contingent consideration through business combinations	5,000	5,000	–

In the UMH Group, the fair value OCI option is currently exercised for all equity investments and non-consolidated subsidiaries. The UMH Group considers this classification of strategic financial investments as more meaningful. For each new investment, it is decided on a case-by-case basis how this investment should be classified. Dividends of EUR 1,607 thousand were recognised from these financial instruments in the financial year (previous year: EUR 1,206 thousand). Due to the disposal of an equity investment, the accrued fair value OCI reserve of EUR 6 thousand was reclassified to retained earnings. A dividend of EUR 0.2 thousand was attributable to this equity investment.

The fair value OCI option is exercised for all investments in equity instruments.

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets recognised at fair value through profit or loss (recognised initially in other comprehensive income)	32,478	28,364	4,114
Equities	31	32	-1
Other shareholdings	6,086	5,485	601
Interests in unconsolidated subsidiaries	26,361	22,847	3,514

In the current period, there were no reclassifications of financial assets between the measurement categories.

[59] Exposure to credit risk

	Investment grade		Non-investment grade		NR – not rated or no rating required		31 Dec. 2019 EUR thousand
	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	
Loans and advances to banks	533,992	–	–	–	–	4,470	538,462
of which current account	533,992	–	–	–	–	–	533,992
of which in Germany	509,188	–	–	–	–	–	509,188
of which in other EU countries	24,501	–	–	–	–	–	24,501
of which other	303	–	–	–	–	–	303
of which trade receivables	–	–	–	–	–	4,470	4,470
of which in Germany	–	–	–	–	–	1,379	1,379
of which in other EU countries	–	–	–	–	–	2,045	2,045
of which other	–	–	–	–	–	1,046	1,046
Loans and advances to customers	–	–	–	–	–	109,442	109,442
of which retail clients	–	–	–	–	–	7,912	7,912
of which in Germany	–	–	–	–	–	7,912	7,912
of which in other EU countries	–	–	–	–	–	–	–
of which other	–	–	–	–	–	–	–
of which to other financial institutions	–	–	–	–	–	98,346	98,346
of which in Germany	–	–	–	–	–	57,042	57,042
of which in other EU countries	–	–	–	–	–	37,596	37,596
of which other	–	–	–	–	–	3,708	3,708
of which to other	–	–	–	–	–	3,184	3,184
of which in Germany	–	–	–	–	–	1,825	1,825
of which in other EU countries	–	–	–	–	–	919	919
of which other	–	–	–	–	–	441	441

	Investment grade		Non-investment grade		NR – not rated or no rating required		31 Dec. 2019 EUR thousand
	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	
Other financial receivables	–	–	–	–	–	170,528	170,528
of which to investment funds	–	–	–	–	–	166,508	166,508
of which in Germany	–	–	–	–	–	129,506	129,506
of which in other EU countries	–	–	–	–	–	37,002	37,002
of which other	–	–	–	–	–	–	–
of which to other	–	–	–	–	–	4,020	4,020
of which in Germany	–	–	–	–	–	3,206	3,206
of which in other EU countries	–	–	–	–	–	667	667
of which other	–	–	–	–	–	146	146
Total	533,992	–	–	–	–	284,439	818,431

	Investment grade		Non-investment grade		NR – not rated or no rating required		31 Dec. 2019 EUR thousand
	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	
Loans and advances to banks	507,222	–	–	–	–	5,074	512,296
of which current account	507,222	–	–	–	–	–	507,222
of which in Germany	473,778	–	–	–	–	–	473,778
of which in other EU countries	32,890	–	–	–	–	–	32,890
of which other	554	–	–	–	–	–	554
of which trade receivables	–	–	–	–	–	5,074	5,074
of which in Germany	–	–	–	–	–	1,423	1,423
of which in other EU countries	–	–	–	–	–	2,912	2,912
of which other	–	–	–	–	–	738	738
Loans and advances to customers	–	–	–	–	16	83,545	83,561
of which retail clients	–	–	–	–	16	8,721	8,737
of which in Germany	–	–	–	–	16	8,603	8,619
of which in other EU countries	–	–	–	–	–	118	118
of which other	–	–	–	–	–	–	–
of which to other financial institutions	–	–	–	–	–	72,415	72,415
of which in Germany	–	–	–	–	–	38,278	38,278
of which in other EU countries	–	–	–	–	–	30,116	30,116
of which other	–	–	–	–	–	4,021	4,021
of which to other	–	–	–	–	–	2,410	2,410
of which in Germany	–	–	–	–	–	807	807
of which in other EU countries	–	–	–	–	–	1,228	1,228
of which other	–	–	–	–	–	374	374

	Investment grade		Non-investment grade		NR – not rated or no rating required		31 Dec. 2019 EUR thousand
	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	Level 1 EUR thousand	Level 2 EUR thousand	
Other financial receivables	–	–	–	–	–	141,666	141,666
of which to investment funds	–	–	–	–	–	137,579	137,579
of which in Germany	–	–	–	–	–	103,011	103,011
of which in other EU countries	–	–	–	–	–	34,568	34,568
of which other	–	–	–	–	–	–	–
of which to other	–	–	–	–	–	4,087	4,087
of which in Germany	–	–	–	–	–	2,929	2,929
of which in other EU countries	–	–	–	–	–	590	590
of which other	–	–	–	–	–	568	568
Total	507,222	–	–	–	16	230,285	737,523

The carrying amount is the maximum credit risk for the financial instruments measured at fair value. Please see note [73] for the maximum credit risk of the financial guarantees issued.

[60] Gross carrying amounts and allowances for losses

Financial assets measured at amortised cost:

Loans and advances to banks	Level 1 EUR thousand	Level 2 EUR thousand	Level 3 EUR thousand	Total EUR thousand
Opening balance as at 1 Jan. 2018	358,680	4,907	–	363,587
Addition of new financial assets	13,294,492	42,759	–	13,337,251
Transfer in accordance with assets held for sale	-8,089	–	–	-8,089
Transfer from level 1	–	–	–	–
Transfer from level 2	–	–	–	–
Transfer from level 3	–	–	–	–
Transfer to level 1	–	–	–	–
Transfer to level 2	–	–	–	–
Transfer to level 3	–	–	–	–
Directly recognised impairment losses	–	–	–	–
Disposals and repayment of financial assets	-13,137,225	-42,599	–	-13,179,824
Increase in carrying amount due to modification	–	–	–	–
Decrease in carrying amount due to modification	–	–	–	–
Net of amortisation, market value changes and other measurement changes	–	–	–	–
Differences on currency translation	-635	7	–	-628
Closing balance as at 1 Jan. 2018	507,222	5,074	–	512,296
Opening balance as at 1 Jan. 2019	507,222	5,074	–	512,296
Addition of new financial assets	13,285,001	43,358	–	13,328,359
Transfer in accordance with assets held for sale	–	–	–	–
Transfer from level 1	–	–	–	–
Transfer from level 2	–	–	–	–
Transfer from level 3	–	–	–	–
Transfer to level 1	–	–	–	–
Transfer to level 2	–	–	–	–
Transfer to level 3	–	–	–	–
Directly recognised impairment losses	–	–	–	–

Loans and advances to banks	Level 1 EUR thousand	Level 2 EUR thousand	Level 3 EUR thousand	Total EUR thousand
Disposals and repayment of financial assets	-13,258,266	-43,962	–	-13,302,228
Increase in carrying amount due to modification	–	–	–	–
Decrease in carrying amount due to modification	–	–	–	–
Net of amortisation, market value changes and other measurement changes	–	–	–	–
Differences on currency translation	36	1	–	37
Closing balance as at 31 Dec. 2019	533,992	4,470	–	538,462

Loans and advances to customers	Level 1 EUR thousand	Level 2 EUR thousand	Level 3 EUR thousand	Total EUR thousand
Opening balance as at 1 Jan. 2018	17	75,304	–	75,321
Addition of new financial assets	–	434,450	–	434,450
Transfer in accordance with assets held for sale	–	–	–	–
Transfer from level 1	–	–	–	–
Transfer from level 2	–	–	–	–
Transfer from level 3	–	–	–	–
Transfer to level 1	–	–	–	–
Transfer to level 2	–	–	–	–
Transfer to level 3	–	–	–	–
Directly recognised impairment losses	–	-29	–	-29
Disposals and repayment of financial assets	-1	-426,272	–	-426,273
Increase in carrying amount due to modification	–	–	–	–
Decrease in carrying amount due to modification	–	–	–	–
Net of amortisation, market value changes and other measurement changes	–	–	–	–
Differences on currency translation	–	91	–	91
Closing balance as at 31 Dec. 2018	16	83,545	–	83,561

Loans and advances to customers	Level 1 EUR thousand	Level 2 EUR thousand	Level 3 EUR thousand	Total EUR thousand
Opening balance as at 1 Jan. 2019	16	83,545	–	83,561
Addition of new financial assets	–	450,248	–	450,248
Transfer in accordance with assets held for sale	–	–	–	–
Transfer from level 1	–	–	–	–
Transfer from level 2	–	–	–	–
Transfer from level 3	–	–	–	–
Transfer to level 1	–	–	–	–
Transfer to level 2	–	–	–	–
Transfer to level 3	–	–	–	–
Directly recognised impairment losses	–	-55	–	-55
Disposals and repayment of financial assets	-16	-424,302	–	-424,318
Increase in carrying amount due to modification	–	–	–	–
Decrease in carrying amount due to modification	–	–	–	–
Net of amortisation, market value changes and other measurement changes	–	–	–	–
Differences on currency translation	–	6	–	6
Closing balance as at 31 Dec. 2019	–	109,442	–	109,442

Other financial receivables	Level 1 EUR thousand	Level 2 EUR thousand	Level 3 EUR thousand	Total EUR thousand
Opening balance as at 1 Jan. 2018	–	142,657	–	142,657
Addition of new financial assets	–	2,098,735	–	2,098,735
Transfer in accordance with assets held for sale	–	-3,470	–	-3,470
Transfer from level 1	–	–	–	–
Transfer from level 2	–	–	–	–
Transfer from level 3	–	–	–	–
Transfer to level 1	–	–	–	–
Transfer to level 2	–	–	–	–
Transfer to level 3	–	–	–	–

Other financial receivables	Level 1 EUR thousand	Level 2 EUR thousand	Level 3 EUR thousand	Total EUR thousand
Directly recognised impairment losses	–	–	–	–
Disposals and repayment of financial assets	–	-2,096,078	–	-2,096,078
Increase in carrying amount due to modification	–	–	–	–
Decrease in carrying amount due to modification	–	–	–	–
Net of amortisation, market value changes and other measurement changes	–	–	–	–
Differences on currency translation	–	-178	–	-178
Closing balance as at 31 Dec. 2018	–	141,666	–	141,666
Opening balance as at 1 Jan. 2019	–	141,666	–	141,666
Addition of new financial assets	–	2,279,637	–	2,279,637
Transfer in accordance with assets held for sale	–	–	–	–
Transfer from level 1	–	–	–	–
Transfer from level 2	–	–	–	–
Transfer from level 3	–	–	–	–
Transfer to level 1	–	–	–	–
Transfer to level 2	–	–	–	–
Transfer to level 3	–	–	–	–
Directly recognised impairment losses	–	–	–	–
Disposals and repayment of financial assets	–	-2,250,789	–	-2,250,789
Increase in carrying amount due to modification	–	–	–	–
Decrease in carrying amount due to modification	–	–	–	–
Net of amortisation, market value changes and other measurement changes	–	–	–	–
Differences on currency translation	–	14	–	14
Closing balance as at 31 Dec. 2019	–	170,528	–	170,528

In the past financial year and in the year prior, no allowances for losses on loans and receivables were recognised in accordance with IFRS 9.5.5. There are no credit losses on purchased or originated credit-impaired assets (POCI).

[61] Items of income, expense, gains and losses**Net gains and losses**

The breakdown of net gains and losses on financial instruments by IFRS 9 category for financial assets and financial liabilities is as follows:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Financial instruments at fair value through profit or loss	-33,073	-65,717	32,644
Financial assets mandatorily measured at fair value through profit or loss	-33,073	-65,717	32,644
Financial instruments at fair value through other comprehensive income	1,607	1,206	401
Financial assets measured at fair value through other comprehensive income	1,607	1,206	401
Measured at amortised cost	-2,047	-1,592	-455
Assets measured at amortised cost	-970	-502	-468
Liabilities measured at amortised cost	-1,077	-1,090	13

Net gains or net losses comprise gains and losses on fair value measurement through profit or loss, impairment losses and reversals of impairment losses and gains and losses on the sale or early repayment of the financial instruments concerned. These items also include interest income/expenses and current income.

Interest income and expenses

The following total interest income and expenses arose in connection with financial assets and financial liabilities that are not measured at fair value through profit or loss:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest income	116	283	-167
Interest expenses and negative interest on financial assets	-2,109	-1,849	-260

[62] Fair values

If there is an active market for financial assets and financial liabilities, the fair value is based on the relevant market price as at the end of the reporting period. The fair values of investment fund units are the redemption prices (net asset value) published by the relevant asset management companies in accordance with requirements under national investment law. If the contractual conditions of a fund stipulate a redemption charge, the fair value is reduced by this charge.

The fair value of investment securities classified as equity instruments that are not quoted on an active market is determined using an income capitalisation approach based on parameters such as forecasts, calculated free cash flows, beta factors or risk-adjusted and interpolated interest rates based on the basic discount curve.

Owing to the short remaining term, the carrying amount is used as a realistic estimate of the fair value of financial resources, current trade receivables and other receivables, checking account and instant-access deposits with banks, current trade payables and other payables, checking account liabilities to banks and borrowing with or without an interest rate that is fixed in the short term.

The carrying amounts of the financial assets in the table reflect the amount that best represents the company's maximum exposure to credit risk as at the end of the reporting period. Collateral and other credit enhancements held were not taken into account. The negative market value from derivative financial instruments essentially comprised EUR 77,000 thousand (previous year: EUR 50,715 thousand) from capital preservation commitments for the UniProfiRente retirement pension product and EUR 10,165 thousand (previous year: EUR 5,792 thousand) from minimum payment commitments in connection with guarantee funds launched by asset management companies belonging to the group.

The measurement methods described above are used to determine the fair values of all classes of financial instrument.

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks (fair value)	541,495	772,643	-231,148
Loans and advances to banks (carrying amount)	541,495	772,643	-231,148
Loans and advances to customers (fair value)	109,442	83,561	25,881
Loans and advances to customers (carrying amount)	109,442	83,561	25,881
Asset derivatives (fair value)	28,136	48,924	-20,788
Asset derivatives (carrying amount)	28,136	48,924	-20,788
Investment securities (fair value)	1,503,473	998,052	505,421
Investment securities (carrying amount)	1,503,473	998,052	505,421
Other financial receivables (fair value)	170,528	141,666	28,862
Other financial receivables (carrying amount)	170,528	141,666	28,862
Assets held for sale (fair value)	37,740	40,145	-2,405
Assets held for sale (carrying amount)	37,740	40,145	-2,405

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liabilities to banks (fair value)	26,884	19,635	7,249
Liabilities to banks (carrying amount)	26,884	19,635	7,249
Liabilities to customers (fair value)	1,167	1,221	-54
Liabilities to customers (carrying amount)	1,167	1,221	-54
Liability derivatives (fair value)	96,641	64,345	32,296
Liability derivatives (carrying amount)	96,641	64,345	32,296
Other financial liabilities (fair value)	18,391	6,204	12,187
Other financial liabilities (carrying amount)	18,391	6,204	12,187
Financial liabilities from contingent consideration through business combinations (fair value)	5,000	5,000	–
Financial liabilities from contingent consideration through business combinations (carrying amount)	5,000	5,000	–
Liabilities held for sale (fair value)	–	627	-627
Liabilities held for sale (carrying amount)	–	627	-627

[63] Fair value hierarchy**Assets and liabilities measured at fair value in the statement of financial position**

The recurring fair value measurements are assigned to the levels of the fair value hierarchy as follows:

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks	3,033	260,347	-257,314
of which level 1	–	–	–
of which level 2	3,033	260,347	-257,314
of which level 3	–	–	–
Asset derivatives	28,136	48,924	-20,788
of which level 1	–	–	–
of which level 2	–	–	–
of which level 3	28,136	48,924	-20,788
Investment securities	1,503,473	998,052	505,421
of which level 1	–	–	–
of which level 2	1,462,924	962,686	500,238
of which level 3	40,550	35,366	5,184
Assets held for sale	37,740	23,246	14,494
of which level 1	–	–	–
of which level 2	37,740	23,246	14,494
of which level 3	–	–	–
Total	1,572,382	1,330,569	241,813

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liability derivatives	96,641	64,345	32,296
of which level 1	–	–	–
of which level 2	87,165	56,507	30,658
of which level 3	9,475	7,838	1,637
Financial liabilities from contingent consideration through business combinations	5,000	5,000	–
of which level 1	–	–	–
of which level 2	–	–	–
of which level 3	5,000	5,000	–
Total	101,641	69,345	32,296

Level 1 fair value measurements are derived from quoted prices in active markets for identical financial assets or liabilities.

Level 2 fair value measurements are based on inputs other than quoted prices included in level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices). Investment fund units held for own-account investing activities are assigned to this level of the fair value hierarchy.

Level 3 fair value measurements use models with inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Reclassifications

Assets held at the end of the reporting period and measured at fair value on a recurring basis were not reclassified between levels 1, 2 and 3 in the financial year.

Transfers between levels 1 and 2 take place when there is a change in the inputs that is relevant to categorisation in the fair value hierarchy.

Fair value measurements at level 3

The table below shows the changes in the recurring fair value measurements of level 3 liabilities in the financial year:

Asset derivatives	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	48,924	37,040	11,884
Changes resulting from measurement at fair value	-20,787	11,884	-32,671
of which through profit or loss	-20,787	11,884	-32,671
Closing balance as at 31 Dec.	28,136	48,924	-20,788

Investment securities	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	35,366	38,910	-3,544
Additions (purchases)	4,051	313	3,738
Changes resulting from measurement at fair value	2,133	-3,728	5,861
of which through profit or loss	251	-1,592	1,843
of which in equity	1,882	-2,136	4,018
Disposals (sales)	-1,000	-131	-869
Closing balance as at 31 Dec.	40,550	35,366	5,184

The table below shows the changes in the recurring fair value measurements of level 3 liabilities in the financial year:

Liability derivatives	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	7,838	5,019	2,819
Additions (purchases)	–	–	–
Changes resulting from measurement at fair value	1,638	2,819	-1,181
of which through profit or loss	1,638	2,819	-1,181
Closing balance as at 31 Dec.	9,475	7,838	1,637

Financial liabilities from contingent consideration through business combinations	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Opening balance as at 1 Jan.	5,000	–	5,000
Additions (purchases)	–	5,000	-5,000
Closing balance as at 31 Dec.	5,000	5,000	–

As part of the processes for fair value measurement, the UMH Group reviews whether the measurement methods used are typical and whether the measurement parameters used in the measurement methods are observable in the market. This review takes place at the end of each reporting period. On the basis of this review, the fair values are assigned to the levels of the fair value hierarchy. In the UMH Group, transfers between the levels take place as soon as there is a change in the inputs that is relevant to categorisation in the fair value hierarchy. In each step of this process, both the distinctive features of the particular product type and the distinctive features of the business models of the group entities are taken into consideration.

The measurement of call and put options to shares of ZBI Partnerschafts-Holding GmbH is described in more detail in note [19]. The calculation of enterprise value was based on a risk-adjusted interest rate of 10.43 % (previous year: 10.43 %); a 360-day volatility of 26.6 % and risk-free interest rates of zero were used in the Black-Scholes model (previous year: 360-day volatility of 23.1 % and risk-free interest rates of zero and 0.77 %). The loss of EUR -22,425 thousand (previous year: EUR 9,065 thousand) in the reporting year is reported in profit or loss under other net remeasurement income on financial instruments.

The gain from assets reported under financial assets of EUR 251 thousand (previous year: EUR -1,592 thousand) in the reporting year is reported in profit or loss under other net remeasurement income on financial instruments. The gain recognised in equity of EUR 1,882 thousand (previous year: EUR -2,136 thousand) is reported in the statement of comprehensive income under gains and losses on equity instruments.

The most probable value has been recognised from contingent consideration in the course of business combinations for which the achievement of a specified sales target has been agreed. The loss of EUR -5,000 thousand in the previous year is reported in profit or loss under other net remeasurement income on financial instruments.

The fair value of level 3 investments in subsidiaries is determined on the basis of the income capitalisation approach using unobservable inputs, such as future income. The risk-adjusted interest rates ranged between 8.96 % and 10.50 % (previous year: between 6.25 % and 9.35 %). For an investment in a start-up, a pre-money valuation was implemented on the basis of the measurement for the last round of financing. The 'Investment securities' item contains units in investment funds (units in private equity funds). The fair value is the redemption price published by the asset management companies in line with national investment law provisions (net asset value). The calculation of the redemption price is essentially based on the discounted cash flow values sent by third-party managers of the funds in question.

No sensitivity analysis is performed for investment securities and asset and liability derivatives whose fair value is determined on the basis of measurement models as the resulting effects are immaterial.

Assets and liabilities not measured at fair value

Recurring fair value measurements of assets and liabilities that are not recognised at fair value in the statement of financial position, but whose fair value must be disclosed, are assigned to the levels of the fair value hierarchy as follows:

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks	538,462	512,296	26,166
of which level 1	–	–	–
of which level 2	538,462	512,296	26,166
of which level 3	–	–	–
Loans and advances to customers	109,442	83,561	25,881
of which level 1	–	–	–
of which level 2	109,442	83,561	25,881
of which level 3	–	–	–
Other financial receivables	170,528	141,666	28,862
of which level 1	–	–	–
of which level 2	170,528	141,666	28,862
of which level 3	–	–	–
Assets held for sale	–	16,898	-16,898
of which level 1	–	–	–
of which level 2	–	16,898	-16,898
of which level 3	–	–	–
Total	818,432	754,420	64,012

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liabilities to banks	26,884	19,635	7,249
of which level 1	–	–	–
of which level 2	26,884	19,635	7,249
of which level 3	–	–	–
Liabilities to customers	1,167	1,221	-54
of which level 1	–	–	–
of which level 2	1,167	1,221	-54
of which level 3	–	–	–
Other financial liabilities	18,391	6,204	12,187
of which level 1	–	–	–
of which level 2	12,612	6,204	6,408
of which level 3	5,780	–	5,780
Liabilities held for sale	–	627	-627
of which level 1	–	–	–
of which level 2	–	627	-627
of which level 3	–	–	–
Total	46,443	27,687	18,756

In other financial liabilities, the liabilities from rental software are assigned to fair value level 3. As these are predominantly current liabilities, the carrying amount recognised is equal to the fair value. Uncertainties during measurement result from exercising renewal and termination options in future.

[64] Contractual maturity analysis

The maturity analysis shows the contractually agreed cash inflows and outflows:

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks	541,495	772,643	-231,148
Up to one month	541,487	772,634	-231,147
One month to three months	8	9	-1
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	–	–	–
Loans and advances to customers	109,841	84,104	25,737
Up to one month	96,465	74,654	21,811
One month to three months	3,887	4,311	-424
Three months to one year	2,573	2	2,571
One year to five years	3,642	4,790	-1,148
More than five years	3,236	274	2,962
Indefinite	38	73	-35
Asset derivatives	28,136	48,924	-20,788
Up to one month	–	–	–
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	28,136	48,924	-20,788
More than five years	–	–	–
Indefinite	–	–	–
Investment securities	1,503,473	998,052	505,421
Up to one month	–	–	–
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	1,503,473	998,052	505,421

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Other financial receivables	170,528	141,666	28,862
Up to one month	167,897	140,690	27,207
One month to three months	427	276	151
Three months to one year	1,874	208	1,666
One year to five years	60	189	-129
More than five years	264	292	-28
Indefinite	6	11	-5
Assets held for sale	37,740	40,145	-2,405
Up to one month	–	16,899	-16,899
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	37,740	23,246	14,494

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liabilities to banks	26,884	19,635	7,249
Up to one month	26,884	19,635	7,249
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	–	–	–
Liabilities to customers	1,167	1,221	-54
Up to one month	1,167	1,221	-54
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	–	–	–
Liability derivatives	101,131	70,644	30,487
Up to one month	1,075	1,808	-733
One month to three months	170	3,465	-3,295
Three months to one year	3,843	994	2,849
One year to five years	14,974	16,892	-1,918
More than five years	81,069	47,485	33,584
Indefinite	–	–	–
Other financial liabilities	18,390	6,204	12,186
Up to one month	5,109	5,534	-425
One month to three months	6	439	-433
Three months to one year	2,316	6	2,310
One year to five years	2,325	201	2,124
More than five years	8,634	23	8,611
Indefinite	–	1	-1

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Financial liabilities from contingent consideration through business combinations	5,000	5,000	–
Up to one month	–	–	–
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	5,000	5,000	–
More than five years	–	–	–
Indefinite	–	–	–
Lease liabilities	107,832	–	107,832
Up to one month	2,309	–	2,309
One month to three months	4,433	–	4,433
Three months to one year	19,487	–	19,487
One year to five years	62,103	–	62,103
More than five years	19,500	–	19,500
Indefinite	–	–	–
Liabilities held for sale	–	627	-627
Up to one month	–	627	-627
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	–	–	–

In the above table, the undiscounted contractual payment obligations from the capital preservation and guarantee commitments of all UniProfiRente contracts and guarantee funds less the assets allocated to these contracts as at the end of the reporting period were reported under liability derivatives, provided the capital preservation or guarantee commitments of these contracts had a negative fair value as at the end of the reporting period.

From 2017, the liability derivatives also include the exercise prices of the put options for shares in ZBI Partnerschafts-Holding GmbH, Erlangen, written by UMH. Their earliest possible exercise date cannot be determined by the calendar alone but rather depends on a range of other conditions. They were therefore allocated to the “One year to five years” maturity band on the basis of the expected exercise dates. In contrast, the call option for additional shares in ZBI Partnerschafts-Holding GmbH acquired in the previous year was recognised at fair value under asset derivatives in the maturity band of the earliest possible exercise date.

Other disclosures	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Financial guarantees	55,749	54,474	1,275
Up to one month	–	–	–
One month to three months	–	–	–
Three months to one year	–	–	–
One year to five years	–	–	–
More than five years	–	–	–
Indefinite	55,749	54,474	1,275

The table above shows the potential cash outflows for financial guarantees rather than their expected outflows.

[65] Foreign currency volumes

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks	1,401	1,413	-12
US dollar (USD)	692	985	-293
Swiss franc (CHF)	–	–	–
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	669	294	375
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	40	134	-94
Loans and advances to customers	2,882	2,942	-60
US dollar (USD)	2,020	2,523	-503
Swiss franc (CHF)	345	205	140
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	476	171	305
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	41	43	-2
Investment securities	1,120	152	968
US dollar (USD)	22	20	2
Swiss franc (CHF)	960	17	943
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	13	12	1
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	125	103	22

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Other financial receivables	248	1,804	-1,556
US dollar (USD)	86	1,682	-1,596
Swiss franc (CHF)	40	44	-4
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	122	78	44
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	–	–	–
Assets held for sale	–	20,404	-20,404
US dollar (USD)	–	28	-28
Swiss franc (CHF)	–	–	–
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	–	–	–
Polish zloty (PLN)	–	20,376	-20,376
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	–	–	–
Total	5,651	26,715	-21,064

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Other financial liabilities	4,550	131	4,419
US dollar (USD)	4,546	–	4,546
Swiss franc (CHF)	4	2	2
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	–	33	-33
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	–	96	-96
Lease liabilities	2,268	–	2,268
US dollar (USD)	1,814	–	1,814
Swiss franc (CHF)	–	–	–
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	454	–	454
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	–	–	–
Liabilities held for sale	–	627	-627
US dollar (USD)	–	–	–
Swiss franc (CHF)	–	–	–
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	–	–	–
Polish zloty (PLN)	–	627	-627
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	–	–	–
Total	6,818	758	6,060

Other disclosures	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Financial guarantees	55,749	54,474	1,275
US dollar (USD)	55,749	54,474	1,275
Swiss franc (CHF)	–	–	–
Japanese yen (JPY)	–	–	–
Pound sterling (GBP)	–	–	–
Polish zloty (PLN)	–	–	–
Hong Kong dollar (HKD)	–	–	–
Other foreign currencies	–	–	–
Total	55,749	54,474	1,275

The nominal amount is reported for financial guarantees.

Other disclosures

[66] Equity management

As a subsidiary of DZ BANK, UMH AG is not subject to separate consolidated supervision as a banking group under the German Banking Act (KWG) and, consequently, nor is it subject to any regulatory capital requirements at the UMH Group level. However, some of the companies in the Union Investment Group are – at the individual bank level – subject to regulatory capital requirements under national legislation, which was complied with at all times in the reporting year. Regulatory capital requirements in the Federal Republic of Germany are specified for asset management companies by Section 25 of Germany's Investment Code (KAGB) and for Union Investment Service Bank AG, Quoniam Asset Management GmbH and VisualVest GmbH by European Regulation No. 575/2013 (CRR) in conjunction with Section 10 KWG. The Board of Managing Directors of UMH AG also uses the corporate guidelines on integrated risk and capital management as the basis for ensuring appropriate capital adequacy in the Union Investment Group. The aggregate risk is compared against the available aggregate risk cover for a given analysis period in order to make sure that, with a specified confidence level, the potential losses do not exceed the aggregate risk cover. Aggregate risk cover comprises the equity reported in the statement of financial position and quasi-equity components, and also takes into account hidden reserves and liabilities that would arise in the event of a loss. Please refer to the statement of changes in equity for further information on the composition of and changes in equity. Additional details on risk management can also be found in the risk report in the group management report.

[67] Disclosures of revenue from contracts with customers

Allocation of the revenue from contracts with customers

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Revenue elements			
Fee and commission income	2,629,086	2,448,308	180,778
from sales commission	391,705	310,042	81,663
from management fees	2,070,272	1,979,838	90,434
from securities custody accounts	53,616	52,349	1,267
Other	113,493	106,079	7,414
Other operating income	5,373	3,738	1,635
Total revenue elements	2,634,459	2,452,046	182,413
Geographical key markets			
Germany	2,053,096	1,843,184	209,912
Other EU countries	581,363	608,862	-27,499
Rest of the world	–	–	–
Total geographical key markets	2,634,459	2,452,046	182,413
Type of sales recognised			
At a point in time	429,405	344,598	84,807
Over a period of time	2,205,054	2,107,448	97,606
Total amount of sales recognised	2,634,459	2,452,046	182,413

The asset management services provided typically do not give rise to any contractual assets due to the periodic settlements. As no advance considerations are paid by customers, no contract liabilities arise.

Contracts with customers for which the proceeds contain significant financing components have not been identified. The practical expedient granted in IFRS 15.63 was applied here, under which transaction prices may not be adjusted in relation to the effects of a significant financing component if the customer expects to pay at the latest within one year after the transfer of the assets or services promised.

The contracts with customers concluded by the UMH Group always grant a claim to a consideration to be paid by the customer in an amount that corresponds directly to the value of the services already provided by the company for these customers. Thus, the practical expedient granted in IFRS 15.121(b) is used and sales are recognised in the amount that the entity may charge. This eliminates the obligation to disclose the total amount of transaction prices that are allocated to the performance obligations for the contract portfolio that have not yet been fulfilled as at the balance sheet date. Quantitative disclosures on the performance obligations that have not yet been fulfilled are not possible with the contract arrangements typical for asset management due to the requirements of IFRS 15 to limit the recognition of variable consideration.

Disclosures of contracts with customers

Part of the receivables recognised in the statement of financial position is accounted for using the regulations of IFRS 15.

	Loans and advances to banks EUR thousand	Loans and advances to customers EUR thousand	Other receivables EUR thousand	Total EUR thousand
As at 1 Jan. 2018	4,898	75,232	138,093	218,223
Additions	40,761	407,190	2,074,371	2,522,322
Disposals	-40,603	-398,999	-2,071,300	-2,510,902
Impairment/ reversal of impairment	–	-29	–	-29
Other	7	91	-3,585	-3,487
As at 31 Dec. 2018	5,063	83,485	137,579	226,127
As at 1 Jan. 2019	5,063	83,485	137,579	226,127
Additions	41,840	436,126	2,251,938	2,729,904
Disposals	-42,442	-410,157	-2,223,020	-2,675,619
Impairment/ reversal of impairment	–	-55	–	-55
Other	1	6	11	18
As at 31 Dec. 2019	4,462	109,405	166,508	280,375

[68] Disclosure of interests in other entities

Significant judgements and assumptions

- Control of other companies

The group controls an entity when it is exposed to variable returns from the entity and has the ability to affect those returns through its power over the entity.

In order to determine whether an entity must be consolidated, the UMH Group checks a series of factors, such as

- the purpose and form of the entity,
- the relevant activities and how these are determined,
- whether the group's rights result in the ability to direct the relevant activities,
- whether the group has exposure or rights to variable returns and whether the group has the ability to use its power to affect the amount of its returns.

If voting rights are relevant, the group is deemed to have control insofar as it holds, directly or indirectly, more than half of the voting rights over an entity unless there is evidence that another investor has the practical ability to unilaterally direct the relevant activities. Potential voting rights that are deemed to be substantive are also considered when assessing control. Likewise, the UMH Group also assesses existence of control where it does not control the majority of the voting rights but has the practical ability to unilaterally direct the relevant activities. This can arise in circumstances where the size and distribution of shareholders' voting rights give the group the power to direct the relevant activities.

The group reassesses the consolidation status at least at the end of each quarter. Therefore, any changes in the structure leading to a change in one or more of the control factors require reassessment when they occur. This includes changes in decision-making rights, changes in contractual arrangements, changes in the financing, ownership or capital structure and changes following a trigger event which was anticipated in the original documentation.

In relation to the funds managed by the asset management companies of the group, after assessing their role in line with the national provisions of investment law, the UMH Group assumes that

- it has power of control within the meaning of IFRS 10.7(a),
- it has exposure, and rights, to variable returns from its involvement in these entities (IFRS 10.7(b)) and
- it has the ability to use its power over these entities to influence the amount of its returns (IFRS 10.7(c)).

Against this backdrop, it reviews for which of these funds the UMH Group has the role of the principal, which would necessitate consolidation, and for which it only acts as an agent for third-party investors.

As such, the UMH Group always plays the role of an agent for these funds if

- the contractually agreed remuneration is commensurate with the services provided and includes only terms customarily present in arrangements negotiated on an arm's length basis (IFRS 10.B69) and
- the scope of the UMH Group's participation in such a fund and the associated variability, taking into account its direct participation in this fund, and the material remuneration components of the UMH Group for the management of the fund do not exceed an internally determined threshold. If this threshold is exceeded, the overall circumstances are analysed on a case-by-case basis.

Due to the precedence taken by investor protection regulations, the UMH Group assumes that, as long as the control threshold in accordance with IFRS 10 is not exceeded, it does not have significant influence within the meaning of IAS 28 over investment funds managed by the group's asset management companies. Own-account investments in investment funds not fully consolidated are therefore not recognised according to the equity method but at fair value.

• Associates, joint control and significant influence

Associates are entities over which the UMH Group directly or indirectly has significant influence. Significant influence is generally presumed when the group holds between 20 % and 50 % of the voting rights.

The UMH Group holds 49 % of the voting rights of BEA Union Investment Management Limited, Hong Kong (BU). As this equity investment is controlled jointly with other partners, decisions on the relevant activities require the unanimous approval of all parties and the UMH Group has rights to the equity investment's net assets, it has been classified as a joint venture. The equity investment has been included in the consolidated financial statements using the equity method since its acquisition.

Investments in subsidiaries

• Deviating reporting periods

In the financial year, as in the previous year, there were no companies in the UMH Group with a reporting period deviating from that of the UMH Group.

• Non-controlling interests in the activities of the UMH Group and its cash flows

There are significant non-controlling interests in the UMH Group for the subsidiaries Union Investment Real Estate GmbH, Hamburg (UIR), Quoniam Asset Management GmbH, Frankfurt am Main (QAM), Union Investment Institutional Property GmbH, Hamburg (UII) and Union Investment Real Estate Austria AG, Vienna (URA):

Non-controlling interests (incl. profit share)	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Union Investment Real Estate GmbH	18,287	16,744	1,543
Quoniam Asset Management GmbH	2,567	4,504	-1,937
Union Investment Institutional Property GmbH	2,316	2,268	48
Union Investment Real Estate Austria AG	602	553	49
Miscellaneous	7	7	0
Total	23,779	24,076	-297

Non-controlling interests in consolidated net income	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Union Investment Real Estate GmbH	5,885	4,317	1,568
Quoniam Asset Management GmbH	1,556	2,885	-1,329
Union Investment Institutional Property GmbH	653	651	2
Union Investment Real Estate Austria AG	88	15	73
Miscellaneous	0	0	0
Total	8,182	7,868	314

– Union Investment Real Estate GmbH, Hamburg

UIR is a leading property manager in Europe. It has more than 50 years' expertise in asset management for properties and provides bespoke real estate solutions for private and institutional asset allocation. With its internationally diversified property portfolio, now distributed across 20 national markets, it leverages the opportunities of global market cycles for investors. Extensive market knowledge and an investment strategy based on the presence of its own teams and strong cooperation partners in target markets contribute to a high return on investment. UIR operates on commercial property markets as an investor and seller, builder and developer, lessor and service provider for all aspects of real estate. UIR currently manages property funds with net assets of EUR 34.1 billion (previous year: EUR 32.6 billion). UMH AG directly holds 90.0 % of shares in UIR (previous year: 90.0 %). Its share in the voting rights is equal to its shareholding. There are non-controlling interests of 5.5 % (previous year: 5.5%) (UIR Beteiligungs Holding GmbH & Co KG) and of 4.5 % (previous year: 4.5%) (DZ BANK).

UMH AG concluded an indefinite control agreement with UIR in January 2014, which can be cancelled with notice of six months to the end of a financial year. For the duration of the agreement, this guarantees the non-controlling interest UIR Beteiligungs GmbH & Co KG a share of profits (cash dividend) for each full financial year of EUR 1,961 thousand for 5.5 % of shares in the company and, for DZ BANK, EUR 1,605 thousand for 4.5 % of shares. The non-controlling interests did not claim the guaranteed dividend, which does not affect the entitlement to the distributed dividend according to UIR's resolution on the appropriation of profit. In the financial year, the non-controlling interests in UIR received dividend distributions (cash dividends) of EUR 4,111 thousand (previous year: EUR 4,444 thousand).

Summarised financial information on UIR:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets	352,739	301,578	51,161
Liabilities	169,876	134,133	35,743

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest and commission income	393,101	337,773	55,328
Net income through profit or loss	58,861	43,163	15,698
Other comprehensive income	-2,332	-5,800	3,468
Total comprehensive income	56,529	37,363	19,166
Cash flow	-4	4	-8

– Quoniam Asset Management GmbH, Frankfurt am Main

QAM is a limited liability asset management company based in Frankfurt and with a branch in London. Using its engineering-based approach, QAM focuses exclusively on the development and implementation of quantitative portfolio management strategies for global institutional investors.

UMH AG directly holds 93.1 % of the capital (previous year: 88.0 %) and all voting rights in QAM. Non-controlling interests account for 6.9 % of capital shares (previous year: 12.0 %). These non-voting shares are held by the management of QAM.

In the financial year, (cash) dividends of EUR 2,694 thousand (previous year: EUR 1,763 thousand) were paid to the non-controlling interests of QAM.

Summarised financial information on QAM:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets	84,644	77,553	7,091
Liabilities	47,621	40,016	7,605

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest and commission income	75,243	76,154	-911
Net income through profit or loss	22,433	24,047	-1,614
Other comprehensive income	-497	-518	21
Total comprehensive income	21,936	23,529	-1,593
Cash flow	-5	3	-8

– Union Investment Institutional Property GmbH, Hamburg

UII, a property asset management company based in Hamburg and with a branch in London, systematically and successfully focuses on the investment requirements of institutional investors. 30 years ago, UII already focused on the needs of institutional investors. Vehicle expertise, best-in-class processes and a precise knowledge of the different requirements of institutional investors allow it to deliver tailored real estate solutions for institutional asset allocation. In addition to institutional mutual funds and multi-client special funds, UII offers institutional investors individual solutions. The fund vehicles can be of either German or Luxembourg provenance. UII currently manages a volume of EUR 7.7 billion in its institutional business (previous year: EUR 6.1 billion).

UMH AG directly holds 90.0 % of shares in UII (previous year: 90.0 %). Its share in the voting rights is equal to its shareholding. At 10.0 % (previous year: 10.0 %), the sole non-controlling interest is BAG Bankaktiengesellschaft, Hamm.

UMH AG concluded an indefinite control agreement with UII in October 2013, which can be cancelled with notice of six months to the end of a financial year. For the duration of the agreement, this guarantees the non-controlling interest a share of profits (cash dividend) for each full financial year of 12 % of the notional value of the company of EUR 620,000, i.e. EUR 74,400. In the financial year, the non-controlling interest in UII received dividend distributions (cash dividends) of EUR 556 thousand (previous year: EUR 100 thousand).

Summarised financial information on UII:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets	36,694	33,649	3,045
Liabilities	13,530	10,974	2,556

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest and commission income	44,874	42,819	2,055
Net income through profit or loss	6,534	6,506	28
Other comprehensive income	-490	-75	-415
Total comprehensive income	6,044	6,431	-387
Cash flow	-	-	-

– Union Investment Real Estate Austria AG, Vienna

URA, which is based in Vienna, is an asset management company for real estate in accordance with the Austrian Real Estate Investment Fund Act. The company was founded in 2003 and manages real estate in Austria and Germany. URA currently manages property funds with a volume of EUR 1.1 billion (previous year: EUR 0.9 billion).

UMH AG indirectly holds 94.5 % of shares in URA (previous year: 94.5 %). Its share in the voting rights is equal to its shareholding. At 5.5 % (previous year: 5.5 %), the sole non-controlling interest is BAG Bankaktiengesellschaft, Hamm.

In the financial year, (cash) dividends of EUR 39 thousand (previous year: EUR 4 thousand) were paid to the non-controlling interests of URA.

Summarised financial information on URA:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets	17,778	15,811	1,967
Liabilities	6,839	5,756	1,083

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest and commission income	16,849	15,059	1,790
Net income through profit or loss	1,595	265	1,330
Other comprehensive income	-10	3	-13
Total comprehensive income	1,585	268	1,317
Cash flow	–	–	–

- Nature and extent of material restrictions

National regulatory requirements and provisions of company law restrict the UMH Group's ability to transfer assets to or from other companies within the group. However, these restrictions cannot be specifically assigned to individual assets or items of the statement of financial position.

In addition, owing to regulatory provisions, Union Investment Service Bank AG, the asset management companies and the securities companies of the Union Investment Group are subject to restrictions on lending to other group companies.

- Nature of risks entailed by interests in consolidated structured entities

The fund UI Vario: 2 is consolidated in the UMH consolidated financial statements at a net asset value of EUR 951.7 million as at the end of the reporting period (previous year: EUR 842.5 million). This is a fund of funds that was issued as a vehicle to bundle the strategic own-account investment positions of the UMH Group and its investment universe, and concentrates on funds managed by the Union Investment Group. All unit certificates of this fund managed by Union Investment Luxembourg S.A. are owned by companies of the UMH Group. Only the companies of the UMH Group can acquire these unit certificates. The maximum downside risk is limited to the consolidated net assets of this structured entity.

Interests in joint arrangements and associates

- Deviating reporting periods

In the reporting year, there were no companies in the UMH Group with a reporting period deviating from that of the UMH Group.

The last available annual financial statements, with any adjustments, are used. Any known material effects in the year under review are covered in a reconciliation statement.

- Type, extent and financial impact of interests in joint arrangements

- BEA Union Investment Management Limited, Hong Kong

BEA Union Investment Management Limited (BU) is a joint venture of UMH AG and The Bank of East Asia Limited, Hong Kong (BEA). The asset management company provides portfolio management services for mutual funds and mandatory provident fund (MPF) schemes – regulated pension products – and asset management and advisory services for institutional clients. Sales activities run through BEA and, increasingly, third parties, and mainly focus on Hong Kong and China. At the end of 2019, the company had HKD 70.7 billion in assets under management (previous year: HKD 56.3 billion) in 93 products (previous year: 87 products).

UMH AG's shareholding at the end of the reporting period was 49 % (previous year: 49 %). The remaining 51 % of shares (previous year: 51 %) are held by BEA. The shares in BU are accounted for in the UMH Group using the equity method. In the financial year, BU distributed a dividend of HKD 51.7 million or EUR 5,893 thousand to UMH AG (previous year: HKD 44.9 million or EUR 4,774 thousand).

Summarised financial information on BU:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets	75,747	68,204	7,543
of which cash reserve	–	–	–
Liabilities	-12,266	-7,890	-4,376
of which: financial liabilities	-8,290	-7,819	-471

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest income	1,353	1,173	180
Interest expenses	-50	–	-50
Fee and commission income	36,798	32,828	3,970
Fee and commission expenses	-7,356	-6,120	-1,236
Administrative expenses, depreciation and amortisation	-14,662	-12,860	-1,802
Income taxes	-2,428	-2,277	-151
Net income from continuing operations	13,424	12,696	728
Other comprehensive income	–	-56	56
Total comprehensive income	13,424	12,640	784

Statement of reconciliation from summarised financial information to the carrying amount of the shares in BU:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Recognised net assets	63,480	60,314	3,166
Multiplication by shareholding	31,105	29,554	1,551
Goodwill before reversal of impairment	27,955	27,158	797
Carrying amount from remeasurement in line with the equity method	59,060	56,712	2,348

– Other joint ventures

There were no significant joint ventures accounted for using the equity method at the end of the reporting period.

- Type, extent and financial impact of interests in associates

– ZBI Partnerschafts-Holding GmbH, Erlangen

The ZBI Group's operating business is bundled in ZBI Partnerschafts-Holding GmbH, Erlangen, and its subsidiaries (ZBI). The ZBI Group is a leading company on the German residential property market. The group covers the entire value chain for a residential property. The ZBI Group issues open- and closed-ended mutual funds for private investors. Open-ended special funds and individual funds are issued for institutional investors. All funds invest exclusively in German residential properties.

ZBI Partnerschafts-Holding GmbH was founded in 2017. UMH AG directly holds a 49.9 % (previous year: 49.9 %) stake in the company; the rest of the shares are held by CI Central Immobilien Holding AG, Erlangen (CI AG). ZBI Partnerschafts-Holding GmbH and its subsidiaries are included in the consolidated financial statements as an associate using the equity method. In the financial year, ZBI distributed a dividend of EUR 2,907 thousand to UMH AG (previous year: EUR 7,460 thousand).

Summarised financial information on ZBI:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Assets	119,889	87,639	32,250
of which cash reserve	–	–	–
Liabilities	-42,975	-44,436	1,461
of which: financial liabilities	-39,095	-40,043	948

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest income	18,054	341	17,713
Fee and commission income	208,815	90,048	118,767
Administrative expenses, depreciation and amortisation	-155,686	-66,408	-89,278
Income taxes	-18,177	-7,750	-10,427
Net income from continuing operations	53,006	16,230	36,776
Total comprehensive income	53,006	16,230	36,776

Statement of reconciliation from summarised financial information to the carrying amount of the shares in ZBI:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Recognised net assets	76,914	43,203	33,711
Multiplication by shareholding	38,380	21,558	16,822
Goodwill before reversal of impairment	25,697	25,697	–
Carrying amount from remeasurement in line with the equity method	64,077	47,255	16,822

– Other associates

The carrying amount of associates individually insignificant to the UMH Group accounted for using the equity method was EUR 7.0 million as at the end of the reporting period (previous year: EUR 7.3 million).

In the 2019 financial year, the UMH Group increased its interest in VR Consultingpartner GmbH, Frankfurt am Main, from 51 % to 100 %. VR Consultingpartner GmbH is therefore no longer included in the consolidated financial statements as an associate using the equity method and is instead recognised as a non-consolidated subsidiary.

Summarised financial information on individually insignificant associates accounted for using the equity method:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Pro rata net income from continuing operations	2,278	1,533	745
Pro rata net income from discontinued operations	–	–	–
Pro rata other comprehensive income	–	–	–
Pro rata total comprehensive income	2,278	1,533	745

- Nature and extent of material restrictions

In its domestic country of Hong Kong, the joint venture BU is subject to regulatory minimum capital requirements and therefore restrictions on its dividend and capital distributions.

The associate R+V Pensionsfonds Aktiengesellschaft, Wiesbaden, is subject to standard industry restrictions on dividend and capital distributions owing to insurance supervisory law regulations.

- Risks associated with interests in joint ventures and associates

– Obligations in relation to joint ventures

The two shareholders of BU are not permitted to end the joint venture without stating grounds. A special mechanism would take effect in this event. The terminating partner has to offer the

non-terminating partner its shares at a price per share determined by the terminating partner itself. If the non-terminating partner refuses this offer, the terminating partner must, in return, assume the shares of the non-terminating partner at the previously determined price per share. This arrangement is not reflected in the carrying amounts of the UMH Group.

The UMH Group had recognised provisions for commission for BU of EUR 753 thousand as at the end of the reporting period (previous year: EUR 569 thousand).

- Unrecognised losses

There are no unrecognised losses for the joint ventures and associates accounted for using the equity method in the UMH consolidated financial statements.

Interests in unconsolidated structured entities

- Nature of interests

In its business activities, in its capacity as an asset manager and an investor, the UMH Group has relationships with various entities set up to generate commission or investment income. Some of these entities have one or more of the following characteristics:

- The structures have been set up so that any voting rights or similar rights are not the dominant factor in deciding who controls the entity,
- they have restricted activities or
- they have a narrow and well-defined objective.

Such entities are referred to as structured entities. They are consolidated when the substance of the relationship between the UMH Group and the structured entities indicates that the structured entities are controlled by the UMH Group. The entities covered by this note are not consolidated as the UMG Group has no control over voting rights, contracts, financing agreements or other funds.

The group has interests in structured entities as defined by IFRS 12 when the UMH Group is contractually or non-contractually exposed to variable returns on the performance of these entities. Examples include debt or equity investments, investment management agreements, liquidity facilities, guarantees and derivative instruments in which the UMH Group absorbs the financial risks from the structured entities. By contrast, instruments that transfer risks to these entities do not give rise to interests in structured entities on the part of the UMH Group.

The business activities of the UMH Group with unconsolidated structured entities can be broken down into the following two types:

- Business activity 1: Management of and own-account investment in funds set up by companies of the Union Investment Group.
 - Business activity 2: Management of portfolios of funds set up by third-party companies.
- **Business activity 1: Management of funds and own-account investment in funds set up by companies of the Union Investment Group**

The unconsolidated structured entities to be taken into account in reporting in accordance with IFRS 12 are essentially funds set up by companies of the Union Investment Group in line with the contractual form model without voting rights and, to a smaller extent, in company structures with their own legal identity. The asset management companies of the group form such structured entities in order to satisfy different customer requirements in relation to investments in specific asset classes or investment styles.

The UMH Group generates income from ongoing management fees for its fund-based investment management services, supplemented in part by performance fees. In addition, the UMH Group's expenses are reimbursed from funds, partly in the form of flat-rate remuneration.

There are no derivative transactions between companies of the UMH Group and the funds managed by the Union Investment Group. Funds are not refinanced by loans from Union Investment Group companies.

Own-account investments in funds are classified at fair value through profit or loss, hence the recognised gains and losses are included in net income from investment securities and unrecognised gains and losses from these items are included in other net remeasurement income on financial instruments.

The funds are financed by issuing unit certificates to investors. Further financing – in the form of borrowing – is only used for open-ended mutual real estate funds, special property funds and other individual funds.

A key feature of all the funds managed by the Union Investment Group is risk diversification according to national investment law provisions.

A further component of business activity 1 is the guarantee funds set up by companies of the Union Investment Group. These have market value guarantees. This means that a certain amount or a certain performance is guaranteed for these investments up to a certain level. The amount of the market value guarantees and the maturity dates vary on the basis of the agreements made for the individual investment funds. A market value guarantee is triggered when the market value of the unit certificates in question do not meet the guaranteed specifications at certain dates. As at the end of the reporting period, the UMH Group managed guarantee funds with a volume of EUR 1,702,590 thousand (net asset value) (previous year: EUR 2,808,845 thousand) and a minimum payment commitment (nominal amount) of EUR 1,583,750 thousand (previous year: EUR 2,634,926 thousand). The put options embedded in the guarantee funds were measured at EUR 10,165 thousand as at the end of the reporting period (previous year: EUR 5,792 thousand) and reported as liability derivatives on the equity and liabilities side of the statement of financial position.

Number of unit certificates and volume of funds managed by the UMH Group as business activity 1:

	Volume		Number (unit certificates)	
	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	31 Dec. 2019	31 Dec. 2018
Mutual funds	184,703,333	165,031,764	334	387
of which guarantee funds	1,702,590	2,808,845	25	36
Special funds	116,299,113	99,899,124	418	392
of which guarantee funds	–	–	–	–
Total	301,002,446	264,930,888	752	779
of which guarantee funds	1,702,590	2,808,845	25	36

The following assets and liabilities are recognised in the statement of financial position of the UMH Group in connection with the interests in business activity 1. There is also possible exposure from contingent liabilities and financial guarantees, credit commitments and other commitments.

2019 financial year	Mutual funds		Special funds		Total EUR thousand
	EUR thousand	of which guarantee funds EUR thousand	EUR thousand	of which guarantee funds EUR thousand	
Assets	1,701,823	69	31,944	–	1,733,767
Loans and advances to customers	4,721	–	7,410	–	12,131
Investment fund units	1,464,467	–	6,481	–	1,470,948
Investments in subsidiaries	–	–	–	–	–
Other receivables	148,455	69	18,053	–	166,508
Assets held for sale	37,739	–	1	–	37,740
Right of use assets	46,441	–	–	–	46,441
Liabilities	56,917	10,165	5	–	56,922
Liability derivatives	10,165	10,165	–	–	10,165
Other liabilities	56	–	5	–	61
Lease liabilities	46,695	–	–	–	46,695
Net reported exposure (assets less liabilities)	1,644,906	-10,096	31,939	–	1,676,845
Contingent liabilities	–	–	–	–	–
Financial guarantees, credit commitments and other commitments	1,573,585	1,573,585	–	–	1,573,585
Financial guarantees	–	–	–	–	–
Credit commitments	–	–	–	–	–
Other commitments	1,573,585	1,573,585	–	–	1,573,585
Net reported exposure + contingent liabilities + financial guarantees, credit commitments and other commitments	3,218,491	1,563,489	31,939	–	3,250,430
Actual maximum exposure	3,218,491	1,563,489	31,939	–	3,250,430

2018 financial year	Mutual funds		Special funds		Total EUR thousand
	EUR thousand	of which guarantee funds EUR thousand	EUR thousand	of which guarantee funds EUR thousand	
Assets	1,110,323	63	23,357	–	1,133,680
Loans and advances to customers	3,270	–	899	–	4,169
Investment fund units	964,331	–	5,310	–	969,641
Investments in subsidiaries	–	–	–	–	–
Other receivables	120,381	63	17,149	–	137,530
Assets held for sale	22,340	–	1	–	22,341
Liabilities	6,369	5,792	18	–	6,387
Liability derivatives	5,792	5,792	–	–	5,792
Other liabilities	577	–	18	–	595
Net reported exposure (assets less liabilities)	1,103,954	-5,729	23,339	–	1,127,293
Contingent liabilities	–	–	–	–	–
Financial guarantees, credit commitments and other commitments	2,629,134	2,629,134	–	–	2,629,134
Financial guarantees	–	–	–	–	–
Credit commitments	–	–	–	–	–
Other commitments	2,629,134	2,629,134	–	–	2,629,134
Net reported exposure + contingent liabilities + financial guarantees, credit commitments and other commitments	3,733,088	2,623,405	23,339	–	3,756,427
Actual maximum exposure	3,733,088	2,623,405	23,339	–	3,756,427

Financial guarantees, credit commitments and other commitments are stated at their nominal amounts. This takes into account only financial guarantees, credit commitments and other commitments for which no liabilities or contingent liabilities have been recognised.

The actual maximum exposure is calculated in the UMH Group as a gross value without offsetting any collateral and is equal to the exposure reported in the table above for business activity 1.

Regarding the disclosure of the maximum downside risk, it should be noted that the above table includes market price guarantees in the amount of the nominal values of the guarantee commitments for guarantee funds (EUR 1,583,750 thousand; previous year: EUR 2,634,926 thousand), less the liability amounts recognised for the put options embedded in these products (EUR 10,165 thousand; previous year: EUR 5,792 thousand). However, the maximum loss exposure for the market price guarantees on guarantee funds is not the economic risk of this product class as this also takes into account the net assets of these guarantee funds (EUR 1,702,590 thousand; previous year: EUR 2,808,845 thousand) as at the end of the reporting period and the management model for securing minimum payment commitments for these products.

In the reporting year, the UMH Group generated the following income from the structured entities for business activity 1:

2019 financial year	Loading charges, management fees and other fee and commission income EUR thousand	Income from distributions EUR thousand	Realised and unrealised gains and losses on remeasurement through profit or loss EUR thousand	Total income recognised in profit or loss EUR thousand	Unrealised gains and losses on remeasurement in other comprehensive income EUR thousand
Mutual funds	2,189,806	7,973	17,985	2,215,764	–
of which guarantee funds	15,651	–	–	15,651	–
Special funds	172,884	207	-640	172,451	–
of which guarantee funds	–	–	–	–	–
Total	2,362,690	8,180	17,345	2,388,215	–
of which guarantee funds	15,651	–	–	15,651	–

2018 financial year	Front-end fees, management fees and other fee and commission income EUR thousand	Income from distributions EUR thousand	Realised and unrealised gains and losses on remeasurement through profit or loss EUR thousand	Total income recognised in profit or loss EUR thousand	Unrealised gains and losses on remeasurement in other comprehensive income EUR thousand
Mutual funds	2,025,509	8,155	-39,946	1,993,718	–
of which guarantee funds	28,883	–	–	28,883	–
Special funds	166,467	188	-192	166,463	–
of which guarantee funds	–	–	–	–	–
Total	2,191,976	8,343	-40,138	2,160,181	–
of which guarantee funds	28,883	–	–	28,883	–

The UMH Group incurred losses of EUR -6,614 thousand from business activity 1 in the financial year (previous year: EUR -63,088 thousand). These were included solely in net income in profit or loss. The distributions by the funds in the financial year were deducted in calculating the losses incurred for each fund.

- **Business activity 2: Management of portfolios of funds set up by third-party companies**

In addition to managing funds set up by asset management companies of the Union Investment Group, the companies of the UMH Group manage portfolios of funds set up by third-party companies. The UMH Group generates management fees and, in some cases, additional performance fees from these contractual relationships. There are no derivative transactions between companies of the UMH Group and these third-party funds. Third-party funds are not refinanced by loans from Union Investment Group companies.

The volumes and number of mandates for business activity 2 were as follows year-on-year:

	Volume		Number	
	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	31 Dec. 2019	31 Dec. 2018
Outsourcing mandates	40,256,028	37,404,548	220	223

As at the end of the reporting period, business activity 2 was reflected only in the statement of financial position item loans and advances to customers with fee and commission receivables of EUR 20,963 thousand (previous year: EUR 20,636 thousand). There was no other exposure from contingent liabilities, financial guarantees, credit commitments or other commitments for this business activity as at the end of the reporting period.

The maximum downside risk from assets from unconsolidated structured entities for business activity 2 is equal to the current carrying amounts of these items and is EUR 20,963 thousand (previous year: EUR 20,636 thousand).

In the financial year, the UMH Group generated only fee and commission income of EUR 82,750 thousand from business activity 2 (previous year: EUR 80,267 thousand). No losses were incurred on this business activity in the financial year.

Support arrangements for unconsolidated structured entities

• Nature of support

The UMH Group is considered a fund's sponsor if market participants associate this structured entity with the UMH Group. The UMH Group assumes this to be the case if the terms "Union Investment" or "Union" are used in a fund's name.

As the asset management services performed by the UMH Group for the funds set up by the companies of the Union Investment Group and third-party companies generally already satisfy the criteria for interests in structured entities, these business relationships have already been included in the disclosures on relationships with unconsolidated structured entities above and are not necessary here.

The UMH Group acts as sponsor for the "Unilmmo: Wohnen ZBI" fund and "ZBI Union Wohnen Plus" fund. The title allows the investors to associate the fund with the UMH Group. As sponsor, the UMH Group provides various services and its distribution channel.

'Unilmmo: Wohnen ZBI' is an open-ended real estate fund issued by ZBI Fondsmanagement AG. The fund invests in residential buildings, housing complexes and residential and commercial buildings in Germany. The properties are held directly.

'ZBI Union Wohnen Plus' is a special fund for institutional investors and invests predominantly in German residential properties.

The UMH Group has an exclusive distribution right for the two funds via its distribution network. In addition, the UMH Group helps ZBI Fondsmanagement AG manage the funds. The UMH Group receives compensation for distribution and for services provided.

The UMH Group generated income of EUR 28,578 thousand (previous year: EUR 4,456 thousand) from this in the financial year. No losses were incurred on this business activity in the financial year.

[69] List of shareholdings

The shareholdings of Union Asset Management Holding AG were as follows as at the end of the reporting period:

Consolidated subsidiaries

Name, registered office	Shareholding – direct	Shareholding – indirect
Asset management companies		
Union Investment Institutional GmbH, Frankfurt am Main ¹⁾	100.0 %	–
Union Investment Institutional Property GmbH, Hamburg ¹⁾	90.0 %	–
Union Investment Luxembourg S.A., Luxembourg	100.0 %	–
Union Investment Privatfonds GmbH, Frankfurt am Main ¹⁾	100.0 %	–
Union Investment Real Estate GmbH, Hamburg ¹⁾	90.0 %	–
Union Investment Real Estate Austria AG, Vienna	–	94.5 %
Financial service institutions		
Quoniam Asset Management GmbH, Frankfurt am Main ²⁾	93.1 %	–
Union Investment Austria GmbH, Vienna	100.0 %	–
VisualVest GmbH, Frankfurt am Main ¹⁾	100.0 %	–
Banks		
Union Investment Service Bank AG, Frankfurt am Main ¹⁾	100.0 %	–
Securities trading companies		
attrax S.A., Luxembourg	100.0 %	–
Union Investment Financial Services S.A., Luxembourg	–	100.0 %
Service companies		
UIR Verwaltungsgesellschaft mbH, Hamburg	–	90.0 %
Union IT-Services GmbH, Frankfurt am Main ¹⁾	100.0 %	–
Union Service-Gesellschaft mbH, Frankfurt am Main ¹⁾	100.0 %	–

¹⁾ Exercising Section 264 (3) of the German Commercial Code (HGB), the shareholder meetings of these subsidiaries resolved not to disclose their annual financial statements or their management reports for the financial year from 1 January to 31 December 2019 in accordance with Section 325 HGB.

²⁾ The share of voting rights for this company is 100 %.

Consolidated investment funds

Name, registered office	Shareholding – direct	Shareholding – indirect
UI Vario: 2, Luxembourg	–	100.0 %

Joint ventures accounted for using the equity method

Name, registered office	Shareholding – direct	Shareholding – indirect
BEA Union Investment Management Limited, Hong Kong	49.0 %	–

Associates accounted for using the equity method

Name, registered office	Shareholding – direct	Shareholding – indirect
compertis Beratungsgesellschaft für betriebliches Vorsorgemanagement mbH, Wiesbaden	49.0 %	–
R+V Pensionsfonds Aktiengesellschaft, Wiesbaden	25.1 %	–
ZBI Partnerschafts-Holding GmbH, Erlangen	49.9 %	–

Investment funds held for sale

Name, registered office	Shareholding – direct	Shareholding – indirect
German Small Asset Invest, Hamburg	100.0 %	–
UniMultiAsset: Chance I, Frankfurt am Main	–	46.0 %
UniMultiAsset: Chance II, Frankfurt am Main	–	31.1 %
UniMultiAsset: Chance III, Frankfurt am Main	–	47.7 %
UniMultiAsset: Exklusiv, Frankfurt am Main	–	48.9 %

Unconsolidated subsidiaries

Name, registered office	Shareholding – direct	Shareholding – indirect
UI Infrastruktur Management SARL, Luxembourg	–	100.0 %
UI Management S.a.r.l., Luxembourg	–	100.0 %
UII Issy 3 Moulins SARL, Paris	–	90.0 %
UII PSD KN ImmoInvest GP GmbH, Hamburg	–	90.0 %
UII SCE Management GP GmbH, Hamburg	–	90.0 %
UII Verwaltungsgesellschaft mbH, Hamburg	–	90.0 %
UIR FRANCE 1 S.a.r.l., Paris	–	90.0 %
UIR FRANCE 2 S.a.r.l., Paris	–	90.0 %
UNION INVESTMENT REAL ESTATE ASIA PACIFIC PTE. LTD., Singapore	–	90.0 %
Union Investment Real Estate France SAS, Paris	–	90.0 %
URA Verwaltung GmbH, Vienna	–	94.5 %
VR Consultingpartner GmbH, Frankfurt am Main	100.0 %	–

[70] Contingent liabilities

There are contingent liabilities of PLN 200 thousand in connection with the disposal of the company Union Investment Towarzystwo Funduszy Inwestycyjnych S.A., Warsaw, and of EUR 47 thousand due to disputed receivables from the State Treasury. There were no contingent liabilities in the previous year.

[71] Other commitments

The Union Investment Group has capital preservation commitments under Section 1 (1) no. 3 of the German Personal Pension Plan Certification Act (AltZertG) amounting to EUR 15,012,905 thousand (previous year: EUR 13,808,314 thousand). These commitments are the total amount of the contributions paid by investors into the individual variants of the UniProfiRente and UniProfiRente Select products of Union Investment Privatfonds GmbH, which, in accordance with statutory provisions, must be made available as a minimum amount at the start of the pay-out phase, plus the pay-out amounts guaranteed by Union Investment Privatfonds GmbH for contracts already in the pay-out phase.

In connection with actual guarantee funds launched by fund management companies in the UMH Group, there are minimum payment commitments of EUR 1,583,750 thousand (previous year: EUR 2,634,926 thousand).

The fair value of the shortfall in cover for these guarantee commitments is reported in the statement of financial position under 'Liability derivatives' (note [51]).

As at the year-end, there were underwriting obligations for two funds totalling EUR 7,600 thousand.

[72] Leasing

UMH Group as lessee

As part of its business operations, the UMH Group has entered into leases for buildings and operating and office equipment (vehicles and hardware). The leases for buildings and operating and office equipment have terms of two to 17 years and two to six years respectively.

Leases have been concluded with renewal and termination options and with variable lease payments.

The UMH Group has short-term leases with a term of less than 12 months and leases for low-value assets. UMH applies the exemptions provided by IFRS 16 for short-term leases and low-value assets.

The maturity analysis for the lease liabilities can be found in note [64].

The following income and expenses were recorded in the consolidated income statement in the financial year:

	2019 EUR thousand
Depreciation of right of use assets	-25,294
Interest expenses on lease liabilities	-994
Expenses for short-term leases	-4,939
Expenses for low-value leases	-5,510
Expenses not included in the measurement of lease liabilities	-4,360
Income from subleasing right of use assets	34
Total	-41,063

As at the end of the reporting period there was EUR 1,354 thousand in obligations from short-term leases posted in accordance with IFRS 16.6. The portfolio of these leases is dissimilar to the portfolio of short-term leases based on the expenses for short-term leases presented in the table above.

Total outflows in the financial year came to EUR 40,616 thousand.

The following table shows future outflows that are not taken into account when calculating the lease liabilities:

	31 Dec. 2019 EUR thousand
From variable lease payments	16,302
From renewal and termination options	295,420
From residual value guarantees	–
From leases that have already been concluded but have not yet commenced	173,220
Total	484,942

There are no restrictions or commitments in connection with leases.

There were no sale and leaseback transactions in the financial year.

UMH Group as lessor

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Future minimum lease payments under non-cancellable operating leases	83	303	-220
of which up to one year	48	53	-5
of which one to two years	35	53	-18
of which two to three years	–	53	-53
of which three to four years	–	53	-53
of which four to five years	–	53	-53
of which more than five years	–	38	-38
Future minimum lease payments are attributable to:	83	303	-220
Land and buildings leases	83	303	-220
Vehicle leases	–	–	–
IT leases	–	–	–

Income from operating leases reported in the financial year amounted to EUR 34 thousand. In addition, EUR 8 thousand was reported in variable lease payments not linked to an index or interest rate.

Rental income results from subleasing food and catering space in the MainTorPorta building. This does not involve any material risks.

[73] Financial guarantees

Following the disposal of GVA GENO-Vermögens-Anlage Gesellschaft mbH, Frankfurt am Main, (GVA), in the 2011 financial year UMH AG issued guarantees to DZ BANK and WGZ BANK as security for loans extended by these banks to two closed-end investment funds marketed by GVA. Following the merger of DZ BANK and WGZ BANK on 29 July 2016, the full amount of the guarantee relates to DZ BANK.

As at 31 December 2019, the nominal amount of these guarantees was USD 62.4 million (previous year: USD 62.4 million) or EUR 55.7 million (previous year: EUR 54.5 million).

[74] Number of employees

The following table gives a breakdown by category of the average number of employees in the financial year, calculated in accordance with Section 267 (5) HGB:

	2019 Number	2018 Number	Change Number
Female employees	1,392	1,329	63
of which full-time employees	800	765	35
of which part-time employees	592	564	28
Male employees	1,780	1,714	66
of which full-time employees	1,650	1,605	45
of which part-time employees	130	109	21
Total employees	3,172	3,043	129
For information only:			
Female trainees	56	61	-5
Male trainees	89	87	2
Total trainees	145	148	-3

[75] Auditor fees

The following table shows the breakdown of auditor fees by type of service:

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Audits of financial statements	695	655	40
Other assurance services	113	121	-8
Tax consultancy services	51	–	51
Other services	1,319	1,301	18
Total	2,178	2,077	101

Auditor fees comprise expenses relating to the audit of the consolidated financial statements and group management report of UMH AG, the statutory audit of the annual financial statements and management report of UMH AG, and the audit of the separate financial statements, management reports and consolidation packages of subsidiaries included in the consolidated financial statements for which an audit is required. This category also includes the fees for the auditor's review of the condensed interim consolidated financial statements packages during the year. The fees charged for other assurance services essentially included fees for the audit performed in accordance with Section 36 of the German Securities Trading Act (WpHG) and other assurance and audit-related services. The fees for other services mainly resulted from the auditing of funds.

[76] Events after the end of the reporting period

There were no events of particular significance after the end of the financial year.

[77] Related party disclosures

As at the end of the reporting period, DZ BANK directly held 72.32 % of the share capital of UMH AG (previous year: 72.32 %). In accordance with IFRS 10, UMH AG is therefore controlled by DZ BANK and thus DZ BANK is a related party of the UMH Group. The other companies included in the DZ BANK consolidated group, non-consolidated subsidiaries, associates and joint ventures of DZ BANK continue to be related parties.

The list of shareholdings (note [69]) shows the related parties controlled by the UMH Group or over which the UMH Group can exercise a significant influence.

In the UMH Group, the following are related parties (individuals) as defined by IAS 24.9: the Board of Managing Directors and the Supervisory Board of DZ BANK, the Board of Managing Directors and the Supervisory Board of UMH AG, the heads of segments/divisions and further key management personnel in the UMH Group and their respective close family members.

UMH AG maintains extensive business relationships with the entities included in the consolidated financial statements as part of its normal business activities. The transactions within these relationships are conducted on an arm's-length basis.

UMH AG and other entities included in the consolidated financial statements enter into relationships with other related parties in their normal business activities. Such business is transacted on an arm's-length basis.

Related party disclosures

Assets	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Loans and advances to banks	508,408	720,382	-211,974
of which DZ BANK	489,218	451,819	37,399
of which entities also controlled by DZ BANK	19,143	268,518	-249,375
of which joint ventures of DZ BANK	47	45	2
Loans and advances to customers	16,641	8,126	8,515
of which entities also controlled by DZ BANK	411	323	88
of which unconsolidated subsidiaries	5	114	-109
of which associates of UMH AG	16,115	7,580	8,535
of which joint ventures of UMH AG	110	109	1
Other assets	13,440	11,121	2,319
of which DZ BANK	90	0	90
of which entities also controlled by DZ BANK	2,281	1,534	747
of which unconsolidated subsidiaries	58	72	-14
of which pension plans for employees	11,011	9,515	1,496
Right of use assets	76	-	76
of which DZ BANK	76	-	76

Equity and liabilities	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Liabilities to banks	44	138	-94
of which entities also controlled by DZ BANK	44	138	-94
Liabilities to customers	26	39	-13
of which entities also controlled by DZ BANK	24	26	-2
of which associates of UMH AG	2	13	-11
Other liabilities	131,485	107,811	23,674
of which DZ BANK	87,754	74,467	13,287
of which entities also controlled by DZ BANK	40,688	30,405	10,283
of which joint ventures of DZ BANK	2,042	2,147	-105
of which associates of UMH AG	248	223	25
of which joint ventures of UMH AG	753	569	184
Lease liabilities	76	-	76
of which DZ BANK	76	-	76

Consolidated income statement	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Interest income and current income	-933	-880	-53
of which DZ BANK	-808	-587	-221
of which entities also controlled by DZ BANK	-125	-293	168
Interest expenses	-1,044	-1,068	24
of which DZ BANK	-993	-888	-105
of which entities also controlled by DZ BANK	-51	-180	129
Fee and commission income	-53,171	-61,337	8,166
of which DZ BANK	-70,525	-63,166	-7,359
of which entities also controlled by DZ BANK	-7,727	-9,459	1,732
of which joint ventures of DZ BANK	-876	-767	-109
of which unconsolidated subsidiaries	-42	42	-84
of which associates of UMH AG	25,591	11,583	14,008
of which joint ventures of UMH AG	408	430	-22
Fee and commission expenses	-95,255	-87,204	-8,051
of which DZ BANK	-48,295	-48,052	-243
of which entities also controlled by DZ BANK	-43,194	-35,625	-7,569
of which joint ventures of DZ BANK	–	–	–
of which associates of UMH AG	-951	-986	35
of which joint ventures of UMH AG	-2,815	-2,541	-274
Administrative expenses	-7,633	-8,510	877
of which DZ BANK	-3,334	-4,388	1,054
of which entities also controlled by DZ BANK	-2,616	-2,454	-162
of which joint ventures of DZ BANK	-119	-79	-40
of which unconsolidated subsidiaries	-1,419	-1,422	3
of which associates of UMH AG	-135	-167	32
of which joint ventures of UMH AG	-10	–	-10

Consolidated income statement	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Other operating result	2,853	3,465	-612
of which DZ BANK	261	1,898	-1,637
of which entities also controlled by DZ BANK	950	1,084	-134
of which joint ventures of DZ BANK	-47	-70	23
of which unconsolidated subsidiaries	522	365	157
of which associates of UMH AG	1,167	188	979
Other disclosures	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand	Change EUR thousand
Financial guarantees	55,749	54,474	1,275
of which DZ BANK	55,749	54,474	1,275

Please see the information in note [73] regarding financial guarantees.

The fair value of the plan assets managed by the associate R+V Pensionsfonds Aktiengesellschaft, Wiesbaden, was EUR 24,507 thousand as at the end of the reporting period (previous year: EUR 23,584 thousand). Funding of EUR 261 thousand was provided in the financial year (previous year: EUR 21 thousand).

The “Other assets” item includes pension plans for the benefit of employees with a value of EUR 11,011 thousand (previous year: EUR 9,515 thousand). This includes the fair value of reimbursement claims against R+V Lebensversicherung AG, Wiesbaden, a company also controlled by DZ BANK, amounting to EUR 7,730 thousand (previous year: EUR 6,716 thousand). Funding of EUR 1,047 thousand was provided in the financial year (previous year: EUR 932 thousand).

Remuneration paid to related parties

The UMH Group's key management personnel are deemed to comprise the Board of Managing Directors and the Supervisory Board of UMH AG, the heads of segments/divisions and other staff in key positions in the group.

In accordance with IAS 19.151, disclosures are also made with regard to the post-employment benefits paid to these persons.

	2019 EUR thousand	2018 EUR thousand	Change EUR thousand
Short-term remuneration	9,927	10,573	-646
Long-term remuneration	2,379	2,670	-291
Contributions to defined contribution plans	45	48	-3
Current service cost for defined benefit plans	2,242	2,582	-340
Total	14,593	15,873	-1,280

The remuneration paid to the members of the Supervisory Board of UMH AG for the performance of their duties amounted to EUR 374 thousand in the financial year (previous year: EUR 361 thousand). The remuneration paid to the members of the Board of Managing Directors of UMH AG in the financial year amounted to EUR 3,791 thousand (previous year: EUR 5,015 thousand).

[78] Board of Managing Directors of Union Asset Management Holding AG

Name	Professional capacity
Hans Joachim Reinke	Chief Executive Officer
Alexander Lichtenberg	Member of the Board of Managing Directors (since 1 January 2020)
Alexander Schindler	Member of the Board of Managing Directors
Jens Wilhelm	Member of the Board of Managing Directors

[79] Supervisory Board of Union Asset Management Holding AG

Name and title	Professional capacity
Dr Cornelius Riese Chief Executive Officer ¹⁾	Co-Chief Executive Officer, DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main
Rainer Schaidnagel Deputy Chairman ¹⁾	Chief Executive Officer, Raiffeisenbank Kempten-Oberallgäu eG, Kempten
Thorsten Bartsch Employee representative (since 1 September 2019)	Group manager, editorial and training management, Union Investment Privatfonds GmbH, Frankfurt am Main
Ulrike Brouzi Member (since 8 April 2019) ¹⁾	Member of the Board of Managing Directors, DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main
Dr Matthias Hildner Member	Chief Executive Officer, Wiesbadener Volksbank eG, Wiesbaden
Marija Kolak Member	President, Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. (BVR), Berlin
David Milleker Employee representative ¹⁾	Works Council (since 1 January 2020), Union Asset Management Holding AG, Frankfurt am Main
Roland Müller Employee representative (until 31 August 2019) ¹⁾	Works Council (until 31 August 2019), Union Asset Management Holding AG, Frankfurt am Main
Prof. Dr Wolfgang Müller Member	Chief Executive Officer, BBBank eG, Karlsruhe
Wolfgang Nett Employee representative	Sales director, Union Investment Privatfonds GmbH, Frankfurt am Main
Jörn Nordenholz Member	Chief Executive Officer, Volksbank eG, Sulingen
Heike Orth Employee representative	Group leader, Admin Service Institutional Clients Union Investment Institutional GmbH, Frankfurt am Main
Dr Norbert Rollinger Member	Chief Executive Officer, R+V Versicherung AG, Wiesbaden
Stefan Schindler Member	Chief Executive Officer, Sparda-Bank Nürnberg eG, Nuremberg
Andreas Theis Member	Member of the Board of Managing Directors, Volksbank Eifel eG, Bittburg
Claudia Vives Carrasco Employee representative	Real estate manager, Union Investment Real Estate GmbH, Hamburg

¹⁾ Also a member of the Executive Committee of the Supervisory Board (Ms Ulrike Brouzi since 1 August 2019, Mr Roland Müller until 31 August 2019, Mr David Milleker since 1 September 2019).

[80] Supervisory mandates held by members of the Board of Managing Directors and employees

As at 31 December 2019, members of the Board of Managing Directors and employees also held mandates on the statutory supervisory bodies of major corporations. Companies included in the consolidated financial statements are indicated with an asterisk (*).

Mandates held by members of the Board of Managing Directors of Union Asset Management Holding AG:

Name	Position(s)
Hans Joachim Reinke	Union Investment Institutional GmbH, Frankfurt am Main (*) Deputy Chairman of the Supervisory Board Union Investment Luxembourg S.A., Luxembourg (*) Chairman of the Board of Directors Union Investment Privatfonds GmbH, Frankfurt am Main (*) Chairman of the Supervisory Board Union Investment Real Estate GmbH, Hamburg (*) Deputy Chairman of the Supervisory Board Union Investment Service Bank AG, Frankfurt am Main (*) Chairman of the Supervisory Board
Alexander Schindler	Union Investment Institutional GmbH, Frankfurt am Main (*) Chairman of the Supervisory Board Quoniam Asset Management GmbH, Frankfurt am Main (*) Chairman of the Supervisory Board
Jens Wilhelm	Union Investment Privatfonds GmbH, Frankfurt am Main (*) Deputy Chairman of the Supervisory Board Union Investment Real Estate GmbH, Hamburg (*) Chairman of the Supervisory Board Union Investment Service Bank AG, Frankfurt am Main (*) Deputy Chairman of the Supervisory Board

Mandates held by employees of Union Asset Management Holding AG:

Name	Position(s)
Sonja Albers	Union Investment Service Bank AG, Frankfurt am Main (*) Member of the Supervisory Board

Mandates held by members of management boards/senior management and employees:

Name	Position(s)
Dr Frank Engels Member of management (Union Investment Privatfonds GmbH)	Union Investment Luxembourg S.A., Luxembourg (*) Member of the Board of Directors
Giovanni Gay Member of management (Union Investment Privatfonds GmbH)	attrax S.A., Luxembourg (*) Chairman of the Board of Directors Union Investment Luxembourg S.A., Luxembourg (*) Deputy Chairman of the Board of Directors
André Haagmann Member of management (Union Investment Institutional GmbH)	Union Investment Luxembourg S.A., Luxembourg (*) Member of the Board of Directors (since 1 October 2019) Quoniam Asset Management GmbH, Frankfurt am Main (*) Deputy Chairman of the Supervisory Board (since 10 May 2019) Member of the Supervisory Board (since 2 April 2019)
Rainer Kobusch Member of the Board of Managing Directors (Union Investment Service Bank AG)	attrax S.A., Luxembourg (*) Deputy Chairman of the Board of Directors
Dr Reinhard Kutscher Chief Executive Officer (Union Investment Real Estate GmbH, until 31 December 2019)	DZ HYP AG, Hamburg and Münster Member of the Supervisory Board (until 31 December 2019)
Klaus Riester Member of management (Union Investment Privatfonds GmbH)	attrax S.A., Luxembourg (*) Member of the Board of Directors
Nikolaus Sillem Member of management (Union Investment Institutional GmbH, until 30 June 2019) (Quoniam Asset Management GmbH, since 1 July 2019)	Union Investment Luxembourg S.A., Luxembourg (*) Member of the Board of Directors (until 30 June 2019) Quoniam Asset Management GmbH, Frankfurt am Main (*) Deputy Chairman of the Supervisory Board (until 1 April 2019)
Jörn Stobbe Member of management (Union Investment Institutional Property GmbH) (Union Investment Real Estate GmbH)	1. FC Köln GmbH & Co. KGaA, Cologne Chairman of the Supervisory Board (since 14 October 2019) Member of the Supervisory Board (since 7 October 2019) ADO Properties S.A., Luxembourg Member of the Board of Directors

[81] Miscellaneous other disclosures

The Board of Managing Directors signed these consolidated financial statements on 10 March 2020 and approved them for submission to the Supervisory Board. It is the responsibility of the Supervisory Board to review the consolidated financial statements and then to declare whether the consolidated financial statements are approved.

Frankfurt am Main, 10 March 2020

Union Asset Management Holding AG



Hans Joachim Reinke
(Chief Executive Officer)



Alexander Schindler
(Member of the Board
of Managing Directors)



Jens Wilhelm
(Member of the Board
of Managing Directors)



Alexander Lichtenberg
(Member of the Board
of Managing Directors)

Independent auditor's report

To Union Asset Management Holding AG

Audit opinions

We have audited the consolidated financial statements of Union Asset Management Holding AG, Frankfurt am Main, and its subsidiaries (the group), comprising the consolidated income statement for the financial year from 1 January 2019 to 31 December 2019, the statement of comprehensive income for the financial year from 1 January 2019 to 31 December 2019, the consolidated statement of financial position as at 31 December 2019, the statement of changes in equity and the statement of cash flows for the financial year from 1 January 2019 to 31 December 2019, and the notes, including a summary of significant accounting policies. In addition, we audited Union Asset Management Holding AG's group management report for the financial year from 1 January 2019 to 31 December 2019. In line with the requirements of German law, we did not audit the content of the corporate governance declaration according to Section 289f (4) of the German Commercial Code (HGB) (disclosures on the proportion of women) included in section C of the management report or of the non-financial statement included in section E of the management report.

In our opinion, based on the findings of our audit,

- the attached consolidated financial statements comply in all material respects with IFRSs, as adopted by the EU, and the additional requirements of German law pursuant to Section 315e (1) HGB and, in accordance with these requirements, give a true and fair view of the group's net assets and financial position as at 31 December 2019, and of its results of operations for the financial year from 1 January 2019 to 31 December 2019, and
- the attached group management report as a whole presents an accurate view of the group's position. The group management report is consistent with the consolidated financial statements, complies with German legal regulations and suitably presents the opportunities and risks of future development. Our audit opinion regarding the management report does not extend to the contents of the corporate governance declaration in section C of the management report or to the non-financial statement in section E of the management report.

Pursuant to Section 322 (3) Sentence 1 HGB, we state that our audit has not led to any reservations with regard to the compliance of the consolidated financial statements or the group management report.

Basis for the audit opinions

We conducted our audit of the consolidated financial statements and the group management report in accordance with Section 317 HGB and the German generally accepted standards for the audit of financial statements promulgated by the Institute of Public Auditors in Germany (IDW). Our responsibility according to these regulations and standards is described in further detail in the "Responsibility of the auditor for the audit of the consolidated financial statements and the group management report" section of our auditor's report. We are independent of the consolidated companies in compliance with the provisions of German commercial law and professional law and have fulfilled our other German professional obligations in compliance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions regarding the consolidated financial statements and the group management report.

Other information

The legal representatives are responsible for the other information. Other information includes the content of the corporate governance declaration according to Section 289f (4) of the German Commercial Code (HGB) relating to the proportion of women in section C of the management report and the non-financial statement included in section E of the management report.

Our audit opinions regarding the consolidated financial statements and the group management report do not extend to the other information, and accordingly we provide neither an audit opinion nor any other form of audit conclusion in this regard.

As part of our audit, we have a responsibility to read the other information and to evaluate whether it

- exhibits material discrepancies with the consolidated financial statements, the group management report or the knowledge we have obtained during our audit, or
- otherwise seems significantly incorrect.

If, on the basis of our work, we conclude that this other information is significantly incorrect, we are obliged to report this fact. We have nothing to report in this regard.

Responsibility of the legal representatives and the Supervisory Board for the consolidated financial statements and the group management report

The legal representatives are responsible for preparing the consolidated financial statements, which in all material respects comply with IFRSs, as adopted by the EU, and the additional requirements of German law pursuant to Section 315e (1) HGB, and for the consolidated financial statements giving a true and fair view of the net assets, financial position and results of operations of the group in accordance with these requirements. Furthermore, the legal representatives are responsible for the internal controls that they deemed necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

When preparing the consolidated financial statements, the legal representatives are responsible for assessing the group's status as a going concern. In addition, they have a responsibility to disclose matters related to the status as a going concern, if relevant. They are also responsible for accounting on the basis of the going concern principle, unless they intend to liquidate the group or discontinue its business operations, or there is no realistic alternative.

Moreover, the legal representatives are responsible for preparing the group management report, which as a whole provides an accurate view of the group's position and is consistent with the consolidated financial statements in all material respects, complies with German legal regulations and suitably presents the opportunities and risks of future development. The legal representatives are also responsible for the arrangements and measures (systems) that they considered necessary to enable the preparation of a group management report in compliance with applicable German legal regulations and to allow sufficient, suitable evidence to be provided for the statements in the group management report.

The Supervisory Board is responsible for monitoring the group's accounting process for the preparation of the consolidated financial statements and the group management report.

Responsibility of the auditor for the audit of the consolidated financial statements and the group management report

Our objective is to obtain reasonable assurance as to whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an accurate view of the group's position and is in all material respects consistent with the consolidated financial statements and with the findings of the audit, complies with German legal regulations and suitably presents the opportunities and risks of future development, and to issue an auditor's report containing our audit opinions regarding the consolidated financial statements and the group management report.

Reasonable assurance is a high level of assurance but not a guarantee that an audit carried out in compliance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the IDW will always uncover a material misstatement. Misstatements can result from transgressions or inaccuracies and are deemed material if it could be reasonably expected that they would individually or together influence the financial decisions made by users on the basis of the consolidated financial statements and group management report.

We exercise due discretion during the audit and maintain a critical attitude. In addition,

- we identify and evaluate the risk of material misstatements, whether due to fraud or error, in the consolidated financial statements and the group management report, plan and implement audit procedures in response to these risks and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk that material misstatements are not uncovered is higher in the case of transgressions than in the case of inaccuracies, as transgressions can entail fraudulent collaboration, falsifications, deliberate omissions, misleading depictions or the suspension of internal controls;
- we gain an understanding of the internal control system relevant for the audit of the consolidated financial statements and of the arrangements and measures relevant for the audit of the group management report in order to plan audit procedures that are appropriate given the circumstances but not with the aim of providing an audit opinion regarding the effectiveness of these systems;
- we evaluate the appropriateness of the accounting policies used by the legal representatives and the reasonableness of the estimated values presented by the legal representatives and the associated disclosures;

- we draw conclusions about the appropriateness of the going concern principle applied by the legal representatives and, on the basis of the audit evidence obtained, whether there is material uncertainty regarding events or circumstances that could cause significant doubt about the group's ability to continue as a going concern. If we come to the conclusion that there is material uncertainty, we are obliged to call attention to the associated disclosures in the consolidated financial statements and in the group management report in the auditor's report or, if these disclosures are inappropriate, to modify our respective audit opinion. We draw our conclusions on the basis of the audit evidence obtained up to the date of our auditor's report. However, future events or circumstances may mean that the group is no longer a going concern;
- we evaluate the overall presentation, the structure and the content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events such that the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the group in accordance with IFRSs, as adopted by the EU, and the additional requirements of German law pursuant to Section 315a (1) HGB;
- we obtain sufficient appropriate audit evidence for the company's accounting information or business activities within the group in order to provide audit opinions regarding the consolidated financial statements and the group management report. We are responsible for directing, monitoring and implementing the audit of the consolidated financial statements. We bear sole responsibility for our audit opinions;
- we evaluate the consistency of the group management report with the consolidated financial statements, its legality and the view it gives of the position of the group;
- we conduct audit procedures regarding the forward-looking disclosures made by the legal representatives in the group management report. On the basis of sufficient appropriate audit evidence, we examine the significant assumptions underlying the legal representatives' forward-looking disclosures in particular and evaluate the appropriateness of the derivation of the forward-looking disclosures from these assumptions. We do not provide a separate audit opinion regarding the forward-looking disclosures or the underlying assumptions. There is a considerable, unavoidable risk that future events will differ significantly from the forward-looking disclosures.

Topics for discussion with those responsible for monitoring include the planned scope and scheduling of the audit as well as significant audit findings, including any deficiencies in the internal control system that we find during our audit.

Eschborn/Frankfurt am Main, 10 March 2020

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft



Heist
Public auditor



Kruskop
Public auditor

Shareholders and executive bodies of Union Asset Management Holding AG

Shareholders

DZ Bank AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main	72.32 %
VR GbR, Frankfurt am Main	24.25 %
Local cooperative banks including holding companies of the primary banks, trade associations and special-purpose entities of Germany's Genossenschaftliche FinanzGruppe and other entities	3.43 %

As at: 10 March 2020.

Board of Managing Directors of Union Asset Management Holding AG

Name	Professional capacity
Hans Joachim Reinke	Chief Executive Officer
Alexander Lichtenberg	Member of the Board of Managing Directors (since 1 January 2020)
Alexander Schindler	Member of the Board of Managing Directors
Jens Wilhelm	Member of the Board of Managing Directors

Supervisory Board of Union Asset Management Holding AG

Name and title	Professional capacity
Dr Cornelius Riese Chief Executive Officer ¹⁾	Co-Chief Executive Officer, DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main
Rainer Schaidnager Deputy Chairman ¹⁾	Chief Executive Officer, Raiffeisenbank Kempten-Oberallgäu eG, Kempten
Thorsten Bartsch Employee representative (since 1 September 2019)	Group manager, editorial and training management, Union Investment Privatfonds GmbH, Frankfurt am Main
Ulrike Brouzi Member (since 8 April 2019) ¹⁾	Member of the Board of Managing Directors, DZ BANK AG Deutsche Zentral-Genossenschaftsbank, Frankfurt am Main
Dr Matthias Hildner Member	Chief Executive Officer, Wiesbadener Volksbank eG, Wiesbaden
Marija Kolak Member	President, Bundesverband der Deutschen Volksbanken und Raiffeisenbanken e.V. (BVR), Berlin
David Milleker Employee representative ¹⁾	Works Council (since 1 January 2020), Union Asset Management Holding AG, Frankfurt am Main
Roland Müller Employee representative (until 31 August 2019) ¹⁾	Works Council (until 31 August 2019), Union Asset Management Holding AG, Frankfurt am Main
Prof. Dr Wolfgang Müller Member	Chief Executive Officer, BBBank eG, Karlsruhe
Wolfgang Nett Employee representative	Sales director, Union Investment Privatfonds GmbH, Frankfurt am Main
Jörn Nordenholz Member	Chief Executive Officer, Volksbank eG, Sulingen
Heike Orth Employee representative	Group leader, Admin Service Institutional Clients Union Investment Institutional GmbH, Frankfurt am Main
Dr Norbert Rollinger Member	Chief Executive Officer, R+V Versicherung AG, Wiesbaden
Stefan Schindler Member	Chief Executive Officer, Sparda-Bank Nürnberg eG, Nuremberg
Andreas Theis Member	Member of the Board of Managing Directors, Volksbank Eifel eG, Bitburg
Claudia Vives Carrasco Employee representative	Real estate manager, Union Investment Real Estate GmbH, Hamburg

¹⁾ Also a member of the Executive Committee of the Supervisory Board (Ms Ulrike Brouzi since 1 August 2019, Mr Roland Müller until 31 August 2019, Mr David Milleker since 1 September 2019).

Advisory Board

Matthias Battefeld	Member of the Board of Managing Directors Hannoversche Volksbank eG	Sascha Monschauer	Member of the Board of Managing Directors Volksbank Rhein-Ahr-Eifel eG
Ralph Blankenberg	Chairman of the Board of Managing Directors Volksbank Ulm-Biberach eG	Andreas Otto	Chief Executive Officer Volksbank im Bergischen Land eG
Günter Brück	Member of the Board of Managing Directors Volksbank Alzey-Worms eG	Martina Palte	Member of the Board of Managing Directors Berliner Volksbank eG
Gerd-Ulrich Cohrs	Member of the Board of Managing Directors Volksbank Lüneburger Heide eG	Eckhard Rave	Member of the Board of Managing Directors VR Bank Westküste eG
Andreas Fella	Member of the Board of Managing Directors Raiffeisenbank Main-Spessart eG	Reiner Richter	Member of the Board of Managing Directors Volksbank Lahr eG
Bernd Finkbeiner	Member of the Board of Managing Directors VR-Bank Ellwangen eG	Martin Schadewald	Member of the Board of Managing Directors Volksbank Jever eG
Gerald Fleischmann	Chief Executive Officer VOLKSBANK WIEN AG	Roland Schäfer	Chief Executive Officer Volksbank Bruchsal-Bretten eG
Josef Frauenlob	Chief Executive Officer Volksbank Raiffeisenbank Oberbayern Südost eG	Georg Schneider	Member of the Board of Managing Directors VR-Bank Handels- und Gewerbebank eG
Dr Christoph Glenk	Chief Executive Officer VR-Bank Feuchtwangen-Dinkelsbühl eG	Dr Klaus Schraudner	Member of the Board of Managing Directors Pax Bank eG
Mirko Gruber	Deputy Chairman of the Board of Managing Directors Volksbank Raiffeisenbank Rosenheim-Chiemsee eG	Uwe Schulze-Vorwick	Member of the Board of Managing Directors Volksbank Bochum Witten eG
Peter Herbst	Member of the Board of Managing Directors Nordthüringer Volksbank eG	Thomas Sterthoff	Chief Executive Officer VB Bielefeld-Gütersloh
Markus Hörmann	Member of the Board of Managing Directors Volksbank Tirol AG	Thomas Taubenberg	Member of the Board of Managing Directors VR Bank Tübingen eG
Thomas Jakoby	Member of the Board of Managing Directors VVB Münster	André Thaller	Chief Executive Officer PSD Bank Nord eG
Thorsten Jensen	Member of the Board of Managing Directors VR Bank Nord eG	Roland Trageser	Deputy Chairman of the Board of Managing Directors Volks- und Raiffeisenbank Main-Kinzig-Büdingen eG
Jochen Kerschbaumer	Member of the Board of Managing Directors Wiesbadener Volksbank eG	Edmund Wanner	Chief Executive Officer Volksbank Straubing eG
Martin Ließem	Member of the Board of Managing Directors VR-Bank Bonn eG	Michael Weidmann	Member of the Board of Managing Directors Sparda-Bank Hessen eG
Jörg Lindemann	Member of the Board of Managing Directors Volksbank Darmstadt-Südhessen eG	Rolf Witezek	Member of the Board of Managing Directors Volksbank Mittelhessen eG
Jan Mackenberg	Member of the Board of Managing Directors Volksbank Osterholz-Scharmbeck eG	Matthias Zander	Chairman of the Board of Managing Directors Volksbank Kraichgau eG

As at: 10 March 2020.

Glossary

Associates (investments in associates)

An associate is an entity in which an investor can exercise significant influence over the entity's financial and operating policy decisions. Associates are generally included in the investor's consolidated financial statements using the equity method.

Cash flow

Cash flow is the term given to inflows and outflows of cash and cash equivalents.

Deferred taxes

Deferred taxes are income taxes that are to be paid or refunded in the future, that arise from measurement differences between the tax base and the IFRS financial statements and that do not constitute a current tax liability due to the tax authorities, or a current tax receivable due from the tax authorities, on the date they are recognised. Deferred taxes are recognised in respect of timing differences and, in certain circumstances, in respect of tax loss carry-forwards.

Derivatives

Derivatives are financial instruments with the following characteristics: their value changes in response to the change in a specified underlying instrument (for example share price, foreign exchange rate, interest rate); they generally require only a small initial investment or no initial investment at all; and they are settled at a future date in cash or by the delivery of the underlying instrument.

Effective interest method

The effective interest method is a method of determining the effective interest income or expense on interest-bearing financial instruments. The effective interest method is used, for example, to allocate premiums or discounts and capitalised transaction costs over the term of a financial instrument so as to generate a constant rate of interest on the carrying amount.

Equity method

The equity method is a prescribed method for recognising and measuring investments in associates and joint ventures in consolidated financial statements prepared in accordance with IFRS. The measurement of the investment in the investor's financial statements is based on the proportion of equity attributable to the investor. Changes in this share of equity are reflected in the financial statements of the investor by an adjustment to the measurement of the investment (mirror image method).

Fair value

Fair value is the price at which an orderly transaction to sell an asset or to transfer a liability would take place between market participants at the measurement date.

Finance lease

A lease is classified as a finance lease if substantially all the risks and rewards incidental to ownership of the leased asset are transferred.

Financial assets designated at fair value through profit or loss (fair value option)

Financial assets may be assigned to the category by exercising the fair value option if they are used to eliminate or substantially reduce recognition or measurement inconsistencies (accounting mismatches). The fair value option is used to eliminate or substantially reduce accounting mismatches resulting from the different measurement of non-derivative financial instruments and derivative financial instruments used to hedge them.

Financial liabilities mandatorily measured at fair value through profit or loss

This category includes financial liabilities that are issued with the intention of repayment in the near future. For this purpose, these financial liabilities must be part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking or they must be derivative financial instruments that are not designated as hedges in effective hedging relationships.

Financial assets measured at amortised cost

It is classified in this category if the financial asset is held within a business model whose objective is to hold financial assets for the recognition of contractual cash flows. The contractual terms of the financial asset result in contractual cash flows that are solely payments of principal and interest on the principal amount outstanding (cash flow condition).

Financial assets measured at fair value through other comprehensive income (fair value OCI)

Allocation to this category takes place if the financial asset is held within the framework of a business model whose objective is both the recognition of contractual cash flows and the sale of financial assets. In addition, the contractual terms of the financial asset on specified dates must result in cash flows that are solely payments of principal and interest on the principal amount outstanding. There is also the irrevocable option to initially designate equity instruments as "financial assets measured at fair value through other comprehensive income" (fair value OCI option).

Financial instrument

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial assets mandatorily measured at fair value through profit or loss

This category includes financial assets that do not meet the cash flow condition under IFRS 9 or that are acquired with the intention to subsequent disposal in the near future. For this purpose, these financial assets must be part of a portfolio of identified financial instruments that are managed together and for which there is evidence of a recent pattern of short-term profit-taking or they must be derivative financial instruments that are not designated as hedges in effective hedging relationships.

Financial liabilities measured at amortised cost (AC)

Financial liabilities are to be categorised as “financial liabilities measured at amortised cost” for subsequent measurement. This excludes “financial liabilities measured at fair value through profit or loss”, financial liabilities that arise when a transfer of a financial asset does not meet the derecognition requirement or the accounting is based on its continuing involvement, financial guarantees, credit commitments with a below-market interest rate and contingent consideration that is recognised by a purchaser in a business combination in accordance with IFRS 3.

Financial liabilities measured at fair value through profit or loss (fair value option)

Financial liabilities may be assigned to this category by exercising the fair value option if they eliminate or significantly reduce recognition or measurement inconsistencies (accounting mismatches), which are managed as a portfolio based on the fair value or contain one or more embedded derivatives subject to separation.

Goodwill

Goodwill is the positive difference between the price paid for a business combination and the sum of the fair values for the proportion of assets acquired and liabilities assumed. It encompasses future economic benefits that cannot be separately identified and recognised as individual assets.

Held for sale

A non-current asset or disposal group is classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use.

Impairment (of assets)

An asset is impaired if its recoverable amount is less than its carrying amount. The methodology for calculating the amount of an impairment loss depends on each individual case and the relevant IFRS provisions.

International Financial Reporting Standards (IFRS)

International Financial Reporting Standards (IFRS) are the accounting standards published by the International Accounting Standards Board (IASB). In addition to the IFRS published since 2003, the standards include the previously published International Accounting Standards (IAS), the interpretations of the Standing Interpretations Committee (SIC) and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC).

Joint venture

A joint venture is a contractual arrangement whereby two or more parties undertake an economic activity that is subject to joint control.

Loans and receivables

Loans and receivables are non-derivative financial assets that have fixed or determinable payments and that are not quoted on an active market. This category includes, in particular, receivables and some types of investment securities.

Non-controlling interests

Non-controlling interests comprise the share of subsidiaries' equity not attributable to the parent company.

Operating lease

Operating leases are all leases that do not transfer substantially all the risks and rewards incidental to ownership of an underlying asset.

Other financial liabilities

All financial liabilities that are not classified as held for trading or designated at fair value through profit or loss are classified as other financial liabilities. Other financial liabilities are measured at amortised cost.

Purchase method

The purchase method must be used to account for business combinations in consolidated financial statements prepared in accordance with IFRS. The purchase method is based on the notion that all the assets and liabilities held by the acquiree – rather than this entity's shares – are acquired at their respective fair value. Hidden reserves and liabilities reported in the acquiree's financial statements must therefore be disclosed in the consolidated financial statements.

Right-of-use asset

An asset that represents a lessee's right to use an underlying asset for the lease term.

2019 corporate social responsibility report

Key performance indicators

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Sustainability in the Union Investment Group

The 2019 annual report and CSR report of the Union Investment Group provide an overview of the key economic, environmental and social developments and progress of the Union Investment Group in the 2019 financial year.

Overview

Sustainability has become an increasingly significant topic in recent years, especially with regard to strategic questions. In order to ensure that sustainability management and strategy development are more closely interlinked, sustainability management was moved to the group management and strategy area in 2019. In addition, sustainability is firmly embedded in all relevant areas – from central purchasing to institutional business.

Five areas of activity provide the framework for dealing with sustainability matters. Relevant measures are agreed annually with all units, and implementation is set out in the sustainability programme. What is more, the sustainability programme is submitted to the Board of Managing Directors each year for a decision.

Since the first fund managed with a sustainability filter was launched in 1990, the fund volume in wholly sustainable funds has grown to EUR 53.1 billion as at 31 December 2019. Expertise in sustainable investment is one of the core competences at Union Investment. Union Investment has introduced sustainability to a wide range of investors with more than 130 sustainable investment funds. Union Investment won a 2020 German Fund Champions Award in the “ESG / Sustainability” category. This once again underscored the excellent quality of the investment process with regard to sustainability aspects.

As in the previous year, the increasing momentum of sustainability as an issue in the financial sector was mainly driven by regulatory initiatives, primarily at European level but also nationally. A particular milestone was the finalisation of individual projects from the EU action plan on financing sustainable growth, such as the Disclosure Regulation.

Before the publication of the EU action plan, the UMH Board of Managing Directors adopted a dedicated sustainability strategy in January 2018. This was revised on the basis of further developments last year, and company-wide governance was enhanced for the issue of sustainability. In response to the increasing significance of sustainability, the Board of Managing Directors also resolved to integrate “sustainability” into Union Investment’s self-image.

“For us as a company and custodian, sustainability means acting responsibly and with an eye on the long term to conserve natural resources for future generations.”

Climate strategy

The issues of climate change and global warming are connected to key risks for society and business.

In line with this high level of importance, Union Investment adopted its own climate strategy back in 2015 – at the same time as the key resolutions of the UN Climate Conference in Paris in 2015. The objective for Union Investment is to continuously reduce its CO₂ emissions along a defined path, achieving an 85 % reduction against the base year of 2009 by 2050. The CO₂ savings achieved in recent years have proved to be much larger than expected. Nevertheless, the climate strategy was reviewed at the end of 2019 in order to identify additional opportunities for reduction. The results will be presented to the managers of Union Investment in Q2 2020.

Sustainable products

As at 31 December 2019, the Union Investment Group managed EUR 53.1 billion of investors’ money in 132 sustainable investment funds and mandates as well as a further 54 funds in our subsidiary Quoniam. Investors’ funds under management rose by EUR 11.7 billion year-on-year.

For the sustainable institutional public funds managed according to ESG criteria, our clients receive monthly sustainability reports. In the reports, the exclusion rates of the fund assets and the ESG scores of the funds are compared with the respective peer group and the ESG scores of the largest investments are set out.

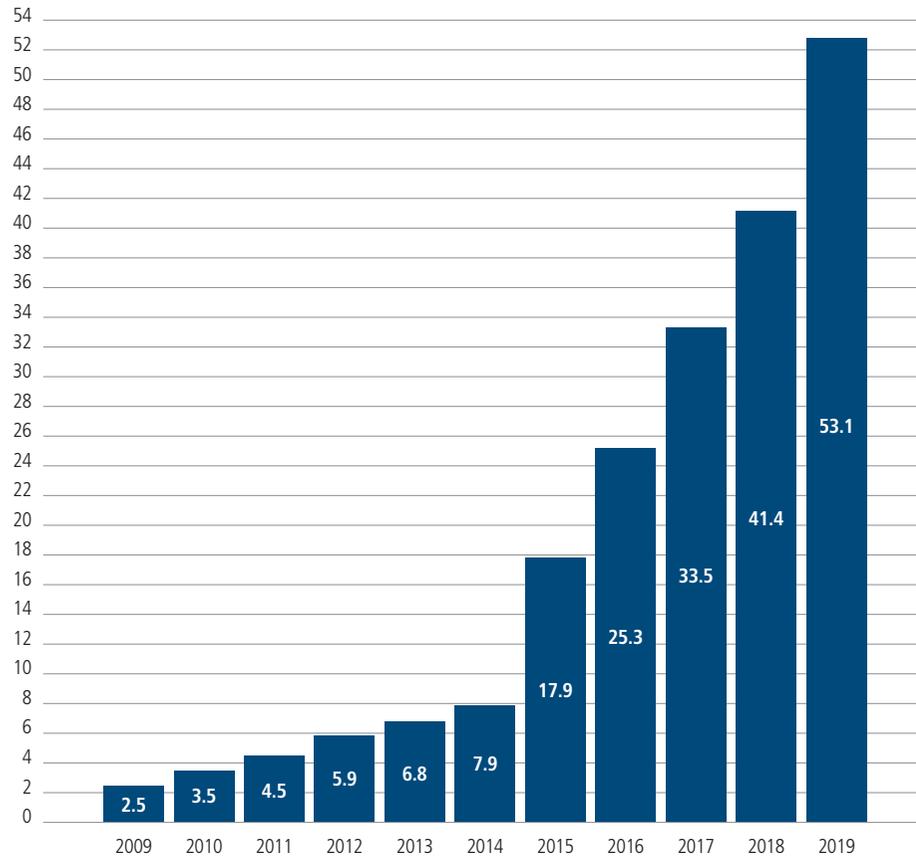
Investors in special funds can incorporate ESG information in their individual client reports if they wish.

Corporate social responsibility (CSR)

As a responsible investor and active asset manager, Union Investment practises active share ownership (CSR) in the form of a multidimensional CSR approach. The primary aim is to actively influence companies, thus helping to increase enterprise value. As well as business aspects, social, environmental and corporate-governance issues are also addressed in a targeted way here.

Development of assets under management with sustainability criteria (ESG)

in EUR billion



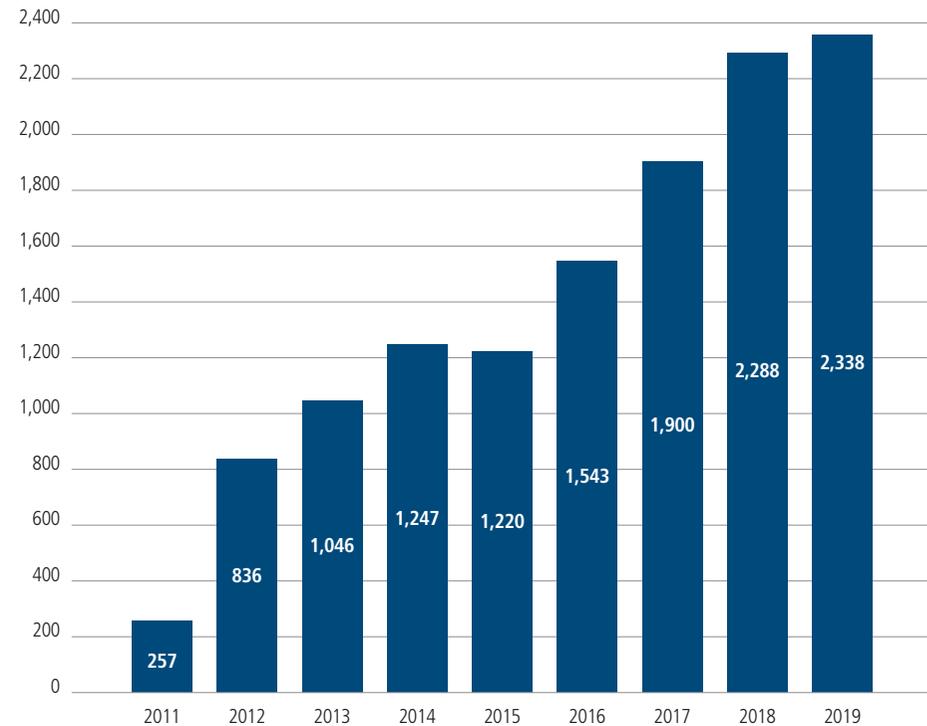
Engagement

In dialogues with companies and at annual general meetings, Union Investment’s Portfolio Management segment regularly influences the corporate governance and business policy of public limited companies in the interests of investors and ultimately to the benefit of the fund concerned. Our principle is that Union Investment supports all measures that increase enterprise value on a long-term basis, and votes against those that are incompatible with this aim.

A binding voting policy is essential to transparent and consistent exercising of the voting rights entrusted to us. Therefore, Union Investment has put in place extensive voting guidelines geared towards the recommendations of the German Corporate Governance Code and the guidelines of the German Investment Funds Association. The guidelines are set out in the **Union Investment Proxy Voting policy**.

Union Investment performed its fiduciary duty and represented investors’ interests by exercising voting rights at 2,338 annual general meetings in 28 countries in the reporting year. Alongside the voting behaviour, “UnionVoice”, the constructive company dialogue, is the second important pillar of Union CSR. The main objective of UnionVoice is talking to companies to improve sustainability and thus shareholder value in the interests of our investors.

Number of AGM votes over time



In the past reporting year, a total of 535 UnionVoice activities were implemented. The corporate contacts cover 35 countries, starting with Germany with 45 contacts, making up approximately 21.1 %, closely followed by the USA with 70 contacts (17.4 %). The ten largest countries make up a total of 78.4 % of global activities. Union Investment has many years' experience as an active shareholder, which it is applying more and more.

ESG integration in Portfolio Management

We firmly believe that integrating ESG criteria into the investment process goes hand in hand with positive effects on the risk management and performance of our funds. Therefore, our ESG department is integrated into Portfolio Management as an interdisciplinary authority and is thus interlinked with all major asset classes.

Our proprietary Sustainable Investment Research Information System (SIRIS), which we have been continuously developing since 2013, is used to generate qualitative and quantitative sustainability research and implement our sustainability requirements. SIRIS is our research platform, which makes sustainability in Portfolio Management transparent, measurable and controllable. Since 2017, it has been used across Portfolio Management at Union Investment and is available to every portfolio manager. The sustainability expertise is strengthened with regular training.

The ESG Committee, as the most senior ESG body in Union Investment's Portfolio Management, is responsible for setting a binding sustainable investment strategy. The ESG Committee ensures that ESG findings are integrated into the fundamental research process on an ongoing basis. It deals with all sectors and asset classes that due to specific events and/or structural trends are particularly relevant for risk, income and valuation considerations with regard to sustainability aspects.

Conferences and studies

To raise awareness of the importance of sustainability in investment decisions, Union Investment holds an annual sustainability conference on different topics each time. In 2019, the theme of the event was **"Climate – Opportunities, Risks, Challenges for Investment"**.

Each year, Union Investment examines the attitude of German major investors to sustainable investment and summarises the results in a sentiment index. In addition, we regularly have current sustainability issues scientifically assessed by various academics and internally within Portfolio Management.

Real estate

Union Investment is one of the leading real estate investment managers in Europe and is firmly committed to spreading the use of sustainable real estate investments. Sustainability for real estate investments was defined as a strategic element in 2007 and implemented in all managed real estate funds through standardised processes. Detailed information can be found in the **"Union Investment real estate portfolio"** section.

About this report

Standards 102-50

Reporting period and reporting boundaries

The economic section of this report and the employee key figures relate to the group companies in Germany and abroad. Unless otherwise stated, the key data in respect of social and environmental issues refers only to the main companies in the locations in Germany, Luxembourg and Austria for the 2019 reporting year. The key figures for the real estate portfolio of the Union Investment Group are shown for the 2016, 2017 and 2018 financial years and cover parts of the global real estate portfolio held by Union Investment (not including portfolios of the joint venture ZBI). The report is prepared once a year.

Standards 102-48 + 102-49 + 102-52 + 102-54

Transparency and comparability of reporting

This report was prepared in accordance with the GRI (Global Reporting Initiative) standards: core option. Union Investment also takes into account sector-specific requirements that are documented in the Financial Service Sector Supplement and the Construction and Real Estate Sector Supplement. Furthermore, the supplements were prepared in compliance with the GRI G4 standard. The report is based on the principles of materiality, stakeholder inclusiveness and sustainability context.

In addition to following the GRI guidelines, the report complies with the requirements of the German Property Federation for sustainability reporting in the real estate sector. Union Investment is a signatory to the German Property Federation sustainability code and undertakes to comply with the ten principles of the German Property Federation sustainability code when conducting its business activities. In accordance with the code, the Union Investment Group publishes its objectives, action plans, activities and progress each year, including disclosures relating to the clusters relevant to the group ('2: Operating and leasing' and '3: Investing').

At company level, there were no material changes in the period under review relating to the 'employees', 'society' or 'products and services' areas of activity, hence the data is directly comparable with previous publications.

In the 'environment' area of activity, some of the key environmental figures at the company level for the reporting year are extrapolated on the basis of prior consumption and emissions. This results in current performance indicators. As soon as the actual figures are available for the extrapolated figures, these will be applied in future reports, meaning that there may

temporarily be discrepancies between the environmental performance indicators at company level over time.

Union Investment bases its reports covering the real estate portfolio on international standards such as the Greenhouse Gas Protocol (GHG Protocol). These standards are being continuously refined with modifications to the methodology used. In preparing its report on the real estate portfolio, Union Investment has taken into account these annual changes to the calculation and adjustment methods used for the CO₂ data records. Some of the reported values can therefore differ from those reported in the previous year.

GRI Standards 102-40 + 102-42

Determining the key stakeholders

The stakeholder groups relevant to Union Investment were identified by way of an internal survey using a structured questionnaire. The stakeholders surveyed should demonstrate a fundamental understanding of sustainability in investment. In a materiality analysis conducted in 2017, 167 people from the various stakeholder groups were asked about relevant aspects from the five CSR areas of activity that are relevant to Union Investment by way of an online survey using a structured questionnaire. The relevant areas of activity for the company are derived from the sustainability strategy adopted by the Board of Managing Directors and internal surveys. The following areas of activity were identified as material: products and services, dealing responsibly with employees, impact of business operations on the environment and society, and transparent communications. The materiality analysis is scheduled to be updated in 2021.

GRI Standards 102-43 + 102-44

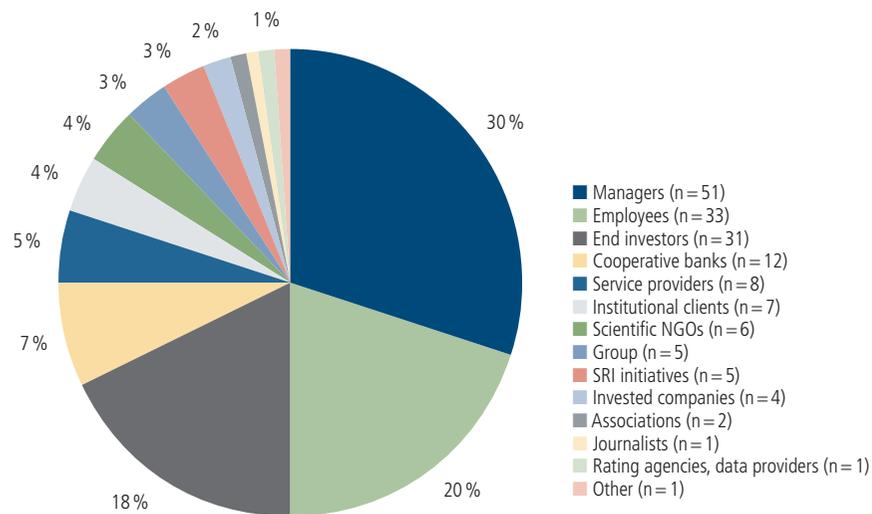
Stakeholder engagement

Dialogue and engagement with the stakeholder groups is target-group-specific and assumes different forms and intensities: the Union Investment shareholders are involved via the established supervisory bodies, and for the local cooperative banks there are annual regional series of events in which all the aspects of partnership with Union Investment are discussed in detail. The employees are kept informed about the state of the company by means of regular events and via internal media. Interests and concerns can also be shared. There is ongoing dialogue with regulatory bodies and politicians, supervisory bodies and authorities which takes place in relation to topics. The worlds of science and culture are specifically incorporated into internal topical opinion forming processes via the Union Investment Foundation and in partnerships and studies. Via the account managers, there is regular and in-depth customer service for

institutional clients, while the retail clients are looked after by the respective cooperative banks and by our Customer Service department. In addition, we are represented at numerous industry meetings, with or without explicit reference to sustainability. Both these customer groups are surveyed regularly to gauge their satisfaction with the business relations.

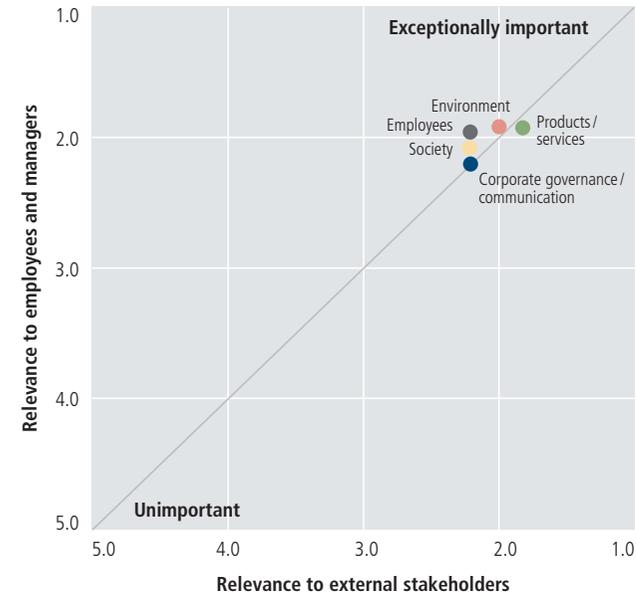
In 2019, external stakeholder communication with investors and sales partners again focused on how to deal with low interest rates and, accordingly, how to safeguard jeopardised prosperity. Due to the development of the capital markets in recent years, the issue of risk management is of great relevance to institutional clients in particular, and we work on this and discuss it actively with our clients. Parallel to this, a sharper focus is being placed on the topic of sustainability, especially in the institutional area, with demand among private investors also increasing considerably in 2019. Union Investment supported the topic suggestions by sharpening the focus of its portfolio and communication policies. Regular engagement with stakeholders has demonstrated that, in the financial services sector, input that results in action primarily comes from highly informed stakeholder groups, while broad surveys rarely generate expedient input due to the abstractness of the products. We therefore make a distinction between general surveys of satisfaction on the one hand and very specific topic-based engagement of directly impacted stakeholders on the other.

Key stakeholders and percentage of stakeholder groups in the materiality analysis:



**GRI Standards 102-43 + 102-46 + 103-1
Determining, prioritising and validating the key topics**

Using a materiality matrix, the areas of activity are broken down in terms of their relevance according to the stakeholder survey on a scale of 1 (exceptionally important) to 5 (unimportant). The relevance of the areas of activity for Union Investment is derived accordingly.



The key aspects within the areas of activity are examined in order to determine their impact on Union Investment’s current and future business activities. At the same time, we must be in a position to influence the respective issue, either directly or indirectly. If an issue meets these criteria, it is included in the next stage of the process.

The overlap between the aspects that are relevant to stakeholders and the aspects considered to be relevant by Union Investment (see the objectives and activities of the sustainability programme on page 145) serves to define the key aspects underlying the CSR report.

GRI Standard 102-47

Identified material topics:

The key aspects identified in the course of the materiality analysis have been allocated to the corresponding GRI G4 categories and G4 aspects as shown in the table below:

Union Investment CSR area of activity	Identified material topics	Allocation to GRI standards
Corporate governance/ communication	Corporate governance/ communication	<ul style="list-style-type: none"> • Basis of preparation • Business: Economic performance • Business: Procurement practices • Business: Anti-competitive practice • Social: Socio-economic compliance
Products and services	Product portfolio	<ul style="list-style-type: none"> • Disclosures for the financial services industry: Product responsibility
	Product and service labelling	<ul style="list-style-type: none"> • Disclosures for the financial services industry: Product responsibility
Employees	Employees	<ul style="list-style-type: none"> • Social: Employment • Social: Occupational health and safety • Social: Training and education • Social: Diversity and equal opportunity • Social: Equal remuneration for women and men • Social: Non-discrimination • Business: Anti-corruption
Environment	Environmental management system	<ul style="list-style-type: none"> • Environment: Materials • Environment: Energy • Environment: Water • Environment: Effluents and waste • Environment: Environmental compliance
	Climate protection	<ul style="list-style-type: none"> • Environment: Emissions • Environment: Energy
Society	Advocacy, association and committee work	<ul style="list-style-type: none"> • Social: Political influence
	Supply chain responsibility	<ul style="list-style-type: none"> • Environment: Supplier environmental assessment • Social: Supplier social assessment

GRI Standards 102-51+ 102-52

Formal aspects and additional information

English and German versions of the annual report and CSR report are available to download from our [website](#). An overview of the Union Investment Group is available online at <https://unternehmen.union-investment.de/>.

Management approaches – GRI standards 103-1 + 103-2 + 103-3

The following management approaches to the key aspects on which determination of the report content for the 2019 annual report and CSR report was based were identified by means of a **materiality analysis** from 2017. The aspects identified as key to Union Investment and its stakeholders can be allocated to the GRI standards. This allocation can be found on the **table on page 139 of the 2019 annual report and CSR report**.

The management approaches described are examined internally at regular intervals and enhanced as required. Operational goals and measures regarding the respective aspects are set out in the **sustainability programme** (2019 annual report and CSR report pages 145). The sustainability code, which is available **online**, stipulates how Union Investment meets its responsibilities in its business activities and acts in all its relationships with investors, employees, suppliers, the environment and society.

Management approach to corporate governance/communication

The materiality analysis shows that aspects significant to stakeholders in the “corporate governance and communication” area of activity are disclosures regarding corporate strategy, values and principles, governance and comparisons with competitors (benchmarks, ratings and rankings).

As a financial service provider, Union Investment relies particularly on the trust of its investors. Complying with social standards and meeting expectations of us is an important aspect of business activities and responsible action for us. We have defined “organisation and communication”, “environment”, “employees”, “society” and “products and services” as guiding CSR topics. For our CSR action areas and stakeholder groups, we develop guidelines for responsible action that we follow. Overall, we adhere to best-practice standards in Germany, and regard this process as a continuous improvement process for the company. For instance, we recognised the Principles for Responsible Investment as a key standard for the implementation of sustainability in our core line of business back in 2010 and have continued to systematically develop our services ever since. The guidelines on responsible investment were revised in 2019 and adjusted in light of the developments in recent years. In the real estate business, we additionally comply with the leading German Property Federation code for sustainable real estate business and report accordingly in our annual sustainability report. We therefore ensure that we evolve at the same pace as the foreseeable increase in requirements. The key aspects of our sustainability development and goals are published each year in the sustainability programme.

With the sustainability programme, Union Investment manages goals and measures relating to all aspects of sustainability. Both the programme and the measures were specified for a period lasting several years, are supplemented each year and passed by the Union Asset Management Holding AG Board of Managing Directors. The performance indicators are measured on the basis of recognised external standards. A six-monthly review of the set goals by the Head of Sustainability Management and corresponding reporting to the Board of Managing Directors of Union Asset Management Holding AG ensure a regular planning and controlling process. Data quality is ensured by application of an established electronic CSR management system. At the turn of 2019/2020, new measures were not defined in the usual annual cycle. This was aimed at more closely interlinking the derivation of segment- and area-specific sustainability measures with the development of the company’s strategy in general and the sustainability strategy in particular. Both are finalised in the second quarter of each year, so the development of measures aimed at promoting these strategies can be begun thereafter. From 2020, the sustainability programme will be revised and updated midway through the year, with the changes being reported in the CSR report of the following year.

In the context of the annual company-wide planning process, all business units of the group are required to come up with the environment trends and development requirements for their own service provision. This also includes relevant ESG aspects for the respective business processes. This ensures that their own performance capability and competitiveness are analysed and potential for improvement is identified on a regular basis for all stages of the value chain. In addition, specific continuation of the CSR strategy and key measures for the defined action areas results in separate goals being set and subsequently integrated in the business strategy. Consequently, specific ESG developments are interlinked with corporate planning at various levels.

Key action areas of the sustainability strategy are additionally integrated via the performance assessment, evaluation and incentive systems at all management levels of the company and are also expressed via anchoring of ESG key ratios in the balanced scorecard system of corporate governance.

Dialogue and engagement with various stakeholder groups assume different forms and intensities: for instance, the Union Investment shareholders are involved via the established supervisory bodies. For the cooperative partner banks, there are various series of events each year, including regional ones, where all aspects of collaboration with Union Investment are discussed intensively. With regard to employees, there are numerous events and internal media in which

information about the company's situation is provided and interests and concerns can be discussed. Investors, special interest groups and other stakeholders are systematically involved in gauging opinions via surveys, advisory boards or other information formats.

Management approach to the product range

As a custodian for more than four million investors, responsible handling of the invested money and a requirement-oriented range of products and services for our end investors (retail clients of the local cooperative banks) and institutional clients are essential. This is also reflected by the materiality analysis, in which the "products and services" area of activity is of the utmost relevance to stakeholders and Union Investment.

Responsibility for looking after our investors' money involves the challenge of responding to current and significant economic, environmental and social trends and incorporating them in the product range geared towards investors' requirements. For instance, the social challenge of demographic change is closely linked with the structuring of retirement pension products for the general public. Climate change is particularly important when it comes to developing and managing our real estate and securities assets, and ensuring sound and responsible corporate governance is part of our multidimensional CSR approach in Portfolio Management.

Our product range is geared towards our investors' needs

Consultants of local cooperative banks find out directly from private investors what end clients need in terms of products. Our investors' needs are constantly ascertained through discussion between consultants and the Union Investment's Customer Service department, at events and via field sales and passed on to the relevant people at Union Investment. This results in impetus for marketing and products tailored to investors' requirements. We are in direct dialogue with institutional investors, so we find out what they want from our products at first hand. Internal dialogue between account managers and Portfolio Management thus leads to ideal solutions for professional investors.

We follow national and international industry standards

We align our product range with internationally recognised standards and implement them wherever this appears to be prudent: for instance, in 2010, we signed the Principles for Responsible Investment as a key standard for implementing stability in our core business. In

the real estate business, we comply with the German Property Federation code for sustainable real estate business.

We are actively involved in enhancing industry standards

Developing products in line with requirements and engaging in regulatory projects in the interests of investors are a key part of our client-oriented solution management.

As a fair market player, we take into account the code of conduct of the German Investment Funds Association. Numerous company representatives of Union Investment are actively involved in industry associations, committees and initiatives of the finance and asset management industries, such as:

- German Investment Funds Association (BVI)
- German Equities Institute (DAI)
- European Securities and Markets Authority (ESMA)
- European Fund and Asset Management Association (EFAMA)
- European Parliamentary Financial Services Forum (EPFSF)
- Sustainable Investments Forum (FNG)
- Principles for Responsible Investment (PRI)
- Royal Institution of Chartered Surveyors (RICS)
- German Property Federation (ZIA)

We invest responsibly¹⁾

As a cooperatively organised company and custodian, Union Investment always invests in the interests of its investors. Responsible investing has always been at the heart of the company's business model. We entrenched the Principles for Responsible Investment in our core business in our **guidelines on responsible investment**. Various positive and negative ESG selection criteria are systematically applied in the portfolios in accordance with the guideline and the fund prospectuses. These guidelines were revised in 2019 and adjusted in light of the developments in recent years.

We are an active shareholder

As an active shareholder, Union Investment conducts targeted discussions with companies that touch on issues including social, environmental and regulatory corporate governance. In addition, we represent the interests of our investors at annual general meetings of companies in which we invest. The principles of our voting behaviour are set out in the **Proxy Voting policy**.

Management approach to product and service labelling

Investing is a matter of trust – as evidenced by the fact that transparent and comparable labelling of our products and services is important to stakeholders, for instance. Union Investment is committed to abiding by the code of conduct of the German Investment Funds Association. Accordingly, we comply with the standards of the code in disclosing fund performance as well as responsible and sustainable investments.

Management approach to employees

As a responsible company, we offer our employees individual opportunities for development with our HR policy aimed at long-term stability and our modern HR strategy. Because we know that our employees are the basis for our success, we create a respectful working environment in which they can be both professionals and people.

Our corporate culture is characterised by our cooperative values such as respect, partnership, professionalism and solidity.

Union Investment looks for diverse teams, regardless of cultural background, nationality, ethnicity, gender, sexual orientation, physical ability, religion or age. We want to acquire, promote and retain the most suitable employees. This creates opportunities for innovation, creativity and growth.

We provide an open-minded working environment of cooperation, in which people can develop to their full potential. Diversity and appreciation of differences foster relationships with our customers and partners and strengthen the society in which we operate. With our diversity management concept, we ensure that diversity is permanently enshrined in our corporate culture. We also made a public commitment to the principle of equal opportunity by signing the Diversity Charter in 2013. Because we believe that mixed teams are more successful, it is our explicit goal to continuously increase the proportion of female managers and experts. The continuous participation in the "Top4Women" certification since 2016 offers Union Investment a good opportunity to have current and planned measures for the promotion of women's careers evaluated by an independent assessor.

We enhance and maintain our employees' efficiency and motivation on the basis of strategic health-care management. Union Investment provides numerous prevention, intervention and rehabilitation measures and instruments.

It is not merely lip service for Union Investment to offer its employees optimum labour conditions, but moreover an important aim and part of our employee-oriented and sustainable HR strategy. We aim to achieve an optimum balance between career and private life, as well as between the interests of the employees and the company's objectives. To this end, we offer our employees a plethora of support forms.

We are very keen to give our employees targeted help with their career and personal development, prepare them for future challenges and secure their employability and thus the future viability of the organisation. To this end, we provide a wide range of education and training opportunities. Our HR development is geared towards two central principles here. In the context of requirements orientation, we assist employees with regard to their current tasks. By contrast, in the context of potential orientation, we highlight future opportunities.

To face up to demographic change, we have been increasingly investing in our junior staff (apprentices, trainees and graduates) for years. We provide rigorous training (with integrated

¹⁾ Guidelines with specific environmental and social components [G4-DMA (formerly FS1)].

studies) in two different careers and a management trainee programme for university graduates in various disciplines. The topic of "succession planning" is a core part of our talent management approach.

Increasing professional and private stress and longer life working time require particular attention in respect to the health of our employees. With our strategic health management we want to retain performance levels and motivation of our employees, by promoting and supporting independent activity.

Our employees' satisfaction is gauged every two years via a structured and anonymous online survey of all employees, the Union Investment climate barometer. The objective is to identify what employees think of the climate at Union Investment in a way that pinpoints their satisfaction with various aspects of their work at Union Investment and makes their identification with the company's values and goals transparent. Every other year, alternating with the climate barometer, there is the manager feedback process. Its purpose is to review and implement the standards defined in the management guidelines. These standards were jointly devised by the Board of Managing Directors and managers and describe how good management is to be lived out at Union Investment. Measures are systematically derived from the climate barometer and management feedback formats and implemented.

Management approach to the environmental management system

As the materiality analysis shows, it is important to Union Investment's stakeholders that the impacts of our business operations on the environment are systematically recorded and optimised. That is why the environmental management system is a key aspect in the "environment" area of activity.

We publish the key figures on our company's environmental impacts recorded via the environmental management system in our annual report and CSR report each year. The data is gathered on a decentralised basis by specialist departments and consolidated in Environmental Management. The environmental management officer and his deputy manage the environmental management system and ensure its continuous enhancement. Data gathering, calculation and reporting are certified in line with the ISO 14001 standard, and are therefore subject to regular external monitoring and enhancement. For the real estate portfolios in our investment funds that are particularly affected by environmental issues, there is special environment-oriented building management, geared towards international standards. The

environmental data is published in line with the Germany's leading code for the real estate industry, the German Property Federation code.

Union Investment's environmental targets and measures are managed via the sustainability programme and reported to the Board of Managing Directors of Union Asset Management Holding AG.

Our environmental management thrives on the involvement of all employees

Union Investment's employees undergo skills-based training on operational environmental protection on joining the company. In addition, occasional "UniKompetenz" seminars are held on sustainability issues. They can be used as a training measure on a voluntary basis. With a knowledge database available in the intranet, information on relevant guidelines is available to employees at any time. At the end of 2019, work began on a company-wide sustainability training programme, which is to have a modular structure and give employees a deeper insight into special issues such as climate change.

Management approach to climate protection

As an asset manager, our climate-relevant impacts at company level are limited compared with companies in the manufacturing sector. The materiality analysis confirms that the "environment" area of activity is important to both Union Investment and our stakeholders, but other areas of activity are more relevant. The publicly discussed topic of "climate protection" is a key aspect for our stakeholders in the "environment" area of activity. In addition to key figures on operational ecology, for instance greenhouse gas emissions arising from our activities as a company, stakeholders such as institutional investors are increasingly interested in product ecology, for instance the "CO₂ footprint" of the companies in our portfolios.

With the **climate strategy** adopted at the end of 2015, we show it is a serious matter for us as a company to make our contribution to the climate target adopted at the UN Climate Change Conference at the end of 2015. Our climate strategy is aimed at reducing our company's greenhouse gas emissions in line with current benchmarks by 40 % by 2030 and 85 % by 2050, compared with 2009 in each case. In terms of product ecology, we intend to offer our clients specific solutions for structuring their investments in a climate-friendly way and in line with leading reporting standards.

Both issues – operational and product ecology – come down to two things: firstly, Union Investment wants to raise awareness of the corresponding climate effects and any risks and make them transparent. The second step is to implement specific changes ourselves or arrange them with our clients and suppliers. For us as a company, as part of a third step, the climate strategy contains provisions for compensation through the purchase of CO₂ certificates.

Despite very good attainment of the targeted CO₂ savings in line with our climate strategy, Union Investment began reviewing the climate strategy at the end of 2019 in order to identify further savings potential. Further opportunities for reduction were identified.

Management approach to advocacy, association and committee work

As the materiality analysis shows, it matters to our stakeholders that Union Investment represents the interests of its investors and partners in relation to regulators and policymakers as one of Germany's biggest asset managers.

Consequently, we work actively to achieve a regulatory environment that is designed to favour investors and encourage sustainable development. Key issues are transparency obligations, accountability and regulations that ensure stability of the financial markets in the interests of our investors and sustainable development. Transparency in terms of political advocacy is essential to us here. This is why we provide information on the fundamental positions we have taken in our national and international advocacy (in associations and in our comments on draft legislation). Content will be published on the page "FinanzAgenda", for example, our position on the EU Commission's Action Plan for financing sustainable growth.

Union Investment supports the transparency initiative of the European institutions and is listed in their transparency register. Major initiatives are rooted and published in the sustainability programme.

Management approach to supply-chain responsibility

Union Investment's supply chain predominantly comprises providers of office supplies, paper, energy and water for the buildings the company uses, and agency services. As the materiality analysis shows, environmentally relevant procurement aspects matter to our stakeholders.

As a responsible company, Union Investment has integrated guidelines concerning environmentally sound and socially responsible procurement and supplier management into its business processes via its environmental management system: Union Investment is keen only to select suppliers and service providers that comply with applicable occupational safety and environmental regulations at European level. Sustainability-relevant partners of Union Investment should have an integrated environmental management system or intend to set one up in the medium term. Products that we circulate, such as advertising materials, must meet the CE labelling requirement of the EU directives, for example.

In the context of procurement and supplier management, it is initially ensured that sufficient consideration is given to social and environmental aspects when selecting business partners. It is important here to prevent the suppliers from deviating from the sustainability code and the environmental objectives. Therefore, an assessment of sustainability relevance must be performed for all suppliers. Product group-specific environmental and social criteria and economic criteria are taken into account here. After a contract has been concluded, the sustainability relevance of the suppliers is regularly checked and is adapted accordingly if necessary.

Union Investment is keen to continuously improve the social and environmental performance of the selected suppliers. In the context of a relevance check, we select the business partners we have in mind for supplier meetings. This selection is based on the suppliers' impact on the environment and society. Measures to improve social and environmental performance can be jointly defined and implemented in regular supplier meetings. Operational measures and checks of their efficiency are documented and tracked by Union Investment's Supplier Management employees. Regular internal audits assure the quality of procurement and supplier management processes and procedures.

Union Investment sustainability programme

With its sustainability programme, Union Investment manages and monitors its internal sustainability activities and objectives across all areas of CSR involvement. Each year, together with the sustainability management at the Union Investment Group, the responsible departments check the implementation level of the measures and objectives of the sustainability programme. In consultation with the sustainability officer, new measures may be added and approved by the Board of Managing Directors of Union Investment. This has enabled us to ensure that a consistent logic is in place for managing sustainability issues with the support of IT systems and that matching data material is available for all sustainability objectives and activities. At the turn of 2019/2020, new measures were not agreed with the individual company units as usual. The sustainability programme and the development and implementation of the sustainability strategy are to be more closely interlinked in the future. From 2020, therefore, new sustainability measures are to be agreed following the development and adoption of the strategy midway through the year and then published in the subsequent CSR report.

Strategy/organisation

Objectives and activities	Timetable	Status	Notes
Integrate sustainability into company management	2018	Revised	
1. Develop methods for relative and absolute measurement of the performance contribution of sustainable investment	2019	Completed	
2. Develop a method of measurement for recording the climate risk in line with Task Force on Climate-related Financial Disclosures (TCFD) requirements	2019	Completed	
3. Establish a CSR training platform	2020	Extended	
Integrate new sustainability topics into company management (CSR)	2022	On schedule	
1. Draft an implementation concept for the German federal government's National Action Plan on Human Rights	2020 (2019)	Extended	
Continue to develop sustainability management	2018		
1. Implement the 2018+ sustainability strategy	2019	Completed	
2. Integrate ESG data into the data warehouse	2019	On schedule	

Communication

Objectives and activities	Timetable	Status	Notes
Establish systematic sustainability communication	2018	Revised	
1. Design and implement a Union Investment Sustainability Day for employees	2019 (2018)	Completed	
2. Integrate "sustainability" in expanding the corporate website to an issues hub	2020 (2019)	On schedule	
Expand systematic sustainability communication to relevant stakeholders	2022	On schedule	
1. Increase detail of the communication positioning on sustainability for the Union Investment Group	2020	On schedule	

Environment

Objectives and activities	Timetable	Status	Notes
Reduce per employee energy consumption of electricity, gas, district heating and fuel by 10 % (reference year 2014) 1. Implement the business strategy at the Frankfurt location by moving into another building at the Maintor Porta site which is certified DGNB Gold	2018		
	2020	Extended	
Reduce per employee energy consumption (electricity, gas, district heating and fuel) by 5 % to 2022 (reference year 2018) 1. Implement an energy audit in line with DIN EN 16247 2. Promote e-mobility by setting up a public e-loading station at the MaintorPorta site	2022	On schedule	
	2019	Completed	
	2019	Completed	
Reduce the CO₂ emissions by 40 % to 2030 (reference year 2009) 1. Further details and successive implementation of the workplace concept 2. Develop a building strategy for the Luxembourg site 3. Align the vehicle fleet policy to changed general conditions	2022 (2018)	Extended	
	2019	Completed	
	2019	Completed	
	2020	On schedule	
Reduce resources consumption and use on an ongoing basis 1. Reduce residual waste volumes by 25 % (reference year 2018) 2. Reduce paper volumes for retail fund reporting by 8 tonnes 3. Optimise baskets for office suppliers and promotional articles in line with social/environmental aspects 4. Increase recycling share for printing by 10 % (reference year 2018)	2022	On schedule	
	2022	On schedule	
	2019	Completed	
	2022	On schedule	
	2022	On schedule	

Employees

Objectives and activities	Timetable	Status	Notes
Retain and expand work satisfaction and ability to work 1. Implement an "MOOC" (online course) "Fit for the Working World 4.0" 2. Continue the offer of development measures on resilience, healthy management, etc.	2022	On schedule	
	2019	Completed	
	2019	Completed	
Retaining employees 1. Management feedback 2018: implement accompanying development measures 2. Develop management culture further: Leadership initiative in the Infrastructure segment 3. Positioning as attractive, sustainable employee on the career pages of Union Investment 4. Use the Brandeins award as sustainable employer	2019	Completed	
	2019	Completed	
	2020	On schedule	
	2019	On schedule	
Promote the balance between career and family 1. Implement measures on "Audit Career and Family" 2. "Diversity&Union" measures to promote women in specialist and management functions	2018		
	2020	Extended	
	2022	On schedule	

Society

Objectives and activities	Timetable	Status	Notes
Further develop the social commitment of Union Investment	2022		
1. Consolidated expansion of the support for training and qualification programmes to promote equality of opportunity on the labour market	2020	On schedule	
2. Develop and expand the initiatives for financial education	2020	On schedule	
3. Rework design of the social commitment and draft further specific measures	2020 (2019)	Extended	
4. Recycle promotional materials in cooperation with a workshop for disabled persons	2020	Completed	
Promote sustainable and investor-oriented interests in the financial industry and regulation	2022 (2018)	Extended	
1. Be involved in the introduction of a standardised European product for private pensions	2020 (2019)	Extended	
2. Refugee commitment - shadowing offers	2019 (2017)	Completed	
3. Accompany regulatory processes for implementing the EU Sustainability Action Plan	2021	On schedule	
Further development of the general social commitment for sustainability	2022 (2018)	Extended	
1. Increase ISO 14001 certification level of the top suppliers	2020 (2017)	Extended	
2. Record the CO ₂ footprint in supplier management	2020 (2019)	Extended	
3. Expand the supplier development process	2020 (2018)	Extended	
4. Membership in the Klima Arena in Sinsheim to promote general awareness for climate protection	2019	Completed	It is not currently possible to sponsor the arena
5. Establish ongoing cooperation with an NGO on "sustainable finance"	2019	Completed	Despite talks with an NGO, no cooperation resulted

Institutional clients

Objectives and activities	Timetable	Status	Notes
Increase sustainable assets under management by 50 % (from 2014 to 2018)	2018	Completed	
1. Apply external quality standards for sustainable institutional funds of the Sustainable Investment Forum	2020 (2018)	Extended	
2. Expand number of customers with mandates on active share ownership by 25 % (reference year 2014)	2021 (2018)	Extended	
Increase sustainable AuM by 100 % from 2019 to 2022	2022		
1. Establish further institutional SRI funds to the extent this makes sense economically	2019	Completed	
2. IC118 Provide regular training offers for IC employees on sustainability	2019	Completed	
Expand communication on sustainability topics and SRI in institutional business	2018		
1. Survey institutional investors on trends in sustainable investment	2020 (2018)	Extended	
2. Add new participants to the CSR expert group	2020 (2018)	Extended	
3. Expand individual reporting for CSR customers	2019 (2017)	Completed	
4. Expand sustainability reporting for all IC funds	2020 (2018)	Extended	
5. Expand the topic of sustainability in the IC internet and in other IC media	2019	Completed	
6. Create a sustainability report for selected property funds	2019 (2018)	Extended	
7. Implement "Sustainability Conference" for customers	2020	On schedule	

Retail clients

Objectives and activities	Timetable	Status	Notes
Increase sustainable assets under management by 18 % (from 2014 to 2018)	2018		
1. Examine expansion of the range of sustainable products for retail clients, particularly PrivatFonds, MeinInvest and VisualVest	2019 (2018)	Completed	
2. Set up a section on sustainability in the "UnionOnline" extranet for consultants	2019	Completed	
Increase sustainable AuM from 2018 to 2022 by 36 %	2022	On schedule	
1. Implement a sustainable Riester solution	2020	On schedule	
2. Further develop the sustainability criteria of our sustainable funds	2020	On schedule	
Expand communication on sustainable investment	2022	On schedule	
1. Support and actively discuss sustainable investment with distribution partners (duration to the end of 2020)	2020	On schedule	
2. Continue to develop the information material for retail investors and distribution partners	2020	On schedule	
3. Information for external sales force	2019	On schedule	
4. Check consequences of EU regulations, especially in respect to investment advice and taxonomy	2020	On schedule	

Portfolio management

Objectives and activities	Timetable	Status	Notes
Expand and refine investment processes	2018		
1. Continue to develop climate activities	2019	On schedule	
2. Continue to develop SIRIS expertise: digital platform for sustainability and CSR, single-value and portfolio analysis, Reporting 2.0	2020	On schedule	
3. Research coverage of sustainability issues (e.g. SDGs) in the context of ESG integration	2019	On schedule	
4. Revise guidelines on responsible investment	2019	Completed	
5. Pilot the TCFD areas of action identified in 2019	2021	On schedule	
6. Expand and focus the ESG team in portfolio management	2020	On schedule	
7. Expand SIRIS reporting (sustainability reporting)	2020	On schedule	
Expand active share ownership	2018		
1. Expand active share ownership through greater coverage of AGM votes	2020	On schedule	
2. Integrate climate risks into the CSR process	2020	On schedule	

Real estate funds

Objectives and activities	Timetable	Status	Notes
Expand and refine investment processes for real estate funds 1. Further develop the Sustainable Investment Check with additional criteria for acquisitions	(2022)	Extended	
	2018 2020	On schedule	
Increase energy efficiency and improve the environmental impact of portfolio properties 1. Define specific improvement targets for energy, CO ₂ , water and waste for portfolio properties (for a sub-portfolio) 3. Increase the recording of energy, CO ₂ , water and waste data from the relevant parts of the real estate portfolio to approximately 75 % of the total portfolio 4. Implement the optimisation action plans that have been developed 5. Measure the level of target attainment for the optimisation action plans that have been developed: analyse the energy, CO ₂ , water and waste data for the real estate portfolio	2022	Extended	Re 2: Target adjustment based on the Energy Saving Ordinance (EnEV) for commercial real estate to be passed by the federal government by 2018.
	(2018) 2020	Extended	
	(2018)	Extended	
	2020	On schedule	
	2020	On schedule	
Develop and increase commitment to sustainability across the real estate sector 1. Collaborate with the German Property Federation 'Sustainability, energy and environment' (NEU) working group and contribute to the work of the DGNB's real estate advisory committee on developing the determination of key figures for the real estate sector in Germany 2. Design and collaborate in studies, initiatives and ratings, for example relating to the Environmental Sustainability Index (ESI), Sustainable Investment in Real Estate (s-i-r-e), the Global Real Estate Sustainability Benchmark (GRESB) and Scope	2022	Extended	
	(2018) 2020	Extended	
	(2018)	Extended	
	2020	Extended	
	(2018)		

Union Investment real estate portfolio

In the following section, Union Investment reports to its employees, clients, business partners and interested members of the public on its activities in the field of sustainable real estate management. This includes not just a presentation of the various processes and instruments, but also in particular the consumption data gathered and extrapolated for investment funds over the last three periods¹. Union Investment is therefore making an important contribution to transparency as a basis for the sustainable ongoing development of the real estate investment sector.

1. Understanding sustainability as future viability

Climate Protection Plan 2050 of the Germany federal government, “Action Plan on Sustainable Finance” from the EU Commission, UN Climate Change Conference 2018 in Katowice – many landmark political decisions have been resolved or are being brought forward. With very high consumption of resources and potential for emissions, the real estate industry is one of those in the spotlight and is included in the ambitious target of achieving extensive “climate neutrality” by 2050. Sustainability has thus no longer become a choice. It is an essential element of every long-term strategy.

As a forward-looking asset manager, for over ten years Union Investment has already been working on the sustainable alignment of its activities relating to buildings in its portfolio. After all, the future viability of its property portfolio is the foundation stone for the most important aim of managing and increasing investor assets in a responsible manner. To do this Union Investment has implemented a sustainability strategy which it pursues on an ongoing basis. For implementation Union Investment has developed its own instruments, which are applied not only at building but also at portfolio level. By measuring consumption data and by implementing various sustainability criteria, an important basis was established for further improving the properties. With the assistance of advancing digitalisation, this database is becoming increasingly precise and the optimisation measures implemented more and more effective. Further measures such as integrating tenants and staff, but also commitment across the industry, are being leveraged to find new solutions for more sustainability.

¹ Each less the number of residential buildings and properties under construction or restructuring; see also 3.2 Portfolio under review.

2. Sustainability management processes

2.1 Comprehensive understanding of sustainability

Union Investment is committed to responsible action and has vowed to play its own part in maintaining an intact environment. This includes integrating sustainability comprehensively and systematically into its business processes. For the real estate sector, this means reducing the environmental impact of properties on an ongoing basis while maintaining long-term financial success and thereby gradually improving the property portfolio.

In 2011, Union Investment introduced a comprehensive environmental management system (EMS) and was successfully certified according to the international standard DIN EN ISO 14001. In addition to operational ecology, i.e. the environmental impact of operations, this system looks at product ecology, i.e. the environmental impact of the “real estate funds” product. As part of the environmental management system, the quality of the processes is secured and their progress is monitored. Each year audits are implemented to check progress. In addition, recertification takes place every three years, the last time in 2019 when the auditor determined no deviations.

Union Investment has established the responsibilities of its business units by enshrining the issue of sustainability in its guidelines and programmes at company level. Union Investment’s voluntary commitment to structuring its business processes in accordance with the requirements of the German Property Federation code (sustainability code of the German Property Federation) has therefore been satisfied.

Union Investment’s sustainability instruments are applied throughout the entire life cycle of the respective properties. Objectives are pursued in the acquisition, letting and management and in the renovation and revitalisation of buildings that contribute to maintaining the value of the properties and their future viability and supporting business performance in the long term. External service providers are integrated into the internal processes.

Union Investment also understands holistic sustainability management to encompass not only the consumption and emissions resulting directly and indirectly from operations but also the environmental impact of the properties held in the portfolio. As the main environmental impacts result from the consumption and emissions caused by the properties held, these are presented explicitly in the following sections. Accordingly, the CO₂ emissions generated in the

real estate portfolio are reported as Scope 3 emissions in accordance with the United Nations Greenhouse Gas Protocol. The direct and indirect emissions resulting from operations (Scopes 1 and 2) are shown on page 184 of the report.

2.2 Analysis and evaluation instruments

The core of sustainability management at Union Investment is formed by its proprietary portfolio sustainability management tool. The sustainability tool not only creates the necessary transparency regarding the portfolio's sustainability aspects but also tracks the objectives and activities derived from this. The sustainability tool is used to manage the following instruments and processes:

Key performance indicators (KPIs)

The key performance indicators comprise all the consumption data specific to real estate, such as electricity, heating and water consumption, the volume of waste produced and CO₂ emissions. Recording and evaluating consumption figures allows property optimisation potential to be identified and savings targets to be defined, both at property and portfolio levels. Measures for more efficient use of resources and for reducing operating costs can then be introduced and the targets monitored. The sustainability tool therefore forms the foundation of the long-term orientation of Union Investment's international real estate portfolio. The recording of consumption data is firmly integrated into standard asset and property management processes at Union Investment, and ensures that the portfolio is analysed on an annual basis.

Sustainable Investment-Check (SI Check)

With the sustainable investment check developed specifically by Union Investment, buildings are assessed in terms of their sustainable quality as early as the purchasing process. Optimisation potential can be identified and measures to improve the properties can be planned at an early stage. The SI check is also applied to buildings already within the portfolio on an annual basis, with criteria in the building automation, building shell and technology, resources, economy, user comfort, measures in operation and location being examined and analysed. This instrument not only determines the current condition of a building but also checks its specific development potential. The SI check was developed on the basis of common certification systems and is continuously expanded and adapted to the latest market developments.

The combination of the SI check for qualitative assessment and the recording of KPIs for quantitative analysis guarantee that Union Investment comprehensively documents and evaluates real estate and portfolio data on an annual basis. At the same time, it follows up the impact of the actions it has taken and is successively integrating this review of the success of the actions into work processes as a standard requirement.

Internal benchmarking

Union Investment applies reliable data adjustment to the KPIs recorded in compliance with the German Property Federation recommendations "Sustainability Benchmarking – What and How Should Comparisons be Made". This ensures the comparability of the portfolio buildings and facilitates internal benchmarking based on the type of use. Asset and fund managers can use these benchmarks to obtain indications of potential improvements at property and portfolio levels.

Energy monitoring

Energy monitoring can be used to record and analyse consumption data, e.g. for electricity, heating, cooling or water, in short time intervals and to derive energy optimisations. To this end, Union Investment launched a pilot project with ten properties, primarily office buildings, in Germany in 2019. The standardised monitoring is to create a basis for calculating specific energy saving potential and using this potential in cooperation with property managers and tenants. Union Investment plans to successively equip the entire portfolio with energy monitoring by 2025 and to reduce consumption through systematic optimisation.

Certification

While the aforementioned instruments allow sustainability criteria to be managed throughout the entire real estate portfolio, the certification of portfolio properties is an additional tool that makes sustainable property qualities transparent for users and other stakeholders in particular. Union Investment examines whether such certification makes sense for individual properties. For new construction projects and extensive renovations, certification is an important sign of quality in implementing sustainability criteria. These must be taken into account during the property planning and construction phases in order to create optimum conditions for subsequent sustainable building operations.

Proportions of portfolio properties with certification or pre-certification

2017		2018		2019	
Number of properties	By appraisal value	Number of properties	By appraisal value	Number of properties	Number of properties
133	57%	148	63%	155	66%

Source: Union Investment, correct as at 31 December of the respective year. The statistics include the following funds: DEFO Immobilienfonds 1, DIFA-Fonds Nr. 3, GermanM, ImmoFonds 1, UII German Real Estate, UII Hotel Nr. 1, UII Shopping Nr. 1, Unilmmo: Deutschland, Unilmmo: Europa, Unilmmo: Global, Unilmmstitutional European Real Estate.

Certified and pre-certified properties in the portfolio

Property	Country	City	Type of use	Fund	Certification
EMPORIO	Germany	Hamburg	Office	Unilmmo: Deutschland	LEED CS 2.0 'Platinum'
EMPORIO Hotel Scandic	Germany	Hamburg	Office	Unilmmo: Deutschland	DGNB NHO 'Gold'
Finsbury Circus	UK	London	Office	Unilmmo: Deutschland	BREEAM New Construction, Office 08 'Excellent'
CityQuartier DomAquaree	Germany	Berlin	Hotel	Unilmmo: Deutschland	DGNB NSQ 10 'Gold'
StadtQuartier Riem Arcaden	Germany	Munich	Shopping	Unilmmo: Deutschland	LEED (Hotel) CS v2009 'Platinum'
Rhein-Galerie	Germany	Ludwigshafen	Shopping	Unilmmo: Deutschland	DGNB Version 2009 'Platinum'
CityQuartier Paris-Trocadero	France	Paris	Office	Unilmmo: Deutschland	HQE Gestion Durable 'Exceptionnel', HQE Batiment Durable 'Tres Bon', Wired Score Gold
ATMOS	Germany	Munich	Office	Unilmmo: Deutschland	DGNB NBV 08 'Gold'
Rund Vier	Austria	Vienna	Office	Unilmmo: Deutschland	DGNB NBV 09A 'Gold'
LogPark	Germany	Neu Wulmstorf, Minenbützel	Logistics	Unilmmo: Deutschland	DGNB NIN 09 'Gold'
Centurion Commercial Center	Germany	Hamburg	Office	Unilmmo: Deutschland	DGNB NBV 08 'Platinum'
Prinzregentenplatz	Germany	Munich	Office	Unilmmo: Deutschland	LEED EBOM v4
Hotel Meliá	France	La Défense-Courbevoie	Hotel	Unilmmo: Deutschland	HQE Batiment Tertiaires en exploitation 'Excellent',
Airport Garden's	Germany	Dusseldorf	Office	Unilmmo: Deutschland	LEED EBOM v2009 'Gold'
Rosmarin-Karree	Germany	Berlin	Office	Unilmmo: Deutschland	BREEAM In-Use DE Part 2 'Very Good', BREEAM In-Use DE Part 1 'Very Good'
Eventes	Finland	Espoo	Office	Unilmmo: Deutschland	LEED CS 2009 'Gold'
Hotel Barcelo	Germany	Hamburg	Hotel	Unilmmo: Deutschland	BREEAM In-Use DE Part 01 'Very Good'
Euro Plaza 4	Austria	Vienna	Office	Unilmmo: Deutschland	DGNB NBV 09A 'Platinum'
Manufaktura	Poland	Lodz	Shopping	Unilmmo: Deutschland	BREEAM In-Use DE Part 1 'Excellent', BREEAM In-Use DE Part 2 'Excellent'
G1	UK	Glasgow	Office	Unilmmo: Deutschland	BREEAM Office 05 'Very Good'
Akzo Nobel	Netherlands	Amsterdam	Office	Unilmmo: Deutschland	BREEAM NL New Construction 'Excellent (NL 4*)'
UPM	Finland	Helsinki	Office	Unilmmo: Deutschland	LEED NC 'Platinum', LEED EBOM v 4.0 'Platinum'
Hotel Holiday Inn	Germany	Frankfurt am Main	Hotel	Unilmmo: Deutschland	DGNB NHO 09 'Gold'
Bülow Carré	Germany	Stuttgart	Office	Unilmmo: Deutschland	LEED CS 2.0 'Platinum'
Forum am Hirschgarten	Germany	Munich	Office	Unilmmo: Deutschland	DGNB NBV 09 'Gold'
K2 Ellipse	Luxembourg	Luxembourg	Office	Unilmmo: Deutschland	BREEAM In-Use Part 1 'Excellent', BREEAM In-Use Part 2 'Very Good'
K2 Forte	Luxembourg	Luxembourg	Office	Unilmmo: Deutschland	BREEAM In-Use Part 1 'Excellent', BREEAM In-Use Part 2 'Very Good'
Holzmarkt 1	Germany	Cologne	Office	Unilmmo: Deutschland	DGNB NBV 12 'Platinum'
Germany Headquarters Mercedes-Benz Sales	Germany	Berlin	Office	Unilmmo: Deutschland	DGNB NBV 09 'Gold'
Rungedamm 32	Germany	Hamburg	Logistics	Unilmmo: Deutschland	DGNB NIN 09 'Gold'
MegaCenter Rhein-Main	Germany	Dieburg	Logistics	Unilmmo: Deutschland	DGNB NIN 09 'Platinum'

Property	Country	City	Type of use	Fund	Certification
Green Worx	Austria	Vienna	Office	Unilmmo: Deutschland	LEED CS 'Platinum'
Palladium	Czech Republic	Prague	Shopping	Unilmmo: Deutschland	BREEAM In-Use Part 01 (Retail) Excellent, BREEAM In-Use Part 01 (Office) 'Excellent', BREEAM In-Use Part 02 (Office) 'Very Good'
Dominikanski A+C	Poland	Wroclaw	Office	Unilmmo: Deutschland	LEED CS v2009 'Platinum'
Dominikanski B	Poland	Wroclaw	Office	Unilmmo: Deutschland	LEED CS v2009 'Platinum'
Shannon Building	Ireland	Dublin	Office	Unilmmo: Deutschland	LEED CS v2009 'Gold'
Andel's Berlin	Germany	Berlin	Hotel	Unilmmo: Deutschland	BREEAM DE In-Use Part 01 'Very Good'
Holiday Inn	Poland	Warsaw	Hotel	Unilmmo: Deutschland	LEED NC 'Gold'
Vattenfall HQ	Sweden	Solna	Office	Unilmmo: Deutschland	GreenBuilding, Miljö Byggnad Building V 2.0 'Gold'
Maraton	Poland	Poznan	Office	Unilmmo: Deutschland	LEED CS v2009 'Platinum'
160 Aldersgate Street	UK	London	Office	Unilmmo: Deutschland	BREEAM Refurbishment and Fit-Out 2014: Offices 'Excellent'
600 Thirteenth Street	USA	Washington, D.C.	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
Fleetinsel	Germany	Hamburg	Hotel	Unilmmo: Europa	BREEAM DE In-Use Part 01 'Very Good', BREEAM DE In-Use Part 02 'Good'
Pullman Berlin Schweizerhof	Germany	Berlin	Hotel	Unilmmo: Europa	LEED EBOM v4.1 'Gold'
Terstseegenstrasse	Germany	Dusseldorf	Office	Unilmmo: Europa	LEED EBOM v4.1 'Gold'
Seestern 3	Germany	Dusseldorf	Office	Unilmmo: Europa	LEED CS v2009 'Gold'
Spandau Arcaden	Germany	Berlin	Shopping	Unilmmo: Europa	DGNB GIB 'Platinum'
IT-Port	Germany	Unterschleissheim	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
France Avenue	France	Paris	Office	Unilmmo: Europa	HQE Batiment Durable 'Tres Bon'
Radisson Blu Hotel Marseille	France	Marseille	Hotel	Unilmmo: Europa	BREEAM In Use Part 01 'Very Good'
Torre Diagonal Mar	Spain	Barcelona	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold', BREEAM ES In-Use Part 01 'Very Good', BREEAM ES In-Use Part 02 'Excellent'
CityQuartier Fünf Höfe	Germany	Munich	Shopping	Unilmmo: Europa	BREEAM In-Use DE Part 01 'Excellent'
Les Grands Prés	Belgium	Mons	Shopping	Unilmmo: Europa	BREEAM In-Use Part 01 'Very Good'
Park.Gate	Germany	Munich	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
140 Broadway	USA	New York	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
111 South Wacker	USA	Chicago	Office	Unilmmo: Europa	LEED CS 'Gold', LEED EBOM v2009 'Platinum'
Limbecker Platz	Germany	Essen	Shopping	Unilmmo: Europa	DGNB NHA 09 'Gold'
L'Unico	Luxembourg	Luxembourg	Office	Unilmmo: Europa	BREEAM In-Use Part 01 'Excellent', BREEAM In-Use Part 02 'Very Good'
PIXEL	Luxembourg	Luxembourg	Office	Unilmmo: Europa	BREEAM In-Use Part 01 'Excellent', BREEAM In-Use Part 02 'Very Good'
UN-Studio	Netherlands	Amsterdam	Office	Unilmmo: Europa	BREEAM NL In-Use Part 01 'Very Good', BREEAM NL In-Use Part 02 'Good'
Forum Kayseri	Turkey	Melikgazi/Kayseri	Shopping	Unilmmo: Europa	BREEAM Retail Europe 'Very Good', BREEAM In-Use Part 01 'Outstanding'
Fifty-One	Switzerland	Zurich	Office	Unilmmo: Europa	LEED CS v2009 'Gold'
ARCOTEL Kaiserwasser	Austria	Vienna	Hotel	Unilmmo: Europa	BREEAM AT In-Use Part 01 'Very Good'

Property	Country	City	Type of use	Fund	Certification
Shibuya Prime Plaza	Japan	Tokyo	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
Central Seine	France	Paris	Office	Unilmmo: Europa	HQE Batiment Durable 'Excellent', HQE Gestion Durable 'Exceptionnel', HQE Exploitation 'Excellent'
Radisson Blu Hotel Krakow	Poland	Krakow	Hotel	Unilmmo: Europa	BREEAM In-Use Part 01 'Very Good'
Hofgartenpalais	Germany	Dusseldorf	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
Saint Martial	France	Limoges Cedex 1	Shopping	Unilmmo: Europa	BREEAM In-Use Part 01 'Very Good', BREEAM In-Use Part 02 Very 'Good'
KINETIK	France	Boulogne-Billancourt	Office	Unilmmo: Europa	BREEAM v 2009 Europe Commercial: Offices 'Excellent', HQE Batiment Durable 'Excellent'
555 Mission Street	USA	San Francisco	Office	Unilmmo: Europa	LEED EBOM v2009 'Platinum'
Multicube	Germany	Heddesheim	Logistics	Unilmmo: Europa	DGNB NIN 09 'Platinum'
Motel One	Netherlands	Amsterdam	Hotel	Unilmmo: Europa	BREEAM NL New Construction 'Excellent'
Hotel Barceló Raval	Spain	Barcelona	Hotel	Unilmmo: Europa	BREEAM ES In-Use Part 01 'Good', BREEAM ES In-Use Part 02 'Good'
Europlaza 5	Austria	Vienna	Office	Unilmmo: Europa	DGNB NBV 09 'Platinum'
Senator	Poland	Warsaw	Office	Unilmmo: Europa	BREEAM NC V2008 Office 'Very Good'
Research Park Plaza III & IV	USA	Austin	Office	Unilmmo: Europa	LEED EBOM v2009 'Gold'
One Snowhill	UK	Birmingham	Office	Unilmmo: Europa	BREEAM Office 06 'Very Good'
ITO	Netherlands	Amsterdam	Office	Unilmmo: Europa	BREEAM NL In-Use Part 01 'Good'
SOM	Netherlands	Amsterdam	Office	Unilmmo: Europa	BREEAM NL In-Use Part 01 'Good'
Southpoint	Australia	Brisbane	Office	Unilmmo: Europa	Nabers Energy '5*', Nabers Water '4*'
J6 Front	Japan	Tokyo	Shopping	Unilmmo: Europa	LEED EBOM v2009 'Gold'
EY HQ	Finland	Helsinki	Office	Unilmmo: Europa	LEED EBOM v4 'Gold'
space2move A+B	Austria	Vienna	Office	Unilmmo: Europa	LEED CS 'Gold'
space2move C	Austria	Vienna	Office	Unilmmo: Europa	LEED CS 'Gold'
1000 Main	USA	Houston	Office	Unilmmo: Europa	LEED EBOM v2009 'Platinum'
4 Grand Canal Square	Ireland	Dublin	Office	Unilmmo: Europa	BREEAM 'Excellent'
5 Grand Canal Square	Ireland	Dublin	Office	Unilmmo: Europa	BREEAM 'Excellent'
Watermark Place	UK	London	Office	Unilmmo: Europa	BREEAM Office 06 'Excellent'
Königstrasse 27/27a	Germany	Stuttgart	Shopping	Unilmmo: Europa	LEED CS v2009 'Gold'
Amazon VI	USA	Seattle	Office	Unilmmo: Europa	LEED CS 'Gold', LEED EBOM v2009 'Platinum'
101 Seaport Boulevard	USA	Boston	Office	Unilmmo: Europa	LEED CS v2009 'Platinum', LEED EBOM v2009 'Platinum'
LondonHouse	USA	Chicago	Hotel	Unilmmo: Europa	LEED NC v2009 'Silver'
Mercado	Germany	Nuremberg	Shopping	Unilmmo: Europa	BREEAM In-Use De Part 01 'Very Good'
Le Befane	Italy	Rimini	Shopping	Unilmmo: Europa	BREEAM In -Use Part 01 Very Good, BREEAM In -Use Part 02 Good

Property	Country	City	Type of use	Fund	Certification
Rathaus-Galerie	Germany	Leverkusen	Shopping	Unilmmo: Europa	DGNB Neubau Handelsbauten v2009 'Gold'
Midtown21	USA	Seattle	Office	Unilmmo: Europa	LEED CS v2009 'Gold'
The Copyright Building	UK	London	Office	Unilmmo: Europa	BREEAM NC Offices v2014 'Excellent'
Siemens U6	Sweden	Solna	Office	Unilmmo: Europa	Miljöbyggnad 'Gold'
Granite Park VII	USA	Plano	Office	Unilmmo: Europa	LEED NC v2009 'Silver'
Metropolis	Finland	Helsinki	Office	Unilmmo: Europa	BREEAM Interim Certificate: design state New Construction 'Excellent'
LAGO	Germany	Konstanz	Shopping	Unilmmo: Global	BREEAM DE In-Use Part 01 'Very Good', BREEAM DE In-Use Part 02 'Good'
1 Coleman Street	UK	London	Office	Unilmmo: Global	BREEAM Office 05 'Very Good'
Torre Mayor	Mexico	Mexico City	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
Radisson Blu Hotel London Stansted Airport	UK	Essex	Hotel	Unilmmo: Global	BREEAM In-Use Part 01 'Very Good'
Forum Mersin	Turkey	Mersin - Yenisehir	Shopping	Unilmmo: Global	BREEAM In-Use Part 01 'Outstanding', BREEAM In-Use Part 02 'Outstanding'
STEP 6	Germany	Stuttgart	Office	Unilmmo: Global	DGNB GIB 'Gold'
Vision Crest Commercial (VCC)	Singapore	Singapore	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
Woodland Pointe	USA	Herndon	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
3 Stawy	Poland	Katowice	Shopping	Unilmmo: Global	BREEAM In-Use Part 01 'Very Good', BREEAM In-Use Part 02 'Excellent'
West-Park	Switzerland	Zurich	Office	Unilmmo: Global	BREEAM In-Use Part 01 'Excellent', BREEAM In-Use Part 02 'Very Good'
Torre Oriente	Portugal	Lisbon	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
Horizon Plaza	Poland	Warsaw	Office	Unilmmo: Global	BREEAM In-Use Part 01 'Excellent', BREEAM In-Use Part 02 'Excellent'
4085 Campbell Avenue	USA	Menlo Park	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
155 Clarence Street	Australia	Sydney	Office	Unilmmo: Global	4.5 Star NABERS (Green Star) Office as Built v3 2016 '5 **'
Converse at Lovejoy Wharf	USA	Boston	Office	Unilmmo: Global	LEED CS 'Gold', LEED EBOM v2009 'Gold'
Dos Patios	Mexico	Mexico City	Office	Unilmmo: Global	LEED CS 'Gold'
Hyatt Place Airport	Germany	Frankfurt am Main	Hotel	Unilmmo: Global	LEED CS v09 'Silver'
2000 McKinney Avenue	USA	Dallas	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
Ten 10th Street	USA	Atlanta	Office	Unilmmo: Global	LEED EBOM v2009 'Gold'
Courtyard WTC	USA	New York	Hotel	Unilmmo: Global	LEED NC v2009 'Silver'
QBC3	Austria	Vienna	Office	Unilmmo: Global	DGNB NBV v2009A 'Platinum', LEED CS v2009 'Platinum'
The Triangle	USA	Denver	Office	Unilmmo: Global	LEED CS v2009 'Gold'
Hub	Sweden	Stockholm	Office	Unilmmo: Global	BREEAM In-Use Part 01 'Very Good'
Malesherbes	France	Paris	Office	Unilmmot Institutional European Real Estate	BREEAM Refurbishment & Fit-Out 2015: Office 'Very Good'
Torre Diagonal Litoral B-3	Spain	Barcelona	Office	Unilmmot Institutional European Real Estate	LEED EBOM v2009 'Gold'
Zebra Tower	Poland	Warsaw	Office	Unilmmot Institutional European Real Estate	LEED CS 'Gold'

Property	Country	City	Type of use	Fund	Certification
Alberga A	Finland	Helsinki - Espoo	Office	UnInstitutional European Real Estate	BREEAM New Construction 'Very Good'
Europa-Galerie	Germany	Saarbrücken	Shopping	UnInstitutional European Real Estate	DGNB NHA 09 'Gold'
Stibbe Court	Netherlands	Amsterdam	Office	UnInstitutional European Real Estate	BREEAM New Construction 'Excellent'
MainTor Porta	Germany	Frankfurt am Main	Office	UnInstitutional European Real Estate	DGNB NBV 09 'Platinum'
Le Terrazze	Italy	La Spezia	Shopping	UnInstitutional European Real Estate	BREEAM In-Use Part 01 'Very Good', BREEAM In-Use Part 02 'Very Good'
K2 Dolce	Luxembourg	Luxembourg-Kirchberg	Office	UnInstitutional European Real Estate	BREEAM In-Use Part 01 'Excellent', BREEAM In-Use Part 02 'Very Good'
Riviera	Poland	Gdynia	Shopping	UnInstitutional European Real Estate	BREEAM In-Use Part 01 'Excellent', BREEAM In-Use Part 02 'Excellent'
FIRST	Netherlands	Rotterdam	Office	UnInstitutional European Real Estate	BREEAM NL New Construction 'Excellent'
XYZ Building	UK	Manchester	Office	UnInstitutional European Real Estate	BREEAM NC Offices v2011 'Excellent'
U7	Sweden	Solna	Office	UnInstitutional European Real Estate	BREEAM SE-2019 Kontor Nybyggnad 'Very Good'
Chal-Tec	Germany	Kamp-Lintfort	Logistics	UnInstitutional European Real Estate	DGNB NLO 15 'Gold'
HIEX Munich City West	Germany	Munich	Hotel	UII Hotel Nr. 1	DGNB NHO 12 'Platinum'
Hampton by Hilton	Germany	Berlin	Hotel	UII Hotel Nr. 1	LEED CS v2009 'Silver'
Sarni Stok	Poland	Bielsko-Biala	Shopping	UII Shopping Nr. 1	BREEAM In-Use Part 01 'Very Good'
De Klanderij	Netherlands	Enschede	Shopping	UII Shopping Nr. 1	BREEAM NL 'Very Good'
Ferio	Poland	Stare Miasto	Shopping	UII Shopping Nr. 1	BREEAM In-Use Part 01 'Very Good'
HIEX Berlin Alexanderplatz	Germany	Berlin	Hotel	DIFA-Fonds Nr. 3	DGNB NHO 12 'Gold'
42 Rue de Bassano	France	Paris	Office	DEFO-Immobilienfonds 1	BREEAM In Use Part 01 'Very Good'
55 Avenue Hoche	France	Paris	Office	DEFO Immobilienfonds 1	BREEAM In Use Part 01 'Good'
Marina Offices	Netherlands	Amsterdam	Office	DEFO Immobilienfonds 1	BREEAM NL 'Pass'
Hampton by Hilton	Poland	Warsaw	Hotel	DEFO Immobilienfonds 1	LEED NC 'Gold'
Space20	Germany	Darmstadt	Office	UII German Real Estate	DGNB NBV 09 'Gold'
Kettwiger Strasse 2-10	Germany	Essen	Shopping	UII German Real Estate	DGNB MBV 10 'Gold', DGNB NHA 09 'Gold'
WQ1_Haus am Fluss	Germany	Bremen	Office	UII German Real Estate	DGNB NBV 12 'Silver'
Hägenstrasse	Germany	Hanover	Logistics	UII German Real Estate	DGNB NLO 15 'Gold'
Morphosys	Germany	Planegg	Office	German ^M	DGNB NBV 12 'Gold'
TM50" (BA I)	Germany	Nuremberg	Office	German ^M	LEED NC 'Gold'
FIEGE MC Region Hanover	Germany	Burgwedel	Logistics	Immofonds 1	DGNB NLO 15 'Platinum'
STEP 8.3	Germany	Stuttgart	Office	Immofonds 1	DGNB NBV 15 'Gold'

Source: Union Investment, correct as at 31 December 2019

2.3 Ratings

Green Star classification in GRESB rating

Union Investment took part in the Global Real Estate Sustainability Benchmark (GRESB) rating for the seventh year in succession. The initiative, which was formed by investors in 2009, assesses the sustainability performance of real estate funds on the basis of an annual analysis. In last year's survey, Union Investment again took part with eight real estate funds. All eight were classified as "Green Star". Funds are designated Green Stars – the highest of a total of four ratings – if they have integrated sustainability management and their processes and reporting procedures focus on sustainability criteria. In addition, the assessment also takes into account the management of environmental performance, such as the real estate portfolio's energy consumption and CO₂ emissions. This benchmarking helps to actively manage sustainability performance and steadily improve the sustainability of the real estate portfolio.

Scope regards Union Investment as a leader in implementation of sustainability strategy

Another rating that Union Investment systematically takes part in is the Scope rating. Scope has included sustainability criteria in its assessment of open-ended real estate funds since 2013. In 2018, the Unilmmo: Deutschland, Unilmmo: Europa, Unilmmo: Global, UniInstitutional European Real Estate and Uni-Institutional German Real Estate funds were predominantly rated as above average by industry standards in sustainability matters. Overall, Scope confirmed once again that Union Investment is a leader in organisational and administrative implementation of sustainability strategy.

2.4 Raising stakeholder awareness

Fully sustainable real estate management thrives on continuous and open exchange with relevant interest groups. Union Investment therefore informs and raises awareness among its employees and also market participants, investors, clients and tenants regarding the opportunities and necessities of sustainability using a variety of media and events.

The new sustainability magazine atmosphere was published for the first time in 2019. This magazine gives investors, clients, tenants and interested parties insights into sustainable real estate management at Union Investment. In the latest issue, an asset manager is interviewed about the opportunities and challenges of green leases and various stakeholders report on sustainability in the real estate industry. We spend a day with a property manager and find out more about the work involved in managing the buildings and the role sustainability plays. Union Investment will report on topical issues in this varied format every year and thus hopes to make sustainability in real estate easier to grasp.

Another opportunity for dialogue is the knowledge portal run by Union Investment at www.nachhaltige-immobilien-investments.de. Specialist articles by various market players

on sustainability aspects and their practical implementation set out different perspectives and also encourage discussion with tenants, clients and business partners. This is complemented by current information and news.

2.5 Obligations placed on property users

The operating phase is the longest part of a property's lifecycle, and therefore constitutes a significant lever for sustainability in and at the property. Partnership-based cooperation between tenants and lessors is essential if the property's potential is to be fully utilised. Through green leases, users and owners undertake to use and manage the property sustainably in order to ensure that it maintains its value in the long term and, not least, that operating costs remain reasonable. This includes, for example, the provision of information on and regular exchange of sustainability-related data, stipulations regarding low-pollutant construction and cleaning materials, and assistance with low-impact usage. For certified properties, the parties can also agree to seek or improve certification.

In 2018, the German Property Federation published a "Green Leases for Germany" guideline. Here it should be emphasised that a precise definition of a Green Lease was determined for the first time. Union Investment expanded its standard lease agreements for offices, logistics buildings and hotels in Germany with the "Green Provisions" in line with the German Property Federation definition and is also deploying them, primarily for new leases.

2.6 Obligations placed on service providers

Under the environmental management system, Union Investment has undertaken to incorporate environmentally relevant criteria into the development of products and services, new contracts for tender and the selection of business partners. In real estate asset management, this has been a factor in the selection of property and facility managers since 2014 and in contract design. As it aims to constantly improve its environmental performance, Union Investment requires its service providers to apply sustainable principles to their activities and to impose similar obligations on their business partners. Union Investment examines the compliance of its service providers with the obligations of environmental law annually in a process conducted at the property level.

2.7 Information sharing and benchmarking within the industry

As part of its participation in a number of initiatives, Union Investment regularly shares information with other portfolio holders. It has been a member of the Urban Land Institute (ULI), which campaigns for the sustainable development of living environments, since 1999. As a founding member of the German Sustainable Building Council (DGNB), Union Investment has also been contributing its expertise and experience to wide-ranging work groups and

expert panels since 2007. The DGNB certification system, for example, was established with the help of pilot certification projects closely supported by Union Investment. In addition, a representative of Union Investment is currently the Chairman and permanent member of the DGNB's real estate advisory committee, which advises the office on strategic orientation and current issues.

Union Investment has been a member of the German Property Federation since June 2008 and has been heavily involved in the development of the industry-wide sustainability code. Together with other major institutions and holders of real estate portfolios, Union Investment was also involved in developing an industry-wide sustainability benchmarking guideline for real estate properties. The German Property Federation published this in 2017. The objective of sustainability benchmarking is to provide an important basis for the value-added development of the majority of the existing properties in the portfolio, integrating environmental, economic and social criteria. Union Investment is involved in many other work groups and committees of the German Property Federation and actively advances the issue of sustainability within the industry.

As a member of the German Investment Funds Association, Union Investment played an active part in drawing up the guidelines for sustainable real estate portfolio management published in 2016. The guidelines aim to identify performance indicators at the fund and portfolio levels in order to ensure sustainability and hence long-term returns for investors.

3. Property-specific portfolio consumption data

With its portfolio sustainability management system, Union Investment tracks property-specific consumption data for the buildings in its portfolio each year. One of the aims is to identify optimisation potential for properties and monitor the savings targets through internal benchmarking. Corresponding work on buildings can then be initiated.

3.1 Methods

By recording consumption data for its property portfolio, Union Investment ensures the transparency of its portfolio and can derive recommendations for action at the property and portfolio levels.

Consumption data for a given calendar year is recorded in the autumn of the following calendar year. This is because the information sources applied include utility bills which are usually only produced at the end of a year. The additional time required for quality assurance means that there is a lag of one year in the recording of consumption data for reporting. Accordingly, this report is based on the consumption data for 2018. Consequently, the data for 2019 cannot be included in the current analysis. The analysis encompasses final energy consumption, CO₂ emissions, water consumption and the volume of waste produced.

The figures in this report are shown as absolute values as well as specific values per square metre and year. In light of the international orientation and heterogeneous nature of the portfolio, specific consumption data was adjusted for aspects that are specific to countries, properties and uses and that influence a property's environmental performance. These include building characteristics such as vacancy rates and special uses, and also take into account local weather conditions. This results in comparable consumption data that can be assessed with the help of internal benchmarks. The data used for the analysis of environmental performance was recorded for the entire floor area of each building and includes consumption by tenants.

The continuously changing nature of the portfolio means that comparability between years is limited, particularly with regard to the absolute figures. To improve the comparability of the current years, the following analysis also discusses the consumption data for a like-for-like portfolio. The updated data recording and methodology will lead to optimised results in the future, thereby providing better comparability over the long term.

Consumption data:

Absolute values provide information on the overall consumption of an indicator. The consumption data for the portfolio included in the analysis is extrapolated for the total portfolio using a floor area factor. Absolute values cannot be used as comparative values as they do not relate to other key performance indicators (e.g. square metres).

Specific values define a quantity dependent on its environment. The specific KPIs of Union Investment mainly relate to the energy reference area in square metres and years. These values therefore essentially describe resource efficiency in relation to area. As previously, only the consumption data actually recorded for the portfolio reviewed is included in the calculation. Specific values therefore provide comparable indicators that allow comparisons between properties or funds. In addition, specific consumption/KPIs at Union Investment are adjusted for factors such as vacancy rates, climate and special users to filter out fluctuations within these factors and to create optimum comparability of values.

Like-for-like portfolio contains only buildings which have been part of the Union Investment portfolio for two consecutive calendar years and for which there are quality-assured consumption figures.

3.2 Portfolio under review

Union Investment's real estate portfolio is subject to constant change. Properties are continuously purchased and sold during the course of the year as part of active portfolio management. Selected portfolio properties are also subject to restructuring and renovation processes.

This dynamic development means that the portfolio cannot be examined exhaustively. Accordingly, Union Investment aims to record data for a large, representative subportfolio consisting of at least 75 % of its total portfolio (in terms of floor area). The consumption data for the properties examined is then extrapolated for the portfolio as a whole.

The portfolio as a whole contains actively managed properties in the office, retail, hotel and logistics usage types. As at 31 December 2019, the portfolio consisted of 326 properties with a value of around EUR 30 billion. Properties under construction or conversion and residential properties are not included in this analysis.

In 2019, the ambitious goal was achieved again. In total, for 230 properties, i.e. 75 % of the portfolio floor area, consumption data was recorded and subjected to external quality assurance.

The properties reviewed are representative of the overall portfolio in terms of usage types and floor area, and the data extrapolated for the portfolio as a whole is conclusive.

Portfolio under review

Type of use 2016	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	164	2,908,703	50
Retail buildings	53	1,649,395	28
Hotel buildings	38	692,288	12
Logistics buildings	13	604,386	10
Total	268	5,854,772	100

Type of use 2017	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	174	3,152,417	51
Retail buildings	52	1,715,929	28
Hotel buildings	45	706,889	12
Logistics buildings	10	555,477	9
Total	281	6,130,713	100

Type of use 2018	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	139	3,123,593	50
Retail buildings	47	1,954,585	31
Hotel buildings	35	617,201	10
Logistics buildings	9	525,450	9
Total	230	6,220,830	100

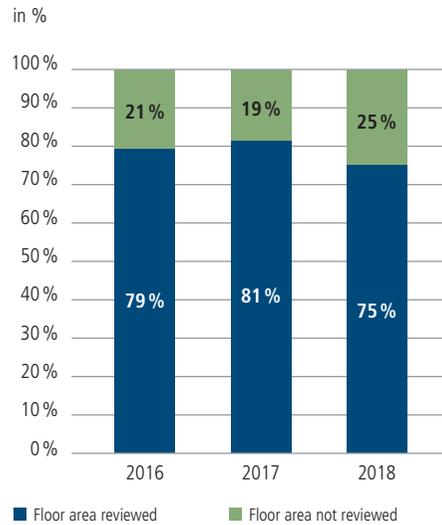
Extrapolated portfolio

Type of use 2016	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	211	3,641,661	49
Retail buildings	76	2,066,228	28
Hotel buildings	51	884,929	12
Logistics buildings	16	824,914	11
Total	353	7,417,732	100

Type of use 2017	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	207	3,627,950	48
Retail buildings	79	2,081,011	28
Hotel buildings	56	977,629	13
Logistics buildings	16	866,934	11
Total	358	7,553,524	100

Type of use 2018	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	181	3,776,778	46
Retail buildings	71	2,626,875	32
Hotel buildings	57	945,513	11
Logistics buildings	17	929,085	11
Total	326	8,278,251	100

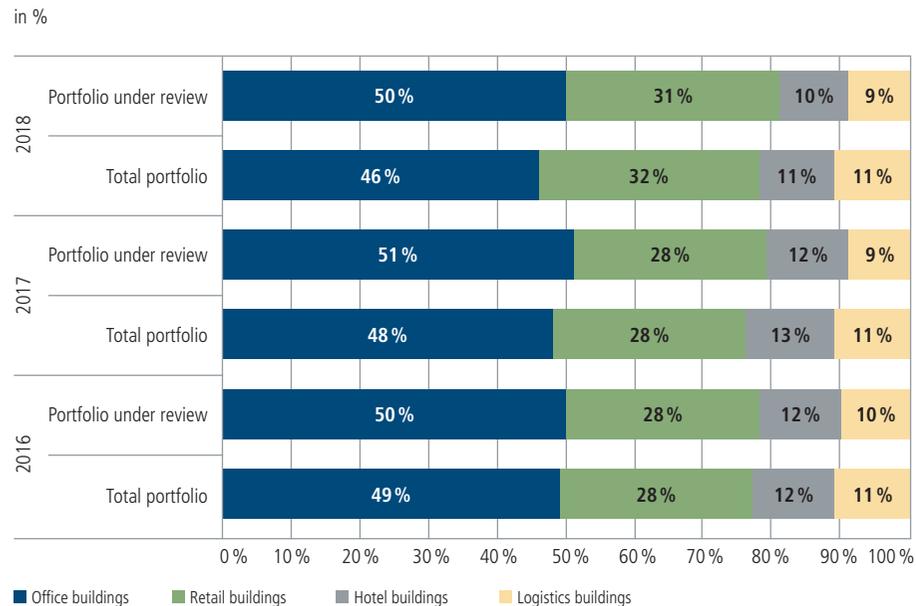
Floor area in total portfolio reviewed



Number of buildings in total portfolio reviewed



Comparison of reviewed portfolio floor area and total portfolio floor area by building use



3.3 Main findings

Overall, there has been a satisfactory trend for consumption/emissions. There has been a year-on-year decline in both absolute energy consumption and absolute CO₂ emissions. The specific values for energy consumption and CO₂ emissions are constant year-on-year. At 0.57 m³/m², the average water consumption of the overall portfolio is unchanged compared with 2017. Compared with 2016, the specific volume of waste for the total portfolio fell by around 7% in 2018 and was slightly below the three-year portfolio average at 6.5 kg/m². The development of the like-for-like consumption data from 2017 to 2018 shows a decrease in final energy of nearly 2%. CO₂ emissions have developed similarly and likely fell by nearly 2%. Both water consumption and the volume of waste were likewise reduced slightly in the like-for-like portfolio.

3.4 Total values

The extrapolation of the reviewed KPIs to reflect the overall portfolio produced the following absolute and specific values:

Absolute and specific values for all the KPIs for the total portfolio (extrapolated)

Absolute values for all the KPIs for the total portfolio (extrapolated)		2016 (353 properties)	2017 (358 properties)	2018 (326 properties)
Final energy consumption	[GWh/a]	1,620	1,620	1,614
Direct final energy consumption	[GWh/a]	139	163	164
Indirect final energy consumption	[GWh/a]	1,481	1,457	1,450
CO₂ emissions, GRI 305-3	[t CO ₂ /a]	493,871	434,918	434,744
Direct CO ₂ emissions	[t CO ₂ /a]	27,943	33,246	26,085
Indirect CO ₂ emissions	[t CO ₂ /a]	465,928	401,672	408,659
Water consumption GRI 303-1	[m ³ /a]	4,667,281	4,518,574	4,506,013
Volume of waste	[t/a]	54,186	52,380	52,365
Specific values, portfolio under review		2016	2017	2018
Final energy consumption value, G4-CRE1	[kWh/(m ² /a)]	228	226	227
Energy consumption value, heating	[kWh/(m ² /a)]	81	84	81
Energy consumption value, electricity	[kWh/(m ² /a)]	147	142	146
CO₂ emissions, G4-CRE3	[kg CO ₂ /(m ² /a)]	64	56	58
Specific CO ₂ emissions, heating	[kg CO ₂ /(m ² /a)]	15	15	15
Specific CO ₂ emissions, electricity	[kg CO ₂ /(m ² /a)]	49	41	43
Water consumption, G4-CRE2	[m ³ /(m ² /a)]	0.61	0.57	0.57
Volume of waste	[kg/(m ² /a)]	7.0	6.6	6.5

Unadjusted values for 2018 portfolio under review		Portfolio under review	Office buildings	Retail buildings	Hotel buildings	Logistics buildings
Specific final energy consumption, G4-CRE1	[kWh/(m ² /a)]	223	231	217	262	63
CO ₂ specific carbon emissions, G4-CRE3	[kg CO ₂ /(m ² /a)]	57	51	63	74	21
Specific water consumption, G4-CRE2	[m ³ /(m ² /a)]	0.69	0.63	0.68	1.47	0.05

Note on data quality:

Quality assurance – Independent parties manually and objectively reviewed the recorded data for each property to check that it was complete and plausible.

Completeness of data – In cases where some of the consumption data was unavailable, it was added on the basis of reference values. The mechanism developed for this purpose incorporated use-related averages from different sources and historical portfolio data.

Extrapolation – If it was not possible to determine some of the data in full (such as tenant data), data was extrapolated on the basis of usage and with a floor area weighting on the basis of reference values within the software used.

Adjustment – Specific data was adjusted to ensure that the properties in the international portfolio were comparable. Final energy consumption data was adjusted for climate, vacancy rates and special users. The climate adjustment was applied using location-related weather periods for the last few years compared to the long-term average per climate zone. The specific consumption values for water and waste were adjusted for special users. Greenhouse gas emissions (shown as CO₂ equivalents or CO₂), which are calculated on the basis of country-specific emissions factors, are not adjusted. Absolute values are not adjusted.

Energy reference area – The total floor area in a building that is heated or temperature-controlled.

Note: Energy consumption and CO₂ emissions are shown separately according to direct and indirect primary energy sources. Direct primary energy sources are, for example, coal, natural gas, oil, biofuels, etc., i.e. energy generated directly on-site by means of combustion. Indirect primary energy sources are, for example, electricity from fossil fuels, nuclear energy, district heating and others, i.e. purchased energy.

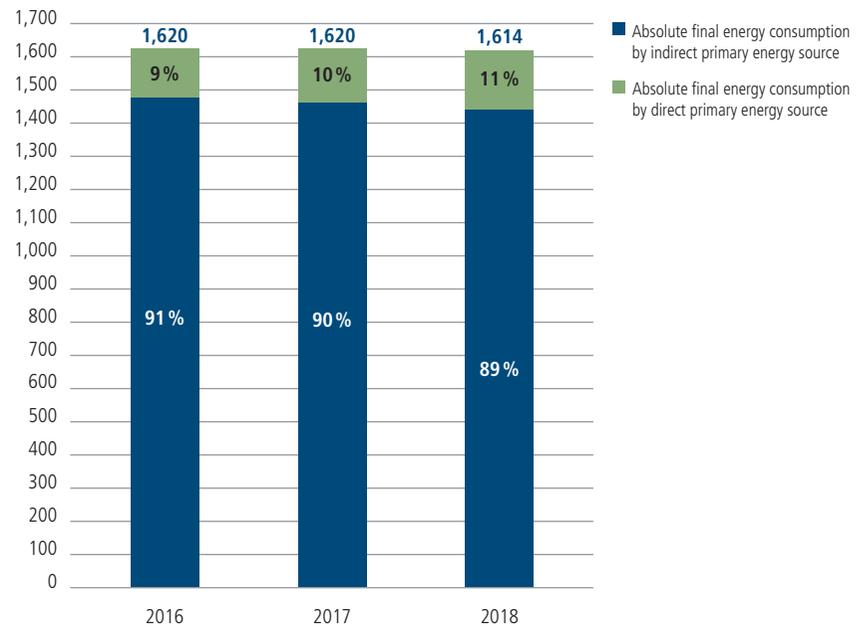
3.5 Absolute and specific consumption values for the portfolio by type of use

Direct energy is energy in which the fossil fuel is actually burnt on-site or in a process owned or controlled by the company concerned (such as natural gas for a heating system in the organisation or the consumption of fuel by a company's vehicle fleet). Indirect energy is energy in which the fossil fuel is burnt off site or outside the control of the company concerned to meet the needs of the organisation for secondary energy (such as electricity, district heating or cooling).

The absolute energy consumption figures are at the same level as in the previous year. This also applies to the ratio of direct and indirect energy sources.

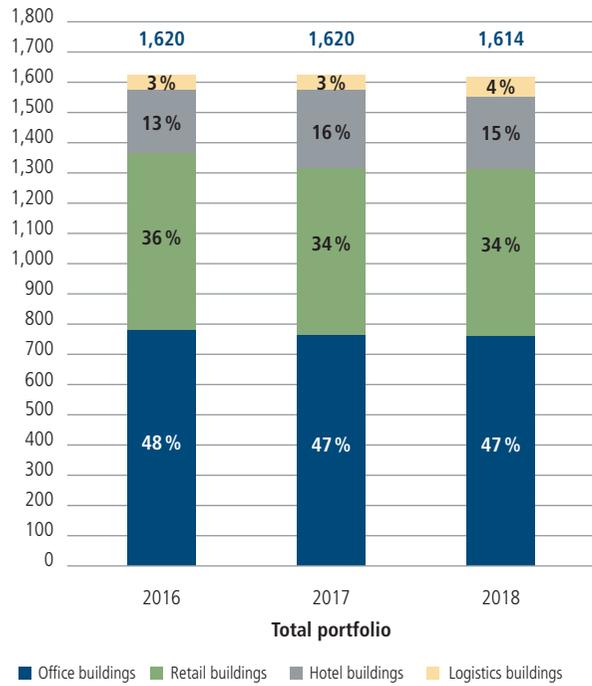
Absolute final energy consumption broken down by direct and indirect primary energy sources (GWh/year)

Share of consumption by extrapolated portfolio by primary energy source per year

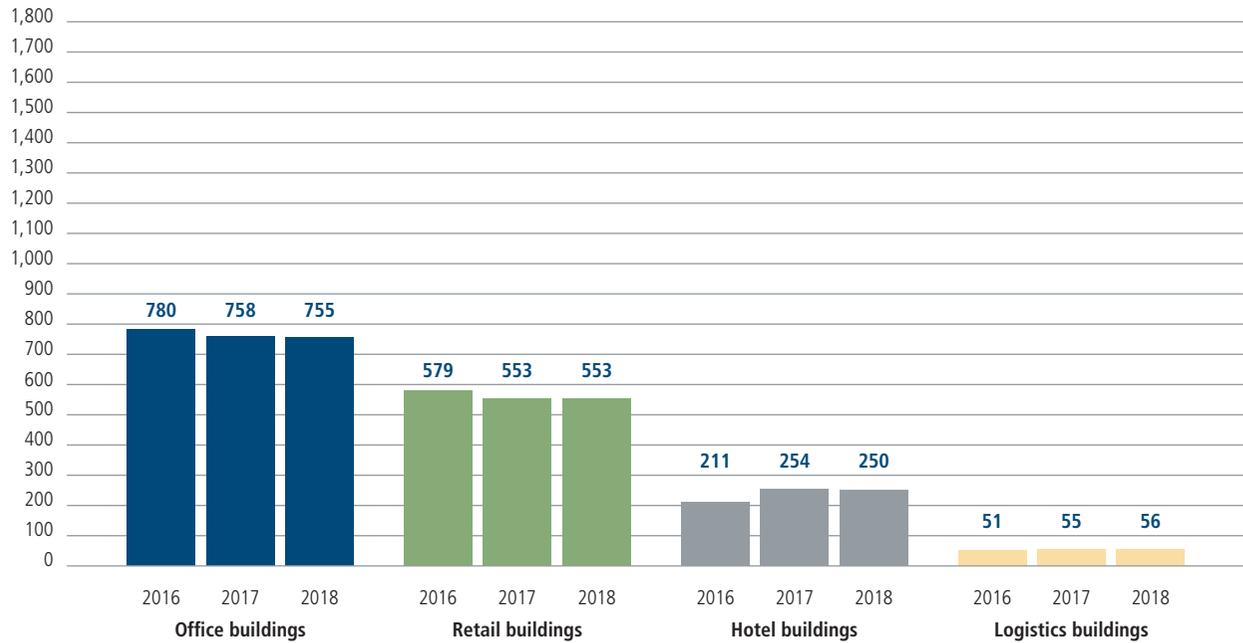


Absolute final energy consumption (GWh/year, extrapolated portfolio)

Share of consumption by type of use per year



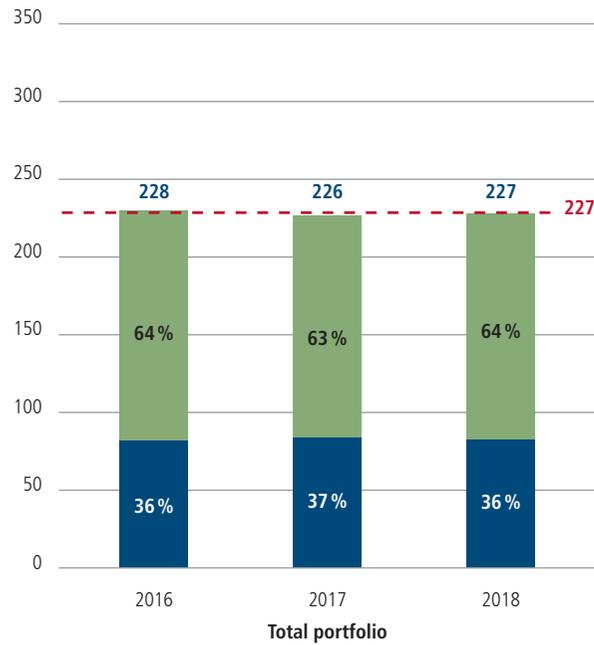
Consumption by type of use and year



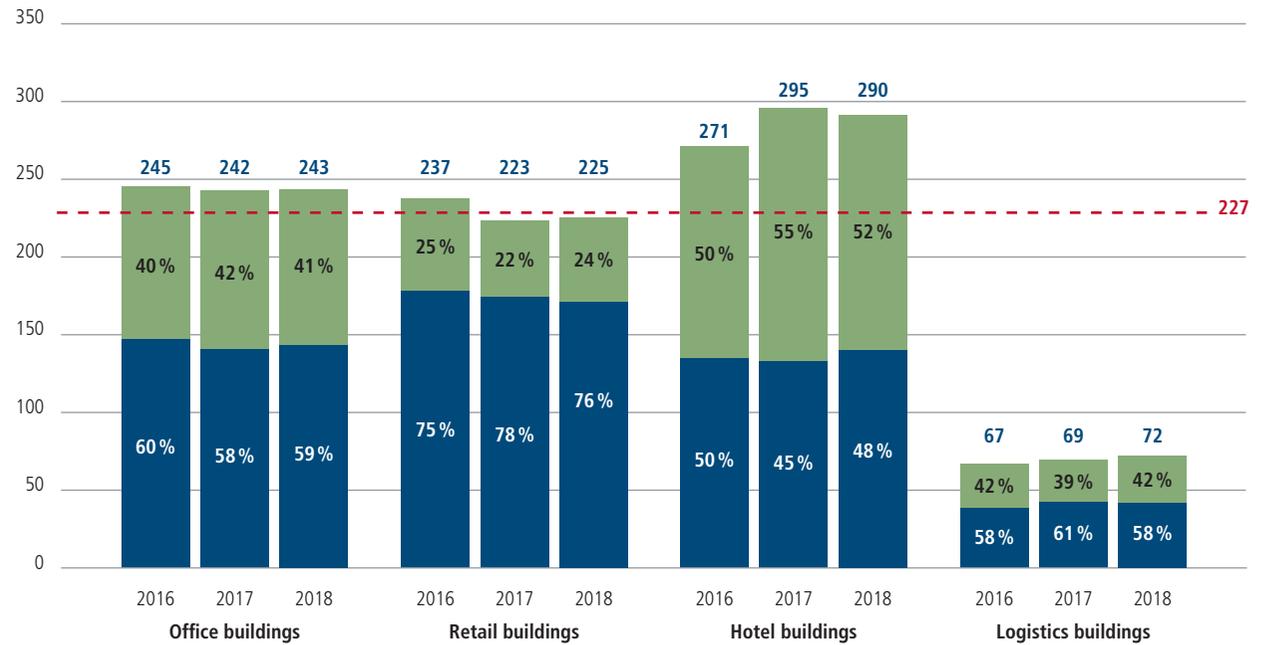
Between 2016 and 2018, there was constant development in absolute energy consumption. The slight percentage increase in energy consumption in the respective types of use is roughly in line with the percentage growth in floor area.

Specific final energy consumption – G4 CRE1 [kWh/(m²/year)]

Average consumption of portfolio per year, by type of consumption



Average consumption of portfolio by type of use and year, by type of consumption



■ Energy consumption value, electricity [kWh/m²] ■ Energy consumption value, heating [kWh/m²] - - Portfolio average over three years [kWh/m²]

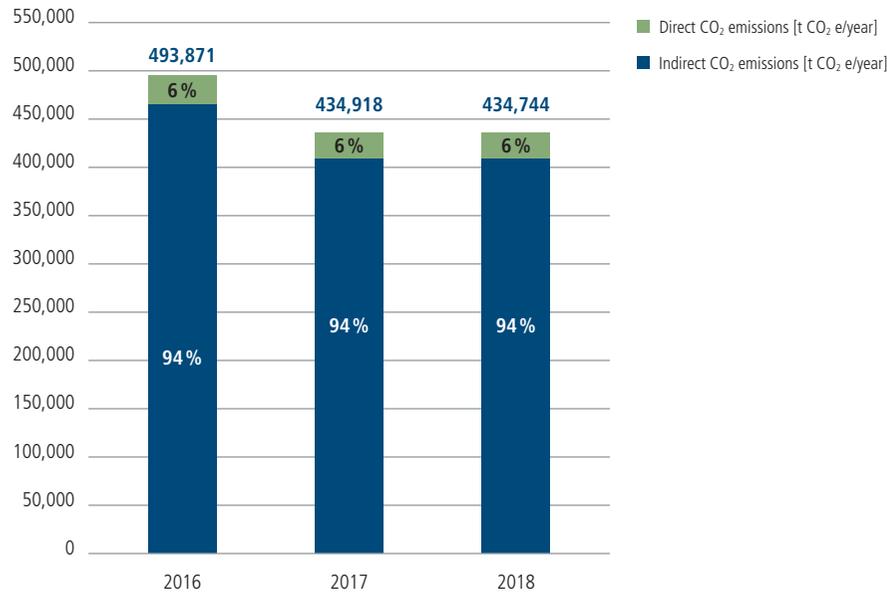
In the overall portfolio, a minimal increase in the specific energy key indicators is evident from 2016 to 2018. The increase in the portfolio results in the specific key energy indicators increasing. Properties with deviating figures have already been identified and will be subjected to a detailed examination shortly. There was also a slight increase in the logistics portfolio.

However, as floor area of the logistics properties accounts for only 11 % of the total portfolio and the specific figures are well below average, the increase has hardly any impact in terms of the overall portfolio. However, a reduction of approximately 5 % was achieved in this period for hotel buildings. Measures taken impact the portfolio.

Absolute CO₂ emissions broken down by direct and indirect primary energy sources – GRI 305-3 (t CO₂e/year, extrapolated portfolio)

In the following, the term “CO₂” is used as a simplification and abbreviation for “CO₂ equivalents”. Other greenhouse gases were calculated and converted using factors in line with the specifications of the United Nations’ Greenhouse Gas Protocol. As discussed in section 2.1, Union Investment classifies the emissions generated by its portfolio properties as Scope 3 emissions. Recording the origin of the Scope 3 emissions means that they can also be broken down into direct and indirect emissions.

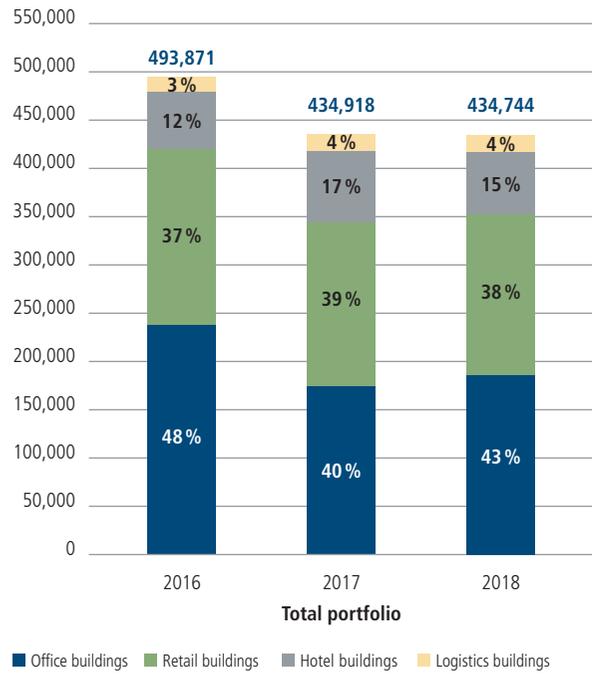
Share of emissions portfolio by primary energy source per year



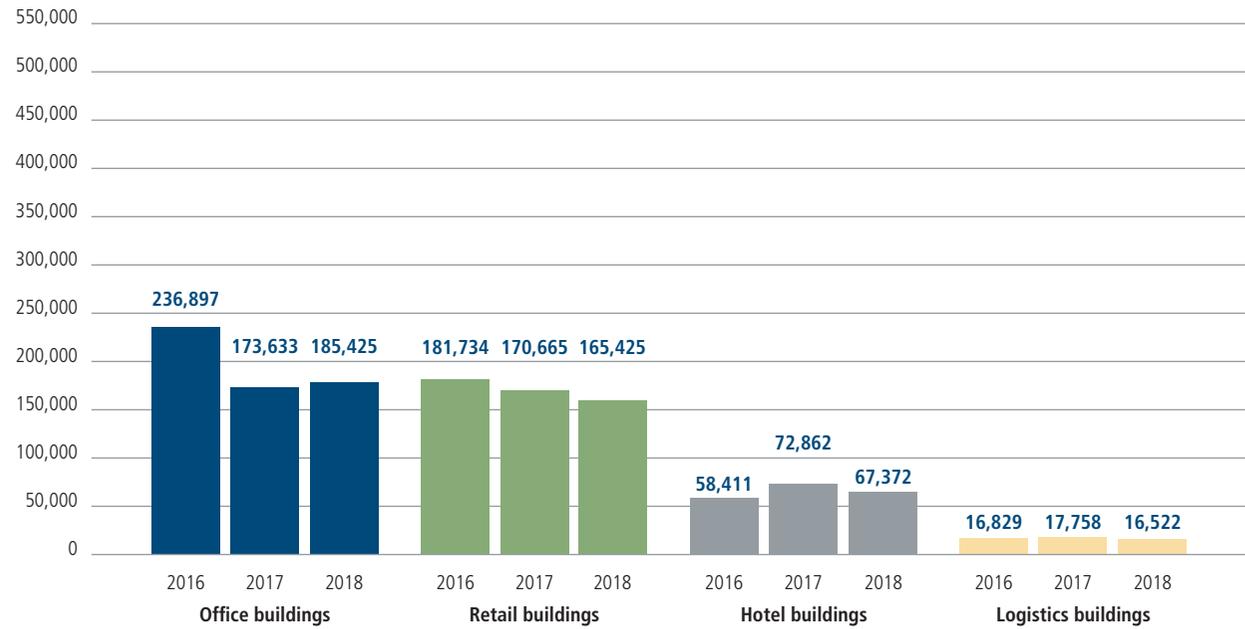
The absolute CO₂ emissions, which are otherwise known as the CO₂ footprint or carbon footprint, are based on the consumption of heating and electricity. In 2018, the CO₂ footprint of the overall portfolio was around 435,000 tonnes. This represents another – albeit minimal – decrease in the figure compared with the previous year. Despite portfolio growth, energy consumption was at the same level in 2017 and 2018. Thus the reduction in CO₂ emissions results from the more intensified use of regenerative energies.

Absolute CO₂ emissions – GRI 305-3 (t CO₂ e/year, extrapolated portfolio)

Emissions per type of use per year



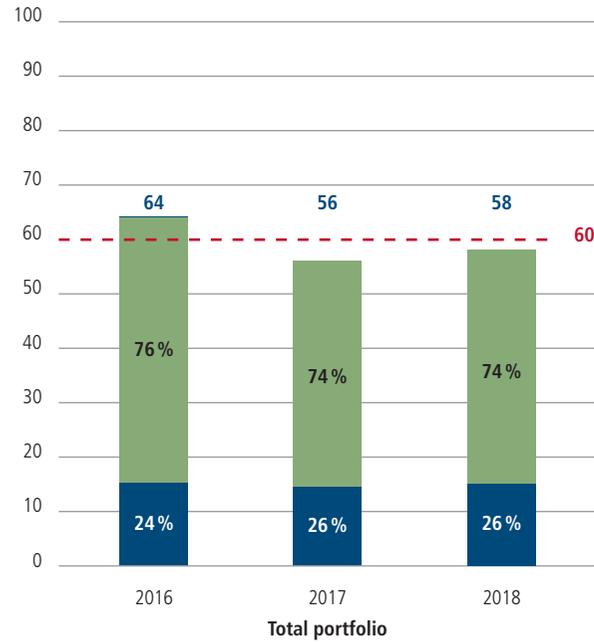
Emissions by type of use per year



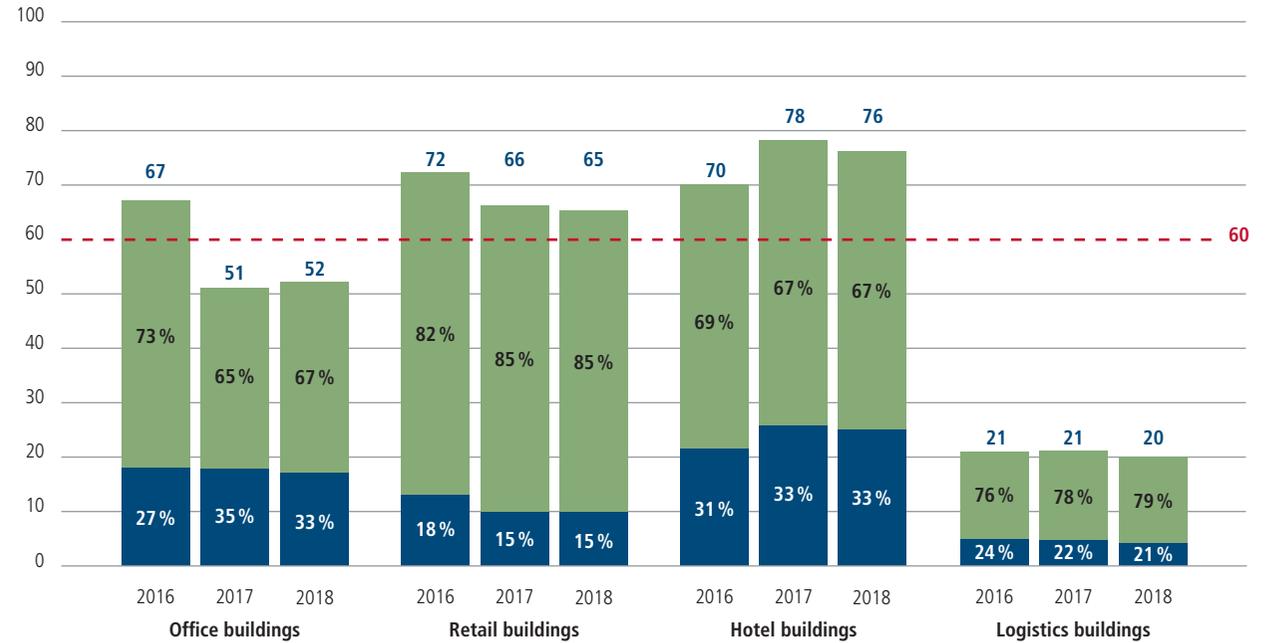
The reduced CO₂ footprint of the overall portfolio is due to the increased use of renewable energies for the hotel and retail types of use. For hotel buildings, in 2018 CO₂ emissions were cut by 5% in comparison to the previous year. For retail buildings, emissions were likewise 5% lower.

Specific CO₂ emissions – G4-CRE3 [kg CO₂/(m²/year)]

Average emissions per year, by type of consumption



Average portfolio emissions by type of use and year, and by type of consumption

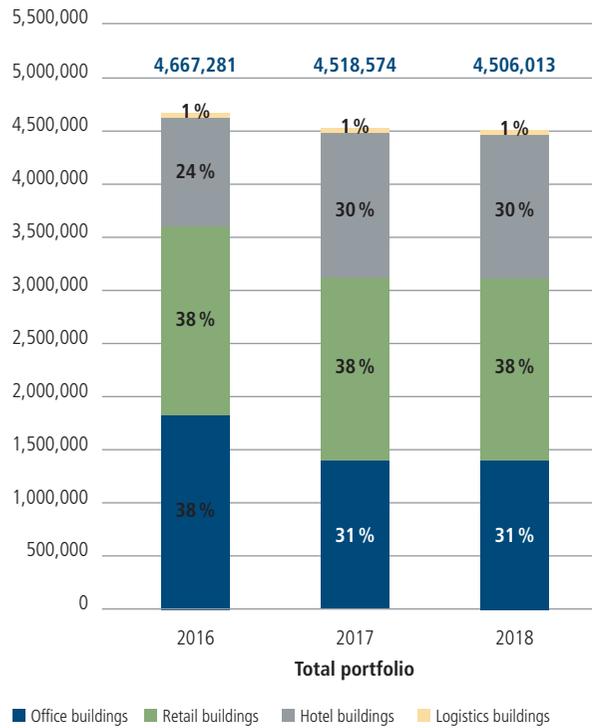


■ CO₂ emissions, electricity [kgCO₂e/(m²/year)] ■ CO₂ emissions, heating [kgCO₂e/(m²/year)] - - Portfolio average over three years [kgCO₂e/(m²/year)]

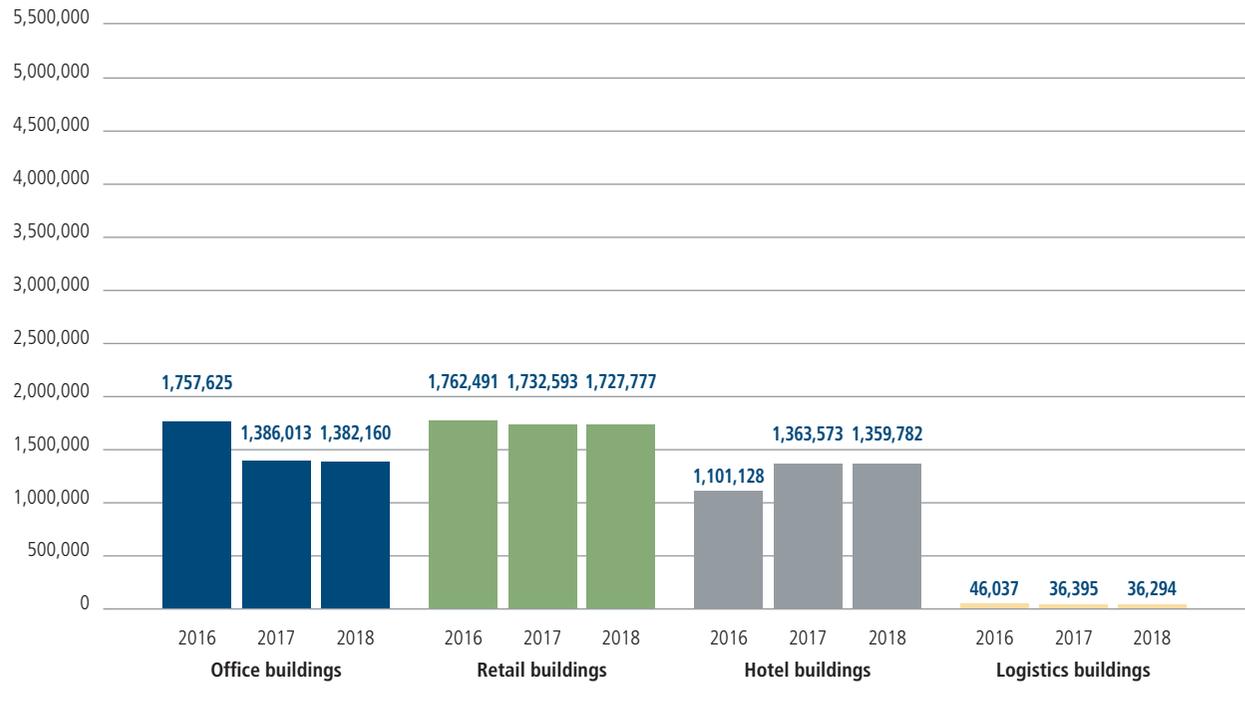
In 2018 specific CO₂ emissions are below the three-year average and at 58 kg CO₂ per m²/year were reduced by more than 15 % (compared with the figures from 2016). Office and logistics buildings are (considerably) below the current average figures. Likewise, changes resulting from newly purchased or sold properties as well as the energy sources used are major factors.

Absolute water consumption – GRI 303-1 (m³/year, extrapolated portfolio)

Share of consumption per type of use per year



Share of consumption per type of use per year

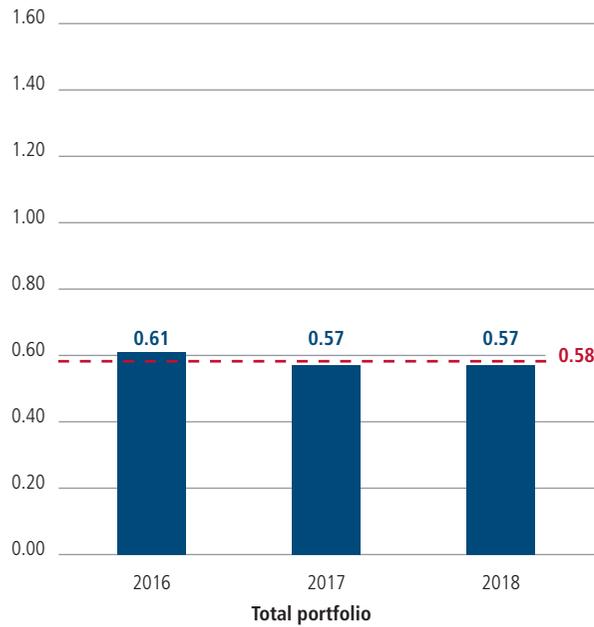


Absolute water consumption comprises the total volume of water consumed. The sources of supply included are drinking water, rain, groundwater and surface water. Compared with 2016, the water footprint for the overall portfolio decreased by around 4% to a figure of roughly 4.5 million m³ in 2018. The decrease is attributable to the usual fluctuations in the portfolio.

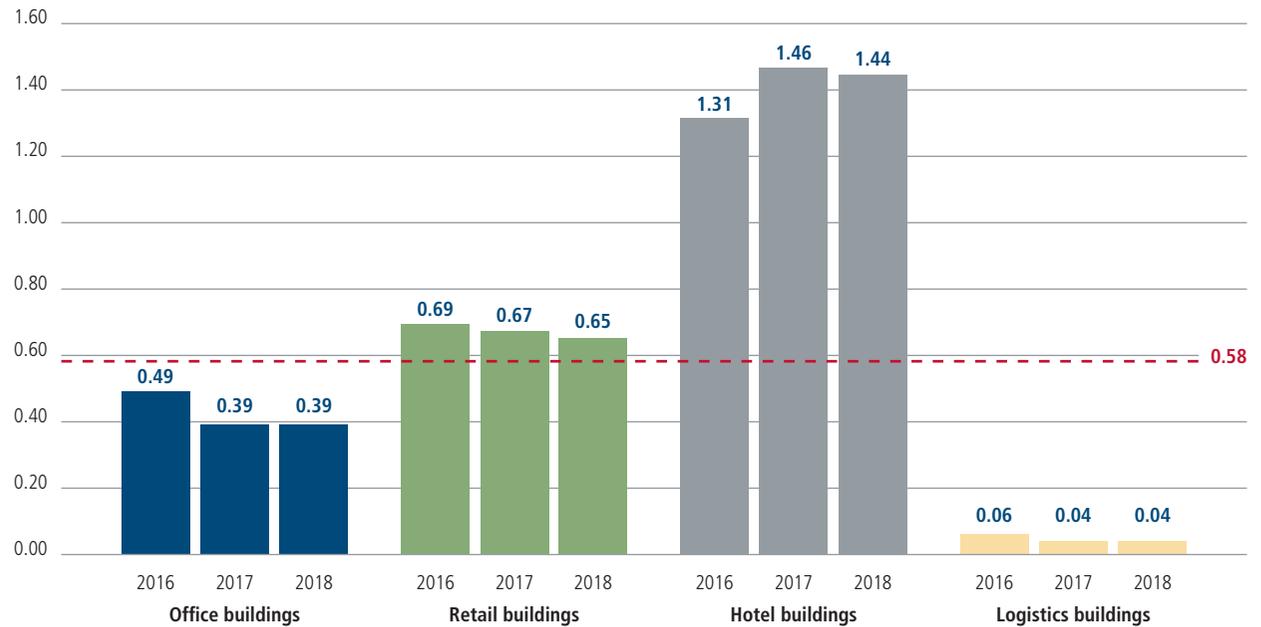
An analysis of the individual types of use also shows only minor fluctuations.

Specific water consumption – G4-CRE2 [m³/(m²/year)]

Average consumption per year



Average consumption per type of use and year



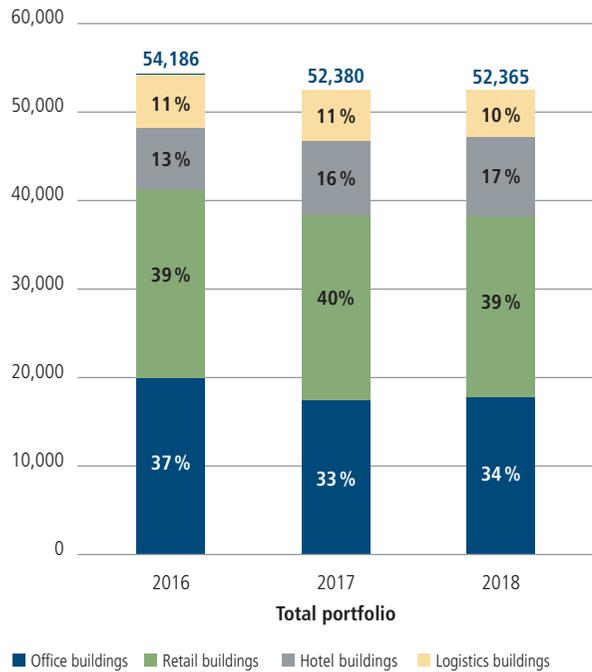
■ Specific water consumption [m³/(m²/year)] - - Portfolio average over three years [m³/(m²/year)]

Specific water consumption is the absolute value adjusted for special users. At 0.57 m³/m², the average water consumption of the overall portfolio declined slightly compared with 2016 and is slightly below the three-year portfolio average.

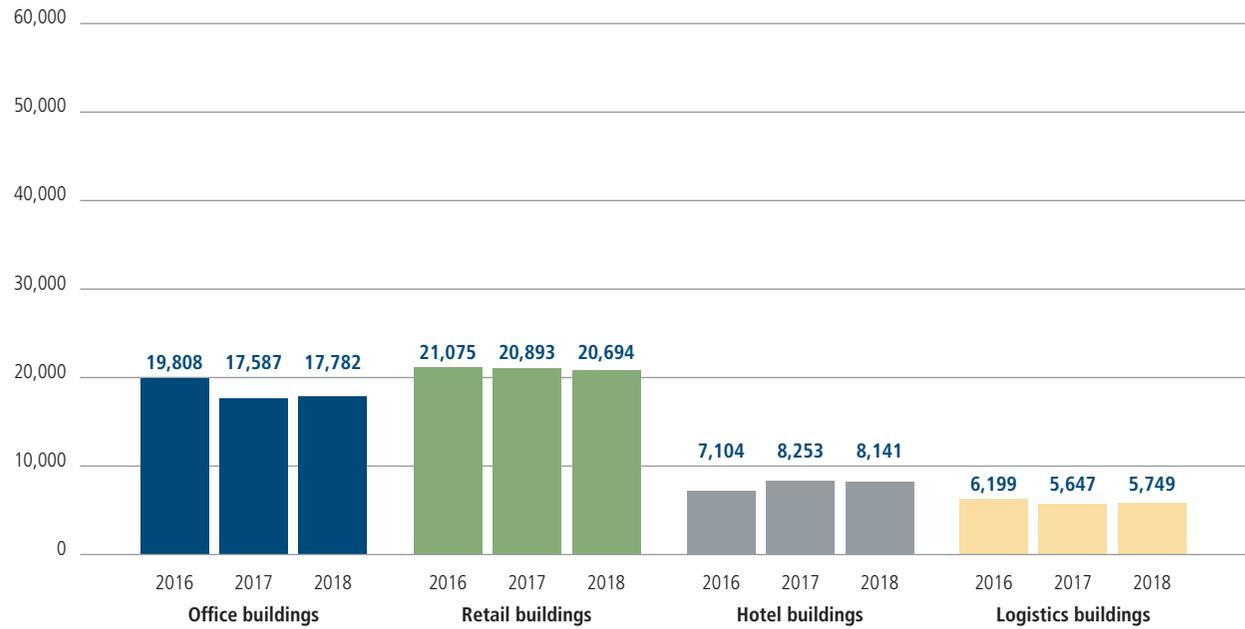
An analysis of the different types of use clearly shows that the values for retail and logistics properties have remained almost constant over the years. By contrast, in the office portfolio, specific water consumption in 2018 was down by around 25% on 2016. Hotel properties use the most water due to the nature of their use. Specific water consumption in the hotel portfolio increased by approximately 10% in 2018.

Absolute volume of waste – (t/year, extrapolated portfolio)

Share of waste volume for type of use per year



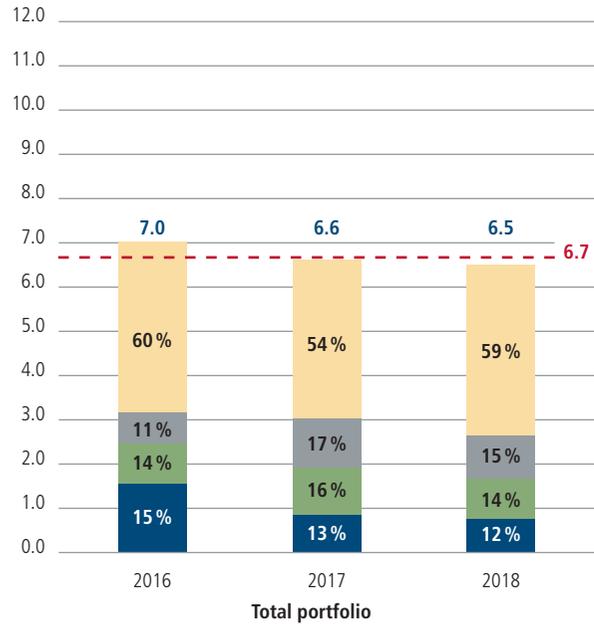
Waste volume per type of use and year



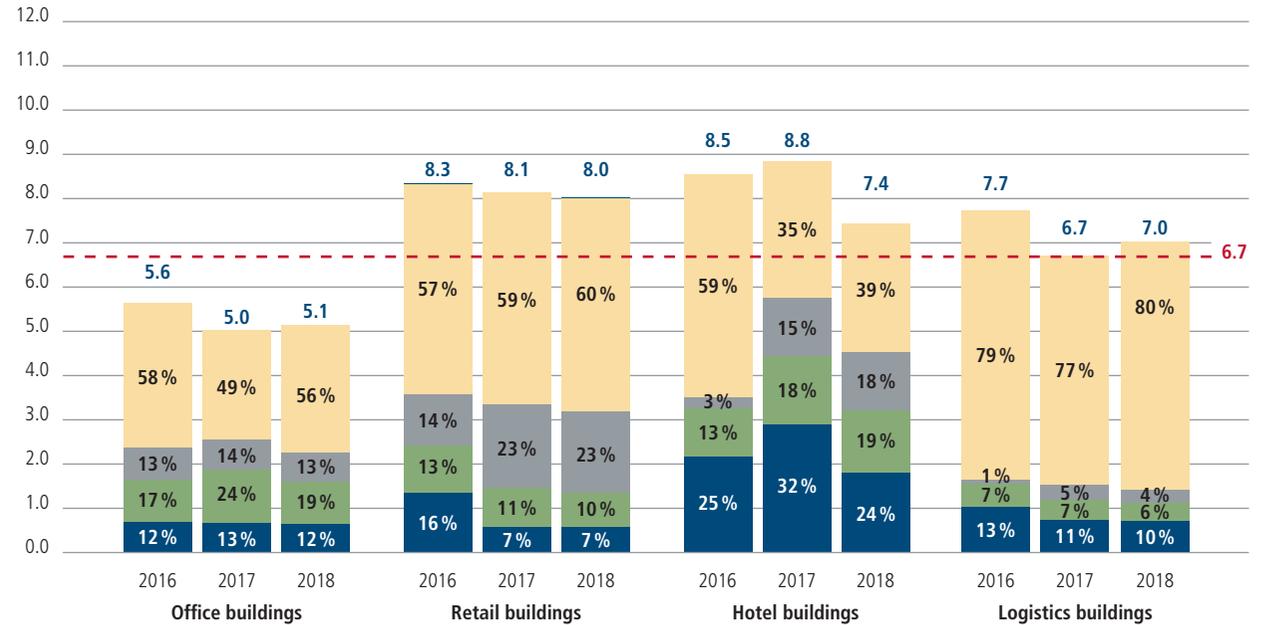
The absolute volume of waste is the total quantity of waste produced in the categories of recycled waste, landfill waste and incinerated waste. In 2018, the absolute volume of waste for the total portfolio was 52,365 tonnes, down around 3 % on 2016. A comparison specific to the type of use also shows only minor fluctuations due to changes in the portfolio.

Specific volume of waste [kg/(m²/year)]

Average waste volume



Average waste volume per type of use and year



■ Waste, unspecified [kg/m²]
 ■ Waste, landfill [kg/m²]
 ■ Waste, incinerated [kg/m²]
 ■ Waste, recycled [kg/m²]
 - - - Portfolio average over three years [kg/m²]

The specific volume of waste is adjusted for special uses. Compared with 2016, the specific volume of waste for the total portfolio fell by just under 7% in 2018 and was therefore level with the three-year portfolio average.

3.6 Like-for-like portfolio

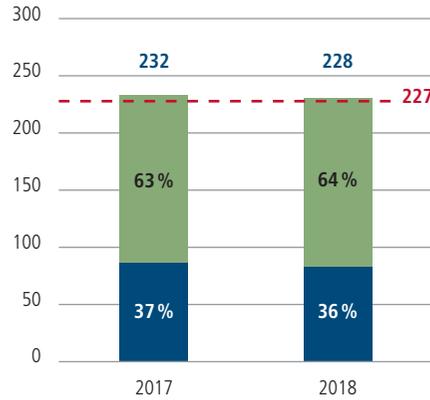
Like-for-like is a metric that adjusts the development in an indicator for new acquisitions or disposals. This is primarily used in dynamic markets to allow comparisons of growth factors, in this case consumption values. The like-for-like analysis of the Union Investment real estate portfolio therefore only includes properties that were in the portfolio in both 2017 and 2018 and for which there is quality-assured consumption data for both of these years. The adjusted analysis allows specific statements to be made on the changes in consumption values within the real estate portfolio. Measures that have contributed to the reduction in the respective types of consumption can thus be tracked and monitored. A disadvantage of this method is that statements only apply to a portion of the portfolio, rather than to the portfolio as a whole. The like-for-like portfolio covers 186 properties or approx. 57 % of the total portfolio.

Type of use	2017 / 2018		
	Number of properties	Floor area (m ²)	Floor area (%)
Office buildings	121	2,772,869	55
Retail buildings	35	1,499,786	30
Hotel buildings	26	439,497	9
Logistics buildings	4	290,648	6
Total	186	5,002,800	100

The development of the like-for-like consumption data from 2017 to 2018 shows a decrease in final energy of 2 %. CO₂ emissions were also reduced by approximately 2 %. In terms of water consumption and waste, further reductions were also evident, here of the order of nearly 2 % and 3 % respectively.

Specific final energy consumption like-for-like [kWh/(m²/year)]

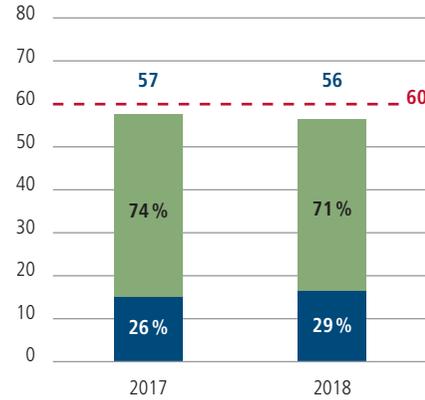
Average like-for-like portfolio consumption per year, by type of consumption



■ Energy consumption value, electricity [kWh/m²]
 ■ Energy consumption value, heating [kWh/m²]
 - - Portfolio average over three years [kWh/m²]

Specific CO₂ emissions like-for-like [kg CO₂e/(m²/year)]

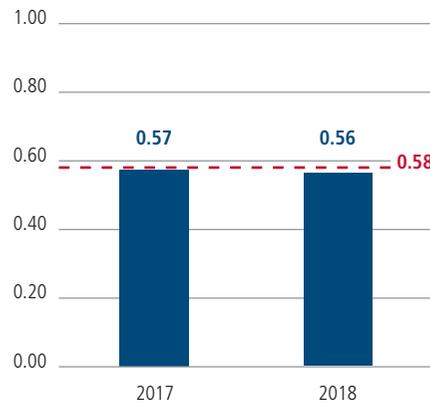
Average emissions per year, by type of consumption



■ CO₂ emissions, electricity [kgCO₂e/(m²/year)]
 ■ CO₂ emissions, heating [kgCO₂e/(m²/year)]
 - - Portfolio average over three years [kg CO₂e/(m²/year)]

Specific water consumption – like-for-like [m³/(m²/year)]

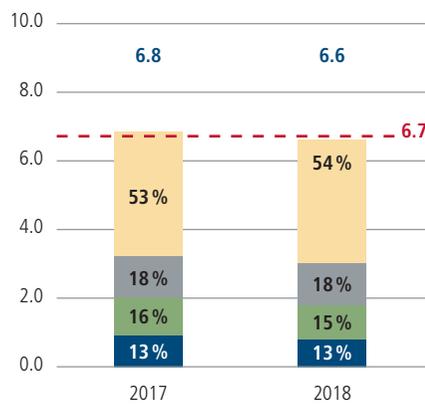
Average consumption per year



■ Specific water consumption [m³/(m²/year)]
 - - Portfolio average over three years [m³/(m²/year)]

Specific volume of waste – like-for-like [kg/(m²/year)]

Average waste volume



■ Waste, unspecified [kg/m²]
 ■ Waste, landfill [kg/m²]
 ■ Waste, incinerated [kg/m²]
 ■ Waste, recycled [kg/m²]
 - - Portfolio average over three years [kg/m²]

4. German Property Federation- and German Investment Funds Association-compliant sustainability reporting

In this report, Union Investment follows the sustainability code of the German Investment Funds Association. The German Property Federation code encompasses an industry code together with stipulations covering industry reporting, sustainability measurement, corporate governance/responsibility and corporate social responsibility.

For benchmarking Union Investment also deploys the German Property Federation guideline “Sustainability Benchmarking – What and How Should Comparisons be Made”.

In respect to sustainability reporting, Union Investment also complies with the “Guidelines for Sustainable Real Estate Portfolio Management” published by the German Investment Funds Association.

GRI content index

GRI standard	Detail	Page/contents/URL	
Organisational profile			
GRI 102: General disclosures 2016	102-1	Name of the organization	Union Investment Group
	102-2	Activities, brands, products and services	<p>With more than 60 years of expertise in the area of funds and assets under management in excess of EUR 360 billion, the Union Investment Group is one of the biggest and most important service providers within the German asset management sector. As an active asset manager, Union Investment offers needs-based investment solutions – both for private and institutional investors.</p> <p>Once again in 2019, product policy in the retail clients business primarily focused on the clients' security needs, with business development continuing to focus on optimising assets, old-age provision, asset investment and savings.</p> <p>The portfolio of services for institutional clients is designed with discerning institutional investors of varying sizes in mind. The clients within the Genossenschaftliche FinanzGruppe cooperative banking group are partner banks and other specialist banks, and also corporate clients of the cooperative partner banks. Union Investment also competes for institutional investors' investment capital outside of the Genossenschaftliche FinanzGruppe group.</p>
	102-3	Location of headquarters	Weissfrauenstrasse 7, 60311 Frankfurt am Main, Germany
	102-4	Location of operations	Group companies and equity investments as principal places of operation in Germany, Luxembourg, Austria, France, Singapore with branches in London, New York as well as a joint venture in Hong Kong.
	102-5	Ownership and legal form	Unlisted joint-stock corporation DZ Bank: 72.3 % VR GbR: 24.3 % Local cooperative banks including holding companies of the cooperative banks and trade associations of the German cooperative financial services network and other entities: 3.4 %

GRI standard	Detail	Page/contents/URL	
	102-6	Markets served	<p>In addition to its activities in Germany, the Union Investment Group offers selected funds in Austria, Italy, Switzerland, the UK, the Netherlands and the Scandinavian markets. The joint venture between Union Investment and the Bank of East Asia (BEA Union Investment Management Ltd.) focuses exclusively on Asia as a future market. This report focuses on the Union Investment Group within Germany.</p> <p>In retail business, Union Investment services are exclusively available to the retail clients of the cooperative partner banks ('Verbund first'). The portfolio of services for institutional clients is designed with discerning institutional investors of varying sizes in mind. The clients within the Genossenschaftliche FinanzGruppe cooperative banking group are banks and other specialist banks, and also corporate clients of the cooperative partner banks. Union Investment also competes for institutional investors' investment capital outside of the Genossenschaftliche FinanzGruppe inside and outside Germany, for example with pension funds and insurance companies.</p>
	102-7	Scale of the organization	See consolidated financial statements
	102-8	Information on employees and other workers	<p>Most of the activities of the Union Investment Group are performed by permanent core employees.</p> <p>The number of employees is constantly subject to change in line with the performance of the company and the market.</p>

102-8 Information on employees and other workers

	Permanent	Temporary	Total
Male	1,797	53	1,850
Female	1,357	60	1,417
Total	3,154	113	3,267

GRI standard	Detail	Page/contents/URL
102-9	Supply chain	<p>For operation, management and enhancement of internal processes, Union Investment buys goods and services from the following 11 product groups (sorted in descending order by purchasing volume):</p> <ul style="list-style-type: none"> – Consulting – Outsourcing (primarily IT outsourcing) – Facility management – Marketing – Information technology – Market data – Events (conferences/events/trade fairs) – Logistics – Travel management – Operating and office equipment – Vehicle fleet <p>In addition to price and quality, Purchasing takes the following objectives into account in its decision-making:</p> <p>a) Risk minimisation (e.g. with regard to security of supply, data protection, performance, efficiency, compliance, reputation etc.)</p> <p>b) Sustainability impact of purchase of the service</p> <p>For the services relevant to the business processes in particular (especially outsourcing of IT services), the supply chains (i.e. including upstream suppliers) are examined on the basis of regulatory requirements and monitored in terms of the stipulations set out above. The supplier chains therefore require a corresponding level of administrative work.</p> <p>Our supplier portfolio (approx. 1,600 active suppliers and service providers as at 2019) primarily consists of consultants, developers, agencies, service providers, production companies (media), trainers and others. Our suppliers are mostly located in Germany (approx. 85%) and the EU (approx. 97%). Approx. 3% of suppliers are based outside the EU. This mainly relates to market data and software products with foreign headquarters of the manufacturers.</p> <p>The specific characteristics of our industry combined with the aforementioned focus of the purchased goods and services means that, apart from catering, cleaning and security services, we do not use any services/suppliers with material connections to the low-wage sector or with a connection to ethically or socially controversial goods or practices.</p>

GRI standard	Detail	Page/contents/URL
102-10	Significant changes to the organisation and its supply chain	In 2019, the supervisory authorities approved the sale of the Polish subsidiary Union Investment TFI to Generali, so this transaction was successfully concluded in 2019.
102-11	Precautionary principle or approach	<p>Union Investment takes a precautionary approach within the company by actively managing and improving its use of resources. The '2° sind machbar' (Two degrees are achievable) climate strategy adopted in 2015 directly stands for our commitment to playing our part in successfully curbing climate change.</p> <p>In our core line of business, our main priority is to safeguard our clients' assets and secure their pension and provision commitments through our services.</p>
102-12	External initiatives	We strive to comply with strict nationally or internationally recognised standards in everything we do in the area of sustainability. For example, we are a member of the UN Global Compact and have pledged to apply the UN Principles for Responsible Investment. We signed the declaration of conformity with the German Sustainability Code in December 2013 and renewed this declaration in December 2018. In our real estate activities, we signed up to the German Property Federation's sustainability code for the real estate industry. We are represented in the sustainability committees of our industry associations (EFAMA, BVI, VfU). Since July 2013, Union Investment has been represented on the board of the Sustainable Investments Forum (FNG) and the German Association for Environmental Management and Sustainability by its head of Sustainability Management.
102-13	Membership of associations	<ul style="list-style-type: none"> – Cooperative umbrella association: BVR – Industry associations: BVI, EFAMA – UN Principles for Responsible Investment – Sustainable Investments Forum (FNG) – German Property Federation (ZIA) – VfU

GRI standard	Detail	Page/contents/URL
Strategy		
GRI 102: General disclosures 2016	102-14	Statement from senior decision-makers
		<p>Union Investment has a sustainability strategy which was adopted by the full Board of Managing Directors and which positions us as an ambitious company in the area of sustainability issues in the years to come too, on the basis of the success achieved thus far. We base our activities on national or international standards and implement them wherever this appears to be prudent. We have laid down the objectives and activities for achieving our strategic goals in all the areas of activity in our public sustainability programme, which is passed by the Board of Managing Directors annually. We recognised the UN Principles for Responsible Investment as a key standard for the implementation of sustainability in our core line of business back in 2010 and have continued to systematically develop our services in accordance with ever greater requirements ever since. The annual UNPRI feedback and other benchmarking standards give us valuable insights into how we need to further develop our core business processes.</p> <p>The primary focus for the next few years is to play an active part in shaping the anticipated changes, e.g. in the context of discussions on the long-term focus of the financial markets, and to implement these changes vigorously in the interests of the company and our investors. At times of low interest rates, we are called upon to develop solutions that contribute to safeguarding and increasing the prosperity of our investors.</p>

GRI standard	Detail	Page/contents/URL
	102-15	Key impacts, risks and opportunities
		<p>As a custodian for over 4 million private investors in German-speaking countries and numerous local and international institutional investors, we also actively uphold owners' interests in terms of sustainability development.</p> <p>We consider sustainability part of our business model and take account of what are for us significant sustainability trends. For example the social challenge of demographic change is closely linked with pension products for the broad population, climate change is particularly important in the development and management of our real estate assets and also in the assessment of listed companies and securing good and responsible corporate management is part of our CSR approach in portfolio management. In the company dialogue, when selecting our investment properties and when buying and developing real estate properties, we actively incorporate sustainability aspects in the decision-making processes and work towards improvements regarding environmental, social and corporate management aspects. Also in purchasing, in the supplier relationship we take account of sustainability aspects and make these a subject of discussion in the dialogue with suppliers. We do this both as a company and in the core business in the context of joint activities with other international asset managers to make our activities more effective. Since 2012, we have also been offering this form of "CSR" to investors who have not invested in Union Investment products in order to extend the reach of our sustainability initiatives even further.</p> <p>As a service company with relatively low direct ecological impact in business operations, we see few direct opportunities and risks in respect to social and ecological aspects. For this reason we use our CSR approach as a key method to influence society and the environment. For our investors, by taking account of environmental, social and corporate management aspects, we offer the opportunity to actively reduce risks in our products.</p>

GRI standard	Detail		Page/contents/URL
Ethics and integrity			
GRI 102: General disclosures 2016	102-16	Values, principles, standards and norms of behaviour	<p>Union Investment developed a new mission statement in 2010, which was realigned to the end of 2017. It states that the company's mission is geared towards the interests of our investors and enshrines transparency, partnership and professionalism as key elements of the corporate culture alongside our cooperative identity. Since July 2019, the focus on sustainability has also been enshrined therein.</p> <p>In 2015, the existing sustainability code was revised and adopted anew. The code contains a comprehensive description of our understanding of good corporate governance and the various areas of activity of sustainability. There are separate guidelines on responsible investment for our core business process of asset management; they were revised in 2019. The sustainability requirements for suppliers of the DZ BANK Group are applied as guidelines for dealing with external suppliers. Separate management guidelines also exist for employee management.</p>
	102-17	Mechanisms for advice and concerns about ethics	<p>Various guidelines and processes are established for internal and external mechanisms for seeking advice on ethical and lawful behaviour, and matters related to organisational integrity. There are whistle-blowing systems that track the relevant specific matters, which in particular guarantee the whistle-blower's anonymity. If necessary, external bodies/advisors are also involved in order to handle/draft the relevant situation.</p>

GRI standard	Detail		Page/contents/URL
Governance			
GRI 102: General disclosures 2016	102-18	Governance structure	<p>The Board of Managing Directors of Union Asset Management Holding AG is the highest decision-making body of the Union Investment Group. The Supervisory Board of Union Asset Management Holding AG is the highest supervisory body. The group-wide managerial and coordination responsibilities are pooled within Union Asset Management Holding AG as the controlling company of the Union Investment Group. In addition to these core responsibilities, this company handles group-wide services. It does not engage in any operating activities.</p> <p>With effect from 8 April 2019, Ms Ulrike Brouzi, member of the Board of Managing Directors of DZ BANK AG, was appointed as a member of the Supervisory Board of Union Asset Management Holding AG.</p>
	102-19	Delegating authority	<p>Improving economic, environmental and social performance is firmly embedded in the company and its structures. Responsibilities and functions are delegated to the line managers on this basis. Coordination of the sustainability strategy and measures is the responsibility of the sustainability officer.</p>
	102-20	Executive-level responsibility for economic, environmental and social topics	<p>The Union Investment Group's sustainability strategy is coordinated by the sustainability officer, who reports to the head of the Group Management department. This optimally secures the interlinking of the sustainability and the corporate strategy.</p>
	102-21	Consulting stakeholders on economic, environmental and social topics	<p>Resolution recommendations are usually addressed to the Supervisory Board via the Board of Managing Directors. Nonetheless, shareholders and employees may, at any time, address recommendations or instructions not only to the Board of Managing Directors but also directly to the Supervisory Board. No specific mechanism has been put in place for this.</p>

GRI standard	Detail	Page/contents/URL
102-22	Composition of the highest governance body and its committees	<p>The Supervisory Board of Union Asset Management Holding AG comprises 15 members, ten of whom are shareholder representatives and five of whom are employee representatives. All the members of the Supervisory Board are bound by the requirements, rights and obligations inherent to the activities of the supervisory board of a public limited company as prescribed in Germany's Stock Corporation Act (AktG).</p> <p>The tenure of the incumbent UMH Supervisory Board, which currently comprises four women and eleven men, is scheduled to last until the Annual General Meeting of UMH in 2022.</p> <p>Additionally, the company's Articles of Association require the members of the Supervisory Board appointed by the Annual General Meeting to protect the interests of the shareholders in investment funds issued by subsidiaries on the basis of their personality and expertise, and stipulate that, in principle, only persons who are a member of the governance body of a cooperative company may be appointed as the Supervisory Board member for shareholders. This principle may be deviated from in the case of a maximum of two shareholder representatives. As Union Asset Management Holding AG is not an asset management company within the meaning of Germany's Investment Code (KAGB), the independence requirements stipulated in Section 18 (3) KAGB do not apply to this company. The supervisory boards of the three group companies Union Investment Privatfonds GmbH, Union Investment Institutional GmbH and Union Investment Real Estate GmbH, which do fall within the scope of Section 18 (3) KAGB, each include a supervisory board member who, in accordance with the law, is independent of the shareholders, the companies associated with them and the company's business partners.</p> <p>There are no obstacles to any of the members of the Supervisory Board of Union Asset Management Holding AG being members of said board on the basis of other mandates already exercised, pursuant to Section 25 c/d of the German Banking Act (KWG).</p> <p>The company's Supervisory Board has set targets for the proportion of women on the company's Supervisory Board and Board of Managing Directors pursuant to Section 111 (5) of the German Stock Corporation Act (AktG), to be met by 31 December 2021. The target set for the Supervisory Board is 20% (3 out of 15). In the period under review, the proportion of women on the Supervisory Board was 26.7%, after 8 April 2019 (4 out of 15) and 20% prior to that (3 out of 15). The proportion of women on the Board of Managing Directors in the reporting period was 0%. The Supervisory Board set a target of maintaining the status quo until 31 December 2021. In addition, the Board of Managing Directors has defined targets in accordance with Section 76 (4) AktG for the two management levels below the Board of Managing Directors; these targets are to be met by 31 December 2021.</p>

GRI standard	Detail	Page/contents/URL
102-23	Chair of the highest governance body	The Chief Executive Officer of Union Asset Management Holding AG is Hans Joachim Reinke. He is not simultaneously the managing director of an operating subsidiary of Union Asset Management Holding AG. The Chairman of the Supervisory Board of Union Asset Management Holding AG is Dr. Cornelius Riese (Co-CEO of DZ BANK AG).
102-24	Nominating and selecting the highest governance body	<p>In accordance with the Articles of Association of UMH AG, the members of the UMH Supervisory Board appointed by the Annual General Meeting must protect the interests of the shareholders in investment funds issued by subsidiaries on the basis of their personality and expertise. In principle, only persons who are members of the governance body of a cooperative company may be appointed as the Supervisory Board member for shareholders.</p> <p>Selection is subject to various criteria, including expertise and experience in the area of financial correlations. The Supervisory Board of Union Asset Management Holding AG additionally passed a resolution setting a target of 20% for the proportion of women on the UMH Supervisory Board, to be met by 31 December 2021 (proportion as at 31 December 2019: 26.7%).</p>
102-25	Conflicts of interest	<p>The five employee representatives on the Supervisory Board are elected by the workforce. The members of the Board of Managing Directors of Union Asset Management Holding AG are appointed by the Supervisory Board of Union Asset Management Holding AG. The Supervisory Board bases its decisions on stringent qualification and experience requirements. The qualification and regularity of the governance of Union Asset Management Holding AG are the subject of an audit performed by the Supervisory Board and the auditors.</p> <p>The code of procedure for the Supervisory Board of Union Asset Management Holding AG stipulates that every member of the Supervisory Board must disclose any conflicts of interest relating to their person to the Supervisory Board without undue delay. As a rule, members of the Supervisory Board may not accept third-party benefits or allow such benefits to be pledged to them or to third parties in relation to their exercising their activities, nor may they promise or grant unjustified benefits to third parties. The company ensures that this rule is complied with by introducing and regularly updating internal guidelines and can stipulate criteria for exceptions to the rule (de minimis cases). A Supervisory Board member's consultancy contracts or any other service contracts or contracts for work with the company are subject to the approval of the Supervisory Board.</p>

GRI standard	Detail	Page/contents/URL
102-26	Role of highest governance body in setting purpose, values and strategies	The guiding principles, strategic goals and guidelines are developed and set by the Board of Managing Directors of Union Asset Management Holding together with the managers. With regard to the company's sustainability focus, continuation of its CSR strategy for the next few years was secured by resolution in July 2019. An updated sustainability code for the Union Investment Group was adopted in December 2015. The report on the 2019 financial year will be submitted to the Supervisory Board in the first quarter of 2020.
102-27	Collective knowledge of highest governance body	As the highest governance body, the UMH Board of Managing Directors addresses sustainability issues in its regular reporting and as part of its responsibility for CSR activities. In summer 2019, the current status of development, an organisational enhancement and an update of the CSR strategy were proposed to the Board of Managing Directors and approved.
102-28	Evaluating the highest governance body's performance	<p>The regularity of the Board of Managing Directors' management is assessed annually by the external auditors. The Supervisory Board is notified of the auditors' findings. Insofar as subsidiaries of Union Asset Management Holding AG are subject to supervision by Germany's Federal Financial Supervisory Authority (BaFin), the findings of the annual audit are also submitted to BaFin. BaFin generally conducts supervisory talks at least once a year with the management of the group companies which it supervises. BaFin or the Deutsche Bundesbank occasionally also order special audits. The Board of Managing Directors' management is also continuously monitored by the Supervisory Board. Please refer to the written report of the Supervisory Board in the annual report. The Supervisory Board assesses the performance of the Board of Managing Directors once a year on the basis of agreed ex-ante performance targets. Sustainability issues are a component of the Board of Managing Directors' target agreement and performance assessment.</p> <p>Decisions regarding the formal approval of the actions of the Supervisory Board and Board of Managing Directors of Union Asset Management Holding AG are made annually by the shareholders at the Annual General Meeting.</p>

GRI standard	Detail	Page/contents/URL
102-29	Identifying and managing economic, environmental and social impacts	<p>In summer 2019, the UMH Board of Managing Directors reviewed the CSR strategy adopted in January 2018 and approved an update. The Supervisory Board is regularly informed of the status of sustainability initiatives at the first meeting following the year-end. The resultant sustainability programme measures are examined by the Board of Managing Directors annually and, in the event of deviations, corrective measures are implemented. Key CSR projects such as the climate strategy and our CSR policy are implemented with the involvement of the relevant stakeholders, such as NGOs and key investors, so as to incorporate different perspectives into the procedures.</p> <p>Development of the Union Investment CSR strategy is based on the framework guidelines agreed upon within the DZ BANK Group.</p>
102-30	Effectiveness of risk management processes	The UIG's business and risk strategy is presented to the UHM's Supervisory Board once a year for approval. The written quarterly report submitted to the UMH's Supervisory Board likewise always includes information regarding the risk situation. For the 2015 financial year, a report on sustainability performance was specifically included in Supervisory Board reporting for the first time. In 2016, in addition a risk appetite statement was included in Supervisory Board reporting for the first time.
102-31	Review of economic, environmental and social topics	At least once a year
102-32	Highest governance body's role in sustainability reporting	The CEO of Union Asset Management Holding is the highest formal position to approve the sustainability and annual reports.
102-33	Communicating critical concerns	The company's critical concerns are addressed by means of the regular risk report and the quarterly reporting of all the operating segments to the UMH's Board of Managing Directors. If necessary, especially critical issues are subject to separate audits and, upon being audited, are resubmitted to be passed by a resolution.
102-34	Nature and total number of critical concerns	In the previous-year reporting period, the Supervisory Board was informed on the key strategic challenges and any resulting measures to be derived.

GRI standard	Detail	Page/contents/URL
102-35	Remuneration policy	<p>The aim of the remuneration systems is to recognise the employees' achievements accordingly and to offer them effective performance incentives. The remuneration system for employees in the collectively negotiated wage sector in Germany is based on the wage agreements for the private banking industry and for public banks. In Luxembourg, it is based on the collective bargaining system applicable there.</p> <p>The agreed salaries comprise the monthly salaries and bonus payments.</p> <p>The remuneration structure for employees not in the collectively negotiated wage sector comprises a function-based monthly basic salary and a short-term performance-based component. The performance-based component comprises not only quantitative targets – qualitative and sustainable targets can also be agreed individually. A results-oriented bonus and a growth-oriented long-term incentive plan (LTIP) may be offered as voluntary special benefits. An LTIP offers an incentive for sustainable business success and for long-term staff retention, and also reflects the company's risk position.</p> <p>The remuneration structure for employees whose activities have a significant influence on the risk profile of the asset management company or the managed investment fund (risk functions) and for employees with a control function comprises basic remuneration and variable risk remuneration premium for risk functions. This variable remuneration entails a multi-year assessment period and delayed payment. The aim is to reduce the risk appetite of the risk functions by incorporating lengthy periods of assessment and payment into both the past and future. The remuneration system is also compatible with and beneficial to a sound and effective risk management system.</p> <p>In addition to basic remuneration, the board members of Union Asset Management Holding AG are paid on the basis of a target bonus system. The bonus components are broken down into group, company and individual targets. 40 % of these are paid in the form of a deferred bonus as a sustainable component.</p> <p>The remuneration of the members of the Supervisory Board of Union Asset Management Holding AG as determined by the Annual General Meeting is fixed remuneration which is intentionally granted independently of the organisation's performance. D42</p>
102-36	Process for determining remuneration	<p>Union Investment's remuneration system is based on an analytical job evaluation process, drawing on external remuneration benchmarks. Independent external advisory services are used both in internal and annual market analysis. The remuneration system is also examined and analysed annually by an independent, internal remuneration committee.</p>

GRI standard	Detail	Page/contents/URL	
102-37	Stakeholders' involvement in remuneration	Resolution recommendations are usually addressed to the Supervisory Board via the Board of Managing Directors. Nonetheless, shareholders and employees may, at any time, address recommendations or instructions not only to the Board of Managing Directors but also directly to the Supervisory Board. No specific mechanism has been put in place for this.	
102-39	Percentage increase in annual total compensation ratio	The percentage increases for these two employee groups are comparable. Any deviations from the average may be due to HR policy influences but are in no way statistically representative.	
Stakeholder engagement			
GRI 102: General disclosures 2016	102-40	List of stakeholder groups	See page 138 (GRI standards 102-40 + 102-42 + Determining the key stakeholders:)
	102-41	Collective bargaining agreements	30.00%
	102-42	Identifying and selecting stakeholders	See page 137 (GRI standards 102-40 + 102-42 + Determining the key stakeholders:)
	102-43	Approach to stakeholder engagement	See page 137 (GRI Standards 102-43 + 102-44 Stakeholder engagement)
	102-44	Key topics and concerns raised	See page 138 (GRI Standards 102-43 + 102-44 Stakeholder engagement)
	102-45	Entities included in the consolidated financial statements	The report covers all companies of the Union Investment Group that fulfil the following aspects: materiality, influencing capability, sufficient capacity and integration in segment organisation. The following companies are not included on account of these criteria: Quoniam Asset Management, BEA Union Investment Management Limited (Hong Kong), VR Consultingpartner, Union Investment Real Estate France.
	102-46	Defining report content and topic boundaries	See page 138 "About this report" materiality matrix
	102-47	List of material topics	See page 139 (GRI standard 102-47 Identified material topics)
	102-48	Restatements of information	None

GRI standard	Detail		Page/contents/URL
	102-49	Changes in reporting	None
	102-50	Reporting period	See page 137 (GRI standard 102-50 Reporting period)
	102-51	Date of most recent report	May 2020
	102-52	Reporting cycle	Annually
	102-53	Contact point for questions regarding the report	In the 2013 reporting season, the CSR report was integrated into the annual report for the first time, and is available on the Union Investment website. The relevant contacts are stated on the Union Investment Group web presence at www.union-investment.de
	102-54	Claims of reporting in accordance with the GRI standards	See page 137 (GRI standards 102-48 + 102-49 + 102-50 + 102-52 + 102-54 Transparency and comparability of reporting)
	102-55	GRI content index	Starts on page 174
	102-56	External assurance	The report was not audited externally.
Organisational profile			
GRI 103: Management approach 2016	103-1	Explanation of the material topic and its boundary	See page 140 (Management approaches GRI Standards 103-1 + 103-2 + 103-3)
	103-2	The management approach and its components	See page 140 (Management approaches GRI Standards 103-1 + 103-2 + 103-3)
	103-3	Evaluation of the management approach	See page 140 (Management approaches GRI Standards 103-1 + 103-2 + 103-3)

GRI standard	Detail		Page/contents/URL
Economy			
GRI 201: Economic performance 2016	201-1	Direct economic value generated and distributed	See page 45 P&L in annual report
	201-2	Financial implications and other risks and opportunities due to climate change	The '2° sind machbar' (Two degrees are achievable) climate strategy was adopted in 2015 to achieve the political target of two degrees and measure the results. The planned measures were implemented in 2016 and 2017 as expected. However, with regard to investor behaviour it has been observed that consideration of climate aspects in the portfolios calls for a lengthy preparatory period and intensive investor consultation. In view of the current regulatory changes the management mechanisms for climate risks in line with the Task Force on Climate-related Financial Disclosures requirements are being examined and it is planned to implement them in operating processes in the near future.
	201-3	Defined-benefit plan obligations and other retirement plans	Union Investment provides several company pension schemes that differ in terms of contributions and implementation method. The resultant liabilities are mostly funded via plan assets. No separate fund has been created specifically for our pension obligations. All permanent employees are in at least one pension scheme. See page 80 of the 2019 annual report for the amount of Union Investment's company pension liabilities.
	201-4	Financial assistance received from government	None
GRI 203: Indirect economic impacts 2016	203-1	Infrastructure investments and services supported	A contribution to reducing CO ₂ emissions is made by investing in wind farms and solar farms in the UniInstitutional Infrastruktur SICAV-SIF Erneuerbare Energien fund. The portfolio data is published quarterly.
GRI 204: Procurement practices 2016	204-1	Proportion of spending on local suppliers	a. Approx. 97 % Our suppliers are mostly located in Germany (85 %) and the EU (97 %). 3 % of suppliers are based outside the EU. This mainly relates to market data and software products with foreign headquarters of the manufacturers. b. "Local" is defined as procurement within the Federal Republic of Germany. c. The significant locations of operation are the parts of the group in Germany, Luxembourg and Austria.

GRI standard	Detail	Page/contents/URL
GRI 205: Anti-corruption 2016	205-1	<p>Operations assessed for risks related to corruption</p> <p>All business locations included in the scope of the report have been audited.</p>
	205-2	<p>Communication and training about anti-corruption policies and procedures</p> <p>This relates to internal guidelines and processes. If external employees are engaged or relevant outsourcing is implemented, the employees used must also be trained in these guidelines/processes.</p> <ul style="list-style-type: none"> • Guideline on political donations in compliance with the authorisation and disclosure process • Ban on kickbacks • Ban on offering bribes • Ban on accepting bribes <p>Like the principles for preventing money laundering, how to deal with potential cases of corruption is described in an internal guideline as a component of fraud prevention. This includes an overall process with follow-up measures including "lessons learned". The specific design of the follow-up measures depends on the case at hand and is defined by a whistleblower committee or the money laundering officer. The processes and guidelines have been and are being continuously updated in line with legal requirements. The significant steps forward in the reporting particularly include the implementation of the updated group standards on money laundering and fraud prevention.</p>
	205-3	<p>Confirmed incidents of corruption and actions taken</p> <p>The money laundering officer was not made aware of any incidences of corruption in the 2019 reporting period which would have resulted in judicial sentencing or an employee dismissal. This equally applies to any contracts with business partners founded on such a matter. The money laundering officer is likewise not aware of any public lawsuits levelled at the group.</p>
GRI 206: Anti-competitive behaviour 2016	206-1	<p>Legal actions for anti-competitive behaviour, anti-trust and monopoly practices</p> <p>None</p>

GRI standard	Detail	Page/contents/URL
Environment		
GRI 301: Materials 2016	301-1	<p>Materials used by weight or volume</p> <ul style="list-style-type: none"> • Specific paper consumption: 2018: 180g per client/2019: 173g per client • Reduction in paper consumption per client compared with the previous year: 4.0 % • Photocopying paper consumption totalled 46,865 kg in 2019 (2018: 62,955 kg) <p>This equates to consumption of 15.4 kg per employee in 2019 (2018: 21.6 kg per employee).</p> <p>See also table on page 183</p>
	301-2	<p>Recycled input materials used</p> <p>See table on page 183</p>
GRI 302: Energy 2016	302-1	<p>Energy consumption within the organization</p> <ul style="list-style-type: none"> • Energy consumption reduced by 1.0 % compared with the reference year (2018) • Energy consumption reduced by 3.7 % per employee compared with the reference year (2018) <p>See also table on page 183</p>
	302-2	<p>Energy consumption outside of the organization</p> <p>Unfortunately, our suppliers are not able to report on their product-related or service-related energy consumption or CO₂ footprint.</p> <p>However, we aim to make progress here in the context of supplier development.</p> <p>With regard to the CO₂ footprint, we already report very extensively on Scope 3 emissions wherever possible.</p>
	302-3	<p>Energy intensity</p> <p>See table on page 183</p>
	302-4	<p>Reduction of energy consumption</p> <p>The KPIs on resource efficiency (CO₂ footprint, energy consumption, etc.) can be found in the CSR report.</p> <p>The KPIs are determined annually in the sustainability platform Sofi on the basis of consumption, bills and reports from suppliers.</p> <p>If no KPIs are available, they are extrapolated on the basis of previous years or levels at other locations.</p> <p>For some KPIs (e.g. commuter emissions or event emissions), it is necessary to make assumptions that are usually derived from current recommendations (e.g. of the Environment Ministry, NGOs) or determined in internal workshops on the basis of experience. The assumptions are also documented in the recording tool.</p>
	302-5	<p>Reductions in energy requirements of products and services</p> <p>We calculate a very extensive CO₂ footprint every year and publish it in the sustainability report, which contains all the above information. We defined 2009 as the reference year. It is the first year with sufficient data.</p> <p>See table on page 184</p>

GRI standard	Detail	Page/contents/URL
GRI 303: Water 2016	303-1 Water withdrawal by source	See table on page 185
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	See table on page 184
	305-2 Energy indirect (Scope 2) GHG emissions	For all GHG emission sources, the carbon footprint also contains the upstream and downstream Scope 3 emissions (CDP standard; GHG market-based method). 2009 was applied as the reference year because this was the year in which the environmental management system was introduced, meaning it provides the best possible transparency with regard to the measures already implemented. The carbon footprint is calculated on the basis of utility bills and reports from service providers. Manufacturer information was applied for the emission factors where possible. Where this information was not available, the factors published by the VfU were applied. We take the RFI factor 2.7 into account when determining business-travel emissions for aircraft.
	305-3 Other indirect (Scope 3) GHG emissions	
	305-4 GHG emissions intensity	
	305-5 Reduction of GHG emissions	There is a climate strategy with extensive measures. These can be found in the sustainability programme. The extent of reduction of GHG emissions is set out on page 184
GRI 306: Effluents and waste 2016	306-1 Water discharge by quality and destination	Union Investment discharges waste into the communal drainage systems. See also table on page 185
	306-2 Waste by type and disposal method	Volumes of waste are calculated on the basis of reports or disposal certificates via the waste register. In the rare cases where waste data is not available, e.g. where collection containers are shared with other tenants, the data is extrapolated on the basis of the number of employees at the respective location. Our waste disposal companies are responsible for selecting the disposal method. Toner waste is returned to the service provider of our printing service provider. See table on page 184
GRI 307: Environmental compliance 2016	307-1 Non-compliance with environmental laws and regulations	No infringements with significant actual and potential negative environmental impacts were identified in the reporting period. Therefore, no business relationships were terminated on these grounds.

301-1 + 301-2 Paper consumption¹⁾ and use of recycled paper [comparison with reference year 2018 (kg)]

Paper consumption	2018	2019	2019 share in %
Recycled paper	165,743	143,576	18.0 %
FSC-certified paper	640,155	654,426	82.0 %
PEFC-certified paper	0	0	0.0 %
Non-certified paper	0	0	0.0 %
Total paper consumption	805,898	798,002	100.0 %
Paper consumption per customer [g]	180.4	173.1	

¹⁾ Paper consumption includes the following types of consumption: customer mail, photocopying paper, customer information (magazines, flyers, product brochures), reports, office supplies (stationery, business cards, letterheads) and hygienic tissue paper. All print jobs and paper orders are recorded in the company's procurement portal. This forms the basis for calculating paper quantities. Reports from the cleaning service provider are applied for hygienic tissue paper consumption.

302-1 + 302-3 Direct energy consumption¹⁾ (fuels) by source [comparison with reference year 2018³⁾ (MJ)]

Type of energy	2018		2019		
	Consumption in MJ	Emissions per employee [MJ/FTE ²⁾]	Consumption in MJ	Reduction versus reference year in MJ	Emissions per employee [kg/FTE ³⁾]
Petrol	186,709.45	64.14	75,263.96	111,445.49	24.65
Diesel	21,343,447.19	7,332.00	21,587,067.32	-243,620.14	7,070.77
Natural gas	13,338,586.80	4,582.13	14,821,430.40	-1,482,843.60	4,854.71
District heating	11,208,983.00	3,850.56	11,421,000.00	-212,017.00	3,740.91
Electricity	35,520,014.81	12,202.00	34,498,839.60	1,021,175.21	11,299.98
Total	81,597,741.25	28,030.83	82,403,601.28	-805,860.04	26,991.03

¹⁾ The KPIs are calculated on the basis of the utility bills and the report on the vehicle fleet. Missing data for individual locations is extrapolated on the basis of employee development. Direct energy consumption relates to non-renewable sources. Apart from a small proportion of shared electricity, only green electricity is purchased. Emissions for natural gas are compensated by the energy supplier via a Gold Standard-certified climate-protection project. The energy intensity ratio is based on energy consumption within the organisation.

²⁾ FTE = Full-time equivalent.

³⁾ The reference year 2018 was selected on account of the target agreement in the sustainability programme; see page 146.

302-5 + 305-1 + 305-2 + 305-3 + 305-4 + 305-5 Total direct, indirect and other greenhouse gas emissions (GHG emissions) by weight (t CO₂ equivalents)¹⁾, reduction compared with reference year 2009 and GHG emissions intensity

Source of GHG emissions	2009		2019		Reduction versus reference year	
	CO ₂ in tonnes	Percentage [%]	Emissions per employee [kg/FTE]	CO ₂ in tonnes	Reduction [%]	
Vehicle fleet (fuel consumption)	2,992.2	2,421.4	16.4	793.1	570.7	19.1
Natural gas	1,605.2	309.5	2.1	101.4	1,295.7	80.7
Coolant losses	0.0	125.5	0.8	41.1	-125.5	-
District heating	148.6	507.0	3.4	166.1	-358.4	-241.2
Electricity consumption	6,929.8	555.5	3.8	182.0	6,374.4	92.0
Paper consumption	1,385.1	872.2	5.9	285.7	512.9	37.0
Business travel (rail, rental cars, aircraft, private cars)	3,621.3	3,677.6	24.8	1,204.6	-56.3	-1.6
Water supply	19.4	23.0	0.2	7.5	-3.5	-18.1
Hotel accommodation	68.4	245.1	1.7	80.3	-176.7	-258.2
Commuter traffic	2,138.9	2,254.9	15.2	738.6	-116.0	-5.4
Letters	621.7	3.3	0.0	1.1	618.4	99.5
Parcels	116.4	0.0	0.0	0.0	116.4	100.0
Waste	115.6	158.8	1.1	52.0	-43.2	-37.4
Events	3,567.1	3,617.5	24.4	1,184.9	-50.4	-1.4
Toner consumption	50.7	28.0	0.2	9.2	22.7	44.8
Total	23,380.6	14,799.3	100.0	4,847.5	8,581.3	36.7

¹⁾ For all GHG emission sources, the carbon footprint also contains the upstream and downstream Scope 3 emissions (CDP standard; GHG market-based method). 2009 was applied as the reference year because this was the year in which the environmental management system was introduced, meaning it provides the best possible transparency with regard to the measures already implemented. The carbon footprint is calculated on the basis of utility bills and reports from service providers. Manufacturer information was applied for the emission factors where possible. Where this information was not available, the factors published by the VfU were applied. We take the RFI factor 2.7 into account when determining business-travel emissions for aircraft.

302-5 + 305-1 + 305-2 + 305-3 Comparative value: Scope 2 emissions based on the energy mix in Germany¹⁾

Source of GHG emissions	2009	2019		Reduction versus reference year		
	CO ₂ in tonnes	Percentage [%]	Emissions per employee [kg/FTE]	CO ₂ in tonnes	Reduction [%]	
Electricity consumption	6,929.85	4,964.00	-	1,625.9	1,965.8	28.4
Total ¹⁾	23,380.60	19,207.85	-	6,291.5	4,172.75	17.8

¹⁾ Shows the emissions from electricity consumption (GHG location-based method) where this was not purchased as renewable energy.

306-2 Total weight of waste by type and disposal method¹⁾

Type of waste	2018	2019
Paper waste (t)	363.0	409.5
Mixed packaging (t)	7.6	13.1
Biological waste (t)	3.6	15.7
Glass waste (t)	3.0	2.6
Residual waste (t)	148.9	152.8
Other		
Lighting (kg)	77.0	55.0
Old batteries (kg)	522.0	40.0
Commercial waste (t)	4.9	17,928.0
Data carriers (kg)	252.0	1,326.0
Electrical waste (kg)	1,047.5	805.0
Toner waste (kg)	1,050.0	1,073.0

¹⁾ Volumes of waste are calculated on the basis of reports or disposal certificates via the waste register. In the rare cases where waste data is not available, e.g. where collection containers are shared with other tenants, the data is extrapolated on the basis of the number of employees at the respective location. Our waste disposal companies are responsible for selecting the disposal method. Toner waste is returned to the service provider of our printing service provider.

303-1 + 306-1 Total water withdrawal and water discharge by source¹⁾ (m³)

	2018	2019
Water withdrawal	40,226	34,621
Water discharge	40,226	34,621
Water withdrawal per employee	13.8	11.3

¹⁾ Union Investment uses drinking water exclusively from the communal water supply in its buildings and hence discharges waste water into the communal drainage systems. Water and waste water volumes are based on the utility bills. If these are not available for the current reporting year, they are extrapolated on the basis of employee development.

308-2 Environmental impacts of transport – business trips and logistics

Means of transport [km] ¹⁾	2018	2019
Flight	10,955,000	10,367,201
Cars	1,055,674	1,224,621
Rail	4,796,371	5,199,039
Total distance	16,807,045	16,790,861
Distance per employee	5,774	5,500

Deliveries ²⁾	2018	2019
Letters sent within Germany (quantity)	26,266,705	29,929,387
Letters sent within Europe/world (quantity)	211,219	184,045
Parcels sent (quantity)	81,781	54,518

¹⁾ The KPIs are calculated on the basis of the travel expense report and reports from service providers. The figures do not include the distances travelled using company cars as these are also used privately and already considered extensively in 301-2.

²⁾ The delivery quantities are taken from reports from service providers. Delivery is made if the service provider offers it as a climate-neutral service.

GRI standard	Detail		Page/contents/URL
GRI 308: Supplier environmental assessment 2016	308-1	New suppliers that were screened using environmental criteria	100%
	308-2	Negative environmental impacts in the supply chain and actions taken	<p>In the reporting period, 500 suppliers were assessed in terms of environmental impact, of which 40 were identified with significant actual and potential negative environmental impacts. Ecological environmental impacts measured on the basis of CO₂ footprint arise in the following product groups:</p> <ul style="list-style-type: none"> – Outsourcing: Electricity consumption of data-centre service providers – Facility management: Waste, water supply, district heating, natural gas, electricity consumption – Marketing: Paper consumption – Events (conferences/events/trade fairs) – Logistics: Packages, mail deliveries – Travel management: Business trips, hotel stays – Operating and office equipment: Toner consumption – Vehicle fleet: Fuel consumption <p>Consequently, we maintain close dialogue with our suppliers and have devised a development pathway with them. Further development of the suppliers identified as relevant is subject to monitoring through establishment in a policy for ongoing supplier development. The specific development pathway of the supplier is tracked by means of the audits required as part of this.</p>
Social			
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	See table on page 187
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	No distinction is made between full-time and part-time employees when it comes to benefits.

GRI standard	Detail	Page/contents/URL
GRI 403: Occupational Health and Safety 2016	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Falls in the office and on the way to work, bruises on office equipment. Every accident is recorded in the statistics. See table on page 188
	403-3 Workers with high incidence or high risk of diseases related to their occupation	There are no occupations with a particularly high disease or health risk within the company.
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	See table on page 188
	404-2 Programs for upgrading employee skills and transition assistance programs	a. HR development is based on a multidimensional approach at Union Investment: 1. Needs-driven development (adjusting or upgrading for direct workplace requirements) 2. Potential development (qualification for future requirements or taking on further functions) 3. Promoting internal employability (grasp of processes and connections with regard to diverse employability) Various target group-specific programmes and instruments are used. Knowledge management systems are used in various organisational units. b. Union Investment does not offer any transitional aid programmes designed to facilitate further employability or to handle a career exit due to retirement or termination of employment.
	404-3 Percentage of employees receiving regular performance and career development reviews	All employees and managers regularly receive performance and career development reviews.

GRI standard	Detail	Page/contents/URL
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	See table on page 188
	405-2 Ratio of basic salary and remuneration of women to men	The different pay systems for collective bargaining and non-collective bargaining are the same for all employee groups at all locations, regardless of age, gender or other diversifications. There can be slight differences in the basic salary of men and women depending on employee group, but some salaries are at the same level. There is no discernible significant difference between the sexes in terms of basic salaries or annual pay adjustments.
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	None
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	There is no danger to the right of collective bargaining.
GRI 408: Child labour 2016	408-1 Operations and suppliers at significant risk for incidents of child labour	There is no risk of child labour for the services performed by Union Investment. Our key suppliers are also obliged not to practise, tolerate or support child labour of any kind.
GRI 409: Forced or compulsory labour 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour	There is no risk of forced or compulsory labour for the services performed by Union Investment. Our key suppliers are also obliged not to practise, tolerate or support forced or compulsory labour of any kind. The specific characteristics of our industry combined with the focus of the purchased goods and services means that, apart from catering, cleaning and security services, we do not use any services/suppliers with material connections to the low-wage sector or with a connection to ethically or socially controversial goods or practices. Our supplier portfolio (approx. 1,600 active suppliers and service providers as at 2019) primarily consists of consultants, developers, agencies, service providers, production companies (media), trainers and others. Our suppliers are mostly located in Germany (approx. 85 %) and the EU (approx. 97 %). Approx. 3 % of suppliers are based outside the EU. This mainly relates to market data and software products with foreign headquarters of the manufacturers.

GRI standard	Detail		Page/contents/URL
GRI 414: Supplier social assessment 2016	414-1	New suppliers that were screened using social criteria	100%
	414-2	Negative social impacts in the supply chain and actions taken	<p>The specific characteristics of our industry combined with the aforementioned focus of the purchased goods and services means that, apart from catering, cleaning and security services, we do not use any services/suppliers with material connections to the low-wage sector or with a connection to ethically or socially controversial goods or practices.</p> <p>All suppliers with locations in Germany or the EU are subject to local occupational safety regulations. On the basis of the sustainability obligation and self-disclosure, suppliers confirm in writing that they comply with the corresponding regulations when signing any contract. Suppliers in the product subgroups catering, cleaning and security are based in Germany.</p> <p>Consequently, no goods or services are purchased from suppliers that pose a significant risk of negative working practices, and there is no collaboration with any such suppliers.</p> <p>Corrective actions were agreed with 0% of the suppliers.</p> <p>No infringements with significant actual and potential negative impacts on working practices were identified in the reporting period. Therefore, no business relationships were terminated on these grounds.</p>
GRI 415: Public policy 2016	415-1	Political contributions	<p>The Union Investment Group supports the political work of parties by means of non-cash and monetary benefits (for instance in the form of sponsorship actions).</p> <p>Total monetary value in 2019 see www.finanzagenda.de</p>
GRI 416: Customer health and safety 2016	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	No cases of non-compliance with regulations or voluntary codes of conduct relating to the impacts of products and services on health and safety were identified for 2019.

401-1 Total turnover¹⁾ 2019 by age group and gender

	< 30	30–50	> 50	Total
Male	46	105	11	162
Female	57	53	13	123
Total	103	158	24	285

¹⁾ New hires relate only to those joining Union Investment for the first time.

401-1 Turnover rate 2019 by age group and gender

	< 30	30–50	> 50	Total
Male	34.3 %	8.6 %	2.5 %	9.0 %
Female	35.0 %	5.4 %	4.9 %	8.8 %
Total	34.7 %	7.2 %	3.4 %	8.9 %

401-1 Number of resignations 2019 by age group and gender

	< 30	30–50	> 50	Total
Male	11	44	5	60
Female	8	20	3	31
Total	19	64	8	91

401-1 Total fluctuation rate 2019 by age group and gender

	< 30	30–50	> 50	Total
Male	8.2 %	3.6 %	1.1 %	3.3 %
Female	4.9 %	2.0 %	1.1 %	2.2 %
Total	6.4 %	2.9 %	1.1 %	2.8 %

403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities

	Number/rate
Rate of work-related accidents per 1,000 employees	3.05 %
Total workdays lost	677
Lost workday rate	0.12 %
Occupational accidents (incl. on commute)	92
Total fatalities	0

404-1 Average hours of training per year per employee

Training and education	Hours/year
Training of heads of division	55.2
Training of heads of department	34.7
Training of group managers	33.2
Training of employees	17.7

405-1 Employee diversity

	< 30	30–50	> 50	Total	Percentage
Male	134	1,217	444	1,795	56.1 %
Female	163	976	266	1,405	43.9 %
Total	297	2,193	710	3,200	100.0 %

405-1 Management diversity

	< 30	30–50	> 50	Male	Female
Percentage	0.0 %	28.6 %	71.4 %	88.1 %	11.9 %

GRI standard	Detail	Page/contents/URL	
GRI 417: Marketing and labelling 2016	417-1	Requirements for product and service information and labelling	In addition to the statutory requirements, our product information and labelling complies with the code of conduct of the German Investment Funds Association (BVI).
	417-2	Incidents of non-compliance concerning product and service information and labelling	No cases of non-compliance with regulations or voluntary codes of conduct relating to information on and labelling of products and services were identified for 2019.
	417-3	Incidents of non-compliance concerning marketing and communications	None
GRI 418: Customer privacy 2016	418-1	Substantiated complaints regarding breaches of customer privacy and losses of customer data	The data protection officer is aware of two complaints regarding customer privacy in the reporting period. The data protection officer is not aware of any complaints regarding losses of customer data.
GRI 419: Socioeconomic compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	No cases of non-compliance with legal requirements in the social or economic area were identified for 2019.

GRI standard	Detail		Page/contents/URL
Industry-related disclosures (G4-FS and G4-CRE)			
Product portfolio	G4-DMA (FS1)	Policies with specific environmental and social components applied to business lines	See page 141 (Heading: We invest responsibly)
	G4-DMA (FS2)	Procedures for assessing and screening environmental and social risks in business lines	The relevant ESG criteria are embedded in corporate governance in the balanced scorecard, in the segment strategies and in risk management. Environmental risks are also regularly analysed and managed using the environmental management system certified in accordance with ISO 14001. With regard to employees as a factor which is crucial to service companies, social issues are addressed via the regular external auditing programme "Germany's Top Employers". Deficiencies that arise or room for improvement are included in future company planning and target planning for the persons responsible within the company subject to a resolution by the Board of Managing Directors.
	G4-DMA (FS4)	Process(es) for improving staff competency to implement the environmental and social policies and procedures as applied to business lines	Union Investment strengthens the sustainability expertise of our portfolio managers through training courses at our in-house ESG Academy. This systematically strengthens and broadens the sustainability expertise in securities portfolio management.
	G4-DMA (FS5)	Interactions with clients/investees/business partners regarding environmental and social risks and opportunities	<p>There is regular constructive company dialogue with our investment properties' decision makers regarding environmental and social risks and opportunities.</p> <p>We regularly discuss with our clients how we can increasingly incorporate ESG aspects into our asset investments.</p> <p>Union Investment holds an annual sustainability conference on different topics each time in order to raise awareness of the importance of sustainability in investment decisions.</p> <p>Each year, we examine the attitude of German major investors to sustainable investment and summarise the results in a sentiment index. In addition, we regularly have current sustainability issues scientifically assessed by various academics and internally within Portfolio Management.</p> <p>Further information on our active shareholder engagement is published online: https://institutional.union-investment.de/startseite-de/Kompetenzen/Nachhaltige-Investments/Engagement.html</p>

GRI standard	Detail		Page/contents/URL
Audit	G4-DMA (FS9)	Coverage and frequency of audits to assess implementation of environmental and social policies and risk assessment procedures.	Environmental management involves regular internal and external certification in accordance with ISO 14001. There is annual external auditing of our HR activities through the "Germany's Top Employers" programme.
	Active ownership	G4-FS10	Percentage and number of companies held in the institution's portfolio with which the reporting organisation has interacted on environmental or social issues.
	G4-FS11	Percentage of assets subject to positive and negative environmental or social screening.	100%
	G4-FS12	Voting policy(ies) applied to environmental or social issues for shares over which the reporting organisation holds the right to vote or advises on voting.	See Proxy Voting policy

GRI standard	Detail		Page/contents/URL
Local communities	G4-FS13	Access areas in low-populated or economically disadvantaged areas by type	Union Investment does not engage directly in activities in economically weak or sparsely populated regions. However, our products are available through the local cooperative banks.
	G4-FS14	Initiatives to improve access to financial services for disadvantaged people	In addition to being accessible through local cooperative banks via a number of communication channels, Union Investment can be reached via its own customer service department and offers people with all sorts of physical and mental disabilities flexible and smooth contact options.
Product and service labelling	G4-DMA (FS15)	Policies for the fair design and sale of financial products and services	The Union Investment Group is committed to abiding by the code of conduct of the German Investment Funds Association (BVI). It therefore also respects the standards of the code when reporting on the performance of its funds.
	G4-DMA (FS16)	Initiatives to enhance financial literacy by type of beneficiary.	Union Investment supports the BVI's "Hoch im Kurs" ("Highly Rated") initiative to promote general financial education in schools. In 2019, Union Investment discussed concepts for the improvement of general financial education in Germany in an expert workshop with 60 participants from the Genossenschaftliche FinanzGruppe. On this basis, Union Investment has launched and developed an initiative that is to start in 2020.
Energy	G4-CRE1	Building energy intensity	See page 161 (The method is explained on page 162)
Water	G4-CRE2	Building water intensity	See page 161 (The method is explained on page 162)
Emissions	G4-CRE3	Greenhouse gas emissions intensity from buildings	See page 161 (The method is explained on page 162)
Product and service labelling	G4-CRE8	Type and number of sustainability certifications, rating and labelling schemes for new construction, management, occupation and redevelopment	See page 161 (The method is explained on page 162)

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