VONOVIA SE
ANNUAL REPORT 2019

Key Figures

FINANCIAL KEY FIGURES in € million	2015	2016	2017	2018	2019
Rental income	1,414.6	1,538.1	1,667.9	1,894.2	2,074.9
Adjusted EBITDA Rental	924.4	1,046.2	1,148.7	1,315.1	1,437.4
Adjusted EBITDA Value-Add	37.6	57.0	102.1	121.2	146.3
Adjusted EBITDA Recurring Sales			62.2	79.1	91.9
Adjusted EBITDA Development			6.7	39.4	84.5
Adjusted EBITDA Total	1,028.7	1,186.5	1,319.7	1,554.8	1,760.1
EBITDA IFRS	838.4	1,083.7	1,271.8	1,534.4	1,579.6
Group FFO			975.0	1,132.0	1,218.6
thereof attributable to Vonovia shareholders			920.4	1,069.7	1,165.6
thereof attributable to Vonovia hybrid capital investors			40.0	40.0	40.0
thereof attributable to non-controlling interests			14.6	22.3	13.0
Group FFO per share in €*			2.01	2.18	2.25
Income from fair value adjustments of investment properties	1,323.5	3,236.1	3,434.1	3,517.9	4,131.5
EBT	1,734.5	3,859.8	4,007.4	3,874.3	3,138.9
Profit for the period	994.7	2,512.9	2,566.9	2,402.8	1,294.3
Cash flow from operating activities	689.8	828.9	946.0	1,132.5	1,555.9
Cash flow from investing activities	-3,239.8	416.4	-1,350.1	-3,892.5	-2,505.7
Cash flow from financing activities	4,093.1	-2,812.4	-870.5	3,041.5	902.8
Maintenance and modernization	686.3	792.4	1,124.8	1,569.4	1,971.1
thereof for maintenance expenses and capitalized maintenance	330.7	320.1	346.2	430.4	481.6
thereof for modernization	354.1	458.4	712.9	904.7	996.5
thereof new construction	1.5	13.9	65.7	234.3	493.0

KEY BALANCE SHEET FIGURES in € million	Dec. 31, 2015	Dec. 31, 2016	Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2019
Fair value of the real estate portfolio	24,157.7	27,115.6	33,436.3	44,239.9	53,316.4
Adjusted NAV	11,273.5	14,328.2	18,671.1	23,262.6	28,161.9
Adjusted NAV per share in €*	24.19	30.75	38.49	44.90	51.93
LTV in %	46.9	41.6	39.8	42.8	43.1

NON-FINANCIAL KEY FIGURES	2015	2016	2017	2018	2019
Number of units managed	397,799	392,350	409,275	480,102	494,927
thereof own apartments	357,117	333,381	346,644	395,769	416,236
thereof apartments owned by others	40,682	58,969	62,631	84,333	78,691
Number of units bought	168,632	2,815	24,847	63,706	23,987
Number of units sold	15,174	26,631	11,780	15,102	4,784
thereof Recurring Sales	2,979	2,701	2,608	2,818	2,607
thereof Non-core Disposals	12,195	23,930	9,172	12,284	2,177
Number of newly-built apartments	28	40	250	1,108	2,092
thereof for Vonovia's own portfolio	28	40	250	638	1,301
thereof for sale to third parties				470	791
Vacancy rate in %	2.7	2.4	2.5	2.4	2.6
Monthly in-place rent in €/m²	5.75	6.02	6.27	6.52	6.93
Organic rent increase in %	2.9	3.3	4.2	4.4	3.9
Number of employees (as of Dec. 31)	6,368	7,437	8,448	9,923	10,345

EPRA KEY FIGURES in € million	2015	2016	2017	2018	2019
EPRA NAV	13,988.2	17,047.1	21,284.6	26,105.0	29,654.6
EPRA NAV per share in €*	30.02	36.58	43.88	50.39	54.69
EPRA NNNAV	9,739.8	12,034.4	14,657.5	17,669.5	18,554.8
EPRA earnings	329.2	450.0	572.6	685.3	785.8
EPRA net initial yield in %	4.5	4.1	3.7	3.5	3.3
EPRA topped-up net initial yield in %	4.5	4.1	3.7	3.5	3.3
EPRA vacancy rate in %	2.5	2.2	2.3	2.3	2.4
EPRA cost ratio (incl. direct vacancy costs) in %	31.9	28.4	26.3	25.9	25.8
EPRA cost ratio (excl. direct vacancy costs) in %	30.2	27.0	24.8	24.6	24.5

* Based on the shares carrying dividend rights on the reporting date.

Content

REFERENCES

to page(s) in the Report
→ p. 167

to website
www.vonovia.de

& not or

As part of society, we are ready to face the challenges of the residential property market. This involves entering into dialogue with our partners and taking responsibility in our day-to-day work. We provide our customers with modern homes and make sure that they feel comfortable in our neighborhoods.

We are renovating
at least

every third

existing apartment that is
newly let to make it senior-friendly.

able to stay not forced to leave

Customer needs change over time
Particularly in old age, tenants want to be able to get around their homes safely and know that they can afford to pay their rent.

Our customers are getting older.

—

We make sure that they can stay in our apartments for a long time, even in old age.

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12,000

apartments will be built by Vonovia in the short term in areas faced with serious housing shortages. → p. 70

We are building new and affordable homes.

Our construction activities pay particular attention to the needs of families and older people.

engaging not bystanding

Needs-based and with a sense of proportion
In Frankfurt, too, finding an affordable home can be a real challenge for families. This is why we are also building four-room apartments and voluntarily limiting the rent for many of the new apartments we are planning to € 10 per square meter.

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3 out of 4

of our employees

are based on location, where they are responsible for making sure that our customers feel at home in their neighborhoods and apartments.

local not remote

A familiar face
Ralf Feuersenger (right) has been responsible for the Eltingviertel district in Essen since 2015. He contributed his ideas and commitment to help shape the development of this model neighborhood. Today, almost everyone here knows him.

We offer our customers a whole range of ways to get in touch with us.

—

We are also always available on location.

3 out of 4

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On an equal footing

Many issues can be resolved better when you talk face-to-face. Tenant events are a perfect opportunity for this sort of discussion.

united not divided

Finding solutions together
Sebastian Krüger is a Regional Area Manager at Vonovia in Berlin. He invites residents in Reinickendorf to tenant workshops where they can discuss ideas and inspiration for the future of their neighborhood.

Our customers are important to us.

—

This is why we actively seek dialogue and find solutions that we can pursue together.

united not divided

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The Berlin-Ziekow project

How can successful neighborhood development be achieved? Vonovia is pursuing an integrated approach in Reinickendorf, striving to get local residents involved. The aim is to create a family-friendly neighborhood that meets intergenerational needs and offers benefits for everyone.

"Building the Berlin-Ziekow district together" – in line with this motto, we launched a project to develop the housing settlement on Ziekowstrasse hand-in-hand with our tenants and the Reinickendorf local authorities, with a view to future development. The project will involve measures to modernize the existing apartments, not least to contribute to climate protection.

The overall plans are to be implemented in several sub-projects; we will start with the energy-efficient refurbishment of 1,100 existing apartments. The next stage will involve the construction of more than 500 new apartments, with a particular focus on cross-generational living. This will allow us to become part of the solution to the Berlin housing shortage problem. We will also be improving the infrastructure in the neighborhood: The overall concept features the construction of another childcare center, an additional supermarket, redesigned green spaces and optimized parking.

Dialogue From Day One

The neighborhood development project in the Borsigwalde district will change the everyday lives of the people living there. This meant it was important to us to get them involved in the process early on. Sebastian Jung, Managing Director responsible for Region East at Vonovia, says, "We are aiming for a delicate and socially responsible approach to the regeneration of the Berlin-Ziekow district. This is something that we can only achieve by engaging in dialogue and knowing exactly what topics are particularly important to our customers. "

& means ⟶ shaping things together

Wanted: active engagement
The response to the tenant workshop concept in Berlin-Ziekow has been very positive. Participants contributed a whole range of ideas at the three events organized to date.

Our neighborhood
A fifth of all tenants have been living in the neighborhood for at least 20 years now. And one in seven of them has lived there for 30 years or more.

1953

Since the 1950s, two buildings, ten and fourteen stories respectively, have formed the heart of the settlement located on Ziekowstrasse.

Residents have various options open to them when it comes to engaging in dialogue with us during the development process. They include tenant workshops, allowing residents of the Berlin-Ziekow district to play an active role in shaping their neighborhood.

The first tenant workshop was organized in June 2019 on the topic of mobility. First, urban and transport planning experts presented their ideas for a new mobility concept, including concepts for car sharing, bicycle parking and charging stations for electric cars. Next, the tenants came up with their own ideas and voiced their preferences regarding how to reorganize both stationary and flowing traffic in the neighborhood.

A second workshop dialogue after the summer break looked at the issue of modernization. The tenants worked in small groups to discuss what is important to them when it comes to apartment and building modernization and what other aspects have to be borne in mind during the process. A lot of ideas were collected at the workshop – on the use of building materials, on lighting for building entrances and stairwells, on the replacement of windows and doors, on the use of photovoltaic and solar thermal facilities, on the maintenance of green spaces, and on a whole range of other issues, including general safety.

Available Throughout the Project

The "Kiezschaufenster" (neighborhood shop window) is a central and permanent forum for dialogue. It is a centrally located information and communication point that is staffed by the neighborhood development team three days a week to answer tenants' questions regarding the project. If need be, the on-site team can also visit tenants in their own apartments; we used door-to-door discussions to provide a third of households with information on the project status in person. While this might be a time-consuming approach, it plays a key role in fostering acceptance for the project. Anyone who is not interested in a direct conversation but still wants to remain informed can keep themselves up to date by consulting the website.

It goes without saying that Vonovia is also in contact with all of the other neighborhood groups, such as the "Johanniter" (Order of St. John charitable organization). As the neighborhood is designed to be attractive for families, sufficient playgrounds, for example, need to be made available. We consult the future operators of the facilities on the best possible design concepts and what else needs to be taken into account.

On a path that suits everyone

All in all, the agreement sends out a clear signal: When it comes to the implementation of the project in Berlin-Ziekow, it is important to us to win our tenants over and make sure that they also have the financial resources to wholeheartedly support the project. Ultimately, this sort of constructive cooperation helps everyone – current and future customers, the local facilities and the district as a whole.

Informed together
Pascal Schrader, neighborhood developer at Vonovia, enjoys using his iPad to explain the project.

Information delivered free to your doorstep
Door-to-door canvasing has proven an effective way to provide tenants living in Berlin-Ziekow with information in person.

"The first thing we always do is provide information to our tenants."

ANGELA VON DER WAYDBRINK
NEIGHBORHOOD DEVELOPER AT VONOVIA

A new lease of life
Even after the modernization work has been completed, the buildings designed by architects Herbert Noth and Edgar Wedepohl will remain the visual center of the neighborhood.

Senior-friendly modernization
The number of older people in our society is on the rise. This makes it all the more important for us to ensure that apartments and the residential environment cater to their needs.

Sustainable living

Inside the apartment, on the roof, on the doorstep: Vonovia is committed to integrated sustainability.

When we address the topic of sustainability at Vonovia, we are looking at much more than just ecological aspects. Rather, we focus our attention on the long-term well-being of the people living in our apartments.

In order to ensure that they can stay in our apartments for as long as possible, we are renovating more than every third newly let apartment in Germany to make it senior-friendly. When refurbishing vacant apartments and redesigning spaces, we also make sure that they are as close to barrier-free as possible in terms of accessibility. We now work with numerous nursing care and charitable organizations as part of this approach. After all, if someone wants to grow old in their apartment, they need the right support. We have been cooperating with the "Johanniter" (Order of St. John charitable organization) and the welfare organization Arbeiterwohlfahrt for years now. In many locations, they actually have their contact points directly in our buildings.

Along with this, we want to offer our customers apartments that they can afford in the long term. In order to achieve this, we are gradually bringing our buildings up to the latest energy efficiency standards. While this work helps to protect the environment, it can end up costing tenants more. We have learned that we need to achieve

1,000

Roofs – the 1,000 roofs program launched in 2019 will supply a large number of apartments with solar power in the future.

For a home in the midst of nature
Vonovia is also working toward an ecologically sustainable future by planting trees and collaborating with Naturschutzbund Deutschland e. V. (NABU).

acceptance among our customers and society at large in order to balance out these aspects. This is why we pursue our modernization measures with a sense of balance.

In order to ensure that our customers feel at home in their neighborhoods and want to stay there long term, we also make an appropriate residential environment available for old and young, single people and families alike. This is an area in which we can benefit from our size. As the owner of contiguous settlements, we can actively shape the opportunities for interaction within our neighborhoods – by incorporating playgrounds and green spaces into the overall concept, by implementing joint projects that are beneficial to everyone together with the municipal authorities, and by collaborating with private-sector partners. We are currently implementing 13 neighborhood development projects.

We make it a top priority to protect the natural habitat. We are currently collaborating with Fraunhofer and the federal state of North Rhine-Westphalia to develop a neighborhood of the future in Bochum-Weitmar. The area will be home to an innovative example of environmentally and economically efficient energy supplies in urban neighborhoods. A range of technologies are being combined in smart and novel ways in order to reduce energy consumption and forge ahead with sector coupling. The project will provide us with key impetus for the future.

We are also working with the environmental organization Naturschutzbund Deutschland e. V. (NABU) to develop a new design approach for outdoor areas, insect hotels and nest sites.

A new sculpture for a new neighborhood center
The winning entry in the Vonovia Sculpture Competition now adorns the historical Eltingviertel district in Essen.

Sharing added value

Through a large number of our projects, we are building a sense of community in the neighborhood, for example, by offering car sharing services or providing communal public spaces for people to experience art and culture. We also promote social participation.

Our roads are getting busier – and so too are our neighborhoods. Many city-dwellers still prefer to travel around by car. For us as landlords, this presents a challenge: If we build parking spaces, we end up losing space that could otherwise be used for leisure or greenery. The suitable areas could also be better used to meet the urgent need for housing.

We have been doing our bit to help solve this problem for almost two years now with the largest car sharing network in the German-speaking world, operated together with Flinkster and MOQO. After getting off to a successful start in Stuttgart, Berlin, Frankfurt, Düsseldorf and Dresden, the car sharing services are now on offer in a total of 13 German cities.

The advantages of car sharing are clear; the costs involved are substantially less than those associated with running your own car. Users can also rent the exact type of vehicle that they need in a particular scenario: small and cost-effective vehicles for trips into the city center, larger vehicles with ample loading space when they need to transport something.

Volunteering and charity work by organizations and associations form the backbone of a stable urban society. Spaces emerge in which people can come together in a manner that enriches their daily live. We give the work that people perform in these areas the recognition it deserves, supporting numerous projects at both company and regional level. The projects range from support for art projects – like the sculpture competition in the Eltingviertel district in Essen – to the provision of rent-free premises for social projects.

Another example of the support provided at local level is the "Vonovia bewegt" (Vonovia: making a difference) initiative: As a major local employer, we are providing a monthly cash subsidy to support projects relating to social harmony in Duisburg and Dresden. Organizations, projects and initiatives that are actively committed to fostering neighborhood spirit and strengthening a sense of togetherness in both cities can apply for funding. The focal areas are education and culture. We also, however, support other projects aimed at promoting social cohesion in the neighborhoods concerned.

Support on hand
We cooperate with numerous social and healthcare institutions across Germany, like the "Malteser."

We are using the "Vonovia bewegt" (Vonovia: making a difference) project to support local initiatives and associations in Duisburg and Dresden.

"Diversity is our home"
The lighting installation on the high-rise building in the center of Oberhausen subsidized by Vonovia sums up the spirit of the region.

Refueling at your front door
New mobility options will have a positive impact on our day-to-day lives. We are supporting this development by offering car sharing services and charging stations.

getting others on board → **& means**

Being there for each other

Our neighborhoods are home to a wide range of different social groups. We provide extensive support to make sure that everyone feels at home in their environment and promote active cooperation.

Offer Traineeships
473 young people are currently preparing for working life in 14 career paths at Vonovia.

Many people from different cultures have moved to Germany over the past few years. Many of them find their first apartment in a Vonovia property. We are well prepared and on hand to support them. We help overcome language barriers by making documentation available in a range of languages. Our employees make sure that all of our new customers feel at home in their environment. Social contact within the neighborhood is an important aspect: We use tenant parties and other events to create opportunities for old and new neighbors to meet.

We also give young people an opportunity to get their first foot on the career ladder by joining Vonovia. Following the first few pilot projects with job centers and refugee organizations, we now work regularly with employment agencies and job centers to recruit refugees for our technical services, for example. We now receive a large number of applications from people with a refugee background. We see this as an opportunity, because cultural diversity enriches our company and allows us to gain an insight into a vast range of cultures, which in turn helps to foster understanding.

“We have social responsibility as landlords. We aim to live up to this responsibility.”

ROLF BUCH
CHAIRMAN OF THE MANAGEMENT BOARD

A decisive path in our company will take you through day-to-day life. We provide support in this area as well – generally via our regional on-site teams and often also by providing funding. In Bremen, for example, 26 young people from Bremen and Diyarbakir (Turkey) took part in the “Mach dich stark” project organized by the children’s and youth support charity St. Petri Kinder- und Jugendhilfe gGmbH. During the nine-day program, they looked at issues such as career entry, youth unemployment and access to education. They worked together to tackle the issues of language and communication and broadened their cultural and personal horizons in the process.

Arrived
Jordan will always be where they truly feel they belong. But Berlin-Kreuzberg is now home for the Bani-Domi family.

170

nationalities have their homes in our apartments. This diversity enriches day-to-day life in our neighborhoods.

The Company and Its Shares

We can help to master the challenges facing society because we are a company with solid financial resources. We can also pay you, our shareholders, an attractive dividend again this year. This is something we can manage to do because our business model is built on a broad-based, solid foundation and because it is successful as a whole.

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Dear Shareholders, Dear Readers,

€ 800 billion. The Association of German Housing and Real Estate Companies (GdW Bundesverband deutscher Wohnungs- und Immobilienunternehmen e. V.) has calculated that this is how much German society will need to invest over the next ten years if it wants to meet all of its objectives for the housing market. The main objectives are energy-efficiency refurbishment and new construction, senior-friendly housing, and integration.

This amount corresponds to 2.2 times the German federal budget for 2020, meaning that the investments cannot be made by the state alone. It will need partners like us, Vonovia. We are aware of our social responsibility. For us, commercial success and social responsibility are two concepts that go hand in hand.

After all, there is no doubt that we can only help to master the challenges facing society because we are a company with solid financial resources. We generated rental income of € 1.8 billion in Germany last year, and we invested more than € 2.2 billion in apartments. Spending this money also allowed us to increase the appeal of our existing apartments and build new ones in keeping with the social objectives referred to earlier.

And we can nevertheless pay you, our shareholders, an attractive dividend again this year. This is something we can manage to do because our business model is built on a broad-based, solid foundation, and because it is successful as a whole.

In general, we believe that the government is right to intervene in the residential property market by setting a framework for rental development. A home is a basic human need. And having an affordable home is a prerequisite for allowing each and every individual to participate in social interaction.

But what exactly is the right framework? It is not the rent freeze currently being applied in Berlin. This is evident from examples such as London or New York, where even high-earners can no longer afford a home. A good framework preserves – and opens up – the opportunity for companies to make a meaningful contribution to long-term urban development. After all, the main thing that we need in our cities at the moment is more apartments and market players that can build them cost-effectively. The rent freeze will hinder the construction of affordable apartments in Berlin. What is more, the urgently required investments in energy-efficient modernization and senior-friendly apartment conversion are also less likely to be made here in the future.

Nevertheless, we are playing our part in the approach taken by policymakers in Berlin. Last year, for example, we made the decision of our own accord not to increase rents, opting to do without rental income we could otherwise have generated. In relation to our total income, this amount might not be significant, but it sends out a signal: We are living up to our social responsibility – trusting that you, our shareholders, will also support us in our strategy aimed at long-term social sustainability.

In 2019, we used a business philosophy to set out how we see our role within society and what sort of contribution we want to, and indeed are able to, make. We are making a voluntary commitment with this code. Our aim is to ensure that our activities enjoy social acceptance. We want to show that we are responsive to people's current concerns. One example is climate protection. If some of our customers are not prepared to bear the additional costs associated with sensible modernization work at the moment, then we have to find other ways of reducing CO_2. Examples include supporting e-mobility or offering electricity from

From left to right:
Arnd Fittkau — Member of the Management Board (CRO) — **Rolf Buch** — Chairman of the Management Board (CEO) — **Helene von Roeder** — Member of the Management Board (CFO) — **Daniel Riedl** — Member of the Management Board (CDO)

renewable energy sources. And if our older customers are worried about no longer being able to pay their rent, then we find solutions, such as the regulation for over-70s, which allows us to assure our customers aged 70 or over that they will be able to stay in their homes.

In operational terms, we remain on the right track: Our portfolio is now well balanced in geographical terms and is able to compensate for individual regional fluctuations.

Our investments in modernization rose by 10% in 2019, with our maintenance investments rising by 12%. At the same time, our renovation rate fell from 5% to 4%. This is due to our voluntary commitment not to carry out any modernizations that would lead to a rent increase of more than € 2 per square meter. We also postponed our projects in Berlin. We are sticking to the target we set back in 2017: We will be carrying out energy-efficiency modernizations on at least 3% of our building stock in Germany each year in the interests of maintaining our portfolio, ensuring cost-effectiveness and protecting our climate.

As far as new construction is concerned, we completed a total of 2,100 residential units, 1,200 of them in Germany. We will be increasing our construction activity considerably over the next few years, building up to 12,000 new apartments in the foreseeable future. The question as to how quickly we can make progress depends first and foremost on the official processes. We are prepared and have the potential to build additional apartments on our properties, provided we are granted the required building permits.

Now that we have achieved a good level of diversification within our portfolio in Germany, we will be gradually stepping up our activities in other European countries. The pace of this development will depend on the opportunities that present themselves. We added 21,400 new apartments to our portfolio last year when we acquired the portfolio of the Swedish company Hembla. This has expanded our portfolio in Sweden to 38,000 units. Combined with the 22,500 units in Austria, 14.5% of our apartments are now located outside of Germany.

The financial data continued to show positive development. Our operating earnings, Group FFO, rose by 7.7% to € 1.22 billion, slightly ahead of our forecast. The acquisitions of BUWOG and Victoria Park, whose results were included in full for the first time, were the main factors making a positive contribution to this trend. The vacancy rate remained very low at 2.6%.

The fair value of the portfolio increased considerably year-over-year, rising to € 53.3 billion. The adjusted net asset value climbed by 21.1% to € 28.2 billion. Expressed per share, it increased by 15.7% to € 51.93. This positive development was due to the high demand for housing, as well as to the acquisitions and investments in modernization and new construction. The increase in value of our properties came to € 5.3 billion. This shows that we were successful with our portfolio optimization strategy and that our apartments are in the right locations.

Bolstered by the increase in value, our balance sheet structure also improved further. This resulted in us receiving a very good "A-" rating from the rating agency Scope for the first time. Our debt level is now at 43.1%, within our target corridor. Our debt maturity profile remains balanced with long maturities. We were able to raise equity of € 1 billion without any problems. We also expanded our broad range of financing instruments to include an additional option by placing a promissory note loan via an online platform. We still enjoy unrestricted access to the capital market, something that is very helpful given our average issue volume of € 3 billion a year.

Dear Shareholders,

After what was once again a successful fiscal year, my colleagues on the Management Board and I, together with the Supervisory Board, are delighted to be able to propose a dividend of € 1.57 per share to you at the Annual General Meeting on May 13. As far as the overall conditions allow, we also once again want to give you the option of choosing a scrip dividend at the same time.

Looking at the current year, we are confident that we will be able to continue successfully on the path we have carved out. We will be making substantial investments again in an amount of between € 1.3 billion and € 1.6 billion. We expect to increase the Group FFO by 7% on the basis of our expanded portfolio. What is more, we will also continue to address the issues that are of concern to society at large: climate protection, social integration and new and suitable homes. It is important for us that our customers in Germany, Austria and Sweden know that we are on hand to assist them as a reliable partner that pursues a responsible approach with a view to the long term.

My colleagues on the Management Board and I would like to thank you, our shareholders, our partners and our employees, for the trust you have placed in us over the past year. We are delighted that you will be accompanying us on our journey in the future, too.

Bochum, March 2020

Yours faithfully,

Rolf Buch
Chairman of the Management Board

Rolf Buch (CEO)

Report of the Supervisory Board

Dear Readers,

2019 was a commercially successful fiscal year for Vonovia. The year under review was, however, once again characterized by particular sociopolitical challenges. The political debate on the issue of housing is now at the heart of society, which resulted in people adopting polarized, and in some cases extreme, social opinions.

A great deal of sensitivity was required from the Management Board and the Supervisory Board in this situation. Their decisions had to strike a balance between ensuring the positive commercial development of the company while at the same time paying special attention to social demands. The significance of the issue of housing in the minds of the general public was underlined by the actions taken by policymakers: In Germany's major metropolitan areas, the increasing shortage of affordable housing resulted in measures designed to regulate the market – for example, in the form of the rent freeze in Berlin.

The Supervisory Board supported the Management Board in its approach of seeing Vonovia as part of the solution to the housing problems. The Management Board was increasingly successful in establishing Vonovia as an accepted partner in the housing policy landscape and creating a positive link between the company on the one hand and the pressing social issues on the other.

In the 2019 fiscal year, the Supervisory Board continuously monitored the Management Board's management activities and provided the Management Board with regular advice concerning the running of the company. We were able at all times to establish that their actions were lawful, expedient and regular. The Management Board fulfilled its information obligations to an appropriate extent at all times, notifying us regularly, promptly and comprehensively, both in writing and verbally, of all circumstances and measures that were relevant to the company.

In both our committees and at our plenary meetings, we always had ample opportunity to critically appraise the reports and proposals submitted by the Management Board and to contribute our own suggestions. We discussed and tested the plausibility of all business occurrences of significance to the company, as communicated to us by the Management Board in written and verbal reports, in detail. Where required by law or the Articles of Association, we granted our consent to individual business transactions.

Cooperation Between the Management Board and the Supervisory Board

In the last fiscal year, our Supervisory Board consisted of twelve members. We were on hand to support the Management Board in the various meetings held and also in its key decisions. We also kept a close eye on the company's business development outside of meetings. The Management Board regularly informed us about key events and the company's strategic direction as part of a collaboration based on trust.

As Supervisory Board Chairman, I remained in close contact with the Management Board, and in particular with the Chairman of the Management Board, even between Supervisory Board meetings, regularly exchanging information and ideas. The employee representative bodies were involved in communications on key company matters via the Management Board. The Chairman of the Management Board informed me on company-related topics emerging from the Management Board's discussions with representatives of the Group works council, going into an appropriate level of detail. Other members of the Supervisory Board were notified of any important findings promptly, or at the latest by the next board meeting. In the fiscal year, there were no conflicts of interest of Management Board or Supervisory Board members, which are to be reported immediately to the Supervisory Board.

Main Remit

In line with the duties assigned to the Supervisory Board by law, the Articles of Association and the rules of procedure, we once again closely scrutinized the Group's operational, economic and strategic progress in the last fiscal year. The key focal points were the diversion of investments due to the modified statutory regulations affecting the modernization of our residential real estate, neighborhood development and the undertaking of investments in new homes, the exploitation of opportunities resulting from digitalization, the portfolio strategy, internationalization and the evaluation and provision of support with regard to opportunities for further portfolio expansion. We also took an in-depth look at the future management structure and the succession plan for the Management Board of the company.

Meetings

In the 2019 fiscal year, the Supervisory Board met a total of eight times to consult and pass resolutions: four times at meetings (March, May, September, December) and four times via conference call (January, March, April, September). The Supervisory Board made decisions by written circular in one case (July). Any individual members absent from the eight meetings had always been excused.

Participation in the eight Supervisory Board meetings averaged around 91% in the 2019 fiscal year. No member of the Supervisory Board took part in less than half of the meetings during their term of office. The same applies to the committees. In preparation for the meetings, the Management Board submitted timely, comprehensive and valid written reports and resolution proposals to us.

Information on the individual meetings and their content is provided below:

On **January 31, 2019**, the Supervisory Board held a conference call to discuss and pass a resolution on the sale of a package of 16,821,000 shares in Deutsche Wohnen SE. Furthermore, the Supervisory Board approved the submission of the "Declaration of Conformity by the Management Board and the Supervisory Board of Vonovia SE to the Recommendations of the German Corporate Governance Code Pursuant to Section 161 of the German Stock Corporation Act (AktG)."

On **March 6, 2019**, the Supervisory Board met to adopt the balance sheet: the Committee approved the company's annual and consolidated financial statements as of December 31, 2018, and prepared the agenda and the resolution proposals for the Annual General Meeting. This also included the proposal for the appropriation of profit. Regarding the manner in which the dividend would be granted, the Supervisory Board decided to once again propose to the Annual General Meeting that the dividend be paid either in cash or in the form of shares. Furthermore, the Supervisory Board approved the Non-financial Declaration. A supplement to the rules of procedure for the Management Board and Supervisory Board, adopted by the latter, sets out provisions governing the information obligations that apply to development investments. Under the "HR-related matters" agenda item, the Supervisory Board discussed remuneration issues (including target agreements, short-term and long-term incentive plans) and passed corresponding resolutions. The Supervisory Board discussed the succession plan for the Management Board after Management Board member Klaus Freiberg left the Management Board at his own request in the 2019 fiscal year. Within this context, the Supervisory Board held in-depth discussions on the distribution of duties within the Management Board and possible candidates for the position on the Board that had become vacant. The members of the Supervisory Board advocated a distribution of duties among the four segments Rental, Development, Recurring Sales and Value-add, and instructed the Executive and Nomination Committee to prepare for the Management Board position to be filled on this basis. The Chairman of the Supervisory Board was tasked with the arrangement of the cancellation of Klaus Freiberg's Management Board contract. As far as operational issues are concerned, the Supervisory Board looked at issues including the report submitted on the status of ancillary expense bills and the media response to this report. The innovative solutions proposed by the Management Board to reduce the number of outages affecting technical facilities (for example, heating systems and elevators) were discussed, as were measures to improve customer satisfaction.

On **March 11, 2019**, the Supervisory Board held a conference call to discuss the use of accelerated bookbuilding and approved the implementation of this measure taking the corresponding requirements into account.

During a conference call held on **April 11, 2019**, the Supervisory Board passed a resolution appointing Arnd Fittkau as a Management Board member with effect from the end of the Annual General Meeting. Given the organizational and divisional changes already confirmed by the Supervisory Board, it also approved the resignation of Management Board member Klaus Freiberg with effect from the end of the Annual General Meeting and the cancellation of his contract as of the end of 2019. The Chairman of the Supervisory Board was entrusted with the implementation of the measures required in this regard.

On **May 15, 2019**, the Supervisory Board approved the Management Board's fundamental resolution on the partial use of the 2018 authorized capital in connection with the 2019 scrip dividend. The Supervisory Board also discussed the structuring measures in the context of the integration of BUWOG. Further topics included the financial and operational performance in the Rental and the Development segments. In light of the expropriation debate that had arisen in Berlin in particular, our Supervisory Board discussed the situation in the media in detail with the Management Board. The Supervisory Board also looked at the performance of Vonovia's shares and feedback from investors and analysts, as well as the recommendations made by the voting right consultants on the items on the agenda for the Annual General Meeting.

On **July 25, 2019**, the Supervisory Board passed a resolution via written circular on the targets for Management Board member Arnd Fittkau for the 2019 short-term incentive plan.

At the meeting held on **September 5, 2019**, we discussed the reports on the decisions made by the Finance Committee and the Executive and Nomination Committee, the results of the Audit Committee on the financial statements for the first half of 2019, the focal points of the audit and fee for the auditor of the annual financial statements for the 2019 fiscal year. In addition to the reports on operating business development in the individual segments, the issue of the company's strategy was also covered. Current megatrends and the issue of sustainability, as well as the company's reputation and social acceptance, are creating challenges for Vonovia's current business model that the Management Board is rising to by implementing innovative concepts and adopting a clearly customer-centric approach. Both the Value-add Business and the Development segment are significant additions to the value chain and offer further opportunities for development involving new technologies. Under the "HR-related matters" agenda item, the Supervisory Board looked at the remuneration paid to the Management Board, taking market evaluations and comparative data into account. It also discussed, and passed resolutions on, further contractual matters involving Management Board members.

On **September 20, 2019**, we used a Supervisory Board conference call to delegate the decision on the approval of the conclusion of a purchase and transfer agreement for the acquisition of Blackstone's stake in the Swedish residential real estate company Hembla AB in the amount of 69.30% of the voting rights and 61.19% of the share capital to the Finance Committee. If implemented, this would trigger a mandatory offer for all outstanding shares in Hembla AB. The decision also relates to the instruction issued to Vonovia Finance B.V. to conclude and execute a bridge facility agreement and issue bonds under the EMTN program used by the company.

On **November 8, 2019**, we approved using a written circular the submission of the "Declaration of Conformity by the Management Board and the Supervisory Board of Vonovia SE to the Recommendations of the German Corporate Governance Code Pursuant to Section 161 of the German Stock Corporation Act (AktG)."

At the meeting held on **December 5, 2019**, we discussed HR-related topics within the Supervisory Board and passed resolutions, among other things, on adjustments to Management Board remuneration effective January 1, 2020. We discussed and adopted the budget for 2020 submitted by the Management Board and discussed the medium-term planning for the next five years. Other topics included the reports on operating business performance in the Rental Germany and Rental Austria segments, developments within the Development segment and in the Rental Sweden segment, financial performance and capital market performance, as well as the report on the Value-add segment. The Supervisory Board used a structured process, involving an independent moderator, to subject itself to a review of the efficiency of its activities in the fourth quarter of 2019, discussing the results on the evaluation process in depth. The efficiency of the Supervisory Board's work was confirmed. The Supervisory Board was open to, and implemented, recommendations for action on individual aspects of its work. The efficiency review is performed on a regular basis as part of the Supervisory Board's work.

Duties of the Committees

The Supervisory Board made use of the existing committees (Audit Committee, Finance Committee and Executive and Nomination Committee) to effectively perform its work. The committees prepare subjects which are to be discussed and/or resolved by the Supervisory Board. In addition, the committees passed further resolutions that we had delegated to them instead of passing them on the Supervisory Board as a whole.

In addition to regular dialogue between the Audit Committee and the auditors at the quarterly meeting, there is also regular communication between the Chairman of the Audit Committee and the auditors, particularly before the quarterly meetings of the Audit Committee.

Audit Committee

The Audit Committee had four members in the reporting year. The Chairman was Prof. Dr. Edgar Ernst. The other members were Burkhard Ulrich Drescher, Vitus Eckart and Dr. Florian Funck. In 2019, the Audit Committee met four times (March, May, August, November).

At the meeting held on March 6, 2019, the Committee reviewed the annual and consolidated financial statements as of December 31, 2018, as well as the combined management report for the 2018 fiscal year. Its review took account of both the company's reports and the reports prepared by the auditor. The auditor considered the main points of the audit of the consolidated financial statements to be the valuation of investment properties, the value of the goodwill as well as the identification and measurement of assets and liabilities acquired as part of the acquisition of BUWOG. The Committee drew up a proposal for the appropriation of profit and developed a recommendation for a resolution to be submitted to the Supervisory Board regarding the adoption of the annual financial statements. The Committee developed a proposal for the selection of an auditor for the 2019 fiscal year and for this auditor's appointment as the auditor responsible for the audit of the condensed consolidated interim financial statements, interim Group management reports and quarterly reports. Further topics included the company's CSR reporting and the outcome of the audit of the Non-financial Declaration conducted by Internal Audit. The Committee recommended that the Supervisory Board approve the Non-financial Declaration. The discussions also covered the Internal Audit status report and the compliance report.

At its meeting held on May 6, 2019, the Committee looked at the condensed consolidated interim financial statements as of March 31, 2019. It discussed the auditor's report and the report on the auditor's evaluation of the effectiveness of the tax compliance management system. The Committee also took an in-depth look at the risk management and compliance reports, as well as the Internal Audit status report. The Committee was also informed of the status of lease accounting in accordance with IFRS 16. In addition, the committee members looked at the report on the company's tax situation and, within this context, the status of the ongoing company tax audits.

At its meeting held on August 1, 2019, the Committee approved the consolidated interim financial statements as of June 30, 2019, and passed a resolution on the commissioning of KPMG AG Wirtschaftsprüfungsgesellschaft to audit the annual and consolidated financial statements as of December 31, 2019, based on the vote at the Annual General Meeting. It discussed the company's report and, within this context, addressed issues including the impact of the changes in the organizational structure of the property management business on the measurement of goodwill. Other topics included the Internal Audit and compliance management status reports.

At the meeting held on November 4, 2019, the Committee discussed the condensed consolidated interim financial statements as of September 30, 2019, along with the corresponding reports prepared by the company and the auditor. It looked at the preliminary result indications of the property valuation, risk management, the compliance report and ongoing major legal disputes. It also discussed the report prepared by the Internal Audit department on the status of its audits and set the audit plan and audit budget for the Internal Audit department for the 2020 fiscal year.

Finance Committee

In 2019, the Finance Committee consisted of five members. The Chairperson was Clara-Christina Streit. The other members were Jürgen Fitschen, Dr. Ute Geipel-Faber, Daniel Just and Christian Ulbrich. The Finance Committee met six times in the reporting year, once at a face-to-face meeting (March) and five times using conference calls (twice in May, once in August, and twice in September). The Committee made decisions using a written circular in one case (June).

The Finance Committee had been previously authorized by the Supervisory Board to make all decisions on matters outside the scope of the topics for which it is generally responsible.

At a meeting held on March 6, 2019, the Finance Committee approved an investment proposal submitted by the Management Board regarding a new construction project involving around 980 apartments in Berlin-Siemensstadt.

On May 13, 2019, the Committee held a conference call to approve the passing of a resolution by the Management Board on a cash capital increase, excluding subscription rights, using accelerated bookbuilding. In a second conference call held on May 13, 2019, the Finance Committee discussed the modified resolution submitted by the Management Board and approved the increase in the company's share capital, using the authorized capital, by € 16.5 million in return for cash contributions by issuing the same number of no-par-value shares, and their placement using an accelerated bookbuilding procedure at a placement price of € 45.10 per share. The proceeds from the issue were to be used to refinance the acquisition of a Swedish real estate portfolio by Victoria Park AB at Group level, and for further growth.

On June 7, 2019, the Finance Committee used a written circular to approve the more detailed resolution passed by the Management Board on the implementation of a non-cash capital increase as part of the scrip dividend 2019.

In a conference call held on August 29, 2019, the Committee approved the implementation of a public buyback offer for outstanding bonds and the issue of two new bonds under the existing EMTN program.

On September 17, 2019, the Finance Committee used a conference call to discuss the conclusion of a purchase and transfer agreement regarding the acquisition of Blackstone's stake in the Swedish residential real estate company Hembla AB in the amount of 69.30% of the voting rights and 61.19% of the share capital, and of a real estate portfolio comprising around 21,500 apartments in Sweden.

During a conference call held on September 23, 2019, the Finance Committee approved the Management Board's decision on the conclusion of a purchase and transfer agreement regarding the acquisition of Blackstone's stake in Hembla AB in the amount of 69.30% of the voting rights and 61.19% of the share capital. This also includes all of the necessary and expedient preparatory measures for the financing of this acquisition, both regarding the short-term bridge facility as part of the syndicated financing arrangement and regarding the issue of bonds under the EMTN program in the long term.

Executive and Nomination Committee

In the fiscal year under review, the Executive and Nomination Committee consisted of five members. The Committee was headed up by Jürgen Fitschen as Chairman of the Supervisory Board. The other members were Hildegard Müller, Prof. Dr. Klaus Rauscher, Dr. Ariane Reinhart and Clara-Christina Streit. The Executive and Nomination Committee met six times in 2019, twice at meetings (February, September) and four times using conference calls (January, April, July, November). The Committee made one decision by written circular.

In a conference call held on January 22, 2019, the Committee discussed and approved the structure of the long-term incentive plan, tranche 2019–2022, for the 2019 performance period and the corporate objectives for the 2019 short-term incentive plan as a recommendation to be made to the Supervisory Board.

At the meeting held on February 22, 2019, the Committee developed resolution proposals for the Supervisory Board on the 2018 short-term incentive plan (target achievement), the 2019 short-term incentive plan (target agreements) and the long-term incentive plan for the Management Board (2019 tranche), as well as the payout of the long-term incentive plan tranches from 2015 and 2016. The Committee reviewed the appropriateness of the remuneration paid to the Management Board and recommended that a further discussion be held given the upcoming regulatory and statutory changes. The Committee also discussed the succession plan for the Management Board.

On April 10, 2019, the Committee discussed the succession plan for the Management Board and prepared the resolution proposals for the Supervisory Board regarding the cancellation of the Management Board contract with Klaus Freiberg and Arnd Fittkau's appointment as Management Board member, as well as the conclusion of a corresponding Management Board contract.

At a conference call held on July 17, 2019, the committee members discussed and passed a resolution on a recommendation regarding the target agreement for the 2019 short-term incentive plan for the Management Board member Arnd Fittkau.

On September 5, the Committee discussed the appropriateness of the Management Board remuneration and developed recommendations for the discussions to be held within the Supervisory Board.

The Committee held a conference call on November 20, 2019, to take an in-depth look at the Management Board remuneration, including market data submitted by an independent remuneration consultant based on the Supervisory Board's requirements, and made recommendations regarding the discussions to be held, and resolutions to be passed, by the Supervisory Board. The committee members used a written circular to confirm the amended recommendations to be discussed at the Supervisory Board meeting on November 28, 2019.

Corporate Governance

The Management Board and Supervisory Board of Vonovia SE are committed to the principles of good corporate governance. As a result, the members of the Supervisory Board once again looked at the German Corporate Governance Code in the reporting year. On January 31, 2019, and November 8, 2019, the Management Board and the Supervisory Board issued an updated Declaration of Conformity pursuant to Section 161 of the German Stock Corporation Act (AktG). The Management Board also reports, including on behalf of the Supervisory Board, on corporate governance at Vonovia in the declaration on corporate governance. Both declarations will be permanently published by the company on its website for perusal.

Audit

After being appointed at the Annual General Meeting on May 16, 2019, to audit financial statements for the 2019 fiscal year, KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, has duly audited the annual financial statements and consolidated financial statements of Vonovia SE as of December 31, 2019, and the combined management report for the 2019 fiscal year and has expressed an unqualified opinion thereon. In accordance with German legal regulations, the content of the Non-financial Declaration, which is included in a separate section of the combined management report, was not reviewed by the auditor. In accordance with Section 317 (4) of the German Commercial Code (HGB), KPMG also assessed the risk early warning system of Vonovia SE.

The auditor has affirmed its independence to the Chairman of the Audit Committee and duly declared that no circumstances exist that could give grounds for assuming a lack of impartiality on its part. The audit assignment was awarded to KPMG AG Wirtschaftsprüfungsgesellschaft by the Chairman of the Audit Committee in line with the Committee's resolution and the choice of auditor made by the shareholders at the Annual General Meeting.

The annual financial statements were prepared by the Management Board in accordance with the German commercial law and stock corporation law provisions, including the generally accepted accounting practice. The consolidated financial statements were prepared by the Management Board in accordance with the International Financial Reporting Standards (IFRS), as applied in the European Union, as well as the supplementary provisions applicable pursuant to Section 315e (1) HGB.

For the annual financial statements and the consolidated financial statements, Vonovia SE prepared a combined management report based on the requirements set out in Sections 315, 298 (2) HGB.

Every member of the Supervisory Board received copies of the annual financial statements, the consolidated financial statements and the combined management report and the auditor's report in good time. On the basis of the preliminary examination and assessment by the Audit Committee, about which the Audit Committee Chairman reported to the Supervisory Board, the Supervisory Board has scrutinized in detail the annual financial statements, consolidated financial statements and combined management report of Vonovia SE for the 2019 fiscal year and also considered the Management Board's proposal for the appropriation of profit. With regard to the Non-financial Declaration to be published pursuant to the CSR Directive Implementation Act, the Supervisory Board complied with its review obligation.

At the joint meeting on March 4, 2020, with the Audit Committee, and at the subsequent Supervisory Board meeting held on the same day, the auditors reported both on their findings including the strategic audit objectives and key audit matters. The strategic audit objectives and the key audit matters set out in the auditor's report had been defined by the auditor in the second half of 2019, and had already been discussed and agreed upon with the Audit Committee in advance.

In the 2019 fiscal year, with regard to the consolidated financial statements, particularly key audit matters included the value of goodwill, the valuation of investment properties and the identification and valuation of the acquired assets and liabilities as part of the acquisition of Hembla. With regard to the annual financial statements of Vonovia SE, special importance was given to the value of the shares in affiliated companies as well as the recognition of income through the disclosure of hidden reserves as part of the intragroup restructuring of the BUWOG Group.

The auditors gave detailed answers to our questions. After an in-depth review of all documentation, we found no grounds for objection. As a result, we concurred with the auditors' findings. On March 4, 2020, we followed the Audit Committee's recommendation and approved the annual financial statements and consolidated financial statements of Vonovia SE, as well as the combined management report. The annual financial statements are thus duly adopted.

Dividend

The Supervisory Board considered the Management Board's proposal for the appropriation of profit. It gave particular consideration to the liquidity of the company/the Group, tax-related aspects, financial and investment planning.

Following its audit, the Supervisory Board agrees with the proposal set out by the Management Board to be made to the Annual General Meeting, namely the proposal that, from the profit for the 2019 fiscal year, a dividend of € 1.57 per share or € 851,369,569.27 in total on the shares of the share capital as of December 31, 2019, be paid to the shareholders and the remaining amount be carried forward to the new account or be used for other dividends on shares carrying dividend rights at the time of the Annual General Meeting that go beyond those as of December 31, 2019.

The dividend will be paid either in cash or in the form of shares in the company. The shareholders' right to opt for a dividend paid out in shares is communicated separately in a timely manner together with other information, particularly on the number and type of shares.

Personnel

The following staff-related changes were made within the company's management team during the reporting period: On April 11, 2019, the Supervisory Board appointed Arnd Fittkau to the Management Board to assume the position of Chief Rental Officer. He took up his office following the end of the Annual General Meeting on May 16, 2019.

COO Klaus Freiberg, who had held the position of CFO up until then, left the Management Board at his own request at the end of the Annual General Meeting. The Management Board employment contract ended with effect from December 31, 2019. Klaus Freiberg has played a key role in Vonovia's success story. The Supervisory Board would like to thank him for his exceptional performance and valuable contribution to the company's excellent performance in recent years.

Concluding Remarks

We would like to thank the Management Board for successfully managing the company over the last year and would also like to thank our employees for what was, once again, excellent performance. We would like to thank the employee representative bodies for another year of constructive collaboration.

Bochum, Germany, March 4, 2020

On behalf of the Supervisory Board

Jürgen Fitschen

Management Board

The Management Board of Vonovia SE consisted of four members as of December 31, 2019.

Rolf Buch
Chairman of the Management Board

As Chief Executive Officer, Rolf Buch is responsible for transactions, Value-add, general counsel, investor relations, IT, HR management, auditing, corporate communications and sustainability. Rolf Buch joined the company in 2013 and led Vonovia to its listing on the stock exchange. Prior to his move to the company, he spent 22 years in various leadership positions at Bertelsmann, ultimately as a Management Board member at Bertelsmann SE and Chairman of the Management Board at Arvato AG. He is a member of the executive board of the German Association of German Housing and Real Estate Companies (GdW), vice president of the German central real estate committee Zentraler Immobilien Ausschuss (ZIA) and the German Association for Housing, Urban and Spatial Development, and chairman of the European Public Real Estate Association (EPRA) in Brussels. He studied mechanical engineering and business management at RWTH Aachen University.

Arnd Fittkau
Member of the Management Board

In his role as Chief Rental Officer, Arnd Fittkau is responsible for the property management business in the North, East, South and West business areas, as well as for customer service and portfolio and tenant management. Following completion of a management training program at MAN Gutehoffnungshütte AG (1992–1996), Arnd Fittkau started his career in various controlling functions. After holding positions at MAN AG in Munich and Hochtief AG in Essen, he joined the company now known as Vonovia in 2002. He spent three years as Head of Controlling for the GAGFAH Group starting in 2005. Since 2008, Arnd Fittkau has held several managing directorships at Vonovia subsidiaries in various locations such as Bochum, Munich, Frankfurt and Gelsenkirchen. Most recently, he held the position of chief representative of Vonovia SE from the beginning of March 2018 and chaired the regional management teams.

Helene von Roeder
Member of the Management Board

Helene von Roeder has held the position of Chief Financial Officer on the Management Board of Vonovia SE since May 2018 and is responsible for controlling, finance, accounting, tax, property evaluation, central purchasing, insurance and Immobilien Treuhand. Before joining Vonovia, she headed Credit Suisse's business in Germany, Austria and Central and Eastern Europe (CEE) as CEO Germany from 2014. She began her career at Deutsche Bank in London in 1995 after studying theoretical physics in Munich and theoretical astrophysics in Cambridge. She worked for UBS AG in Frankfurt and London from 2000 to 2004, before moving to Morgan Stanley Bank AG in Frankfurt, where her most recent role was Head of Global Capital Markets for Germany and Austria, Member of the Management Board of Morgan Stanley Bank AG.

Daniel Riedl
Member of the Management Board

In this role as Chief Development Officer, Daniel Riedl is responsible for development in Austria, development in Germany and operating business in Austria. Daniel Riedl is a graduate in business administration from Vienna University of Economics and Business and a Fellow of the Royal Institution of Chartered Surveyors. Daniel Riedl has around 20 years' experience in the real estate industry, with more than 10 of them spent at Management Board level. He served on the Executive Board of IMMOFINANZ AG from 2008 to 2014. He led BUWOG AG to a successful stock exchange listing in April 2014 and was the company's CEO until its delisting at the end of 2018.

Supervisory Board

The Supervisory Board currently consists of twelve members, all of whom were elected for a statutory term of office by the Annual General Meeting held on May 9, 2018.

Jürgen Fitschen
Chairman
Senior Advisor at Deutsche Bank AG

Prof. Dr. Edgar Ernst
Deputy Chairman
President of the German Financial Reporting Enforcement Panel

Burkhard Ulrich Drescher
Managing Director of Innovation City Management GmbH

Vitus Eckert
Attorney, Shareholder and Managing Director of Eckert Fries Carter Rechtsanwälte GmbH

Dr. Florian Funck
Member of the Management Board of Franz Haniel & Cie. GmbH

Dr. Ute Geipel-Faber
Self-employed management consultant

Daniel Just
Chairman of Bayerische Versorgungskammer

Hildegard Müller
President of the German Association of the Automotive Industry (VDA)

Prof. Dr. Klaus Rauscher
Self-employed management consultant

Dr. Ariane Reinhart
Member of the Management Board of Continental AG

Clara-Christina Streit
Self-employed management consultant

Christian Ulbrich
Global CEO & President Jones Lang LaSalle Incorporated

Supervisory Board Committees

Executive and Nomination Committee

Jürgen Fitschen, Chairman
Hildegard Müller
Prof. Dr. Klaus Rauscher
Dr. Ariane Reinhart
Clara-Christina Streit

Audit Committee

Prof. Dr. Edgar Ernst, Chairman
Burkhard Ulrich Drescher
Vitus Eckert
Dr. Florian Funck

Finance Committee

Clara-Christina Streit, Chairwoman
Dr. Ute Geipel-Faber
Jürgen Fitschen
Daniel Just
Christian Ulbrich

Corporate Governance

In this corporate governance declaration (also known as the Corporate Governance Report), we report on the principles of management and corporate governance for the last fiscal year in accordance with Sections 289f and 315d of the German Commercial Code (HGB) and No. 3.10 of the German Corporate Governance Code (GCGC, as published on February 7, 2017). The declaration contains the Declaration of Conformity, information on corporate governance practices, a description of how the Management Board and Supervisory Board work and key corporate governance structures. The declaration is also available to the public on our website at www.vonovia.de. Pursuant to Section 317 (2) (6) HGB, the disclosures pursuant to Sections 289f and 315d HGB are not included in the audit performed by the auditor of the annual financial statements.

Fundamental Information

Fundamental Understanding

Corporate governance is the responsible management and supervision of a company. The Management Board and the Supervisory Board are committed to the principles of corporate governance. The principles are the basis for the sustainable success of the company and therefore serve as guidelines for conduct in the company's daily management and business.

Good corporate governance strengthens the trust of our shareholders, business associates, customers, employees and the general public in Vonovia SE. It increases the company's transparency and strengthens the credibility of our group of undertakings. With balanced corporate governance, the Management Board and the Supervisory Board wish to safeguard Vonovia SE's competitiveness, strengthen the trust of the capital market and the general public in the company and sustainably increase the company's value.

Standards of Corporate Governance

As a major real estate company, we are aware of the particular significance of our entrepreneurial actions for society at large. As a result, we are also committed to the general principles of corporate governance as well as all the main aims and principles of the Institute for Corporate Governance in the German Real Estate Industry, which we have been a member of since November 14, 2003. The institute supplements the corporate governance principles to include housing-specific aspects and is committed to even greater transparency, an improved image and a more competitive real estate sector.

Corporate governance, acting in accordance with the principles of responsible management aimed at increasing the value of the business on a sustainable basis, is an essential requirement for the Vonovia Group, embracing all areas of the business.

Our corporate culture is founded on transparent reporting and corporate communications, on corporate governance aimed at the interests of all stakeholders, fair and open dealings between the Management Board, the Supervisory Board and employees as well as on compliance with the law.

The Code of Conduct provides the ethical and legal framework within which we act and want to maintain a successful course for the company. The focus is on dealing fairly with each other but also in particular on dealing fairly with our tenants, suppliers, customers and investors. The Code of Conduct specifies how we assume our ethical and legal responsibility as a company and is the expression of our company values.

Information on the Company's Governing Constitution

The designation Vonovia comprises Vonovia SE and its Group companies. Vonovia is a European company (SE) in accordance with the German Stock Corporation Act (AktG), the SE Act and the SE Regulation. Its registered headquarters are in Bochum. It has three governing bodies: the

Annual General Meeting, the Supervisory Board and the Management Board. The duties and authority of those bodies derive from the SE Regulation (SE-VO), the German Stock Corporation Act (AktG) and the Articles of Association. Shareholders, as the owners of the company, exercise their rights at the Annual General Meeting.

According to the two-tier governance system, Vonovia SE has a Management Board and a Supervisory Board. In the two-tier governance system, the management of business and the monitoring of business are strictly separated from each other. The duties and responsibilities of these two bodies are clearly specified by law in the German Stock Corporation Act.

In accordance with the governing laws, in particular the SE Regulation and the German SE Employee Participation Act (SEBG), the Supervisory Board is only made up of representatives of the shareholders. The highest representative body of the employees is the Group works council. An SE works council was also set up at the level of Vonovia SE.

The Management Board and Supervisory Board of a company listed in Germany are obliged by law (Section 161 of the German Stock Corporation Act) to report once a year on whether the officially published and relevant recommendations issued by the government commission German Corporate Governance Code, as valid at the date of the declaration, have been, and are being, complied with. Companies affected are also required to state which of the recommendations of the Code have not been, or will not be, applied and, if not, why. The most recent Declaration of Conformity is valid for at least the next five years and the Declarations of Conformity that are no longer valid can be found on the company's website.

The Management Board reports in its declaration, also on behalf of the Supervisory Board, on important aspects of corporate governance pursuant to Section 289f of the German Commercial Code (HGB) and No. 3.10 of the German Corporate Governance Code (GCGC).

Declaration of Conformity to the GCGC Pursuant to Section 161 of the German Stock Corporation Act (AktG)

The Management Board and the Supervisory Board of Vonovia SE declare that the company has complied with the recommendations made by the "Government Commission on the German Corporate Governance Code (GCGC)", as published by the German Federal Ministry of Justice in the official section of the federal gazette on February 7, 2017, since the last declaration of conformity dated November 8, 2019, and that it will continue to do so in the future.

Shareholders and Annual General Meeting

Shareholder Information: Shareholders can obtain full and timely information about our company on our website and can access current as well as historical company data. Among other information on its website, Vonovia regularly posts all financial reports, important information on the company's governing bodies (including resumes), its corporate governance documentation (declaration of conformity), information requiring ad hoc disclosure and press releases.

Directors' Dealings: Information on directors' dealings/managers' transactions notifiable pursuant to Article 19 of the Market Abuse Regulation is published by Vonovia without delay in accordance with the Regulation and is made available on the company's website.

Financial Calendar: Shareholders and interested members of the financial community can use the regularly updated financial calendar on the website to obtain information on publication, conference and information dates, roadshows and the timing of the Annual General Meeting early on.

Annual General Meeting and Voting: The Annual General Meeting decides in particular on the appropriation of profit, the ratification of the acts of the members of the Management Board and of the Supervisory Board, the appointment of the external auditor, amendments to the Articles of Association as well as specific capital measures and individually elects the shareholders' representatives to the Supervisory Board.

Our shareholders can exercise their voting rights at the meeting or instruct a proxy of their choice or one of the proxies provided for that purpose by the company. Our shareholders are also able to submit a postal vote. The details regarding the postal voting procedure are in the respective shareholder's invitation to the Annual General Meeting.

The entire documentation for the Annual General Meeting and opportunities to authorize, and issue instructions to, the company's proxies as well as to submit a postal vote are available to shareholders at all times on the Vonovia website.

There are no plans to allow the Annual General Meeting to be followed on the Internet.

Remuneration Paid to Executive Bodies: The remuneration paid to the Management Board and the Supervisory Board is set out in detail every year in the combined management report in line with the corporate governance requirements. The basic principles of the remuneration system for Management Board members have been approved by the Annual

General Meeting. The Chairman of the Supervisory Board will submit subsequent changes to the Annual General Meeting.

Supervisory Board

Duties and Responsibilities

The Supervisory Board appoints, supervises and advises the Management Board and is directly involved in decisions of fundamental importance to the company. The Supervisory Board performs its work in accordance with the legal provisions, the Articles of Association, its rules of procedure and its resolutions. It consists of twelve members, who were each elected for four fiscal years by the 2018 Annual General Meeting. The Supervisory Board continuously oversees the management and advises the Management Board.

The Supervisory Board examines and adopts the annual financial statements and the management report. It assesses and confirms the proposal for the appropriation of profit as well as the consolidated financial statements and the combined management report on the basis of the report prepared by the Audit Committee. The Supervisory Board reports in writing to the shareholders at the Annual General Meeting on the result of its examination.

The Chairman of the Supervisory Board is an independent member. The same applies to the chairs of the committees which the Supervisory Board has set up.

The Chairman of the Supervisory Board chairs the meetings and coordinates communications. The members of the Supervisory Board generally have the same rights and obligations. Supervisory Board resolutions are above all passed in the Supervisory Board meetings but also, if necessary, using the written procedure or by other communication means. At least two meetings are held every six months. In addition, if necessary and on the basis of the rules of procedure of the Supervisory Board, a meeting of the Supervisory Board or its committees can be convened at any time at the request of a member or the Management Board. In the 2019 fiscal year, the Supervisory Board had eight meetings – including conference calls – and made decisions using the written procedure in two cases.

The Supervisory Board is composed in such a way that its members as a group have the knowledge, ability and specialist experience required to properly complete its tasks, and are all familiar with the real estate industry as the sector in which the company operates. Each Supervisory Board member shall ensure that he or she has enough time to carry out his or her mandate.

At least one member of the Supervisory Board has expertise in the fields of accounting or auditing (Section 100 [5] of the German Stock Corporation Act).

Three Supervisory Board members, who are/were also members of the management board of a listed company, did not have any other supervisory board mandates, over and above the Supervisory Board mandate at Vonovia, at non-Group listed companies or on supervisory bodies of non-Group entities that make similar requirements. At the time at which this declaration was prepared, no Supervisory Board members exercised directorships or advisory tasks for important competitors of the company (see below "Conflicts of Interest").

Supervisory Board Self-Assessment

The Supervisory Board performs regular efficiency reviews that are performed, in alternation, as self-evaluations using a written survey conducted among the members and with the involvement of an independent and experienced moderator in the form of personal interviews. The evaluation, supported by a moderator and conducted in the fourth quarter of 2019, revealed that the Supervisory Board performs its work efficiently (see Report of the Supervisory Board → **p. 26 et seqq.**).

Supervisory Board Committees

The Supervisory Board sets up an Executive and Nomination Committee, an Audit Committee and a Finance Committee from among its members. Further committees are formed as required. Committees are made up of at least four members of the Supervisory Board. The committees prepare subjects which are to be discussed and/or resolved by the Supervisory Board. In addition, they pass resolutions on behalf of the entire Supervisory Board. The basis for committee work was the transfer of tasks and responsibilities within the scope of the legal provisions.

The **Executive and Nomination Committee** is made up of the Chairman of the Supervisory Board and four other members to be elected by the Supervisory Board. The Chairman of the Supervisory Board is the Chairman of the Executive and Nomination Committee. The members of the Executive and Nomination Committee are Mr. Jürgen Fitschen (Chairman), Ms. Hildegard Müller, Prof. Dr. Klaus Rauscher, Dr. Ariane Reinhart and Ms. Clara-Christina Streit.

The tasks of this committee are, in particular, to prepare the appointment of Management Board members, to advise on the remuneration system, to assign responsibilities and to decide in cases of legal and loan transactions with members of the Management Board and conflicts of interest.

The Supervisory Board appoints one of the members of the **Audit Committee** as the Chairman of the Audit Committee. When electing the committee members, the Supervisory Board shall ensure that the Chairman of the Audit Committee has specialist knowledge and experience in the application of accounting principles and internal control processes. The Committee Chairman should be independent and not be a former member of the company's Management Board whose appointment ended less than two years before their appointment as Chairman of the Audit Committee. The chairman of the Supervisory Board shall not be the chairman of the Audit Committee. The members of the Audit Committee are Prof. Dr. Edgar Ernst (Chairman), Mr. Burkhard Ulrich Drescher, Mr. Vitus Eckert and Dr. Florian Funck.

The Audit Committee handles, in particular, the monitoring of the accounting process, the effectiveness of the internal control system, risk management system and internal audit system, the audit of the annual financial statements and – unless another committee is entrusted therewith – compliance.

The Audit Committee prepares the resolutions of the Supervisory Board on the annual financial statements (and, if applicable, the consolidated financial statements), and, in place of the Supervisory Board, reaches the agreements with the auditor (in particular the issuing of the audit mandate to the auditor, the determination of strategic audit objectives and the fee agreement). The Audit Committee takes suitable action to determine and monitor the independence of the auditor. In place of the Supervisory Board, the Audit Committee adopts resolutions on the approval of the contracts with the auditor on additional, non-audit-related consultancy services, insofar as, according to corporate governance procedures for the Management Board, these contracts require approval.

The **Finance Committee** consists of the Supervisory Board Chairman or the latter's Deputy Chairman and four other members, namely Ms. Clara-Christina Streit (Chairwoman), Mr. Jürgen Fitschen, Dr. Ute Geipel-Faber, Mr. Daniel Just and Mr. Christian Ulbrich.

The Finance Committee prepares the resolutions of the Supervisory Board on the following matters:

a) Financing and investment principles, including the capital structure of the Group companies and dividend payments
b) Principles of the acquisition and disposal policies, including the acquisition and disposal of individual shareholdings of strategic importance.

In place of the Supervisory Board, the Finance Committee adopts resolutions in particular on general guidelines and principles for the implementation of this financial strategy, including the handling of currency risks, interest, liquidity and other financial risks, the handling of credit risks and the implementation of external financing principles, and also on important transactions regarding the acquisition and disposal of properties and shares in companies as well as corporate financing.

The Management Board

Duties and Responsibilities

The Management Board members are jointly accountable for independently managing the company in the company's best interests while complying with the applicable laws and regulations, the Articles of Association and the rules of procedure. In doing so, they must take the interests of the shareholders, the employees and other stakeholders into account.

The Management Board is monitored and advised by the Supervisory Board. It has adopted the rules of procedure in consultation with the Supervisory Board. The Management Board has a chairman who coordinates the work of the Management Board and represents it in dealings with the Supervisory Board. The Chairman of the Management Board has the right to veto Management Board resolutions.

The members of the Management Board are Rolf Buch (Chairman) as well as Arnd Fittkau, Helene von Roeder and Daniel Riedl. Further information can be found on → **p. 32 et seq.** of the 2019 Annual Report. The decision has been made not to establish any Management Board committees.

The Management Board informs the Supervisory Board regularly, in due time and comprehensively in line with the principles of diligent and faithful accounting in accordance with the law and the reporting duties specified by the Supervisory Board.

The Management Board develops the company's strategy, coordinates it with the Supervisory Board and implements it. The Management Board ensures that all statutory provisions and the company's internal policies are complied with. The Management Board also ensures appropriate risk management and risk controlling in the company.

It submits the corporate planning for the coming fiscal year to the Supervisory Board as well as the midterm and strategic planning. The Chairman of the Management Board informs the Supervisory Board Chairman without delay of important events that are essential for the assessment of the situation and the development of the company or for the management of the company as well as of any shortcomings that occur in the monitoring systems.

The Management Board requires the approval of the Supervisory Board for certain important transactions. Transactions and measures that require Supervisory Board approval are submitted in good time to the Supervisory Board, or to one of its committees where particular powers are delegated to them.

The Management Board members are obliged to disclose any conflicts of interest to the Supervisory Board without delay and to inform the other Management Board members accordingly.

The Management Board members are subject to a comprehensive non-competition obligation. Management Board members may only take up sideline activities, in particular positions on supervisory boards outside the Group, with the approval of the Supervisory Board.

Important transactions between the company, on the one hand, and the Management Board members as well as persons they are close to or companies they have a personal association with, on the other hand, require the approval of the Supervisory Board. Reference is made to such relations in the remuneration report.

Recruitment of Members of Executive Bodies

In accordance with the German Corporate Governance Code, the Supervisory Board and the Management Board must be composed in such a way that these bodies/their members as a group have the knowledge, ability and specialist experience required to properly complete their tasks. The requirements were extended and set out by law with the entry into force of the CSR Directive Implementation Act. The Supervisory Board has adopted the following criteria and objectives for recruiting individuals to the Management and Supervisory Boards, taking the abovementioned requirements into account:

Recruitment of Members of the Supervisory Board

Composition: As a listed company that is not subject to codetermination, the Supervisory Board of Vonovia SE is to include twelve members, an appropriate number of whom are to be independent within the meaning of the Code. All members should have sufficient time available to perform the duties associated with their mandate with due regularity and care.

When proposing candidates to fill new Supervisory Board positions to the Annual General Meeting, the Supervisory Board should have performed an extensive review to ensure that the candidates standing for election meet the corresponding professional and personal requirements (see below) and must disclose the candidates' personal and business-related relationships with the company, the governing bodies of the company and any shareholders with a material interest in the company. Shareholders are deemed to hold a material interest if they hold more than 10% of the voting shares in the company, either directly or indirectly.

Other general criteria, and criteria defined in the GCGC that applied in the fiscal year under review, governing composition include:

> No more than two former members of the Management Board shall be members of the Supervisory Board
> Supervisory Board members shall not exercise directorships or similar positions or advisory tasks for important competitors of the company
> If a (designated) member belongs to the management board of a listed company, this member shall not accept more than a total of three supervisory board mandates in non-Group listed companies or on supervisory bodies of non-Group entities that make similar requirements
> The standard limit for length of membership on the Supervisory Board has been set at a maximum of 15 years
> The age limit has been set at 75 at the time of election to the Supervisory Board

Skills profile: The Supervisory Board of Vonovia SE should be composed so as to ensure qualified supervision of, and provision of advice to, the Management Board. The candidates nominated for election to the Supervisory Board should be able, on the basis of their knowledge, skills and professional experience, to perform the duties of a Supervisory Board member of a listed real estate company that is active on the international capital market.

In terms of their personality, the candidates nominated for election should show integrity, professionalism and commitment. The aim is to ensure that the Supervisory Board as a whole offers all of the knowledge and experience that the Group considers to be important for ensuring Vonovia's operational and financial further development.

Independence: The Supervisory Board shall only include members that it considers to be independent. Material conflicts of interest that are not merely of a temporary nature, e. g., arising from functions on executive bodies or advisory roles performed at the company's major competitors, should be avoided. A Supervisory Board member is, in particular, not to be considered independent if they have personal or business relations with the company, its bodies, a controlling shareholder or a company associated with such a shareholder that may cause a substantial and not merely temporary conflict of interest.

Diversity: When nominating candidates for election, the Supervisory Board should also take diversity into account. In accordance with the German Act on the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in Privatwirtschaft und im öffentlichen Dienst), the Supervisory Board should comprise at least 30% women and 30% men. In addition, at least one woman should be a member of the Nomination Committee. Vonovia's Supervisory Board should meet both criteria.

When assessing potential candidates for reelection or to fill a Supervisory Board position that has become vacant, qualified women should be included in the selection process and given appropriate consideration when the nominations are made.

Target achievement: The objectives regarding the composition of the Supervisory Board set out above have been met: There are four female members of the Supervisory Board (33%). Hildegard Müller, Clara-Christina Streit and Dr. Ariane Reinhart are members of the Executive and Nomination Committee. All twelve members of the Supervisory Board are considered by the latter to be independent within the meaning of No. 5.4.2 of the GCGC. The main knowledge, skills and professional experience of the Supervisory Board members are summarized in the table below.

Supervisory Board Qualifications Profile

					Key skills & areas of experience*							
Name	Independent	Year of birth	Year appointed	Nationality	Finance, accounting, fanancial planning and analysis	Real estate	Strategy	Legal and regulation	International experience, M&A, capital markets	Investment expertise	Digitalization	Sustainability
Jürgen Fitschen (Chairman)	yes	1948	2018	German	x		x	x	x	x		
Prof. Dr. Edgar Ernst	yes	1952	2013	German	x		x	x	x	x		
Burkhard Ulrich Drescher	yes	1951	2014	German		x	x	x			x	x
Vitus Eckert	yes	1969	2018	Austrian		x	x	x	x	x		
Dr. Florian Funck	yes	1971	2014	German	x		x	x	x	x		
Dr. Ute Geipel-Faber	yes	1950	2015	German	x	x			x	x		
Daniel Just	yes	1957	2015	German	x	x	x			x		x
Hildegard Müller	yes	1967	2013	German	x		x	x			x	x
Prof. Dr. Klaus Rauscher	yes	1949	2008	German	x	x	x	x	x			
Dr. Ariane Reinhart	yes	1969	2016	German			x	x	x		x	x
Clara-Christina Streit	yes	1968	2013	German/ U.S.	x		x		x	x	x	
Christian Ulbrich	yes	1966	2014	German		x	x		x	x	x	

* The members of the Supervisory Board can specify up to 5 areas of expertise.

Recruitment of Members of the Management Board

In accordance with the German Corporate Governance Code, the Management Board is responsible for managing the company in the best interests of the company, meaning that it considers the needs of the shareholders, the employees and other stakeholders, with the objective of sustainable value creation. The Management Board develops the strategy for the company, agrees it with the Supervisory Board and ensures its implementation. The Management Board ensures that all provisions of law and the company's internal policies are complied with, and endeavors to achieve their compliance by the Group entities (compliance). The Management Board is also responsible for ensuring appropriate risk management and risk control and, when filling management positions, must take the diversity principles into account in accordance with the objectives that have been set internally.

Composition: In accordance with the Articles of Association, the Management Board of Vonovia SE consists of at least two members. The Supervisory Board appoints the Management Board members in accordance with the Articles of Association and the law. The Supervisory Board can appoint a Chairman of the Management Board and a Deputy Chairman of the Management Board.

The decisions made by the Supervisory Board on the composition of the Management Board should be based on a careful analysis of the existing and future challenges facing the company.

The Management Board of Vonovia SE should be composed so as to ensure that, as the management body, it can perform the duties set out above reliably and in full. When taken as a whole, it should combine all of the knowledge and experience required to ensure that the Group can pursue its operational and financial objectives in an effective and sustainable manner in the interests of the shareholders and other stakeholders.

While membership of the Management Board is not limited to a certain period of time, the contract of employment of a Management Board member ends when the member turns 67 at the latest.

Skills profile: Newly appointed Management Board members should be able, on the basis of their knowledge, skills and professional experience, to reliably perform the duties assigned to them in a listed real estate company that is active on the international capital market. In addition to having good professional and fundamental general qualifications, they should also show integrity, professionalism and commitment.

Independence: The Management Board should perform its management duties in a manner that is free of any conflicts of interest. Functions on executive bodies or advisory roles performed at major competitors of the company should be avoided.

Diversity: When looking for candidates to fill a Management Board position that has become vacant, the Supervisory Board should include qualified women in the selection process and give them appropriate consideration. Gender should be irrelevant when it comes to filling Management Board positions. The Supervisory Board has set a target of at least 20% women on the Management Board, to be met by December 31, 2021. For the two levels of management below the Management Board, the target for the proportion of women is 30%.

Target achievement: The objectives regarding the composition of the Management Board set out above have been met in full. The Management Board consists of one female and three male members who are able to manage the Group appropriately on the basis of their experience and skills. At the time at which this declaration was made, the first level of management below the Management Board now comprises 20% women, with the second level comprising 26% due to normal staff turnover. The aim is to use ongoing systematic succession planning to achieve the target ratio of 30% by December 31, 2021, at both levels of management.

Succession planning: The Supervisory Board addresses long-term succession planning for the Management Board on an ongoing basis. Last year, the Supervisory Board once again discussed positions to be filled in the Management Board and long-term workforce planning.

Cooperation Between the Management Board and the Supervisory Board

The Management Board develops the strategy of the company in cooperation with the Supervisory Board and discusses the current status of its implementation with the Supervisory Board at regular intervals. Furthermore, the Management Board regularly informs the Supervisory Board in written or verbal reports of topics including the development of business and the situation of the company. In this way, the Supervisory Board receives detailed documents from the Management Board regularly and in a timely manner on the economic development and the company's current situation as well as the half-yearly risk management and compliance reports that deal with the most important risks for the business as well as compliance management at Vonovia SE. On the basis of these reports, the Supervisory Board monitors the company's management by the Management Board as well as via its committees where particular powers are delegated to these committees. The Supervisory Board meets on a regular basis without the Management Board if personnel matters relating to the Management Board are to be discussed.

Avoidance of Conflicts of Interest

In the fiscal year, there were no conflicts of interest of Management Board or Supervisory Board members, which are to be reported immediately to the Supervisory Board. There was no need to discuss or make decisions on legal matters, in particular lending transactions with members of executive bodies or individuals related to them.

Accounting and Financial Statement Auditing

The Annual General Meeting selected KPMG AG Wirtschaftsprüfungsgesellschaft as auditor for the annual financial statements and consolidated financial statements. In the audit assignment awarded to the auditor of the annual financial statements by the Audit Committee an agreement has also been reached on adherence to the provisions set out in No. 7.2.1 (2) (information on grounds for exclusion and disqualification due to impairment of the auditor's independence) and 7.2.3 (report on major findings) GCGC. We prepare the annual financial statements of Vonovia SE in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG) and the consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) to be applied in the EU. In addition, we prepare a combined management report as required by the German Commercial Code and the German Stock Corporation Act (AktG). The Management Board is responsible for financial accounting. The Supervisory Board examines and adopts or approves the annual financial statements, the consolidated financial statements and the combined management report.

In addition to our annual financial statements, we also prepare interim statements for the first and third quarters as well as an interim financial report for the first half-year in accordance with the German Securities Trading Act.

Both the interim statements and the interim financial report are presented to, and discussed with, the Audit Committee of the Supervisory Board before they are published.

Under German stock corporation and commercial law, there are special requirements for internal risk management that apply to Vonovia. Therefore, our risk management system covers risk inventory, analysis, handling and limitation. In accordance with Section 317 (4) of the German Commercial Code applicable to listed companies, KPMG assesses in its audit the risk early warning system as part of the risk management system.

Furthermore, we maintain standard documentation of all our internal control mechanisms throughout the Group and continually evaluate their effectiveness. Our auditor has not reported any material weaknesses in the accounting-related internal control system detected in its audit to the Management Board and the Supervisory Board.

In the combined management report, we provide comprehensive information on the main features of the internal control and risk management system with regard to the accounting process and the Group accounting process in accordance with our reporting duties pursuant to Sections 289 (4) and 315 (4) of the German Commercial Code.

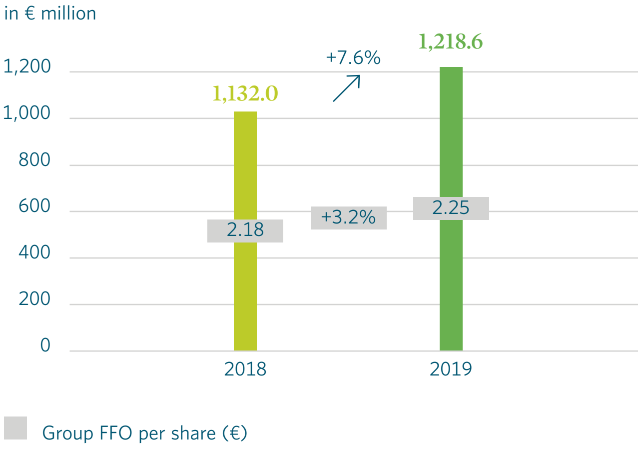
Overview

> Vonovia achieves positive business development again in the 2019 fiscal year.
> Expansion of market presence in Sweden thanks to purchase of Akelius Residential Property portfolio and acquisition of Hembla AB.
> Modernization and new construction strategy continued.
> Total of around 2,100 new apartments completed.

With investments in modernization and new construction totaling € 1,489.5 million (2018: € 1,139.0 million), our investment program was once again a key driver of our organic growth in the 2019 fiscal year. In addition, the acquisitions of BUWOG and Victoria Park in 2019 contributed full-year results for the first time (2018: only on a pro rata temporis basis in each case as of the acquisition date). The purchase of Akelius Residential Property portfolio in the second quarter of 2019 is included with earnings contributions for the months from April to December 2019, while the acquisition of Hembla AB in the fourth quarter of 2019 is included with an earnings contribution for November and December 2019. Group FFO rose by 7.7% from € 1,132.0 million in the 2018 fiscal year to € 1,218.6 million in the 2019 fiscal year.

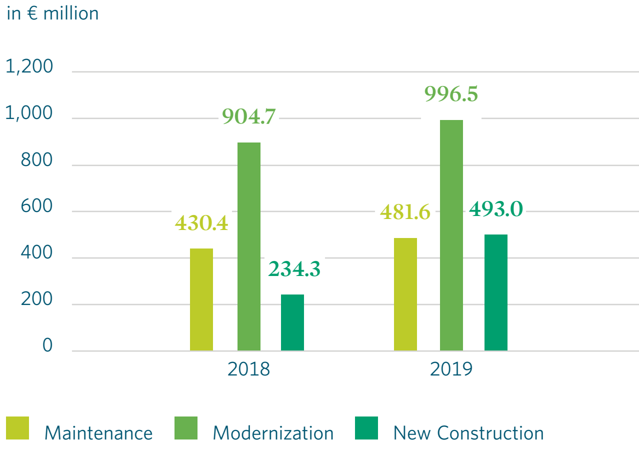
Sustained Earnings

Group FFO



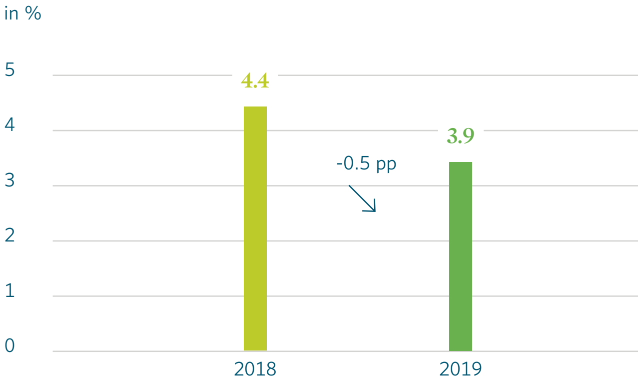
Maintenance, Modernization and New Construction

Investments



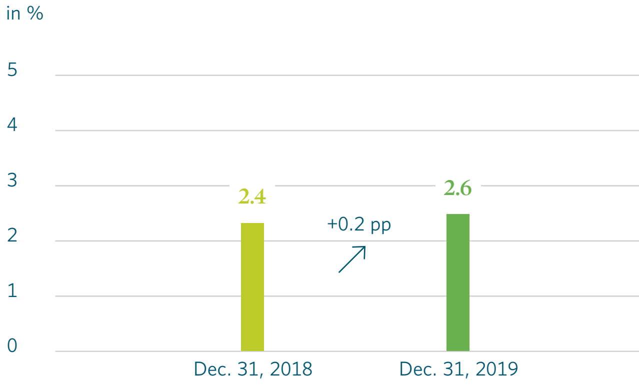
Organic Rent Growth

Organic Rent Growth



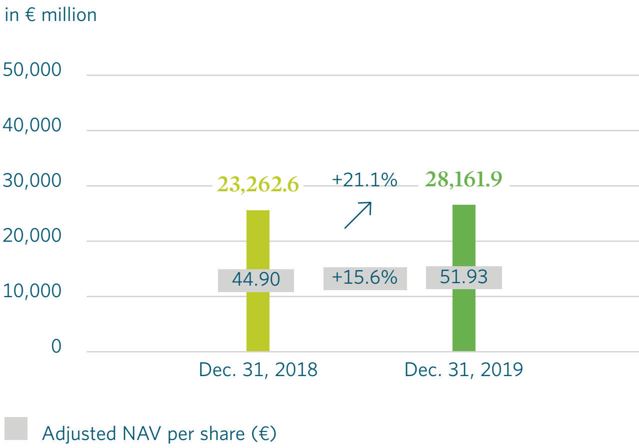
Vacancy

Vacancy Rate



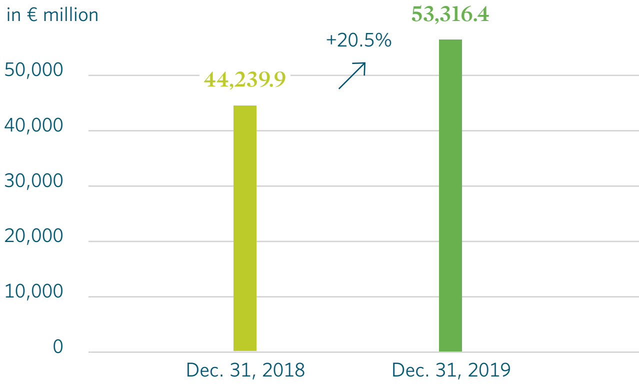
Net Assets

Adjusted NAV



Fair Value of the Real Estate Portfolio

Fair Value of the Real Estate Portfolio



Vonovia SE on the Capital Market

> Shares in Vonovia gain approx. 21% in 2019, significantly outperforming other German listed residential real estate companies.
> Dividend: increased for the sixth time in a row – high acceptance of scrip dividend again.
> We believe that the environment for the German residential real estate sector remains positive.

Developments on the International Capital Markets

2019 was an unsettled year for the international capital markets. Uncertainty regarding future interest rate developments and brewing trade conflicts, in connection with international political tension and concerns of escalation, put pressure on international capital markets, while the low interest rate policy pursued by the United States and Europe provided support for the stock markets.

The Dow Jones, for example, made gains of 22% in 2019, with the German leading index DAX 30 climbing by 25%. The EPRA index for European real estate stocks also closed the year with positive performance, namely at 2,481 points, up by 25% in a year-over-year comparison.

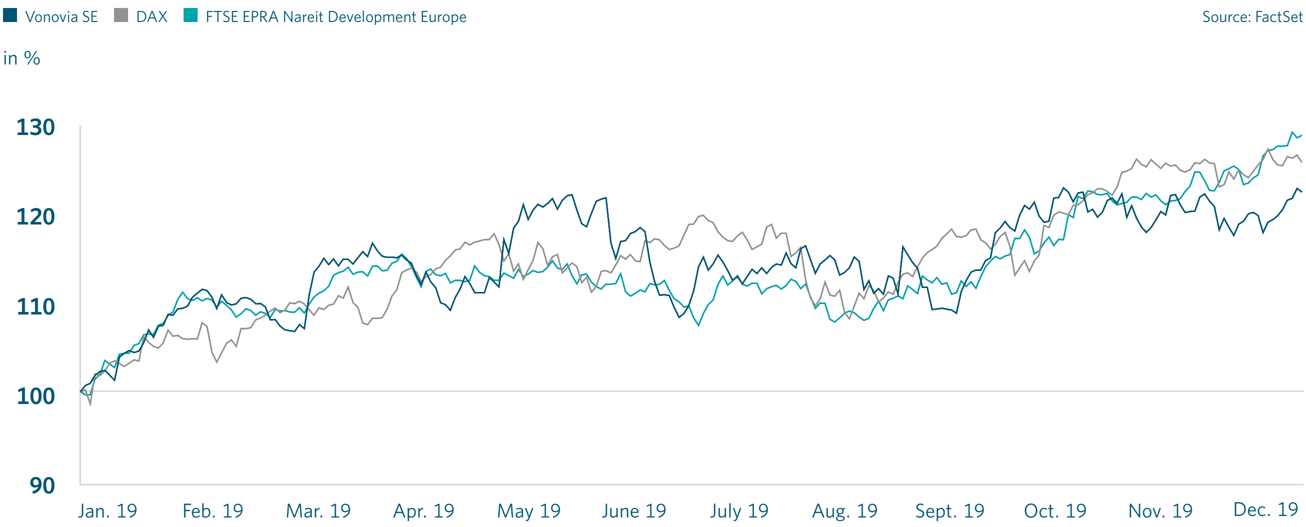
In our view, developments in the German residential real estate sector in particular were shaped primarily by two factors in 2019, each having an opposite effect on Vonovia's share price: the issue of regulation, which had a negative impact, and the sustained low interest rates, which provided positive impetus.

Shares in Vonovia

In the 2019 fiscal year, Vonovia's share price rose by approximately 21%, climbing from a closing price of € 39.59 on December 31, 2018, to a closing price of € 48.00 on December 31, 2019, outperforming the other listed German residential real estate companies. Like the German residential real estate sector as a whole, Vonovia showed slightly weaker development than the German leading index DAX 30 (25%) and the EPRA Europa index (25%), but performed better than the EPRA Germany index (10%).

The chart illustrates Vonovia's share price performance in 2019, which was influenced particularly by the statement on a capital increase notification in May and the announcement of the Berlin-specific rent freeze legislation in June as well as by the ongoing debate around further rent regulation.

Share Price Development



We believe that the environment for the German residential real estate sector tends to remain positive in general. In our view, the main drivers behind this will be the imbalance between high demand for and a short supply of affordable homes in urban locations, the ongoing favorable environment of low interest rates and a continued keen interest in German residential real estate.

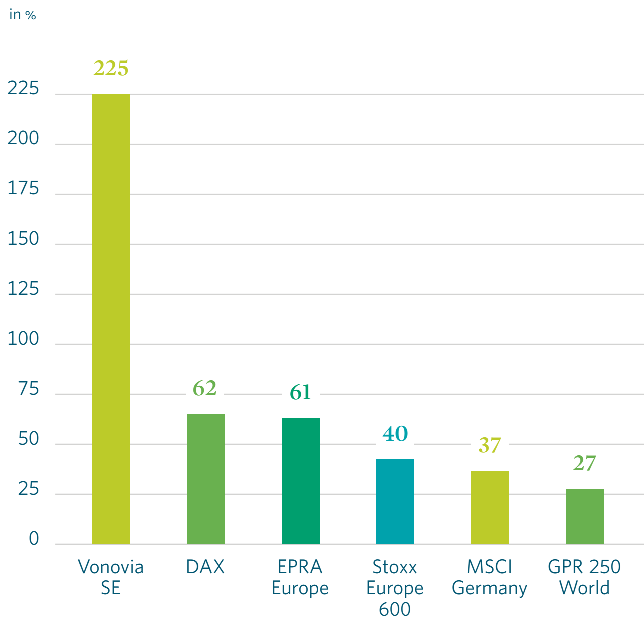
Vonovia's market capitalization amounted to around € 26 billion as of December 31, 2019.

The average trading volume for shares in Vonovia SE, expressed as the number of shares traded on Xetra, rose from an average daily trading volume of 1.38 million shares in 2018 to 1.46 million shares in 2019. Expressed in euros, shares in Vonovia worth € 66 million were traded every day on average in 2019, a figure that was up by 18% on 2018.

Long-term Yield

An investor who bought shares in Vonovia when the company went public in 2013 and has held them ever since, reinvesting each dividend in more shares in Vonovia, will have seen the value of their securities deposit account increase by approx. 225% by December 2019, achieving a result that far outstrips the performance of an investment in the benchmark indices.

Total Shareholder Return since Vonovia IPO



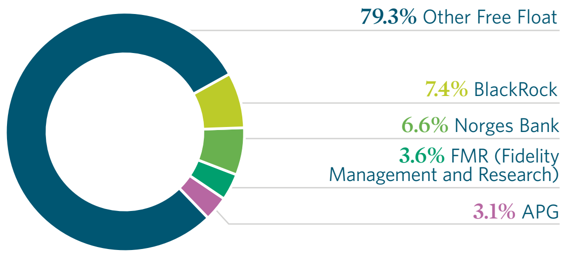
A multi-year index comparison also highlights the solid performance of Vonovia's shares.

	Vonovia SE	DAX	FTSE EPRA/ NAREIT Europe Index	Stoxx Europe 600	MSCI Germany	GPR 250 World
1 Y	21%	25%	25%	24%	20%	17%
3 Y	63%	15%	21%	15%	6%	12%
5 Y	98%	35%	29%	22%	17%	13%
IPO	225%	62%	61%	40%	37%	27%

Shareholder Structure

The chart below shows the voting rights pursuant to Sections 33 and 34 of the German Securities Trading Act (WpHG) as notified by the shareholders in relation to the current share capital. It is important to note that the number of voting rights reported could have changed within the respective thresholds without triggering an obligation to notify the company.

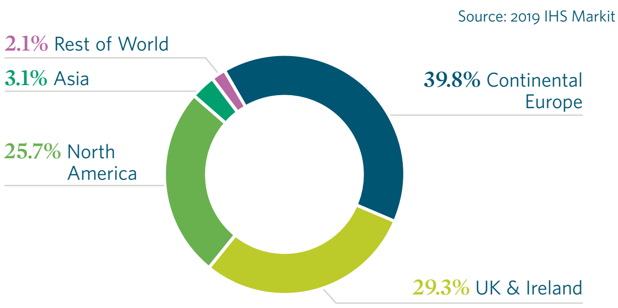
Major Shareholders (as of December 31, 2019)



Based on the German stock exchange's definition of free float, only the interest held by Norges Bank (Ministry of Finance on behalf of Norway) does not count toward the free float. This means that 93.4% of Vonovia's shares were in free float on December 31, 2019. The underlying voting rights notifications and corresponding financial instruments reported by shareholders or other instruments pursuant to Sections 38 and 39 WpHG can be found online under:
https://investors.vonovia.de/disclosure-of-voting-rights

In line with Vonovia's long-term strategic focus, the majority of its investors also have a long-term focus. The company's investors include pension funds, sovereign wealth funds and international asset managers in particular. We determine the shareholder structure once a quarter. As of December 31, 2019, we had identified approx. 95% of the share capital, with 91% attributable to institutional investors and around 4% to private investors. The breakdown of the company's shareholders by region is as follows as of the cut-off date of October 31, 2019:

Shareholder distribution of Vonovia SE (as of October 31, 2019)



Annual General Meeting 2019

The Annual General Meeting of Vonovia SE was held in Bochum on May 16, 2019. All of the agenda items were carried by a large majority, including the proposal to distribute a dividend of € 1.44 per share. The shareholders can choose whether they want to receive this in cash or as new shares. 45.75% of shareholders opted for the scrip dividend. This corresponds to a dividend yield of 3.6% in relation to the share's closing price of € 39.59 on the reporting date of December 28, 2018. The dividend for the 2018 fiscal year was paid out from a contribution account for tax purposes. It was therefore paid out to shareholders without capital gains tax or the solidarity surcharge being deducted.

Since 2018, our investor portal has given our shareholders the option to conveniently attend to all formalities relating to registering for and voting at the Annual General Meeting online. In 2019, the number of people using the investor portal rose by 67% compared with 2018. **https://investors.vonovia.de/investorportal**

Investor Relations Activities

In 2019, Vonovia participated in a total of 25 investors' conferences and organized 32 roadshow days in the most important European, North American, Middle Eastern, and East Asian financial centers. In addition, Vonovia took part in various investor forums and numerous one-on-one meetings and conference calls were held with investors and analysts to keep them informed of current developments and special issues. In 2019, we spoke to around 350 analysts and investors. In addition to questions about Vonovia and our investment strategy in major European cities, the main topics covered by our capital market communications in the reporting year included our investment program and German rent regulation.

In the fall of 2019, the Chairman of the Supervisory Board Jürgen Fitschen conducted a Corporate Governance Road Show together with the Head of Investor Relations for the second time to discuss corporate governance at Vonovia with eight of the company's largest institutional investors. The event saw two topics emerge as being particularly relevant to the company's shareholders: the Supervisory Board (composition, skills profile, etc.) and Management Board remuneration. Although corporate governance road shows are becoming increasingly popular at listed companies, they are not yet common practice. The response to the transparent information on how corporate governance is put into practice at Vonovia was very positive, and we intend to continue to organize these events at regular intervals.

This year's Capital Markets Day was held on June 5, 2019, in Frankfurt am Main and the motto of the event was "Embracing a smart world." 68 analysts and investors were able to gain an insight into how Vonovia is forging ahead with the issue of digitalization in order to boost customer satisfaction and make its business processes more efficient. The event included a deep dive into the issues of "Digitalization – Technical Property Management," "Digitalization – Customer Oriented Services" and "Strategy Execution in Southern Germany." Afterwards, participants were able to get an impression of two new construction/modernization projects in downtown Frankfurt, in the form of a property tour.

The Investor Relations team also organized and carried out numerous property tours for interested investors and analysts with colleagues from the operational areas of the company. The aim of these events was to provide the participants with firsthand insight into Vonovia's real estate portfolio and processes. Investor Relations also held detailed presentations on Vonovia and the situation on the German residential real estate market at informational events for private shareholders.

In 2020, we will continue to communicate openly with the capital market. Various roadshows, conferences and participation in investor forums have already been planned. Information can be found in the Financial Calendar on our Investor Relations website. **https://investors.vonovia.de**

Positive Analyst Assessments

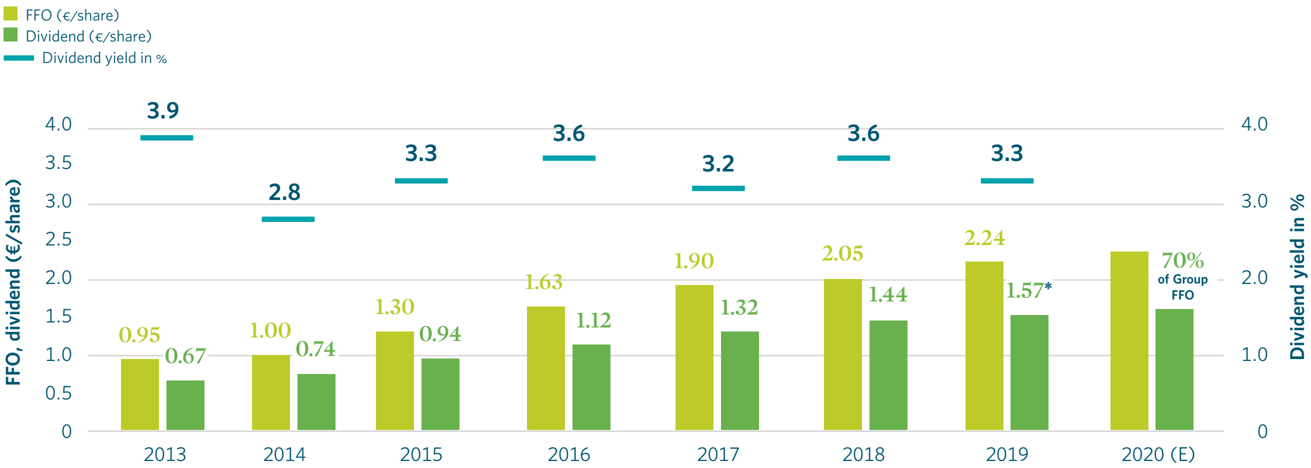
As of December 31, 2019, 27 international analysts publish studies on Vonovia on a regular basis. The average target share price was € 53 as of December 31, 2019. Of these analysts, 74% issued a "buy" recommendation, with 19% issuing a "hold" recommendation and 7% recommending that investors sell the company's shares.

For information on the banks that report on Vonovia and value its shares, please visit our website at
https://investors.vonovia.de/analysts

Attractive Dividend

The continuity of our business strategy is also reflected in our dividend policy. Our aim is to distribute around 70% of our Group FFO to our shareholders. As far as the 2019 fiscal year is concerned, we plan to propose a dividend per share of € 1.57 to the Annual General Meeting, which represents an increase of 9% as against 2018. Our shareholders have the option of choosing between receiving the dividend in cash or in shares. Last year, approx. 46% of our shareholders opted for the scrip dividend, which we interpret as evidence that our shareholders expect Vonovia to be successful in the medium and long term, too.

Attractive Dividend



FFO: 2013–2018: "FFO" corresponds to FFO 1; as of 2019: "FFO" corresponds to Group FFO. The years 2013 and 2014 are TERP-adjusted
* Planned dividend proposed to the Annual General Meeting 2020.

Successful Development of Vonovia's Shares Over a Period of Several Years

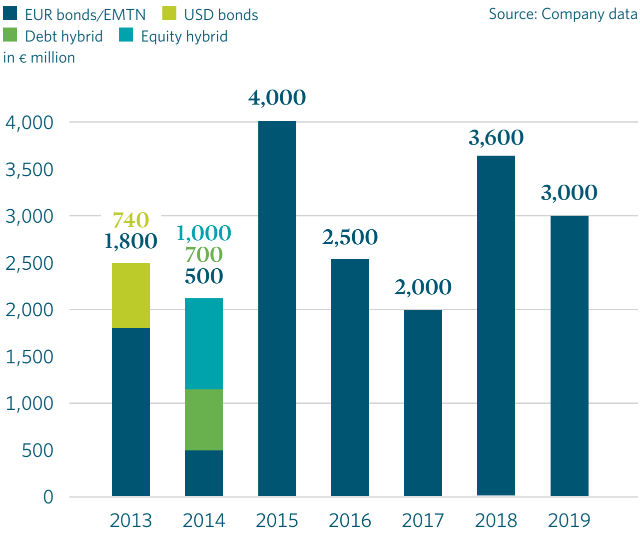
	2013	2014	2015	2016	2017	2018	2019
Annual closing price (€)	17.13*	26.75*	28.55	30.91	41.39	39.59	48.00
High (€)	18.79*	26.75*	33.23	36.81	41.88	44.70	48.84
Low (€)	16.75*	17.13*	24.19	24.99	29.96	36.20	40.00
No. of shares as of Dec. 31	224,242,425*	271,622,425*	466,000,624	466,000,624	485,100,826	518,077,934	542,273,611
Market cap as of Dec. 31 (€ billion)	3.84*	7.3*	13.3	14.4	20.1	20.5	26.0
Average transaction volume per day (VWAP in € million)	1.3*	12.3*	45.2	41.2	47.6	55.8	66.0
Dividend per share (€)	0.67*	0.74*	0.94	1.12	1.32	1.44	1.57**
Dividend yield (%)	3.9	2.8	3.3	3.6	3.2	3.6	3.3

* Values are TERP-adjusted.
** Planned dividend proposed to the Annual General Meeting 2020.
Source of share prices: FactSet

Share Information

First day of trading	July 11, 2013
Subscription price	€ 16.50
Total number of shares	542,273,611
Share capital	€ 542,273,611
ISIN	DE000A1ML7J1
WKN	A1ML7J
Ticker symbol	VNA
Common code	94567408
Share class	Registered shares with no par value
Stock exchange	Frankfurt Stock Exchange
Market segment	Regulated market
Indices & weighting: Dec. 31, 2019	DAX (2.3%) | Stoxx Europe 600 (0.3%) | MSCI Germany (2.2%) | GPR 250 World (1.8%) | FTSE EPRA/NAREIT Europe Index (9.7%) | GPTMS150 Index (2.8%)

Vonovia's Issue Volume Per Year



Financing Environment

The global economy slowed down in 2019. This was largely due, among other factors, to the international tension surrounding trade, political conflicts and the uncertainty associated with Brexit.

2019 was another year characterized by a loose, expansive monetary policy. The euro area economy lost momentum in the course of 2019. Consumer prices are not expected to increase to any considerable degree, and nor is any end to the low interest rates in the euro area in sight.

Despite the fact that the asset purchase program launched by the European Central Bank (ECB) expired at the turn of 2018/2019, the euro area remained characterized by a stable interest rate environment in 2019. The ECB did, however, continue to reinvest payments from maturing bonds in further asset purchases even after this date. In September 2019, the ECB cut the deposit rate from -0.4% to -0.5% and announced that it would be reinstating the asset purchase program in November 2019, with a monthly amount of € 20 billion. It did not set an end date for the purchase program. In addition, payments from maturing bonds are still being reinvested.

The yield on ten-year German Federal bonds fluctuated in 2019 and has been negative since May 2019.

The Federal Reserve Bank (Fed), the world's largest central bank, made a radical change to its monetary policy course within a few months, completing a swift turnaround from a tight to a loose monetary stance. This also means that the Fed has been purchasing bonds again since October 2019 in response to the economic downswing in the United States, a purchase program that it intends to continue at least until the second quarter of 2020. The Fed had also lowered its key interest rate three times in a row, starting in July, by 0.25 percentage points in each case, and recently signaled that rates would be left on hold. At the moment, the Fed has opted to stick with its interest rate corridor of between 1.50 and 1.75 percent.

One of the World's Biggest Capital Market Issuers

The rating agency Standard & Poor's has assigned Vonovia a long-term corporate credit rating of BBB+ with a stable outlook and a short-term credit rating of A-2. For the very first time Vonovia was awarded a rating of A- with a stable outlook by the Berlin-based Scope group, the market leader among Europe's rating agencies, on December 13, 2019.

Our first-class credit rating continues to give us unrestricted access to the international capital markets. With an average issue volume of € 3.0 billion a year between 2015 and 2019, we rank 14th out of the world's top 15 EUR investment grade issuers based on analyses performed by Dealogic.

Successful Financing Measures in 2019

2019 was a more successful year on the financial markets than expected for all asset classes despite disappointing development for economic indicators and the prevailing political tension.

The global investment demand among investors remained high due to the economic environment and the expansive monetary policy pursued by many central banks. In spite of global tensions, such as trade wars and the ongoing uncertainty surrounding Brexit, risk premiums on the bond markets stabilized at a low level in the second half of the year. This trend also had an impact on Vonovia's bonds.

In 2019, Vonovia placed an issue volume of € 3.0 billion in total on the primary market (2018: € 3.6 billion) at a weighted average interest cost of 1.13% by volume (2018: 1.45% p. a.). The average maturity of the bonds we issued was 10.5 years in 2019 (2018: 9.3 years). This means that we were able to make active use of the attractive market environment in 2019 in order to extend our average maturity and further smoothen our maturity profile.

Capital Markets Outlook

As Vonovia does not have any operating business in the United Kingdom, Brexit is not expected to have any direct negative consequences for the company. As a result, the potential negative implications of Brexit for Vonovia are unlikely to be material. An escalation in the trade wars could put a damper on the macroeconomic climate and the global growth outlook, possibly leading to negative repercussions on the capital markets.

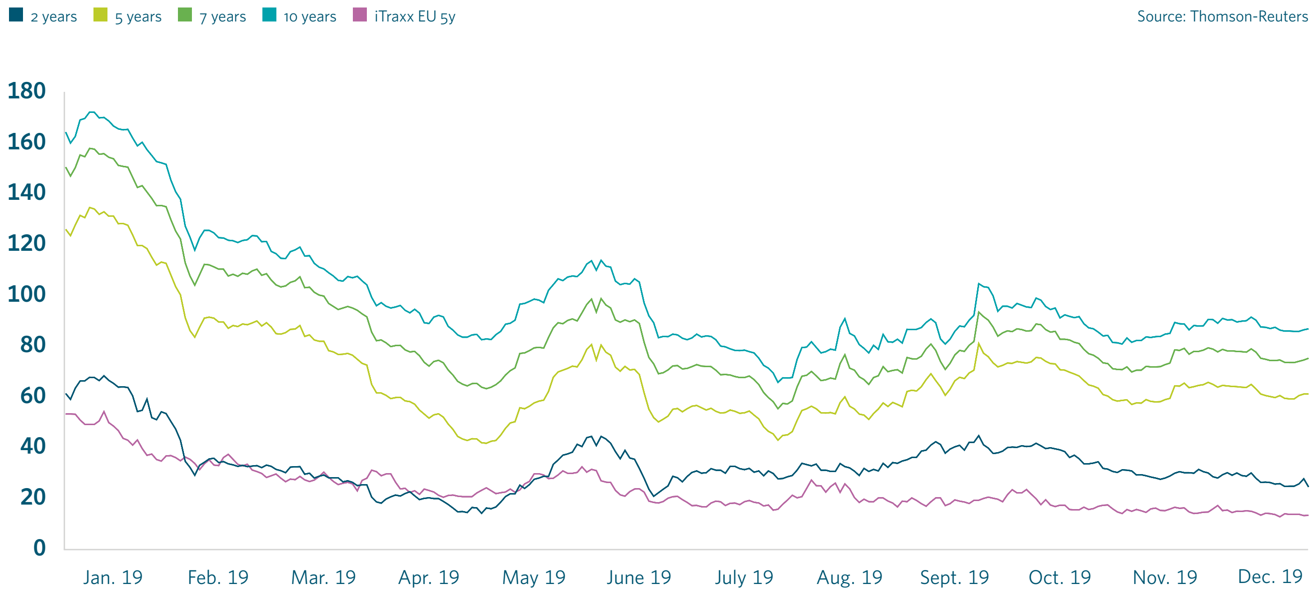
The reputation of German real estate stocks as a safe haven could be enhanced as a result of Brexit if investors opt to pull capital out of real estate stocks in the UK and seek alternative investment opportunities. This sort of increased demand could actually have a positive impact on the performance of Vonovia's shares.

In line with a large number of analysts and market participants, we expect very receptive borrowing markets and attractive financing conditions to continue in the medium term, despite a worsening but still rather attractive economic outlook and the ongoing high levels of liquidity.

With a moderate level of debt, which enables us to take out secured collateral financings, and with an investment grade rating, Vonovia's debt instruments will remain a sought-after investment – even if investment pressure is low or liquidity levels drop. We do not expect to see any direct correlation between interest rate developments and earnings given the long maturities of our financing instruments and the smooth maturity profile. Rather, it is evident that the supply/demand situation regarding the residential real estate market and, as a result, rental development has much more of an impact on earnings. This is enhanced by the results of the Value-add Business, which is unrelated to interest rates.

As far as interest rates are concerned, we do not expect to see any significant changes within the next twelve months, nor do we predict any marked increase in risk premiums, compared with the level witnessed at the end of 2019 following the reinstatement of the European Central Bank's asset purchase program.

Spread Development (in Basis Points)



Com-bined Manage-ment Report

Our operating business and income data continued to show very positive development in 2019. We developed our portfolio further and improved the services we offer. Bolstered by acquisitions, our operating earnings, Group FFO, rose by 7.7% to € 1.22 billion. In the current fiscal year we will continue successfully on this path.

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Fundamental Information About the Group

Overall Conditions on the Residential Real Estate Market

As a major residential real estate company in Germany, Sweden and Austria, Vonovia has moved into the focus of the current social debate dominated, in particular, by the topics of climate protection and the shortage of housing.

In many cities, finding affordable homes is increasingly becoming a challenge for low and middle-income households. The higher average rents in major metropolitan areas and larger cities mean that the affected tenant households are faced with disproportionately high housing costs and rental payments. At the same time, a very large number of apartments, particularly in buildings from the years of Germany's "economic miracle," are no longer in line with modern standards. This is reflected in impractical apartment cuts, a lack of suitability for senior citizens and unfavorable energy-efficiency features.

According to the latest estimates from the Federal Statistical Office, at least 42.2 million apartments are on offer for approx. 83.2 million people, or 41.4 million households, in Germany. At the time of the last microcensus (2018), the proportion of owner-occupied apartments came to around 46.5%, with rented apartments accounting for around 53.5%. The vast majority of these apartments are made available by private small-scale providers. In addition to these providers and landlords, the German real estate market features cooperative, municipal, public-sector and church landlords, as well as private-sector professional landlords such as Vonovia. According to the Association of German Housing and Real Estate Companies (GdW Bundesverband deutscher Wohnungs- und Immobilienunternehmen e. V.), the latter provided a combined total of around 3.9 million apartments at the time of the microcensus. Vonovia currently rents out a total of around 355,700 apartments in Germany. This corresponds to around 1.5% of the total number of rented apartments in Germany.

According to data supplied by Statistics Sweden, Sweden has around 4.9 million apartments for approximately 10.3 million inhabitants or 4.7 million households. Around 38% of the portfolio is made up of rental apartments, with tenant-owned apartments accounting for 23% and owner-occupied apartments accounting for around 39%. Tenant-owned apartments ("Bostadsrätt") refer to a cooperative property ownership structure that is common in Sweden. Each resident owns a share in the overall building together with a legal right to occupy a specific residential unit. Vonovia rents out around 38,000 apartments in Sweden, which corresponds to around 2.0% of the total number of rented apartments in Sweden.

According to the Austrian statistical office, Statistik Austria, Austria has around 4.8 million apartments – around 3.9 million of which are apartments used as the occupant's primary place of residence – for a total of 8.8 million people or 3.9 million households. Just under half of all of the apartments used as the occupant's primary place of residence are owned, while around 43% are rented. The remaining 9% of apartments include rent-free living arrangements as well as company apartments and rent-free tied accommodation. With around 22,500 apartments in Austria, Vonovia owns around 1.3% of the total number of rented apartments in Austria in terms of those apartments used as the occupant's primary place of residence.

Given the debate on limiting climate change, it is important to note that the total housing stock has a significant influence on greenhouse gas emissions, accounting for around 35% of the final energy consumption in Germany. This means, for example, that the commitment made by the Federal Republic of Germany under the United Nations Paris Agreement on climate change, for example, can only be realized through substantial energy-efficient modernization measures.

This ecological challenge encounters a housing industry that is characterized by stringent statutory regulations and mounting concerns among the general public that they will no longer be able to find affordable homes. Some policy-makers are trying to use further regulation to solve the problem. The debate ranges from the expansion of the rent cap to the placement of a rent freeze in Berlin and the expropriation of private-sector landlords that exceed a certain size.

The prevailing opinion on expropriation, however, is that it would do nothing to help ease the short supply of housing or provide answers to the ecological questions of the future. The increasingly overloaded regulation of the real estate sector is seen as equally harmful. The solution can only lie in a further increase in the supply of apartments in a positive investment climate. This approach also has to be part of a broad-based social consensus and accompanied by moves to drastically reduce the level of bureaucracy, particularly for new construction measures. Restrictions on modernization measures as a result of further regulation and the lack of consensus regarding how the costs should be distributed also damage the climate protection objectives set by the Federal Republic of Germany.

Societal Megatrends

Vonovia has a solid business model that provides answers to the ecological and sociopolitical challenges facing us today and has the potential to contribute to the solutions. The strategy developed at the time of the company's initial listing has proven successful and is flexible enough to allow Vonovia to adapt to the current challenges.

Vonovia believes that the main **megatrends** affecting the residential property market are (1) climate change and the drive to avoid fossil fuels with the aim of limiting emissions that are harmful to the environment, (2) urbanization and the associated shortage of housing, (3) integration within society as a result of social change, also due to migration to Germany, and (4) demographic change and the demand for housing that meets the needs of today's society. Greater emphasis also has to be placed on digitalization in customer relationships, in internal processes and in the area of home automation.

(1) **Climate change** is one of the biggest and most pressing challenges of our time. As a society, we are called upon to limit man-made global warming to well below 2° C compared with pre-industrial values. One of the moves taken by the German federal government to achieve this is the ratification of the 2015 Paris Agreement, which is binding for the Federal Republic of Germany under public international law. We support these climate targets. As far as the housing stock is concerned, this means being virtually climate-neutral by 2050. Energy-efficiency refurbishments have the potential to make a considerable contribution in this regard. Despite diminishing public acceptance for intensive measures, Vonovia most recently refurbished approximately 3.7% of its portfolio per year to meet the latest standards in energy efficiency, outpacing considerably the national renovation rate of around one percent. Technical innovations, investments in renewable energy and new technologies also play an important role. Vonovia will continue to ensure that its tenants are not overwhelmed financially, while at the same time finding solutions to reduce the CO_2 emissions of its housing stock. There is a need for a new social consensus for these issues in order to ensure that the costs associated with achieving the climate targets are distributed fairly.

(2) The **shortage of housing** in Germany is particularly evident in the country's metropolitan areas. As an example, despite the high demand for homes, only 71% of the required apartments were completed in Germany's seven largest cities in the period between 2016 and 2018. This shortage of housing means that the vacancy rate is now close to zero on the real estate markets in the country's top locations. As a result, rents in the country's major metropolitan areas are growing at a faster rate than wages, meaning that the burden associated with housing costs is growing disproportionately. What is more, an increasing number of apartments are losing their social housing status. In order to ensure that individuals are not overstretched financially, Vonovia has made a number of voluntary commitments. These measures are supported by a dedicated hardship management team. Germany, however, is not the only country affected by a shortage of housing. In Sweden, too, construction activity was, for a long time, unable to keep up with population growth. Although residential construction activity in Austria has been geared toward addressing the considerable shortage of supply on the residential property market for some years, Bank Austria reports that there are still substantial supply gaps in some market segments, especially the segments for more affordable rental apartments.

On the one hand, Vonovia is using vertical expansion and densification in existing neighborhoods to create new apartments in areas that it already owns. On the other hand, it also plans to use development measures as part of new construction projects to create new homes, both homes to be managed by the company itself and homes for sale.

(3) Through the influx of people from different cultural backgrounds as well as the internal migration toward the country's urban areas/high-influx cities, new lifestyles often meet those of the long-time population. This development impacts the social cohesion of the neighborhoods concerned. Insufficient social diversity and

mounting tension in the day-to-day interaction between residents in these neighborhoods also have to be tackled in a responsible manner. **Integration** is the order of the day. Vonovia is living up to its responsibility in this area by taking targeted neighborhood development measures, i. e., it is developing its housing stock both by making investments in the residential environment, and also by investing in neighborhood and social structures with suitable cooperation partners.

(4) People's housing needs are evolving. The population in Germany, but also in Sweden and Austria, is becoming increasingly older in terms of the proportion of people over 65 years, a trend that is presenting the housing industry with considerable challenges, particularly when it comes to **senior-friendly homes**. The number of households is also rising considerably in all three countries, primarily due to a growing number of single and two-person households. This development is fueling even greater demand for apartments to accommodate smaller households. Migration patterns within Germany, for example, and immigration from abroad are increasing the demand for suitable and affordable housing in conurbations even further. These changes affect an aged portfolio built under different conditions. That's why we convert at least every third existing apartment that is newly rented to be senior friendly and ensure that vacant apartments are refurbished and spaces are redesigned to be fully accessible or barrier-free. People over the age of 70 also enjoy special protection as a result of the voluntary commitments made by Vonovia.

Another important development is the digital transformation, which is also having an increasing impact on Vonovia's business model. We evaluate **digitalization** and the benefits that it offers with regard to our customers and the optimization of our processes. In our new construction activities, we are using Building Information Modeling (BIM) solutions. All stages of our process and value chain are connected via our management platform. This facilitates ongoing improvements in how we interact with our customers using corresponding apps and portal solutions, and in the coordination of the local customer service, the craftsmen's and residential environment organization and the commercial support functions. We are also making use of the advantages offered by innovative process automation, including "robots." A real milestone in the service strategy at Vonovia is the new tenant app. Service assignments and damage reports can be processed simply and conveniently using the app and consulted around the clock. All key documents are available in the mobile inbox, with our customers receiving information on all of Vonovia's housing-related services. We are also, however, increasingly seeing approaches for smart home building solutions, from smart grid to assistance systems and predictive maintenance. Another example is the cutting-edge technology that Vonovia uses to monitor elevators in its buildings. Vonovia is not pursuing digitalization as an end in itself, but rather to boost customer satisfaction, improve the basis on which decisions are made, further enhance the efficiency of its business model and reduce the use of resources.

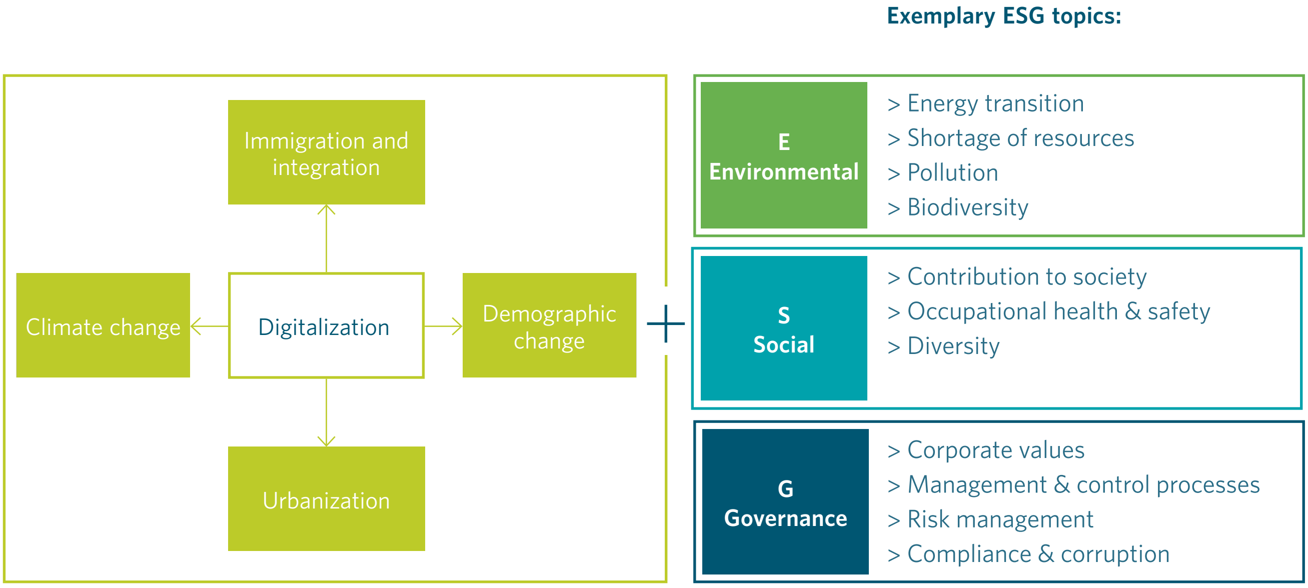
The Company

Vonovia's **business model** is based on the rental of good-quality, modern and, most importantly, affordable homes, the development and construction of new apartments, both for its own portfolio and for sale to third parties, and the provision of housing-related services. These housing-related services mainly include the caretaker organization, the craftsmen's organization, the residential environment organization, multimedia services and metering services. The option to have cable TV, bathroom renovations in response to tenant requests, automated meter reading and senior-friendly apartment modernization are also included.

Vonovia manages a housing stock of around **355,700 of its own apartments** in almost all of Germany's attractive cities and regions. It also manages a portfolio of around 38,000 units in Sweden and approximately 22,500 in Austria. The total fair value comes to around € 53.3 billion, with net assets based on the EPRA definition coming to approximately € 29.7 billion (European Public Real Estate Association EPRA). In addition to its own apartments, Vonovia manages around 78,700 apartments for third parties. This makes Vonovia one of the leading residential real estate companies in Germany, Sweden and Austria, albeit with a very low market share of around 1.5% in Germany due to the highly fragmented nature of the market.

The **age structure** of Vonovia's German portfolio of approximately 355,700 apartments shows that around 69% were built between 1945 and 1980. Around 15% originate from the period before the Second World War, while around 16% were built after 1980. Of these, approximately 1% were built after the year 2000. Vonovia's roots and those of its predecessor companies extend back into the 19th century and lie in not-for-profit housing and housing for factory workers in Germany's Ruhr region. These properties were transferred to private equity investors as part of the liberalization and privatization of the real estate market. At the time of the initial listing, Vonovia ultimately had an outdated housing portfolio for which substantial maintenance and modernization measures were long overdue. This resulted in serious housing shortcomings and, therefore, persistent complaints being lodged by tenants to the detriment of the company's reputation.

A Large Number of Issues are Related to Sustainability



Source: BlackRock; Gabler Wirtschaftslexikon

As a sustainable and responsible residential real estate company in Germany, Sweden and Austria, Vonovia believes that it has a particular obligation toward its customers, but also toward society and its shareholders. In all of its three core markets, Vonovia takes **responsibility** as a provider of affordable housing and as a service provider, building contractor and developer as well as in its role as a corporate citizen. Sustainability is an integral part of our business model. Our **customers** and the **sustainability** of our business activities are both at the center of our strategy. Vonovia's business model allows it to **provide answers and solutions** to issues such as the shortage of housing and climate protection – also by creating **new homes**. Vonovia makes a decisive contribution to solving the current issues facing society with homes and neighborhoods that have undergone energy-efficient and senior-friendly modernization measures and meet state-of-the-art standards, as well as by implementing vertical expansion projects and building new homes.

Sustainability is first and foremost about ensuring that the company has a **license to operate**, meaning that its business model is comprised of corporate activities that are of benefit to society as a whole. The conviction that only those companies whose activities benefit society overall will be able to operate successfully in the long run and enjoy acceptance is becoming increasingly established. This is why sustainability for Vonovia is about operating to ensure that our business activities create long-term benefits for society as a whole and that the company earns society's tacit license to operate in the long term.

Vonovia's **business model** offers a large number of approaches as far as sustainability is concerned. Our efforts to maintain and develop our residential properties, as well as to ensure customer satisfaction, are already examples of long-term, sustainable business activities. In addition, Vonovia has made an explicit commitment to the **17 UN Sustainable Development Goals (SDGs)**, all of which have an impact on the company's business model in one way or another. The resulting focus on environmental, social and governance issues as well as our commitment to keeping a close eye on the impact that our business activities have are associated with these endeavors.

(E) Environmental: Our environmental commitment refers to our energy-efficient building refurbishment measures, the use of renewable energy, ecological and social supply chain management, sustainability in the use of construction materials in our modernization and new construction measures as well as moves to ensure biodiversity when it comes to designing green spaces and residential environments. Specifically, Vonovia has set itself the environmental objective of a renovation rate of 3%, as well as launching the "1,000 roofs" photovoltaic program.

(S) Social: Vonovia's social commitment includes the provision of affordable and suitable homes, while at the same time complying with an appropriate level of regulations and adhering to voluntary commitments. At the same time, we aim to ensure that our neighborhoods, i. e., our tenants' living environments, are designed as part of an integrative process that our customers are invited to participate in. Our social commitment, however, also involves our measures aimed at our employees and our efforts to value the diverse contributions that they make. Vonovia has set itself the objective of improving its customer satisfaction levels, measured based on the **Customer Satisfaction Index (CSI)**, on an ongoing basis, or at least to ensure that customer satisfaction does not deteriorate. It also aims to ensure that 30% of its senior executives are female by 2021.

(G) Governance: Governance means acting in accordance with the principles of lawful and responsible management, protecting human rights and ensuring sustainable financing in the process. The company is also aiming for a Supervisory Board that is 30% female.

As Germany's leading residential real estate company, Vonovia maintains close dialogue with its numerous other stakeholder groups that are important for the company's development. These mainly include its employees, investors, suppliers and service providers, as well as social interest groups, including non-governmental/non-profit organizations. We also use our **sustainability reporting** to meet these stakeholders' expectations in terms of information. In order to live up to our responsibility in every respect, we use our sustainability reports to set out not only economic, but also ecological and social aspects and decision-making parameters for Vonovia.

Corporate Structure

Vonovia SE, the parent company of the Vonovia Group, is organized in the legal form of a **dualistic European company (SE)** and is domiciled in Germany. Vonovia SE is directed by a Management Board, which is responsible for conducting business and defining the Group's strategy. Implementation occurs in close coordination with the Supervisory Board, which is regularly briefed by the Management Board regarding the development of business, strategy and potential opportunities and risks. The Supervisory Board oversees the activities of the Management Board.

Vonovia is entered in the Bochum company register (company register no. HRB 16879). The company's registered headquarters are in Bochum, Universitätsstraße 133. As of December 31, 2019, 620 legal entities/companies formed part of the Vonovia Group. A detailed list of Vonovia SE shareholdings is appended to the Notes to the consolidated financial statements. → p. 234 et seqq.

Vonovia SE performs the function of the **management holding** company for the Group. In this role, it is responsible for determining and pursuing the overall strategy and implementing the company's goals. It also performs property management, financing, service and coordination tasks for the Group. Furthermore, it is responsible for the management, control and monitoring system as well as risk management of the Group.

In order to carry out its management functions, Vonovia SE has established a series of **service companies**, particularly for commercial and operational support functions, which are centralized in shared service centers. By pooling the corporate functions on a uniform service platform, Vonovia achieves harmonization, standardization and economies of scale objectives, and the other Group companies thus do not need to perform such functions themselves. This bundling is a prerequisite for the efficient and effective management of a portfolio of approximately 355,700 apartments. Furthermore, this structure is a prerequisite for the successful digitalization of the process chains. In the development business, dedicated companies are often set up for **development projects**. In Sweden and Austria, the business is managed by country-specific organizations that are set up based on the same model.

The management of the operating business is based on the company's strategic approaches and is conducted via the four **segments**: Rental, Value-add, Recurring Sales and Development. Details on the management of our business can be found in the chapter Management System. → p. 86 et seqq.

Vonovia's Scalable Organizational Model: Strong Regional Presence and Efficient Central Shared Services

Central	Regional	Shared service
Portfolio Management > Invest program management > Rent calculation & management > Rent performance management	**Asset Management** > Strategic development of local portfolio > Stakeholder management	> Finance/tax > Accounting > Controlling > Legal > IT > HR > Communication
Central Property Management > 24/7 customer service > Rental contract management > Field service disposition > Property-related accounting services	**Property Management** > Field services > Caretaker organization > Letting organization **Value-add Management** > Technical service > Modernization > Residential environment	

Vonovia's core **operating rental business** in Germany is now divided into four business areas following the introduction of a new regional structure as of the third quarter of 2019. These business areas are split into regional areas, which are in turn split into individual regions. Each region is responsible for an average of around 5,100 local residential units. The optimization of our management structures resulted in the East and Southeast areas and the Central and West areas being consolidated, reducing the total number of business areas from six to four accordingly. The level comprising the regional areas acts as an interface between the management and the regional managers responsible for the regional portfolios. The measure is aimed at allowing us to respond better to strategic Rental issues on site, as the regional managers are responsible for a smaller number of apartments, meaning that they are closer to our customers. The caretaker, craftsmen's and residential environment organization is also based on a regional structure.

Responsibility for the other activities that belong to the Value-add Business, i. e., in particular product management, such as metering and energy services, and portfolio management, such as vertical expansion and modernization, is centralized. This also applies to activities relating to sales and acquisition.

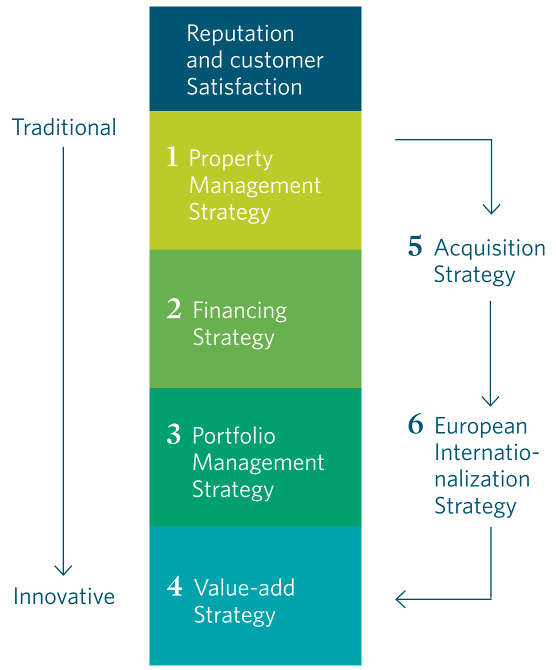
The **development business** is also managed centrally for both Austria and Germany.

Strategy

The 4+2 Strategy

A comparison with the residential property markets in neighboring European countries shows that Germany has an efficient real estate market. We have also been able to successfully establish the expertise acquired in this market environment in the European housing markets in Sweden and Austria. Our strategy comprises four basic approaches: **property management, portfolio management**, the **financing strategy** and the innovative aspect of the **Value-add strategy**. These four basic strategic approaches entail an increasing proportion of innovative elements for our target European housing markets.

The 4+2 Pillars of Our Strategy



1 Management platform/Austrian client/digitalization
2 LTV/financing strategy/financial risk management
3 Portfolio management/recurring sales and non-core disposals/investment strategy/development and new construction
4 Housing and property-related services/business development/digitalization
5 Opportunistic acquisition strategy Germany
6 Austria/Sweden/France

A further pillar, our **acquisition strategy** is designed to strengthen the impact of the first four strategic approaches as the opportunity arises. The **internationalization strategy** rounds off our strategy and is based on the approach of tapping into other European markets as and when an opportunity presents itself.

In detail, our 4+2 strategy elements can be described as follows:

Property Management Strategy

The core element of the property management strategy is the scalable **management platform**, which benefits primarily from its customer and region-oriented management, the Group-wide bundling of services in shared service centers, the appropriate automated systems, and cost-efficient operations. The aim of continuous improvements to the management platform is to improve the quality and efficiency of customer service. Handling the complexity of Vonovia's large nationwide real estate portfolio is the focal point within this context. The "cost per unit" (cpu) is our benchmark. We use our management platform to manage the maintenance and modernization process, as well as procurement. As part of the further development, we keep a constant eye on digitalization developments to generate further optimization potential for our platform and our customer service. The Austrian and Swedish portfolios are managed by their own respective country-specific organizations. Both organizations aim to rival the standards set by the successful management platform that has already been established in Germany.

Financing Strategy

The financing strategy pursues various, complementary goals: These are centered on ensuring adequate, but also optimized, liquidity at all times, a balanced structure and maturity of debt capital, optimization of financing costs and credit rating maintenance. Our aim is to maintain an ideal level of debt, measured in a **loan-to-value** ratio of between around 40-45%.

Thanks to its broad range of equity and debt capital providers and the **BBB+**/Stable/A-2 long-term corporate credit ratings awarded to our company by S&P as well as the A-rating received from the largest European rating agency, Scope Group, our company has excellent access to the international debt and equity capital markets. This gives us flexible access to capital based on favorable financing conditions at all times, securing Vonovia's liquidity on a permanent basis.

This comprehensive access to the international debt and equity capital markets gives a European residential real estate company a clear strategic competitive edge. This was recently evident in the context of our acquisitions and the successfully implemented modernization programs. Without fast and free access to the equity and debt capital markets, it would not have been possible to carry out these measures.

The latest acquisitions expose Vonovia to country risks, and it is also exposed to a currency risk due to the acquisition of Victoria Park and Hembla in Sweden. The new challenges arising from this have been incorporated into the financing strategy.

Portfolio Management Strategy

On the one hand, we split our German real estate portfolio into the "Strategic" portfolio, which focuses on value-enhancing property management and the "Operate" and "Invest" subportfolios. On the other, there is the "Recurring Sales" portfolio, which is aimed at selling residential property ownership to tenants, owner-occupiers and capital investors, and the "Non-core Disposals" portfolio, which includes locations and properties that are not absolutely essential to the Group's further strategic development.

In the "Operate" subportfolio of the "Strategic" portfolio, we aim to further increase the value of the properties by carrying out sustainable maintenance measures, increasing rents and reducing vacancy levels. In the "Invest" subportfolio, we are generating additional added value by implementing an extensive program of investments that responds to climate protection concerns and focuses on investments in energy-efficient renovation. Most of our investments are in heat insulation for facades and roofs, as well as in new windows and heating systems. When it comes to investing in our apartments, our measures to improve residential standards are based on our customers' needs. As well as modernizing and renovating bathrooms, installing new flooring and offering modern electrical installations, this also includes the demand for senior-friendly fittings.

We want to create new homes in our portfolio in the future as part of our densification strategy, using a combination of vertical expansion and new construction on existing land. New construction and vertical expansion projects are frequently realized using a standardized series construction system with the help of pre-configured segments, making them much quicker to complete. A serial approach for new construction work using pre-configured elements allows standardization and scaling at a low cost, while ensuring reliable project implementation at the same time.

The portfolio management strategy also includes the activities of the development business on land purchased specifically for this purpose, adding another profitable element to Vonovia's value chain. The acquisition also results in the transfer of substantial expertise between the development business and Vonovia's established new construction and vertical expansion activities. The development business includes the construction of owner-occupied apartments for sale to investors and owner-occupiers, as well as the construction of rented apartments to be managed by the company itself. These activities will continue to be performed under the established BUWOG brand in the future. The activities aimed at the privatization of owner-occupied apartments focus on Austria, in particular.

We break our overall portfolio down further into the "Germany", "Austria" and "Sweden" portfolios. This allows us, on the one hand, to take account of specific national features while enabling us to identify synergy potential between the individual countries on the other. The home ownership rate in Sweden, for example, is higher than in Austria and much higher than in Germany, but comparatively low in a European comparison. Whereas our new construction measures in Germany are aimed primarily at expanding the portfolio of homes to be managed by the company itself, we are increasingly developing condominiums in Austria for sale to investors and owner-occupiers. In the future, we also aim to apply our established expertise gained from the development business in Germany and Austria to an even greater extent in Sweden.

Value-add Strategy

The Value-add strategy supplements our core business to include customer-oriented services, e. g., services that are closely related to or influence the rental business. As part of this strategy, we continually evaluate additional service ideas to boost customer satisfaction and add the corresponding services to our offering. Those areas of the Value-add strategy that have already been established successfully largely include the caretaker organization, the craftsmen's organization, the residential environment organization, multimedia services and metering services. In addition, we are expanding our services into the areas of energy generation and supply and home automation.

The capability of having our own craftsmen's organization cover the entire portfolio, in particular the maintenance and modernization services, allows us to make the residential units more attractive in general and help to boost customer satisfaction. In addition, our residential environment organization consisting of our own employees is responsible for looking after outdoor areas, green spaces, playgrounds and refuse collection points within our properties, particularly in conurbations. Our own caretaker organization, which we have established in recent years, provides on-site support for our existing properties. This systematic insourcing allows us to increase the proportion of services we provide ourselves on an ongoing basis, allowing us to ensure that our own employees are on site in the various property locations. Especially in a nationwide portfolio that is as large as Vonovia's, improved reaction times to customer inquiries and the easier coordination of services, combined with craftsmen's availability that is ensured thanks to insourcing and the associated quality assurance of repair work translate into higher levels of customer satisfaction.

Vonovia's Value-add strategy is rounded off by the condominium administration business, property insurance and the management of properties for third parties.

Acquisition Strategy

Vonovia has been growing in recent years thanks to a large number of acquisitions. The current takeover of Hembla AB now means that we are also the biggest landlord in Sweden. Our scalable operational management system allows us to achieve harmonization and generate economies of scale from the full and swift integration of newly acquired companies and portfolios. The management platform that has been tried and tested in Germany was applied to Austria as part of the BUWOG integration process, meaning that Germany and Austria now use the same processes – whenever feasible and sensible – as part of a joint IT environment.

Making the most of this competitive advantage and using the expertise that has been built up within our organization over time, we are constantly analyzing portfolios that could constitute potential takeover targets. In accordance with our portfolio management strategy and the Value-add strategy, we do not consider acquisitions to be the only way in which to achieve growth, but rather see them as key additional strategic levers that help to strengthen the impact of our core strategies.

We pursue our acquisitions **as and when opportunities present themselves**. Acquisitions have to be expected to increase value before they are conducted. Such increases in value are generally assessed in terms of strategic suitability, increases in EBITDA Rental yield per share and a neutral impact on the NAV per share; these are funded by 50% equity and 50% debt. Furthermore, an acquisition must not pose any risk to the company's stable BBB+ long-term corporate credit rating. EPRA is currently revising its best practice recommendations and the EPRA NAV and, as a result, the NAV/share referred to above are likely to be replaced with a similar metric.

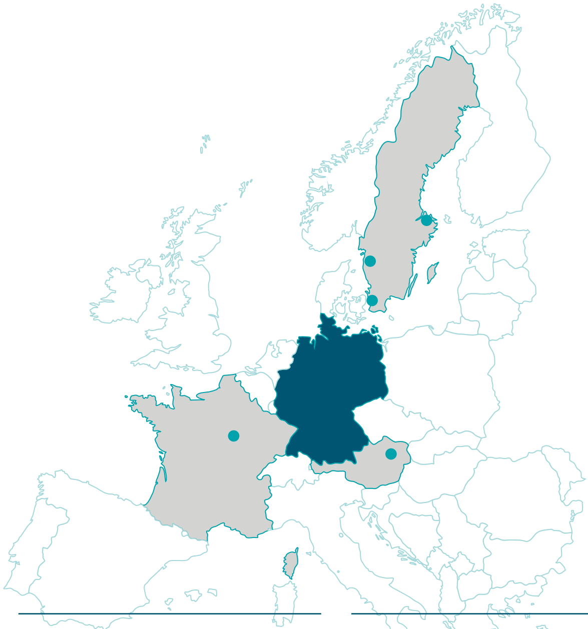
Despite the shorter supply of attractive portfolios, Vonovia remains committed to the implementation of its acquisition strategy, as there are still opportunities for successful takeovers and integration measures available.

European Internationalization Strategy

Our experience and expertise as one of the leading real estate companies on three European markets (Germany, Sweden and Austria) serves as a reference in order to generate added value by tapping into other **European markets**. The potential target markets include those that are not yet as professional as the German real estate market, and those that offer attractive overall conditions in terms of rental market growth and household growth.

Any activities on other European markets are performed by making targeted direct investments, such as in Sweden and Austria, but also, as an alternative, via high-profile and reliable joint venture partners in the first instance, which is the approach pursued on the French market. This will involve making contact with European partner companies, corresponding investors or political institutions in order to help accurately assess investment opportunities, cooperation options and opportunities for market entry. Vonovia will pursue its internationalization strategy as and when opportunities present themselves. Our activities on other European markets must not impact on our domestic business and must entail risk potential that can be controlled or limited.

European Markets



France	Germany	Austria	Sweden
Île-de-France (greater Paris)	15 urban growth regions	Vienna (mainly)	Stockholm, Gothenburg, Malmo

Non-financial Declaration

Explanatory Information on the Content of the Report and the Framework

Corporate reporting is undergoing a process of far-reaching change, moving away from an exclusive focus on financial key figures and toward the provision of an integrated, entrepreneurial overview that takes into account the information needs of other interested parties, explicitly including topics relating to sustainability. New national and international reporting provisions are being established alongside the traditional standards set out in the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). Going forward, further changes will arise as a result of the second shareholders' rights directive (ARUG II) and the revised German Corporate Governance Code (GCGC). Digitalization is another factor that is increasingly influencing the manner in which companies report. These developments reflect the wider range of interests among financial market stakeholders, who are increasingly looking at non-financial key figures and sustainability aspects in order to comprehensively assess a company's performance.

Ever since the CSR Directive Implementation Act (CSR-RUG) came into force in 2017, Vonovia SE's corporate reporting has included a Non-financial Declaration, which has its legal basis in Sections 289a–e HGB in conjunction with Section 315b–c HGB (combined Non-financial Declaration).

This Non-financial Declaration is our way of responding to the changes referred to above. We also see it as an opportunity to showcase the company's ability to perform in the area of sustainability to other interested stakeholders. The Declaration contains information on the main aspects of interaction between the company and the Environmental, Social and Governance framework. The Declaration is addressed to all of the company's stakeholders and is designed to demonstrate Vonovia's firm commitment to the greater good. Specifically, the Non-financial Declaration has to include statements on environmental issues, employee and social issues, respect for human rights and moves to combat corruption. In order to avoid data redundancy, reference is made, where appropriate, to other sections of the management report that contain non-financial information. In order to appropriately address the vast range of sustainability measures, Vonovia publishes a separate Sustainability Report in addition to this Non-financial Declaration. The Sustainability Report contains further extensive information on individual non-financial topics as well as corresponding project examples and key figures. It will be published in April 2020 for the 2019 reporting year.

The Non-financial Declaration is largely based on the structure of Vonovia's Sustainability Report. This is, in turn, structured based on the GRI Standards of the Global Reporting Initiative (as valid in 2016) in accordance with the "core" option. The Sustainability Report is also based on the EPRA Best Practice Recommendations on Sustainability (in its third version from 2017).

The Non-financial Declaration has to report on the main relevant non-financial performance indicators, their individual target values and the underlying concepts. This information is set out in the individual chapters, which are structured by content. Not all of the performance indicators included in this Declaration correspond to the GRI set of standards. Rather, some of them have been adapted to reflect the specific circumstances prevailing in the housing industry.

As with other sections of this Annual Report, reporting in the Non-financial Declaration is also on a consolidated basis. This means that the company's activities in Austria and Sweden (with the exception of Hembla) are also covered by this Non-financial Declaration. This initially concerns the qualitative presentation of the non-financial information of the acquired groups of companies. Due to the ongoing integration of the corresponding processes, the full consolidation of the key performance indicators is still in the implementation phase. We will refer to the extent to which the key figures have been integrated in the following chapters.

The Non-financial Declaration will be reviewed by the internal auditor of Vonovia SE on behalf of the Supervisory Board.

Business Model and Risk Assessment

A Sustainable Business Model – Serving the Greater Good With Purpose

As a residential real estate company, Vonovia is part of society. Our activities are guided by the principles of the social market economy and, in addition to the financial aspects, it has taken social factors into account as well; after all, a home is a basic human need.

This is why we take responsibility for safe, good-quality and affordable housing and offer **homes for everyone**. For us, this means providing needs-based and good living standards, an intact residential environment that protects our climate and biodiversity, and neighborhoods that are functioning and appealing at the same time. Then, there is our commitment to building new apartments. Our activities focus on our customers and their needs. We offer long-term benefits for society and nature – and make an active contribution to the greater good.

In this respect, the **social acceptance** of our activities is of particular importance. Sustained earnings power can only result from a sustainable and socially accepted business model. This is why we take social discourse on how housing should be organized very seriously and actively (help) shape developments. After all, the challenges facing the housing market can only be solved in a joint effort involving all social and political players. As a general rule, we include all stakeholder groups in these discussions and launch local and supraregional dialogue formats.

We revamped our **business philosophy** in 2019. In it, we show what we stand for at Vonovia and where we see our role in society. It serves as a guiding framework for our company's employees and external stakeholders alike. In addition, it also sets out the values we want to be measured against. **https://www.vonovia.de/en/geschaeftsverstaendnis**

The corporate strategy and structure of Vonovia SE has been further explained in the chapter entitled Fundamental Information About the Group. → **p. 54 et seqq.** The corresponding non-financial performance indicators are set out in more detail under Management System. → **p. 86 et seqq.**

An Extensive Risk Assessment

According to CSR-RUG, material risks associated with the corporation's own business activities which are very likely to occur and which could have challenging negative effects on non-financial topics and, as a result, on the business model must be reported. We identify potential risks relating to areas such as corporate governance, society and the environment as part of our comprehensive risk management system. These risks are identified in both gross and net terms.

In the opinion of Vonovia's management, there are **no risks** that meet the materiality criteria pursuant to Section 289c (3) Nos. 3 and 4 HGB in net terms. We have provided detailed information on other risks in the opportunity and risk report of the combined management report. → **p. 125 et seqq.**

Key Sustainability Aspects at Vonovia

Establishing Sustainability Within the Company

The individual responsible for the issue of sustainability is the **Chief Executive Officer** of Vonovia SE, Rolf Buch. The Audit Committee in particular handles sustainability on behalf of the Supervisory Board. The operational processing of sustainability-related issues is performed via the staff positions and line functions of Vonovia SE. Those who share responsibility ensure that the agreed measures are implemented in the course of day-to-day business.

In order to ensure that sustainability issues can be tackled in a more structured, cross-departmental manner and to expand our dialogue with stakeholders, the function of a **sustainability specialist** was established in 2017. General topics such as sustainability reporting, corporate citizenship, adjustments to relevant guidelines and the development of interfaces with relevant company processes are handled there on a centralized basis.

There are comparable staff functions in Austria and Sweden – the function at the BUWOG companies involves responsibility for the Austrian market and the development business, while the function at Victoria Park AB focuses on HR & CSR.

Identifying Key Sustainability Topics Based on the Business Model

Vonovia deals in a continuous and structured manner with foreseeable developments in European real estate markets and within society and analyzes how they will affect Vonovia's business and its value creation. We also address topics that we can use our business model to influence. We involve our stakeholders in identifying issues that we consider important sustainability topics.

As a result, Vonovia has identified the key topics that it wants to focus on in its sustainability reporting. The focus was on ensuring that the topics selected have a direct link to Vonovia's business success and financial development as well as an impact our company's value creation. At the beginning of 2017, we conducted a stakeholder survey to validate these topics as part of a **materiality analysis**. The survey participants included representatives of the capital market, tenants, employees, suppliers and service providers of Vonovia as well as representatives from authorities, the world of politics, associations, civil society and academia.

The results of this analysis were translated into a **materiality matrix** and the topics were classified into four areas: sustainable corporate governance, society and customers, the environment and employees.

They comprise the **five general aspects** covered by the CSR-RUG law:

> Combating corruption and bribery (sustainable corporate governance)
> Respecting human rights (sustainable corporate governance)
> Social issues (society and customers)
> Environmental issues (the environment)
> Employee issues (employees)

Vonovia has not identified any other relevant aspects.

In an international reporting context, sustainability issues are generally assigned to three categories: E (Environmental), S (Social) and G (Governance). In order to ensure that our report is consistent with these requirements, we have combined the "Society and Customers" and "Employees" areas into the "Social" category below. The "Environmental" section deals with environmental issues, while the area of sustainable corporate governance falls under "Governance."

A revision of the material topics that we cover is required – first of all due to the acquisition of BUWOG and Victoria Park in 2018 and the associated internationalization and expansion of our activities in the development business and, second, in response to the social debate on the issue of social housing and climate change. As a result, Vonovia will be conducting **a new materiality analysis in 2020** that takes into account the changes in the overall conditions and also to reflect the United Nations Sustainable Development Goals (SDGs).

Aspects of the Non-financial Declaration

Environmental – Climate and Environmental Protection

The topics of climate and environmental protection are becoming much more important – and not just in the eyes of the public. In Germany, the federal government responded to this by implementing a **climate action package** in late 2019 designed to allow the country to meet the objectives set out in the 2015 Paris Agreement. The package created a statutory basis for sector-specific climate targets and CO_2 pricing for the very first time. As far as the buildings sector is concerned, this means slashing greenhouse gas emissions in Germany by almost 39% from 118 million metric tons in 2020 to 72 million metric tons in 2030. Vonovia intends to live up to its responsibility in this area and supports the federal government's climate protection targets. The long-term aim is to achieve a **virtually climate-neutral housing stock** by 2050.

Within this context, the topic of **biodiversity** is also becoming increasingly important – be it with regard to species protection, adjusting to the implications of climate change or regarding the responsible use of natural resources. Here, too, Vonovia is actively committed to creating an ecologically valuable residential environment.

Climate and Environmental Protection in Our Portfolio

Climate and environmental protection in our properties includes issues such as energy efficiency and reducing greenhouse gas emissions in the portfolio, environmental protection in the portfolio and environmental protection in connection with renovation and new construction measures (see Materiality Matrix → p. 68).

Vonovia contributes to greenhouse gas emissions via the construction and operation of residential buildings. The overwhelming proportion of these emissions are attributable to existing buildings. Although we can only influence the energy and resources that our tenants consume to a limited extent in our role as landlord, **energy-efficient building upgrades** and moves to **replace inefficient heating systems** are the biggest lever that our company has when it comes to reducing energy consumption – and, as a result, greenhouse gases. As a result, Vonovia is sticking to the target set back in the 2017 Annual Report, in which it pledged to perform energy-efficient refurbishment measures on at least three percent of its own buildings every year. The energy-efficient modernization measures focus on heat insulation for facades, basement ceilings and attics, the replacement of windows and the installation of new heating boilers. We pursue a needs-based approach to these measures and take care to choose the optimal degree of modernization for each building. Partial modernization, i. e., the decision to only perform individual modernization measures, is often a better way of achieving an efficient cost/benefit ratio than a full modernization project. Our modernization efforts are also being expanded in Sweden, in particular. Public-sector subsidy programs are being used for many of the energy-efficient modernization projects. Modernization projects planned for Berlin in 2019 were postponed due to the plans to introduce the rent freeze. This reduced our renovation rate from the 4.0% we had originally planned to 3.7%.

Key performance indicator	
Vonovia SE's renovation rate in Germany in 2019	3.7%

These efforts are countered by waning acceptance of energy-efficient modernization among the population. For Vonovia, this means that we are confronted with, and have to navigate our way through, the **conflict between energy-efficient solutions and rising costs for tenants** on a day-to-day basis. The aim is to achieve both objectives simultaneously: affordable and climate-neutral homes for everyone. In order to get all stakeholders on board in this discussion, Vonovia has launched a long-term dialogue process. In 2019, the dialogue program included a parliamentary evening with the Federal Minister for the Environment and a conference entitled "Outlook for climate-neutral housing" with professional support provided by the Fraunhofer Society and the German Energy Agency involving 85 participants from the fields of politics, academia, tenant representatives and environmental associations. The conference outcomes are being explored in greater detail by a number of working groups and will be presented to the public at another climate conference to be held in mid-2020.

Over and above energy-efficient building upgrades, we are also focusing more on ensuring that our **new buildings** are optimized from an energy efficiency perspective and use construction methods aimed at preserving resources. We take into account low-emission construction and energy-efficient operational management as early as the planning and construction stages. The Group can benefit from further expertise in this regard thanks to BUWOG Group GmbH, a long-standing partner of the ambitious "klimaaktiv pakt2020" launched by the Austrian Federal Ministry for Sustainability and Tourism. BUWOG has had an ISO 50001-certified energy management system in place in Austria since 2013/14, which features both established processes and a written energy policy. This tool for the professional management of energy-related issues was expanded to cover the area of development in Germany in 2018.

The second big lever for improving our environmental footprint is the expansion of decentralized energy supplies using renewable energies. With this in mind, we had already conducted a solar cadastre analysis in 2018, discovering considerable potential for solar energy on around 5,000 roofs in our portfolio. Our **"1,000 roofs" program** was rolled out in the summer of 2019, the aim being to equip at least 1,000 roofs with photovoltaic facilities over the next few years. The "1,000 roofs" program will allow Vonovia to produce around 10,000,000 kWh of solar power annually and feed it into the public grid. In the mid- to long-term, Vonovia is seeking to decentralize the energy supply to its own neighborhoods using tenant electricity concepts.

Vonovia also uses other renewable energy generation systems such as cogeneration units, geothermal energy systems or biogas plants.

Key performance indicator	
Number of photovoltaic plants	295

Vonovia is offering its customers the opportunity to purchase electricity from renewable energy sources via its own energy distribution company. This offer is aimed primarily at new customers when they sign a lease agreement. By supplying certified **green electricity**, Vonovia is expanding the options available to it for promoting climate protection and is helping customers to avoid greenhouse gas emissions.

In addition, Vonovia is also using numerous **cooperation projects** (with scientific support) and integrated approaches, for example, the Energiesprong concept, in its quest to find new solutions for energy efficiency and climate neutral buildings. These efforts, which were stepped up considerably again in 2019, are based on the realization that neither energy-efficient building upgrades in their current form nor the expansion of renewable energies will be sufficient to achieve the objective of establishing a virtually climate-neutral building stock by 2050. This is an area in which Vonovia sees itself as a pioneer in development.

In addition to buildings, the residential environment is also a major factor when it comes to protecting our climate and the environment. Smart measures to create green spaces, for example, are helping to improve air quality in conurbations and have the capacity to cool urban heat islands, alleviate the consequences of heavy rainfall and improve biodiversity. Municipalities, associations and tenants are also increasingly expecting this sort of contribution from a landlord with outdoor spaces spanning more than 40 million square meters. Vonovia started to expand its **biodiversity** activities considerably in both Germany and Austria in 2019. Moves to turn utilitarian lawns into meadows of wild flowers, the installation of insect hotels or an active rainwater and waste management system are the first visible signs of this development, which will be intensified further in the years to come. Vonovia and Naturschutzbund Germany e. V. (NABU), Germany's largest environmental organization in terms of membership, have concluded a two-year collaboration agreement within this context. According to NABU, Vonovia is the first company from the German housing industry to take this step. Similar concepts are in place in Sweden.

Climate and Environmental Protection in Our Own Business Activities

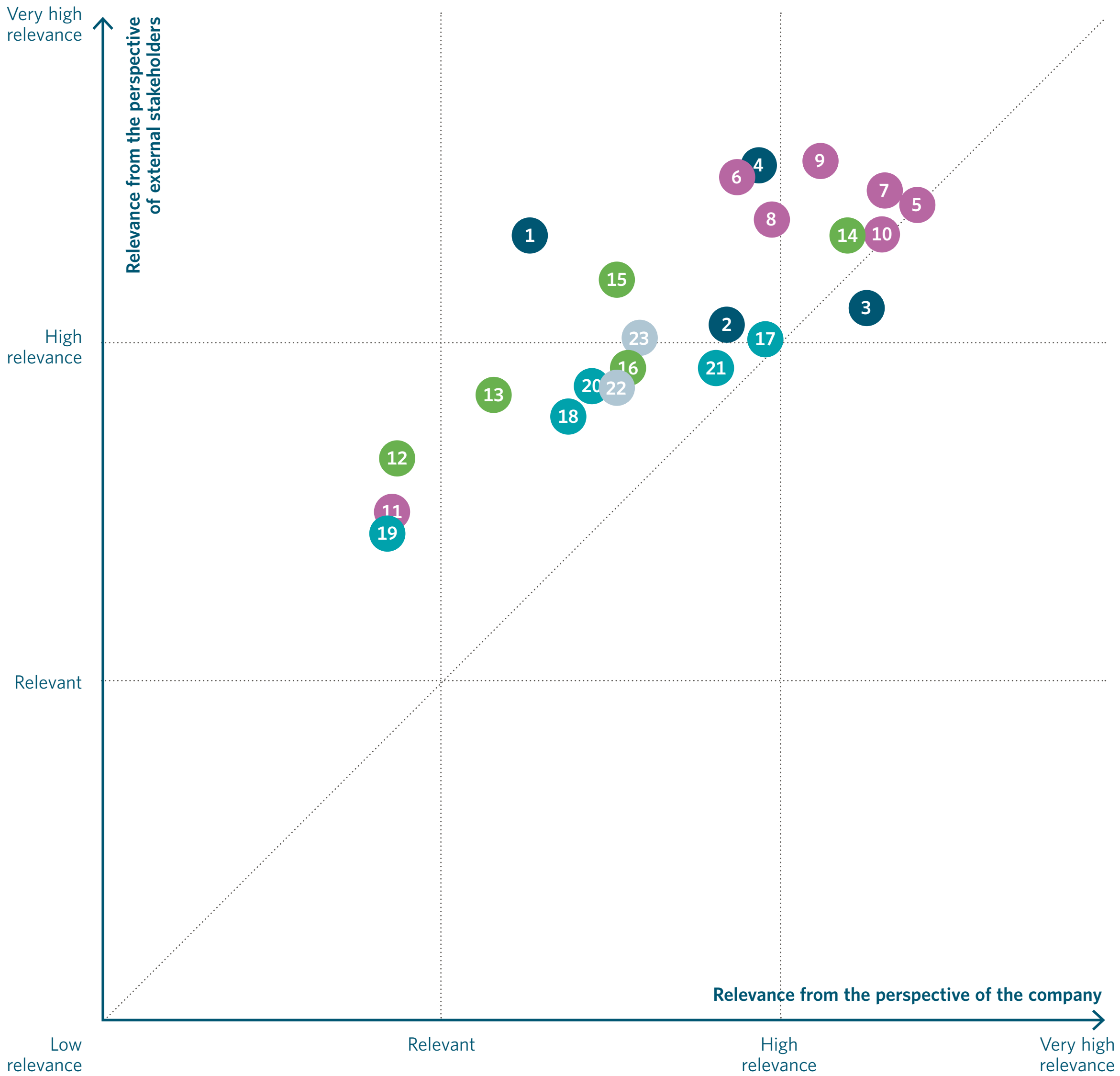
This section looks at company environmental protection and the impact of transportation/logistics (see Materiality Matrix → p. 68).

Compared with the lever that climate and environmental protection measures relating to our housing stock have, changes to our business processes have much less of a potential impact. Nevertheless, we continuously seek out opportunities to increase our level of resource efficiency and reduce our impact on the climate and the environment in our **internal processes** as well. For example, 100% of the electricity supplied to our corporate headquarters, which we moved into in 2018 and which have been awarded a Gold standard certificate by the German Sustainable Building Council (DGNB Gold), is green electricity. In the medium term, we aim to expand this concept to also include other company locations wherever possible.

Vonovia maintains an extensive fleet of around 5,200 vehicles in Germany. This means that **fleet management** plays an important role in climate and environmental protection. While our fleet will continue to grow in tandem with our business over the next few years, we aim to use scheduling and route planning as well as lower-consumption vehicles, to ensure that the increase in fuel consumption and, as a result, in our CO_2 emissions is less pronounced than the increase in the fleet itself. Pilot projects are also being used to test alternative drive models for their suitability for day-to-day use in long-term field trials.

All of these measures aim not only to reduce costs, but also to reduce the energy that needs to be used. This applies both to average fuel consumption and to the total energy used in our business operations. These are to remain at least constant, but ideally drop, in 2020.

Materiality Matrix



Sustainable Management

1 Adjustments to Reflect Climate Change
2 Compliance and Anti-corruption
3 Long-term Growth
4 Open Dialogue with Society
22 Social and Labor Standards in the Supply Chain
23 Environmental Standards in the Supply Chain

Society and Customers

5 Portfolio Maintenance
6 Affordable Rents
7 Tenant Health and Safety
8 Neighborhood Development
9 Creation of Homes
10 Service Quality and Customer Satisfaction
11 Corporate Citizenship

Environment

12 Impact of Transportation/Logistics
13 Company Environmental Protection
14 Energy Efficiency and Reducing Greenhouse Gas Emissions in the Portfolio
15 Environmental Protection in the Portfolio
16 Environmental Protection in Connection With Renovation and New Construction Measures

Employees

17 Initial and Further Training
18 Occupational Health and Safety
19 Co-determination
20 Diversity and Equal Opportunity
21 Work-Life Balance

Social – Society and Customers

This section looks at the issues of satisfaction, portfolio maintenance, tenant health and safety, affordable rents and the creation of living space as well as neighborhood development and social commitment (see Materiality Matrix).

Customer Satisfaction

The activities of Vonovia focus on our customers and their needs. Their satisfaction with, and appreciation of, our products and services are directly linked to the company's success in the long term. They expect to have an affordable home offering contemporary living standards, which is why proximity to our customers and making it convenient for them to contact us are key elements of our customer service philosophy.

Caretakers and our company's own craftsmen work on site to ensure that our tenants' concerns are attended to, allowing us to ensure fast and reliable service. Our multilingual **central customer service center**, which tenants can contact through a number of different channels, is responsible for all queries relating to lease agreements and consumption and ancillary expense bills, for example. Our availability is enhanced further by a digital customer portal that provides a full range of "self services" around the clock.

This is reflected in the CSI, the **Customer Satisfaction Index**, and is an element used in determining Management Board remuneration as a direct, non-financial control parameter. The CSI is determined by means of regular customer surveys. In 2019, the CSI for Germany was a few points lower than in the previous year. BUWOG Group GmbH in Austria also uses an annual customer satisfaction survey as a tool, although it is not consistent with the CSI – while customer satisfaction is a fundamental benchmark for all business processes at Victoria Park AB as well. The aim is to achieve positive development in the CSI.

Portfolio Maintenance, Health, Safety and Quality of Life

Vonovia invests in the maintenance and modernization of its own portfolio on an ongoing basis, the aim being to ensure and improve the quality of our real estate portfolio. As a major residential real estate company, we can use standardized procedures and materials to achieve economies of scale in our investment activities. We employ modern standards in our corresponding measures and select the building materials carefully. When it comes to **modernization measures**, for example, we use selected and tested materials and explicitly subject the companies performing the measures to the obligation to use them. By purchasing construction materials centrally via Vonovia's procurement department, we can keep the risk of hazardous or poisonous substances being used at a minimum. In order to protect our tenants and employees alike, we ensure safety using the systematic TÜV Rhineland Toxic Materials Management (TOGs®).

Key Performance Indicator: Investment in Maintenance, Modernization Work and New Construction

in € million	2018	2019	Change in %
Expenses for maintenance	289.7	308.9	6.6
Capitalized maintenance	140.7	172.7	22.7
Modernization work	904.7	996.5	10.1
New construction (to hold)	234.3	493.0	> 100
Total cost of modernization, maintenance and new construction	**1,569.4**	**1,971.1**	**25.6**

(see also the chapter Results of Operations in the management report → p. 97 et seqq.)

We offer conversion measures to meet specific tenant needs via our housing-related services – for example, senior-friendly apartment conversions – and make mobility and security solutions available. In Germany, we convert at least every third existing apartment that is newly rented to be senior friendly and ensure that vacant apartments are refurbished and spaces are redesigned to be fully accessible or barrier-free. In addition, we build and design existing apartments in a way that even groups with special needs – such as people with dementia – can feel at home here. This systematic focus on senior-friendly extension and refurbishment is our way of responding to the process of demographic change within our society.

Affordable Rents and Creation of Homes

Hardly any other issue was given so much attention in the German media in 2019 than the issue of social housing or the question as to the availability of affordable housing – particularly on strained housing markets in metropolitan areas. One aspect that is of fundamental importance to Vonovia is being able to offer all tenants the prospect of being able to stay in their homes in the long term. Nobody should have to move out of a Vonovia apartment due to their financial resources, especially not because of modernization work.

This is why we are going beyond our statutory requirements and taking numerous measures to protect the people living in our properties: for example, we are limiting the costs of modernization measures that can be passed on to tenants to a maximum of two euros per square meter. An active hardship management system supports tenants who are experiencing financial difficulties and finds individual solutions. We offer tenants over the age of 70 a guarantee that their apartment will continue to remain affordable even if the standard local comparative rents change. We work in collaboration with city and municipal authorities to offer subsidized and independently financed housing for people on low incomes. Our rental prices are based on the usual local rents and – if available – on the qualified rent indices.

Key performance indicator	
Average rent per sqm	€ 6.93

New construction is playing an increasingly important role when it comes to making affordable housing available. This is the only way to respond to the growing demand – particularly in metropolitan areas and in central and urban locations – and take pressure off the housing markets.

Vonovia does not speculate with land for construction, but builds new homes as quickly as possible after obtaining a building permit. Within this context, we take advantage of public subsidy programs for price-controlled homes wherever possible in order to build affordable apartments for our portfolio in the long run.

We are committed to using densification measures in existing settlements, vertical expansion and the development of newly designated building land. We also use modular construction over and above conventional construction methods. This allows Vonovia to create new living space more quickly. The development activities pursued by the BUWOG companies are the decisive lever for us that will allow us to forge ahead with our new construction measures on a large scale.

Around 12,000 residential units are currently planned for development in the near future. There is also medium-term development potential relating to a further 35,000 residential units (see also the chapter Portfolio in the Development Business → **p. 81 et seqq.**).

Neighborhood Development

Terms such as “living neighborhoods” or “livable neighborhoods” show that quality of living is increasingly being associated with life at a neighborhood level. As a result, neighborhoods are moving into the spotlight of the housing and real estate industry. Connected neighborhoods offer particular potential for integrated and sustainable development. Neighborhood development includes key measures extending beyond modernization and maintenance to include the creation of homes using new construction and vertical expansion measures, as well as measures to shape the residential environment and social cooperation partnerships within neighborhoods. In 2019, there were 13 neighborhood development projects in the operational implementation stage across Germany comprising approx. 8,600 residential units as part of the neighborhood development investment program. The investment measures are bundled in a neighborhood development plan spanning a period of several years, expanded to include further measures and implemented with a long-term view. They comprise infrastructure improvements for any demolition measures that have to be taken, the realization of holistic energy concepts and urban development issues. These components are given due consideration during the planning phase of the development projects of the BUWOG companies.

Key performance indicator	
Investment volume in the 2019 fiscal year for neighborhood development projects	€ 57.9 million

We take both financial and social criteria into account when assessing neighborhoods. This is a process that we involve both city and municipal authorities as well as our tenants in. We often have to take conflicting interests into account. Actively designed participation processes and civic participation initiatives help us to overcome differences and jointly develop solutions for the neighborhood. Typical areas of involvement include tenant workshops allowing tenants to actively contribute to facade and playground design, mobility issues or route/pathway design. Participation and extensive communication involving all partners is a key component for the successful implementation of large neighborhood development projects in particular.

The integrated neighborhood philosophy is rounded off by needs-based and functional cooperation projects with social institutions. This allows us to promote a sense of community, integration and interaction within the neighborhood. We use various tools for this purpose, e.g. making premises available. But conventional donations to social institutions and projects also help to foster community spirit within a neighborhood. Guidelines on how to deal with social support measures provide a framework within which the responsible individuals are free to operate on a decentralized level, selecting and implementing suitable and needs-based cooperation projects. Donations made on location to support local neighborhoods were expanded considerably in 2019 (volume of € 200,000) and are set to grow significantly again in 2020 (to € 400,000).

In Sweden, Victoria Park AB has already been pursuing a special approach for some years now: In Malmo-Herrgården, one of the country's most disadvantaged areas, the company is hiring long-term unemployed people to work as environmental caretakers and customer advisors in the neighborhood. As well as creating specific jobs for the individuals affected, this strategy is designed to give people hope, foster trust and establish relationships between the company and residents. Ultimately, the idea is for the approach to reduce crime, damage to property and vandalism. The evaluation of the approach shows, among other things, that after six years, the number of violent attacks has fallen from 111 to 67, while cases of theft and damage to property have dropped from 223 to 142. At the same time, the employment rate has risen by 10%. While it goes without saying that these effects cannot be attributed to the project alone, there are a large number of arguments in favor of a collaborative approach that is built on measures to promote trust.

Social Commitment

Vonovia also uses **foundations** to show its social commitment by providing support to tenants, the rental environment and in cases of social hardship. The company is currently involved in four foundations: the Vonovia Foundation (Vonovia Stiftung), Vonovia Mieterstiftung e. V., Stiftung Mensch und Wohnen and Stiftung Pro Bochum.

The mission of the **Vonovia Foundation** is to provide help in cases of social hardship to individuals who need assistance, and to promote intact neighborhoods and vocational training. In this respect, the foundation makes a key contribution to shaping and ensuring social and neighborhood cohesion in Vonovia's properties. It expressly supports active citizenship, personal responsibility and individual initiative within a residential context.

Vonovia Mieterstiftung e. V. comprises an equal number of representatives from tenants' associations and Vonovia employees. It aims to foster a sense of community spirit between people from different generations by offering support for young people and senior citizens in the various regions in which the Vonovia Group owns or manages residential properties.

With its work, the **"Mensch und Wohnen"** (people and living) Foundation set up by the former GAGFAH focuses on promoting a residential environment that brings young and old people together, and fosters a sense of community spirit between these groups in Vonovia's housing developments. The foundation finances meeting places, playgrounds and other assistance and support services with a focus on social activities.

The **Stiftung Pro Bochum** is a cooperation project involving numerous companies based in Bochum to assume responsibility, within the city boundaries, for the city itself and the place where the company has its registered headquarters. The project provides support to cultural, academic and sports-related projects within Bochum, in particular.

Key performance indicator	
Funds distributed by foundations in 2019 in which Vonovia SE is significantly involved	€ 198,852.27

In addition, numerous other funding approaches are pursued both by Vonovia SE in Germany, and by BUWOG Group GmbH in Austria and Victoria Park AB in Sweden.

Social – Employees

Within the Non-financial Declaration, the section on employees groups the topics of initial and further training, health management and occupational health and safety, co-determination, diversity and equal opportunities, work-life balance and the balancing of family and career needs (see Materiality Matrix → p. 68).

An HR Strategy Focusing on Performance, Responsibility and Growth

Vonovia is growing continuously. Thanks to our insourcing strategy, we are creating jobs with varying requirements with regard to qualifications and involving a large range of duties. There is particular demand for staff to join the technical service and residential environment organization. This means that, in an era in which the labor markets can be described as precarious, Vonovia offers stable and reliable employment with fair wages. As of December 31, 2019, the Vonovia Group had 10,345 employees (December 31, 2018: 9,923). This corresponds to an increase of 4.3%. Vonovia is committed to the core labor standards of the International Labour Organization (ILO) in all areas, particularly with regard to freedom and rights of association. Works councils have been established in all Vonovia Group companies in order to represent employees.

Differentiated Number of Employees (Excl. Hembla)

Category	Number
Total number of employees	10,345
thereof women	2,398
thereof permanent	9,155 (= 91.0%)
Number of nationalities	74
Average age (total)	42.45 years
Number of people with disabilities	350 (not including Sweden)
Total number of trainees	473 (= 4.7% of the total workforce; 5.0% with regard to Germany only)
thereof commercial/technical trade	145/328

Vonovia needs well-trained, qualified employees to achieve its mission and pursue its growth strategy. Our ability to position ourselves as an attractive employer that takes up and addresses the changing requirements of the up-and-coming generations can be a decisive factor as we compete with other companies for qualified staff. The aim is therefore to meet the mounting and constantly changing requirements, exploit synergy potential and find employees who are a perfect fit for the positions on offer. In this respect, Vonovia uses both in-house and external recruitment, using targeted initial and further training measures to supplement these efforts.

In order to find out just how satisfied our employees are, and to be able to develop as needed in a targeted manner, we arranged for the external service provider Great Place to Work to conduct an extensive employee survey in 2019. We received around 6,300 responses out of a total of almost 8,800 surveys sent out – a participation rate of 72%. Around three-quarters of our employees rate their own job within the company as "very good," with 81% signaling that they intend to stay with Vonovia for some time to come. Great Place to Work has allocated all of the questions to five key aspects: Vonovia achieves a good score with regard to "credibility," "respect," "fairness" and "team spirit" and only falls slightly behind the benchmark with regard to "pride." The survey also revealed that the rapid growth experienced in recent years has been a challenge. This serves as motivation for us to improve our performance even further.

Training and Education

Vocational training is a key pillar of Vonovia's recruitment strategy. We offer a wide range of vocational training programs. In Germany, we are currently offering training in 22 locations in 14 different occupations as well as offering dual-degree programs. We offer young parents as well as trainees who are responsible for caring for someone in their family the opportunity to complete their training on a part-time basis, thereby helping them to obtain professional qualifications. We do not have training programs in place in either Austria or Sweden.

Our company employed a total of 473 trainees as of December 31, 2019 (December 31, 2018: 485), of whom 145 were commercial trainees and 328 were technical trade trainees. This means that trainees account for 5.0% of employees in Germany. This makes us one of the few companies in the DAX 30 that has further increased its training rate.

Key performance indicator	
Training rate (in Germany)	5.0%

Vonovia has set itself the objective of keeping employees within the company and developing their potential. Therefore, targeted further training and personnel development programs form a key component of our HR management strategy – both in Germany and in Austria and Sweden. Training courses and programs are tailored to suit our needs and objectives and include training sessions and specialist seminars, management development courses and certified qualification schemes. This allows Vonovia to recruit internally wherever possible. As a result, we attach a great deal of importance to talent management, to ensuring that our top performers stay with Vonovia and to systematic succession planning.

Health Management and Occupational Health and Safety

Preserving the well-being and boosting satisfaction among our employees is something that is important to us. As a result, Vonovia attaches considerable importance to offering employees a work environment in which they are protected against risks and threats to their health while carrying out their work. This applies, in particular, to those departments and trades that are involved in the construction process. Here, the central task is to avoid work-related accidents. The management of occupational safety is conducted through operational coordinators, who are regularly in communication with one another. The occupational safety committees responsible are supported by external specialists in occupational safety and occupational medicine. Threat assessments carried out regularly and reviewed for effectiveness show possible risks and, if necessary, recommend measures to reduce their impact or avoid them altogether.

Furthermore, the company offers health-promoting measures, for example, partnerships with fitness centers, company sports, preventive healthcare programs or health-promoting seminars.

Work-Life Balance

We have been committed to promoting family life for years now, the aim being to allow our employees to strike a balance between family and work commitments by offering a range of tools designed to meet their specific needs. Vonovia's cooperation with external service providers includes, among other things, childcare services and assistance finding a day care center or care services. Flexible working time models – also for trainees – ensure the required flexibility. A works agreement on mobile working was adopted in 2019, once again increasing the flexibility available. A harmonious balance between family and professional life is particularly important to BUWOG Group GmbH in Austria. As a result, our subsidiary has been participating in the "berufundfamilie" (work and family) audit conducted by the Austrian Federal Ministry of Families and Youth since 2017. This is a voluntary government seal of quality that aims to achieve improvements in the awareness of family issues. The seal is awarded as part of a structured audit process. The objective is also to use the audit to achieve positive commercial effects on employer appeal, employee loyalty, motivation and identification, and to minimize staff turnover and absences.

Diversity and Equal Opportunities at all Levels

Vonovia is explicitly committed to a plural society in which diversity is respected and applied in practice. This means that we also give all of our employees equal support. They all benefit from a work environment in which appreciation, tolerance and respect are fundamental values and which is free from prejudice. For us, diversity is also a competitive advantage. We employ people from all age groups, genders, various nationalities and cultures and with a whole range of educational backgrounds. We also employ people with varying levels of disability. The nationalities within our workforce, which represents 74 different countries, alone highlight our commitment to diversity. This is consistent with the diversity of our customers and also has a positive impact on our contact with them.

For us, it is a matter of course that all people are treated equally and their individuality is respected. This allows us to benefit from the different perspectives and ways of thinking which result from our employees' social, cultural and linguistic backgrounds in a respectful and open atmosphere.

In order to further promote equal opportunities, Vonovia SE is aiming to further increase the proportion of women in management. The aim is to use ongoing systematic succession planning to achieve the target ratio of 30% by December 31, 2021, at the first and second level of management below the Management Board. At the top level of management, the diversity concept for the composition of the management and control bodies is set out in detail in the Declaration on Corporate Governance (**https://investors.vonovia.de** and in chapter Corporate Governance → **p. 36 et seqq.**).

Key performance indicator

Proportion of women at first level below the Management Board	20%
Proportion of women at second level below the Management Board	26%

Governance – Sustainable Corporate Governance

This section is dedicated to the topics of long-term growth, compliance and anti-corruption as well as open dialogue with society. Our position regarding adjustments to reflect climate change can be found in the chapter Opportunities and Risks → **p. 125 et seqq.** as well as in the Environmental chapter → **p. 65 et seqq.** (see Materiality Matrix → **p. 68**).

Long-term Growth

Vonovia SE secures its stable growth through long-term measures to further develop its portfolio and the range of services it offers. With this in mind, we are strengthening our core business of renting out homes by expanding our portfolio in Germany as well as through acquisitions and new construction in selected major European cities that offer growth potential. We are also expanding the range of housing-related services we offer on an ongoing basis. Our customers' trust in the durability of our business model forms the basis for these endeavors. This approach is legitimized by social acceptance, action that is geared toward meeting the needs of the market and a reliable place within a stable political framework. This calls for responsible and transparent corporate governance.

As a result, the Management Board and the Supervisory Board have made a comprehensive commitment to the principles of corporate governance as well as all the main aims and principles of the Institute for Corporate Governance in the German Real Estate Industry.

With a **Code of Conduct**, we provide the ethical and legal framework within which we act. It describes the conduct guidelines that apply with binding effect to Vonovia's employees and managers and forms the basis for an open, appreciative and legally compliant corporate culture. The Code of Conduct features provisions on issues including environmental and health protection, respect for employee rights, dealing with conflicts of interest, and interacting with governments and public-sector agencies. **Policies and works agreements** that apply across the Group – for example, on the handling of sensitive information (e. g. data protection, information security, compliance, inspections), on the topic of working and work-related conditions (e. g. occupational health and safety, operator obligations, travel and company car policies, communications) and to ensure compliance with duties and obligations under capital market law and other issues – complete the formalized framework within which Vonovia operates.

In order to be successful in the long run as a residential real estate company that operates in society's interests, Vonovia needs management and control bodies that can address and reflect the diverse nature of social interests. Diversity plays a key role in this respect. The corresponding diversity concept for the composition of the management and control bodies and all other relevant aspects of cooperation between the Supervisory Board and the Management Board are set out in greater detail in the Corporate Governance Declaration (see also chapter on Corporate Governance → p. 36 et seqq. and https://investors.vonovia.de).

Key performance indicator

Proportion of women in management and control bodies	
Management Board	25%
Supervisory Board	33.3%

The remuneration system is explained in the **Remuneration Report** → p. 115 et seqq. and at https://investors.vonovia.de.

Compliance and Anti-corruption

Systematic adherence to all of the provisions and laws that apply to the company is essential in order for Vonovia to act as and be accepted as a reliable and trusted partner. A good compliance organization makes a key contribution to a company's sustainable development and value creation. As a result, the Management Board is responsible for the implementation of the **Compliance Management System** (CMS).

By ensuring the extensive monitoring of our compliance rules, we protect the integrity of employees, customers and business partners and shield our company from negative influences. Our own Compliance Guidelines, which are consistent with the **Principles for the Proper Performance of Reasonable Assurance Engagements Relating to Compliance Management Systems (IDW PS 980)** and also take the implementation principles for the **UK Bribery Act 2010** into account, define the regulatory framework. They form the basis for our extensive CMS and refer to other key documents setting out provisions governing the handling of compliance matters and moves to combat corruption: the Code of Conduct, the Business Partner Code, the inspection guidelines and the Group guideline management guidelines. Regulations designed to protect whistleblowers also form part of the CMS. The guidelines and codes apply in both Germany and Austria. Comparable regulations are also in place at our subsidiary Victoria Park in Sweden (see also https://investors.vonovia.de).

Vonovia's CMS is designed to ensure that future misconduct is prevented ("prevention"), that any misconduct that has already occurred is identified ("identification") and that Vonovia takes appropriate and effective action in response to any misconduct identified ("reaction"). The **three pillars of the compliance program** make up an extensive system of compliance measures and processes. The focus of our appropriate and effective CMS is on preventing misconduct.

Regular **training sessions** on compliance matters or data protection issues are another key component of our preventative work. Procurement, for which the issue is particularly relevant, receives special training on corruption and criminal law pertaining to corruption. Almost all employees underwent training on data protection, either online or at face-to-face training sessions, in 2019.

Key performance indicator

Number of compliance training sessions*	37

* Covering different topics, such as Capital Market Compliance, AML, Anti-corruption, Data Protection, Code of Conduct, Compliance for Managers.
All employees undergo online training covering the contents of the Code of Conduct. There is also classroom training in blocks for employees in related functions (for example, in the procurement department, sales, construction management, finance, etc.).

The Supervisory Board is also regularly and comprehensively briefed on the issues of compliance, corruption and existing guidelines and procedures. The Audit Committee receives a corresponding compliance report, which reports on current suspected cases, corresponding measures and training offered on the issue of corruption.

In the 2019 fiscal year, there were isolated suspected cases of corruption, which we investigated diligently. None of the cases were confirmed. There were also several other nonmaterial compliance violations or suspected cases. This clearly shows, however, that the system we have put in place is proving effective. Cases are reported and addressed and corresponding consequences ensue.

Key performance indicator	
Total number of proven cases of corruption	0

Adherence to Labor, Social and Environmental Standards in the Supply Chain

Vonovia is aware of the potential sustainability risks in the supply chain. The challenges primarily relate to compliance with labor and social standards in construction companies and their subcontractors. Since Vonovia conducts considerable trade-related construction work on its own through the technical service, most of the risks that could arise with external suppliers can be reduced from the outset. As it is less dependent on the offerings of external construction firms, Vonovia is able to exclude service providers that violate certain sustainability criteria. In the Development segment, we conclude contractual agreements with our partner companies to ensure compliance with labor and social standards. The fact that we bundle our activities with a small number of partner companies and maintain ongoing dialogue with them throughout the entire project term allows us to establish a close relationship of trust and also gives us the opportunity to exert influence directly.

Our Business Partner Code for subcontractors and suppliers, which is updated on an ongoing basis, sets out clear expectations regarding integrity, legal compliance and ethical conduct. It stipulates, among other things, that illicit employment must be ruled out, that the legal minimum wage must be paid and that valid German regulations on occupational safety and human rights must be observed. These obligations also apply to third parties – i. e. subcontractors of our contractual partners.

Construction managers in Germany maintain direct contact with subcontractors and have a clear picture of the people working on construction sites. Compliance with the Business Partner Code can thus be largely verified within the scope of this working relationship. In addition, our procurement department holds annual reviews with key subcontractors.

In case of repeated violations of the Code or other legal provisions, we take appropriate steps, either significantly reducing the sales volume with the affected supplier or terminating the business relationship entirely. Vonovia did not learn of any significant cases of noncompliance in the reporting year.

The new partner portal for service providers and suppliers also went into operation at the end of 2019. As another key component of system-based risk management at Vonovia.

Vonovia's partner portal gives service providers and suppliers the opportunity to register with Vonovia online and submit applications to qualify as potential business partners. It allows suppliers to upload all of the key information and documents during the registration process. Once their details have been verified, approved suppliers receive login details for the system and can maintain and update their data themselves. The Vonovia partner portal will help us to check the validity of key documents/permits. This ensures that the latest supporting documents for the affected trades and product groups are available at all times. This ultimately provides a state-of-the-art solution that does away with the time-consuming manual dispatch of documents by email or as hard copies.

In this way, Vonovia's partner portal supports integrated supplier management by the procurement department. Furthermore, a regular supplier assessment process involving the procurement department and the specialist departments concerned will go live in the first quarter of 2020. This will lay the digital foundation for further-reaching supplier development.

As Vonovia operates within a strictly regulated and controlled legal framework within the European Union, possible challenges relating to human rights are not considered to be material for Vonovia's business model. Consequently, there is no explicit performance indicator for this topic. The procurement department, however, acts as a watchdog in this regard by selecting suppliers accordingly (see above) in order to ensure the protection of fundamental rights and adherence to the law.

Open Dialogue With Society

Vonovia's aim is to provide transparent reporting on the company and its activities and to maintain intensive dialogue with its stakeholder groups. We seek to use ongoing, open and mutual dialogue with society to help find common solutions to foster a good sense of community spirit within the properties that make up our portfolio.

The most important aspect in this respect is **dialogue with our customers** (see the section entitled Social – Society and Customers → p. 69 et seqq.). We aim to establish dialogue on location – be it via our caretakers, our rental offices as local ports of call, tenant meetings or parties – so that we can respond to our customers' questions, concerns and requests as directly as possible. Digital tools like tenant apps provide us with support in this process of dialogue.

In those cities in which we have a large portfolio and in which large-scale projects such as extensive modernization measures are on the horizon or underway, **early communication and involvement** is particularly relevant. We play a proactive role and talk to the local mayors – also at Management Board level. We involve residents by entering into dialogue with tenants' associations and by getting involved in citizens' forums and meetings with tenants.

Vonovia is involved in housing and real estate industry **associations** such as the European Public Real Estate Association (EPRA), the German Association of German Housing and Real Estate Companies (Bundesverband deutscher Wohnungs- und Immobilienunternehmen [GdW]), the German Property Federation (Zentralen Immobilienausschuss e. V. [ZIA]) and the German Association for Housing, Urban and Spatial Development (Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung [DV]), allowing it to make a contribution to a strong real estate industry in Germany. We are also involved in a whole number of initiatives and working groups such as the "klimaaktiv pakt2020" in Austria, the 2° foundation, KlimaDiskurs.NRW (the "climate discourse" project of the state of North Rhine-Westphalia), and the dialogue forum "Wirtschaft macht Klimaschutz" (Business Mitigates Climate Protection). In addition to these lobbies, we also engage in direct dialogue with policymakers at municipal, state and federal level.

We maintain ongoing and transparent dialogue with our investors and shareholders as well. In addition to participating in conferences, conducting road shows and property tours and organizing daily conference calls and other meetings, we organized a Corporate Governance Road Show – as in the previous year. We also participate in a whole range of sustainability benchmarks and ratings, for example, the EPRA Best Practices Recommendations on Sustainability Reporting, in respect of which we once again received a Gold Award in 2019 for our sustainability reporting in 2018. Participation in the Carbon Disclosure Project (CDP) and the sector-specific GRESB rating also highlight our efforts to make our sustainability performance transparent.

Due to the diverse nature of the topics presented, it does not make sense to focus on a single performance indicator. On the contrary, this would restrict the management of the topic to an unnecessary degree. As a result, we have opted not to report a corresponding key performance indicator.

Portfolio Structure

Portfolio in the Property Management Business

As of December 31, 2019, Vonovia had a total real estate portfolio comprising 416,236 residential units, 138,176 garages and parking spaces and 6,748 commercial units. Our locations span 653 cities, towns and municipalities in Germany, Sweden and Austria. 78,691 residential units are also managed for other owners. Most of the properties in the Group's portfolio are multifamily residences.

In terms of fair value, most of the properties (around 84%) are located in Germany. The Swedish portfolio accounts for around 11% of the fair value, while the share of the Austrian portfolio comes to around 5%. The portfolio is as follows as of December 31, 2019:

Portfolio and Fair Value by Country

	Portfolio			Fair value*		
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(in € million)	(€/m²)	In-place rent multiplier
Vonovia Germany	355,708	22,212	2.5	43,276.2	1,893	23.5
Vonovia Sweden	38,065	2,730	2.3	5,642.0	1,899	17.1
Vonovia Austria	22,463	1,675	4.7	2,654.9	1,455	24.7
Total	**416,236**	**26,617**	**2.6**	**51,573.1**	**1,865**	**22.6**

* Fair value of the developed land excluding € 1,743.4 million, of which € 547.5 million for undeveloped land and inheritable building rights granted, € 387.9 million for assets under construction, € 531.9 million for development and € 276.1 million for other.

Rent and Rental Growth by Country

	In-place rent*			Rent increase	
	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic (in %)	Market rent forecast valuation (in % p. a.)
Vonovia Germany	1,842	1,761	6.79	3.7	1.7
Vonovia Sweden	331	303	9.46	5.3	2.0
Vonovia Austria	107	89	4.64	4.1	1.6
Total	**2,280**	**2,154**	**6.93**	**3.9**	**1.7**

* Shown based on the country-specific definition.

As of December 31, 2019, the Group's real estate portfolio across Germany comprised 355,708 residential units, 95,544 garages and parking spaces and 3,978 commercial units distributed across 493 cities, towns and municipalities. The total living area amounted to 22,212,425 m², with the average apartment size coming in at around 62 m². With a vacancy rate of 2.5%, Vonovia generated an average monthly in-place rent of € 6.79 per m² in Germany. The annualized in-place rent as of December 31, 2019, came to € 1,761.5 million for apartments, € 51.7 million for commercial units and € 28.6 million for garages and parking spaces.

In Sweden, the Group's real estate portfolio comprised 38,065 residential units spanning a total living area of

2,730,111 m², 25,274 garages and parking spaces and 2,194 commercial units. With a vacancy rate of 2.3%, the residential portfolio generated annualized in-place rent of € 302.9 million as of December 31, 2019. The apartments, which average 72 m² in size, generate monthly in-place rent of € 9.46 per m² (inclusive). Most of them are located in the Stockholm, Gothenburg and Malmo regions.

In the Austrian portfolio, which is largely located in Vienna, Vonovia achieved an annualized in-place rent of € 89.1 million as of December 31, 2019, with a vacancy rate of 4.7%, in the residential portfolio, which comprises 22,463 units covering total living space of 1,675,177 m². The monthly in-place rent amounted to € 4.64 per m² with an average apartment size of around 75 m². The portfolio also comprised 17,358 garages and parking spaces and 576 commercial units.

Changes in the Portfolio

In the first half of the year, Vonovia acquired 2,340 apartments in the greater Stockholm and Gothenburg regions from Akelius Residential Property. At the end of the fiscal year, a portfolio consisting of 21,385 apartments, largely in the greater Stockholm region, was added to Vonovia's portfolio as a result of the takeover of a majority stake in Hembla AB.

The acquisition portfolios were as follows at the time of the takeovers:

				In-place rent*	
	Residential units	Living area (in thou. m²)	Vacancy (in %)	Residential (p. a. in € million)	Residential (€/m²)
Hembla AB	21,385	1,533	3.3	168	9.42
Akelius	2,340	179	2.5	21	10.19

* Shown based on the country-specific definition.

In the course of 2019, properties from the portfolio earmarked for sale were disposed of in several sales as part of the implementation of the portfolio management strategy.

At the time of the sale, the statistics for the portfolios sold were as follows:

				In-place rent*	
	Residential units	Living area (in thou. m²)	Vacancy (in %)	Residential (p. a. in € million)	Residential (€/m²)
Disposal portfolios 2019	2,125	138.7	25.0	7	5.43

* Shown based on the country-specific definition.

In addition to the acquisition and sale of larger housing stocks, Vonovia's portfolio changed in 2019 as a result of additions arising from tactical acquisitions, the construction of new apartments and attic extensions on the one hand,

and disposals of condominiums and multifamily residences from the portfolio earmarked for sale on the other. Furthermore, our regular portfolio reviews due to strategic reassessments resulted in certain housing stocks being reallocated within the German portfolio. Following the implementation of the annual structured reassessment of all potential, as of December 31, 2019, Vonovia's portfolio is as follows:

Portfolio and Fair Value by Portfolio Cluster

	Portfolio			Fair value*		
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(in € million)	(€/m²)	In-place rent multiplier
Strategic	323,360	20,031	2.3	38,875.0	1,891	23.4
Operate	85,125	5,351	3.3	10,954.0	1,893	22.0
Invest	238,235	14,680	2.0	27,920.9	1,890	24.0
Recurring Sales	28,153	1,882	3.0	3,887.2	2,021	24.8
Non-core Disposals	4,195	299	7.6	514.0	1,333	19.4
Vonovia Germany	**355,708**	**22,212**	**2.5**	**43,276.2**	**1,893**	**23.5**
Vonovia Sweden	38,065	2,730	2.3	5,642.0	1,899	17.1
Vonovia Austria	22,463	1,675	4.7	2,654.9	1,455	24.7

* Fair value of the developed land excluding undeveloped land and inheritable building rights granted, assets under construction, development and other.

Rent and Rental Growth by Portfolio Cluster

	In-place rent*			Rent increase	
	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic (in %)	Market rent forecast valuation (in % p. a.)
Strategic	1,659	1,589	6.78	3.9	1.7
Operate	498	442	7.17	6.0	1.7
Invest	1,161	1,148	6.64	3.0	1.7
Recurring Sales	157	151	6.90	2.8	1.7
Non-core Disposals	26	21	6.26	0.4	1.8
Vonovia Germany	**1,842**	**1,761**	**6.79**	**3.7**	**1.7**
Vonovia Sweden	331	303	9.46	5.3	2.0
Vonovia Austria	107	89	4.64	4.1	1.6

* Shown based on the country-specific definition.

In order to boost transparency in portfolio presentation, we also break our portfolio in Germany down into **15 regional markets**. The regional market classification is orientated toward the residential real estate market regions in Germany. These markets are core towns/cities and their surroundings, mainly urban areas. Our decision to focus on the regional markets that are particularly relevant to Vonovia is our way of looking ahead to the future and provides an overview of our strategic core portfolio in Germany.

In relation to the fair value, 92% of our German portfolio is located in 15 regional markets. Only a small part of our strategic stock is located outside of these 15 markets. We have referred to this group as "Other Strategic Locations" (around 7% of the total fair value). Our stocks earmarked for sale from the "Non-core Disposals" and "Recurring Sales" subportfolios in locations that do not include any strategic stocks are shown as "Non-strategic Locations". The fact that our portfolio is spread nationwide makes us more independent of the circumstances prevailing on individual regional markets.

As of December 31, 2019, the German portfolio is as follows, broken down into regional markets:

Portfolio and Fair Value by Regional Market

	Portfolio			Fair value*		
	Residential units	Living area (in thou. m²)	Vacancy (in %)	(in € million)	(€/m²)	In-place rent multiplier
Berlin	42,241	2,687	1.2	7,450.0	2,677	32.6
Rhine Main area	27,488	1,755	1.4	4,432.0	2,484	24.9
Southern Ruhr area	43,579	2,674	3.1	3,850.5	1,417	19.5
Rhineland	28,523	1,892	2.3	3,822.7	1,969	22.7
Dresden	38,519	2,195	3.4	3,584.8	1,563	21.4
Hamburg	19,818	1,252	1.8	2,762.2	2,148	25.0
Munich	9,668	636	1.0	2,283.3	3,493	34.6
Stuttgart	13,796	869	1.4	2,122.9	2,382	24.7
Kiel	23,220	1,336	2.2	2,101.9	1,523	20.1
Hanover	16,287	1,028	2.5	1,873.5	1,790	22.3
Northern Ruhr area	25,608	1,584	3.2	1,696.9	1,061	15.4
Bremen	11,853	717	3.1	1,182.3	1,597	22.8
Leipzig	9,185	588	2.8	958.3	1,544	21.6
Westphalia	9,473	616	3.2	903.2	1,449	19.8
Freiburg	4,043	276	1.1	657.2	2,355	25.9
Other strategic locations	26,778	1,703	3.1	2,899.8	1,673	21.0
Total strategic locations	350,079	21,807	2.4	42,581.5	1,903	23.6
Non-strategic locations	5,629	405	7.0	694.7	1,409	20.0
Vonovia Germany	**355,708**	**22,212**	**2.5**	**43,276.2**	**1,893**	**23.5**

* Fair value of the developed land excluding undeveloped land and inheritable building rights granted, assets under construction, development and other.

Rent and Rental Growth by Regional Market

	In-place rent*			Rent increase	
	Total (p. a. in € million)	Residential (p. a. in € million)	Residential (in €/m²)	Organic (in %)	Market rent forecast valuation (in % p. a.)
Berlin	228	217	6.84	3.7	1.8
Rhine Main area	178	172	8.32	3.8	1.8
Southern Ruhr area	198	192	6.19	5.0	1.5
Rhineland	169	161	7.26	3.0	1.7
Dresden	168	158	6.23	3.9	1.7
Hamburg	110	106	7.16	3.6	1.6
Munich	66	62	8.24	2.9	1.9
Stuttgart	86	82	8.04	3.6	1.8
Kiel	105	100	6.38	4.1	1.7
Hanover	84	81	6.74	4.1	1.7
Northern Ruhr area	110	107	5.82	3.3	1.2
Bremen	52	49	5.94	5.1	1.8
Leipzig	44	42	6.11	2.5	1.8
Westphalia	46	45	6.23	4.9	1.5
Freiburg	25	25	7.50	3.0	1.7
Other strategic locations	138	133	6.75	3.4	1.6
Total strategic locations	1,807	1,733	6.79	3.8	1.7
Non-strategic locations	35	29	6.35	0.5	1.7
Vonovia Germany	**1,842**	**1,761**	**6.79**	**3.7**	**1.7**

* Shown based on the country-specific definition.

Portfolio in the Development Business

The takeover of the BUWOG Group in 2018 marked a key step in Vonovia's quest to expand its business model by including established real estate development and new construction business (development business). The subsequent integration of these activities has allowed Vonovia to build on its position as a market leader in Germany and Austria, not only in the rental segment, but also in the development business. The integration process expanded Vonovia's pre-existing potential to include extensive product and process expertise in the field of construction and in the development of residential construction projects, creating synergy potential for Vonovia. The BUWOG brand that Vonovia uses to run its development business was also assigned a value in its own right as part of the takeover.

It is under this strong brand that the development business area has become firmly established in Vienna and Berlin and associated with the very highest levels of customer satisfaction for our stakeholders. The first few residential construction projects are also being developed in Hamburg and Leipzig, and Vonovia aims to expand the development business to include other urban areas.

This provides Vonovia with an end-to-end development platform spanning the entire value chain – from the purchase of land to its development, project planning, construction and sale. With its substantial product pipeline of residential construction projects that are currently being built, planned or prepared, with the BUWOG brand Vonovia ranks among Germany's top 5 building contractors and is the leading building contractor in Vienna according to the project developer ranking (a study commissioned by the analytics company bulwiengesa).

As a major player in the residential real estate segment, Vonovia is able to use its property development expertise to offer targeted solutions in response to current challenges such as the shortage of housing, climate change, integration and cross-generational housing. These challenges can be tackled successfully through long-standing experience, extensive market and sector expertise and intensive, ongoing market analysis, making a valuable contribution to society and to Vonovia.

Development Business Model

Development Business Model

The Development segment allocates its projects to two different areas:

> **Development to sell** includes the units that are sold to investors or to future owner-occupiers directly.
> **Development to hold** refers to those residential construction projects whose apartments will be added to Vonovia's rental portfolio upon their completion. This area also includes Vonovia's pre-existing new construction business, which involves building new residential units on property that already belongs to the company using serial and modular construction approaches. It also includes the Swedish new construction projects on the company's own properties.

Value Creation and Project Development

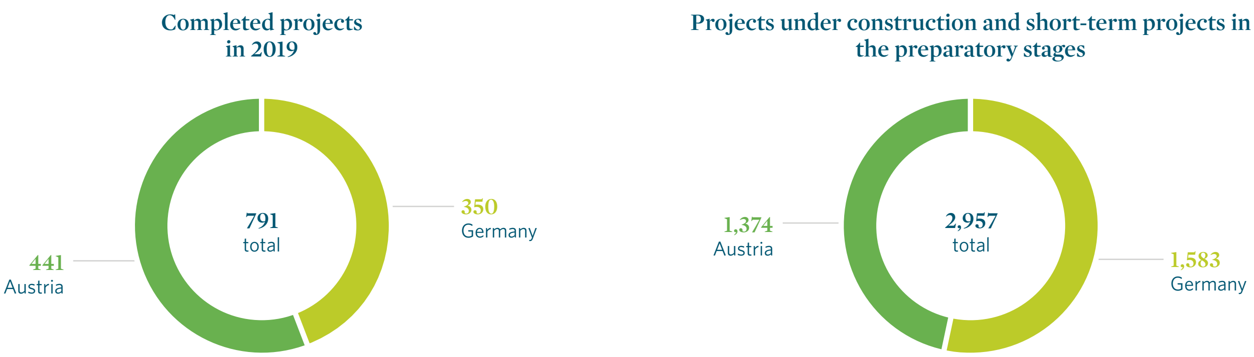
Vonovia is the leading residential real estate company in Germany and, together with its subsidiaries in Germany, Austria and Sweden, makes a key contribution to alleviating the shortage of housing through its real estate development activities. The strategy of incorporating process steps into the company's own value chain allows Vonovia to provide stringent and targeted support to residential construction projects and to exploit cost synergies with regard to technical solutions and the pooling of procurement volumes. Being able to cover the entire residential property value chain internally allows the company to generate additional earnings contributions.

These additional earnings contributions can be generated sustainably thanks to Vonovia's extensive development pipeline, which is distributed among Germany, Austria and, in the future, also Sweden.

Overview of Key Development Figures

In the 2019 fiscal year, the Development segment, with its "Development to sell" and "Development to hold" areas, made positive contributions to earnings in Germany and Austria, as well as in Sweden for the very first time, allowing it to contribute to Vonovia's successful growth.

Development to Sell (Number of Units)



Valuable Contributions to Society and the Group

Land/Project Acquisition		Development & Sales			
1 Land Acquisition	2 Due Dilligence & Acquisition	3 Development	4 Planning	5 Construction	6 Marketing & Sales
> Identification of acquisition opportunities > Acquisition teams > Land database > Development of KI tools > Award of concepts by municipal authorities	> Assessment of development opportunities > Cross-discipli-nary acquisition teams > Environmental due diligence	> Integrated, cross-discipli-nary project development > Analysis of market and regulations > Coordination of dedicated pur-pose and appro-val process > Construc-tion optimiza-tion and city development > Marketing analyses	> Types + product development > Selection/co-ordination of external service providers > Detailed project calculation > Coordination of construction ap-proval process > Professional planning	> Awarding of construction contracts > Coordination of interfaces > Trade coordina-tion/Constructi-on management	> Development of marketing concepts > Sale > Customer service and aftercare > Initial rental

In the **"Development to sell"** area, the income from disposal of properties came to € 249.5 million, with € 131.8 million attributable to project development in Germany and € 117.6 million attributable to project development in Austria. A total of 791 units were completed in 2019, 350 in Germany and 441 in Austria.

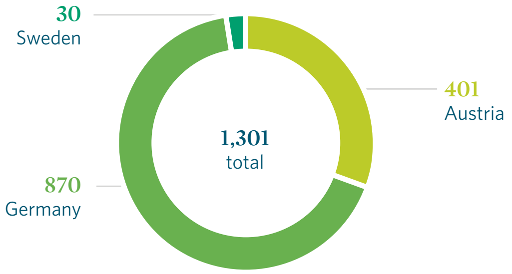
As of December 31, 2019, there were 2,957 units in the "to sell" development pipeline, 1,659 of which related to projects under construction and 1,298 to short-term projects in the preparatory stages. The share attributable to project development in Germany comes to 1,583 units (836 units from projects under construction and 747 units from short-term projects in the preparatory stages), while the share attributable to project development in Austria comes to 1,374 units (823 units from projects under construction and 551 from short-term projects in the preparatory stages).

In the **"Development to hold"** area, a fair value of € 266.3 million was realized, with € 164.3 million attributable to project development in Germany, € 96.3 million attributable to project development in Austria and € 5.7 million to project development in Sweden. A total of 1,301 units were completed in this area (1,079 privately financed units and 222 subsidized units), with 870 in Germany, 401 in Austria and 30 in Sweden.

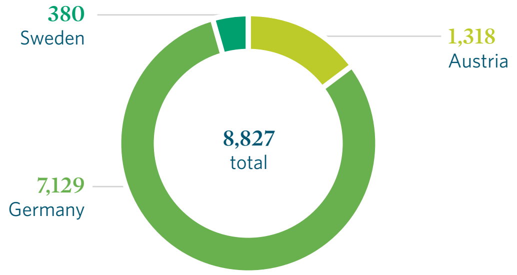
As of December 31, 2019, there were 8,827 units in the "to hold" development pipeline, 2,688 of which related to projects under construction and 6,139 to short-term projects in the preparatory stages. The share attributable to project development in Germany comes to 7,129 units (1,905 of which related to projects under construction and 5,224 to short-term projects in the preparatory stages). The share attributable to project development in Austria comes to 1,318

Development to Hold (Number of Units)

Completed projects in 2019



Projects under construction and short-term projects in the preparatory stages



units (682 of which related to projects under construction and 636 to short-term projects in the preparatory stages). The share attributable to project development in Sweden comes to 380 units (101 of which related to projects under construction and 279 to short-term projects in the preparatory stages).

Adjusted EBITDA of € 84.5 million was generated in the development segment. Including medium-term development potential of around 35,000 units, the development pipeline comprised a total of approximately 47,000 units at the end of 2019.

Sustainable and Successful Development

As one of the most active residential building developers, Vonovia is aware of its responsibility for society as a whole. As a result, the topic of sustainability is firmly entrenched in our development business model. Sustainability aspects are taken into account early on when a project is still in the planning stages – that is, long before it is ready for occupancy. Building certification plays a key role in demonstrating to investors, owners, tenants and interested members of the general public how sustainably a property is planned, built and managed.

The "MARINA TOWER" project, for example, a joint project involving BUWOG and IES Immobilien, was awarded the Austrian Sustainable Building Council's (ÖGNI) gold sustainability certificate, as did the "SeeSee" project in Vienna's Seestadt district. The "BUWOG NEUMARIEN" new construction project in the Berlin district of Neukölln had already been registered for sustainability certification by the German Sustainable Building Council (DGNB e. V.) while it was still in the planning stages; it has since been successfully awarded the DGNB's Gold standard certificate.

Sustainability is also, however, a top priority within the company's "own four walls," such as at the new company site in Vienna. Vonovia is planning to move the registered office for its Austrian business, which is operated under the BUWOG name, from the Viennese district of Hietzing to Rathausstrasse 1 in the city's 1st district in May 2020. The new customer and administration center will be located in the heart of Vienna and was planned giving explicit consideration to sustainability aspects, which is why the new building has already been awarded DGNB pre-certification in gold. It will be certified by the Austrian Sustainable Building Council following its completion in the spring of 2020.

In addition to the company's own development activities, Vonovia also cooperates with research institutes in both Germany and Austria. A prime example of how to create green spaces within cities, for example, is emerging on land previously used for industrial purposes on Triester Strasse in Vienna's "Biotope City" as part of a cooperative planning process. The project will result in natural cooling effects, for example, that will benefit the future residents of the "Biotope City" and the "AMELIE" BUWOG project on the site. One project that is particularly worthy of mention in Germany is "52 Grad Nord" in Berlin. Together with scientists from the Technical University of Berlin, a sustainable self-cleaning pond has been designed, which uses the vegetation around its perimeter and substrate filters to filter the rainwater that it collects using a biological process. The habitat and areas next to the banks of the pond have already attracted various types of insects, fish and microorganisms. "Smart city" initiatives are also being pursued in collaboration with the Institute of Urban and Regional Planning at the Technical University of Berlin.

Vonovia's long-standing experience in the development business also includes extensive expertise in matters relating to sustainability, neighborhood development and integration. Real estate development projects regularly comprise an appropriate proportion of subsidized housing construction, such as "ERnteLAA" in Vienna, "BUWOG NEUMARIEN" in Berlin and the development of the Bayerischer Bahnhof district of Leipzig, with 30% of these developments made up of subsidized rental apartments.

Representative Project Development Measures

Germany

Under construction

52° Nord, Berlin
The southeast of Berlin, close to the new Schönefeld airport, will be home to the 52° Nord neighborhood, featuring around 1,000 residential units for sale and for Vonovia's own portfolio. It is an innovative and, with regard to energy efficiency, sustainable housing concept that offers a whole range of different homes to meet different personal needs and lifestyles. **www.52grad-nord.de**

BUWOG SPEICHERBALLETT, Berlin
In the Berlin suburb of Spandau, 82 attractive condominiums are being built following the renovation of the historical warehouse buildings on the banks of the River Havel in line with preservation order standards (also with an energy efficient sustainability concept). There are also plans for this innovative neighborhood to feature a childcare center.
www.speicherballett.de

BUWOG XBERG LIVING, Berlin

Vonovia, under the BUWOG brand, is creating 41 apartments in a development behind an existing building in Kreuzberg as part of an urban densification project. The project will restore the historical courtyard structure that Berlin is known for, creating new homes at the same time. BUWOG XBERG LIVING has been rigorously designed to be car-free. The courtyard will also feature various communal and play areas following its completion in 2021.

www.xbergliving.de

Preparatory stages

BUWOG NEUE MITTE SCHÖNEFELD

The NEUE MITTE SCHÖNEFELD project also offers good transport links to the airport but is not located directly below the flight path. Vonovia will be creating a total of 330 apartments here from 2020, ranging from one-room to four-room apartments that are suitable for various generations. The concept will be rounded off by a smart energy supply concept, a living environment designed to harmonize with the natural habitat and play areas for children and teenagers.

www.neuemitte-schoenefeld.de

Stadtraum Bayerischer Bahnhof Leipzig

A new district is emerging in Leipzig on an area spanning 36 hectares around the Bayerischer Bahnhof district: In line with the urban development planning objectives, Vonovia is building 1,600 apartments, once again under the BUWOG brand, 30% of which are rent-restricted apartments. The new residential neighborhoods are being developed as reduced-traffic districts offering environmentally friendly and innovative mobility concepts. Together with other project developers, Vonovia is developing a new public park for the district, tracing the outlines of the former railway route, a green strip running from south to north and covering an area of 8 hectares. **www.bayerischerbahnhofleipzig.de**

Austria

Under construction

MARINA TOWER, Vienna

The residential tower project, featuring around 500 premium residential units, enjoys excellent transport connections thanks to its prime location and will also offer a whole host of extras for residents and the general public alike. One example relates to the plans to implement a sustainable mobility concept. A deck will also be used to connect the development to the right bank of the Danube, opening up generous open spaces for public access and also making a key contribution to urban development. **www.marinatower.at**

Grünstück, Vienna

Under the BUWOG brand, Vonovia is constructing 84 independently financed condominiums in Vienna's 22nd district with the "Grünstück22" project. All of the apartments will include outdoor areas such as terraces, balconies or loggias. The location of the project should appeal to families, as it offers family-focused surrounding infrastructure as well as the nearby leisure and recreation opportunities, including the Alte Donau area. The project is scheduled for completion in the spring of 2021.

https://gruenstueck.buwog.com

The Marks – Turm 3

In Vienna's 3rd district, located in the "Neu Marx" complex on Landstrasse, three high-rise residential buildings known as "The Marks" are under construction on top of an urban three-story base construction. BUWOG is developing one of the high-rise buildings spanning 33 stories for Vonovia as part of the joint project. The development will include a total of 228 independently financed condominiums and 173 rental apartments as part of Vienna's Housing Construction Initiative, with completion scheduled for 2022.

www.themarksvienna.com

Preparatory stages

Gatterburggasse – BUWOG Inside

Vonovia is implementing the "BUWOG Inside XIX" project in one of Vienna's most preferred locations. The former official building located at Gatterburggasse 12 is being given a new lease of life and is also being expanded to feature a newly constructed wing. The project will create a total of 116 premium, traditional-style residential units also featuring smart home controls. The project is scheduled for completion in June 2022.

www.buwog.at/de/projekt/gatterburggasse

Penzinger Straße 76 – Kennedy Garden

In the heart of Penzing, Vonovia is working on a total of 511 residential units of various sizes and with various different features spread over several structural elements. 124 rental apartments are being developed as part of the housing initiative focusing on "homes for single parents," with 114 apartments planned as independently financed rental apartments and another 273 as independently financed condominiums. The project is scheduled for completion in the spring of 2022. **www.buwog.at/de/projekt/kennedy-garden**

Management System

Management Model

Our corporate governance is based on our corporate strategy and our **sustainable business activities**. In the 2019 fiscal year, the management system that had been implemented in the previous year was continued unchanged.

We have four segments: **Rental, Value-add, Recurring Sales and Development**.

The **Rental** segment combines all of the business activities that are aimed at the value-enhancing management of our own residential real estate. It includes our property management activities in Germany, Austria and Sweden.

The **Value-add segment** bundles all of the housing-related services that we have expanded our core rental business to include. These services include both the maintenance and modernization work on our residential properties and services that are closely related to the rental business. We allocate the activities relating to the craftsmen's and residential environment organization, the condominium administration business, the cable TV business, metering services, energy supplies and our insurance services to the Value-add segment.

The **Recurring Sales segment** includes the regular and sustainable disposals of individual condominiums and single-family houses from our portfolio. It does not include the sale of entire buildings or land (Non-core Disposals). These properties are only sold as and when the right opportunities present themselves, meaning that the sales do not form part of the Recurring Sales segment. We report these opportunistic sales in the **Other** column of the segment report.

The **Development segment** encompasses the project development of new apartments. This covers the value chain starting with the purchase of land without any development plan or dedicated purpose and ending with the completion of new buildings and new construction measures on our own properties. These properties are either incorporated into our own portfolio or sold to third parties. The Development segment deals with projects in selected attractive locations. Project development work is currently focusing on Berlin, Hamburg and Vienna. The value creation from the valuation of the properties at market prices will be allocated to the Development segment when these residential properties are incorporated into our own portfolio.

The **Group FFO** includes the earnings contributions made by all four segments: Rental, Value-add, Recurring Sales and Development.

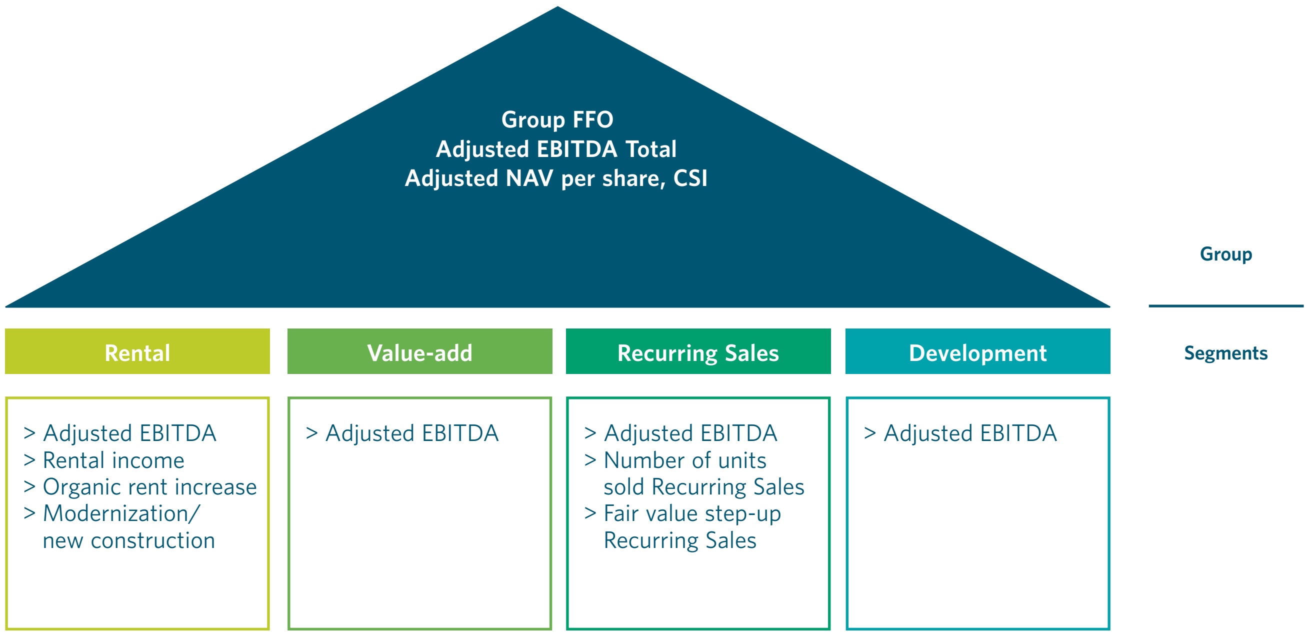
Performance Indicators

Our management system has a modular structure and makes a distinction between performance indicators at Group level (most meaningful performance indicators within the meaning of DRS 20) and those at segment level.

We make a distinction between **financial** and **non-financial performance indicators**.

We have an integrated Group-wide planning and controlling system in place that is based on central performance indicators. Based on the medium-term plans derived from our strategy, which are subject to an annual review and are updated during the year in the event of significant transactions, we prepare a budget for all areas of the Group. In the course of the fiscal year, current business developments are compared with these targets and the current forecasts on a regular basis for all key figures that are relevant to control. The business is then steered accordingly in a targeted manner, with any necessary countermeasures being initiated and tracked.

At **Group level, Group FFO**, the **Adjusted EBITDA Total**, the **Adjusted NAV per share** and the **CSI** are our most meaningful financial performance indicators.



Financial Performance Indicators

Group FFO is key for managing the sustained operational earnings power of our business. It is calculated as follows:

Calculation Group FFO

	Rental income
(-)	Maintenance expenses
(-)	Operating expenses Rental
=	Adjusted EBITDA Rental
	Income Value-add
	thereof internal income
	thereof external income
(-)	Operating expenses Value-add
=	Adjusted EBITDA Value-add
	Income from disposal of Recurring Sales
(-)	Fair value of properties sold adjusted to reflect effects not relating to the period from assets held for Recurring Sales
=	Adjusted profit from disposal of Recurring Sales
(-)	Selling costs Recurring Sales
=	Adjusted EBITDA Recurring Sales

Calculation Group FFO (Sequel)

	Income from disposal of development properties to sell
(-)	Construction costs Development to sell
=	Net profit Development to sell
(+)	Fair value Development to hold
(-)	Construction costs Development to hold
=	Net profit Development to hold
(-)	Operating expenses Development
=	Adjusted EBITDA Development
	Adjusted EBITDA Total
(-)	Interest expense FFO
(-)	Current income taxes FFO
(-)	Consolidation
=	Group FFO

The individual EBITDA figures, after adjustments to reflect effects that do not relate to the period, recur irregularly or are atypical for business operation, form the basis for the operational management of the segments.

The **Adjusted EBITDA Rental** reflects the operating profit from residential property management. It can be broken down into three central components: rental income from the Rental segment, expenses for maintenance and operating expenses in the Rental segment. The latter include all expenses and income that do not relate to expenses for maintenance or rental income in the Rental segment.

In addition to the expenses for **maintenance**, we make large-scale investments in our real estate portfolios, with a distinction being made between **capitalized maintenance** and **value-enhancing investment** in modernization and new construction measures for our own portfolio. The total amount of all **maintenance, modernization and new construction measures** includes the services performed by the Group's own craftsmen's organization, valued at the market price, and any third-party services that have been purchased, including the development activities for the company's own portfolio.

The Value-add Business segment encompasses all of the business activities relating to the expansion of our core business to include services that are closely related to and/or influence the rental business. We manage these business activities using the **Adjusted EBITDA Value-add Business**.

In addition to the management of our residential real estate portfolio and the services that are closely related to our rental business, another business segment relates to the privatization of individual apartments. We measure the success of our sales activities using Adjusted EBITDA Recurring Sales. The **Adjusted EBITDA Recurring Sales** compares the proceeds generated from privatization business with the fair values of assets sold and also deducts the related costs of sale. In order to disclose profit and revenue in the period in which they are incurred and to report a sales margin, the fair value of properties sold, valued in accordance with IFRS 5, have to be adjusted to reflect realized/unrealized changes in value.

We bundle all business activities aimed at the development of attractive real estate projects both for our own portfolio and for direct sale in the Development segment. In addition to the revenue from the sale of residential properties built in the reporting year to third parties and the associated costs, we also record the fair value that newly constructed properties create for our own portfolio, as well as the associated costs, as a means of measuring the success of the Development segment. We manage these business activities using the **Adjusted EBITDA Development**.

The **Adjusted EBITDA Total** is calculated as the sum total of the adjusted EBITDA figures for our four segments. This means that it expresses the overall performance of our sustainable operating business before interest, taxes, depreciation and amortization.

As financing is a fundamental component for the success of our business activities, we deduct the current interest expense, adjusted for special circumstances (**FFO interest expense**), from the Adjusted EBITDA Total. Taking current income taxes and consolidation effects into account, this allows us to calculate **Group FFO**, the key figure for the sustained earnings power of our business.

In addition to our operational earnings power, the value of our property assets and our modernization and new construction measures are decisive for the further development of our company. The **Net Asset Value (NAV)** is used to manage the company's value. Our NAV calculations are based on the best practice recommendations of the European Public Real Estate Association (EPRA). The **adjusted NAV per share**, after corrections for goodwill, is the relevant performance indicator.

Calculation of Adjusted NAV

	Total equity attributable to Vonovia's shareholders
(+)	Deferred taxes on investment properties
(+/-)	Fair value of derivative financial instruments
(-/+)	Deferred taxes on derivative financial instruments
=	EPRA NAV
(-)	Goodwill
=	**Adjusted NAV**
/	no. of shares as of the reporting date
=	**Adjusted NAV per share**

An additional non-operational key financial figure, the **loan-to-value ratio (LTV ratio)**, is also used for monitoring the degree to which debt is covered by the value of the properties. This key figure helps the real estate sector ensure a sustainable ratio of borrowings to the fair values of our properties.

All of the key financial figures shown here are so-called **non-GAAP measures** or **alternative performance measures (APMs)**, i. e., key figures which cannot be taken directly from the figures in the consolidated financial statements according to IFRS. The financial performance indicators can, however, all be reconciled to the closest-possible key figure in the consolidated financial statements.

Non-financial Performance Indicators

We also focus on non-financial operating performance indicators as drivers for our key financial figures and supporting control parameters.

Our business activities focus on our customers. We aim to offer them affordable homes that meet their needs together with housing-related services and reliable customer support. As a result, the fourth most meaningful performance indicator at overall Group level, in addition to the financial performance indicators, is the **Customer Satisfaction Index (CSI)**. It is determined at regular intervals in systematic customer surveys conducted by an external service provider and shows the effectiveness and sustainability of our services for the customer. Our company's economic success and, in particular, the success of our Value-add strategy are directly linked to the satisfaction level of our customers. We are aware of this fact and implement a wide variety of measures with the goal of improving our services in the interest of our tenants.

The **organic rent increase** refers to the increase in the monthly in-place rent for the residential portfolio that was already held by Vonovia twelve months previously, plus the increase in rent resulting from the construction of new apartments and the addition of stories to existing properties. The monthly in-place rent per square meter gives information on the average rental income from the rented properties. In particular, over the course of time, the average rent increase achieved in the rented properties can be derived from this figure.

The **vacancy rate** also shows the proportion of units in our own portfolio that are not rented and therefore generate no rental income. It can serve as an early-warning indicator, e. g. to identify non-marketable apartments.

The vacancy rate and the average rent are key drivers for the development of our key figures related to the management of rental income. Together with the CSI they serve as essential **early warning indicators**.

The **number of units sold** from **Recurring Sales** shows our ongoing efforts in the privatization business. In addition to this, we report the "Non-core" disposals.

The **fair value step-up** represents the difference between the income from the sale of a residential unit and its last recognized fair value. It shows the percentage increase in value for the company on the sale of a unit before further costs of sale.

Report on Economic Position

Key Events During the Reporting Period

The acquisition of 2,340 apartments in the greater Stockholm and Gothenburg regions between Vonovia and Akelius Residential Property was completed on April 1, 2019. The value of the property assets acquired amounted to around € 451.9 million.

Vonovia implemented a capital increase involving 16,500,000 new shares on May 16, 2019. The new shares were placed with institutional investors in the scope of a private placement by means of an accelerated book building procedure and have carried dividend rights since January 1, 2019. The shares were granted at a placement price of € 45.10 per share. This increased the capital reserves by € 727.7 million.

The Annual General Meeting held on May 16, 2019, resolved to pay a dividend for the 2018 fiscal year in the amount of € 1.44 per share. During the subscription period, shareholders with a total of 45.8% of shares carrying dividend rights opted for the scrip dividend that had been offered as opposed to a cash dividend. As a result, 7,695,677 new shares were issued at a subscription price of € 44.352 and in a total amount of € 341.3 million.

As part of the public takeover offer made to the shareholders of Victoria Park AB (publ), Vonovia had agreed on call options for 10,235,198 class A shares and 14,264,946 class B shares, which corresponds to 10.0% of the total number of shares and 12.5% of the total voting rights in Victoria Park. These call options were exercised on May 20, 2019, meaning that Vonovia controls around 91.4% of the total number of shares and 94.4% of the total voting rights as of this date.

Vonovia then asked the Board of Directors of Victoria Park to initiate a squeeze-out for the purchase of all remaining shares in Victoria Park in line with the Swedish Companies Act. The Board of Directors also resolved to apply for delisting of the Victoria Park ordinary shares of class A and class B from Nasdaq Stockholm. The last day of trading was June 18, 2019.

The impairment test performed in the second quarter of 2019 revealed the need for goodwill impairments in the amount of € 1,901.0 million, largely due to the € 2,258.7 million increase in the value of the real estate portfolio as of the date of valuation (June 30, 2019). These were distributed among the business areas North, Southeast, West, Central and South in the Rental segment in Germany.

Due to the new regional structure, the two business areas Southeast and Central ceased operations as of the third quarter of 2019. Following the reallocation of the remaining goodwill of the Rental segment in Germany among the still operational business areas, this led to the need for further goodwill impairments in the amount of € 202.5 million.

On September 23, 2019, Vonovia SE announced that it had signed a contract for the purchase of 69.30% of voting rights and 61.19% of share capital in Hembla AB (publ), Stockholm, Sweden. As a result of the transaction, Vonovia became the owner of 6,136,989 Class A Hembla shares and 50,722,985 Class B Hembla shares. The parties have agreed to a purchase price of SEK 215.00 per share (irrespective of share class).

On November 5, 2019, Vonovia SE was given the green light from Sweden's merger control authority for the acquisition of the shares in Hembla AB (publ). Once the acquisition of the majority of the shares was formalized, Vonovia published the mandatory offer for the remaining Hembla shares, which included a cash settlement for the shareholders of Hembla AB (publ) of SEK 215 per Class B share.

As of December 31, 2019, Vonovia held 6,136,989 Class A shares and 81,282,426 Class B shares in Hembla, representing approximately 95.3% of the voting rights and approximately 94.1% of the share capital. When the original acceptance deadline expired on December 9, 2019, it was extended once to January 8, 2020. As Vonovia held more than 90% of the shares following the expiry of the first and second acceptance deadlines, it asked the Board of Directors of Hembla to apply for delisting and initiate a squeeze-out in line with the Swedish Companies Act. The shares were delisted with effect from January 10, 2020.

On December 13, 2019, Vonovia received an A- rating from the largest European rating agency Scope Group for the first time, slightly better than the BBB+ rating assigned by Standard & Poor's, which is also in the investment grade range.

Development of the Economy and the Industry

Germany

The German economy grew for the tenth consecutive year, although the economic momentum slowed significantly. The gross domestic product (GDP) was up by 0.6% year-over-year, but is likely to put Germany second-bottom of the European rankings, with only Italy faring worse (average euro area: 1.2%). This is also due to Germany's continued strong focus on exports, an area that is being hit hard by the weak global economy. The German economy is still, however, on a two-track course with robust private consumption, higher government spending and buoyant construction activity on the one hand, and weak export growth and very sluggish corporate investment activity on the other.

The uncertainty surrounding the trade conflicts and Brexit, as well as the economic cycle that the global economy is in, put pressure on external demand, pushing the German industrial sector into a mild recession. Key industries such as automotive construction and mechanical engineering, as well as the electronics and chemical industries were hit particularly hard, prompting companies to scale back their investments. As a result, foreign trade failed to deliver in terms of driving growth in 2019. Imports grew at an expected rate of 2.4%, therefore outstripping exports, which are predicted to have grown by only 1.3%.

There are, however, signs that incoming orders are starting to stabilize and the ifo business climate index painted a slightly brighter picture again at the end of the year. This should mean that the industrial sector will pick up some speed again over the coming months. The construction industry is still booming also thanks to very favorable financing conditions, and the number of jobs being created by the country's consumer-related service sectors still exceeds the number being lost in the industrial sector.

This is also benefiting the labor market: Despite the weak economy, the German Federal Employment Agency (Bundesagentur für Arbeit) published an unemployment rate of 5.0% for 2019, down by 0.2 percentage points against the previous year. According to calculations released by the Kiel Institute for the World Economy (IfW), the unemployment rate is likely to remain at the 4.9% mark in 2020 and 2021 as well. All in all, however, job creation is slowing and employment risks have mounted, also because higher wage costs are creating less of an incentive for companies to hire new staff.

Yet again, consumers in 2019 proved to be another pillar propping up the economy: The high level of employment and considerable increase in disposable income levels fueled a 1.6% increase in private consumer spending, which is significantly higher growth than that witnessed in the two previous years. The IfW expects to see similarly high growth rates in 2020 and 2021. The figures available also point to an increase in government consumer spending, which includes items such as social assistance benefits in kind and employee salaries. Inflation based on consumer prices was moderate in 2019 on average, rising by 1.4%. This was driven primarily by energy and food costs. In light of the low production capacity utilization level, the IfW does not expect price developments to pick up, forecasting an inflation rate of 1.5% in 2020 and 1.6% in 2021.

As a result, both the German federal government and the IfW expect to see GDP growth of 1.1% in 2020, with part of this development due to the increased number of working days (0.4 percentage points). Fiscal policy is also contributing to this gradual recovery by stimulating the economy in the form of relief with regard to tax and social security contributions, higher government transfer payments and increased government consumer and investment spending. Looking ahead to 2021, the German federal government predicts GDP growth to come to 1.3% (IfW: 1.5%).

The global economic conflicts remain present. The trade agreement with the United Kingdom still has to be ratified and even after January 31, 2020, the risk of a hard Brexit will not have been banished completely. While the United States and China have reached a partial agreement in their trade dispute, the measures have not yet been rolled back in full. Geopolitical risks have reared their heads again in Iran, Iraq and Libya. The German economy is still faced with several challenges: The automotive industry is grappling with unit sales problems, structural change would appear inevitable and policymakers are engaging in more intense discussions regarding investments in the future and debt policy.

According to experts at Landesbank Hessen-Thüringen (Helaba), no turnaround on the housing market is in sight. Key market drivers such as the influx of people into metropolitan areas, favorable financing conditions and inadequate construction activity continue to apply, in some cases accompanied by restrictive housing policies. After years of substantial price increases in the country's major cities, however, the momentum is shifting more to their surrounding areas. As the Federal Statistical Office (Destatis) recently reported, the growing population has put increased pressure on the housing market in recent years, particularly in Germany's major cities. By 2018, the German population was already up by 2.5 million as against 2012, with the figure likely to have increased further in 2019. Major cities have witnessed disproportionately strong growth due to an influx of mainly young people.

This is not an unbroken trend, however; the research and consulting institute empirica has reported a drop in the number of people moving to Germany's high-influx cities. People looking to move are instead opting for nearby, but less attractive and, as a result, more affordable towns/cities or the areas surrounding the major cities. In addition to the demographic trend toward migration to the cities, the demand for housing has also, according to experts at the EBZ Business School, benefited from the favorable income trend in recent years.

The German Association of German Housing and Real Estate Companies (GdW) reports a risk that the shortage of housing will become a permanent situation. Deutsche Bank Research reports that the number of completed apartments is likely to come to less than or close to 300,000 in 2019 and the following years, falling considerably short of the annual demand. Although the use of vacancy reserves made a key contribution to taking pressure off the housing market for some time, the reserves available in Germany's prospering high-influx cities have now been exhausted, according to empirica. The Cologne Institute for Economic Research (IW) reports that demographic trends are creating increasing disparities between urban and rural areas, i. e., while the major cities are faced with a huge shortage of housing, other, often rural, regions are left with an excess supply.

Residential real estate prices continued to rise overall in 2019, as empirica reported based on an analysis of its price database. The empirica price index for condominiums (all years of construction) increased by 11.0% in the fourth quarter of 2019 compared to the prior-year quarter (new construction 7.6%). Once again, the quoted prices for condominiums grew at a faster rate than rents. According to empirica, average rents over all years of construction increased across Germany by 3.8% in the fourth quarter of 2019 compared to the same quarter of the previous year (for new construction, the increase was 3.0%). By contrast, experts from F+B Forschung und Beratung für Wohnen, Immobilien und Umwelt GmbH (F+B) observed a trend toward stagnating or even slightly falling quoted rents (nationwide average of -0.3%) during the same period. F+B reported another increase in 2019, namely by 1.4%, in rents under existing rental contracts. The experts from empirica and F+B agree that the pace of the rent increases in the top 7 cities has slowed considerably. According to empirica, the increase in rent is shifting, together with the migration trend, more toward the areas surrounding the high-influx cities, or toward more affordable cities nearby.

Deutsche Bank Research does not expect to see any changes to the fundamental situation on the real estate market to speak of in 2020, with ongoing high demand for apartments driven by robust income development and the positive situation on the labor market. The only change the experts predict is slightly lower price and rent momentum in 2020. The German Tenants' Association (Deutscher Mieterbund) expects the standard local comparative rent to rise by a nationwide average of between 2.5% and 3% in 2020. As the ECB is likely to stick to its zero interest rate policy for a few years to come, the residential property market is expected to once again benefit from credit-driven price impetus in 2020, with the result that, according to Deutsche Bank Research, the risk of a bubble forming will increase in the years that follow on the back of sustained brisk lending activity. The empirica bubble index for Germany shows a moderate to high risk of a bubble for 293 out of 401 administrative districts and self-governing cities in the fourth quarter of 2019.

As the global real estate service provider CBRE reports, investors continued to show a keen interest in German residential properties in 2019. The transaction volume, based on transactions involving 50 residential units or more, is almost at an all-time high at around € 16.3 billion. While the fundamental mood on the German residential investment market remains positive, the lack of existing portfolios and declining new construction activity will restrict the products on offer. CBRE expects to see a transaction volume in excess of € 15 billion in 2020.

The trend on the residential property markets is creating major challenges as far as housing policy is concerned. The German Tenancy Law Amendment Act (Mietrechtsanpassungsgesetz), which is designed to ensure greater transparency with regard to the rent cap and to limit and simplify the modernization allocation, has been in force since January 2019. Also with the aim of putting a damper on the increase in rents, the German Bundestag (lower house of parliament) made the decision at the end of 2019 to expand the observation period used to create rent indices from four to six years. Moves to step up and extend the rent cap regulations until 2025 were adopted by the German Bundestag (lower house of parliament) in February 2020. The housing allowance reform means that low-income households have been receiving more housing allowance since January 1, 2020. A law on fiscal incentives to build housing for rental came into force in the summer of 2019, and investments in energy-efficient refurbishment measures for owner-occupied residential real estate are to receive tax incentives for a limited period starting in 2020. At the end of

January 2020, the Act on Rent Controls in the Housing Sector in Berlin, known as the rent freeze, was passed by the Berlin House of Representatives. It entered into force in February 2020. The law, whose constitutionality remains in doubt, essentially involves public-law restrictions on rent levels in Berlin for a period of five years. Further legislation under discussion that is relevant to the real estate sector includes the intended amendment to the German real estate transfer tax system that aims to make share deals less attractive.

Sweden

After several years of upswing, economic growth is also slowing in Sweden. The latest forecast released by the National Institute of Economic Research (NIER) put GDP growth in 2019 at an estimated 1.1%. Growth slowed down in particular due to the waning demand from abroad, which translated into weak development in corporate investment. In 2020, GDP development is likely to remain weak due to sluggish export growth and an expected rise in the unemployment rate. However, both the monetary policy, which remains accommodative, and the slightly expansive fiscal policy are likely to provide a boost to growth. Therefore, the NIER predicts GDP growth of 1.0% in 2020, with a return to more substantial growth of 1.5% on the cards for 2021.

The relatively weak demand growth means that there will be little need for companies to expand their workforces, particularly in the manufacturing sector. Negative net lending in the municipal sector will also put pressure on employment in the public sector, which is only set to increase at a slow rate in the foreseeable future. However, since the working-age population will continue to grow over the next few years, unemployment is likely to increase from 6.8% in 2019 to 7.2% in 2020 and 7.4% in 2021. Both consumer and business confidence indicators are below normal levels with regard to the economic trend. This is reflected, first of all, in slower growth in private consumption in 2019 than in previous years at 1.0% and second, in economic sentiment that is languishing at a low level last seen during the euro crisis. However, as private households will benefit from tax cuts and slightly lower inflation, the NIER predicts that private consumption will increase by 1.9% in 2020 and 1.7% in 2021. While investments in the manufacturing sector have dropped further, investments in the service sector have increased. Housing investment also showed slightly positive development after being on a downward trajectory for more than a year. Nevertheless, investments have failed to make any positive contribution to GDP growth, a natural consequence in times of economic downturn. The state, on the other hand, is continuing to up its investments, particularly in education and infrastructure.

The ongoing weakness of the Swedish krona provided a further boost to exports, which grew by an estimated 4.6% in 2019; imports rose by 2.1% and the foreign trade balance was +1.2%. As far as 2020 is concerned, the NIER expects to see a foreign trade balance that is more or less in equilibrium due to global economic tensions, with an expected slight increase to 0.6% in favor of exports again in 2021.

At 1.7%, the inflation rate (CPIF) remained below the 2% target set by the Swedish Riksbank in 2019 and is actually expected to dip slightly again to 1.6% in 2020 and 1.5% in 2021 based on calculations performed by the NIER. Nevertheless, the Riksbank opted to buck the international trend in December 2019 by tightening its monetary policy and lifting interest rates from -0.25% to 0.00%. This marks the first time in five years that the key interest rate has left negative territory; it is expected to remain at zero over the coming years, too.

The Swedish housing market is under considerable pressure, as reported by the Swedish Association of Public Housing Companies, Sveriges Allmännytta. The population has seen strong growth in recent years and is expected to continue expanding. In the meantime, new construction has not been able to keep up with this population growth. Much of the country is facing a housing shortage, primarily in its urban areas. According to the housing market survey from 2019 by Boverket, the Swedish National Board of Housing, Building and Planning, 240 out of 290 municipalities are reporting a shortage of homes. The supply of rental apartments in particular needs to be expanded; there is a particular shortage of apartments for low-income households as well as housing for people who have a weak position on the housing market for other reasons. Residential construction is limited in many municipalities due to high construction costs, but also by the difficulties faced by private individuals in being granted loans.

According to data supplied by Statistics Sweden, rents in Sweden rose by an average of 1.9% in 2019, the highest increase seen since 2013. Based on the initial results of the rent negotiations for 2020 published by "Hem & Hyra," the member magazine published by the Swedish tenants' association ("Hyresgästföreningen"), rents are also expected to continue to rise. According to Swedbank, the market for residential property ownership is once again experiencing an upward trend and prices are rising again. In line with this trend, the Valueguard HOX price index, which reflects the price development of typical condominiums and single-family homes, was up by 4.5% year-over-year in December 2019. According to Boverket, the prices of residential property ownership are once again nearing the level seen prior to the sudden price drop in the fourth quarter of 2017. According to the European Commission, the development witnessed at that time was driven mainly by weakness in the tenant-owned apartment market and is likely to have been caused by, among other factors, stricter mortgage rules as well as by an increase in the supply of new homes. These are often being built in a market segment that is too expensive, according to property service provider Newsec. Swedbank predicts that house prices could increase by 5% a year in 2020 and 2021.

The NIER reports that, after the cooling of house prices, housing investment was down in 2018 after a prolonged phase of rapid growth. The number of housing starts has declined considerably, from 68,500 apartments in 2017 to 56,200 apartments in 2018, according to Boverket. The situation has stabilized since then, with construction work starting on an estimated 51,000 apartments in 2019, with a potential figure of 50,000 apartments for 2020. According to figures released by Boverket, the drop is mainly concentrated in the tenant-owned apartment segment, whereas the drop in the construction of rented apartments and single-family homes as against 2017 is less pronounced. This means, however, that construction activity is still falling short of the level that is currently required. In the main scenario underlying its current forecast, Boverket calculates that 64,000 apartments will have to be built every year in the period leading up to 2027.

According to Jones Lang LaSalle (JLL), the marked imbalance between supply and demand in all living categories, combined with a growing and aging population, offers investors a positive environment for stable, inflation-linked returns and good potential for asset value appreciation. Both traditional multifamily properties and elderly care facilities rank among the asset groups attracting the greatest investor demand. The keen investor interest is also reflected in the transaction volume. According to Savills, properties worth SEK 219 billion were traded in 2019. With a total investment volume of almost SEK 80 billion residential properties were the preferred asset class. The considerable volume is partly attributable to the takeover of the housing company Hembla by Vonovia. There is keen investor interest in both new builds and old stock. The beneficial potential for rent improvement has created considerable investor demand for properties built during the country's "Million Program" public housing program. The Million Program was a construction program launched by the Swedish government that aimed to build around one million new apartments in the ten-year period between 1965 and 1975.

Austria

Economic development in Austria also lost momentum in 2019 in line with the global economic slowdown. Nevertheless, the Austrian Institute of Economic Research (WIFO) predicts that GDP growth will come to 1.7% thanks to robust expansion in the first six months of the year. Looking ahead to 2020 and 2021, the institute expects figures of 1.2% and 1.4% respectively (Austrian central bank [OeNB]: 1.1% and 1.5%). The Austrian economy is now also on a two-track course: Whereas the foreign trade environment is putting a damper on domestic exports, with a knock-on effect on industrial production, domestic economic drivers, primarily construction activity and the demand for services, are stabilizing the Austrian economy. The substantial growth in real income is also fueling private consumption in Austria, which is expected to have grown by 1.5% in 2019. Domestic demand is likely to remain brisk in the following years, too, growing by 1.6% in each case and therefore remaining one of the main factors driving economic growth. Real income development is also receiving positive impetus from the relatively low level of inflation. Inflation based on consumer prices is expected to have come to 1.5% in 2019, with both the WIFO and the Institute for Advanced Studies (IHS) predicting that this level will remain virtually unchanged over the coming years, too. Experts attribute the low level of inflation primarily to the weaker energy price development.

Employment growth, on the other hand, is dwindling on the back of the moderate economic momentum, and the reduction in unemployment is starting to stall, also due to the sustained increase in the supply of labor. National calculations put the unemployment rate at a predicted 7.3% in 2019, with a slight increase to 7.4% forecast for 2020, a level at which the rate is tipped to remain in 2021.

The WIFO therefore expects that export momentum, which is now only very moderate, will touch on its low point in the spring of 2020 before starting to gain some momentum again. After growth of 2.8% in 2019, exports are expected to increase by 2.3% and 2.9% in 2020 and 2021 respectively (OeNB: 1.7% and 2.8% respectively). This is consistent with the current results of the WIFO Economic Test (Konjunkturtest), which suggests that the economic outlook is looking increasingly gloomy, albeit pointing to considerable differences from sector to sector: Whereas confidence levels among goods manufacturers are low, the assessments in the construction industry and in the economy's service sectors remain positive.

The unusually long investment cycle reached its end point in 2019 due to the weak global economic development. Nevertheless, high levels of capacity utilization and the favorable financing conditions on offer argue against a complete slump in investment activity. Whereas equipment investments continued to show robust growth of 3.4% in 2019, this figure is expected to slow to 0.3% in 2020 before rising to 2.0% again in 2021. As far as construction investments are concerned, the IHS expects them to fall from 2.3% in 2019 to 1.2% in 2020 as a result of the economic slowdown, before climbing to 1.5% again in 2021.

Austria is also exposed to foreign trade risks, which include economic and geopolitical risks in addition to the uncertainty regarding trade barriers for the exchange of goods with the United States. The longer the resulting slump in the industrial sector continues, the more likely it becomes that this development will spill over to the service sector, which is currently still in robust shape.

With the formation of a new government between the Austrian People's Party (ÖVP) and the Green Party at the beginning of 2020, it is expected that the overdue tax reform will take priority. These reforms aim to reduce a tax burden that is high in an international comparison and also create incentives to combat climate change.

Overall conditions on the real estate market remain positive. 2019 was characterized by sustained low interest rates, an ongoing good supply of properties despite a slight drop and, in the majority of regions, very high demand for real estate among owner-occupiers and investors alike. At the beginning of 2020, experts from the real estate service provider RE/MAX Austria reported that they do not expect to see any significant change in these conditions in 2020 either. In line with this assessment, the values of the current OeNB residential real estate price index on the basis of new and used condominiums and single-family residences show an increase in Austria in the third quarter of 2019 of 5.2% compared to the previous year. In Vienna, prices increased compared to the previous year by 7.6%. In the rest of Austria (excluding Vienna), price developments were much lower during the same period at 1.8%. According to the consumer price index published by the Austrian statistical office, Statistik Austria, apartment rents rose by 3.0% in 2019. The fundamental price indicator of the OeNB for residential real estate shows a further increase in possible overvaluation for Vienna in the third quarter of 2019, compared with the third quarter of 2018, but recently showed more of a sideways movement for Austria overall. According to the RE/MAX Real Estate Future Index, residential real estate prices are expected to increase slightly again in 2020, although the rate of increase will generally be lower than in previous years. Rents and prices for condominiums will continue to increase both in city centers and on the outskirts of cities, whereas the prices for condominiums in country municipalities will increase slightly while rents, on the other hand, will falter. Apartment purchase prices are likely to increase at a faster rate than rents that can be freely agreed. According to EHL, rents in Vienna are expected to increase on a par with the rate of inflation by around 1.5% in 2020 and 2021, with purchase prices for properties set to rise at a rate well in excess of inflation.

The Austrian Conference on Spatial Planning (ÖROK) reports that the Austrian population has increased considerably in the past and will continue to grow in the future. According to the OeNB, excess demand started to accumulate in the mid-2000s due to smaller household sizes, rising net migration and weak construction activity, a trend that reached its peak in 2016. Bank Austria reports that residential construction activity in Austria has been geared toward addressing the considerable shortage of supply on the residential property market for some years now. An estimated 66,000 units were completed in 2018 – the highest level of construction activity seen in decades – and are likely to have satisfied the current need for housing prevailing in Austria on average. Nevertheless, major supply gaps remain in individual market segments, particularly in the area of more affordable rental apartments. The OeNB reports sustained considerable momentum in residential construction activity, although an imminent slowdown for the construction industry would appear to be on the horizon. Looking at Austria as a whole, the excess demand should have been resolved by 2020, although Vienna is likely to continue to face a shortage of housing even after this year is out.

According to EHL, real estate investment market in Austria reached an all-time high in 2019, with the market volume predicted to remain close to the current record figures in the years to come, too. Preliminary figures suggest that transactions worth a total of just under € 6 billion were executed in 2019. After office properties, institutional residential investments were the second-strongest asset class at approx. 27%.

Group's Business Development

Business Development in 2019 – An Overview

2019 was once again a very successful fiscal year for Vonovia. We continued with our modernization and new construction strategy, investing around € 1.5 billion in our portfolio. We completed 1,301 apartments for our own portfolio, as well as 791 apartments for sale. Furthermore, we also expanded our position in Sweden further with the acquisition of the Akelius Residential Property portfolio and Hembla AB.

The table below provides an overview of the development of our most recent forecast performance indicators (only adjusted NAV per share incl. Hembla) and the target achievement level for these indicators in the 2019 fiscal year. When comparing the figures with the prior year, it is important to remember that BUWOG is included in the 2018 figures with an earnings contribution for the months from April to December, and that Victoria Park is included with an earnings contribution for the months from July to December. The figures for 2019 include contributions for the full year for BUWOG and Victoria Park, while Hembla is included with its earnings contributions for November/December 2019. The IFRS 16 accounting standard was also adopted for the first time in 2019. The resulting effect on the adjusted EBITBA total amounted to € 29.9 million in total. This effect is eliminated in the Group FFO reconciliation.

	Actual 2018	Last forecast for 2019 in the 2019 Q3 report	Actual 2019
Adjusted NAV per share	€ 44.90	€ 51.50–53.00	€ 51.93
Adjusted EBITDA Total	€ 1,554.8 million	upper end of range € 1,700–1,750 million	€ 1,760.1 million
Group FFO	€ 1,132.0 million	upper end of range € 1,165–1,215 million	€ 1,218.6 million
Group FFO per share*	€ 2.18	upper end of ange € 2.15–2.24	€ 2.25
Customer Satisfaction Index (CSI)	Decrease of 2.6%	Down by single-digit percent value year-over-year	Decrease of 8.0%

* Based on the current number of shares in each case.

The **Adjusted NAV** per share came in at € 51.93 in 2019, up by 15.7% on the prior-year value of € 44.90. This corresponds to an EPRA NAV per share of € 54.96 (2018: € 50.39). This increase was due primarily to the net income from fair value adjustments of investment properties of € 4,131.5 million (2018: € 3,517.9 million).

The **Adjusted EBITDA Total** (incl. the earnings contribution made by Hembla in November and December 2019 in the amount of € 9.6 million) came to € 1,760.1 million in 2019, up by 13.2% on the prior-year value of € 1,554.8 million. All segments reported a positive increase that contributed to this development.

Group FFO rose by € 86.6 million to € 1,218.6 million in 2019 (2018: € 1,132.0 million). Hembla is included with an amount of € 3.8 million in 2019. This corresponds to a Group FFO per share of € 2.25 (2018: € 2.18). The improvement in Adjusted EBITDA Rental was the main factor behind the increase in Group FFO. It rose from € 1,315.1 million in 2018 to € 1,437.4 million in 2019. This is due, on the one hand, to positive organic growth as a result of our modernization and new construction strategy and, on the other, by the acquisitions in Austria and Sweden. The Group FFO interest expense came to € 358.6 million in 2019, up by 9.1% on the prior-year value of € 328.8 million. Current income taxes FFO came in at € 50.1 million in 2019, around 37.3% higher than in the previous year (€ 36.5 million). At € 132.8 million, consolidation effects in 2019 were up considerably on the prior-year value of € 57.5 million. This can be traced back primarily to the increase in gross profit from Development to hold (2019: € 58.9 million, 2018: € 18.7 million) and to the initial application of the IFRS 16 accounting standard in the 2019 fiscal year in the amount of € 29.9 million.

Contrary to the expectations based on improved operating performance, the **CSI** fell by 8.0%. This unsatisfactory development is being explored in detail, the aim being to identify the areas in which our services are falling short of our customers' expectations. Initial findings have shown that the sociopolitical discussion on the shortage of housing, energy-efficient refurbishment and the private-sector housing market had a clear negative impact on the CSI due to the uncertainty these issues create. It is also clear that Vonovia's investment activity, which was higher than ever before in the company's history in 2019, is a matter of concern for our tenants. This prompted Vonovia to revamp its own business philosophy in 2019, setting out that Vonovia is part of the solution to the problems the housing industry is facing. We expect the measures taken in this regard, in particular doing more to get tenants on board in our work, will have a positive impact – measured in terms of the CSI – on how our work is accepted.

Statement of the Management Board on the Economic Situation

The net assets, financial position and results of operations of the Group are extremely positive, particularly given the solid financing, the resulting balanced maturity profile and the financing flexibility gained through the rating-backed bond financings with a view to both organic and external growth. The ongoing improvements to the property management processes, the expansion of the Value-add segment, the steady Recurring Sales and a successful development business promote ongoing improvement in profitability.

Results of Operations

The following key figures provide an overview of how Vonovia's results of operations and their drivers developed in 2019. For information on the limited comparative value of the prior-year figures, we refer to the statements in the chapter on overall business development within the Group.
→ p. 95 et seqq.

Key Figures on Earnings Development

in € million	2018	2019	Change in %
Income from property management	2,708.2	2,910.7	7.5
thereof rental income in the Rental segment	1,894.2	2,074.9	9.5
Income from disposal of properties	1,097.5	510.7	-53.5
Income from disposal of real estate inventories (Development)	225.1	249.5	10.8
Adjusted EBITDA Total	1,554.8	1,760.1	13.2
Adjusted EBITDA Rental	1,315.1	1,437.4	9.3
Adjusted EBITDA Value-add	121.2	146.3	20.7
Adjusted EBITDA Recurring Sales	79.1	91.9	16.2
Adjusted EBITDA Development	39.4	84.5	> 100
Group FFO	1,132.0	1,218.6	7.7
EBITDA IFRS	1,534.4	1,579.6	2.9
Monthly in-place rent (€/m²)	6.52	6.93	6.3
Average area of own apartments in the reporting period (in thou. m²)	24,293	25,316	4.2
Average number of own units (number of units)	384,777	398,398	3.5
Vacancy rate in %	2.4	2.6	0.2 pp
Maintenance expenses and capitalized maintenance (€/m²)	17.72	19.02	7.3
thereof maintenance expenses (€/m²)	11.92	12.20	2.3
thereof capitalized maintenance (€/m²)	5.79	6.82	17.8
Number of units bought	63,706	23,987	-62.3
Number of units sold	15,102	4,784	-68.3
thereof Recurring Sales	2,818	2,607	-7.5
thereof Non-core Disposals	12,284	2,177	-82.3
Number of employees (as of December 31)	9,923	10,345	4.3

Income from property management came to € 2,910.7 million, 7.5% higher than the value of € 2,708.2 million seen in the previous year. This increase was due primarily to the acquisitions of BUWOG and Victoria Park in the previous year, to the acquisition of Hembla in the 2019 fiscal year and to organic growth resulting from new construction and modernization measures. All in all, rental income in the Rental segment rose by 9.5%, from € 1,894.2 million to € 2,074.9 million.

As of the end of 2019, Vonovia managed a portfolio comprising 416,236 of its own residential units (2018: 395,769), 138,176 garages and parking spaces (2018: 117,885) and 6,748 commercial units (2018: 5,144). We sold a total of 4,784 units (Recurring Sales and Non-core disposals) in the course of the 2019 fiscal year (2018: 15,102) and acquired 23,987 units (2018: 63,706).

In 2019, BUWOG's portfolio contributed € 296.4 million to the income from property management (2018: € 242.1 million). Victoria Park's portfolio contributed € 137.7 million (2018: € 59.5 million) and Hembla's portfolio contributed € 30.4 million.

Income from disposal of properties came to € 510.7 million, 53.5% below the value of € 1,097.5 million seen in the previous year. This drop can be traced back primarily to the Non-core disposals. At 2,177, the number of units sold in the 2019 fiscal year was down considerably in a year-over-year comparison (12,284 units).

The **Adjusted EBITDA Total** rose by € 205.3 million from € 1,554.8 million in the 2018 fiscal year to € 1,760.1 million in 2019. All segments contributed to this development. The Adjusted EBITDA Rental increased by 9.3% from € 1,315.1 million in 2018 to € 1,437.4 million in 2019. Adjusted EBITDA Value-add rose by 20.7% from € 121.2 million in the 2018 fiscal year to € 146.3 million in 2019. The Adjusted EBITDA Recurring Sales came in at € 91.9 million, up by around 16.2% on the value of € 79.1 million seen in the previous year. The Adjusted EBITDA Development amounted to € 84.5 million in 2019 (2018: € 39.4 million). The Adjusted EBITDA Total included the earnings contributions made by Hembla in 2019, with a volume of € 9.6 million.

Group FFO rose by 7.7% from € 1,132.0 million in 2018 to € 1,218.6 million in 2019. Hembla is included in Group FFO in 2019 with a volume of € 3.8 million. The FFO interest included in Group FFO came to € 358.6 million in 2019 (2018: € 328.8 million), while current FFO taxes came to € 50.1 million (2018: € 36.5 million). The FFO taxes do not include current income taxes resulting from sales in the Non-core Disposals segment.

At the end of 2019, Vonovia employed a workforce of 10,345 (2018: 9,923).

Group FFO

The following key figures provide an overview of the development in Group FFO and other value drivers in the reporting period.

in € million	2018	2019	Change in %
Rental income in the Rental segment	1,894.2	2,074.9	9.5
Expenses for maintenance	-289.7	-308.9	6.6
Operating expenses in the Rental segment*	-289.4	-328.6	13.5
Adjusted EBITDA Rental	**1,315.1**	**1,437.4**	**9.3**
Revenue Value-add	1,462.2	1,677.3	14.7
thereof external revenue	203.9	248.4	21.8
thereof internal revenue	1,258.3	1,428.9	13.6
Operating expenses Value-add	-1,341.0	-1,531.0	14.2
Adjusted EBITDA Value-add	**121.2**	**146.3**	**20.7**
Income from disposals Recurring Sales	356.1	365.1	2.5
Fair value of properties sold adjusted to reflect effects not relating to the period from assets held for sale in the Recurring Sales segment	-262.8	-258.4	-1.7
Adjusted result Recurring Sales	**93.3**	**106.7**	**14.4**
Selling costs Recurring Sales	-14.2	-14.8	4.2
Adjusted EBITDA Recurring Sales	**79.1**	**91.9**	**16.2**
Income from disposal of "Development to sell" properties	225.1	249.5	10.8
Cost of Development to sell	-181.8	-197.3	8.5
Gross profit Development to sell	**43.3**	**52.2**	**20.6**
Fair value Development to hold	98.0	266.3	> 100
Cost of Development to hold	-79.3	-207.4	> 100
Gross profit Development to hold**	**18.7**	**58.9**	**> 100**
Operating expenses in the Development segment	-22.6	-26.6	17.7
Adjusted EBITDA Development	**39.4**	**84.5**	**> 100**
Adjusted EBITDA Total	**1,554.8**	**1,760.1**	**13.2**
FFO interest expense	-328.8	-358.6	9.1
Current income taxes FFO	-36.5	-50.1	37.3
Consolidation*	-57.5	-132.8	> 100
Group FFO	**1,132.0**	**1,218.6**	**7.7**

* Thereof intragroup profits in 2019: € 43.9 million (2018: € 38.8 million), valuation result for new development to hold in 2019: € 58.9 million (2018: € 18.7 million), IFRS 16 effects 2019: € 29.9 million (2018: € 0.0 million).

As of the end of 2019, our apartments were virtually fully occupied. The apartment vacancy rate of 2.6% was up slightly on the value of 2.4% seen at the end of 2018. **Rental income** in the **Rental segment** rose by 9.5% from € 1,894.2 million in 2018 to € 2,074.9 million in 2019, largely due to the acquisitions of BUWOG and Victoria Park in 2018 and Hembla in 2019 and to organic growth resulting from new construction and modernization measures. BUWOG contributed a volume of € 200.6 million (April–December 2018: € 155.5 million), Victoria Park contributed a volume of € 135.7 million (July–December 2018: € 58.4 million), and Hembla contributed a volume of € 29.6 million. Of the rental income in the Rental segment, € 1,801.2 million is attributable to rental income in Germany (2018: € 1,751.4 million), € 108.3 million to rental income in Austria (2018: € 83.1 million) and € 165.4 million in Rental income in Sweden (€ 58.4 million).

The increase in rent due to market-related factors came to 1.1% (2018: 1.3%). We were also able to achieve an increase in rent of 2.3% thanks to property value improvements achieved as part of our modernization program (2018: 2.9%). The corresponding **like-for-like rent increase** came to 3.4% in the 2019 fiscal year (2018: 4.2%). If we also include the increase in rent due to new construction measures and measures to add extra stories, then we arrive at an **organic increase in rent** totaling 3.9% (2018: 4.4%). The average monthly in-place rent within the Group at the end of December 2019 came to € 6.93 per m² compared to € 6.52 per m² at the end of December 2018. At the end of 2019, the monthly in-place rent in the German portfolio came to € 6.79 per m² (Dec. 31, 2018: € 6.55), for the Austrian portfolio of € 4.64 per m² (Dec. 31, 2018: € 4.53) and € 9.46 per m² for the Swedish portfolio (Dec. 31, 2018: € 9.11). The rental income from the Austrian property portfolio additionally includes maintenance and improvement contributions (EVB). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating, heating and water supply costs.

We continued with our modernization, new construction and maintenance strategy in the 2019 fiscal year. The total volume rose by 25.6% from € 1,569.4 million in 2018 to € 1,971.1 million in 2019. This was driven largely by the increase in modernization and new construction activity.

Maintenance, Modernization, New Construction

in € million	2018	2019	Change in %
Expenses for maintenance	289.7	308.9	6.6
Capitalized maintenance	140.7	172.7	22.7
Maintenance measures	430.4	481.6	11.9
Modernization measures	904.7	996.5	10.1
New construction (to hold)	234.3	493.0	> 100
Modernization and new construction measures	1,139.0	1,489.5	30.8
Total cost of modernization, maintenance and new construction	**1,569.4**	**1,971.1**	**25.6**

Operating expenses in the Rental segment in the 2019 fiscal year were up by 13.5% on the figures for 2018, from € 289.4 million to € 328.6 million. This development is due primarily to the larger portfolio thanks to the acquisitions of BUWOG, Victoria Park and Hembla. All in all, **Adjusted EBITDA Rental** rose by 9.3%, from € 1,315.1 million in 2018 to € 1,437.4 million in 2019.

The **Value-add segment** showed sustained positive development in the 2019 fiscal year. We expanded the services offered by our craftsmen's organization even further and continued to invest in improvements to the existing building stock. We continued to expand our business activities relating to the provision of cable television to our tenants, metering services, insurance and residential environment services, and energy supply services. We supplied a total of around 18,200 households with energy directly as of the end of 2019.

External revenue from our Value-add activities with our end customers rose by 21.8%, from € 203.9 million in 2018 to € 248.4 million in the 2019 fiscal year. Group revenue rose by 13.6% from € 1,258.3 million in 2018 to € 1,428.9 million in 2019. Overall, this results in a 14.7% increase in the revenue from the Value-add segment from € 1,462.2 million in 2018 to € 1,677.3 million in 2019. **Adjusted EBITDA Value-add** rose by 20.7%, from € 121.2 million in 2018 to € 146.3 million in 2019.

We continued to pursue our selective sales strategy in the 2019 fiscal year. In the Recurring Sales segment, we report all business activities relating to the sale of single residential units (Privatize).

In the **Recurring Sales segment**, the income from disposal of properties came to € 365.1 million in the 2019 fiscal year, up by 2.5% on the value of € 356.1 million in 2018; € 250.9 million of this amount is attributed to sales in Germany (2018: € 268.7 million) and € 114.2 million to sales in Austria (2018:

€ 87.4 million). We privatized 2,607 apartments in the 2019 fiscal year (2018: 2,818), thereof 2,012 in Germany (2018: 2,393) and 595 in Austria (2018: 425). Adjusted EBITDA Recurring Sales came in at € 91.9 million in the 2019 fiscal year, up by 16.2% on the value of € 79.1 million seen in 2018. The **fair value step-up** for Recurring Sales came in at 41.3% in 2019, up against the comparative value of 35.5% for 2018. Much higher market prices were achieved in the 2019 fiscal year in relation to the total portfolio. In addition, the BUWOG sales are included with a contribution for the year as a whole.

Outside of the Recurring Sales segment, we made 2,177 **Non-core Disposals** of residential units as part of our portfolio adjustment measures in the 2019 fiscal year (2018: 12,284) with total proceeds of € 145.6 million (2018: € 741.4 million). At 15.8%, the fair value step-up for Non-core Disposals was lower than for the same period in the previous year (23.0%). The drop is due primarily to a larger-scale block sale in 2019 in Saxony and Saxony-Anhalt.

In the 2019 fiscal year, the **Development segment**, with its **Development to sell** and **Development to hold** areas, made positive contributions to earnings in Germany, Austria and, for the very first time, Sweden, allowing it to contribute to Vonovia's successful growth.

In the **Development to sell** area, a total of 791 units were completed in the 2019 fiscal year (2018: 470 units), thereof 350 units in Germany (2018: 128) and 441 units in Austria (2018: 342). In 2019, income from the disposal amounted to € 249.5 million (2018: € 225.1 million), with € 131.8 million attributable to project development in Germany (2018: € 107.8 million) and € 117.6 million to project development in Austria (2018: € 117.2 million). The resulting gross profit for Development to sell came to € 52.2 million (2018: € 43.3 million).

In the **Development to hold** area, a total of 1,301 units were completed (2018: 638 units incl. attic conversions), thereof 870 in Germany (2018: 457 units) and 401 units in Austria (2018: 181 units) and 30 units in Sweden (2018: 0 units). This includes 307 apartments (2018: 160) that were developed as part of modernization measures (the addition of extra stories to existing buildings). The fair value effect of these apartments is included in net income from fair value adjustments of investment properties, as these measures relate to old stock. In the Development to hold area, a fair value of € 266.3 million was achieved in 2019 (2018: € 98.0 million), with € 164.3 million attributable to project development in Germany (2018: € 66.0 million) and € 96.3 million to project development in Austria (2018: € 32.0 million) and € 5.7 million to project development in Sweden (2018: € 0.0 million). The gross profit for Development to hold came to € 58.9 million (2018: € 18.7 million).

The Adjusted EBITDA for the Development segment amounted to € 84.5 million in the 2019 fiscal year (2018: € 39.4 million).

In the 2019 fiscal year, the primary key figure for the sustained earnings power, **Group FFO**, increased by 7.7% from € 1,132.0 million in 2018 to € 1,218.6 million in 2019, largely due to acquisitions and organic growth. This trend was fueled primarily by the positive development in Adjusted EBITDA Total, which rose by 13.2% from € 1,554.8 million to € 1,760.1 million during the reporting period.

In the 2019 fiscal year, the **non-recurring items** eliminated in the **Adjusted EBITDA Total** came to € 93.1 million (2018: € 106.6 million). The following table gives a detailed list of the non-recurring items:

Non-recurring Items

in € million	2018	2019	Change in %
Acquisition costs incl. integration costs*	87.8	48.2	-45.1
Severance payments/pre-retirement part-time work arrangements	18.3	13.2	-27.9
Business model optimization/development of new fields of business	0.8	27.6	>100
Refinancing and equity measures	-0.3	4.1	–
Total non-recurring items	**106.6**	**93.1**	**-12.7**

* Including one-time expenses in connection with acquisitions, such as HR measures relating to the integration process.

Reconciliations

The **financial result** changed from € -440.1 million in 2018 to € -396.4 million in 2019. FFO interest expense is derived from the financial result as follows:

Reconciliation of Financial Result/FFO Interest Expense

in € million	2018	2019	Change in %
Interest income	5.8	8.9	53.4
Interest expense	-420.8	-417.5	-0.8
Other financial result excl. income from investments	-25.1	12.2	–
Financial result*	**-440.1**	**-396.4**	**-9.9**
Adjustments:			
Other financial result excl. income from investments	25.1	-12.2	–
Effects from the valuation of interest rate and currency derivatives	15.4	17.9	16.2
Prepayment penalties and commitment interest	8.4	28.1	>100
Effects from the valuation of non-derivative financial instruments	14.9	-18.9	–
Interest accretion to provisions	9.1	10.0	9.9
Accrued interest	43.4	-22.2	–
Interest on prior-year tax	20.3	–	-100.0
Other effects	1.5	3.4	>100
Net cash interest	**-302.0**	**-390.3**	**29.2**
Deferred interest adjustment/IFRS 16 Leases	-43.4	31.0	–
Adjustments income from investments in other real estate companies	14.0	1.7	-87.9
Adjustment of interest paid due to taxes	2.6	-1.0	–
Interest expense FFO	**-328.8**	**-358.6**	**9.1**

* Excluding income from other investments.

The **profit for the period** in the 2019 fiscal year came to € 1,294.3 million compared with € 2,402.8 million in 2018. The goodwill impairments in the amount of € 2,103.5 million in 2019 were the main factor behind this (2018: € 681.2 million). This was counteracted by the net income from fair value adjustments of investment properties of € 4,131.5 million (2018: € 3,517.9 million).

Reconciliation of Profit for the Period/Group FFO

in € million	2018	2019	Change in %
Profit for the period	2,402.8	1,294.3	-46.1
Financial result*	440.1	396.4	-9.9
Income taxes	1,471.5	1,844.6	25.4
Depreciation and amortization	737.9	2,175.8	> 100
Net income from fair value adjustments of investment properties	-3,517.9	-4,131.5	17.4
= EBITDA IFRS	**1,534.4**	**1,579.6**	**2.9**
Non-recurring items	106.6	93.1	-12.7
Total period adjustments from assets held for sale	-0.5	-2.2	> 100
Financial income from investments in other real estate companies	-14.0	-1.7	-87.9
Other (Non-core Disposals)	-129.2	-11.5	-91.1
Intragroup profits	38.8	43.9	13.1
Valuation result Development to hold	18.7	58.9	> 100
= Adjusted EBITDA Total	**1,554.8**	**1,760.1**	**13.2**
Interest expense FFO 1**	-328.8	-358.6	9.1
Current income taxes FFO 1	-36.5	-50.1	37.3
Consolidation	-57.5	-132.8	>100
= Group FFO	**1,132.0**	**1,218.6**	**7.7**
Group FFO per share in €***	2.18	2.25	3.2

* Excluding income from other investments.
** Incl. financial income from investments in other real estate companies.
*** Based on the shares carrying dividend rights on the reporting date Dec. 31, 2018: 518,077,934, Dec. 31, 2019: 542,273,611.

Assets

Consolidated Balance Sheet Structure

	Dec. 31, 2018		Dec. 31, 2019	
	in € million	in %	in € million	in %
Non-current assets	47,639.6	96.5	55,066.7	97.5
Current assets	1,748.0	3.5	1,431.0	2.5
Assets	**49,387.6**	**100.0**	**56,497.7**	**100.0**
Total equity	19,664.1	39.8	21,069.7	37.3
Non-current liabilities	25,577.8	51.8	31,746.0	56.2
Current liabilities	4,145.7	8.4	3,682.0	6.5
Equity and liabilities	**49,387.6**	**100.0**	**56,497.7**	**100.0**

The Group's **total assets** increased by € 7,110.1 million as against December 31, 2018, rising from € 49,387.6 million to € 56,497.7 million. The most important impact on the assets can be traced back to a € 9,245.7 million increase in investment properties from € 43,490.9 million to € 52,736.6 million, with € 4,131.5 million resulting from the property valuation process (€ 3,726.7 million of it in Germany). Assets were also increased by € 3.4 billion due to the takeover of the Swedish company Hembla in line with the provisional purchase price allocation, with € 3.2 billion relating to investment properties. The impairment of goodwill in the sum of € 2,103.5 million has a counteracting effect. The impairment is the result of the impairment tests carried out due to the increase in the value of the real estate portfolio in the second quarter of 2019 and the revision of the regional structure in the third quarter of 2019. The Hembla acquisition resulted in new goodwill of € 0.7 billion on the basis of the provisional purchase price allocation. In addition, non-current assets fell by € 672.8 million due to the sale of the shares in Deutsche Wohnen SE. Current assets fell by € 287.2 million, mainly due to a drop in trade receivables. Goodwill and trademark rights comprise 2.8% of the total assets.

As of December 31, 2019, the **gross asset value (GAV)** of Vonovia's property assets came to € 53,586.3 million, which corresponds to 94.8% of total assets compared with € 44,226.9 million or 89.6% at the end of 2018.

The € 1,405.6 million increase in **total equity** from € 19,664.1 million to € 21,069.7 million is due, in particular, to the capital increases implemented in May and June 2019 in the amount of € 1,080.5 million in total (after deductions to reflect transaction costs) and to the profit for the period of € 1,294.3 million. The dividend distributions in the sum of € 746.0 million had the opposite effect.

This brings the **equity ratio** to 37.3%, compared with 39.8% at the end of 2018.

Liabilities increased by € 5,704.5 million from € 29,723.5 million to € 35,428.0 million. The amount of non-derivative financial liabilities rose by € 3,438.9 million, largely due to the acquisition of Hembla and the purchase of another real estate portfolio in Sweden. Beyond this, liabilities increased by € 2,040.2 million due to the increase in deferred taxes primarily as a result of the increase in the value of the real estate portfolio.

The impact of the first-time application of the new lease accounting standard (IFRS 16) on the Group's assets, equity and liabilities is shown in detail in the notes to the financial statements in notes [A8] Changes in Accounting Policies, Estimates, Assumptions, Options and Judgments and [E42] Leases.

Net Asset Value

Vonovia's net asset value (NAV) figures are based on the best practice recommendations of the European Public Real Estate Association (EPRA). At the end of 2019, the EPRA NAV came to € 29,654.5 million, up by 13.6% on the value of € 26,105.0 million seen at the end of 2018. EPRA NAV per share increased from € 50.39 at the end of 2018 to € 54.69 at the end of 2019. The Adjusted NAV of € 28,161.9 million at the end of 2019 was an increase of 21.1% over € 23,262.6 million at the end of 2018. This represents an increase of 15.7% in the Adjusted NAV per share from € 44.90 at the end of 2018 to € 51.93 at the end of 2019.

Net Asset Value (NAV)

in € million	Dec. 31, 2018	Dec. 31, 2019	Change in %
Total equity attributable to Vonovia shareholders	17,880.2	19,308.3	8.0
Deferred taxes on investment properties	8,161.1	10,288.9	26.1
Fair value of derivative financial instruments*	87.2	79.8	-8.5
Deferred taxes on derivative financial instruments	-23.5	-22.4	-4.7
EPRA NAV	26,105.0	29,654.6	13.6
Goodwill	-2,842.4	-1,492.7	-47.5
Adjusted NAV	**23,262.6**	**28,161.9**	**21.1**
EPRA NAV per share in €**	**50.39**	**54.69**	**8.5**
Adjusted NAV per share in €**	**44.90**	**51.93**	**15.7**

* Adjusted for effects from cross currency swaps.
** Based on the number of shares on the reporting date Dec. 31, 2018: 518,077,934, Dec. 31, 2019: 542,273,611.

Over a period of five years, Vonovia has continually created value and increased NAV and GAV (gross asset value) every year.

in € million	EPRA NAV	GAV
2019	29,654.6	53,586.3
2018	26,105.0	44,226.9
2017	21,284.6	33,424.9
2016	17,047.1	27,106.4
2015	13,988.2	24,153.9

Fair Values

Major market developments and valuation parameters that have an impact on the fair values of Vonovia are assessed every quarter. In addition to the revaluations performed during the year, the entire portfolio was revalued at the end of 2019.

As in 2018, Vonovia's portfolio has shown very positive development. The demand for apartments in metropolitan areas remains stronger than the supply, pushing rent levels up considerably. Rental growth is also being helped along by the extensive investments made in the energy-efficient modernization of our buildings and improvements to the fittings in our apartments. At the same time, the residential real estate market remains particularly dynamic. Since the return expectations of property buyers have dropped further, the increase in market values is ahead of rent developments (yield compression). The positive effects resulting from the increased demand, modernization and yield compression have resulted in a considerable 11.8% increase in the value of our property portfolio compared with the previous year, after adjustments for acquisitions and sales. In addition to the internal valuation, the property assets are also assessed by the independent property appraisers CBRE GmbH in Germany and Austria, Savills Sweden AB in cooperation with Malmöbryggan Fastighetsekonomi AB for Victoria Park's portfolio and Savills Sweden AB for Hembla's portfolio. The market value resulting from the CBRE expert opinion deviates from the internal valuation result by less than 0.1%. The result from the external valuation was adopted for the Swedish portfolio.

In June 2019, the Berlin State Government reached an agreement on a white paper for a rent freeze, the plan being to freeze rents in the city for a period of five years, with a small number of exceptions. A corresponding act was passed in January 2020 and entered into force in February 2020. It is disputed whether the law is constitutional. Several complaints have already been announced, including before the Federal Constitutional Court, and a judicial review can be expected. There is a risk that, depending on the constitutionality of the rent freeze in particular, future rental income or rental development could be reduced, with a knock-on effect on fair values. The potential implications can be estimated via the sensitivities shown in the notes to the consolidated financial statements. Likewise, it cannot be ruled out that a decline in the vacancy rate and fluctuation as well as lower return requirements of investors (yield compression) will have a compensatory effect on fair values. There is no evidence of any impact on fair values at present.

Regular Determination of the Fair Values Creates a Transparent Valuation of the Company's Properties

Calculating and showing the fair values provides a control parameter inside the company and also helps to make the development of the value of our assets transparent to people outside the company.

The fair value of the portfolio of residential properties was determined, in accordance with IAS 40 and IFRS 13, on the basis of the International Valuation Standard Committee's definition of market value.

Vonovia, in principle, measures its portfolio on the basis of the discounted cash flow (DCF) procedure. The Austrian portfolio was valued by the in-house valuation department for the first time in 2019. Under the DCF methodology, the expected future income and costs of a residential property are forecast and discounted to the date of valuation as the net present value. The income in the DCF model mainly comprises expected rental income (current in-place rent, market rents as well as their development) taking vacancy losses and also sales revenues for an Austrian subportfolio into account. The expected rental income is derived for each location from the latest rent indices and rent tables (including empirica, Immobilienverband Deutschland (IVD) and the Austrian Economic Chambers (WKÖ)) as well as from studies on spatial prosperity (Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), Prognos, empirica, Bertelsmannstiftung, the Austrian statistical office, Statistik Austria, etc.). The expected sales revenues are derived from historical sale prices as well as market data (e. g., the Austrian Economic Chambers (WKÖ) and EHL Wohnen GmbH). On the cost side, maintenance expenses and administrative costs are taken into account. Further cost items are, for example, ground rents, non-allocable ancillary costs, rent losses and, in Austria, selling costs. All cost items are inflated in the reporting period. Modernization measures carried out in the housing stocks are factored in by decreasing the current maintenance expenses and adjusting market rents. The commercial properties in the portfolio are mainly small commercial units for the supply of the local residential environment. Different cost approaches were used to those for residential properties, and the capitalized interest rates were adjusted to reflect the market specifics.

The recognition and valuation of investment properties are explained in detail in the notes to the consolidated financial statements (chapter [D28] Investment Properties).

The fair value of Vonovia's real estate portfolio comprising residential buildings, commercial properties, garages and parking spaces as well as project developments, existing areas with construction potential and land areas with inheritable building rights granted was € 53,316.4 million as of December 31, 2019 (2018: € 44,239.9 million). The determination of fair values led overall to net income from fair value adjustments of investment properties of € 4,135.5 million (2018: € 3,517.9 million).

Financial Position

Cash Flow

The following table shows the Group cash flow:

Key Data From the Statement of Cash Flows

in € million	2018	2019
Cash flow from operating activities	1,132.5	1,555.9
Cash flow from investing activities	-3,892.5	-2,505.7
Cash flow from financing activities	3,041.5	902.8
Net changes in cash and cash equivalents	281.5	-47.0
Cash and cash equivalents at the beginning of the period	266.2	547.7
Cash and cash equivalents at the end of the period	**547.7**	**500.7**

The cash flow from **operating activities** rose from € 1,132.5 million in 2018 to € 1,555.9 million in 2019. The increase is mainly due to the improvement in the operating result. In addition, the development of the income tax paid had a positive effect on operating cash flow.

The cash flow from **investing activities** shows a payout balance of € 2,505.7 million for 2019, including income from the sale of the shares in Deutsche Wohnen SE in the amount of € 698.1 million. Payments for the acquisition of investment properties came to € 2,092.0 million. Included in this is the purchase of a real estate portfolio in Sweden for € 407.1 million. On the other hand, income from portfolio sales in the amount of € 702.7 million was collected. The previous year was largely characterized by the net purchase price payments for the shares in BUWOG and Victoria Park in the total amount of € 3,387.7 million. The cash flow from investing activities in 2019 includes a payment of € 1,716.2 million for the acquisition of Hembla.

The cash flow from **financing activities** includes cash inflows from the cash capital increase in the amount of € 744.2 million. The cash flow from financing activities includes payments for regular and unscheduled repayments in the amount of € 3,626.6 million and, on the other hand, proceeds from issuing financial liabilities in the amount of € 5,333.2 million. Payouts for transaction and financing costs amounted to € 96.1 million. Interest paid came to € 395.7 million in 2019, with dividend payments totaling € 417.7 million. The cash flow from financing activities also includes payments for the acquisition of shares in non-controlling interests in the amount of € 576.1 million, mainly in connection with the acquisition of all remaining shares in BUWOG as well as the exercise of the call options for the shares in Victoria Park. The first-time application of IFRS 16 resulted in the separate recognition of payments for the settlement of lease liabilities in the amount of € 22.4 million for the very first time in 2019. Within this context, interest paid in the amount of € 14.0 million is also included in cash flow from financing activities, with € 7.5 million of this amount previously included in the cash flow from operating activities.

Net changes in **cash and cash equivalents** came to € -47.0 million.

Financing

According to the publication dated May 8, 2019, Vonovia's credit rating as awarded by the agency Standard & Poor's is unchanged at BBB+ with a stable outlook for the long-term corporate credit rating and A-2 for the short-term corporate credit rating. At the same time, the credit rating for the issued and unsecured bonds is BBB+.

On December 13, 2019, Vonovia received an A- rating from the largest European rating agency Scope Group for the first time.

A European medium-term notes program (EMTN program) has been launched for the Group via Vonovia Finance B.V., allowing funds to be raised quickly at any time using bond issues, without any major administrative outlay. The prospectus for the EMTN program has to be updated annually and approved by the financial supervisory authority of the Grand Duchy of Luxembourg (CSSF).

As of the reporting date of December 31, 2019, Vonovia Finance B.V. had placed a total bond volume of € 14.2 billion, € 13.7 billion of which relates to the EMTN program. With effect from January 29, 2019, and as part of its EMTN program, Vonovia placed a bond with a nominal volume of € 500 million and a coupon of 1.800% maturing on June 29, 2025. The first interest payment date was June 29, 2019.

Vonovia issued two bonds for € 500 million each via its Dutch subsidiary Vonovia Finance B.V. on September 16, 2019. The two bonds were issued with a coupon of 0.50% and a maturity of ten years and a coupon of 1.125% and a maturity of 15 years, respectively.

Via its subsidiaries SÜDOST WOBA DRESDEN GMBH and WOHNBAU NORDWEST GmbH, Vonovia took out a 10-year loan of € 500 million from Deutsche Pfandbriefbank AG and Landesbank Baden-Württemberg in January 2019. It is secured by a real estate portfolio in Dresden.

In January 2019, Vonovia assumed an existing loan agreement between BUWOG and Berlin-Hanoversche Hypothekenbank and Hessische Landesbank in the amount of € 461.8 million. This had previously been recognized as a BUWOG mortgage and, following assumption, is shown separately as a portfolio loan. The loan agreement had originally been concluded between the banking consortium and an Austrian subsidiary of what was BUWOG Group GmbH.

On April 8, 2019, Vonovia repaid the subordinated debenture (hybrid) of € 700 million issued by Vonovia Finance B.V. in full.

Victoria Park informed all bondholders on June 17, 2019, and repaid the corporate bond (Bond Sweden) in the amount of € 58.5 million in due form effective June 10, 2019.

On July 25, 2019, Vonovia repaid the subordinated debenture of € 600 million issued by Vonovia Finance B.V. in full.

Via its Dutch subsidiary Vonovia Finance B.V., Vonovia took out a 10-year loan for € 168 million in September 2019, secured by a real-estate portfolio in Berlin and Hamburg.

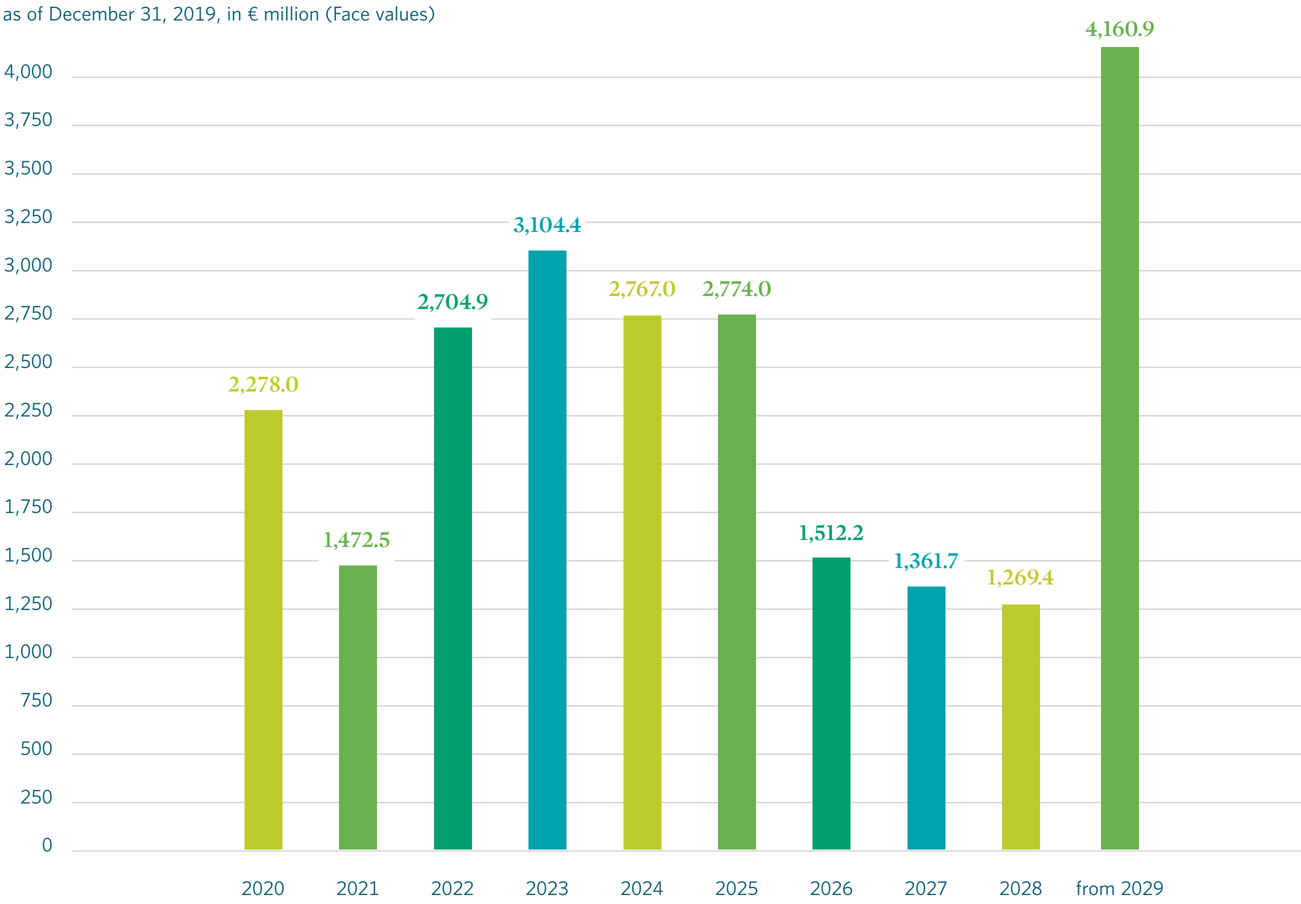
By means of buybacks in September 2019 through Vonovia Finance B.V., the bond due in December 2020 was reduced by € 498.3 million to € 751.7 million, and the bond due in March 2020 was reduced by € 199.4 million to € 300.6 million.

Vonovia issued bonds for € 1,500 million each via its Dutch subsidiary Vonovia Finance B.V. on October 7, 2019. The three bonds of € 500 million each were issued with a coupon of 0.125% and a term of 3.5 years, with a coupon of 0.625% and a term of eight years and with a coupon of 1.625% and a term of 20 years.

On November 20, 2019, Vonovia repaid the debenture of € 500 million issued by Vonovia Finance B.V. in full.

The **debt maturity profile** of Vonovia's financing was as follows as of December 31, 2019:

Maturity Profile



In connection with the issue of unsecured bonds by Vonovia Finance B.V., Vonovia has undertaken to comply with the following standard market covenants:

> Limitations on incurrence of financial indebtedness
> Maintenance of consolidated coverage ratio
> Maintenance of total unencumbered assets

The existing structured and secured financing arrangements also require adherence to certain standard market covenants. Any failure to meet the agreed financial covenants could have a negative effect on the liquidity status.

The LTV (loan to value) is as follows as of the reporting date:

in € million	Dec. 31, 2018	Dec. 31, 2019	Change in %
Non-derivative financial liabilities	20,136.0	23,574.9	17.1
Foreign exchange rate effects	-33.5	-37.8	12.8
Cash and cash equivalents	-547.7	-500.7	-8.6
Net debt	19,554.8	23,036.4	17.8
Sales receivables	-256.7	21.4	-
Adjusted net debt	19,298.1	23,057.8	19.5
Fair value of the real estate portfolio	44,239.9	53,316.4	20.5
Shares in other real estate companies	800.3	149.5	-81.3
Adjusted fair value of the real estate portfolio	**45,040.2**	**53,465.9**	**18.7**
LTV	**42.8%**	**43.1%**	**0.3 pp**

The financial covenants have been fulfilled as of the reporting date.

in € million	Dec. 31, 2018	Dec. 31, 2019	Change in %
Non-derivative financial liabilities	20,136.0	23,574.9	17.1
Total assets	**49,387.6**	**56,497.7**	**14.4**
LTV bond covenants	**40.8%**	**41.7%**	**0.9 pp**

Economic Development of Vonovia SE

(Reporting on the basis of the German Commercial Code [HGB])

Fundamental Information

Vonovia SE has been entered in the commercial register of Bochum Local Court under HRB 16879 since 2017. Vonovia SE was established as Deutsche Annington Immobilien GmbH on June 17, 1998, with its registered headquarters in Frankfurt am Main, to serve as an acquisition vehicle for the purchase of residential properties by financial investors. Following further successful acquisitions over the course of time, it now forms the Vonovia Group together with its subsidiaries and is one of the leading German, Austrian and Swedish residential real estate management companies. Thanks to the successful integration of the BUWOG Group, Vonovia also ranks among the five biggest real estate developers in Germany and is the market leader in Austria.

Vonovia SE performs the function of the management holding company within the Vonovia Group. In this role, it is responsible for determining and pursuing the overall strategy and for implementing this strategy by setting the company's goals. It also performs property management, financing, service and coordination tasks for the Group. Furthermore, it is responsible for the management, control and monitoring system as well as risk management. To carry out these management functions, Vonovia SE also maintains service companies to which it has outsourced selected functions, allowing it to realize corresponding harmonization and standardization effects, as well as economies of scale.

The description of the company's net assets, financial position and results of operations is based largely on the reporting of the Vonovia Group. The net assets, financial position and results of operations of Vonovia SE as the management holding company are ultimately determined by the assets of the Group companies and their ability to make sustainable positive contributions to earnings and generate positive cash flows. The company's risk profile is therefore largely the same as the Group's.

The preceding reporting for the Group of Vonovia SE therefore also expresses the company's position.

The Vonovia SE annual financial statements have been prepared in accordance with the provisions of the German Commercial Code (HGB) taking into account the supplementary regulations of the German Stock Corporation Act (AktG). As a listed company, Vonovia SE is classed as a large corporation.

The annual and consolidated financial statements as well as the combined management report are published in the Federal Gazette (Bundesanzeiger).

Development of Business in 2019

Following the acquisitions of the BUWOG and conwert Groups in Austria, Vonovia initiated the financial, procedural and legal integration of the two Austrian organizations into the Vonovia organization back in 2018 in its capacity as management holding company. These efforts also include the transfer of the acquired companies' German activities into Vonovia's corresponding German structures, a process that also involves company law measures.

Vonovia also pursued the acquisition of additional Swedish activities via selected subsidiaries, also equipping them with the required financial resources.

In the 2019 fiscal year, Vonovia expanded its business activities further by acquiring Hembla AB and Akelius Residential Property in Sweden. Both the investment in Victoria Park AB and the investment in Hembla AB involved a squeeze-out under Swedish law to acquire the shares in full once the corresponding company law requirements had been met.

Vonovia implemented a capital increase involving 16,500,000 new shares on May 16, 2019. The new shares were placed with institutional investors in the scope of a private placement by means of an accelerated book building procedure and will carry dividend rights as of January 1, 2019. The shares were granted at a placement price of € 45.10 per share. This increased the capital reserves by € 727.7 million.

On December 13, 2019, Vonovia was awarded its very first A- rating from the largest European rating agency, Scope Group, in addition to its existing BBB+ rating awarded by Standard & Poor's.

Vonovia SE had already successfully sold its roughly 16.8 million shares in Deutsche Wohnen SE to institutional investors as of February 1, 2019, by means of an accelerated book building procedure; the shares were sold for a price of € 41.50 per share. This corresponds to a discount of 4.8% on the closing price of € 43.59 as of January 31, 2019, equating to total proceeds of € 698.1 million. The acquisition costs at the time amounted to € 405.5 million, resulting in a book gain of € 292.6 million from this disposal in the 2019 annual financial statements of Vonovia SE in accordance with commercial law.

Results of Operations of Vonovia SE

The company regularly generates **income** from the charging of the services it provides, from income from investments in the form of dividend distributions from Group companies and from the transfer of profits. Profit-and-loss transfer agreements exist with, among other entities, the service companies, which themselves generate income by charging the real estate companies for the services they have provided. The income from investments collected is based on the net profit of the subsidiaries that is eligible for distribution, which is, in turn, calculated based on the accounting standards set out in the German Commercial Code. The main difference between these standards and the IFRS accounting principles lies in the fact that, under IFRS accounting, the fair value principle has more of an impact than the cost principle does under HGB accounting. In the consolidated financial statements under IFRS, the properties are remeasured at periodic intervals. Under HGB, the fixed assets are stated at amortized cost, taking depreciation into account. The capitalization regulations also vary.

Expenses relate largely to personnel expenses and administrative expenses associated with the management holding function, as well as to losses to be compensated for in connection with profit-and-loss transfer agreements.

The **financial result** is governed by the Group financing.

As in the previous year, **business developments in 2019**, and consequently the result for the 2019 fiscal year, were characterized to a considerable degree by the optimization of the corporate structures of the acquired Austrian companies in company law terms in 2018 and 2019, which resulted in a merger income of € 464.3 million in 2019. On the other hand, it incurred expenses of € 241.5 million from the assumption of losses. There were also effects resulting from the acquisition of Hembla AB and the integration of BUWOG and Victoria Park. The result for the 2019 fiscal year is also influenced to a considerable degree by the sale of the shares in Deutsche Wohnen SE, resulting in a book gain of € 292.6 million.

Personnel expenses came to € 38.3 million in 2019, up by € 6.5 million on the prior-year figure due primarily to allocations to the long-term profit-sharing model.

Depreciation and amortization fell, in a development that was consistent with the depreciation and amortization plan, by € 2.0 million.

Other operating expenses increased by € 20.2 million overall due to higher consultancy fees and the assumption of financing costs for Vonovia Finance B.V. Aside from these effects, there was a drop in other operating expenses.

Net financial expenses to affiliated companies fell by € 27.4 million. This development is due to volume-related and structural factors and can be traced back to increased income of € 17.9 million (2018: € 4.5 million) and lower expenses of € 54.5 million (2018: € 68.6 million).

The profit/loss from **profit transfers** was down considerably in a year-over-year comparison due to the assumption of losses totaling € 279.8 million (2018: € 66.9 million) and lower profit transfers of € 79.5 million as against € 1,523.4 million in the previous year. The year under review was also hit by expenses associated with the acquisitions in Sweden.

In addition, the financial result in the previous year had still included the effect of dividends paid by BUWOG AG and Deutsche Wohnen SE, accounting for a total of € 91.2 million. The other interest expenses relate to debt servicing and actuarial effects.

Tax expenses came to € 8.4 million as against € 3.8 million in the previous year. As the controlling company in a VAT group, Vonovia SE owes the corresponding income taxes. € 2.1 million of the tax expenses relates to prior years.

Vonovia SE closed the 2019 fiscal year with **net income** of € 419,110,421.17 (2018: € 1,673,317,417.29). After offsetting this profit for the year against the profit carried forward from the previous year of € 28,611,156.66, the Management Board withdrew a further € 465,000,000.00 from revenue reserves, resulting in a net profit for the 2019 fiscal year of € 912,721,577.83.

The Management Board and the Supervisory Board propose to the Annual General Meeting that, of the profit of Vonovia SE for the 2019 fiscal year of € 912,721,577.83, an amount of € 851,369,569.27 on the 542,273,611 shares of the share capital as of December 31, 2019 (corresponding to € 1.57 per share) be paid as a **dividend** to the shareholders, and that the remaining amount of € 61,352,008.56 be carried forward to the new account or be used for other dividends on shares carrying dividend rights at the time of the Annual

General Meeting and which go beyond those as of December 31, 2019.

As with the 2018 fiscal year, the dividend for the 2019 fiscal year, payable after the Annual General Meeting in May 2020, will again include the option of a non-cash dividend in shares, to the extent that the Management Board and the Supervisory Board consider this to be in the interests of the company and its shareholders.

Income Statement

in € million	2018	2019
Revenues	138.1	166.2
Other operating income	325.7	814.9
Cost of purchased services	-50.6	-69.0
Personnel expenses	-31.7	-38.3
Other administrative expenses	-178.9	-197.1
Profit before financial result and tax	**202.6**	**676.8**
Income from profit transfer	1,523.4	79.5
Income from investments	101.2	11.9
Write-downs of long-term financial assets	-0.3	-
Interest and similar income	5.2	18.5
Expense from the assumption of losses	-66.9	-279.8
Interest and similar expenses	-88.1	-79.4
Financial result	**1,474.5**	**-249.3**
Tax	-3.8	-8.4
Net income	**1,673.3**	**419.1**

Net Assets and Financial Position of Vonovia SE

The company's non-current assets of € 20,509.0 million are characterized by **financial assets** in the amount of € 20,475.9 million. The increase in 2019 is due primarily to the addition of a receivable to the capital reserves of a subsidiary in connection with the acquisitions in Sweden and the company law measures in Austria.

Intangible assets increased due to the purchase of software, while **property, plant and equipment** decreased due to depreciation.

Net current assets (current assets less current liabilities) including net liquidity are governed by the Group financing structure, in which Vonovia SE assumes the function of the cash pool leader. The Group's net lending/borrowing position led to charges of a total of € 4,207.4 million to Vonovia SE in 2019. The drop in receivables from affiliated companies is due to the collection of the profit transferred by Deutsche Annington Acquisition Holding GmbH in 2018. The increase in liabilities to affiliated companies can be attributed to the increase in liabilities to Vonovia Finance B.V. as a result of the acquisitions in Sweden and the company law transfer of the German BUWOG and conwert companies to Germany.

Provisions came to € 163.6 million at the end of the year (2018: € 134.9 million), with € 67.5 million attributable to provisions for pensions and € 23.0 million to income tax provisions. All in all, provisions increased by € 28.7 million due to the increase in provisions for pensions of € 7.7 million, the increase in the provisions for taxes of € 6.5 million and the increase in other provisions in the amount of € 14.5 million. The increase in other provisions was mainly due to outstanding invoices.

Total equity rose to € 10,280.6 million at the end of 2019 (2018: € 9,522.1 million). This increase is due to the capital increase in connection with the scrip dividend, the cash capital increase on May 16, 2019, in the context of accelerated book building and the net income for the year in the amount of € 419.1 million. The cash dividend distribution had the opposite effect of reducing total equity in 2019.

Assets

in € million	Dec. 31, 2018	Dec. 31, 2019
Assets		
Financial assets	15,259.6	20,475.9
Other assets	30.3	33.1
Receivables from affiliated companies	4,675.6	3,799.8
Other receivables and assets	80.1	18.4
Cash and cash equivalents	166.4	92.9
Total assets	**20,212.0**	**24,420.1**

in € million	Dec. 31, 2018	Dec. 31, 2019
Equity and liabilities		
Total equity	9,522.1	10,280.6
Provisions	134.9	163.6
Liabilities to banks	684.3	1,109.0
Liabilities to affiliated companies	9,519.9	12,851.4
Other liabilities	350.8	15.5
Total equity and liabilities	**20,212.0**	**24,420.1**

Cash flow from operating activities is characterized by the income and expenses relating to the performance of the management holding functions. Vonovia SE only has appreciable **cash flows from investing activities** when acquisitions are made. **Cash flows from financing activities** regularly result from changes in Group financing, selective borrowing and the repayment of debt financing, mainly subsidized development loans and/or promissory note loans, as well as the corresponding interest payments. **Liquidity** dropped from € 166.4 million to € 92.9 million in 2019.

Employees of Vonovia SE

At the end of the 2019 fiscal year, an average of 168 people were employed at the company (2018: 179), 134 of whom were full-time employees and 34 of whom were part-time.

Opportunities and Risks for Vonovia SE

The likely development of Vonovia SE in the 2020 fiscal year depends to a considerable extent on the development of the Group as a whole and its opportunity and risk situation. This situation is set out in the Group's opportunity and risk report, meaning that the statements set out there in regard to the opportunity and risk situation of the Group also apply to the annual financial statements of Vonovia SE prepared in accordance with German commercial law, where the risks can have an impact on the valuation of long-term financial assets and on the amount of the results of subsidiaries collected/compensated for.

Forecast for Vonovia SE

Since the company's net assets, financial position and results of operations are determined solely by the ability of the Group companies to make positive earnings contributions and generate positive cash flows in the long term, we refer at this point to the Forecast Report for the Group. The most important financial performance indicator for the annual financial statements of Vonovia SE is the annual result.

As in previous years, the company's result for the 2019 fiscal year is characterized by special effects resulting from company law restructuring measures, mainly with regard to the company law transfer of the German business activities of the former BUWOG and conwert to Germany. There was also a considerable book gain from the sale of shares in Deutsche Wohnen SE. Leaving these special effects out of the equation, the company's earnings for the 2019 fiscal year would be a negative figure in the mid-double-digit millions, on a par with the level seen in previous years.

The results for the 2020 fiscal year will in turn be characterized by the results of subsidiaries collected/compensated for on the basis of income from investments and profit-and-loss transfer agreements, income from services, personnel and administrative expenses and the financial result. We expect to see increased expenses in the 2020 fiscal year due to the takeovers of Victoria Park and Hembla and the resulting integration and structuring expenses. By contrast, the extraordinary special effects seen in 2019 will cease to apply.

All in all, we expect the company's result for the 2020 fiscal year to again be on a par with the figure seen in the previous years without special effects.

It is still generally planned for Vonovia SE to distribute 70% of the Group FFO to the shareholders as a dividend, which would correspond to a dividend of € 1.57 per share for the 2019 fiscal year.

Statement of the Management Board on the Economic Situation

The net assets, financial position and results of operations of the company are extremely positive, particularly given the solid financing, the resulting balanced maturity profile and the financing flexibility gained through the rating-backed bond financing with a view to both organic and external growth. The ongoing improvements to the property management processes, the expansion of the Value-add segment, the steady Recurring Sales and a successful development business promote ongoing improvement in profitability. Developments in Germany are supported by equally positive developments in Sweden and Austria.

Further Statutory Disclosures

Corporate Governance

In the corporate governance declaration, we report, in accordance with No. 3.10 of the German Corporate Governance Code and Section 289f of the German Commercial Code (HGB) on the principles of management and corporate governance. The declaration contains the Declaration of Conformity, information on corporate governance practices, a description of how the Management Board and Supervisory Board work and key corporate governance structures. The corporate governance declaration has been published on the www.vonovia.de website under Investor Relations and does not form part of the management report.

Corporate governance is the responsible management and supervision of a company.

With balanced corporate governance, the Management Board and the Supervisory Board wish to safeguard Vonovia SE's competitiveness, strengthen the trust of the capital market and the general public in the company and sustainably increase the company's value.

As a major housing company, we are aware of the particular significance of our entrepreneurial actions for society at large. As a result, we are also committed to the main aims and principles of the corporate governance initiative of the German housing industry. The initiative supplements the corporate governance principles to include housing-specific aspects and is committed to even greater transparency, an improved image and a more competitive real estate sector.

Remuneration Report

The remuneration report describes the principles of the remuneration system for members of the Management Board of Vonovia SE and explains the structure, as well as the amount, of the income received by each Management Board member. Furthermore, the remuneration report contains information on the principles and the amount of remuneration for the members of the Supervisory Board. The total remuneration received by each Management Board member, including the names of the members, in accordance with IFRS is shown in the Notes to the consolidated financial statements.

The remuneration report takes account of the applicable regulations of the German Commercial Code (HGB), the German Accounting Standards (DRS 17), the laws on disclosure and appropriateness of Management Board remuneration (VorstAG, VorstOG) as well as the principles of the German Corporate Governance Code (GCGC).

Remuneration of the Management Board

Remuneration System

The remuneration system and the amount of remuneration of the Management Board are determined by the Supervisory Board on the proposal of the Executive and Nomination Committee. They are discussed yearly, for the last time in November 2019, and adjusted according to the framework found as adequate. The Annual General Meeting approved the basic principles of the remuneration system on May 9, 2014, and its last amendment on April 30, 2015.

The criteria used to assess whether the remuneration is appropriate include the duties of the individual Management Board member, his or her personal performance, the economic situation, the company's success and future outlook and the extent to which such remuneration is standard practice. When determining whether the level of remuneration is standard practice, the company looks at its peer group and the remuneration structure that applies in the rest of the company. Furthermore, we compare ourselves with other listed companies of a similar size. The remuneration structure is oriented toward the sustainable growth of the company.

In addition to fixed remuneration, the members of the Management Board receive variable short-term as well as variable long-term remuneration which takes account of both positive and negative developments. The Supervisory Board can, at their own due discretion, award Management Board members a discretionary bonus for particular achievements, even without a prior agreement. There is no entitlement to these bonuses. In the event that a discretionary bonus is paid, the underlying decision-making criteria are published. Furthermore, the members of the Management Board receive fringe benefits in the form of insurance premiums, as well as the private use of means of communication and company vehicles. In addition to his Management Board contract with Vonovia, Management Board member Daniel Riedl has another Management Board contract with the Austrian company BUWOG. This means that, in Daniel Riedl's case, the remuneration amounts listed below include the remuneration components from both Management Board contracts.

Fixed Remuneration and Fringe Benefits

The fixed remuneration, which contains not only the basic remuneration but also, in varying amounts, the remuneration for assuming mandates at Vonovia Group companies, subsidiaries and participating interests, is paid to the Management Board members in twelve equal monthly installments. In addition to their fixed remuneration, the Management Board members are given the opportunity to pay an annual pension contribution into a deferred compensation scheme, with the exception of Daniel Riedl, whose annual pension contribution is paid by BUWOG into an external pension fund. The contribution for Rolf Buch comes to € 355,000, while the contribution for Arnd Fittkau, Klaus Freiberg, Daniel Riedl and Helene von Roeder amounts to € 160,000 in each case. Alternatively, the amount is paid out as cash remuneration. As Arnd Fittkau's contract of employment commenced on May 16, 2019, the contributions are correspondingly on a pro rata basis.

The fringe benefits include 50% of health and nursing care insurance contributions, albeit up to the amount of the maximum statutory employer's share at the most, and, in two cases, a term life insurance policy. In the event of illness, salaries continue to be paid for a period of twelve months, but until the end of the employment contract at the latest. In the event of death, the company continues to pay the salary to the employee's surviving dependents for up to six months. The members of the Management Board are provided with a company car as well as communication means, which they have the right to use for private purposes. Travel expenses are reimbursed in line with the Vonovia/ BUWOG Travel Expense Policy. An agreement was reached in Daniel Riedl's contract of employment with Vonovia that the company would reimburse the costs associated with travel from Vienna to Bochum and back, as well as any overnight accommodation in Bochum.

In addition, the contract of employment concluded with Helene von Roeder includes an agreement that, upon presentation of corresponding proof furnished by her previous employer, Helene von Roeder will receive compensation payments for all entitlements to variable remuneration that are not satisfied by her previous employer because the contractual relationship between her and that previous employer ended as a result of her move to Vonovia. This results in a gross compensation payment of € 64,874 for 2019.

Should the Management Board members be held liable for financial losses while executing their duties, this liability risk is, in principle, covered by the D&O insurance for Management Board members of the company. Vonovia follows the statutory requirements, which provide for a deductible of 10% of any claim up to an amount of one-and-a-half times the fixed annual remuneration for all claims in one fiscal year.

Bonus

The variable short-term remuneration is based on success criteria set in advance by the Supervisory Board as well as personal targets. The variable short-term remuneration is capped at € 700,000 for Rolf Buch as the Chairman of the Management Board, and at € 440,000 for Arnd Fittkau, Klaus Freiberg, Daniel Riedl (contractual entitlement for Vonovia SE € 140,000 and contractual entitlement for BUWOG € 300,000) and Helene von Roeder. The Supervisory Board is authorized to increase or reduce the arithmetical entitlement to the variable short-term remuneration by up to 20% at its own due discretion. As Arnd Fittkau's contract of employment commenced on May 16, 2019, the amounts for 2019 are granted on a pro rata basis. Vonovia's success criteria state that 40% of the variable short-term remuneration depends on the achievement of the Group FFO target, 15% on the achievement of the Group Adjusted NAV per share target and a further 15% on the achievement of the Group Adjusted EBITDA Total target. In Daniel Riedl's case, 40% of the BUWOG entitlement to variable short-term remuneration depends on the achievement of the EBITDA Rental + Value-add target, 15% on the achievement of the EBITDA Recurring Sales target and a further 15% on the achievement of the EBITDA Development target. A further 30% of the variable short-term remuneration is related to the achievement of the personal targets agreed with the Supervisory Board.

The targets for the three quantitative success criteria and the target achievement levels for the 2019 calendar year are set out below:

STIP target achievement level	Group FFO	Adjusted NAV/share	Adjusted EBITDA Total
85% = budget	1,165.5	46.27	1,669.9
100%	1,200.4	47.38	1,719.8
Actual target achievement level	100%	100%	100%

The Management Board members receive the variable short-term remuneration one month after the adoption of the annual financial statements of Vonovia.

Long-term Incentive Plan

The variable long-term remuneration (long-term incentive plan, LTIP) is a plan which meets the requirements set out in the German Stock Corporation Act (AktG) and the German Corporate Governance Code as published on May 9, 2019 and aims to ensure that the remuneration structure focuses on sustainable corporate development. The LTIP was introduced in 2015 and replaced the previous plan, which was launched at the time of the successful IPO.

The members of the Management Board are offered an annual remuneration component with a long-term incentive effect and a balanced risk-return profile in the form of notional shares ("performance shares") in line with the provisions of the LTIP, which does not provide for an early payout in the event that the Management Board contract is terminated before the date provided for therein.

The Supervisory Board offers the Management Board members a prospective target amount ("grant value") in EUR for each performance period, which corresponds to four years as a general rule. Rolf Buch is awarded performance shares with a grant value of € 1,900,000 a year. Arnd Fittkau, Klaus Freiberg, Daniel Riedl and Helene von Roeder are each awarded performance shares with a grant value of € 800,000 a year. As Arnd Fittkau's contract of employment commenced on May 16, 2019, the grant value for 2019 is awarded on a pro rata basis in line with the contractual provisions.

The actual payout amount is calculated based on this grant value, the target achievement level during the performance period and the performance of Vonovia's shares, including dividends paid during the performance period. If the share price remains the same and the target achievement level comes to 100%, then the actual payout amount corresponds to the grant value (plus any dividends paid to the shareholders during the performance period).

The initial number of performance shares for the performance period in question corresponds to the grant value divided by the initial share price, rounded up to the next full share.

The overall target achievement level for a performance period is determined based on the following success targets:

a) Relative Total Shareholder Return (RTSR)
b) Development in Adjusted NAV per share
c) Development of Group FFO per share
d) Customer Satisfaction Index (CSI)

Each of the four success targets is assigned a weighting of 25%.

At the start of each performance period, the Supervisory Board sets an objective for each of the four success targets. If all of these objectives are reached, the target achievement level comes to 100%. It also sets a minimum value for each of the four success targets as the lower target corridor threshold. If this value is reached, the target achievement level comes to 50% ("minimum value"). The Supervisory Board also sets a maximum value. If this value is reached or exceeded, the target achievement level comes to 200% ("maximum value"). If the value achieved for a particular success target falls below the minimum value, the target achievement level for this success target is 0%.

The Supervisory Board has the right and the obligation to appropriately adjust the calculation modalities if there are significant changes in the comparator group.

The reporting on the new LTIP is based on actuarial reports of an independent actuary.

At the end of each performance period, the initial number of performance shares is multiplied by the overall target achievement level and rounded up to the next full share. This multiplication produces the final number of performance shares.

The final number of performance shares is multiplied by the final share price, which, by definition, includes the total dividends paid per share during the performance period in relation to the final number of performance shares. This multiplication produces the cash payout amount.

The payout amount is limited to 250% of the grant value ("cap").

As far as Rolf Buch is concerned, the performance period for 100% of the performance shares granted as part of the 2015 tranche ended on December 31, 2018, marking the end of a four-year period. In Klaus Freiberg's case, the performance period for 50% of the performance shares granted as part of the 2015 tranche ended on December 31, 2018, marking the end of a four-year period, with 25% of the performance shares granted as part of the 2016 tranche ending on December 31, 2018, marking the end of a three-year period. The payment made in line with the contractual provisions, totaling € 3,000,000 (gross) for Rolf Buch and € 1,000,000/€ 479,937 for Klaus Freiberg was made in the 2019 fiscal year.

The targets for the four success criteria for the 2016 tranche and the target achievement levels following the end of the performance period on December 31, 2019, are set out below:

Targets	Minimum value	Target value (100%)	Maximum value (200%)	Target achievement
Relative Total Shareholder Return	-30%	0%	30%	169.69%
Growth of NAV per share (NAV per share on Dec. 31, 2015 = € 30.02)	0% growth rate p. a.	3% growth rate p. a.	5% growth rate p. a.	200%
Growth of FFO 1 per share (FFO 1 per share in the 2015 fiscal year = € 1.30)	3% growth rate p. a.	7% growth rate p. a.	9% growth rate p. a.	200%
Customer satisfaction (CSI in the 2015 fiscal year = 57 points)	+2 points	+5 points	+7 points	0%

Upper Remuneration Thresholds

In addition to the provisions governing variable remuneration, upper thresholds have been contractually agreed for the remuneration paid to the Management Board as a whole in line with the recommendations set out in the German Corporate Governance Code (GCGC). As a result, the total remuneration for Rolf Buch is capped at a total of € 6,970,000 p. a., with a cap of € 3,500,000 applying to Arnd Fittkau, Klaus Freiberg and Helene von Roeder in each case. The total remuneration for Daniel Riedl is capped at € 2,500,000 p. a. in his Vonovia contract and at € 1,000,000 p. a. in his BUWOG contract. As Arnd Fittkau's contract of employment commenced on May 16, 2019, the upper remuneration threshold has been calculated accordingly on a pro rata basis.

Share Holding Provision

The Management Board members are obliged, for the duration of their appointment as members of Vonovia's Management Board, to hold shares in the company (restricted shares) in the amount of the annual fixed remuneration and to furnish evidence showing that this obligation has been met at the end of each fiscal year by presenting suitable documents to the Chairman of the Supervisory Board. The value of the shares to be held is to be redefined in the event of changes to the annual fixed remuneration/a share split. In the first four fiscal years after an individual's initial appointment as a Management Board member, the restricted shares can be accumulated on a pro rata basis.

Retirement Provision/Deferred Compensation Scheme

The pension entitlements of the Management Board members are based on the opportunity to pay an annual pension contribution into a deferred compensation scheme. Rolf Buch, Arnd Fittkau and Helene von Roeder make use of this opportunity, whereas Klaus Freiberg opts for a payout as cash remuneration. In Daniel Riedl's case, the annual pension contribution made by BUWOG is paid into an external pension fund.

For each calendar year, the contractually agreed pension contribution is converted in accordance with the in-house "Pension Instead of Cash Remuneration" model and is converted into an annuity based on actuarial principles depending on the age of the individual in question.

In 2019, the pension contribution was € 946,410 for Rolf Buch, € 291,772 for Arnd Fittkau, € 437,241 for Helene von Roeder and € 160,000 for Daniel Riedl, corresponding to the pension fund contribution made.

Payments in the Event of Premature Termination of Management Board Duties

Payments to a Management Board member on premature termination of his or her contract, including fringe benefits, are contractually regulated to not exceed the value of two years' remuneration and are paid for no more than the remaining term of the employment contract (severance pay cap). Payments in the event of premature termination of a Management Board member's contract due to a change of control are limited to 150% of the severance pay cap.

Following the termination of their contracts of employment, Rolf Buch and Daniel Riedl are subject to a twelve-month non-competition clause. The ex gratia payment for Rolf Buch corresponds to 75% of the contractual payments most recently received by him (incl. STIP and LTIP) over a period of 12 months, while the ex gratia payment for Daniel Riedl amounts to a gross total of € 1,700,000 over the same period. The other Management Board members are not subject to any non-competition regulation.

In connection with the termination of Klaus Freiberg's Management Board contract with effect from December 31, 2019, a 17-month non-competition clause was agreed with him. In return for his adherence to the non-competition clause, Klaus Freiberg will receive compensation during the period in which the clause applies in the total amount of € 1,929,666.67, which will be paid out in monthly installments of € 113,509.80. If Klaus Freiberg generates additional income during the term of the non-competition clause without breaching it, the income will be offset against the compensation payments.

At the same time, Klaus Freiberg will support Vonovia in various areas for the period from January 1, 2020, to May 31, 2021, as part of a consultancy agreement. Fees resulting from this activity will be offset against the compensation payments agreed for the non-competition clause.

Loans/Advances

The Management Board members were not granted any loans or advances.

Remuneration of the Management Board Within the Meaning of the German Corporate Governance Code

	Rolf Buch CEO				Klaus Freiberg COO until May 16, 2019			
Grants allocated in €	**2018**	**2019**	**2019 (min)**	**2019 (max)**	**2018**	**2019**	**2019 (min)**	**2019 (max)**
Fixed remuneration	1,150,000	1,150,000	1,150,000	1,150,000	600,000	225,000	225,000	225,000
Compensation payment	–	–	–	–	–	–	–	–
Cash remuneration	–	–	–	–	160,000	60,000	60,000	60,000
Fringe benefits	26,651	27,453	27,453	27,453	27,600	10,350	10,350	10,350
Total	1,176,651	1,177,453	1,177,453	1,177,453	787,600	295,350	295,350	295,350
Annual variable remuneration (bonus)	700,000	700,000	0	700,000	440,000	440,000**	440,000**	440,000**
Multi-year variable remuneration (LTIP)								
2018–2021	1,902,392	–	–	–	801,007	–	–	–
2019–2022	–	2,060,584	0	4,750,000	–	867,614***	0***	2,000,000***
Total	2,602,392	2,760,584	0	5,450,000	1,241,007	1,307,614	440,000	2,165,000
Pension expenses	966,356	946,410	946,410	946,410	–	–	–	–
Total remuneration	**4,745,399**	**4,884,447**	**2,123,863**	**6,970,000***	**2,028,607**	**1,602,964**	**735,350**	**3,500,000***

* This is the total contractually agreed upper threshold.
** Annual variable remuneration agreed in the termination.
*** LTIP is granted for the complete financial year regardless of the termination during the year.

	Dr. A. Stefan Kirsten CFO until May 9, 2018				Gerald Klinck CCO until May 9, 2018			
Grants allocated in €	**2018**	**2019**	**2019 (min)**	**2019 (max)**	**2018**	**2019**	**2019 (min)**	**2019 (max)**
Fixed remuneration	215,217	–	–	–	215,217	–	–	–
Compensation payment		–	–	–		–	–	–
Cash remuneration	4,058	–	–	–		–	–	–
Fringe benefits	24,105	–	–	–	7,317	–	–	–
Total	243,380	–	–	–	222,534	–	–	–
Annual variable remuneration (bonus)	157,826	–	–	–	157,826	–	–	–
Multi-year variable remuneration (LTIP)								
2018–2021	333,753	–	–	–	333,753	–	–	–
2019–2022	–	–	–	–	–	–	–	–
Total	491,579	–	–	–	491,579	–	–	–
Pension expenses	116,396	–	–	–	192,180	–	–	–
Total remuneration	**851,355**	**–**	**–**	**–**	**906,293**	**–**	**–**	**–**

	Arnd Fittkau CRO since May 16, 2019				Helene von Roeder CFO since May 9, 2018				Daniel Riedl CDO since May 9, 2018			
	2018	**2019**	**2019 (min)**	**2019 (max)**	**2018**	**2019**	**2019 (min)**	**2019 (max)**	**2018**	**2019**	**2019 (min)**	**2019 (max)**
	–	375,000	375,000	375,000	386,957	600,000	600,000	600,000	386,957	600,000	600,000	600,000
	–	–	–	–	64,874	64,874	64,874	64,874	15,111	–	–	–
	–	–	–	–	–	–	–	–	103,188	160,000	160,000	160,000
	–	18,721	18,721	18,721	13,157	29,608	29,608	29,608	18,932	29,404	29,404	29,404
	–	**393,721**	**393,721**	**393,721**	**464,988**	**694,482**	**694,482**	**694,482**	**524,188**	**789,404**	**789,404**	**789,404**
	–	275,000	0	275,000	283,768	440,000	0	440,000	283,768	440,000	0	440,000
	–	–	–	–	516,592	–	–	–	516,592	–	–	–
	–	504,793	0	1,078,125		867,614	0	2,000,000	–	867,614	0	2,000,000
	–	**779,793**	**–**	**1,353,125**	**800,360**	**1,307,614**	**0**	**2,440,000**	**800,360**	**1,307,614**	**0**	**2,440,000**
	–	291,772	291,772	291,772	265,457	437,241	437,241	437,241	–	–	–	–
	–	**1,465,286**	**685,493**	**2,187,500***	**1,530,805**	**2,439,337**	**1,131,723**	**3,500,000***	**1,324,548**	**2,097,018**	**789,404**	**3,500,000***

Inflow in €	Rolf Buch CEO 2018	 2019	Klaus Freiberg COO until May 16, 2019 2018	 2019	Arnd Fittkau CRO since May 16, 2019 2018	 2019
Fixed remuneration	1,150,000	1,150,000	600,000	225,000	–	375,000
Compensation payment	–	–	–	–	–	–
Cash remuneration	–	–	160,000	60,000	–	–
Fringe benefits	26,651	27,453	27,600	10,350	–	18,721
Total	1,176,651	1,177,453	787,600	295,350	–	393,721
Annual variable remuneration (bonus)	700,000	665,000	528,000	308,000	–	275,000
Multi-year variable remuneration (LTIP)						
5th tranche 2018	3,568,511	–	–	–	–	–
Multi-year variable remuneration (LTIP)						
2015–2017	–	–	1,000,000	–	–	–
2015–2018	–	3,000,000	–	1,000,000	–	–
2016–2018	–	–	–	479,937	–	–
Total	4,268,511	3,665,000	1,528,000	1,787,937	–	275,000
Pension expenses	966,356	946,410	–	–	–	291,772
Total remuneration	**6,411,518**	**5,788,863**	**2,315,600**	**2,083,287**	**–**	**960,493**

Inflow in €	Thomas Zinnöcker until January 31, 2016 2018	 2019	Dr. A. Stefan Kirsten until May 9, 2018 2018	 2019	Gerald Klinck until May 9, 2018 2018	 2019
Multi-year variable remuneration (LTIP)						
2015–2018	–	2,156,250	–	1,000,000	–	750,000
2016–2018	–	–	–	479,937	–	479,937
Total remuneration	**–**	**2,156,250**	**–**	**1,479,937**	**–**	**1,229,937**

Helene von Roeder CFO since May 9, 2018		Daniel Riedl CDO since May 9, 2018		Dr. A. Stefan Kirsten CFO until May 9, 2018		Gerald Klinck CCO until May 9, 2018	
2018	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
386,957	600,000	386,957	600,000	215,217	–	215,217	–
64,874	64,874	15,111	–	–	–	–	–
–	–	103,188	160,000	4,058	–	–	–
13,157	29,608	18,934	29,404	24,105	–	7,317	–
464,988	**694,482**	**524,190**	**789,404**	**243,380**	**–**	**222,534**	**–**
283,768	425,812	283,768	412,007	146,667	–	157,826	–
–	–	–	–	–	–	–	–
–	–	–	–	1,000,000	–	750,000	–
–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
283,768	**425,812**	**283,768**	**412,007**	**1,146,667**	**–**	**907,826**	**–**
265,457	437,241	–	–	116,396	–	192,180	–
1,014,213	**1,557,535**	**807,958**	**1,201,411**	**1,506,443**	**–**	**1,322,540**	**–**

Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is determined by the shareholders at the Annual General Meeting and is regulated in Article 13 of the Articles of Association of Vonovia.

The current Supervisory Board remuneration system is based on the resolution passed by the Annual General Meeting on June 9, 2013.

Each member of the Supervisory Board receives annual fixed basic remuneration of € 100,000. The Chairman of the Supervisory Board receives double this amount and a Deputy Chairman receives one-and-a-half times this amount.

The members of the Audit Committee receive additional annual fixed remuneration of € 40,000; the Audit Committee Chairman receives double this amount. Supervisory Board members who are members of one or more other Supervisory Board committees that have acted at least once a year receive additional annual remuneration of € 20,000 per committee; in the case of the Committee Chairman € 40,000.

The sum total of all aforementioned remuneration plus remuneration for membership of Supervisory Boards and comparable supervisory bodies of Group companies must not exceed an amount of € 300,000 per calendar year and Supervisory Board member.

The company reimburses the Supervisory Board members for appropriate expenses incurred due to the exercising of their office. VAT is reimbursed by the company to the extent that the Supervisory Board members are eligible to separately invoice VAT and have exercised such right.

The remuneration of the Supervisory Board of Vonovia breaks down as follows for each member – on a pro rata basis according to the length of service on the Supervisory Board:

	Fixed remuneration		Remuneration for committee work		Total remuneration	
in €	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Supervisory Board members in office as of December 31, 2019						
Jürgen Fitschen [3, 6] (since May 9, 2018) Chairman since May 9, 2018	133,333	200,000		60,000	133,333	260,000
Prof. Dr. Edgar Ernst [1] (since June 18, 2013) Deputy Chairman since May 9, 2018	170,833	150,000	105,000	80,000	275,833	230,000
Burkhard Ulrich Drescher [2] (since December 12, 2014)	100,000	100,000	40,000	40,000	140,000	140,000
Vitus Eckert [2] (since May 9, 2018)	66,667	100,000	26,667	40,000	93,334	140,000
Dr. Florian Funck [2] (since August 21, 2014)	100,000	100,000	40,000	40,000	140,000	140,000
Dr. Ute Geipel-Faber [6] (since November 1, 2015)	100,000	100,000	20,000	20,000	120,000	120,000
Daniel Just [6] (since June 2, 2015)	100,000	100,000	20,000	20,000	120,000	120,000
Hildegard Müller [4] (since June 18, 2013)	100,000	100,000	20,000	20,000	120,000	120,000
Prof. Dr. Klaus Rauscher [4] (since August 1, 2008)	120,833	100,000	20,000	20,000	140,833	120,000
Dr. Ariane Reinhart [4] (since May 13, 2016)	100,000	100,000	20,000	20,000	120,000	120,000
Clara-Christina Streit [4, 5] (since June 18, 2013)	100,000	100,000	60,000	60,000	160,000	160,000
Christian Ulbrich [6] (since August 21, 2014)	100,000	100,000	20,000	20,000	120,000	120,000
Former Supervisory Board members						
Hendrik Jellema [2] (until May 9, 2018)	41,667	–	16,667	–	58,334	–
Total					**1,741,667**	**1,790,000**

(1) Chairman of the Audit Committee
(2) Member of the Audit Committee
(3) Chairman of the Executive and Nomination Committee
(4) Member of the Executive and Nomination Committee
(5) Chairman of the Finance Committee
(6) Member of the Finance Committee

All remuneration is payable after the expiry of each fiscal year. Supervisory Board members who are Supervisory Board members or members of a committee of the Supervisory Board for only part of a fiscal year receive corresponding pro rata remuneration rounded up to the full month.

Furthermore, Vonovia has taken out a liability insurance (D&O insurance) for the members of the Supervisory Board. Vonovia follows the statutory requirements, which provide for a deductible of 10% of any claim up to an amount of one-and-a-half times the fixed annual remuneration for all claims in one fiscal year.

Opportunities and Risks

Risk Management Structure and Instruments

The market environment and the overall statutory/regulatory conditions to which Vonovia is subject are constantly changing. Vonovia is also developing on an ongoing basis with the implementation of the strategy and the associated business activities. This means that new opportunities and risks arise on a regular basis, and that the nature of existing opportunities and risks can change.

As a result, Vonovia has implemented a comprehensive risk management system that is designed to identify, evaluate and manage all of the risks that are relevant to the company. This reduces risk potential, secures the company's survival, supports its strategic further development and promotes responsible entrepreneurial action.

Risks are defined as possible events or developments that could have a negative impact on the company's expected economic development and, as a result, could lead to a negative deviation from the short-term plans (budget and forecasts) and the company's medium-term plans (five-year plan).

Opportunities are possible events or developments that could have a positive impact on the company's expected economic development.

In the 2019 fiscal year, the risk management system that applied in the past was revised. Details are set out in Section (3) Risk Management System. Overall, Vonovia's risk management system is based on an integrated five-pillar risk management approach.

5 Pillars of Risk Management at Vonovia

Management Board
(Strategy, Requirements/Goals, Control Environment, Monitoring)

1 Performance Management	2 Compliance Management	3 Risk Management System	4 Internal Control System	5 Internal Audit
Controlling > Budget > Forecast > Results	**Compliance Officer** > Guidelines, regulations > Contracts > Capital market compliance > Data protection	**Controlling** > Risk management process > Risk reporting	**IT/Internal Audit** > Process documentation **Accounting** > Accounting-based internal control system	**Internal Audit** > Process-oriented audits > Risk-oriented audits
Operational Areas > Performance management > Technical integrity	**Operational Areas** > Ensuring compliance	**Operational Areas** > Risk identification and evaluation > Risk control	**Operational Areas** > Documentation of core processes > Control activities > Control self assessment	**Operational Areas** > Process improvements

(1) Performance Management

Differentiated and high-quality corporate planning and appropriate reporting on deviations between the actual and target operational and financial key figures from Controlling constitute the backbone of the early warning system used at the company. Analyses are made of the business performance compared with the plans approved by the Supervisory Board and the previous year. Furthermore, a forecast is prepared regularly which takes appropriate account of the effect of any potential risks and opportunities on the development of business. Reporting includes detailed monthly controlling reports to the Management Board and the Supervisory Board. The operational business is described in regular reports on key figures, some of which are drawn up on a weekly basis. On the basis of these reports and the deviations that they highlight between the actual and target figures, countermeasures are implemented and then checked in subsequent reporting periods to ensure they are effective.

(2) Compliance Management

Compliance means that the company, its bodies and employees act in line with the applicable rules and regulations. For the Management Board, compliance with statutory law and the observance of internal guidelines are the basis of corporate management and culture. Compliance is to ensure the integrity of employees, customers and business partners and avoid possible negative consequences for the company.

The management and monitoring of Vonovia is based on the relevant statutory requirements, the Articles of Association and the rules of procedure for the Supervisory Board and the Management Board. They form the basis for the company's internal rules and guidelines, adherence to which is monitored by a central compliance management system and administered by a guideline management team that forms part of the Legal department.

The guidelines describe clear organizational and monitoring structures with specified responsibilities and appropriately installed checks. The legally compliant behavior of all employees in the business processes is ensured by suitable control procedures and supervision by managers. The company has also put in place a compliance management system based on IDW (Institute of Public Auditors in Germany) standard PS 980 and has appointed a central compliance officer, whose remit focuses on identifying compliance risks, taking suitable measures to avoid and detect these risks and taking appropriate action in response to compliance risks (compliance program).

In terms of specific content, the main features of the compliance management system are Vonovia's Code of Conduct, which focuses on ethical values and statutory requirements and reinforces the personal responsibility of employees, Vonovia's Compliance Guidelines and a Business Partner Code setting out requirements that the company's contractual partners have to meet. An external ombudsman is available to all employees and business partners as a confidant in respect of compliance matters.

(3) Risk Management System

Vonovia's strategy has a sustainable and long-term focus. As a result, Vonovia pursues a conservative risk strategy in its business activities. This does not mean minimizing risks, but rather promoting entrepreneurial and responsible action and ensuring the necessary transparency with regard to any possible risks.

The risk management system supports all employees in their day-to-day work in accordance with Vonovia's mission statement. It ensures the early identification, assessment, management and monitoring of all risks within the Group that exceed the short-term financial risks dealt with by the Performance Management pillar and could pose a risk not only to the company's results of operations and net assets, but also to intangible assets. This means that potential risks which might impair the value and/or development of the company can be identified at an early stage. Early warning indicators that are specific to the environment and the company are taken into account, as are the observations and regional knowledge of our employees.

The operational management of the risk management system falls within the remit of the Head of Controlling, who is responsible for Risk Controlling, and reports to the Chief Financial Officer (CFO). Risk Controlling initiates the periodic risk management process and consolidates and validates the risks reported. It is also responsible for validating the risk management measures and monitoring their implementation. Risk Controlling works with the individual risk owners to define early warning indicators that are used to monitor actual developments with regard to certain risks. It measures and reports on these early warning indicators at regular intervals.

The risk owners are the managers at the level directly below the Management Board. They are responsible for identifying, evaluating, managing, monitoring, documenting and communicating all risks in their sphere of responsibility. They are also responsible for risk reporting to Risk Controlling based on the defined reporting cycles (generally on a half-yearly or ad hoc basis, insofar as is necessary).

Based on a half-yearly risk inventory taken in the first and third quarters of a fiscal year, Risk Controlling prepares a risk report for the Management Board and the Supervisory Board. It also simulates major risk developments and their impact on the corporate plans and objectives.

This reporting system ensures that both managers and supervisory bodies are comprehensively informed and provides relevant operational early warning indicators. In this way, misguided developments can be recognized in good time and counteraction taken at an early stage. Should significant risks occur unexpectedly, they are reported directly to the Management Board and the Supervisory Board on an ad hoc basis.

The risk management system is updated and refined on a regular basis and is also adjusted to reflect changes at the company. The effectiveness of the risk management system is analyzed in regular audits.

In organizational terms, risk management is assigned directly to the Management Board. The Management Board has overall responsibility in this regard. It decides on the organizational structures and workflows of risk management and provision of resources. It approves the documented risk management findings and takes account of them in steering the company. The Audit Committee of the Supervisory Board monitors the effectiveness of the risk management system.

Further Development of the Risk Management System in 2019

Vonovia further developed its previous risk management system in the second half of 2019. All activities forming part of the risk management process, i. e.

> Risk identification
> Risk assessment
> Risk aggregation
> Risk control
> Risk monitoring

were reviewed and adjusted if necessary.

Based on the COSO Framework, a risk universe with the following four main **risk categories** was defined to facilitate **risk identification**: strategy, regulatory environment & overall statutory framework, operating business and financing (including accounting and tax). A structured risk catalog was assigned to each of these categories.

Changes were also made to the key data for **risk assessments**, with a distinction now being made between risks with an impact on profit and loss and those affecting the balance sheet. Risks with an impact on profit and loss have a negative effect on the company's sustained earnings power and, as a result, on Group FFO. In general, these risks also have an impact on liquidity. Risks affecting the balance sheet do not impact Group FFO. In particular, these risks can be such that they do not affect liquidity, e. g., because they only impact property values.

If possible, risk assessments are always to be performed in quantitative terms. If this was difficult to achieve or not possible, a qualitative assessment was performed using a detailed matrix comprising five loss categories.

The previous classification of the expected amount of loss in four categories

Class	Category	Value limits
1	Low	< € 5 million
2	Moderate	€ 5 million to € 25 million
3	Considerable	€ 25 million to € 250 million
4	High	> € 250 million

has been switched to a system comprising five categories:

Category	Class	Description	Impact on profit and loss*	Impact on statement of financial position*
Very high	5	Threatens the company's existence	Possible loss of > € 500 million in Group FFO	Possible balance sheet loss of > € 8,000 million
High	4	Dangerous impact on business development, previous business situation cannot be restored in the medium term	Possible loss of € 250 million to € 500 million in Group FFO	Possible balance sheet loss of € 4,000 million to € 8,000 million
Considerable	3	Temporarily impairs business development	Possible loss of € 100 million to € 250 million in Group FFO	Possible balance sheet loss of € 1,600 million to € 4,000 million
Noticeable	2	Low impact, possibly leaving a mark on business development in one or more years	Possible loss of € 25 million to € 100 million in Group FFO	Possible balance sheet loss of € 400 million to € 1,600 million
Low	1	Minor impact on business development	Possible loss of € 5 million to € 25 million in Group FFO	Possible balance sheet loss of € 80 million to € 400 million

* Understood as the possible financial loss over five years in accordance with the medium-term planning horizon.

This means that the threshold for risks that need to be reported has been increased from € 0.5 million to € 5 million in the period under review.

The expected probability of occurrence of the risks has also been reclustered. The previous classification of the probability of occurrence in four categories:

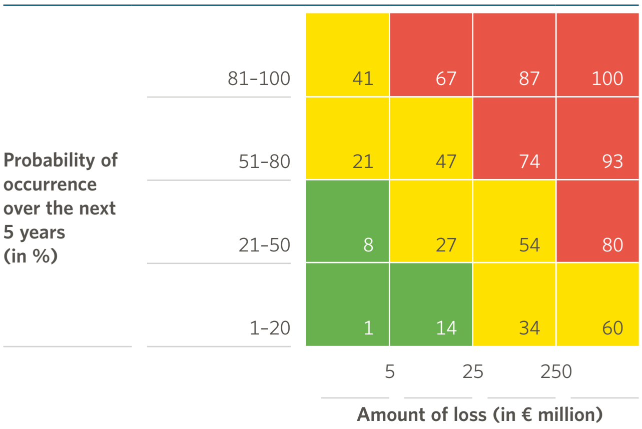
Class	Category	Percentage
1	Unlikely	1–20%
2	Possible	21–50%
3	Likely	51–80%
4	Very likely	81–100%

has been switched to a system comprising five categories:

Category	Class	Definition	Probability
Very likely	5	It is to be assumed that the risk will materialize during the observation period.	> 95%
Likely	4	The risk is likely to materialize during the observation period.	60–95%
Possible	3	The risk could materialize during the observation period.	40–59%
Unlikely	2	The risk is unlikely to materialize during the observation period.	5–39%
Very unlikely	1	It is to be assumed that the risk will not materialize during the observation period.	< 5%

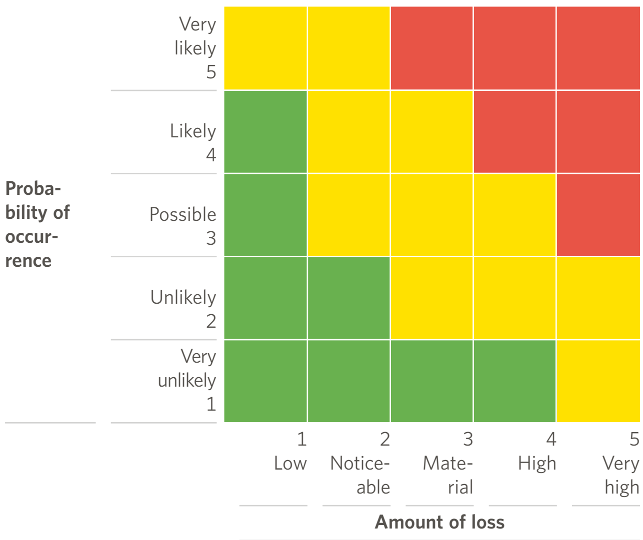
The expected amount of loss and the probability of occurrence are classified within set ranges before action (gross) and after action (net) for each risk, documented in a Group-wide risk register and transferred to a heatmap.

Previous Valuation Model



The previous assessment model featuring a combined gross and net assessment was discontinued at the time of the report for the second half of the year. Since then, the risk reporting is based on the net assessment and the assignment of risks in the net heatmap, comprising five categories for both probability of occurrence and the expected amount of loss.

Net Heatmap



The term "top risks" (previously referred to as the "top 10 risks") now refers to the risks assigned to the red and amber fields. These are reported to the Supervisory Board and published externally as part of the corporate reporting process. The risks assigned to the red fields are classified as threatening or endangering the company or its survival. The risks assigned to the amber fields are significant to the company. Red and amber risks are subject to intensive monitoring by the Management Board and the Supervisory Board. The risks assigned to the green fields are not material for the company.

As part of the risk recording process in the second half of 2019, we conducted an extensive **aggregation** process for individual risks with related content.

As part of **risk management**, we focused on material risks, combined with active risk management. If possible and necessary, new specific risk management measures were agreed and incorporated into a regular monitoring process to be conducted by Risk Controlling.

Regular **risk monitoring** by Risk Controlling ensures that risk management measures are implemented as planned.

At the same time as the methodological overhaul of the risk management system in the second half of 2019, a project to introduce new risk management software was launched. The new software is scheduled to be implemented in the first half of 2020.

(4) Internal Control System

The Internal Control System (ICS) comprises the basic principles, procedures and regulations aimed at supporting the effectiveness and cost-effectiveness of our business activities, ensuring due and proper, and reliable internal and external accounting, and ensuring compliance with the legal provisions that apply to the company.

All key processes at Vonovia are recorded and documented centrally with the help of a process management software solution. In addition to the relevant process steps, this documentation highlights key risks and controls in the interests of a process-oriented internal control system (ICS). It provides the binding basis for subsequent evaluations, audits and reporting to the executive bodies of Vonovia SE on the effectiveness of the ICS within the meaning of Section 107 (3) sentence 2 of the German Stock Corporation Act (AktG).

Overall responsibility for structuring and implementing the ICS lies with Vonovia's Management Board. The Management Board delegates this responsibility to process and control owners. The Internal Audit department provides support in the establishment and further technical development of the ICS in addition to performing its primary audit duties in full. IT is responsible for providing technical and administrative support for the documentation software.

The aim of the accounting-related internal control and risk management system is to ensure due and proper and legally compliant financial reporting pursuant to the relevant regulations. The accounting-related internal control and risk management system is embedded in the overarching Group-wide risk management system.

Organizationally, responsibility for preparing the financial statements lies with the department of the Chief Financial Officer (CFO) and, in particular, with the Accounting department. Therefore, the Accounting department exercises the authority to lay down guidelines for the application of relevant accounting standards as well as for the content and timing of the steps in the financial statements preparation process.

From the organizational and systems side, the preparation of the financial statements for all companies included in the consolidated financial statements as well as the preparation of the consolidated financial statements themselves are performed in the central shared service centers, which ensures consistent and continual application of accounting principles in a uniform financial statement preparation process. Furthermore, through the shared service center functions it is ensured that both content and organizational changes in the requirements are incorporated in the financial statement preparation process.

The financial statements of the companies included in the consolidated financial statements – with the exception of Sweden and France – are located in an IT SAP environment. They are subject largely to uniform charts of account, accounting guidelines, processes and process controls. The requirement of separation of functions and the dual-review principle are taken appropriate account of with preventive and also subsequent checks. The subsidiaries in Sweden and France report their data as part of a structured data recording process.

The relevant financial statement data of the individual companies are made available to the SAP consolidation module via an integrated, automated interface with comprehensive validation rules for further processing and preparation of the consolidated financial statements. An authorization concept is in place granting access to the financial statements in line with the respective job profile of the employee.

Newly acquired companies are incorporated into the internal control environment as part of a structured integration process, which includes integration in terms of both IT systems and processes relating to financial statements.

Once the financial statements have been drawn up, the annual and consolidated financial statements, including the consolidated management report, are submitted to the Audit Committee of the Supervisory Board. The Committee then makes a recommendation for the Supervisory Board to adopt or approve them. This examination may include discussion with the auditor and is subject to the auditor's report. The Audit Committee is continually involved in the establishment and refinement of the accounting-related internal control and risk management system.

(5) Internal Audit

The system and control environment, business processes and the internal control system (ICS) are audited on a regular basis by Vonovia's Group Audit department. The annual audit plan is based on a risk-oriented evaluation of all relevant audit areas of the Group (audit universe) and is approved by the Management Board and the Supervisory Board's Audit Committee.

The audits conducted throughout the year focus on assessing the effectiveness of the control and risk management systems, identifying process improvements in order to minimize risks and ensuring the sustainability of Vonovia's business activities. Corresponding special ad hoc audits are also performed in consultation with the Management Board. The internal reports are presented to the Management Board, the individuals responsible for the area reviewed and, in cases involving significant and serious findings, the risk manager and, where relevant, the compliance officer on a regular basis. The Audit Committee receives a quarterly summary of the audit results and measures. The implementation status of the agreed measures is monitored on an ongoing basis after the relevant due dates and is reported to the Management Board and the Audit Committee on a quarterly basis. A follow-up audit is conducted to ensure that any serious findings have been remedied.

The Internal Audit department also reviews the Sustainability Report and the Non-financial Declaration.

Current Risk Assessment

A scheduled risk inventory was performed in both the first and second half of the 2019 fiscal year. Extensive risk workshops were conducted in the second half of 2019 in parallel with the risk inventory. The changes described in the section entitled Changes to the Risk Management System were applied for the first time in the second half of 2019. The resulting risk report was presented to the Management Board and the Audit Committee. There were no unscheduled ad hoc risk reports in the 2019 fiscal year.

A total of 93 individual risks were identified for Vonovia in the second half of 2019, considerably less, i. e., 48 less, than in 2018. This drop is largely due to the change in value limits in the second half of 2019 mentioned above as well as to the aggregation of risks, particularly in connection with the company's operating business.

Overall Assessment of the Risk Situation

In the interest of the company's key stakeholders – customers, employees, suppliers, investors and society – Vonovia pursues a conservative strategy that focuses on security and sustainability. In addition, both the business model and the diversified capital market instruments used by Vonovia ensure that we have the greatest possible degree of independence from economic fluctuations.

The strategy also determines the company's risk profile. Overall, the results of the risk assessment conducted in the second half of 2019 are as follows: The 93 individual risks identified do not include any risks threatening or endangering the company or its survival. Five risks that are significant to the company and 88 other risks were identified.

This means that, at the time this report was prepared, Vonovia's Management Board had not identified any risks associated with future business development that the company cannot suitably overcome, or which could jeopardize the position of Vonovia SE, a major company included in the scope of consolidation or the Group as a whole in terms of revenue, assets and/or finances.

Summarized in the heatmap referred to above, this produces the following picture for the net risks identified at the end of 2019:

Net Risks

Probability of occurrence over the next 5 years (in %)					
>95		1			
60–95	2				
40–59	4				
5–39	15	13	2		
<5	47	3	3	1	2
Impact on profit and loss	5–25	25–100	100–250	250–500	>500
Impact on statement of financial position	80–400	400–1,600	1,600–4,000	4,000–8,000	>8,000

Amount of loss over the next 5 years (in € million)

The amber risk that is classified as highly probable is the risk associated with the entry into force of the “Act on the Revision of Statutory Provisions on Rent Limitation” passed by the Berlin State Government (**Berlin rent freeze**).

The amber risks that are classed as improbable relate to the balance sheet risk **Future market development leads to a drop in property values** and the risk with an impact on profit and loss **Deteriorating residential property market situation with regard to apartment sales**.

The amber risks that are classed as highly improbable relate to the risks with an impact on profit and loss **Nationwide introduction of a ‘rent freeze’ similar to the ‘Berlin rent freeze’** and **Failure to fulfill obligations (from bonds, secured loans, transactions)**.

Details on the company’s **four main risk categories** are shown in the graphic below.

Risks Related to Strategy

Vonovia’s strategy is described in the Strategy section. → p. 59 et seqq. Based on this strategy, the Management Board has not identified any significant or acutely threatening risks, let alone risks that could pose a threat to the company’s survival.

Overall, six risks, none of which have a material impact on Vonovia’s business development, have been identified in this risk category. These relate, in particular, to the strategy of making acquisitions when the right opportunities present themselves and the strategy of developing new fields of business.

Risks Related to Regulatory Environment & Overall Statutory Framework

The statutory provisions setting rent levels are highly relevant to Vonovia’s business development. The rent regulation initiatives that have emerged of late, for example, give rise to specific risks.

Vonovia has identified the Act on the Revision of Statutory Provisions on Rent Limitation introduced by the Berlin State Government as the biggest regulatory risk. The draft legislation was approved by the Berlin House of Representatives on January 30, 2020, and was published in February 2020. Although we believe that the current version of the Act is unconstitutional, we expect it to remain in place. As a result, we believe that this risk is extremely likely to materialize and have included the impact of the Act in our corporate plans, even though we expect the impact to be minor given the relatively small share of our portfolio in Berlin (around 10% of the overall portfolio) and in light of the options available to us for offsetting the impact of the legislation.

There is also a risk that other federal states in which Vonovia has a relevant share of its portfolio, or even the German federal government, could introduce similar regulations. While this risk would have a very considerable impact on Vonovia, we believe that it is very unlikely to materialize and expect the rent freeze legislation to be restricted to Berlin.

In addition to the risks associated with the statutory requirements on how rent levels are set, there are a number of risks resulting from possible changes to the other overall statutory conditions that are relevant to our business. Changes to tax provisions, for example, could result in a higher current tax obligation. Similarly, changes regarding the extent to which operating and ancillary expenses can be passed on could result in higher property management expenses or lower income in our Value-add Business. We do not expect these risks to have a material impact.

In order to be able to pick up on potential changes in the overall statutory framework early on, Vonovia is involved in active dialogue with policymakers and other stakeholders. Vonovia is also represented in associations and monitors the legislative procedure and recent court decisions on a regular basis.

There is also a general risk that Vonovia will not comply with existing statutory requirements, or that these will be interpreted differently by the courts. This risk, however, is one that we consistently assess as very unlikely to materialize.

A total of 25 risks resulting from possible regulation or other overall statutory conditions have been identified. With the exception of the two risks relating to rent regulation described above, none of the risks would have a material impact on Vonovia’s business development.

Risks Related to Operating Business

A whole range of risks can arise for Vonovia in connection with the performance of its business activities. The main risks in this regard relate exclusively to a deterioration in the market environment for residential real estate.

By way of example, a drop in property values due to market-related factors can result in a **reduction in the fair values of Vonovia’s portfolio in the context of the fair value measurement process**, albeit without this impacting liquidity. Vonovia counters this risk by ensuring that its portfolio is diversified in terms of location. This reduces its reliance on local market developments.

Negative market developments can also have an impact on the opportunities for **selling apartments and buildings**. Vonovia has established a stringent process for setting sale prices in order to monitor this risk. In addition, sales volumes, prices and margins are reported to the management team on a regular basis so that the company can respond quickly to market developments.

Besides these two significant risks, we have only identified risks related to the operating business that would not have any material impact on Vonovia's business development. In total, 49 risks related to the operating business have been identified.

For example, structural risks, e. g. arising from the materials used in construction or relating to fire protection, could arise in Vonovia's portfolio due to insufficient information on how the building construction work was executed. This applies, in particular, when Vonovia purchases portfolios. Risks can also emerge as a result of changes in structural regulations. Vonovia counters this risk by carrying out regular inspections and checks on its properties, ensuring that any faults identified are rectified immediately, developing and implementing suitable fire protection concepts and implementing any amendments to construction regulations as part of a structured process. This procedure is also incorporated directly into the process for integrating real estate portfolios purchased by Vonovia.

Risks in the Development segment arise throughout the entire developmental cycle of the individual projects. Particular examples are higher construction costs, project delays or lower demand when the apartments are sold to third parties. In order to counter these risks, Vonovia has established detailed due diligence measures that it applies whenever it purchases land as well as in its project and contract management activities. Furthermore, we closely monitor market developments. If necessary, Vonovia also has the option of adding apartments that it intended to sell to third parties to its own portfolio.

When it comes to the development of new fields of business in the Value-add segment, risks can arise from the design and implementation of the business models. Market conditions such as procurement prices or customer demand can also develop differently than expected. As well as taking the usual precautions as part of the internal control system, Vonovia addresses these risks using a detailed innovation controlling system that defines set "stage gates" for decision-making regarding the further implementation of new fields of business.

We do not believe that climate change gives rise to any significant direct risks at the moment, e. g. caused by extreme weather conditions with heavy rain and the potential for floods.

Risks Related to Financing

Ensuring a balanced and sustainable financing approach focusing on security as well as extensive access to the equity and debt capital markets at all times is extremely important for Vonovia's business development. This orientation is also reflected in the risks identified in relation to financing.

The possibility of **non-compliance with obligations under existing financing arrangements (covenants)** gives rise to a single significant risk relating to financing, but one that can have a very considerable impact. Thanks to the processes and methods put in place by Vonovia to monitor these obligations, we believe that this risk is highly unlikely to materialize.

There are also a number of financing-related risks that are not of any material significance to Vonovia's business development.

Unfavorable interest rate developments, for example, could result in higher interest expenses for Vonovia in the long run. Vonovia counters this risk using a diverse range of debt capital instruments, a balanced maturity profile and a large proportion of fixed-interest financial liabilities as well as an optimized level of debt.

Failure to comply with key financial figures or the assessment of our market positioning could also result in us losing our current ratings (S&P: BBB+/Stable/A-; Scope: A-/Stable/A). Given our financing strategy and the prerequisite that acquisition decisions cannot have any impact on our rating, we believe that this risk is very unlikely to materialize.

Vonovia is also exposed to a liquidity risk in its ongoing business activities. We have established extensive liquidity management processes in response to this risk. Vonovia also has a sufficient working capital facility available at all times and enjoys access to short-term money market securities. This means that, as of the reporting date, Vonovia SE has sufficient cash and cash equivalents and short-term financing options to guarantee the ability to pay of all Group companies at all times.

Current Assessment of the Main Opportunities

Assessment of Opportunities Inherent in the Business Model

In the process of defining its strategy and preparing its short and medium-term plans, Vonovia identified earnings potential that has been reflected appropriately in these plans, taking the corresponding assumptions and scenarios into account. The assumptions regarding the company's strategy, sociological and political megatrends, the regulatory environment, the financing environment and the company's operating business are not only associated with the risks described above. Vonovia's business development can also end up being more favorable than in the assumptions included in the company's plans. These opportunities can arise from a scenario in which strategy-related opportunities, economic environment and market-related factors, and the company's operating business show more positive development than that underlying the corporate plans.

Strategy-related Opportunities

Based on the sociological and economic research data published by various institutes, the population in Germany and parts of Europe is still expected to grow as a result of migration, fueling sustained demand for affordable homes, whereby even new construction activity will fail to meet the demand for housing. The main reasons driving migration, namely political and social crises, a lack of prospects and hostilities, and factors triggered by climate change in migrants' countries of origin will remain unchanged for the foreseeable future. As a major provider of housing, Vonovia has a key role to play here with regard to integration, also by supporting neighborhood development projects.

The demand for housing must be met by measures to systematically increase the supply by building new properties. It is first and foremost our policymakers who are called upon to create the right environment to foster investment. Additional opportunities in this context arise in connection with development, new construction and vertical expansion projects that allow Vonovia to help ease the shortage of housing.

Creating a positive investment climate also means making additional land available for construction and promoting the acceptance of private-sector real estate investors. There is also a general consensus that bureaucracy has to be reduced as a supporting measure, in particular by streamlining the provisions governing construction and planning permission. The investment climate could also receive a boost from the growing acceptance of the need for modernization work due to climate change.

Looking at the internationalization strategy, the further deregulation of the residential property markets in other European countries, such as France, could give rise to further opportunities to tap into these markets, provided that the overall conditions are similar and consistent with our acquisition criteria. Other acquisition opportunities in Sweden and Austria could also have a positive impact on business development. Making acquisitions within the value chain as and when opportunities present themselves, particularly with regard to the Value-add Business, could open up additional earnings potential.

Economic Environment and Market-related Opportunities

The housing industry is currently being influenced to a considerable degree by a range of social and technological megatrends. According to analyses released by the German Federal Statistical Office, domestic migration from rural areas to the country's large metropolitan areas will continue unchanged into the 2020s. The resulting shortage of housing in urban areas could be exacerbated even further by the effects of migration from global crisis hotspots and the trend toward smaller households. As a result, the Cologne Institute for Economic Research expects to see a shortfall of as much as 283,000 apartments a year in the first half of the decade. This development trend could benefit Vonovia's real estate portfolio, which focuses primarily on small and medium-sized apartments in urban areas. Vonovia is in a position to actively counter the increasing shortage of affordable housing through its development and new construction business. Additional opportunities for the development and new construction business lie in the streamlining of the overall conditions imposed by the authorities and the provision of more land for construction.

However, the trend toward urbanization will not only create quantitative challenges for the residential property market. Rather, it will also be faced with challenges relating to integration that Vonovia can, and indeed must, counter using an appropriate number of additional neighborhood development projects. One key factor in this regard is the demographic change toward an aging society, resulting in what is likely to be a steady increase in the demand for senior-friendly and affordable homes over the coming years. As a result, opportunities could arise from senior-friendly modernization and investment in new and innovative housing concepts.

The megatrend attracting the most attention in the media in this fiscal year was, without a doubt, climate protection. But the Fridays for Future movement merely reflects a process of far-reaching social change that has been ongoing for years now. According to a survey conducted by the forsa Institute for Social Research and Statistical Analysis, 36% of Germans currently consider climate protection to be the most pressing and important problem in Germany. In this market environment, the decision taken very early on to focus on energy-efficiency refurbishments could prove to be advantageous. After all, almost one-third of CO_2 emissions in Germany can currently be attributed to residential property. Aside from this, however, Vonovia also sees itself as a driver of innovation. In the 2020 fiscal year, for example, the Fraunhofer Society will launch a center dedicated to research into the decentralized use of energy in collaboration with Open District Hub e. V., which Vonovia hopes will yield information on how to make supplying energy to its real estate portfolio as close to climate-neutral as possible in the medium term. In order to support this process, the "1,000 roofs" program for decentralized energy generation was also launched in the 2019 fiscal year, with well over 200 photovoltaic plants already being operated as part of this program.

Increased environmental awareness could result in the Vonovia brand taking on increasingly positive connotations in the future thanks to the company's energy-efficiency modernizations and in greater demand for Vonovia's energy-efficient apartments. This sort of acceptance of modernization will help Vonovia in its endeavors to continue to modernize its portfolio in a sustainable manner so that it meets state-of-the-art standards, while at the same time always adhering to the voluntary social commitments that form part of Vonovia's business philosophy. Finally, the megatrend of digitalization is also having an impact on the real estate sector (among others). Virtually every study emphasizes the considerable potential associated with this trend. At the same time, the German Property Federation (Zentraler Immobilien Ausschuss e. V.) points out that, despite what is already a marked focus on this issue in the real estate sector, significant efficiency gains can still be achieved by investing in digital business models. This is why Vonovia is making systematic investments in testing and expanding new technologies.

Predictive maintenance, for example, could allow damage to elevators or heating units to be prevented before it arises. Smart home systems could allow tenants to consciously manage their energy costs. What is more, digital communication platforms could help to improve dialogue with tenants. In light of the above, the launch of the tenant app in the 2019 fiscal year should only be viewed as the first of many initiatives in Vonovia's digitalization campaign. Acquisition opportunities at all stages in the value chain to enable the further implementation of digital solutions within Vonovia's processes, but also at the various interfaces, could open up further earnings potential in this area.

Digitalization could also open up further opportunities outside of Vonovia. The digitalization of public administration could promote the much-called-for streamlining of administrative and, in particular, approval processes, with a positive impact, for example, on Vonovia's development/new construction business thanks to the quicker approval of building applications.

Opportunities Arising From the Operating Business

With the acquisition of BUWOG and Victoria Park in 2018, Vonovia started to expand its business activities to include attractive markets in other European countries. We also acquired our very first stake in France in 2018. The company's expansion in Sweden continued in 2019 with the acquisitions of the Akelius portfolio and of Hembla. The continuation of this strategy could give rise to further growth opportunities in Sweden and Austria as well as in other European countries.

We also see the potential acquisition of larger portfolios in Germany, but also the targeted small-scale "tactical" acquisitions of single or multiple buildings in specific locations as well as targeted measures in the residential environment as an opportunity to improve the nature and quality of whole residential districts and thus increase the appeal of our apartments for our customers and the value of our residential properties.

Vonovia manages its housing portfolios throughout Germany using standardized systems and processes. As a result, the acquisition of further residential real estate portfolios offers the opportunity to generate additional value through economies of scale on the property management side by reducing the costs per residential unit. The same applies to the corresponding transfer of expertise from the property management segment, the Value-add segment and also from the development segment to other European target markets. The development segment is Vonovia's answer to the pressing challenge associated with affordable housing in central locations. Based on the long-standing project development experience of the BUWOG team, we will be developing modern, sustainable residential properties in fast-growing locations such as Berlin, Vienna and Hamburg, allowing us to expand our development business. By expanding the development business to cover other urban areas, also supported by takeovers as and when the right opportunities present themselves, we can also tap into additional earnings potential. The provision of additional land for construction and the acquisition of additional areas for construction as a result could have a positive impact on the development business overall. The streamlining and deregulation of official processes could provide additional support to the development business. Vonovia believes that new construction and the development business can still be made more efficient and more cost-effective by using modular construction, series construction or other innovative construction methods.

Today, our own craftsmen's organization already provides the lion's share of the repair and maintenance services for our residential properties. We are also continually increasing the proportion of building and apartment optimizing services we provide ourselves via our craftsmen's organization as well as new building construction. In particular due to the shortage of workers with the desired skills and the availability of corresponding capacities, we intend to extend the scope of these services to cover all kinds of technical work and thus bring added value from these services to Vonovia. We are also working on new construction concepts to facilitate both the highly standardized series construction of new properties using a modular system and flexible, individually scalable new construction that can be varied to suit the local conditions. This is being supported by corresponding HR management concepts.

By offering our tenants the option of targeted modernization measures in their own homes, we can boost customer satisfaction and help promote longer-term loyalty to the company. This also allows us to further improve the quality of the homes we offer.

At the end of 2019 we had supplied around 298,000 households with a direct cable TV signal. We expect to further extend this business in the coming years and also provide broadband data access.

The expansion of smart submetering, the radio-based recording of heating costs, is progressing as planned. By the end of 2019, the retrofitting of more than 190,000 apartments had been commissioned. We plan to further expand these business activities in our portfolio over the next few years.

In the 2019 fiscal year, we further expanded our offering in the field of energy supplies, i.e. the distribution of electricity and gas. The market response to this has been positive. In the 2019 fiscal year, 15,930 private electricity customers were supplied with 24 GWh of electricity, with 2,220 private gas customers receiving 13 GWh of gas. We expect further opportunities to arise in this area as we expand the business volume.

Financial Opportunities

Vonovia has benefited from favorable conditions on the capital and banking market in recent years. Given the sustained low inflation rates and the recent slowdown in economic development, it is looking increasingly likely that the attractive interest rate environment in Europe will continue in the medium term. Together with the diversification strategy for liquidity procurement that we have been pursuing for many years now, we have the opportunity to optimize the structure and conditions of our financial liabilities on an ongoing basis.

The strengthening of our market share in urban areas within our target markets could have a positive impact on how our investors and ratings agencies assess our risks, resulting in a further improvement in our attractive financing conditions.

Our investments in affordable homes are associated with a cash flow that is largely independent of economic factors. The resulting stability allows us to service our financial liabilities with a relative degree of certainty, even in times of economic or political crisis.

Forecast Report

Business Outlook

Comparison of the Previous Forecasts With the Results From 2019

The 2019 fiscal year was once again very successful for Vonovia on the whole. We systematically continued to pursue our corporate strategy. By way of example, we forged ahead with the construction of new apartments and moves to modernize our real estate portfolio, and further expanded our market Presence in Sweden with the acquisitions of the Akelius portfolios and Hembla. As reported, all four business segments showed positive development on the whole.

The table below provides an overview of the development of our forecast performance indicators, their target achievement level in the 2019 fiscal year as well as a forecast for the 2020 fiscal year. The most recently published forecast for the 2019 fiscal year did not include the effects of the Hembla acquisition (with the exception of Adjusted NAV).

Our **Adjusted NAV per share** came in at € 51.93 in 2019, in line with the initial forecast and up 15.7% on the prior-year value of € 44.90 and was therefore within the latest forecast range of € 51.50–53.00. This includes effects from fair value adjustments of investment properties in the amount of € 4.1 billion in total (2018: € 3.5 billion). The distribution of the dividend – taking into account the scrip dividend (acceptance rate 45.8%) – of € 404.7 million in 2019 had the opposite effect.

The **Adjusted EBITDA Total** rose by 13.2% from € 1,554.8 million to € 1,760.1 million. This means that, excluding the earnings contribution made by Hembla of € 9.6 million that is included in this figure, the Adjusted EBITDA Total would be exactly at the upper end of the most recent forecast range of between € 1,700 million and € 1,750 million and over the range of between € 1,650 and € 1,700 million forecast at the beginning of the 2018 financial year. In addition to organic growth from new construction and modernization, the increase in EBITDA was driven by the acquisitions in Sweden in 2019. All segments increased their adjusted EBITDA as against the previous year; the originally forecast slight drop in the Recurring Sales segment failed to materialize. The IFRS 16 accounting standard was also adopted for the first time in 2019. The resulting effect on the Adjusted EBITBA Total amounted to € 29.9 million in total. This effect is eliminated in the Group FFO reconciliation.

Group FFO rose by 7.7% from € 1,132.0 million in 2018 to € 1,218.6 million, putting it exactly at the upper end of the latest forecast range of between € 1,165 million and € 1,215 million. This means that the range of € 1,140 million and € 1,190 million forecast at the start of the year in the 2018 annual report was exceeded. Hembla is included in Group FFO in 2019 with a volume of € 3.8 million.

Customer satisfaction in 2019, measured using the performance indicator **CSI**, was down 8.0% on the previous year, meaning it also fell short of the level included in our most recent forecast. This means that it was not possible to achieve the slight increase in the CSI forecast at the start of the year in the 2018 annual report.

Forecast for the 2020 Fiscal Year

Our **forecast for the 2020 fiscal year** is based on determined and updated corporate planning for the Vonovia Group as a whole, and considers current business developments, the acquisition of Hembla as well as possible opportunities and risks. It also includes the key overall macroeconomic developments and the economic factors that are relevant to the real estate industry and our corporate strategy. Further information is provided in the sections entitled Development of the Economy and the Industry → p. 91 et seqq. and Fundamental Information About the Group → p. 54 et seqq.. Beyond this, the Group's further development remains exposed to general opportunities and risks (see chapter on Opportunities and Risks → p. 125 et seqq.). As things stand, we do not anticipate any significant effects associated with the current debate and situation surrounding the rent freeze in Berlin.

The forecast was based on the accounting principles used in the annual financial statements, with the adjustments described elsewhere in the management report being made. The forecast does not take account of any larger acquisitions of real estate portfolios.

The increase in Adjusted EBITDA Total and Group FFO will be driven, in particular, by the Rental and Development segments, whereas a slight drop is expected in the Recurring Sales segment. We expect the value of our company to increase further in 2020 and predict a moderate increase in Adjusted NAV per share.

	Actual 2018	Forecast for 2019	Forecast for 2019 in the 2019 Q3 Report	Actual 2019	Forecast for 2020
Adjusted NAV per share	€ 44.90	suspended	€ 51.50–53.00	€ 51.93	suspended
Adjusted EBITDA Total	€ 1,554.8 million	€ 1,650–1,700 million	upper end of range € 1,700–1,750 million	€ 1,760.1 million	€ 1,875–1,925 million
Group FFO	€ 1,132.0 million	€ 1,140–1,190 million	upper end of range € 1,165–1,215 million	€ 1,218.6 million	€ 1,275–1,325 million
Group FFO per share*	€ 2.18	€ 2.20–2.30	upper end of range € 2.15–2.24	€ 2.25	suspended
Customer Satisfaction Index (CSI)	Decrease of 2.6%	Up slightly year-over-year	Single-digit percent decrease year-over-year	Decrease of 8.0%	Up slightly year-over-year
Rental income	€ 1,894.2 million	€ 2,020–2,070 million	€ ~2,040 million	€ 2,074.9 million	€ ~2,300 million
Organic rent increase	4.4%	Increase of ~4.4%	Increase of ~4.0%	3.9%	Increase of ~4.0%**
Maintenance incl. capitalized maintenance	€ 430.4 million	–	–	€ 481.6 million	–
Modernization and new construction	€ 1,139.0 million	€ 1,300–1,600 million	€ ~1,400 million	€ 1,489.5 million	€ 1,300–1,600 million
Number of units sold Recurring Sales	2,818	~2,500	~2,500	2,607	~2,500
Step-up Recurring Sales	35.5%	~30%	> 30%	41.3%	~30%

* Based on the shares carrying dividend rights on the reporting date.
** Without possible one-time decrease pursuant to the Act For Rent Limitation In The Housing Sector In Berlin (MietenWoG Bln).

Bochum, Germany, February 25, 2020

The Management Board

Rolf Buch
(CEO)

Arnd Fittkau
(CRO)

Helene von Roeder
(CFO)

Daniel Riedl
(CDO)

Financial Statements

The Group's assets and financial position remain stable. Total assets rose by € 7.1 billion to € 56.5 billion. The equity ratio remains high at 37.4%. Real estate assets increased considerably by 20.5% to € 53.3 billion. Cash and cash equivalents once again amounted to € 0.5 billion at the end of the year.

Financial Statements

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Consolidated Income Statement

January 1 until December 31

in € million	Notes	2018	2019
Income from property letting		2,647.9	2,840.8
Other income from property management		60.3	69.9
Income from property management	B10	**2,708.2**	**2,910.7**
Income from disposal of properties		1,097.5	510.7
Carrying amount of properties sold		-933.7	-441.6
Revaluation of assets held for sale		68.5	59.7
Profit on disposal of properties	B11	**232.3**	**128.8**
Income from the disposal of properties (Development)		225.1	249.5
Cost of sold properties		-181.8	-197.3
Profit on the disposal of properties (Development)	B12	**43.3**	**52.2**
Net income from fair value adjustments of investment properties	B13	3,517.9	4,131.5
Capitalized internal expenses	B14	608.2	687.2
Cost of materials	B15	-1,381.0	-1,463.0
Personnel expenses	B16	-513.1	-535.7
Depreciation and amortization		-737.9	-2,175.8
Other operating income	B17	132.2	105.7
Impairment losses on financial assets		-21.6	-28.6
Gains resulting from the derecognition of financial assets measured at amortized cost		1.0	5.2
Other operating expenses	B18	-300.0	-295.3
Net income from investments accounted for using the equity method		1.8	0.6
Interest income	B19	5.8	8.9
Interest expenses	B20	-420.8	-417.5
Other financial profit	B21	-2.0	24.0
Earnings before tax		**3,874.3**	**3,138.9**
Income taxes	B22	-1,471.5	-1,844.6
Profit for the period		**2,402.8**	**1,294.3**
Attributable to:			
Vonovia's shareholders		2,266.5	1,147.0
Vonovia's hybrid capital investors		40.0	40.0
Non-controlling interests		96.3	107.3
Earnings per share (basic and diluted) in €	C24	**4.48**	**2.15**

Consolidated Statement of Comprehensive Income

January 1 until December 31

in € million	2018	2019
Profit for the period	2,402.8	1,294.3
Cash flow hedges		
Change in unrealized gains/losses	0.4	2.0
Taxes on the change in unrealized gains/losses	3.0	-0.6
Net realized gains/losses	3.1	9.8
Taxes due to net realized gains/losses	-1.0	-0.1
Total	5.5	11.1
Currency translation differences		
Changes in the period	16.3	-13.7
Net realized gains/losses	-0.7	-
Total	15.6	-13.7
Items which will be recognized in profit or loss in the future	21.1	-2.6
Equity instruments at fair value in other comprehensive income		
Changes in the period	60.0	48.6
Taxes on changes in the period	-0.9	0.4
Total	59.1	49.0
Actuarial gains and losses from pensions and similar obligations		
Change in actuarial gains/losses, net	-7.7	-53.7
Tax effect	2.7	17.5
Total	-5.0	-36.2
Items which will not be recognized in profit or loss in the future	54.1	12.8
Other comprehensive income	75.2	10.2
Total comprehensive income	**2,478.0**	**1,304.5**
Attributable to:		
Vonovia's shareholders	2,340.3	1,159.3
Vonovia's hybrid capital investors	40.0	40.0
Non-controlling interests	97.7	105.2

Consolidated Balance Sheet

Assets

in € million	Notes	Dec. 31, 2018	Dec. 31, 2019
Intangible assets	D26	2,943.2	1,604.0
Property, plant and equipment	D27	250.4	358.6
Investment properties	D28	43,490.9	52,736.6
Financial assets	D29	888.8	253.5
Other assets	D30	12.2	54.7
Deferred tax assets		54.1	59.3
Total non-current assets		47,639.6	55,066.7
Inventories	D32	8.8	8.8
Trade receivables	D33	493.1	205.7
Financial assets	D29	0.8	0.7
Other assets	D30	114.4	138.0
Income tax receivables	D31	170.2	84.7
Cash and cash equivalents	D34	547.7	500.7
Real estate inventories	D35	307.1	358.3
Assets held for sale	D36	105.9	134.1
Total current assets		1,748.0	1,431.0
Total assets		**49,387.6**	**56,497.7**

Equity and Liabilities

in € million	Notes	Dec. 31, 2018	Dec. 31, 2019
Subscribed capital		518.1	542.3
Capital reserves		7,183.4	8,239.7
Retained earnings		9,942.0	10,534.4
Other reserves		236.7	-8.1
Total equity attributable to Vonovia's shareholders		**17,880.2**	**19,308.3**
Equity attributable to hybrid capital investors		1,001.6	1,001.6
Total equity attributable to Vonovia's shareholders and hybrid capital investors		**18,881.8**	**20,309.9**
Non-controlling interests		782.3	759.8
Total equity	E37	**19,664.1**	**21,069.7**
Provisions	E38	616.7	662.4
Trade payables	E39	4.4	5.1
Non-derivative financial liabilities	E40	17,437.5	21,198.0
Derivatives	E41	69.8	74.1
Lease liabilities	E42	94.7	442.6
Liabilities to non-controlling interests	E43	24.2	21.2
Financial liabilities from tenant financing	E44	56.1	44.4
Other liabilities	E45	42.5	26.1
Deferred tax liabilities		7,231.9	9.272.1
Total non-current liabilities		**25,577.8**	**31,746.0**
Provisions	E38	450.5	530.2
Trade payables	E39	239.1	219.1
Non-derivative financial liabilities	E40	2,698.5	2,376.9
Derivatives	E41	41.4	41.0
Lease liabilities	E42	4.7	28.3
Liabilities to non-controlling interests	E43	9.0	12.9
Financial liabilities from tenant financing	E44	104.7	117.8
Other liabilities	E45	597.8	355.8
Total current liabilities		**4,145.7**	**3,682.0**
Total liabilities		**29,723.5**	**35,428.0**
Total equity and liabilities		**49,387.6**	**56,497.7**

Consolidated Statement of Cash Flows

January 1 until December 31

in € million	Notes	2018	2019
Profit for the period		2,402.8	1,294.3
Net income from fair value adjustments of investment properties	B13	-3,517.9	-4,131.5
Revaluation of assets held for sale	B11	-68.5	-59.7
Depreciation and amortization		737.9	2,175.8
Interest expenses/income	B19/B20	440.1	396.4
Income taxes	B22	1,471.5	1,844.6
Results from disposals of investment properties	B11	-163.8	-69.1
Results from disposals of other non-current assets		0.2	0.3
Other expenses/income not affecting net income		–	2.7
Change in working capital		-3.4	55.4
Income tax paid		-166.4	46.7
Cash flow from operating activities		**1,132.5**	**1,555.9**
Proceeds from disposals of investment properties and assets held for sale		1,054.2	702.7
Proceeds from disposals of other assets		7.4	695.8
Payments for investments of investment properties	D28	-1,358.8	-2,092.0
Payments for investments of other assets	D26/D27/D29	-211.5	-101.4
Payments for acquisition of shares in consolidated companies, in due consideration of liquid funds	A4	-3,387.7	-1,716.2
Interest received		3.9	5.4
Cash flow from investing activities		**-3,892.5**	**-2,505.7**

in € million	Notes	2018	2019
Capital contributions on the issue of new shares (including premium)	E37	995.8	744.2
Cash paid to shareholders of Vonovia SE and non-controlling interests	E37	-401.1	-417.7
Payments to hybrid capital investors	E37	-40.0	-40.0
Proceeds from issuing financial liabilities	E40	5,064.2	5,333.2
Cash repayments of financial liabilities	E40	-1,901.6	-3,626.6
Cash repayments of lease liabilities	E42	–	-22.4
Payments for transaction costs in connection with capital measures	E40	-54.9	-54.6
Payments for other financing costs		-22.3	-41.5
Payments in connection with the disposal of shares in non-controlling interests	A4	-309.0	-576.1
Proceeds for the sale of shares of consolidated companies		16.2	–
Interest paid		-305.8	-395.7
Cash flow from financing activities		3,041.5	902.8
Net changes in cash and cash equivalents		281.5	-47.0
Cash and cash equivalents at the beginning of the period	D34	266.2	547.7
Cash and cash equivalents at the end of the period*		**547.7**	**500.7**

* Thereof restricted cash € 97.3 million (Dec. 31, 2018: € 57.2 million).

Consolidated Statement of Changes in Equity

				Other reserves	
in € million	Subscribed capital	Capital reserves	Retained earnings	Cash flow hedges	Equity instru-ments at fair value in other comprehensive income
As of Jan. 1, 2019	518.1	7,183.4	9,942.0	-63.3	284.8
Application of new standards			-34.0		
Deferred tax liabilities from the application of new standards			10.6		
as of Jan. 1, 2019 adjusted	518.1	7,183.4	9,918.6	-63.3	284.8
Profit for the period			1,147.0		
Other comprehensive income					
Changes in the period			-35.5	1.4	49.0
Reclassification affecting net income				9.7	
Total comprehensive income			1,111.5	11.1	49.0
Capital increase	24.2				
Premium on the issue of new shares		1,061.3			
Transaction costs in connection with the issue of shares		-5.0			
Dividend distributed by Vonovia SE			-746.0		
Sale of equity instruments at fair value in other comprehensive income			292.6		-292.6
Changes recognized directly in equity			-42.3		
As of Dec. 31, 2019	**542.3**	**8,239.7**	**10,534.4**	**-52.2**	**41.2**
As of Jan. 1, 2018	485.1	5,966.3	8,471.6	-68.8	225.7
Profit for the period			2,266.5		
Other comprehensive income					
Changes in the period			-5.1	3.4	59.1
Reclassification affecting net income				2.1	
Total comprehensive income			2,261.4	5.5	59.1
Capital increase	33.0				
Premium on the issue of new shares		1,224.4			
Transaction costs in connection with the issue of shares		-7.5			
Dividend distributed by Vonovia SE			-640.3		
Acquisitions (mainly Victoria Park and BUWOG)					
Changes recognized directly in equity		0.2	-150.7		
As of Dec. 31, 2018	**518.1**	**7,183.4**	**9,942.0**	**-63.3**	**284.8**

Currency translation differences	Total	Equity attributable to Vonovia's shareholders	Equity attributable to Vonovia's hybrid capital investors	Equity attributable to Vonovia's share-holders and hybrid capital investors	Non-controlling interests	Total equity
15.2	236.7	17,880.2	1,001.6	18,881.8	782.3	19,664.1
		-34.0		-34.0	-1.0	-35.0
		10.6		10.6	0.3	10.9
15.2	236.7	17,856.8	1,001.6	18,858.4	781.6	19,640.0
		1,147.0	40.0	1,187.0	107.3	1,294.3
-12.3	38.1	2.6		2.6	-2.1	0.5
	9.7	9.7		9.7		9.7
-12.3	47.8	1,159.3	40.0	1,199.3	105.2	1,304.5
		24.2		24.2		24.2
		1,061.3		1,061.3		1,061.3
		-5.0		-5.0		-5.0
		-746.0		-746.0		-746.0
	-292.6	0.0	0.0	0.0		
		-42.3	-40.0	-82.3	-127.0	-209.3
2.9	**-8.1**	**19,308.3**	**1,001.6**	**20,309.9**	**759.8**	**21,069.7**
0.9	157.8	15,080.8	1,001.6	16,082.4	608.8	16,691.2
		2,266.5	40.0	2,306.5	96.3	2,402.8
15.0	77.5	72.4		72.4	1.4	73.8
-0.7	1.4	1.4		1.4		1.4
14.3	78.9	2,340.3	40.0	2,380.3	97.7	2,478.0
		33.0		33.0		33.0
		1,224.4		1,224.4		1,224.4
		-7.5		-7.5		-7.5
		-640.3		-640.3		-640.3
					554.0	554.0
		-150.5	-40.0	-190.5	-478.2	-668.7
15.2	**236.7**	**17,880.2**	**1,001.6**	**18,881.8**	**782.3**	**19,664.1**

Notes

Section (A): Principles of the Consolidated Financial Statements

1 General Information

Vonovia SE is incorporated and domiciled in Germany. The company is registered in the commercial register at the local court in Bochum under HRB 16879. Its registered office is located in Bochum.

The consolidated financial statements as of and for the year ended December 31, 2019, have been prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted in the EU. In addition, the supplementary commercial law provisions under Section 315e (1) of the German Commercial Code (HGB) have been observed. These are the first consolidated financial statements in which IFRS 16 “Leases” is applied. Changes due to reclassifications are set out in chapter [A2] Adjustment to prior-year figures.

The consolidated financial statements have been prepared on the basis of amortized cost except for investment properties, assets held for sale, derivative financial instruments, plan assets and equity instruments at fair value under other comprehensive income. These are measured at their fair value. The income statement has been prepared using the nature of expense method.

These consolidated financial statements are presented in euros, which is the Group’s functional currency. Unless stated otherwise, all figures are shown in million euros (€ million).

The following overview indicates the chapters on the individual topics containing disclosures on accounting policies, judgments and estimates:

Chapter	Accounting policies, judgments, estimates
A6	Currency translation
A7	Government grants
B	Recognition of income and expenses
B12	Profit on the disposal of properties (Development)
B22	Income taxes
B24	Earnings per share
D26	Other intangible assets/goodwill
D27	Property, plant and equipment
D28	Investment properties
D29	Financial assets
D32	Inventories
D33	Impairment losses on financial assets
D34	Cash and cash equivalents
D35	Real estate inventories
D36	Assets held for sale
E37	Income and expense recognized directly in other comprehensive income
E38	Provisions for pensions and similar obligations/other provisions
E40	Non-derivative financial liabilities
E42	Leases
E43	Liabilities to non-controlling interests
E44	Financial liabilities from tenant financing
F47	Share-based payment

2 Adjustment to Prior-year Figures

In order to improve the presentation of the income statement and to separate interest income and interest expenses within the meaning of IFRS 9, the currency effects of € 37.2 million (2018: € -12.0 million), the income from investments in the amount of € 11.8 million (2018: € 23.1 million), transaction costs in the amount of € -22.9 million (2018: € -14.2 million) and the measurement of purchase price liabilities from put options/rights to reimbursement of € -2.1 million (2018: € 1.1 million) are shown separately from the other components of the financial result, namely as the other Financial Result. The corresponding prior-year figures have been adjusted and are broken down further in the income statement in B21. As a result of the reporting amendment, financial income decreased in the previous year by € 26.3 million and financial expenses by € 28.3 million. Due to the specification of the disclosure, the designation of financial income was changed to interest income, and financial expenses to interest expenses.

3 Consolidation Principles

Business Combinations

An entity shall account for each business combination by applying the acquisition method if it obtains control. All hidden reserves and charges of the company acquired are disclosed as part of the necessary remeasurement. Any excess of the cost of a business combination over Vonovia's interest in the net fair value of the identifiable assets, liabilities and contingent liabilities, following the disclosure of hidden reserves and charges, is recognized as goodwill in the balance sheet. The consideration transferred at the time of the acquisition and the identifiable net assets that are acquired are measured at fair value as a general rule. Transaction costs are recognized as an expense immediately insofar as they do not relate to costs pertaining to the raising of capital or the issue of debt capital.

Subsidiaries

Subsidiaries are companies that are controlled by the Group. The Group controls an investee if it is exposed to risks or has rights to variable returns from its involvement with the investee and has the ability to use its power of control over the investee to influence the level of these returns. In the process of full consolidation, the assets and liabilities of a subsidiary are included in the consolidated financial statements in their entirety. Subsidiaries are included in the consolidated financial statements from the date on which Vonovia SE obtains control until the day control ceases.

Non-controlling Interests

The equity of a subsidiary that is not attributable to Vonovia is shown as a separate component of equity under non-controlling interests. Non-controlling interests are measured based on their share of the identified net assets of the acquired company at the time of acquisition.

Changes in a parent's ownership interest in a subsidiary that do not result in the parent losing control of the subsidiary are equity transactions.

Loss of Control

If Vonovia loses control over a subsidiary, the assets and liabilities of the subsidiary in question as well as any corresponding non-controlling interests are derecognized. The result is recognized in the income statement. Any investment retained is recognized at fair value when control is lost.

Associates and Joint Arrangements

Associates and joint arrangements classified as joint ventures are accounted for using the equity method. An associate is an entity over which the investor has significant influence. A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. If the arrangement involves rights to the assets and obligations for the liabilities of a joint arrangement instead, then these are recognized using quota consolidation.

Business Transactions Eliminated on Consolidation

The effects of the business transactions between the entities included in the Vonovia consolidated financial statements are eliminated.

Results from business transactions with companies accounted for using the equity method are only eliminated in line with the Group's share in the investee.

The financial statements of Vonovia SE and all subsidiaries are consistently prepared according to uniform accounting policies.

4 Business Combinations

All in all, and including Vonovia SE, 620 companies (Dec. 31, 2018: 520) – thereof 294 (Dec. 31, 2018: 318) domestic companies and 326 (Dec. 31, 2018: 202) foreign companies – have been included in the consolidated financial statements as of December 31, 2019. In addition, joint activities were performed with two domestic companies (Dec. 31, 2018: two). In addition, four (Dec. 31, 2018: four) domestic companies and one (Dec. 31, 2018: two) foreign company were included as joint ventures and two (Dec. 31, 2018: two) foreign companies were included as associated companies valued using the equity method.

For all subsidiaries included in the consolidated financial statements, the reporting date is December 31.

The list of Vonovia shareholdings is appended to the Notes to the consolidated financial statements as an integral part thereof.

Companies that have made use of the exemption provision set out in Section 264 (3) of the German Commercial Code (HGB) are marked accordingly in the list of shareholdings.

The changes as of December 31, 2019 in comparison to the prior year result from the acquisition of the Hembla Group (123 companies) and 20 further acquisitions, four newly established companies, 36 mergers, eight liquidations and one disposal due to a loss of control. Three foreign companies are no longer included in the scope of consolidation as they are no longer considered to be material. These companies are not shown as consolidated affiliated companies.

Acquisition of Victoria Park

As of December 31, 2019, the final purchase price allocation using the anticipated acquisition method and the consideration granted is unchanged as against December 31, 2018. The measurement period for the first-time recognition of the merger with Victoria Park ended on June 30, 2019.

The call options granted to Deutsche Annington Acquisition Holding GmbH during the original offer period were exercised on May 15, 2019. The call options include 10,235,198 class A shares and 14,264,946 class B shares, which corresponds to 10.0% of the total number of shares and 12.5% of the total voting rights in Victoria Park. The exercise price of the call options was the same as the price paid in the public takeover offer for the shares in Victoria Park. Vonovia therefore held 91.4% of the share capital and 94.4% of all voting rights in Victoria Park.

As this resulted in Vonovia holding more than 90% of the voting rights, Vonovia asked the Board of Directors of Victoria Park to initiate a squeeze-out for the acquisition of all remaining shares in Victoria Park in line with the Swedish Companies Act (sv. aktiebolagslagen (2005:551)). The Board of Directors then also resolved to apply for delisting of the Victoria Park ordinary shares of class A and class B from Nasdaq Stockholm. The last day of trading was June 18, 2019.

Once the squeeze-out process has been initiated, Swedish law dictates that it can no longer be aborted unilaterally by one of the parties. As part of this process, the transfer of the majority of the outstanding shares in rem was executed with the granting of the advance title on November 17, 2019. As a consequence, the shares are fully attributable to the Group as of December 31, 2019, and are recognized accordingly.

In addition, a resolution on the recall of all 1,032,047 preference shares was passed at the extraordinary Annual General Meeting of Victoria Park AB (publ), Malmo, Sweden, held on June 19, 2019. The recall was conducted in accordance with Section 5.4 of the Articles of Association on July 11, 2019.

Acquisition of Hembla

On September 23, 2019, Vonovia SE announced that it had signed a contract for the purchase of 69.3% of the voting rights and 61.2% of the share capital in Hembla AB (publ), Stockholm, Sweden, via its subsidiary HomeStar InvestCo AB, Stockholm, Sweden, with the funds advised by Blackstone Group Inc. The parties have agreed to a purchase price of SEK 215.00 per share (irrespective of share class). The completion of the transaction required the approval of the Swedish merger control authorities, which was given on November 5, 2019.

The acquisition date at which Vonovia SE obtained control of the Hembla Group is November 7, 2019. This was the date on which the offer was settled. This transaction shall be treated as a business combination in accordance with IFRS 3.

As a result of the transaction, Vonovia became the owner of 6,136,989 Class A Hembla shares and 50,722,985 Class B Hembla shares. Together with the 2,805,588 Class B Hembla shares acquired on the market up to that time, this corresponded to 71.7% of the voting rights and approximately 64.2% of the share capital.

On November 8, the offer document submitted on November 7, 2019, for the acquisition of all outstanding Class B Hembla shares not already held by HomeStar was approved and registered by the Swedish Financial Regulator. The offer price was SEK 215.00 per share. The acceptance deadline for the offer ended on December 9, 2019, at 5 p.m. (CET); the transaction was completed on December 16, 2019. Since the acquisition of the shares as part of the acceptance period was effected under exactly the same conditions as the purchase on November 7, 2019, and the two events are related in terms of content and timing, a linked transaction can be assumed.

As a result of the completion of the transaction, Vonovia became a holder of 24,746,662 Class B Hembla shares, corresponding to approximately 21.1% of the voting rights and approximately 26.6% of the share capital of Hembla.

Furthermore, since announcing the offer, HomeStar has acquired an additional 3,007,191 Class B Hembla shares apart from this offer, corresponding to approximately 2.5% of the voting rights and approximately 3.2% of the share capital of Hembla. Since the acquisition of the shares was effected within the acceptance period under exactly the same conditions as the purchase on November 7, 2019, and the two events are related in terms of content and timing, a linked transaction can be assumed.

Therefore, Vonovia became holder of 6,136,989 Class A Hembla shares and 81,282,426 Class B Hembla shares as of December 31, 2019, representing approximately 95.3% of the voting rights and approximately 94.1% of the share capital. In addition, HomeStar has acquired a total of 2,253,600 option rights from Hembla employees, which were granted as part of Hembla's long-term incentive program in 2017.

On December 10, 2019, Vonovia announced that it would extend the offer period until January 8, 2020, at 5 p.m. (CEST) in order to give remaining shareholders who had not accepted the offer the possibility of doing so.

Furthermore, on December 18, 2019, Vonovia asked the Board of Directors of Hembla to apply for a delisting based on the existing share of voting rights of over 90%. The Board of Directors then applied for a delisting of ordinary shares of Class B in Hembla from Nasdaq Stockholm on the same day. The delisting was confirmed by Nasdaq Stockholm on December 19, 2019, and the last day of trading was set as January 10, 2020.

In addition, on December 18, 2019, Vonovia initiated an application for a squeeze-out to acquire all remaining shares in Hembla after the extended offer period in line with the Swedish Companies Act (Section 22 of the Swedish Companies Act).

As part of the provisional purchase price allocation using the anticipated acquisition method, the consideration transferred for the business combination comprises the following:

in € billion	
Net cash purchase price component	1.8
Put option	0.1
Total consideration	**1.9**

Due to the proximity of the acquisition to the reporting date, the allocation of the total purchase price as of December 31, 2019, could only be made on a provisional basis. In this context, the provisional allocation of the total purchase price to the acquired assets and liabilities (PPA) of the Hembla Group as of the date of first-time consolidation is based on the financial statements of the Hembla Group as of October 31, 2019, and on the known necessary adjustments to the fair values of the assets and liabilities.

The valuation of the investment properties is based on the fair value determination dated September 30, 2019, which was carried out by Savills Sweden AB on behalf of Hembla. As no material changes in the market environment were identifiable between September 30, 2019, and the acquisition date, only the quantity structure was adjusted to the acquisition date.

The fair value of the loans was determined as the sum of the amounts of future cash flows discounted to the acquisition date using a DCF method. The contractually agreed maturities and the interest and repayment schedules were used to determine the future cash flows of the loans. The yield curve used in the DCF calculation to discount the cash flows consists of a risk-free base curve and a premium for the risk of non-performance ("risk spread").

The assets and liabilities assumed in the course of the business combination had the following preliminary fair values as of the date of first-time consolidation:

in € billion	
Investment properties	3.2
Cash and cash equivalents	0.1
Other assets	0.1
Total assets	**3.4**
Non-derivative financial liabilities	1.8
Deferred tax liabilities	0.3
Fair value of other liabilities	0.1
Total liabilities	**2.2**
Fair value net assets	**1.2**
Consideration	1.9
Goodwill	**0.7**

Goodwill represents benefits from the future cooperation between the Hembla Group and Vonovia through the partial transfer of Vonovia's business strategy, in particular regarding its property and portfolio management strategy for the administration and management of the residential units, the utilization of Vonovia's modernization know-how to further modernize the portfolio and the Value-add strategy with a focus on expanding the value chain.

Since November 2019, the Hembla Group has recognized income from property management in the amount of € 30.4 million, as well as an earnings contribution in terms of earnings before fair value adjustments of investment properties, interest, taxes, depreciation and amortization (EBITDA IFRS) of € 6.6 million. If the Hembla Group had already been fully included in the consolidated Group as of January 1, 2019, it would have contributed to the income from property management in the amount of € 181.2 million and to EBITDA IFRS in the amount of € 67.7 million.

Out of the trade receivables that were acquired, an amount of € 1.5 million is likely to have been uncollectible at the time of acquisition. The gross amount of the acquired trade receivables was € 2.2 million. The net carrying amount, which corresponds to the fair value, was € 0.7 million.

In the 2019 fiscal year, transaction costs related to the acquisition of the Hembla Group in the amount of € 11.0 million were recognized in other operating expenses affecting net income. € 9.7 million of this amount was recognized in other operating expenses and € 1.3 million under other financial income.

A total of 123 foreign companies were newly included in the scope of consolidation as of the date of acquisition.

5 Financial Reporting of Financial Assets and Financial Liabilities

Loans and Receivables

Loans and receivables are first recognized as incurred, other non-derivative financial assets as of the day of trading. The day of trading is the date on which Vonovia becomes a contracting party of the financial instrument. All financial instruments are initially measured at fair value, taking account of transaction costs. A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire, or the financial asset is transferred and Vonovia neither retains control nor retains material risks and rewards associated with ownership of the financial asset.

Loans and receivables are stated at amortized cost using the effective interest method.

Vonovia determines whether there is an objective indication of an impairment at the level of individual financial instruments if they are material, and, for financial instruments for which no impairments have been identified at the level of the individual financial instruments or such impairments are immaterial, grouped according to risk profile. Impairments are identified for individual financial instruments when the counterparty has defaulted or breached a contract or there are indications of risks of impairments due to a rating downgrade and general information (loss event). For groups of financial instruments with similar risks, historical default probabilities in relation to the time overdue are drawn upon (loss event). An impairment is calculated after the occurrence of a loss event as the difference between the carrying amount and the value of the discounted estimated future cash flow. The original effective interest rate is taken as the discount rate. Impairment losses are recognized with effect on net income and offset directly with the carrying amount of the financial instrument. Any interest income on impaired financial instruments is still recognized. If there are indications that the amount of the impairment loss will be smaller, this reduction is credited to the financial instrument affecting net income to the extent that the sum does not exceed the amortized cost that would have been recognized if the impairment had not occurred.

Derivative Financial Instruments

Derivative financial instruments are stated at their fair value on the day of trading when they are recognized for the first time. The fair values of the derivative financial instruments are calculated using standard market valuation methods for such instruments on the basis of the market data available on the valuation date.

With derivatives that are not designated as a hedging instrument in the balance sheet, changes in the fair value are recognized in profit or loss with effect on net income.

The changes to IFRS 9 relating to hedge accounting include, among other things, an expanded range of eligible hedged items, changes regarding the posting approach for certain undesignated value components of hedging instruments, the abolition of the fixed effectiveness ranges and retrospective effectiveness testing as well as the first-time introduction of "recalibration." The less restrictive provisions compared with IAS 39 make it easier to reflect economic risk management in the balance sheet, which can, in turn, reduce artificial volatility in the income statement.

In general, the new provisions set out above will not have any impact on the Vonovia Group.

At the time of initial application of IFRS 9, Vonovia will opt to continue to apply the hedge accounting provisions set out in IAS 39 as opposed to the provisions of IFRS 9. Vonovia will apply this accounting method to all hedge relationships.

Contracts concluded for the purpose of receiving or supplying non-financial items in accordance with the company's expected purchase, sale, or use requirements (own-use contracts) are not recognized as derivative financial instruments, but rather as pending transactions under IAS 37.

With derivatives designated as hedging instruments, the recognition of changes in the fair value depends on the type of hedge:

> With a fair value hedge, the changes in the fair value of the derivative financial instruments and of the underlying hedged items attributable to the hedged risk are recognized affecting net income.

> With a cash flow hedge, the unrealized gains and losses are initially recognized in other comprehensive income to the extent that the hedge is effective. Amounts accumulated in other comprehensive income are reclassified to the income statement at the same time the underlying hedged item affects net income. To the extent that the hedge is ineffective, the change in fair value is immediately recognized in net interest.

Embedded derivative financial instruments that are combined with a non-derivative financial instrument (host contract) to form a hybrid financial instrument are to be separated from the underlying contract pursuant to IFRS 9 as a general rule and accounted for separately if (i) its economic risks and characteristics are not closely related to those of the host contract, (ii) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative, and (iii) the hybrid instrument is not measured at fair value affecting net income with changes in fair value recognized in the income statement. As soon as the derivative is to be separated from its host contract, the individual components of the hybrid financial instrument are to be accounted for based on the provisions that apply to the individual financial instruments.

In order to measure interest rate swaps, future cash flows are calculated and then discounted. The calculated cash flows result from the contract conditions. The contract conditions regularly refer to the EURIBOR/STIBOR reference rates (3M and 6M EURIBOR/STIBOR). Discounting is based on market interest rate data as of the reporting date for comparable instruments (EURIBOR/STIBOR rate of the same tenor). The fair value contains the credit risk of the interest rate swaps and therefore allows for adjustments for the company's own credit risk or for the counterparty credit risk.

To measure the cross currency swaps, future cash flows are calculated and then discounted. The calculated cash flows result from the contract conditions and the USD forward rates (development of exchange rates expected by the market). Discounting is based on market interest rate data as of the reporting date for comparable instruments (EURIBOR rate of the same tenor). The fair value contains the credit risk of the cross currency swaps and therefore allows for adjustments for the company's own credit risk or for the counterparty credit risk.

Equity Instruments to Be Recognized at Fair Value in Other Comprehensive Income

In general, the equity instruments to be recognized at fair value in other comprehensive income are shares in companies that were acquired with long-term strategic intentions.

These equity instruments to be recognized at fair value under other comprehensive income are initially stated at their fair value, plus the directly attributable transaction costs. Subsequent measurement is at fair value as a general rule. Changes in the fair value are recognized in other comprehensive income.

The fair value of equity instruments to be recognized at fair value under other comprehensive income is based on quoted market prices as of the reporting date. If these equity instruments are derecognized, the cumulative gain or loss recognized under other comprehensive income is transferred to retained earnings, not affecting net income. Interest on interest-bearing financial instruments of this category is calculated using the effective interest method. Dividends on equity instruments in this category are shown in the income statement.

6 Currency Translation

Accounting Policies

Foreign currency transactions involving Group companies are converted into the functional currency, in accordance with the temporal method, at the exchange rate that applies on the day of the transaction. Monetary balance sheet items denominated in a foreign currency are converted at the exchange rate that applies on each reporting date. Any exchange differences are recognized affecting net income. Non-monetary items that are measured in terms of historical cost are recorded on the reporting date at the exchange rate on the date they were first recognized. Non-monetary items that are measured at fair value are translated on the reporting date using the exchange rate on the date the fair value was determined. Exchange differences relating to non-monetary items are recognized affecting net income insofar as a profit or loss on the corresponding line item is also recognized affecting net income. Otherwise, they are disclosed in other comprehensive income.

The main foreign subsidiaries included in the consolidated financial statements operate their business independently in line with functional theory. The annual financial statements of those subsidiaries whose functional currency is not the euro are converted into the reporting currency using the modified closing rate method. The functional currency of individual foreign units is always the respective local currency. Any resulting exchange differences are disclosed as a separate item in other comprehensive income. When a foreign subsidiary leaves the scope of consolidation, the cumulative exchange differences are reversed and recognized in profit or loss.

Vonovia applies the concept of functional currency translation in accordance with IAS 21 “Effects of Changes in Foreign Exchange Rates” to its consolidated financial statements. The functional currency of Vonovia SE and the reporting currency of the Vonovia Group is the euro.

The exchange rates of the currencies relevant to the Vonovia Group have developed as follows:

	Closing rate		Average for period	
Basis: € 1	**Dec. 31, 2018**	**Dec. 31, 2019**	**2018**	**2019**
HUF – Hungarian forint	320.98	324.34*	318.89	320.01*
SEK – Swedish krona	10.25	10.45	10.36**	10.59
UAH – Ukrainian hryvnia	32.79***	–	32.18***	–
USD – US dollar	1.15	1.12	1.18	1.12

* The exchange rate and the average for the period for the Hungarian forint for 2019 have been fixed for and until May 31, 2019, as the companies ceased to be included in the scope of consolidation on May 31, 2019.

** The average for the period for the Swedish krona for 2018 is calculated for the period from July 1 to December 31, 2018, as Vonovia's Swedish subsidiary was only included in the consolidated financial statements as of June 30, 2018.

*** The exchange rate and the average for the period for the Ukrainian hryvnia for 2018 have been fixed for and until September 30, 2018, as the company was sold as of September 30, 2018.

7 Government Grants

Accounting Policies

Government grants are recognized when there is reasonable assurance that the relevant conditions will be fulfilled and that the grants will be awarded.

Government grants that do not relate to investments are regularly recognized as income in the periods in which the relevant expenses are incurred.

Expenses subsidies granted in the form of rent, interest and other expenses subsidies are recorded as income in the periods in which the expenses are incurred and shown within other income from property management.

The low-interest loans are grants from public authorities that – insofar as the company received them as part of a business combination – are recorded at present value. The difference between face value and present value is recognized with an effect on net income over the maturity term of the corresponding loans.

New expenses loans or low-interest loans are initially recognized at their present value within the non-derivative financial liabilities on the basis of the market interest rate at the time the loans are taken out. The difference between the face value and the present value of the loan is recognized as deferred income. Reversal occurs, in principle, with an effect on net income in line with the length of the fixed-interest-rate period of the relevant loans. In cases where the low-interest loans are issued as part of capitalized modernization measures, the difference between the face value and the present value of the loan is deducted from the capitalized acquisition cost. In subsequent measurements, the loans are measured at amortized cost.

The companies that belong to the Group receive government grants in the form of construction subsidies, expenses subsidies, expenses loans and low-interest loans. In the 2019 fiscal year, Vonovia was granted low-interest loans of € 444.3 million (2018: € 171.1 million).

8 Changes in Accounting Policies, Estimates, Assumptions, Options and Judgments

Changes in Accounting Policies Due to New Standards and Interpretations

The following new or amended standards and interpretations became mandatory for the first time in the 2019 fiscal year. Other than IFRS 16, none of the other new or amended standards had a material impact.

> Improvements and supplements to a selection of IFRS 2015–2017
> IAS 19 "Employee Benefits"
> IAS 28 "Investments in Associates and Joint Ventures"
> IFRS 9 "Financial Instruments"
> IFRS 16 "Leases"
> IFRIC 23 "Uncertainty over Income Tax Treatments"

IFRS 16

Vonovia applied the new leasing standard IFRS 16 for the first time as of January 1, 2019, based on the modified retrospective method provided for in the transitional provisions. Based on these provisions, the cumulative effect resulting from the initial application of IFRS 16 was recognized as an adjustment to the value of retained earnings/non-controlling interests in the opening balance sheet. Comparative information has not been adjusted.

As of January 1, 2019, total lease liabilities of € 335.1 million and total right-of-use assets in the amount of € 1,032.1 million were recognized. The weighted average incremental borrowing rate for all lease liabilities to be recognized amounts to 2.3% as of January 1, 2019.

The difference between lease liabilities and right-of-use assets was largely due to the fair value measurement of the right-of-use assets from leasehold contracts under IAS 40. Inheritable building rights previously included in investment properties were reclassified to right-of-use assets within investment properties in the amount of € 732.0 million.

The remaining cumulative effect resulting from the initial application of IFRS 16 has been recognized as an adjustment of the value of retained earnings/non-controlling interests in the opening balance sheet in the amount of € -35.0 million (€ -24.1 million including deferred taxes). The effect results from the differences in the discounting of right-of-use assets and lease liabilities in connection with leasehold contracts. Due to the IAS 40 measurement of the right-of-use assets under leasehold contracts, the fair value of the right-of-use assets is calculated using property-specific discount rates. The lease liabilities from leasehold contracts, on the other hand, are calculated with the help of term-specific incremental borrowing rates.

in € million	
Right-of-use assets within investment properties	949.9
Right-of-use assets within property, plant and equipment	82.2
Right-of-use assets as of Jan. 1, 2019	1,032.1
Lease liabilities as of Jan. 1, 2019	-335.1
Fair value of leasehold contracts within investment properties as of Jan. 1, 2019	-732.0
Cumulative effect as of Jan. 1, 2019 applying IFRS 16 (before taxes)	-35.0
Deferred taxes resulting from the initial application of IFRS 16	10.9
Cumulative effect as of Jan. 1, 2019 applying IFRS 16 (after taxes)	**-24.1**

The newly added lease liabilities in the amount of € 335.1 million are reported under **liabilities from leasing** and were largely attributable to leasehold contracts in the amount of € 251.6 million. The majority of the newly added right-of-use assets are reported under **investment properties** and result not only from interim lease agreements (€ 1.4 million) but primarily from leasehold contracts (€ 948.5 million). The other right-of-use assets totaling € 82.2 million are reported under **property, plant and equipment** and largely include right-of-use assets resulting from the rental of land for the construction of a commercial property to be used by the company itself (€ 26.5 million), from rental agreements that have been concluded (€ 22.8 million), from heating supply contracts (€ 16.5 million) and from vehicle lease contracts (€ 11.8 million).

Fixed-term heating supply contracts and the Spree-Bellevue property, which had been recognized as finance leases in accordance with the provisions set out in IAS 17 up until December 31, 2018, have been recognized in accordance with the provisions set out in IFRS 16 since January 1, 2019. At the time of the transition, the right-of-use assets and lease liabilities resulting from the aforementioned agreements were stated at their present values as of December 31, 2018 (right-of-use assets: € 75.7 million; lease liabilities: € 99.4 million).

Cumulative Effect from the Initial Application of IFRS 16 within Retained Earnings/Non-controlling Interests as of January 1, 2019

in € million

Present value of the lease payments as of Dec. 31, 2018	**343.1**
Leases expired in 2019 (short-term)	-2.9
Leases not classified as leases pursuant to IFRS 16	-5.1
Present value of operating lease liabilities as of Jan. 1, 2019	**335.1**
Obligations under finance leases as of Jan. 1, 2019	99.4
Present value of total lease liabilities as of Jan. 1, 2019 pursuant to IFRS 16	**434.5**

The present value of the lease obligations, pursuant to IAS 17, reported in the Notes to the consolidated financial statements as of December 31, 2018 deviates from the present value of the lease liabilities to be recognized as of January 1, 2019 pursuant to IFRS 16. This deviation in value is due to leases that expired in 2019 (short-term) and particularly due to those lease agreements that are not classified as leases under the right-of-use model pursuant to IFRS 16.

IFRIC 23

IFRIC 23 clarifies how the recognition and measurement requirements of IAS 12 are applied when there is uncertainty over income tax treatments. Recognition and measurement require estimates and assumptions, e. g., whether an assessment is performed separately or together with other uncertainties, whether a probable amount or expected value is used for the uncertainty and whether there have been changes compared with the previous period. The risk of detection is irrelevant with regard to the recognition of uncertain balance sheet items. Recognition assumes that the taxation authorities will examine the matter in question and will have full knowledge of all relevant information. In this regard, it is important to note that it is difficult to predict how tax authorities in Germany and abroad will evaluate these scenarios. The initial application of IFRIC 23 has not resulted in any changes in the consolidated financial statements compared with the previous period.

New Standards and Interpretations Not Yet Applied

Application of the following standards, interpretations and amendments to existing standards was not yet mandatory for the 2019 fiscal year. Vonovia also did not choose to apply them in advance. Their application will be mandatory for the fiscal years following the dates stated in the following table:

Relevant New Standards, Interpretations and Amendments to Existing Standards and Interpretations		Effective date for Vonovia
Amendment to References to the Conceptual Framework in IFRS Standards		Jan. 1, 2020
Amendments to Standards		
IAS 1 and IAS 8	„Presentation of Financial Statements“ and „Accounting Policies, Changes in Accounting Estimates and Errors“	Jan. 1, 2020
IAS 39, IFRS 7 and IFRS 9	"Financial Instruments: Presentation", "Financial Instruments: Recognition and Measurement" and "Financial Instruments"	Jan. 1, 2020*
IFRS 3	"Business Combinations"	Jan. 1, 2020*
New Standards		
IFRS 17	"Insurance Contracts"	Jan. 1, 2021*

* Not yet endorsed.

Estimates and Assumptions

To a certain extent, the preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the reporting date as well as reported amounts of income and expenses during the reporting year. The actual amounts may differ from the estimates as the business environment may develop differently than assumed. In this case, the assumptions and, where necessary, the carrying amounts of the assets or liabilities affected are prospectively adjusted accordingly. Specific estimates and assumptions relating to individual elements of financial statements are also explained in the corresponding notes to the consolidated financial statements.

Assumptions and estimates are reviewed on an ongoing basis and are based on experience and other factors, including expectations regarding future events that appear reasonable under the given circumstances.

The estimates and assumptions that may have a material risk of causing an adjustment to the carrying amounts of assets and liabilities mainly relate to the determination of the fair value of investment properties.

The best evidence of fair value of investment properties is current prices in an active market for comparable residential properties. As such information is not completely available, however, Vonovia uses standard valuation techniques.

A detailed description of the discounted cash flow (DCF) method used can be found in chapter [D28] Investment Properties.

In accordance with IAS 40 in conjunction with IFRS 13, the respective market values of the investment properties owned by Vonovia are determined for accounting purposes. Changes in certain market conditions such as prevailing rent levels and vacancy rates may affect the valuation of investment properties. Any changes in the fair value of the investment portfolio are recognized as part of the profit for the period in the Group's income statement and can thus substantially affect Vonovia's results of operations.

The statement of financial liabilities at amortized cost using the effective interest method takes the expected contractual cash flows into account. In some cases, the agreements do not have any fixed maturity terms. As a result, the cash flows included in the valuation are subject to management assumptions in terms of amount and term.

As explained in chapter [D26] Intangible Assets, Vonovia checks for goodwill impairments on an annual basis, or if there is any reason to suspect such impairments. The next step involves estimating the recoverable amount of the group of cash-generating units (CGU). This corresponds to either the fair value less costs of sale or the value in use, whichever is higher. Determining the value in use includes adjustments and estimates regarding the forecast and discounting of the future cash flow. Although the management believes that the assumptions used to determine the recoverable amount are appropriate, any unforeseeable changes in these assumptions could result in impairment losses, with a detrimental impact on the net assets, financial position and results of operations.

When determining the volume of current and deferred taxes, the Group takes into account the effects of uncertain tax items and whether additional taxes and interest may be due. This assessment is made on the basis of estimates and assumptions and may contain a number of judgments about future events. New information may become available that causes the Group to change its judgments regarding the appropriateness of existing tax liabilities; such changes to tax liabilities will affect the tax expense in the period in which such a change is made.

Deferred tax assets are recognized to the extent that it can be demonstrated that it is probable that future taxable profits will be available against which the temporary difference can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that there will be sufficient future taxable profits to realize the tax benefit in the future.

As part of the application of IFRS 15, the determination of the time at which a performance obligation is satisfied and the determination of the progress made in cases involving revenue recognition over time may involve discretionary judgment.

Additional estimates and assumptions mainly relate to the uniform definition of useful lives, the assumptions made on the value of land and buildings, the recognition and measurement of provisions as well as the realization of future tax benefits.

Options and Judgments

Options exercised and judgments made by Vonovia's management in the process of applying the entity's accounting policies that may have a significant effect on the amounts recognized in the consolidated financial statements include the following:

- Determining whether the acquisition of investment properties as part of a business combination constitutes the acquisition of a "business" or the acquisition of an individual asset or group of assets can involve discretionary judgments.
- Vonovia measures investment properties at fair value. If management had opted to use the cost model as permitted under IAS 40, the carrying amounts of the investment properties as well as the corresponding income and expense items in the income statement would differ significantly.
- The criteria for assessing in which category a financial asset is to be classified may involve discretionary judgments.
- Within the scope of revenue recognition in accordance with IFRS 15, discretionary decisions relating to the expected revenue, the total costs of a project and the degree of completion may be necessary. These have an impact on the amount and timing of revenue.
- When accounting for leases in accordance with IFRS 16, the assessment of the exercise or non-exercise of unilaterally granted termination or extension options may involve discretionary judgment, particularly if there is no economic incentive for the exercise or non-exercise of options.
- The need to include information concerning the future in the valuation of expected defaults results in discretionary decisions regarding the impact that changes in economic factors will have on the expected defaults.
- The decision on how to define a group of cash-generating units to which goodwill is allocated may involve discretionary judgments.
- Allocating the goodwill to the group of individual cash-generating units may also involve discretionary judgments. The parameters used in the impairment test, such as the determination of undiscounted cash flows, the weighted average cost of capital and the growth rate, may also involve discretionary judgments. Due to a lack of any detailed definition of the term "operation" (IAS 36.86), the disposal of goodwill within the context of real estate sales may involve discretionary decisions.
- Due to a lack of any detailed definition of the term "a separate major line of business or geographical area of operations" (IFRS 5), a disposal group within the context of real estate sales may involve discretionary decisions.

> At the moment, there are no definitive provisions on how to reflect a mandatory acquisition of non-controlling interests following the acquisition of control as part of a voluntary public takeover offer. In general, the acquisition of shares as part of a public offer during the second offer period is based on exactly the same conditions as those that applied in the first offer period, and the two acquisitions are closely related in terms of content and timing. This means that, even if it is executed in two offer periods, the acquisition constitutes one and the same transaction (linked transaction). Following the completion of the later acquisition, the original purchase price allocation is to be adjusted with retroactive effect from the acquisition date, resulting in a change in the consideration transferred, the fair value of net assets transferred and, consequently, the resulting goodwill.

9 Subsequent Events

The second acceptance deadline extended as part of the purchase of Hembla ended on January 8, 2020. During this acceptance period, the offer was accepted by additional shareholders of Hembla, who held a total of 1,204,821 Class B Hembla shares, representing approximately 1.0% of the total voting rights and approximately 1.3% of the share capital. Following the expiry of the extended acceptance deadline and the settlement on January 9, 2020, HomeStar holds a total of 6,136,989 Class A shares and 82,487,247 Class B shares, which corresponds to approximately 96.3% of the total voting rights and approximately 95.4% of the share capital in Hembla. In addition, a further 242,333 class B shares had been acquired on the market by February 25, 2020. As part of the delisting process, the last day of trading for Hembla shares on Nasdaq Stockholm was January 10, 2020.

Via its Dutch subsidiary Vonovia Finance B.V., Vonovia increased the EMTN bond of € 500 million that runs until March 2026 by € 200 million with effect from January 30, 2020. Vonovia Finance B.V. took out in February 2020 secured financing for Vonovia of over € 300 million with Landesbank Baden-Württemberg with a term of ten years.

At the end of January 2020, the Berlin House of Representatives passed the Act on Rent Controls in the Housing Sector in Berlin (referred to in short as "rent freeze"). This came into force in February 2020. Since the constitutionality of the law is disputed, several complaints have already been announced, including a complaint before the Federal Constitutional Court. A judicial review can be expected.

The law provides for a rent freeze for five years, whereby the effective rent that was agreed up until June 18, 2019, in accordance with the German Civil Code may not be exceeded. Exceptions pertain to new buildings constructed from 2014 onwards, housing provided by social organizations, publicly funded new housing construction, residential homes and uninhabitable housing that is renovated and again made habitable. A regulation on rent ceilings has also been created. These ceilings range from 3.92 to 9.80 €/m² and are essentially based on the rents in the Berlin rent indices from 2013. A rent that exceeds these ceilings is also to be generally reduced to the permissible level, which is to be done nine months after the law comes into force. Modernizations, including necessary energy-efficiency refurbishment, may only be passed on in the amount of 1.00 €/m².

There is a risk that, depending on the constitutionality of the rent freeze in particular, future rental income or rental development could be reduced, with a knock-on effect on fair values. The potential implications can be estimated via the sensitivities shown in the notes to the consolidated financial statements. Likewise, it cannot be ruled out that a decline in the vacancy rate and fluctuation as well as lower return requirements of investors (yield compression) will have a compensatory effect on fair values. There is no evidence of any impact on fair values at present.

Section (B): Profit for the Period

The figures from the previous year are only comparable to a limited extent due to acquisitions made in the previous year.

Accounting Policies

Income from property management includes income from the rental of investment properties and assets held for sale which is recognized, net of discounts, over the duration of the contracts when the remuneration is contractually fixed or can be reliably determined and collection of the related receivable is probable.

In Vonovia's financial statements, the corresponding income for all the services for **ancillary costs** performed by the end of the year is also recognized in the year in which the service is performed. This amount is recognized on a non-netted basis using the principal method, in particular due to Vonovia's business model, which provides for a large proportion of services relevant to ancillary costs being performed by Vonovia itself as Vonovia is considered by the tenant to be the primary party responsible for providing the service. For all services that it does not perform itself, Vonovia also bears an inventory risk due to the settlement method (based on rentable area), as is standard practice in the real estate sector.

Income from **real estate sales** is recognized as soon as the material risks and rewards of ownership have been transferred to the buyer and Vonovia has no substantial further obligations. As far as any remaining obligations are concerned, a provision is recognized for the probable risk.

Expenses are recognized when they arise or at the time they are incurred. Interest is recognized as income or expense in the period in which it is incurred using the effective interest method.

10 Income from Property Management

in € million	2018	2019
Rental income	1,897.8	2,077.9
Ancillary costs	750.1	762.9
Income from property letting	2,647.9	2,840.8
Other income from property management	60.3	69.9
	2,708.2	**2,910.7**

11 Profit on Disposal of Properties

in € million	2018	2019
Income from disposal of investment properties	761.4	227.1
Carrying amount of investment properties sold	-597.6	-158.0
Profit on disposal of investment properties	163.8	69.1
Income from sale of assets held for sale	336.1	283.6
Retirement carrying amount of assets held for sale	-336.1	-283.6
Revaluation of assets held for sale	68.5	59.7
Profit on disposal of assets held for sale	68.5	59.7
	232.3	**128.8**

The fair value adjustment of residential properties held for sale, for which a purchase contract had been signed but transfer of title had not yet taken place, led to a gain of € 59.7 million as of December 31, 2019 (2018: € 68.5 million).

12 Profit on disposal of Real Estate Inventories (development)

Accounting Policies

Income from disposal of real estate inventories (Development) are realized either over time or at a specific point in time as soon as the customer obtains control over the asset in question. If, upon conclusion of the certified purchase agreement, control within the meaning of IFRS 15.35(c) passes to the customer before or during the construction phase, the revenue is to be recognized as of this point in time based on the degree of completion of the construction project. Disclosure of the contract assets that fall within the scope of IFRS 15 occurs on a net basis with the corresponding advance payments received under trade receivables.

Contractual balances with an expected term of less than one year are not adjusted to reflect the time value of money.

No separate agreements are reached, in the contracts on the sale of apartments as part of the development business, on extraordinary rights of return or rescission, meaning that such rights are based on the relevant legal provisions. The same applies to warranty commitments, which are not to be treated as a separate contractual component within the meaning of IFRS 15 as a result. Existing warranty claims are always accounted for in line with the provisions of IAS 37.

In accordance with IFRS 15.94, costs for the initiation of the contracts with customers are recognized as an expense as soon as they are incurred, as the depreciation period generally would not amount to more than a year. Building-related measures relate, in particular, to large-scale modernization measures.

In cases involving **revenue recognition over time**, the percentage of completion/progress made has to be assessed. Vonovia uses the cost-to-cost method, as an input-based procedure, for this purpose. The progress made is determined based on the ratio of the capitalized contract costs incurred up until the reporting date to the estimated total contract costs that can be capitalized.

Income from the disposal of real estate inventories (Development) in the amount of € 249.5 million (2018: € 225.1 million) comprises € 183.3 million (2018: € 167.0 million) in period-related income from the disposal of real estate inventories together with € 66.2 million (2018: € 58.1 million) in time-related income from the disposal of real estate inventories. As of the reporting date, contract assets of € 59.4 million (2018: € 112.5 million) are recognized within trade receivables in connection with the period-related revenue recognition. As of the reporting date, this amount includes advance payments received of € 114.2 million (2018: € 73.0 million).

A transaction price of € 59.0 million (2018: € 59.4 million) has been allocated to the remaining performance obligations that had not yet been satisfied (in full) at the end of the current reporting period. These amounts are expected to be recognized, affecting net income, within the next three fiscal years, with an amount of € 45.4 million attributable to 2020, an amount of € 9.3 million to 2021 and an amount of € 4.3 million to 2022.

13 Net Income from Fair Value Adjustment of Investment Properties

Investment properties in the German and Austrian portfolios are measured by the in-house valuation department according to the fair value model. Any gains or losses from a change in fair value are recognized in the income statement. External appraisers are responsible for the valuation of the portfolios in Sweden. The measurement of the investment properties led to a net valuation gain during the 2019 fiscal year of € 4,131.5 million (2018: € 3,517.9 million). The high valuation result for 2019 is mainly due, in addition to the investment activity and strong development of Vonovia's operating business, to the dynamic market conditions for residential properties at the moment. These are reflected both in rental price developments and, in particular, also in an increase in real estate purchase prices triggered, among other things, by yield compression on the demand side.

14 Capitalized Internal Expenses

Capitalized internal expenses in the fiscal year amount to € 687.2 million (2018: € 608.2 million) and mainly relate to the expenses of the Group's own craftsmen's organization contained in the capitalized modernization costs as well as the management costs for major modernization projects.

15 Cost of Materials

in € million	2018	2019
Expenses for ancillary costs	702.9	729.2
Expenses for maintenance and modernization	572.3	628.9
Other cost of purchased goods and services	105.8	104.9
	1,381.0	**1,463.0**

16 Personnel Expenses

in € million	2018	2019
Wages and salaries	423.3	436.7
Social security, pensions and other employee benefits	89.8	99.0
	513.1	**535.7**

The personnel expenses include expenses for severance payments in the amount of € 3.1 million (2018: € 6.8 million), allocations to the provisions for pre-retirement part-time work arrangements in the amount of € 2.3 million (2018: € 3.0 million) and expenses for the long-term incentive plan (LTIP) at € 15.3 million (2018: € 7.2 million) (see chapter [E38] Provisions).

In the fiscal year under review, employers' contributions to statutory pension insurance amounted to € 37.9 million (2018: € 33.2 million).

As of December 31, 2019, Vonovia had 10,345 employees (Dec. 31, 2018: 9,923) with the annual average coming to 10,114 employees (2018: 9,757). Vonovia also employed 473 apprentices as of December 31, 2019 (Dec. 31, 2018: 485).

17 Other Operating Income

in € million	2018	2019
Compensation paid by insurance companies	49.5	46.3
Reversal of provisions	27.6	16.9
Compensation for damages and cost reimbursements	10.7	12.1
Dunning and debt collection fees	7.4	6.2
Reversal of impairment losses	3.7	1.8
Miscellaneous	33.3	22.4
	132.2	**105.7**

18 Other Operating Expenses

in € million	2018	2019
Consultants' and auditors' fees	80.1	64.2
Vehicle and traveling costs	42.2	35.2
Communication costs and work equipment	24.7	21.0
Rents, leases and ground rents	28.8	16.5
Advertising costs	10.8	13.6
Administrative services	10.8	12.8
Additions to provisions	10.8	9.6
Insured losses	5.0	7.0
Non-capitalizable expenses from real estate development	3.8	5.7
Costs of sale associated with real estate inventories	3.1	5.7
Sales incidentals	2.8	5.6
Impairment losses	1.8	4.7
Dunning and debt collection fees	4.8	3.9
Legal and notary costs	2.3	2.8
Miscellaneous	68.2	87.0
	300.0	**295.3**

19 Financial Income

in € million	2018	2019
Income from non-current securities and non-current loans	2.2	1.9
Other interest and similar income	3.6	7.0
	5.8	**8.9**

20 Financial Expenses

The interest expenses mainly relate to interest expense on financial liabilities measured at amortized cost as well as prepayment penalties for financing measures.

in € million	2018	2019
Interest expense from non-derivative financial liabilities	350.9	349.7
Swaps (current interest expense for the period)	15.4	17.2
Effects from the valuation of non-derivative financial instruments	14.9	-18.9
Effects from the valuation of swaps	15.4	17.9
Prepayment penalties and commitment interest	8.4	28.1
Interest accretion to provisions	9.1	10.0
Interest from leases	5.6	14.0
Other financial expenses	1.1	-0.5
	420.8	**417.5**

The prepayment penalties include the fees for the unscheduled repayment of loans during the fixed interest period.

A reconciliation of net interest to net interest to be classified in accordance with IFRS 9 is shown in the following table:

in € million	2018	2019
Interest income	5.8	8.9
Interest expense	-420.8	-417.5
Net interest	-415.0	-408.6
Less:		
Net interest from provisions for pensions in acc. with IAS 19	8.6	8.6
Net interest from other provisions in acc. with IAS 37	0.5	1.4
Net interest from leases	5.6	14.0
Net interest to be classified	**-400.3**	**-384.6**

The net interest classified pursuant to IFRS 9 is as follows:

in € million	2018	2019
Financial assets measured at (amortized) cost	5.7	8.9
Derivatives measured at FV through P&L	-30.8	-35.1
Financial liabilities measured at (amortized) cost	-375.2	-358.4
Classification of net interest	**-400.3**	**-384.6**

21 Other Financial Result

in € million	2018	2019
Result from currency translation	-12.0	37.2
Income from other investments	23.1	11.8
Transaction costs	-14.2	-22.9
Purchase price liabilities from put options/rights to reimbursement	1.1	-2.1
Miscellaneous other financial result	–	–
	-2.0	**24.0**

The currency effects relate primarily to the financing relationships with Swedish subsidiaries.

The income from investments includes financial income resulting from the collection of profits from the investment in AVW GmbH & Co. KG, Hamburg, in the amount of € 8.2 million (2018: € 7.6 million) for the previous fiscal year in each case.

It also comprises financial income from investments in other residential real estate companies in the amount of € 1.7 million (2018: € 14.0 million). Due to the sale of the shares in Deutsche Wohnen SE with effect from February 1, 2019 there is no longer any corresponding income from this investment in the reporting year to match the dividend of € 13.5 million received in the previous year.

22 Income Taxes

Accounting Policies

Income taxes for the current and prior fiscal years are recognized as current income tax liabilities to the extent that they have not yet been paid.

Deferred tax assets and liabilities are recognized using the liability method under the temporary concept, providing for all temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred tax assets are only recognized for temporary differences and on loss carryforwards to the extent that there are deferred tax liabilities that can be netted against them – regarding deferred tax assets on loss carryforwards taking the minimum taxation into account – or, based on the predictable profits in the foreseeable future, it can be verified that they will be realized.

Deferred tax assets and liabilities are not recognized where the temporary difference arises from initial recognition of goodwill in connection with a business combination or the initial recognition (other than a business combination) of other assets and liabilities in a transaction that neither affects taxable income nor net income.

The carrying amount of a deferred tax asset is reviewed at each reporting date. If necessary, the carrying amount of the deferred tax asset is reduced to the extent that it is no longer probable that sufficient taxable profit will be available in the future.

Deferred taxes are measured at the tax rates that apply, or are expected to apply, to the period when the tax asset is realized or the liability is settled based on the current legislation in the countries in question. As in 2018, the combined tax rate of corporate income tax and trade tax of 33.1% was used to calculate domestic deferred taxes for 2019. The corporate income tax rate for the companies based in Austria is 25.0%, while the rate for companies based in Sweden is 20.6%.

Deferred tax assets and liabilities are netted against each other only if Vonovia has a legally enforceable right to set off the recognized amounts, when the same tax authority is involved and when the realization period is the same. In accordance with the regulations of IAS 12 "Income Taxes," deferred tax assets and liabilities are not discounted.

in € million	2018	2019
Current income tax	75.1	55.2
Prior-year current income tax	-15.2	1.6
Deferred tax – temporary differences	1,436.8	1,861.0
Deferred tax – unutilized loss carryforwards	-25.2	-73.2
	1,471.5	**1,844.6**

The current tax expense is determined on the basis of the taxable income for the fiscal year. For the 2019 fiscal year, the combined tax rate of corporate income tax and solidarity surcharge for domestic companies is 15.8% (2018: 15.8%). Including trade tax at a rate of about 17.3% (2018: 17.3%), the combined domestic tax rate is 33.1% in 2019 (2018: 33.1%). The corporate income tax rate for the companies based in Austria is 25.0% (2018: 25.0%), while the rate for companies based in Sweden is 21.4% (2018: 22.0%). The income generated by Vonovia Finance B.V. is subject to Dutch tax law; current taxes of € 3.1 million were incurred there (2018:

€ 3.1 million). The other companies that hold properties and are based in the Netherlands have limited corporation tax liability in Germany. These companies, together with the other foreign companies, pay tax that is of a negligible amount from the Group's perspective in the countries in which they are domiciled.

Anticipated effects of the so-called extended trade tax exemption on trade tax are taken into account when the deferred taxes are determined. Due to the discontinuation of the extended trade tax exemption at a series of BUWOG companies, deferred tax liabilities are also subject to trade tax there, unlike in the previous year. This effect creates a deferred tax expense of € 191.0 million (2018: € 29.5 million).

For deductible temporary differences (excl. loss carryforwards) in the amount of € 16.9 million (Dec. 31, 2018: € 15.2 million), no deferred corporate income taxes or deferred trade taxes were recognized because they are not likely to be used in the future.

As of December 31, 2019, there were corporate income tax loss carryforwards amounting to € 4,040.4 million (Dec. 31, 2018: € 3,949.5 million), as well as trade tax loss carryforwards amounting to € 2,242.8 million (Dec. 31, 2018: € 2,122.5 million), for which deferred tax assets have been recognized to the extent that their realization is sufficiently probable. As of December 31, 2019, there were corporate income tax loss carryforwards abroad amounting to € 690.9 million (Dec. 31, 2018: € 353.1 million), as well as trade tax loss carryforwards amounting to € 15.4 million (2018: € 14.4 million), for which deferred tax assets have also been recognized to the extent that their realization is sufficiently probable. The increase in tax loss carryforwards resulted from current tax losses at individual companies and from the business combination with the Hembla Group.

No deferred taxes were recognized in the balance sheet for domestic and foreign corporate income tax loss carryforwards amounting to € 880.3 million (Dec. 31, 2018: € 1,010.1 million). Of this amount, € 20.0 million arose for the first time in the 2019 fiscal year (2018: € 30.6 million). Under current tax law, these loss carryforwards are not subject to restrictions either with regard to time or the amount of the loss carryforward. The fact that no deferred tax assets were recognized on the new corporate income tax loss carryforwards results in a tax effect of € 3.6 million (2018: € 5.4 million). In addition, there are further trade tax loss carryforwards subject to no restrictions with regard to how they can be carried forward in the amount of € 559.9 million in total (Dec. 31, 2018: € 660.6 million). These did not give rise to any deferred tax assets. Of this amount, € 12.2 million arose for the first time in the 2019 fiscal year (2018: € 29.4 million) and the resulting tax effect is € 2.0 million (2018: € 4.6 million).

The remeasurement of deferred tax assets on temporary differences and loss carryforwards from the previous year led to tax income amounting to € 22.6 million in the 2019 fiscal year (2018: € 10.0 million).

Deferred taxes on interest carryforwards are recognized if the interest carryforward is likely to be able to be used in the future. Due to the Group's capital structure, no interest carryforwards are likely to be able to be used in the future. As a result, no deferred tax assets have been recognized on interest carryforwards in the amount of € 919.9 million (Dec. 31, 2018: € 820.2 million). Of this amount, € 150.7 million (2018: € 144.7 million) arose for the first time in the 2019 fiscal year. The fact that no deferred tax assets were recognized on the new interest carryforward generated a tax effect of € 50.0 million in Germany (2018: € 47.9 million). Sweden has a regulation similar to the German interest threshold since 2019. As a result, no deferred tax assets have been recognized on interest carryforwards in the amount of € 47.6 million in Sweden. € 20.6 million of this amount arose for the first time in the 2019 fiscal year due to the Hembla Group only being included in November and December 2019. The fact that no deferred taxes were recognized generated a tax effect of € 4.2 million in Sweden.

A reconciliation between actual income taxes and expected tax expense, which is the product of the accounting profit for the period multiplied by the average tax rate applicable in Germany, is shown in the table below.

in € million	2018	2019
Earnings before tax	3,874.4	3,138.9
Income tax rate in %	33.1	33.1
Expected tax expense	1,282.4	1,039.0
Trade tax effects	-7.6	161.6
Non-deductible operating expenses	18.4	55.8
Tax-free income	-19.8	-49.4
Change in the deferred tax assets on loss carryforwards and temporary differences	-10.0	-22.6
New loss and interest carryforwards not recognized	57.8	59.8
Prior year income tax and taxes on guaranteed dividends	-10.8	-22.8
Tax effect goodwill impairment	225.5	697.3
Differing foreign tax rates	-30.8	-68.1
Other tax effects (net)	-33.6	-6.0
Effective income taxes	**1,471.5**	**1,844.6**
Effective income tax rate in %	**38.0**	**58.8**

The deferred taxes refer to temporary differences in balance sheet items and unutilized loss carryforwards as follows:

in € million	Dec. 31, 2018	Dec. 31, 2019
Intangible assets	3.6	6.5
Investment properties	4.3	1.8
Assets held for sale	0.6	–
Property, plant and equipment	1.3	35.7
Financial assets	8.7	1.3
Other assets	89.0	101.2
Provisions for pensions	82.6	99.6
Other provisions	17.5	23.5
Liabilities	183.1	134.0
Loss carryforwards	789.5	929.7
Deferred tax assets	**1,180.2**	**1,333.3**

in € million	Dec. 31, 2018	Dec. 31, 2019
Intangible assets	22.4	19.4
Investment properties	8,165.1	10,290.7
Assets held for sale	16.2	21.4
Property, plant and equipment	11.1	8.5
Financial assets	–	0.8
Other assets	41.2	118.9
Other provisions	54.9	78.4
Liabilities	47.1	8.0
Deferred tax liabilities	**8,358.0**	**10,546.1**
Excess deferred tax liabilities	**7,177.8**	**9,212.8**

Deferred tax assets and liabilities are netted against each other when the same company and the same tax authority are involved and the realization period is the same. As a result, the following deferred tax assets and liabilities are stated:

in € million	Dec. 31, 2018	Dec. 31, 2019
Deferred tax assets	54.1	59.3
Deferred tax liabilities	7,231.9	9,272.1
Excess deferred tax liabilities	**7,177.8**	**9,212.8**

The increase in deferred tax liabilities can be attributed primarily to investment properties.

The change in deferred taxes is as follows:

in € million	2018	2019
Excess deferred tax liabilities as of Jan. 1	5,312.3	7,177.8
Deferred tax expense in income statement	1,411.7	1,787.7
Deferred tax due to first-time consolidation and deconsolidation	459.0	278.3
Change recognized in other comprehensive income in deferred taxes due to equity instruments measured at fair value	0.9	-4.3
Change recognized in other comprehensive income in deferred taxes on actuarial gains and losses from pensions and similar obligations	-2.7	-17.5
Change recognized in other comprehensive income in deferred taxes on derivative financial instruments	-2.0	0.7
Deferred taxes recognized in equity on accrued capital procurement costs resulting from the issuance of a hybrid bond with an indefinite term	-0.5	-0.2
Deferred taxes recognized in the capital reserve on capital procurement costs of capital increases	-3.6	-2.2
Currency translation	2.4	3.2
Transition to IFRS 16	–	-10.9
Other	0.3	0.2
Excess deferred tax liabilities as of Dec. 31	**7,177.8**	**9,212.8**

No deferred tax liabilities are recognized for profits accumulated at subsidiaries of € 27,785.0 million (Dec. 31, 2018: € 22,416.7 million), as these profits are to remain invested for an indefinite period or are not subject to taxation. In the event of distribution or disposal of the subsidiaries, 5% of the distributed amounts or the capital gains would be subject to German taxation so that there would normally be an additional tax obligation.

Section (C): Other Disclosures on the Results of Operations

23 Segment Reporting

Vonovia is an integrated residential real estate company with operations across Europe. The company's strategy is focused on sustainably increasing the value of the company. This is achieved by managing the company's own portfolio with a view to enhancing its value, investing in existing residential properties in order to create value, building new residential buildings and selling individual apartments, as well as by engaging in active portfolio management and offering property-related services. For the purposes of managing the company, we make a distinction between four segments: **Rental, Value-add, Recurring Sales** and **Development.** We also report the **Other** segment, which is not relevant from a corporate management perspective, in our segment reporting. This includes the disposal, only as and when the right opportunities present themselves, of entire buildings or land (Non-core Disposals) that are likely to have below-average development potential in terms of rent growth in the medium term and are located in areas that can be described as peripheral compared with Vonovia's overall portfolio and in view of future acquisitions.

The **Rental** segment combines all of the business activities that are aimed at the value-enhancing management of our own residential real estate. It includes our property management activities in Germany, Austria and Sweden. The consolidation of our property management activities in Germany, Austria and Sweden to form one single reporting segment is based on the similarities that we see in the property management business in these three countries. This applies to the way in which services are provided and the individual service processes that form part of the property management business, as well as to the customers in the residential rental market and the type of customer acquisition used. Overall, the residential rental market in all three countries is characterized by a shortage of housing and is regulated by statutory requirements, resulting in return expectations that are similar in the long term.

The **Value-add** segment bundles all of the housing-related services that we have expanded our core rental business to include. These services include both the maintenance and modernization work on our residential properties and services that are closely related to the rental business. We allocate the activities relating to the craftsmen's and residential environment organization, the condominium administration business, the cable TV business, metering services, energy supplies and our insurance services to the Value-add segment. Energy supply is a new service that we have been offering our tenants since 2018.

The **Recurring Sales** segment includes the regular and sustainable disposals of individual condominiums and single-family houses from our portfolio. The consolidation of our sales activities in Germany and Austria to form one single reporting segment is based on the similarities that we see in the property management business in these two countries. It does not include the sale of entire buildings or land (Non-core Disposals). These properties are only sold as and when the right opportunities present themselves, meaning that the sales do not form part of the Recurring Sales segment. We report these opportunistic sales in the Other column of the segment report.

The **Development** segment combines cross-country development activities and includes the project development of new residential buildings. The consolidation of our development activities in Germany, Austria and Sweden to form one single reporting segment is based on the similarities that we see in the business in these three countries. The business covers the value chain starting with the purchase of land without any development plan/dedicated purpose and ending with the completion of new buildings and new construction measures on our own properties. These properties are either incorporated into our own portfolio or sold to third parties. The Development segment deals with projects in selected attractive locations. Project development work is currently focusing on Berlin, Hamburg and Vienna. The consolidation of our development activities in Germany, Austria and Sweden to form one single reporting segment is based on the similarities that we see in the business in these three countries. The adjusted EBITDA of the Development segment includes the fair value step-up for properties that were completed in the reporting period and have been added to our own portfolio.

A Group-wide planning and controlling system ensures that resources are efficiently allocated and their successful use is monitored on a regular basis. Reporting to the chief decision-makers and thus the assessment of business performance as well as the allocation of resources are performed on the basis of this segmentation. Asset and liability items are not reported separately by segment. Internal reporting is based on the IFRS reporting standards in general.

The Management Board as chief decision-maker of Vonovia monitors the contribution made by the segments to the company's performance on the basis of the segment revenue as well as the adjusted EBITDA.

The following table shows the segment information for the reporting period:

in € million	Rental	Value-add	Recurring Sales	Develop-ment	Segments total	Other*	Consolida-tion*	Group
Jan. 1 – Dec. 31, 2019								
Segment income	2,074.9	1,677.3	365.1	249.5	4,366.8	145.6	-841.5	3,670.9
thereof external income	2,074.9	248.4	365.1	249.5	**2,937.9**	145.6	587.4	3,670.9
thereof internal income		1,428.9			**1,428.9**	–	-1,428.9	
Carrying amount of assets sold			-302.9		**-302.9**	-138.7		
Revaluation from disposal of assets held for sale			44.5		**44.5**	13.0		
Expenses for maintenance	-308.9				**-308.9**			
Production costs development				-197.3	**-197.3**			
Operating expenses	-328.6	-1,531.0	-14.8	-26.6	**-1,901.0**	-8.4	797.6	
Net income from fair value adjustments of new construction/development to hold				58.9	**58.9**		-58.9	
Adjusted EBITDA Total	1.437.4	146.3	91.9	84.5	1,760.1	11.5	-102.8	1,668.8
Non-recurring items								-93.1
Period adjustments from assets held for sale								2.2
Income from investments in other real estate companies								1.7
EBITDA IFRS								1,579.6
Net income from fair value adjustments of investment properties								4,131.5
Depreciation and amortization								-2,175.8
Income from other investments								-11.8
Interest income								8.9
Interest expenses								-417.5
Other financial result								24.0
EBT								3,138.9
Income taxes								-1,844.6
Profit for the period								**1,294.3**

* The income for the Rental, Value-add, Recurring Sales and Development segments constitutes income that is regularly reported to the Management Board as the chief operating decision-maker and that reflects Vonovia's sustainable business. The income/costs in the "Other" and "Consolidation" columns are not part of the Management Board's segment management.

in € million	Rental	Value-add	Recurring Sales	Develop-ment	Segments total	Other*	Consolida-tion*	Group
Jan. 1 – Dec. 31, 2018								
Segment income	1,894.2	1,462.2	356.1	225.1	3,937.6	741.4	-648.2	4,030.8
thereof external income	1,894.2	203.9	356.1	225.1	2,679.3	741.4	610.1	4,030.8
thereof internal income		1,258.3			1,258.3		-1,258.3	
Carrying amount of assets sold			-298.5		-298.5	-635.2		
Revaluation from disposal of assets held for sale			35.7		35.7	32.3		
Expenses for maintenance	-289.7				-289.7			
Production costs development				-181.8	-181.8			
Operating expenses	-289.4	-1,341.0	-14.2	-22.6	-1,667.2	-9.3	609.4	
Net income from fair value adjustments of new construction/ development to hold				18.7	18.7		-18.7	
Adjusted EBITDA Total	1.315.1	121.2	79.1	39.4	1,554.8	129.2	-57.5	1,626.5
Non-recurring items								-106.6
Period adjustments from assets held for sale								0.5
Income from investments in other real estate companies								14.0
EBITDA IFRS								1,534.4
Net income from fair value adjust-ments of investment properties								3,517.9
Depreciation and amortization								-737.9
Income from other investments								-23.1
Interest income								5.8
Interest expenses								-420.8
Other financial result								-2.0
EBT								3,874.3
Income taxes								-1,471.5
Profit for the period								**2,402.8**

* The income for the Rental, Value-add, Recurring Sales and Development segments constitutes income that is regularly reported to the Management Board as the chief operating decision-maker and that reflects Vonovia's sustainable business. The income/costs in the "Other" and "Consolidation" columns are not part of the Management Board's segment management.

To show the development of operating performance and to ensure comparability with previous periods, we calculate adjusted EBITDA for each of our segments: Rental, Value-add, Recurring Sales and Development. The sum of these key figures produces the Group's Adjusted EBITDA Total. The adjustments made include items that are not related to the period, items that recur irregularly and items that are atypical for business operation. The non-recurring items include the expenses for pre-retirement part-time work arrangements and severance payments, the development of new fields of business and business processes, acquisition projects including integration costs and expenses for re-financing and equity increases (where not treated as capital procurement costs).

The following table gives a detailed list of the non-recurring items for the reporting period:

in € million	2018	2019
Acquisition costs incl. integration costs*	87.8	48.2
Business model optimization/ development of new field of business	0.8	27.6
Severance payments/pre-retirement part-time work arrangements	18.3	13.2
Refinancing and equity measures	-0.3	4.1
Total non-recurring items	**106.6**	**93.1**

* Including one-time expenses in connection with acquisitions, such as HR measures relating to the integration process.

The breakdown of external revenue from contracts with customers (pursuant to IFRS 15.114f.) and its allocation to the segments referred to above is as follows:

in € million	Rental	Value-add	Recurring Sales	Development	Other	Total
Jan. 1 – Dec. 31, 2019						
Revenue from ancillary costs (IFRS 15)	626.4	0.6	–	0.3	–	627.3
Income from the disposal of investment properties	–	–	184.9	–	42.2	227.1
Income from disposal of real estate inventories (Development)	–	–	–	249.5	–	249.5
Other revenue from contracts with customers	20.3	49.6	–	–	–	69.9
Revenue from contracts with customers	**646.7**	**50.2**	**184.9**	**249.8**	**42.2**	**1,173.8**
thereof period-related				183.6		183.6
thereof time-related	646.7	50.2	184.9	66.2	42.2	990.2
Income from rental income (IFRS 16)	2,074.9	1.9	–	1.1	–	2,077.9
Revenue from ancillary costs (IFRS 16)*	135.6	–	–	–	–	135.6
Income from sale of assets held for sale (IFRS 5)	–	–	180.2	–	103.4	283.6
Other revenue	**2,210.5**	**1.9**	**180.2**	**1.1**	**103.4**	**2,497.1**
Revenues	**2,857.2**	**52.1**	**365.1**	**250.9**	**145.6**	**3,670.9**

* Includes land tax and buildings insurance.

in € million	Rental	Value-add	Recurring Sales	Development	Other	Total
Jan. 1 – Dec. 31, 2018						
Revenue from ancillary costs (IFRS 15)	632.0	0.9	–	–	–	632.9
Income from the disposal of investment properties	–	–	186.0	–	575.4	761.4
Income from disposal of real estate inventories (Development)	–	–	–	225.1	–	225.1
Other revenue from contracts with customers	14.6	45.7	–	–	–	60.3
Revenue from contracts with customers	**646.6**	**46.6**	**186.0**	**225.1**	**575.4**	**1.679.7**
thereof period-related				167.0		167.0
thereof time-related	646.6	46.6	186.0	58.1	575.4	1,512.7
Income from rental income (IFRS 16)	1,894.2	3.6	–	–	–	1,897.8
Revenue from ancillary costs (IFRS 16)*	117.2	–	–	–	–	117.2
Income from sale of assets held for sale (IFRS 5)	–	–	170.1	–	166.0	336.1
Other revenue	**2,011.4**	**3.6**	**170.1**	**–**	**166.0**	**2,351.1**
Revenues	**2,658.0**	**50.2**	**356.1**	**225.1**	**741.4**	**4,030.8**

* Includes land tax and buildings insurance.

External income and non-current assets, excluding financial instruments, deferred taxes, post-employment benefits and rights under insurance contracts, are distributed among Vonovia's country of origin and other countries as follows. The revenue and the assets are allocated based on the registered office of the unit providing the service.

	External income		Assets	
in € million	2018	2019	Dec. 31, 2018	Dec. 31, 2019
Germany	3,598.6	3,087.0	42,670.5	44,969.4
Austria	345.9	415.6	2,789.5	3,067.9
Sweden	59.5	168.1	1,977.0	6,777.8
France	0.0	0.0	87.0	104.1
Other countries	26.8	0.2	61.5	88.1
Total	**4,030.8**	**3,670.9**	**47,585.5**	**55,007.3**

24 Earnings per Share

Accounting Policies

The basic **earnings per share** are calculated by dividing the profit for the period attributable to the shareholders by the weighted average number of ordinary shares in circulation during the reporting period. The diluted earnings per share are obtained by adjusting the profit for the period and the number of outstanding shares on the basis of the assumption that convertible instruments will be converted, options or warrants will be exercised or ordinary shares will be issued under certain conditions. Potential ordinary shares will only be included in the calculation if the conversion into ordinary shares would reduce the earnings per share.

	2018	2019
Profit for the period attributable to Vonovia shareholders (in € million)	2,266.5	1,147.0
Weighted average number of shares	505,720,971	532,734,172
Earnings per share (basic and diluted) in €	**4.48**	**2.15**

At the end of the reporting period, no diluting financial instruments were in circulation. The basic earnings per share correspond to the diluted earnings per share.

25 Management Board's Proposal for the Appropriation of Profit

"The Management Board and the Supervisory Board propose to the Annual General Meeting that, of the profit of Vonovia SE for the 2019 fiscal year of € 912,721,577.83, an amount of € 851,369,569.27 on the 542,273,611 shares of the share capital as of December 31, 2019 (corresponding to € 1.57 per share) be paid as a dividend to the shareholders, and that the remaining amount of € 61,352,008.56 be carried forward to the new account or be used for other dividends on shares carrying dividend rights at the time of the Annual General Meeting and which go beyond those as of December 31, 2019.

As with the 2018 fiscal year, the dividend for the 2019 fiscal year, payable after the Annual General Meeting in May 2020, will again include the option of a non-cash dividend in shares, to the extent that the Management Board and the Supervisory Board consider this to be in the interests of the company and its shareholders."

Section (D): Assets

26 Intangible Assets

in € million	Concessions, industrial property rights, license and similar rights	Self-developed software	Customer relationships and non-competition clause	Trademark rights	Goodwill	Total
Cost						
As of Jan. 1, 2019	68.3	6.7	8.5	66.6	3,860.9	4,011.0
Additions due to business combinations	3.5	–	–	–	744.7	748.2
Additions	17.0	1.5	1.9	–	–	20.4
Disposals	-8.0	–	–	–	–	-8.0
Changes in value from currency translation	0.1	–	–	–	9.1	9.2
Transfers	4.8	-3.1	–	–	–	1.7
As of Dec. 31, 2019	85.7	5.1	10.4	66.6	4,614.7	4,782.5
Accumulated amortization						
As of Jan. 1, 2019	41.6	4.9	2.8	–	1,018.5	1,067.8
Additions due to business combinations	0.7	–	–	–	–	0.7
Amortization in reporting year	11.9	1.3	0.9	–	–	14.1
Impairment	–	–	–	–	2,103.5	2,103.5
Disposals	-8.0	–	–	–	–	-8.0
Transfers	3.5	-3.1	–	–	–	0.4
As of Dec. 31, 2019	49.7	3.1	3.7	–	3,122.0	3,178.5
Carrying amounts						
As of Dec. 31, 2019	36.0	2.0	6.7	66.6	1,492.7	1,604.0
Cost						
As of Jan. 1, 2018	37.3	6.5	12.1	–	2.950.8	3,006.7
Additions due to business combinations	19.6	–	–	66.6	906.4	992.6
Additions	17.5	1.0	–	–	–	18.5
Disposals	-9.6	-0.8	-3.6	–	–	- 14.0
Changes in value from currency translation	–	–	–	–	3.7	3.7
Transfers	3.5	–	–	–	–	3.5
As of Dec. 31, 2018	68.3	6.7	8.5	66.6	3.860.9	4,011.0
Accumulated amortization						
As of Jan. 1, 2018	23.7	3.3	5.3	–	337.3	369.6
Additions due to business combinations	9.1	–	–	–	–	9.1
Additions	15.7	2.4	1.1	–	–	19.2
Impairment	–	–	–	–	681.2	681.2
Disposals	-9.3	-0.8	-3.6	–	–	- 13.7
Transfers	2.4	–	–	–	–	2.4
As of Dec. 31, 2018	41.6	4.9	2.8	–	1.018.5	1,067.8
Carrying amounts						
As of Dec. 31, 2018	26.7	1.8	5.7	66.6	2.842.4	2,943.2

Accounting Policies

Acquired other intangible assets are stated at amortized cost. **Internally generated other intangible assets** are stated at amortized cost provided that the requirements of IAS 38 for the capitalization of internally generated intangible assets are met. Acquired trademark rights that are identified have an indefinite useful life and are subject to regular impairment testing. All of Vonovia's miscellaneous other intangible assets have definite useful lives and are amortized on a straight-line basis over their estimated useful lives. Software and licenses are amortized on the basis of a useful life of three years.

In accordance with IAS 36 "Impairment of Assets," **other intangible assets as well as property, plant and equipment** are tested for impairment whenever there is an indication of an impairment. Impairment testing is performed at least once a year. An impairment loss is recognized when an asset's recoverable amount is less than its carrying amount. If the recoverable amount cannot be determined for the individual asset, the impairment test is conducted on the cash generating unit (CGU) to which the asset belongs. Impairment losses are recognized as expenses in the income statement with effect on net income.

An impairment loss recognized for prior periods is reversed if there has been a change in the estimates used to determine the asset's (or the CGU's) recoverable amount since the last impairment loss was recognized. The carrying amount of the asset (or the CGU) is increased to the newly estimated recoverable amount. The carrying amount is limited to the amount that would have been determined if no impairment loss had been recognized in prior years for the asset (or the CGU).

Customer Relationships and Similar Values

The brand name "BUWOG Group" for the development business was identified within the framework of the purchase price allocation for BUWOG as a material asset with indefinite useful life and still recognized at a value of € 66.6 million.

Goodwill

Accounting Policies

Goodwill results from a business combination and is defined as the amount by which the acquisition costs for shares in a company or group of companies exceed the pro rata net assets acquired. The net assets are the total of the identifiable assets acquired that are valued at fair value in accordance with IFRS 3 as well as the assumed liabilities and contingent liabilities.

Goodwill is not subject to amortization, but rather is subjected to impairment testing on an annual basis. It is also tested for impairment whenever events or circumstances indicating an impairment arise.

The impairment testing of goodwill is performed at the level of cash-generating units (CGUs) or a group of cash-generating units. A cash-generating unit is the smallest group of assets which generates cash inflows that are largely independent of the cash inflows generated by other assets or other groups of assets. Goodwill purchased as part of a business combination is allocated to the CGUs or groups of CGUs that are expected to produce benefits resulting from the synergy effects of the combination.

At Vonovia, each property meets the requirements for classification as a CGU as a general rule. As part of operational management, these properties are grouped first of all to form geographically structured business units and then to form regional business areas. Since the regional business areas are the lowest level within the company at which goodwill is monitored for internal management purposes, the impairment test is performed at business area level and, as a result, in accordance with IAS 36.80 for a group of CGUs. The acquired assets are allocated to the business areas based on the geographical location of the properties. A further group of CGUs for which goodwill is monitored for internal management purposes relates to the Value-add segment (formerly "Value-add Business"). The third group of CGUs to which goodwill is allocated and for which goodwill is monitored for management purposes relates to the Development segment.

The group of CGUs to which goodwill has been allocated are tested for impairment on a regular basis. This involves comparing the recoverable amount with the carrying amount of the group of CGUs. The recoverable amount of the group of CGUs is either its value in use or fair value less costs of sale, whichever is higher. When calculating the value in use, the estimated future cash flows are discounted to their cash value. Discount rates before tax are used that reflect the current market assessment of the interest rate effect and the specific risks associated with the business areas/the Value-add and Development segments.

If goodwill has been allocated to a group of CGUs and its carrying amount exceeds the recoverable amount, the goodwill is to be written down in the amount of the difference in the first instance. Any need for impairment in excess of this amount is distributed among the other assets in the group of CGUs in proportion to their carrying amount. The individual fair value less costs to sell must not be undercut in this regard.

Impairment losses that have been realized as part of the valuation of goodwill are not reversed in the following years.

Groups of Cash-Generating Units

in € million	North area	East area	South-east area	West area	Middle area	South area	Central area	Sweden business area	Value-add segment	Develop-ment segment	not allocated	Group
	Rental segment											
Goodwill 2018	333.5	–	435.6	680.8	501.3	290.8	19.2	196.6	278.5	106.1	–	2,842.4
Additions due to business combinations	–	–	–	–	–	–	–	–	–	–	744.7	744.7
Reallocation	73.7	105.2	–	-257.0	–	93.8	-15.7	–	–	–	–	0.0
Disposal due to depreciation	-333.5	-105.2	-435.6	-339.8	-501.3	-384.6	-3.5	–	–	–	–	-2,103.5
Currency trans-lation differences	–	–	–	–	–	–	–	-3.7	–	–	12.8	9.1
Goodwill 2019	73.7	0.0	0.0	84.0	0.0	0.0	0.0	192.9	278.5	106.1	757.5	1,492.7
WACC before tax Dec. 31, 2019 in %	3.8	–	–	3.8	–	–	–	3.8	4.1	4.8	–	–
WACC before tax June 30/July 1, 2019 in %*	4.8	4.8	4.9	4.9	4.9	4.8	4.8	–	–	–	–	–
WACC before tax Dec. 31, 2018 in %	4.5	4.5	4.6	4.6	4.6	4.5	4.5	4.7	5.1	6.6	–	–
Sustainable rate of increase 2019 in %	1.0	–	–	0.9	–	–	–	1.0	1.0	1.0	–	1.0
Sustainable rate of increase 2018 in %	1.0	1.1	1.0	0.8	1.1	1.1	1.0	1.0	1.0	1.0	–	1.0

* No triggering event was identified for Sweden, Value-add or Development, so no WACC was calculated as of the reporting date.

Goodwill came to € 1,492.7 million as of December 31, 2019. This means that goodwill has dropped by € 1,349.7 million compared with December 31, 2018. The change is due to an impairment loss of € 2,103.5 million, an opposing addition through the acquisition of Hembla AB in the amount of € 744.7 million and a positive effect resulting from currency changes affecting the Swedish krona in the amount of € 9.1 million.

Part of the impairment loss in the amount of € 1,901.0 million is a result of the impairment test carried out in the second quarter of 2019. The € 2,258.7 million increase in the value of the real estate portfolio in the first half of the 2019 fiscal year (thereof € 2,056.2 million in Germany), together with the revision of the regional structure within Germany that was carried out with effect from July 1, 2019, constituted a triggering event within the meaning of IAS 36 as of June 30, 2019.

In general, an increase in the value of the real estate portfolio increases the carrying amount of the CGU affected by the measurement, which can, in turn, lead to impairment losses being recognized on the goodwill allocated to the business areas.

Furthermore, due to the revised regional structure, the two business areas Southeast and Middle are no longer included as of July 1, 2019, necessitating a reallocation of the remaining goodwill for the Rental segment among the remaining German business areas North, East, West, South and Central as of July 1, 2019. The reallocation of the German business areas of the Rental segment as of July 1, 2019 resulted in another impairment loss of € 202.5 million being recognized. Goodwill was written off in full for the business areas East, South and Central. In the West area, the remaining goodwill amounts to € 84.0 million as of December 31, 2019, with goodwill of € 73.7 million remaining for the North area.

The values in use as of June 30, 2019 came to € 5.8 billion for the North area, € 3.4 billion for the Southeast area, € 4.8 billion for the West area, € 4.9 billion for the Middle area and € 5.5 billion for the South area. As of July 1, 2019, the values in use came to € 7.8 billion for the East area, € 5.8 billion for the South area and € 0.3 billion for the Central area.

The impairment loss was recognized in the consolidated income statement under under depreciation, amortization and impairment.

The annual impairment test carried out in the fourth quarter of 2019 did not result in the need for any further goodwill impairments.

The preliminary goodwill in the amount of € 757.5 million resulting from the acquisition of Hembla, including exchange rate effects attributable to this acquisition, was not subjected to an impairment test in accordance with IAS 36.84 as of December 31, 2019. The reason is that this amount has not yet been allocated or distributed to the CGU due to the existing uncertainty as to the amount of goodwill. There were no indications as of the reporting date that this goodwill might be impaired, either individually or together with the CGU Sweden (into which it will likely be incorporated).

As part of the impairment test and in accordance with IAS 36.19, first the value in use was calculated based on the Management Board-approved detailed plan with a planning period of five years. This was derived from the five-year plan at Group level approved by the Management Board and the Supervisory Board. The main parameters for calculating the value in use are the sustainable rate of increase, the average total cost of capital (WACC) and the expected cash flows.

The growth rate for the CGUs of the Rental segment was calculated regionally on the basis of in-place rents and limited to 1% for the segment as a whole. With regard to the regional business areas of the Rental segment, the main drivers behind the results of the five-year plan are the increase in gross rental income by an average of 3.3% every year as well as the planned vacancy rate on the level of 2019 at the end of the detailed planning period.

Developments in the Value-add segment are characterized primarily by the extension of existing business areas (craftsmen's organization, multimedia, management of residential property, smart metering, etc.). On the other hand, there is an increase in operating expenses, taking into account the rate of inflation. The development in these values is in line with past experiences of business model development. The cash flows from the last detailed planning year were derived to calculate the perpetual annuity.

The Development segment is characterized by the construction of new buildings for Vonovia's own portfolio and by the sale of properties to third parties. The main drivers of the results in the Development segment are the investment costs, the number of units sold and the sales margin that can be generated.

A constant growth rate of 1% was assumed for the Value-add and Development segments.

The weighted average cost of capital before tax is based on the risk-free interest rate calculated as a three-month average using the Svensson method, a market risk premium and a levered beta. The levered and the equity ratios used are determined on the basis of a peer comparison. In addition, country-specific cost surcharges were calculated for the Sweden business area and the Development segment. The main parameters are shown in the following table:

Parameters for WACC Calculation

Dec. 31, 2019	Rental segment: Germany	Rental segment: Sweden	Value-add segment	Development segment
Risk-free interest rate in %	0.2	0.2	0.2	0.2
Market risk premium in %	7.75	7.75	7.75	7.75
Levered beta	0.52	0.53	0.52	0.62
Country-specific premium in %	–	0.1	–	0.1
June 30/July 1, 2019*				
Risk-free interest rate in %	0.8	–	–	–
Market risk premium in %	7.00	–	–	–
Levered beta	0.64	–	–	–
Country-specific premium in %	–	–	–	–
Dec. 31, 2018				
Risk-free interest rate in %	1.1	1.1	1.1	1.1
Market risk premium in %	7.00	7.00	7.00	7.00
Levered beta	0.53	0.53	0.53	0.91
Country-specific premium in %	–	0.2	–	0.1

* For Sweden, Value-add and Development there was no triggering event, therefore no WACC calculation as of the reporting date June 30, 2019.

An increase in the cost of capital will result in the following need for impairment:

	Rental segment: North area	Rental segment: West area	Rental segment: Sweden business area	Value-add segment	Development segment
Goodwill 2019 in € million	73.7	84.0	192.9	278.5	106.1
Impairment starts with an increase of the WACC in percentage points	0.3	0.4	0.7	8.6	8.3
Full write-off in the event of an increase in the WACC in %	0.3	0.5	0.9	18.0	9.5

If the planned sustainable rate of increase were to decline by 0.50 percentage points, this would result in a full impairment loss of € 73.7 million being recognized against the goodwill remaining in the North business area. In the West area, an impairment loss of € 77.0 million would be recognized if the sustainable rate of increase were to decline by 0.50 percentage points.

In the Sweden business area as well as in the Value-add and Development segments, a 0.50 percentage point drop in the sustainable rate of increase would not result in any goodwill impairment.

27 Property, Plant and Equipment

in € million	Owner-occupied properties	Technical equipment, plant and machinery	Other equipment, fixtures, furniture and office equipment	Right-of-use assets (IFRS 16)	Total
Cost					
As of Jan. 1, 2019	143.8	46.0	130.3	-	320.1
Additions due to business combinations	-	0.6	2.7	-	3.3
Additions of right-of-use assets (IFRS 16)	-	-	-	82.2	82.2
Additions	26.3	5.1	47.9	12.8	92.1
Capitalized modernization costs	1.8	0.0	0.1	-	1.9
Grants received	-1.0	-	-	-	-1.0
Disposals	-0.4	-	-8.7	-1.3	-10.4
Transfer from investment properties	3.3	-	-	-	3.3
Transfer to investment properties	-11.1	-	-	-	-11.1
Other transfers	-	-6.1	-6.3	6.1	-6.3
As of Dec. 31, 2019	162.7	45.6	166.0	99.8	474.1
Accumulated depreciation					
As of Jan. 1, 2019	6.3	20.6	42.8	-	69.7
Additions due to business combinations	-	0.5	1.9	-	2.4
Depreciation in reporting year	2.0	5.4	31.9	18.5	57.8
Impairment	0.5	-	-	-	0.5
Reversal of impairments	-0.7	-	-	-	-0.7
Disposals	-0.4	-	-8.2	-0.5	-9.1
Other transfers	-	-1.4	-5.1	1.4	-5.1
As of Dec. 31, 2019	7.7	25.1	63.3	19.4	115.5
Carrying amounts					
As of Dec. 31, 2019	155.0	20.5	102.7	80.4	358.6
Cost					
As of Jan. 1, 2018	104.5	43.1	77.4	-	225.0
Additions due to business combinations	21.3	0.1	5.4	-	26.8
Additions	22.4	3.0	66.2	-	91.6
Capitalized modernization costs	1.6	-	-	-	1.6
Disposals	-1.8	-0.2	-19.8	-	-21.8
Transfer from investment properties	6.5	-	-	-	6.5
Transfer to investment properties	-10.7	-	-	-	-10.7
Other transfers	-	-	1.1	-	1.1
As of Dec. 31, 2018	143.8	46.0	130.3	-	320.1
Accumulated depreciation					
As of Jan. 1, 2018	5.0	14.8	27.6	-	47.4
Additions due to business combinations	0.2	-	3.4	-	3.6
Depreciation in reporting year	2.2	6.0	29.5	-	37.7
Reversal of impairments	-0.5	-	-	-	-0.5
Disposals	-0.6	-0.2	-18.9	-	-19.7
Other transfers	0.0	-	1.2	-	1.2
As of Dec. 31, 2018	6.3	20.6	42.8	-	69.7
Carrying amounts					
As of Dec. 31, 2018	137.5	25.4	87.5	-	250.4

Accounting Policies

Items of property, plant and equipment are carried at amortized cost less accumulated depreciation and are depreciated over their respective estimated useful lives on a straight-line basis.

Subsequent costs of replacing part of an item of property, plant and equipment are capitalized provided it is probable that future economic benefits associated with the item will flow to Vonovia and the cost can be estimated reliably.

The properties used by the company itself are subject to depreciation over a term of 50 years, with fixtures, furniture and office equipment subject to depreciation over a period of 3–13 years and technical equipment, plant and machinery over a period of 5–20 years.

As of December 31, 2019, the item "Owner-occupied properties" includes € 106.2 million (Dec. 31, 2018: € 83.4 million), which mainly consists of production costs for the construction of the new Vonovia headquarters in Bochum and of the BUWOG headquarters in Vienna.

Furthermore, carrying amounts of owner-occupied properties amounting to € 30.6 million as of December 31, 2019 (Dec. 31, 2018: € 35.1 million) are encumbered with land charges in favor of various lenders.

28 Investment Properties

in € million	
As of Jan. 1, 2019	43,490.9
Additions due to business combinations	3,202.9
Additions of right-of-use assets (IFRS 16)	217.9
Additions	983.9
Capitalized modernization costs	1,117.6
Grants received	-14.2
Other transfers	-2.8
Transfer from property, plant and equipment	11.1
Transfer to property, plant and equipment	-3.3
Transfer from real estate inventories	5.4
Transfer to real estate inventories	-21.8
Transfer from assets held for sale	4.5
Transfer to assets held for sale	-316.1
Disposals	-158.2
Disposals due to changes in scope of consolidation	- 4.8
Net income from fair value adjustments of investment properties	4,131.5
Revaluation of assets held for sale	59.7
Revaluation from currency effects	32.4
As of Dec. 31, 2019	**52,736.6**
As of Jan. 1, 2018	33,182.8
Additions due to business combinations	6,214.7
Additions	365.8
Capitalized modernization costs	1,006.0
Grants received	-2.6
Transfer from property, plant and equipment	10.7
Transfer to property, plant and equipment	-6.5
Transfer from assets held for sale	24.4
Transfer to assets held for sale	-323.9
Disposals	-597.6
Disposals due to changes in scope of consolidation	-2.3
Net income from fair value adjustments of investment properties	3,517.9
Revaluation of assets held for sale	68.5
Revaluation from currency effects	33.0
As of Dec. 31, 2018	**43,490.9**

Accounting Policies

When Vonovia acquires properties, whether through a business combination or as part of a separate transaction, the intended use determines whether such properties are classified as investment properties or as owner-occupied properties.

Investment properties are properties that are held for the purpose of earning rental income or for capital appreciation or both and are not owner-occupied or held for sale in the ordinary course of business. Investment properties include undeveloped land, land and land rights including buildings and land with inheritable building rights of third parties. Investment properties also include right-of-use assets from rented, developed and undeveloped land (inheritable building rights) and from rented residential and commercial properties (interim leasing) within the meaning of IFRS 16 that are classified as investment properties.

Investment properties are initially measured at cost. Related transaction costs, such as fees for legal services or real estate transfer taxes, are included in the initial measurement. If properties are purchased as part of a business combination and if the transaction relates to a “business,” then IFRS 3 applies as far as recognition is concerned. Transaction costs are recognized as an expense.

Following initial recognition, investment properties are measured at fair value. Any change therein is recognized as affecting net income in the income statement. During the land or project development phase, reliable measurement at fair value is often not possible due to the lack of marketability and the lack of comparable transactions. In such cases, the cost model is continued until a reliable measurement can be carried out, but at the latest until the property in question is completed.

Investment properties are transferred to property, plant and equipment when there is a change in use evidenced by the commencement of owner-occupation. The properties’ deemed cost for subsequent measurement corresponds to the fair value at the date of reclassification.

The additions in 2019 include € 493.0 million (2018: € 86.9 million) in production costs for new construction activities.

The total amount reported for investment properties as of December 31, 2019 includes right-of-use assets from recognized inheritable building rights and interim leasing arrangements in the amount of € 1,224.8 million (see note [E42] Leases).

The majority of € 1,223.7 million is attributable to right-of-use assets from inheritable building rights. This includes € 78.1 million (previous year: € 71.0 million) relating to the Spree-Bellevue (Spree-Schlange) property in Berlin. The property has been leased from DB Immobilienfonds 11 Spree-Schlange von Quistorp KG until 2044. The lease agreement includes an obligation to pay compensation for loss of use as agreed by contract. At the end of 2028, each fund subscriber is entitled to return his share to the property fund at a fixed redemption price. If all of the fund investors make use of this option, Vonovia is obliged to acquire the property at a fixed purchase price after deduction of borrowings. If more than 75% of the shares are returned in this way, Vonovia has a call option for the purchase of all fund shares.

Taking into account the inheritable building rights already included in investment properties in the amount of € 732.0 million as of January 1, 2019, that were reclassified to right-of-use assets, this results in additions to right-of-use assets pursuant to IFRS 16 in the amount of € 266.0 million in total.

This is mainly composed of the first-time adoption of IFRS 16 as of January 1, 2019, in the amount of € 217.9 million, as well as additions resulting from business combinations in the amount of € 38.6 million.

For the investment properties encumbered with land charges in favor of various lenders, see chapter [E40] Non-derivative Financial Liabilities.

Directly Attributable Operating Expenses

Rental income from investment properties amounted to € 2,077.9 million during the fiscal year (2018: € 1,897.8 million). Operating expenses directly relating to these properties amounted to € 218.7 million during the fiscal year (2018: € 195.1 million). These include expenses for maintenance, ancillary costs that cannot be passed on to the tenants, personnel expenses from the caretaker and craftsmen’s organizations, and income from the capitalized internal expenses. The capitalized internal expenses relate to the work performed by the Group’s own craftsmen’s organization and the management costs for major modernization projects.

Long-Term Leases

Vonovia as a lessor has concluded long-term leases on commercial properties. These are non-cancelable leases. The minimum future lease receipts from these leases are due as follows:

in € million	Dec. 31, 2018	Dec. 31, 2019
Total minimum lease payments	82.1	124.2
Due within 1 year	25.8	29.2
Due in 1 to 5 years	50.7	58.6
Due after 5 years	5.6	36.4

Fair Values

The value of the entire portfolio of residential properties was determined on the basis of the International Valuation Standard Committee’s definition of market value. Portfolio premiums and discounts, which can be observed when portfolios are sold in market transactions, were not included. Nor were time restrictions in the marketing of individual properties. Vonovia determines fair value in accordance with the requirements of IAS 40 in conjunction with IFRS 13.

Vonovia, in principle, measures its portfolio on the basis of the discounted cash flow (DCF) procedure. The Austrian portfolio was valued by the in-house valuation department for the first time in 2019. Under the DCF methodology, the expected future income and costs of a property are forecast over a detailed period and discounted to the date of valuation as the net present value. The detailed period for the German portfolio is 10 years. Due to the particular market situation in Austria and in order to reflect the extensive Austrian rent restrictions, a sales scenario involving the recurring sales of apartments is assumed for a subportfolio. In order to present these sales in the correct accounting period, the detailed period for the Austrian DCF model has been extended to 100 years.

The income in the DCF model mainly comprises expected rental income (current in-place rent, market rents as well as their development) taking vacancy losses into account. In Austria, it also includes sales revenues from a subportfolio. The expected rental income is derived for each location from the latest rent indices and rent tables (including empirica, IVD, the Austrian Economic Chambers (WKÖ)) as well as from studies on spatial prosperity (Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR), Prognos, empirica, Bertelsmannstiftung, the Austrian statistical office, Statistik Austria, etc.). The expected sales revenues are derived from historical sale prices as well as market data (e. g., WKÖ, EHL).

On the cost side, maintenance expenses and administrative costs are taken into account. In Germany, these are taken into account in accordance with the II. Berechnungsverordnung and inflated in the reporting period (II. BV; German Regulation on Calculations for Residential Buildings in accordance with the Second Housing Construction Law, stipulating how economic viability calculations for homes are to be performed). These cost approaches are also transferred to the Austrian market. Further cost items are, for example, ground rents, non-allocable ancillary costs, rent losses and, in Austria, selling costs. Modernization measures carried out in the housing stocks are factored in by decreasing the current maintenance expenses and adjusting market rents.

On this basis, the forecast cash flows are calculated on an annual basis and discounted to the date of valuation as the net present value. In addition, the terminal value of properties in the German portfolio at the end of the ten-year period is determined using the expected stabilized net operating income and again discounted to the date of valuation as the net present value. The discount rate applied reflects the market situation, location, type of property, special property features (e. g., inheritable building rights, rent restrictions), the yield expectations of a potential investor and the risk associated with the forecast future cash flows of the property. The present value calculated in this way is reconciled to the market value by deducting standard market transaction costs, such as real estate transfer taxes, agent and notary costs. As the detailed period in the Austrian DCF model has been extended to 100 years in order to present the sales scenarios in the correct accounting period, no terminal value is applied here. The commercial properties in the portfolio are mainly small commercial units for the supply of the local residential environment. Different cost approaches are used to those for residential properties, and discount rates were adjusted to reflect the market specifics.

The valuation is, in principle, performed on the basis of homogeneous valuation units. These meet the criteria of economically cohesive and comparable land and buildings. They include:

> Geographical location (identity of the microlocation and geographical proximity)
> Comparable types of use, building class, construction year class and condition of property
> Same property features such as rent restrictions, inheritable building rights and full or part ownership

The Vonovia portfolio also contains project developments, existing areas with construction potential and land areas with inheritable building rights. Project developments are measured using the cost approach until the construction work is complete. If the project is then to be managed within Vonovia's own portfolio, it is measured at fair value using the DCF procedure described above once the construction work is complete. Existing areas with construction potential are valued using a comparable method on the basis of the local standard land value evaluated. Deductions are taken into account in particular for the readiness for construction and potential use as well as for likelihood of development and the development situation. Inheritable building rights granted are valued in the same way as the property portfolio using a DCF method. The input parameters here are the duration and amount of ground rent and the value of the land.

Vonovia determined the fair values of its real estate portfolio in Germany and Austria as of December 31, 2019 in its in-house valuation department on the basis of the methodology described above. The property assets are also assessed by the independent property appraiser CBRE GmbH. The market value resulting from the external review deviates from the internal valuation result by less than 0.1%.

For the portfolio of Victoria Park, the result of the external appraiser Savills Sweden AB in cooperation with Malmobryggan Fastighetsekonomi AB was applied. The valuation results of the external appraiser Savills Sweden AB were adopted for the Hembla portfolio. The fair values for the Swedish portfolio were also calculated using a DCF procedure that is comparable to the procedure used by Vonovia, as explained above.

The contractually fixed remuneration for the valuation report is not linked to the valuation results.

The right-of-use assets from leasehold contracts are recognized at their fair value. The fair value of the leasehold contracts corresponds to the present value of the standard market leasehold fee payments up until the end of the term of the hereditary building right in question. These are calculated based on the current amount of the ground rent. In order to calculate the present value, the leasehold fee payments are discounted using a property-specific interest rate.

The real estate portfolio of Vonovia is to be found in the items investment properties, property, plant and equipment (owner-occupied properties), real estate inventories, contract assets and assets held for sale. The fair value of the portfolio comprising residential buildings, commercial properties, garages and parking spaces, project developments, as well as undeveloped land and any inheritable building rights granted was € 53,316.4 million as of December 31, 2019 (Dec. 31, 2018: € 44,239.9 million). This corresponds to a net initial yield for the developed land of 3.1% (total portfolio including Sweden and Austria; Dec. 31, 2018: 3.4%). For Germany, this results in an in-place-rent multiplier of 23.5 for the portfolio (Dec. 31, 2018: 21.5) and a fair value per m² of € 1,893 (Dec. 31, 2018: € 1,677). The in-place-rent multiplier and fair value for the Austrian portfolio come to 24.7 and € 1,455 per m² (Dec. 31, 2018: 23.6 and € 1,346 per m²), while the values for Sweden come to 17.1 and € 1,899 per m² (Dec. 31, 2018: 14.6 and € 1,563 per m²).

The material valuation parameters for the investment properties (level 3) in the real estate portfolio are as follows as of December 31, 2019, broken down by regional markets:

Dec. 31, 2019	Valuation results*			
Regional market	Fair value (in € million)	thereof assets held for sale (in € million)	thereof owner-occupied properties (in € million)	thereof investment properties (in € million)
Berlin	7,450.0	1.7	5.9	7,442.4
Rhine Main area	4,432.0	12.1	5.6	4,414.3
Rhineland	3,822.7	5.8	7.4	3,809.5
Southern Ruhr area	3,850.5	7.5	3.9	3,839.1
Dresden	3,584.8	0.0	6.1	3,578.7
Hamburg	2,762.2	6.4	2.7	2,753.1
Munich	2,283.3	6.2	3.8	2,273.3
Stuttgart	2,122.9	1.5	2.0	2,119.3
Kiel	2,101.9	0.0	2.6	2,099.3
Hanover	1,873.5	3.4	2.2	1,868.0
Northern Ruhr area	1,696.9	6.7	5.3	1,684.9
Bremen	1,182.3	0.0	1.8	1,180.5
Leipzig	958.3	10.6	1.1	946.7
Westphalia	903.2	0.0	1.1	902.1
Freiburg	657.2	0.0	1.9	655.3
Other strategic locations	2,899.8	2.8	4.2	2,892.8
Total strategic locations	**42,581.5**	**64.7**	**57.6**	**42,459.3**
Non-strategic locations	694.7	64.6	2.0	628.1
Vonovia Germany	**43,276.2**	**129.3**	**59.5**	**43,087.4**
Vonovia Sweden**	5,642.0	0.0	0.0	5,642.0
Vonovia Austria**	2,654.9	0.4	0.0	2,654.4

* Fair value of the developed land excluding € 1,743.4 million for development, undeveloped land, inheritable building rights granted and other; € 1,058.2 million of this amount relates to investment properties. The investment properties balance sheet item also includes the present value in connection with payments for right-of-use assets in the amount of € 294.6 million.

** The valuation methods for the portfolio in Austria and Sweden use valuation parameters that are only partially comparable. Administrative and maintenance expenses are not shown separately.

Valuation parameters investment properties (Level 3)						
Management costs residential (€ per residential unit p. a.)	Maintenance costs total residential (per m² p. a.)	Market rent residential (per m² per month)	Market rent increase residential	Stabilized vacancy rate residential	Discount rate total	Capitalized interest rate total
258	14.10	7.79	1.8%	1.2%	4.3%	2.5%
278	14.14	9.10	1.8%	1.1%	4.9%	3.2%
275	13.78	8.00	1.7%	1.9%	5.1%	3.5%
272	12.69	6.76	1.5%	2.6%	5.1%	3.8%
243	14.19	6.74	1.7%	2.2%	5.2%	3.7%
263	14.37	8.22	1.6%	1.3%	4.7%	3.3%
266	14.03	11.22	1.9%	0.6%	4.6%	2.9%
276	14.48	9.07	1.8%	1.3%	5.0%	3.3%
263	14.58	7.22	1.7%	1.7%	5.3%	3.8%
264	14.08	7.29	1.7%	2.0%	5.0%	3.5%
273	13.24	6.26	1.2%	3.4%	5.5%	4.5%
268	13.21	6.74	1.8%	2.1%	5.1%	3.5%
258	14.78	6.52	1.8%	3.2%	5.1%	3.5%
268	13.20	6.95	1.5%	1.9%	5.1%	3.8%
274	15.05	8.21	1.7%	1.0%	4.6%	3.0%
273	14.09	7.39	1.6%	2.3%	5.2%	3.7%
266	**13.88**	**7.57**	**1.7%**	**1.9%**	**4.9%**	**3.4%**
269	14.56	7.34	1.7%	2.4%	5.2%	3.4%
266	**13.89**	**7.57**	**1.7%**	**1.9%**	**4.9%**	**3.4%**
n. a.	n. a.	9.76	2.0%	0.9%	5.7%	3.7%
n. a.	19.25	5.38	1.6%	1.6%	5.6%	n. a.

Dec. 31, 2018 Regional market	Valuation results* Fair value (in € million)	thereof assets held for sale (in € million)	thereof owner-occupied properties (in € million)	thereof investment properties (in € million)
Berlin	6,535.9	2.5	5.4	6,527.9
Rhine Main area	3,949.6	20.9	6.3	3,922.4
Rhineland	3,424.5	2.8	7.9	3,413.8
Southern Ruhr area	3,354.0	5.4	4.2	3,344.3
Dresden	3,104.1	0.0	5.5	3,098.6
Hamburg	2,456.1	0.3	3.0	2,452.8
Munich	2,050.6	9.8	3.1	2,037.7
Stuttgart	1,935.6	4.8	1.8	1,929.0
Kiel	1,909.9	0.0	2.5	1,907.4
Hanover	1,622.7	0.4	1.8	1,620.5
Northern Ruhr area	1,566.8	12.1	4.5	1,550.2
Bremen	1,071.2	0.0	2.6	1,068.6
Leipzig	867.6	0.1	1.0	866.5
Westphalia	783.2	0.0	1.1	782.1
Freiburg	602.4	0.2	2.0	600.2
Other strategic locations	2,604.6	6.1	3.9	2,594.7
Total strategic locations	**37,838.9**	**65.3**	**56.9**	**37,716.7**
Non-strategic locations	789.5	29.0	1.4	759.2
Vonovia Germany	**38,628.4**	**94.3**	**58.2**	**38,475.8**
Vonovia Sweden**	1,737.7	0.0	0.0	1,737.7
Vonovia Austria**	2,517.0	0.0	0.0	2,517.0

* Fair value of the developed land excluding € 1,356.8 million in development, undeveloped land, inheritable building rights granted and other, thereof € 760.4 million in investment properties.
** The valuation methods used for the portfolio in Austria and Sweden use valuation parameters that are only partially comparable. Administrative and maintenance expenses are not shown separately.

The inflation rate applied to the valuation procedure comes to 1.6%. Net income from the valuation of investment properties amounted to € 4,131.5 million in the 2019 fiscal year (Dec. 31, 2018: € 3,517.9 million). For the Austrian portfolio, a sales strategy with an average selling price of € 2,053 per m² was assumed for 56.5% of the properties.

Sensitivity Analyses

The sensitivity analyses performed on Vonovia's real estate portfolio show the impact of the value drivers influenced by the market. Those influenced in particular are the market rents and their development, the amount of recognized administrative and maintenance expenses, cost increases, the vacancy rate and interest rates. The effect of possible fluctuations in these parameters is shown separately for each parameter according to regional market in the following.

Interactions between the parameters are possible but cannot be quantified owing to the complexity of the interrelationships. The vacancy and market rent parameters, for example, can influence each other. If rising demand for housing is not met by adequate supply developments, then this can result in lower vacancy rates and, at the same time, rising market rents. If, however, the rising demand is compensated for by a high vacancy reserve in the location in question, then the market rent level does not necessarily change.

Changes in the demand for housing can also impact the risk associated with the expected payment flows, which is then reflected in adjusted amounts recognized for discounting and capitalized interest rates. The effects do not, however, necessarily have to have a favorable impact on each other, for example, if the changes in the demand for residential real estate are overshadowed by macroeconomic developments.

Management costs residential (€ per residential unit p. a.)	Maintenance costs total residential (per m² p. a.)	Market rent residential (per m² per month)	Market rent increase residential	Stabilized vacancy rate residential	Discount rate total	Capitalized interest rate total
Valuation parameters investment properties (Level 3)						
251	14.29	7.38	1.8%	1.3%	4.4%	2.7%
274	14.20	8.81	1.8%	1.2%	5.1%	3.5%
271	13.81	7.68	1.7%	2.0%	5.3%	3.8%
267	12.78	6.42	1.5%	2.5%	5.4%	4.1%
239	14.36	6.73	1.7%	2.0%	5.6%	4.2%
259	14.50	8.03	1.6%	1.4%	5.0%	3.6%
262	13.88	10.66	1.8%	0.6%	4.8%	3.1%
272	14.41	8.73	1.8%	1.3%	5.2%	3.5%
259	14.62	6.80	1.6%	1.7%	5.2%	3.9%
260	14.14	7.03	1.7%	2.0%	5.4%	3.9%
269	13.33	6.06	1.2%	3.4%	5.7%	4.8%
264	13.25	6.33	1.8%	2.1%	5.2%	3.6%
255	14.65	6.33	1.7%	3.6%	5.3%	3.8%
264	13.41	6.65	1.5%	1.8%	5.5%	4.2%
270	14.86	7.96	1.7%	0.9%	4.8%	3.2%
268	14.46	7.20	1.6%	2.3%	5.4%	4.0%
262	**13.98**	**7.29**	**1.7%**	**1.9%**	**5.2%**	**3.6%**
259	14.50	6.90	1.7%	2.8%	5.5%	3.9%
262	**13.99**	**7.28**	**1.7%**	**2.0%**	**5.2%**	**3.6%**
n. a.	n. a.	9.20	2.0%	0.7%	6.1%	4.2%
n. a.	n. a.	5.87	0.9%	n. a.	5.2%	n. a.

In addition, factors other than demand can have an impact on these parameters. Examples include changes in the portfolio, in seller and buyer behavior, political decisions and developments on the capital market.

The table below shows the percentage impact on values in the event of a change in the valuation parameters. The absolute impact on values is calculated by multiplying the percentage impact by the fair value of the investment properties.

Dec. 31, 2019	Change in value in % under varying parameters		
	Management costs residential	Maintenance costs residential	Cost increase/inflation
Regional market	-10%/10%	-10%/10%	-0.5%/+0.5% points
Berlin	0.5/-0.5	1.6/-1.6	5.0/-5.1
Rhine Main area	0.5/-0.5	1.4/-1.4	3.0/-3.2
Rhineland	0.5/-0.5	1.7/-1.7	3.6/-3.7
Southern Ruhr area	0.8/-0.8	2.2/-2.2	4.4/-4.5
Dresden	0.7/-0.7	2.1/-2.1	4.2/-4.4
Hamburg	0.5/-0.5	1.8/-1.8	4.0/-4.1
Munich	0.3/-0.3	1.2/-1.2	3.4/-3.6
Stuttgart	0.5/-0.5	1.5/-1.5	3.1/-3.2
Kiel	0.7/-0.7	2.1/-2.1	4.0/-4.2
Hanover	0.6/-0.6	1.9/-1.9	4.0/-4.1
Northern Ruhr area	0.9/-0.9	2.7/-2.7	4.4/-4.6
Bremen	0.7/-0.7	2.0/-2.0	4.7/-4.8
Leipzig	0.7/-0.7	2.2/-2.2	4.7/-4.9
Westphalia	0.7/-0.7	2.2/-2.2	4.2/-4.3
Freiburg	0.5/-0.5	1.7/-1.7	3.9/-4.0
Other strategic locations	0.6/-0.6	2.0/-2.0	3.8/-3.9
Total strategic locations	**0.6/-0.6**	**1.8/-1.8**	**4.1/-4.2**
Non-strategic locations	0.6/-0.6	2.3/-2.2	6.1/-6.1
Vonovia Germany	**0.6/-0.6**	**1.8/-1.8**	**4.1/-4.2**
Vonovia Sweden*	n. a.	n. a.	2.0/-2.0
Vonovia Austria*	n. a.	0.4/-0.4	0.3/-0.4

* The valuation methods for the portfolio in Austria and Sweden use valuation parameters that are only partially comparable. Administrative and maintenance expenses are not shown separately.

Change in value in % under varying parameters			
Market rent residential	Market rent increase residential	Stabilized vacancy rate residential	Discounting and capitalized interest rates total
-2.0% / +2.0%	-0.2% / +0.2% points	-1% / +1% points	-0.25% / +0.25% points
-2.4 / 2.3	-9.2 / 11.2	1.5 / -1.7	11.4 / -9.3
-2.3 / 2.3	-6.9 / 8.0	1.1 / -1.5	8.5 / -7.2
-2.3 / 2.3	-6.7 / 7.7	1.6 / -1.6	8.0 / -6.9
-2.5 / 2.4	-6.7 / 7.6	1.9 / -1.9	7.3 / -6.4
-2.5 / 2.4	-6.7 / 7.6	1.8 / -1.8	7.6 / -6.6
-2.3 / 2.3	-7.2 / 8.5	1.2 / -1.6	8.8 / -7.4
-2.1 / 2.1	-7.8 / 9.2	0.7 / -1.4	10.1 / -8.5
-2.2 / 2.3	-6.7 / 7.8	1.4 / -1.5	8.2 / -7.0
-2.4 / 2.4	-6.5 / 7.4	1.8 / -1.8	7.2 / -6.3
-2.3 / 2.3	-6.8 / 7.8	1.7 / -1.7	7.8 / -6.8
-2.6 / 2.6	-5.9 / 6.6	2.1 / -2.1	6.0 / -5.3
-2.3 / 2.3	-7.2 / 8.3	1.8 / -1.8	8.2 / -7.1
-2.5 / 2.5	-7.1 / 8.1	1.8 / -1.8	7.9 / -6.9
-2.3 / 2.3	-6.5 / 7.4	1.8 / -1.9	7.2 / -6.3
-2.4 / 2.3	-7.6 / 8.9	1.1 / -1.6	9.1 / -7.7
-2.4 / 2.4	-6.6 / 7.5	1.7 / -1.7	7.4 / -6.5
-2.4 / 2.3	**-7.2 / 8.4**	**1.5 / -1.7**	**8.6 / -7.3**
-2.5 / 2.4	-8.9 / 10.5	1.9 / -1.8	10.4 / -8.8
-2.4 / 2.3	**-7.3 / 8.4**	**1.5 / -1.7**	**8.6 / -7.3**
-3.0 / 3.0	-1.4 / 1.4	1.0 / -1.5	6.0 / -5.2
-0.2 / 0.2	-0.6 / 0.7	0.9 / -0.9	4.3 / -3.9

Dec. 31, 2018	Change in value in % under varying parameters		
	Management costs residential	Maintenance costs residential	Cost increase/inflation
Regional market	-10% / 10%	-10% / 10%	-0.5% / +0.5% points
Berlin	0.5 / -0.5	1.7 / -1.7	4.7 / -4.8
Rhine Main area	0.5 / -0.5	1.5 / -1.5	2.9 / -3.0
Rhineland	0.5 / -0.5	1.8 / -1.8	3.4 / -3.6
Southern Ruhr area	0.8 / -0.8	2.4 / -2.3	4.4 / -4.5
Dresden	0.7 / -0.7	2.1 / -2.1	3.9 / -4.0
Hamburg	0.6 / -0.6	1.8 / -1.8	3.4 / -3.5
Munich	0.4 / -0.4	1.2 / -1.2	3.4 / -3.5
Stuttgart	0.5 / -0.5	1.5 / -1.5	3.0 / -3.2
Kiel	0.8 / -0.8	2.1 / -2.1	2.7 / -2.9
Hanover	0.6 / -0.6	2.0 / -2.0	3.5 / -3.7
Northern Ruhr area	1.0 / -1.0	2.8 / -2.8	4.4 / -4.6
Bremen	0.8 / -0.7	2.2 / -2.2	4.9 / -5.0
Leipzig	0.7 / -0.7	2.3 / -2.3	4.8 / -4.9
Westphalia	0.7 / -0.7	2.4 / -2.4	4.0 / -4.1
Freiburg	0.5 / -0.5	1.8 / -1.7	3.7 / -3.8
Other strategic locations	0.6 / -0.7	2.0 / -2.0	3.3 / -3.4
Total strategic locations	**0.6 / -0.6**	**2.1 / -2.0**	**3.0 / -3.1**
Non-strategic locations	0.6 / -0.6	1.9 / -1.9	3.8 / -3.9
Vonovia Germany	**0.6 / -0.6**	**1.9 / -1.9**	**3.8 / -3.9**
Vonovia Sweden*	n. a.	n. a.	1.5 / -1.5
Vonovia Austria*	n. a.	n. a.	n. a.

* The valuation methods for the portfolio in Austria and Sweden use valuation parameters that are only partially comparable. Administrative and maintenance expenses are not shown separately.

Contractual Obligations

In connection with major acquisitions, Vonovia entered into contractual obligations or assumed such obligations indirectly via acquired companies, among other things in the form of Social Charters, which could limit its ability to freely sell parts of its portfolio, increase rents or terminate existing rent agreements for certain units and which, in the event of a breach, could give rise to substantial contractual penalties in some cases. Moreover, when acquiring and financing some of the properties in the portfolio, Vonovia also entered into an obligation to spend a certain average amount per square meter on maintenance and improvements.

After a certain period of time, these obligations often cease to apply either in full or in part. As of December 31, 2019, around 139,000 residential units in Vonovia's portfolio were subject to one or several contractual restrictions or other obligations.

> **Sale restrictions:** As of December 31, 2019, around 64,000 units were subject to sale restrictions (excl. occupancy rights). Around 18,000 of these units cannot be freely sold before a certain date. Sale restrictions like these include a full or partial ban on the sale of residential units and provisions requiring the consent of certain representatives of the original seller prior to sale.

> **Preemptive rights on preferential terms:** Around 7,000 residential units from the "Recurring Sales" subportfolio can only be sold if the tenants are offered preemptive rights on preferential terms. This means that Vonovia is obliged to offer these tenants the residential units at a price that is up to 15% below the price that could be achieved by selling the units in question to third parties.

> **Restrictions on the termination of rent agreements:** Around 102,000 residential units are affected by restrictions on the termination of rent agreements. These restrictions include notice to vacate for personal use and notice to vacate for appropriate commercial utilization. In some cases, units are covered by a lifelong ban on the termination of rent agreements.

Change in value in % under varying parameters			
Market rent residential	Market rent increase residential	Stabilized vacancy rate residential	Discounting and capitalized interest rates total
-2.0%/+2.0%	-0.2%/+0.2% points	-1%/+1% points	-0.25%/+0.25% points
-2.3/2.3	-8.7/10.4	1.7/-1.7	10.6/-8.8
-2.3/2.3	-6.4/7.3	1.2/-1.6	7.7/-6.7
-2.3/2.3	-6.3/7.1	1.7/-1.8	7.3/-6.4
-2.4/2.5	-6.4/7.2	2.1/-2.1	6.8/-6.0
-2.5/2.5	-6.1/6.9	1.9/-1.9	6.8/-6.0
-2.1/2.1	-6.6/7.6	1.3/-1.7	8.0/-6.9
-2.1/2.1	-7.4/8.7	0.8/-1.5	9.5/-8.0
-2.2/2.2	-6.4/7.3	1.4/-1.6	7.6/-6.6
-2.1/2.0	-5.8/6.6	1.8/-1.8	6.9/-6.1
-2.3/2.2	-6.2/7.0	1.8/-1.8	7.1/-6.3
-2.6/2.6	-5.7/6.3	2.3/-2.3	5.6/-5.1
-2.3/2.3	-6.9/8.0	1.9/-1.9	7.7/-6.6
-2.5/2.5	-6.8/7.8	2.0/-2.0	7.5/-6.5
-2.3/2.3	-6.0/6.8	1.9/-2.0	6.5/-5.8
-2.3/2.3	-7.2/8.5	1.3/-1.7	8.6/-7.3
-2.2/2.2	**-6.0/6.8**	**1.7/-1.8**	**6.9/-6.0**
-2.2/2.4	**-6.6/7.7**	**2.1/-1.8**	**8.0/-7.0**
-2.3/2.3	-6.8/7.8	1.7/-1.8	7.9/-6.8
-2.3/2.3	**-6.8/7.8**	**1.7/-1.8**	**7.9/-6.8**
-3.0/3.0	-1.3/1.3	1.2/-1.7	5.3/-4.7
-0.1/0.1	n. a.	n. a.	4.2/-3.8

> **Expenses for minimum maintenance and restrictions on maintenance and modernization measures:** Around 57,000 apartments are subject to minimum maintenance obligations. As a minimum maintenance obligation no longer applies, the weighted average of the annual necessary spending on maintenance and modernization has changed to € 10.84 per m². Furthermore, around 55,000 residential units are affected by restrictions relating to modernization and maintenance measures, which are designed to prevent changes in socio-economic tenant composition (i. e., to limit luxury modernization). Some of the restrictions to prevent luxury modernization have been agreed on a permanent basis.

> **Restrictions on rent increases:** Restrictions on rent increases (including provisions stating that "luxury modernization" measures are subject to approval) affect around 65,000 residential units. These restrictions could prevent Vonovia from realizing the rent that could potentially be generated from the units in question.

In many cases, in the event that all or part of a portfolio is transferred or individual residential units are sold, the aforementioned obligations are to be assumed by the buyers, who are in turn subject to the obligation to pass them on to any future buyers.

Under structured financing programs, Vonovia is subject to fundamental restrictions on the use of excess property disposal proceeds, such restrictions being particularly in the form of mandatory minimum capital repayments. Excess cash from property management is also restricted to a certain extent.

All contractual obligations that have a material impact on the valuation were taken into account accordingly.

29 Financial Assets

in € million	Dec. 31, 2018 non-current	Dec. 31, 2018 current	Dec. 31, 2019 non-current	Dec. 31, 2019 current
Non-consolidated subsidiaries	–	–	2.0	–
Joint venture investments valued at equity	29.1	–	29.5	–
Other investments	792.1	–	140.2	–
Loans to other investments	33.4	–	33.3	–
Securities	4.0	–	4.4	–
Other non-current loans	10.2	–	11.7	–
Derivatives	20.0	0.8	32.4	0.7
	888.8	**0.8**	**253.5**	**0.7**

Accounting Policies

Financial assets are recognized in the balance sheet when Vonovia becomes a contracting party of the financial instrument. A financial asset is derecognized when the contractual rights to the cash flows from a financial asset expire, or the financial asset is transferred and Vonovia neither retains control nor retains material risks and rewards associated with ownership of the financial asset.

In accordance with IFRS 9, the **classification of financial assets** takes into account both the business model in which financial assets are held and the characteristics of the cash flows of the assets in question. These criteria determine whether the assets are measured at amortized cost using the effective interest method or at fair value.

With regard to the business model criterion, all financial investments at Vonovia are to be assigned to the "hold to collect" model pursuant to IFRS 9.4.1.2(a). Whenever financial investments are categorized as equity instruments, Vonovia has exercised the irrevocable option to state future changes to the fair value under other comprehensive income in equity. Gains and losses recognized in other comprehensive income are never reclassified from total equity to the income statement on their disposal.

The carrying amount of financial assets corresponds to maximum risk of loss as of the reporting date.

In the previous year, other investments include € 672.8 million attributable to shares in Deutsche Wohnen SE which were sold to institutional investors with effect from February 1, 2019, as part of an accelerated book building procedure. On the other hand, the increase in the value of the shares in OPPCI JUNO, Paris, affects their fair value of € 104.1 million (Dec. 31, 2018: € 87.0 million).

The loans to other investments not yet due relate to a loan to the property fund DB Immobilienfonds 11 Spree-Schlange von Quistorp KG.

Derivatives include positive market values from cross currency swaps in the amount of € 29.1 million (Dec. 31, 2018: € 15.7 million), together with positive market values in the amount of € 3.3 million (Dec. 31, 2018: € 4.3 million) from embedded derivatives and other interest rate derivatives.

30 Other Assets

in € million	Dec. 31, 2018 non-current	Dec. 31, 2018 current	Dec. 31, 2019 non-current	Dec. 31, 2019 current
Right to reimbursement for transferred pensions	4.7	–	4.4	-
Receivables from insurance claims	1.2	16.6	0.8	14.9
Miscellaneous other assets	6.3	97.8	49.5	123.1
	12.2	**114.4**	**54.7**	**138.0**

The right to reimbursement for transferred pensions is in connection with the indirect obligation shown under provisions for pensions arising from pension obligations transferred to former affiliated companies of the Viterra Group.

The receivables from insurance claims include the recognition of the excess of the fair value of plan assets over the corresponding pre-retirement part-time work arrangement obligations amounting to € 0.8 million (Dec. 31, 2018: € 0.2 million).

The increase in non-current miscellaneous other assets is due to payments made in advance for property acquisitions that will only result in legally effective transfers in 2020.

31 Income Tax Receivables

The income tax receivables disclosed relate to corporate income tax and trade tax receivables for the current fiscal year and prior years as well as capital gains tax.

The decrease in the financial year 2019 mainly results from reimbursement of capital gains tax including solidarity surcharge paid in 2018 in the amount of € 65.5 million.

32 Inventories

Accounting Policies

Inventories are valued at cost or at their net realizable value, whichever is lower.

The raw materials and supplies recognized relate to repair materials for our craftsmen's organization.

33 Trade Receivables

The trade receivables break down as follows:

	Impaired		Not impaired						Carrying amount
in € million	Gross amount	Impairment losses	Neither impaired nor past due at the end of the reporting period	less than 30 days	between 30 and 90 days	between 91 and 180 days	between 181 and 360 days	more than 360 days	Corresponds to maximum risk of loss*
Receivables from the sale of investment properties	6.2	-4.5	49.8	2.5	7.5	2.6	1.5	1.0	66.6
Receivables from the sale of real estate properties			26.2						26.2
Contract assets			57.8		0.0	1.4	0.2		59.4
Receivables from property letting	76.0	-34.3							41.7
Receivables from other management			2.3						2.3
Receivables from other supplies and services	11.0	-1.5							9.5
As of Dec. 31, 2019	**93.2**	**-40.3**	**136.1**	**2.5**	**7.5**	**4.0**	**1.7**	**1.0**	**205.7**
Receivables from the sale of investment properties	5.6	-3.1	186.7	18.8	2.6	34.6	3.0	10.4	258.6
Receivables from the sale of real estate properties			71.0						71.0
Contract assets			107.7	3.4	1.2	0.2			112.5
Receivables from property letting	80.7	-36.3							44.4
Receivables from other management			0.5						0.5
Receivables from other supplies and services	6.0	-0.1							5.9
As of Dec. 31, 2018	92.3	-39.5	365.9	22.2	3.8	34.8	3.0	10.4	492.9

* The maximum default risk on the receivables from the sale of properties is limited to the margin and the transaction unwinding costs as the title to the properties remains with Vonovia as security until receipt of payment.

Accounting Policies

Impairment losses on financial assets are determined based on the expected credit loss model. The guiding principle of the model is to reflect the general pattern of deterioration or improvement in the credit quality of financial instruments, taking losses that are already expected into account. The IFRS 9 approach includes the following measurement levels:

> Level 1: Twelve-month expected credit losses (ECLs), which applies to all items (from initial recognition) as long as there is no significant deterioration in credit quality.
> Level 2: Lifetime ECLs (homogeneous debtor portfolios), which applies when a significant increase in credit risk has occurred on an individual or a collective basis of financial instruments.
> Level 3: Lifetime ECLs (based on an individual assessment): If an individual assessment of assets produces objective indications of a need for impairment, then an assessment of the entire maturity of the financial instrument is decisive.

The simplified impairment approach is used with regard to **trade receivables** (e.g., rent receivables, receivables from ancillary costs, receivables from the sale of properties) and for **contract assets** pursuant to IFRS 15. This means that there is no need to track the changes in credit risk. Instead, Vonovia has to set up loan loss provisions in the amount of the lifetime expected credit losses both at the time of initial recognition and on each following reporting date.

The carrying amounts of current trade receivables correspond to their fair values.

The receivables from the sale of real estate inventories and the contract assets reported in the current fiscal year result entirely from the takeover of BUWOG.

In principle, all impaired trade receivables are due and payable. As regards the trade receivables that are neither impaired nor past due, there was no indication on the reporting date that the debtors would not meet their payment obligations.

Receivables from the sale of properties arise on economic transfer of ownership. The due date of the receivable may, however, depend on the fulfillment of contractual obligations. Some purchase contracts provide for the purchase price to be deposited in an escrow account. Impairment losses for doubtful debts are recorded up to the amount of the posted proceeds from sales.

Vonovia's receivables from property letting generally arise at the beginning of the month, are of a short-term nature and result from claims in relation to tenants relating to operating business activities. Due to the (subsequent) measurement at amortized cost, an impairment test has to be performed. The receivables fall under the scope of the calculation of expected credit losses.

In accordance with the general provisions set out in IFRS 9, expected credit losses are to be recognized using the simplified approach for current trade receivables without any significant financing component.

Irrespective of their term, Vonovia initially assigns receivables to level 2 of the impairment model. In the further course, they need to be moved to level 3 of the impairment model if there is objective evidence of impairment. The transfer from level 2 to level 3 is to be made at the latest when the contractual payments have been overdue for more than 90 days. This assumption can, however, be refuted in individual cases if there are no other objective indications pointing toward a default. Receivables always have to be transferred to the next level if a legally enforceable instrument has been obtained against the tenant as part of a dunning procedure. If the objective evidence of impairment ceases to apply, the receivable is transferred (back) to level 2 of the impairment model.

If Vonovia becomes aware of any major changes in market conditions and/or a debtor's circumstances, it reevaluates the expected credit losses without delay. This procedure ensures that receivables are transferred to the right level in the impairment model as soon as possible.

Vonovia uses a credit loss matrix when calculating expected credit losses for trade receivables. The matrix is based on historical default rates and takes current expectations into account, including macroeconomic indicators (e.g., GDP). The matrix can be used to calculate the expected credit losses for various homogeneous portfolios.

In order to create portfolios for the purpose of assessing the probability of default, the individual clusters of receivables need to have homogeneous credit risk characteristics. As far as receivables from its operating business activities are concerned, i.e., the rental of residential properties, Vonovia makes a distinction between receivables from existing tenants and receivables from former tenants. Both portfolios include current receivables that are exposed to a low level of volatility, as the company's core operating business is hardly exposed to any major fluctuations. The main effects on receivables in the past are attributable to corporate takeovers by Vonovia.

Calculation Method for Receivables from Former Tenants
The calculation of the probability of default is based on the results of an analysis of the historical probability of default. Cash flows relating to outstanding receivables over the last three years have been analyzed and an average amount of incoming payments for the year in question was calculated on a monthly basis. The average monthly incoming payments were compared against the average monthly receivables for the year in question. Ultimately, Vonovia has been able to collect approx. 4.5% of the average receivables over the last three years. This means that Vonovia sets up risk provisions corresponding to a rounded total of 95% for its receivables from former tenants.

The loss given default comprises the following:

The receivables of former tenants that are being analyzed (amount of the receivable at the time of default) are corrected to reflect retained deposits that serve as security for Vonovia. This is already taken into account as part of the calculation method used for the probability of default.

The average receivables taken as a basis do not include receivables subject to specific valuation allowances that were written off in full.

Receivables from Existing Tenants
When it comes to determining the probability of default with regard to receivables associated with ongoing lease agreements, Vonovia analyzes those receivables that have actually been derecognized over the last three years. This is performed systematically by way of a receivables management system according to the aspects receivables relating to ancillary expenses, net rent, rent adjustments and payment difficulties.

Impairment losses on trade receivables developed as follows:

in € million	
Impairment losses as of Jan. 1, 2019	39.5
Addition	30.5
Addition due to business combinations	1.5
Utilization	-29.3
Reversal	-1.9
Impairment losses as of Dec. 31, 2019	**40.3**
Impairment losses as of Jan. 1, 2018	41.8
Addition	24.1
Addition due to business combinations	6.9
Utilization	-30.8
Reversal	-2.5
Impairment losses as of Dec. 31, 2018	39.5

Within the impairment losses on receivables from property letting, the risk provisions are generally taken into account as follows: For existing tenants, a risk provision corresponding to between 18% and 40% of the receivables, in a total amount of € 7.8 million (Dec. 31, 2018: € 8.1 million), was set up depending on the term. In cases involving payment difficulties, the provision corresponded to between 40% and 95% of the receivables and amounted to € 4.9 million in total (Dec. 31, 2018: € 4.9 million). The risk provisions for former tenants correspond to 85% to 95% of the receivables and amount to € 17.2 million in total (Dec. 31, 2018: € 13.4 million).

For contracts with customers who are assigned to Vonovia's development business, the payment terms pursuant to Section 3 (2) of the Real Estate Agent and Commercial Contractor Regulation (MaBV) generally apply in Germany. Customers also have a contractual obligation to present a financing commitment issued by a credit institution for the entire purchase price. Otherwise, Vonovia is entitled to withdraw from the agreement. In Austria, the installment plan pursuant to Section 10 (2) of the Austrian Property Development Contract Act (BTVG) is normally applied, with customers obliged to pay the entire purchase price into an escrow account. Due to the structure of the standard payment terms in the development business, no separate impairment losses are taken into account on corresponding receivables from customer contracts.

For example, receivables are derecognized if tenants die and have no heirs, if they move to an unknown location or move abroad, if execution is impossible for the court bailiff, in cases involving bankruptcy or if a settlement was reached.

The following table shows the expenses for the full derecognition of receivables, as well as income from the receipt of derecognized receivables:

in € million	2018	2019
Expenses for the derecognition of receivables	2.8	1.9
Income from the receipt of derecognized receivables	3.8	7.1

34 Cash and Cash Equivalents

Accounting Policies

Cash and cash equivalents include cash on hand, checks and deposits at banking institutions as well as marketable securities with an original term of up to three months.

Cash and cash equivalents are measured using the general impairment approach in accordance with IFRS 9.

Cash and cash equivalents include cash on hand, checks and deposits at banking institutions totaling € 500.7 million (Dec. 31, 2018: € 547.7 million).

In the amount of € 97.3 million (Dec. 31, 2018: € 57.2 million) of the bank balances are restricted with regard to their use.

35 Real Estate Inventories

Accounting Policies

The **development business related to the acquisition** refers to subsidized or independently financed condominiums that are under construction or have already been completed. These properties are not held with the aim of generating rental income or achieving increases in value within the meaning of IAS 40, but rather are developed and constructed to be sold at a later date.

These development projects are recognized depending on whether there is a customer contract for the residential units that are intended for sale. If this is not the case, a valuation in accordance with IAS 2 at the lower of amortized cost and net realizable value is performed due to the intention to sell, with a corresponding disclosure under real estate inventories.

Recognized real estate inventories in the amount of € 358.3 million (Dec. 31, 2018: € 307.1 million) mainly concern development projects. These are projects to construct residential units planned for sale that are currently being built or that have been completed but have not yet been sold. The item also includes undeveloped land that will be used for future project developments.

36 Assets Held for Sale

Accounting Policies

To be classified as **held for sale**, the **assets** must be available for immediate sale in their present condition subject only to terms that are usual and customary for sales of such assets, 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, an active program to locate a buyer and complete the plan has been initiated, the asset is being actively marketed for sale at a reasonable price, and a sale is expected to be completed within one year of the date on which the asset is classified as held for sale.

Vonovia accounts for investment properties as assets held for sale when notarized purchase contracts have been signed or a declaration of intent to purchase has been signed by both parties as of the reporting date but transfer of title will, under the contract, not take place until the subsequent reporting period. Initially they are recognized at the contractually agreed selling price and subsequently at fair value following deductions for costs to sell, if the latter is lower.

The assets held for sale include properties totaling € 134.1 million (Dec. 31, 2018: € 105.9 million) for which notarized purchase contracts had already been signed as of the reporting date.

Section (E): Capital Structure

37 Total Equity

Accounting Policies

Other comprehensive income includes changes in total comprehensive income not affecting net income except that resulting from capital transactions with equity holders (e. g., capital increases or dividend distributions). Vonovia includes under this item unrealized gains and losses from the fair value measurement of equity instruments and derivative financial instruments that are designated as cash flow hedges. The item also includes actuarial gains and losses from defined benefit pension commitments as well as certain currency translation differences.

The **other reserves** contain cumulative changes in equity not affecting income. At Vonovia, the effective portion of the net change in the fair value of cash flow hedging instruments, the equity instruments at fair value as well as currency translation differences are recognized in other comprehensive income.

The other reserves from cash flow hedges and from currency translation differences can be reclassified. When the underlying hedged item of the cash flow hedge affects net income, the reserves attributable thereto are reclassified to profit or loss. If a foreign business is disposed of, the reserves attributable thereto are reclassified.

Development of the Subscribed Capital

in €

As of Jan. 1, 2019	518,077,934.00
Capital increase against cash contributions on May 16, 2019	16,500,000.00
Capital increase against non-cash contributions on June 13, 2019 (scrip dividend)	7,695,677.00
As of Dec. 31, 2019	**542,273,611.00**

Development of the Capital Reserves

in €

As of Jan. 1, 2019	7,183,423,174.39
Premium from capital increase on May 16, 2019	727,650,000.00
Premium from capital increase for scrip dividend on June 13, 2019	333,622,989.30
Transaction costs on the issue of new shares (after allowing for deferred taxes)	-5,047,506.00
Other changes not affecting net income	44,919.29
As of Dec. 31, 2019	**8,239,693,576.98**

Cash Capital Increase

On May 13, 2019, with the agreement of the Supervisory Board's Finance Committee, Vonovia SE increased the share capital in return for a cash contribution, partially using the 2018 authorized capital and excluding a subscription right, by € 16,500,000.00 from € 518,077,934.00 to € 534,577,934.00. The increase was entered in the commercial register on May 16, 2019.

The 16,500,000 new no-par-value registered shares were placed with institutional investors in the scope of a private placement by means of an accelerated book building procedure and carry dividend rights as of January 1, 2019.

The shares were granted at a placement price of € 45.10 per share, delivering issue proceeds to Vonovia SE in the amount of € 744.2 million before commission and expenses. The net issue proceeds from the capital increase were used to refinance the acquisition of a Swedish real estate portfolio by Vonovia's Swedish subsidiary, Victoria Park AB, at Group level and to finance future growth, with the remaining portion being used for general business purposes.

Dividend

The Annual General Meeting held on May 16, 2019, resolved to pay a dividend for the 2018 fiscal year in the amount of € 1.44 per share.

As in previous years, shareholders were offered the option of choosing between being paid the dividend in cash or being granted new shares. During the subscription period, shareholders holding a total of 45.8% of the shares carrying dividend rights opted for the scrip dividend as opposed to the cash dividend. As a result, 7,695,677 new shares were issued using the company's authorized capital pursuant to Section 5b of the Articles of Association ("2018 authorized capital") at a subscription price of € 44.352, i. e., a total amount of € 341,318,666.30. This means that the total number of Vonovia's shares has risen to 542,273,611. The total amount of the dividend distributed in cash therefore came to € 404,713,558.66.

Authorized Capital

After being used in connection with the two capital increases in 2019, the 2018 authorized capital fell by € 24,195,677.00 from € 242,550,413.00 to € 218,354,736.00 as of December 31, 2019. Shareholder subscription rights for the 2018 authorized capital can be excluded.

Retained Earnings

As of December 31, 2019, retained earnings amounted to € 10,534.4 million (Dec. 31, 2018: € 9,942.0 million). This figure includes actuarial gains and losses of € -104.6 million (Dec. 31, 2018: € -69.0 million), which cannot be reclassified and therefore may no longer be recognized in profit or loss in subsequent reporting periods. The changes not affecting net income in the amount of € -42.3 million mainly include additional purchases of shares in Victoria Park, which are not classified as a linked transaction and the allocation of guaranteed dividends.

Other Reserves

The changes in the equity instruments at fair value in other comprehensive income are mainly due to the sale of around 16.8 million shares in Deutsche Wohnen SE with effect from February 1, 2019 to institutional investors as part of an accelerated book building procedure at a price per share of € 41.50. This results in total proceeds of € 698.1 million. The total profit of € 292.6 million was reclassified, without affecting net income, from other reserves to retained earnings pursuant to the designation under IFRS 9 when the transaction was completed.

Changes in other comprehensive income during the period in the amount of € 38.1 million (2018: € 77.5 million) relate primarily to the increase in the price of shares in Deutsche Wohnen SE up until the time of sale, the increase in the value of the non-current equity investment in OCCPI JUNO and, with the opposite effect, to a drop in currency translation differences.

Equity Attributable to Hybrid Capital Investors

In December 2014, Vonovia issued a hybrid bond with a nominal volume of € 1.0 billion via a subsidiary, Vonovia Finance B.V., Amsterdam/Netherlands (issuer). This subordinated hybrid bond is of unlimited duration and can only be terminated by Vonovia on certain contractually fixed dates or occasions.

Up until the first termination date in December 2021, the hybrid bond shall bear interest at a rate of 4.0% p. a. If the bond is not terminated, then the coupon for the next five-year period increases automatically (step-up clause). The bond terms and conditions do not provide for any unconditional legal obligations to pay interest. Interest that is not paid out is carried forward to the new account and accumulated. If a resolution is passed on a dividend, or if a voluntary payment is made in connection with comparable subordinated bonds, then this triggers an interest payment obligation for this bond.

Pursuant to IAS 32, the hybrid bond is to be classified as equity in full. The interest payments to be made to the bondholders are recognized directly in equity.

Non-Controlling Interests

Shares of third parties in Group companies are recognized under non-controlling interests.

The changes of the retained earnings of the non-controlling interests in the amount of € 127.0 million recognized directly in equity result mainly from the purchase of further shares in Victoria Park AB on the stock exchange, the recall of preference shares in Victoria Park AB and the squeeze-out process to acquire all outstanding shares in Victoria Park (see also Business Combinations → p. 149 et seqq.). Furthermore, the sale of the property portfolio of 12. CR Immobilien-Vermietungsgesellschaft mbH & Co. SÜDOST WOBA Striesen KG, which was included in the scope of consolidation as a special purpose entity, led to the entity being deconsolidated.

38 Provisions

	Dec. 31, 2018		Dec. 31, 2019	
in € million	non-current	current	non-current	current
Provisions for pensions and similar obligations	520.6	–	569.9	–
Provisions for taxes (current income taxes excl. deferred taxes)	–	180.3	–	211.1
Other provisions				
Environmental remediation	14.8	0.2	13.0	–
Personnel obligations	60.2	66.6	61.7	71.8
Outstanding trade invoices	–	61.7	–	109.8
Miscellaneous other provisions	21.1	141.7	17.8	137.5
Total other provisions	96.1	270.2	92.5	319.1
Total provisions	**616.7**	**450.5**	**662.4**	**530.2**

Provisions for Pensions and Similar Obligations

Accounting Policies

When valuing the **provisions for pensions**, the company pension obligations are determined using the projected unit credit method pursuant to IAS 19 "Employee Benefits," whereby current pensions and vested pension rights as of the reporting date as well as expected future increases in salaries and pensions are included in the valuation. An actuarial valuation is performed at every reporting date.

The amount shown in the balance sheet is the total present value of the defined benefit obligations (DBO) after offsetting against the fair value of the plan assets.

Actuarial gains and losses are accounted for in full in the period in which they occur and recognized in retained earnings as a component of other comprehensive income and not in profit or loss. The actuarial gains and losses are also no longer recognized with effect on net income in subsequent periods.

Service cost is shown in personnel expenses. The service cost is the increase in the present value of a defined benefit obligation resulting from employee service in the reporting period.

The interest expense is recognized in the financial result. Interest expense is the increase during a period in the present value of a defined benefit obligation that generally arises due to the fact that the benefit obligation is one period closer to being discharged.

Reinsurance contracts that qualify as plan assets have been taken out to cover the pension obligations toward particular individuals. Where the value of those reinsurance contracts exceeds the related pension obligations, the excess is recognized as an asset and shown under other assets.

Obligations from joint defined benefit multi-employer plans at Versorgungsanstalt des Bundes und der Länder (VBL), a pension scheme operated by the German federal government and the German states, are stated, in line with IAS 19.34, in the same way as obligations from defined contribution plans, insofar as the information required for the statement of defined benefit plans is not available. The obligations are based on the amounts to be paid for the current period.

Vonovia has pension obligations toward various employees which are based on the length of service. Defined benefit and defined contribution obligations – for which Vonovia guarantees a certain level of benefit – are financed through provisions for pensions. Vonovia has taken out reinsurance contracts for individual people.

Generally, they are pension benefits that depend on the final salary with percentage increases depending on the number of years of service.

The pension commitments cover 3,866 (Dec. 31, 2018: 4,003) eligible persons.

Executives currently working for companies belonging to Vonovia have the opportunity to participate in the "Pension Instead of Cash Remuneration" model (Versorgungsbezüge anstelle von Barbezügen) in the version dated October 2003 (eligible persons: 306). Retirement, invalidity and surviving dependent benefits in the form of a lifelong pension are offered under this deferred compensation model. The retirement benefits can also be paid out as a one-time capital sum.

The 2002 pension scheme (VO 2002) for Vonovia employees replaces the pension systems that existed until December 31, 2001 (eligible persons: 722). For employees who joined the company prior to 1991, existing claims arising from the previous pension commitment as of December 31, 2001, are protected in the form of a status of possession. After this point, these employees acquire rights to future pension benefits in accordance with VO 2002. With the introduction of VO 2002, the pension regulations for employees joining the company after 1990 was updated with regard to changes in legislation and court rulings. Pension components acquired before the date VO 2002 replaced the previous pension systems remain in existence. As part of VO 2002, retirement, invalidity and surviving dependent benefits are provided in the form of lifelong pensions. The pension is calculated as the sum of annually acquired pension components that form a fixed percentage of salary. Salary components exceeding the income limit for the assessment of contributions to statutory pension insurance are weighted in a quadruple manner. For new pension commitments beginning in 2002, a pension guarantee of 1.0% p. a. is provided. For all other employees, the provisions of Section 16 of the German Occupational Pensions Improvement Act (BetrAVG) apply.

The following overview summarizes the most important basic data of the closed pension plans:

	VO 1 Veba Immobilien	VO 91 Eisenbahnges.	Bochumer Verband
Type of benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits
Pensionable remuneration	Final salary	Final salary	Not applicable
Max. pension level			
Remuneration up to state pension assessment limit	25%	27%	Depends on individual grouping
Remuneration in excess of state pension assessment limit	25%	72%	
Total pension model based on final salary	Yes	Yes	No
Net benefit limit incl. state pension	None	90%	None
Gross benefit limit	70%	None	None
Adjustment of pensions	Section 16, (1,2) BetrAVG	Section 16, (1,2) BetrAVG	Adjustment every 3 years by Bochumer Verband (Management Board resolution)
Supplementary periods	Age of 55	None	Age of 55 (half)
Legal basis	Works agreement	Works agreement	Commitment to executives in individual contracts
Number of eligible persons	290	377	410

	VO 60 Eisenbahnges.	Viterra commitment to Management Board members (with plan assets)	VO guideline Gagfah M
Type of benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits	Retirement, invalidity and surviving dependent benefits
Pensionable remuneration	Final salary	Final salary	Final salary
Max. pension level			
Remuneration up to state pension assessment limit	48%	75%	No
Remuneration in excess of state pension assessment limit	48%	75%	No
Total pension model based on final salary	Yes	No	Yes
Net benefit limit incl. state pension	None	None	None
Gross benefit limit	75%	None	75%
Adjustment of pensions	Section 16, (1,2) BetrAVG	Annual according to development of cost of living	Section 16, (1,2) BetrAVG
Supplementary periods	None	None	Age of 55
Legal basis	Works agreement	Commitment to Management Board members in individual contracts	Works agreement
Number of eligible persons	126	6	319

	VO 2017 VBL-Ersatzversorgung
Type of benefits	Retirement, invalidity and surviving dependent benefits
Pensionable remuneration	Yes
Max. pension level	Yes
Remuneration up to state pension assessment limit	No
Remuneration in excess of state pension assessment limit	No
Total pension model based on final salary	No
Net benefit limit incl. state pension	None
Gross benefit limit	None
Adjustment of pensions	1%
Supplementary periods	None
Legal basis	Individual agreement
Number of eligible persons	109

The current pensions according to the classic pension benefit regulations of Bochumer Verband are adjusted in line with Section 20 of those regulations. Section 20 is a rule which is based on Section 16 (1,2) of the German Occupational Pensions Improvement Act (BetrAVG) but which, according to a ruling of the Federal Labor Court of Germany, is an independent rule. Other company pensions are reviewed and adjusted under the terms of the agreement according to Section 16 (1,2) BetrAVG. On every review date, the development of the cost of living since the individual retirement date is reviewed and compensated for. Only in the aforementioned deferred compensation model is the option, available since January 1, 1999, used to raise the current pensions every year by 1% (Section 16 (3) No. 1 BetrAVG). No further risks are seen.

The company has decided to use the internal financing effect of the provisions for pensions and only to back a relatively small portion of the pension obligations with plan assets. Reinsurance policies have been taken out for former Management Board members against payment of a one-time insurance premium in order to provide additional protection against insolvency; these reinsurance policies were pledged to the eligible persons. They constitute plan assets, which are offset against the gross obligation. The fair value of the reinsurance policies for individual persons is higher than the extent of the obligations toward the respective person. This surplus of the fair values of the assets over the obligation is shown under non-current other assets. The conclusion of further reinsurance policies is not planned.

Pension plan obligations and the expenses necessary to cover these obligations are determined using the projected unit credit method prescribed by IAS 19. Both pensions known on the reporting date and vested rights as well as expected future increases in salaries and pensions are included in the measurement. The following actuarial assumptions were made at the reporting date – in each case related to the end of the year and with economic effect for the following year.

Actuarial Assumptions

in %	Dec. 31, 2018	Dec. 31, 2019
Actuarial interest rate	1.70	1.00
Pension trend	1.75	1.75
Salary trend	2.75	2.75

The 2018 G mortality tables of Prof. Dr. Klaus Heubeck have been taken for the biometric assumptions without any changes.

The defined benefit obligation (DBO) developed as follows:

in € million	2018	2019
DBO as of Jan. 1	535.0	541.8
Additions due to business combinations	4.3	–
Interest expense	8.9	9.0
Current service cost	10.6	10.9
Actuarial gains and losses:		
Changes in the biometric assumptions	8.5	-5.1
Changes in the financial assumptions	–	59.3
Benefits paid	-25.5	-24.9
DBO as of Dec. 31	**541.8**	**591.0**

The present value of the defined benefit obligation is divided among the groups of eligible persons as follows:

in € million	2018	2019
Active employees	111.6	128.1
Former employees with vested pension rights	96.6	114.9
Pensioners	333.6	348.0
DBO as of Dec. 31	**541.8**	**591.0**

Plan assets comprise solely reinsurance contracts. The fair value of the plan assets has developed as follows:

in € million	2018	2019
Fair value of plan assets as of Jan. 1	22.4	22.3
Additions due to business combinations	0.3	–
Return calculated using the actuarial interest rate	0.4	0.4
Actuarial gains:		
Changes in the financial assumptions	0.5	0.5
Benefits paid	-1.3	-1.4
Fair value of plan assets as of Dec. 31	**22.3**	**21.8**

The actual return on plan assets amounted to € 0.8 million during the fiscal year (2018: € 0.8 million).

The following table shows a reconciliation of the defined benefit obligation to the pension obligation recognized in the balance sheet:

in € million	Dec. 31, 2018	Dec. 31, 2019
Present value of funded obligations*	36.4	39.6
Present value of unfunded obligations	505.4	551.3
Total present value of defined benefit obligations	541.8	590.9
Fair value of plan assets*	-22.3	-21.8
Net liability recognized in the balance sheet	519.5	569.1
Other assets to be recognized	1.1	0.8
Provisions for pensions recognized in the balance sheet	**520.6**	**569.9**

* Largely attributable to the "Viterra Management Board commitment" and "Gagfah Management Board commitment" pension plans.

In 2019, actuarial losses of € 53.7 million (excluding deferred taxes) were recognized in other comprehensive income.

The weighted average term of the defined benefit obligations is 15.8 years.

The following table contains the projected, undiscounted pension payments of the coming five fiscal years and the total of those in the subsequent five fiscal years:

in € million	Projected pension payments
2020	25.8
2021	25.1
2022	24.7
2023	24.4
2024	24.4
2025–2029	120.6

Sensitivity Analyses

An increase or decrease in the material actuarial assumptions would have led to the following DBO as of December 31, 2019, providing the other assumptions did not change:

in € million		DBO
Actuarial interest rate	Increase by 0.5%	547.5
	Decrease by 0.5%	640.2
Pension trend	Increase by 0.25%	604.1
	Decrease by 0.25%	577.4

An increase in life expectancy of 4.9% would have resulted in an increase in the defined benefit obligation of € 27.7 million as of December 31, 2019. This percentage rise corresponds to a one-year increase in the life expectancy of a man who was 65 at the reporting date.

If several assumptions are changed simultaneously, the cumulative effect is not necessarily the same as if there had been a change in just one of the assumptions.

The provisions for pensions include € 4.4 million (Dec. 31, 2018: € 4.7 million) for pension obligations which were transferred to third parties as part of an assumption of debt and which relate to vested rights and the payment of current pensions. A corresponding non-current receivable is shown under miscellaneous other assets.

Other Provisions

Accounting Policies

Other provisions are recognized when there is a present obligation, either legal or constructive, vis-à-vis third parties as a result of a past event if it is probable that a claim will be asserted and the probable amount of the required provision can be reliably estimated. Provisions are discounted if the resulting effect is material. The carrying amount of discounted provisions increases in each period to reflect the passage of time and the unwinding of the discount is recognized within interest expense. The discount rate is a pre-tax rate that reflects current market assessments.

Provisions for restructuring expenses are recognized when the Group has set up and communicated a detailed formal plan for restructuring and has no realistic possibility of withdrawing from these obligations.

Provisions for onerous contracts are recognized when the expected benefits from a contract are lower than the unavoidable cost of meeting the obligations under the contract. The provision is stated at the lower of the present value of the fulfillment obligation and the cost of terminating the contract, i.e., a possible indemnity or fine for breach or non-fulfillment of contract.

Provisions are reviewed regularly and adjusted to reflect new information or changed circumstances.

The provisions for **pre-retirement part-time work arrangements** are basically to be classified as other long-term employee benefits that are to be accrued over the employees' service periods.

The assets of the insolvency policy to secure fulfillment shortfalls arising from pre-retirement part-time work arrangements are offset against the amounts for fulfillment shortfalls contained in the provisions for pre-retirement part-time work arrangements.

A **contingent liability** is a possible obligation toward third parties that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events or a present obligation that arises from past events for which an outflow of resources is not probable or the amount of which cannot be estimated with sufficient reliability. According to IAS 37, contingent liabilities are not generally recognized.

Development of Other Provisions during the Fiscal Year

in € million	**As of Jan. 1, 2019**	Additions due to changes in scope of consolidation	Additions	Reversals	Interest accretion to provisions	Netting plan asset	Utilization	**As of Dec. 31, 2019**
Other provisions								
Environmental remediation	15.0	–	–	-0.2	0.2	–	-2.0	13.0
Personnel obligations	126.8	–	70.3	-5.2	0.3	–	-58.7	133.5
Outstanding trade invoices	61.7	–	131.1	-8.0	–	–	-75.0	109.8
Miscellaneous other provisions	162.8	0.3	52.0	-12.3	0.8	–	-48.3	155.3
	366.3	**0.3**	**253.4**	**-25.7**	**1.3**	**–**	**-184.0**	**411.6**

Development of Other Provisions during the Previous Year

in € million	**As of Jan. 1, 2018**	Additions due to changes in scope of consolidation	Additions	Reversals	Interest accretion to provisions	Netting plan asset	Utilization	**As of Dec. 31, 2018**
Other provisions								
Environmental remediation	16.9	–	–	–	0.1	–	-2.0	15.0
Personnel obligations	127.5	3.7	47.4	-9.3	0.3	0.3	-43.1	126.8
Outstanding trade invoices	50.0	–	54.6	-8.7	–	–	-34.2	61.7
Miscellaneous other provisions	120.3	38.8	58.8	-21.6	0.1	–	-33.6	162.8
	314.7	**42.5**	**160.8**	**-39.6**	**0.5**	**0.3**	**-112.9**	**366.3**

Reversals of provisions are generally offset against the expense items for which they were originally established.

The provisions for environmental remediation primarily refer to site remediation of locations of the former Raab Karcher companies. Remediation has either already begun or an agreement has been reached with the authorities as to how the damage is to be remedied. The cost estimates are based on expert opinions detailing the anticipated duration of the remediation work and the anticipated cost.

The personnel obligations are provisions for pre-retirement part-time work arrangements, provisions for bonuses, severance payments not relating to restructuring and other personnel expenses. The other personnel expenses include a provision for the long-term incentive plan (LTIP) determined in accordance with IFRS 2 of € 23.7 million (Dec. 31, 2018: € 17.8 million) (see chapter [E47] Share-Based Payment).

The material individual cost items under miscellaneous other provisions include costs associated with legal disputes in the amount of € 14.1 million (2018: € 18.7 million), allocations to the provisions for pre-retirement part-time work arrangements in the amount of € 2.3 million (2018: € 14.0 million) and € 0.1 million (2018: € 0.1 million) in costs in connection with tax returns.

The Group expects to settle the lion's share of the provision over the coming year.

39 Trade Payables

in € million	Dec. 31, 2018 non-current	Dec. 31, 2018 current	Dec. 31, 2019 non-current	Dec. 31, 2019 current
Liabilities				
from property letting	–	68.8	–	73.8
from other supplies and services	4.4	170.3	5.1	145.3
	4.4	**239.1**	**5.1**	**219.1**

40 Non-derivative Financial Liabilities

in € million	Dec. 31, 2018 non-current	Dec. 31, 2018 current	Dec. 31, 2019 non-current	Dec. 31, 2019 current
Non-derivative financial liabilities				
Liabilities to banks	4,893.5	306.6	6,853.9	549.1
Liabilities to other creditors	12,544.0	2,272.0	14,344.1	1,727.6
Deferred interest from non-derivative financial liabilities	–	119.9	–	100.2
	17,437.5	**2,698.5**	**21,198.0**	**2,376.9**

Accounting Policies

Vonovia recognizes **non-derivative financial liabilities**, which mainly include liabilities to banks and to investors, at their fair value on the day of trading, less the directly attributable transaction costs (this generally corresponds to the acquisition cost). These liabilities are subsequently measured at amortized cost using the effective interest method. Financial liabilities are derecognized when Vonovia's obligations specified in the contract expire or are discharged or canceled.

Liabilities bearing no interest or interest below market rates in return for occupancy rights at rents below the prevailing market rates are recorded at present value.

Deferred interest is presented as current in order to show the cash effectiveness of the interest payments transparently. In principle, the deferred interest is part of the non-derivative financial liability. Of the deferred interest from non-derivative financial liabilities, € 89.7 million (Dec. 31, 2018: € 113.9 million) is from bonds reported under non-derivative financial liabilities to other creditors.

The non-derivative financial liabilities developed as follows in the fiscal year under review:

in € million	**As of Jan. 1, 2019**	First-time consoli-dation	New loans	Scheduled repay-ments	Unsche-duled repayments	Adjusted for effective interest method	Other adjust-ments	Exchange rate diffe-rences	**As of Dec. 31, 2019**
Bond	599.6			-600.0		0.4			0.0
Bonds (Sweden)	62.4			-56.9		-3.9		-1.6	0.0
Bonds (USD)	215.1					4.3			219.4
Bonds (EMTN)	11,760.3		3,000.0	-500.0	-697.7	-16.7			13,545.9
Bond (Hybrid)	699.2			-700.0		0.8			0.0
Commercial Paper	420.0		300.0	-420.0					300.0
Promissory note loan			50.0			-0.1			49.9
Portfolio loans									
Pfandbriefbank, Landesbank Baden-Württemberg			500.0			0.6			500.6
Berlin Hannoversche Hypothekenbank, Hessische Landesbank					-50.7		512.5		461.8
Berlin-Hannoversche Hypothekenbank (Landesbank Berlin)	499.4								499.4
Berlin Hannoversche Hypothekenbank, Landesbank Berlin und Landesbank Baden-Württemberg	320.5			-4.2	-23.8	0.6			293.1
Deutsche Hypothekenbank	169.1			-5.2		-2.7			161.2
Commerzbank			168.0			-0.1			167.9
Nordrheinische Ärzteversorgung	29.7			-0.8	-1.2				27.7
Norddeutsche Landesbank	113.4			-3.5					109.9
Berlin-Hannoversche Hypothekenbank Buwog Lüneburg	19.6			-0.5		-0.1			19.0
UniCredit – HVB Buwog Berlin	29.3			-0.7		-0.2			28.4
UniCredit – HVB Buwog Kreuzberg	3.6			-0.1					3.5
UniCredit – HVB Buwog Kiel	15.8			-0.4		-0.1			15.3
UniCredit – HVB Tempelhofer Feld	23.9			-0.6		-1.7			21.6
Mortgages	5,035.2		1,300.8	-272.6	-287.7	-9.0	-511.9	-10.1	5,244.7
Hembla:									
Mortgages		1.765.4	14.4			0.4		25.2	1,805.4
Other deferred interest	119.9						-19.7		100.2
	20,136.0	**1,765.4**	**5,333.2**	**-2,565.5**	**-1,061.1**	**-27.5**	**-19.1**	**13.5**	**23,574.9**

The non-derivative financial liabilities developed as follows in the previous year:

in € million	**As of Jan. 1, 2018**	First-time consoli-dation	New loans	Scheduled repay-ments	Unsche-duled repayments	Adjusted for effective interest method	Other adjust-ments	Ex-change rate diffe-rences	**As of Dec. 31, 2018**
Bond	598.9					0.7			599.6
Bonds (USD)	204.8					10.3			215.1
Bonds (EMTN)	8,688.6		3,600.0	-500.0		-28.3			11,760.3
Bond (Hybrid)	697.3					1.9			699.2
Commercial Paper	410.2		813.0	-803.0		-0.2			420.0
Portfolio loans									
Berlin-Hannoversche Hypothe-kenbank (Landesbank Berlin)	489.3		50.5	-2.1	-38.5	0.2			499.4
Berlin-Hannoversche Hypothekenbank, Landesbank Berlin und Landesbank Baden-Württemberg	341.3			-4.2	-17.3	0.7			320.5
Deutsche Hypothekenbank	176.8			-5.0		-2.7			169.1
Nordrheinische Ärzteversorgung	31.6			-0.7	-1.2				29.7
Norddeutsche Landesbank	116.7			-3.4		0.1			113.4
Mortgages	2,228.2		207.1	-50.4	-94.5	7.2			2,297.6
Working capital facility			100.0	-100.0					
BUWOG:									
Mortgages		1,958.9	203.9	-39.3	-190.3	4.9			1,938.1
Victoria Park:									
Bonds		101.6		-38.3		-2.0		1.1	62.4
Mortgages		804.2	89.7	-13.4		-5.4		16.6	891.7
Other deferred interest	76.8	2.5					40.6		119.9
	14,060.5	**2,867.2**	**5,064.2**	**-1,559.8**	**-341.8**	**-12.6**	**40.6**	**17.7**	**20,136.0**

The U.S. dollar bond issued in 2013 is translated at the exchange rate at the end of the reporting period in line with applicable IFRS provisions. Allowing for the hedging rate prescribed through the interest hedging transaction entered into, this financial liability would be € 37.8 million lower than the recognized value (Dec. 31, 2018: € 33.5 million).

The maturities and average interest rates of the nominal obligations of the liabilities to banks and the liabilities to other creditors are as follows during the fiscal year:

in € million	Nominal obligation Dec. 31, 2019	Maturity	Average interest rate	Repayment of the nominal obligations is as follows: 2020	2021	2022	2023	2024	from 2025
Bond (US dollar)*	185.0	2023	4.58%				185.0		
Bond (EMTN)*	500.0	2021	3.63%		500.0				
Bond (EMTN)*	500.0	2022	2.13%			500.0			
Bond (EMTN)*	300.6	2020	0.88%	300.6					
Bond (EMTN)*	500.0	2025	1.50%						500.0
Bond (EMTN)*	751.7	2020	1.63%	751.7					
Bond (EMTN)*	1,000.0	2023	2.25%				1,000.0		
Bond (EMTN)*	500.0	2022	0.88%			500.0			
Bond (EMTN)*	500.0	2026	1.50%						500.0
Bond (EMTN)*	1,000.0	2024	1.25%					1,000.0	
Bond (EMTN)*	500.0	2022	0.75%			500.0			
Bond (EMTN)*	500.0	2027	1.75%						500.0
Bond (EMTN)*	500.0	2025	1.13%						500.0
Bond (EMTN)*	500.0	2024	0.75%					500.0	
Bond (EMTN)*	500.0	2028	1.50%						500.0
Bond (EMTN)*	600.0	2022	0.79%			600.0			
Bond (EMTN)*	500.0	2026	1.50%						500.0
Bond (EMTN)*	500.0	2030	2.13%						500.0
Bond (EMTN)*	500.0	2038	2.75%						500.0
Bond (EMTN)*	500.0	2023	0.88%				500.0		
Bond (EMTN)*	500.0	2025	1.80%						500.0
Bond (EMTN)*	500.0	2029	0.50%						500.0
Bond (EMTN)*	500.0	2034	1.13%						500.0
Bond (EMTN)*	500.0	2023	0.13%				500.0		
Bond (EMTN)*	500.0	2027	0.63%						500.0
Bond (EMTN)*	500.0	2039	1.63%						500.0
Commercial paper*	300.0	2020	-0.23%	300.0					
Promissory note loan*	50.0	2026	0.29%						50.0

in € million	Nominal obligation Dec. 31, 2019	Maturity	Average interest rate	Repayment of the nominal obligations is as follows: 2020	2021	2022	2023	2024	from 2025
Portfolio loans									
Pfandbriefbank, Landesbank Baden-Württemberg*	500.0	2029	1.49%						500.0
Berlin Hannoversche Hypothekenbank, Hessische Landesbank*	461.8	2024	1.27%					461.8	
Berlin-Hannoversche Hypothekenbank (Landesbank Berlin)*	499.4	2028	1.64%						499.4
Berlin Hannoversche Hypothekenbank, Landesbank Berlin und Landesbank Baden-Württemberg*	293.4	2020	3.72%	293.4					
Deutsche Hypothekenbank*	157.5	2021	3.98%	5.5	152.0				
Commerzbank*	168.0	2029	0.54%						168.0
Nordrheinische Ärzteversorgung*	27.7	2022	3.49%	0.8	0.9	26.0			
Norddeutsche Landesbank*	30.5	2020	3.99%	30.5					
	79.7	2023	3.76%	1.2	1.3	1.3	75.9		
Berlin-Hannoversche Hypothekenbank Buwog Lüneburg*	18.7	2021	2.78%	0.5	18.2				
UniCredit – HVB Buwog Berlin*	28.0	2023	2.42%	0.7	0.7	0.7	25.9		
UniCredit – HVB Buwog Kreuzberg*	3.5	2020	0.79%	3.5					
UniCredit – HVB Buwog Kiel*	15.3	2021	2.02%	0.4	14.9				
UniCredit – HVB Tempelhofer Feld*	21.3	2023	1.99%	0.5	0.6	0.6	19.6		
Mortgages**	5,223.5	2035	1.44%	506.0	783.9	576.3	610.9	362.3	2,384.1
Hembla:									
Mortgages**	1,689.4	2024	1.79%	82.7			187.1	442.9	976.7
	23,405.0			**2,278.0**	**1,472.5**	**2,704.9**	**3,104.4**	**2,767.0**	**11,078.2**

* Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.
** For a portion of the mortgages, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.

In the previous year, the maturities and average interest rates of the nominal obligations were as follows:

				Repayment of the nominal obligations is as follows:					
in € million	**Nominal obligation Dec. 31. 2018**	Maturity	Average interest rate	2019	2020	2021	2022	2023	from 2024
Bond*	600.0	2019	3.13%	600.0					
Bond (US dollar)*	184.9	2023	4.58%					184.9	
Bond (EMTN)*	500.0	2021	3.63%			500.0			
Bond (EMTN)*	500.0	2022	2.13%				500.0		
Bond (EMTN)*	500.0	2020	0.88%		500.0				
Bond (EMTN)*	500.0	2025	1.50%						500.0
Bond (EMTN)*	1,250.0	2020	1.63%		1,250.0				
Bond (EMTN)*	1,000.0	2023	2.25%					1,000.0	
Bond (EMTN)*	500.0	2022	0.88%				500.0		
Bond (EMTN)*	500.0	2026	1.50%						500.0
Bond (EMTN)*	1,000.0	2024	1.25%						1,000.0
Bond (EMTN)*	500.0	2022	0.75%				500.0		
Bond (EMTN)*	500.0	2027	1.75%						500.0
Bond (EMTN)*	500.0	2025	1.13%						500.0
Bond (EMTN)*	500.0	2019	0.03%	500.0					
Bond (EMTN)*	500.0	2024	0.75%						500.0
Bond (EMTN)*	500.0	2028	1.50%						500.0
Bond (EMTN)*	600.0	2022	0.79%				600.0		
Bond (EMTN)*	500.0	2026	1.50%						500.0
Bond (EMTN)*	500.0	2030	2.13%						500.0
Bond (EMTN)*	500.0	2038	2.75%						500.0
Bond (EMTN)*	500.0	2023	0.88%					500.0	
Bond (Hybrid)*	700.0	2019	4.63%	700.0					
Commercial Paper*	420.0	2019	-0.23%	420.0					
Portfolio loans									
Berlin-Hannoversche Hypothekenbank (Landesbank Berlin)*	499.4	2028	1.64%						499.4
Berlin Hannoversche Hypothekenbank, Landesbank Berlin und Landesbank Baden-Württemberg*	321.4	2020	3.71%	4.2	317.2				
Deutsche Hypothekenbank*	162.7	2021	3.98%	5.2	5.5	152.0			
Nordrheinische Ärzteversorgung*	29.7	2022	3.49%	0.7	0.8	0.8	27.4		
Norddeutsche Landesbank*	32.8	2020	3.99%	2.3	30.5				
	80.9	2023	3.76%	1.2	1.2	1.3	1.3	75.9	
Mortgages**	2,328.9	2043	1.49%	129.6	481.2	383.7	199.7	291.0	843.7
BUWOG:									
Mortgages	1,892.9	2029	1.97%	184.4	57.9	84.5	71.7	203.4	1,291.0
Victoria Park:									
Bond	58.5	2020	4.50%		58.5				
Mortgages	872.3	2023	1.79%	32.4	165.9	327.9	163.7	0.4	182.0
	20,034.4			**2,580.0**	**2,868.7**	**1,450.2**	**2,563.8**	**2,255.6**	**8,316.1**

* Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.
** For a portion of the mortgages, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.

The loan repayments shown for the following years contain contractually fixed minimum repayment amounts.

Of the nominal obligations to creditors, € 8,108.6 million (Dec. 31, 2018: € 4,907.8 million) are secured by land charges and other collateral (account pledge agreements, assignments, pledges of company shares and guarantees). In the event of a breach of the covenants, failure to repay or insolvency, the securities provided are used to satisfy the claims of the creditors.

The nominal interest rates on the financial liabilities to banks and other creditors average approx. 1.53%. The financial liabilities as a whole do not contain any significant short-term interest rate risks as they relate either to loans with long-term fixed interest rates or variable-interest liabilities that are hedged using suitable derivative financial instruments (see chapter [G53] Financial Risk Management).

Repayment of Corporate Bonds

On April 8, 2019, Vonovia repaid the debenture (hybrid) of € 700 million, issued by Dutch subsidiary Vonovia Finance B.V., in full.

Vonovia also repaid the corporate bond (Bond Sweden) issued by its Swedish subsidiary Victoria Park in the amount of € 58.5 million in due form effective June 10, 2019.

On July 25, 2019, Vonovia repaid the subordinated debenture of € 600 million issued by Vonovia Finance B.V. in full.

In September 2019, Vonovia bought back existing bonds via Vonovia Finance B.V. as part of proactive liabilities management. As such, holders of the bond due in December 2020 with an outstanding volume of € 1,250 million and the bond due in March 2020 with an outstanding volume of € 500 million were granted the option of redeeming their bonds before the due date. Ultimately, the bond due in December 2020 was reduced by € 498.3 million to € 751.7 million due to the buyback, whereas the bond due in March 2020 was reduced by € 199.4 million to € 300.6 million.

On November 20, 2019, Vonovia repaid the debenture of € 500 million issued by Vonovia Finance B.V. in full.

Issue of Bonds Under the European Medium-Term Notes Program (EMTN)

With effect from January 29, 2019, and as part of an EMTN program, Vonovia placed a bond with a nominal volume of € 500 million and a coupon of 1.800% maturing on June 29, 2025, via Vonovia Finance B.V. The first interest payment date was June 29, 2019.

Vonovia issued two bonds for € 500 million each via Vonovia Finance B.V. on September 16, 2019. The two bonds were issued with a coupon of 0.500% and a maturity of 10 years and a coupon of 1.125% and a maturity of 15 years, respectively.

Vonovia issued bonds for € 1,500 million via Vonovia Finance B.V. on October 7, 2019. The three bonds of € 500 million each were issued with a coupon of 0.125% and a term of 3.5 years, with a coupon of 0.625% and a term of eight years and with a coupon of 1.625% and a term of 20 years.

Promissory Note Loan

Vonovia SE has initiated the digitalization of its financing strategy by issuing a promissory note loan via a digital platform for the first time. In August 2019, an institutional investor released € 50 million to Vonovia Finance B.V. as part of a private placement, with a loan term of seven years.

New Portfolio Loans

Via its subsidiaries SÜDOST WOBA DRESDEN GMBH and WOHNBAU NORDWEST GmbH, Vonovia took out a 10-year loan of € 500 million from Deutsche Pfandbriefbank AG and Landesbank Baden-Württemberg in January 2019. It is secured by a real estate portfolio in Dresden.

In January 2019, Vonovia assumed an existing BUWOG loan of € 461.8 million from Berlin-Hannoversche Hypothekenbank and Hessische Landesbank. It was previously reported as a mortgage of BUWOG and is now presented separately as a portfolio loan following the takeover. The loan agreement had originally been concluded between the banking consortium and an Austrian subsidiary of what was BUWOG Group GmbH.

Via Vonovia Finance B.V., Vonovia took out a 10-year loan for € 168 million with Commerzbank AG in September 2019, secured by a real estate portfolio in Berlin and Hamburg.

41 Derivatives

in € million	Dec. 31, 2018 non-current	Dec. 31, 2018 current	Dec. 31, 2019 non-current	Dec. 31, 2019 current
Derivatives				
Purchase price liabilities from put options/rights to reimbursement		36.8		39.0
Cash flow hedges	15.2		21.6	
Stand-alone derivatives	54.6		52.5	
Deferred interest from derivatives		4.6		2.0
	69.8	**41.4**	**74.1**	**41.0**

Regarding derivative financial liabilities please refer to chapter [E51] Additional Financial Instrument Disclosures and chapter [E53] Cash Flow Hedges and Stand-alone Interest Rate Swaps.

42 Leases

Accounting Policies

The new leasing standard IFRS 16 "Leases", which applies as a mandatory requirement for fiscal years beginning on or after January 1, 2019, replaces, in particular, the previous leasing standard, IAS 17 "Leases," and introduces only one accounting model (right-of-use model) for lessees, based on which all leases are to be recognized in the balance sheet as a matter of principle. The previous distinction between operating and finance leases only remains in place for accounting at the level of the lessor.

All contracts that give the Vonovia Group the right to control the use of an identified asset over a certain period of time in return for consideration are considered leases within the meaning of IFRS 16.

For all contracts that meet the definition of leases according to IFRS 16, Vonovia recognizes lease liabilities equal to the present value of the future lease payments, discounted to reflect the term-specific incremental borrowing rate. Correspondingly, right-of-use assets are recognized in the amount of the lease liabilities, plus any advance payments that have already been made or any initial direct costs.

The lease liabilities are adjusted in line with financial principles. They are increased by the periodic interest expenses and reduced by the lease payments made.

The right-of-use assets are generally recognized at amortized cost, taking depreciation and impairments into account. Right-of-use assets that meet the definition of investment properties (IAS 40) have been recognized at fair value since the time of initial application in line with the recognition and measurement rules set out in IAS 40.

Changes within the lease term or within the lease payments lead to a remeasurement of the present value and, as a result, to an adjustment of the lease liability and the right-of-use asset.

Periods resulting from extension or termination options granted on an unilateral basis are assessed on a case-by-case basis and are only taken into account if their use is sufficiently probable – for example, due to financial incentives.

There is an accounting option available for short-term leases and leases of low-value assets. Vonovia makes use of this option, meaning that such leases are not recognized. Lease contracts that expired within the 2019 fiscal year in line with the contractual conditions were treated as short-term leases, meaning that they were not recognized. As far as rented IT equipment is concerned, portfolios have, in some cases, been set up for leases with similar terms and a single discount rate has been applied to these portfolios.

Lease payments associated with short-term leases, with leases of low-value assets and with lease contracts that do not constitute leases within the meaning of IFRS 16 are recognized as expenses on a straight-line basis over the lease term.

In addition to conventional vehicle leasing over a fixed lease term of three to five years, the Vonovia Group also leases IT equipment (IT leasing), residential and commercial property for subletting (interim leasing), heat generation plants to supply the Group's own properties with heat (contracting) as well as office buildings, office spaces and parking spaces (rental). Under license agreements with public-sector institutions Vonovia is granted the right to use public properties as storage locations or parking spaces, to lay heating pipes or cables, or to construct playgrounds. However, long-term leasehold contracts have the biggest impact on the company's net assets, financial position and results of operations. These involve Vonovia leasing land for the rental of constructed residential and commercial properties. As a matter of principle, these contracts have a term of 99 years.

Development of Right-of-Use Assets

in € million	Jan. 1, 2019	Dec. 31, 2019
Right-of-use assets		
Leasehold contracts	1,019.5	1,223.7
Interim rental agreements	1.4	1.1
Right-of-use assets within investment properties	1,020.9	1,224.8
Leasing of land for the construction of commercial properties used by the Group	26.5	26.2
Lease agreements	22.8	21.4
Contracting	21.2	19.7
Vehicle leases	11.8	6.3
Tenancy and license agreements	2.6	2.4
Leases of IT equipment	2.0	4.4
Right-of-use assets within property, plant and equipment	86.9	80.4
	1,107.8	**1,305.2**

As of December 31, 2019, the right-of-use assets resulting from leases amount to € 1,305.2 million. This amount includes right-of-use assets resulting from leases previously classified as finance leases according to IAS 17 in the amount of € 82.4 million, € 78.1 million of which is recognized as **investment properties** (Spree-Bellevue) and € 4.3 million of which is recognized under **property, plant and equipment** (heat generation plants).

The majority of the right-of-use assets amounting to € 1,305.2 million is reported under **investment properties** and results not only from interim lease agreements (€ 1.1 million) but mainly from leasehold contracts (€ 1,223.7 million). The other right-of-use assets totaling € 80.4 million are reported under **property, plant and equipment** and mainly include right-of-use assets resulting from the leasing of land for the construction of a commercial property to be used by the company itself (€ 26.2 million), from concluded rental agreements (€ 21.4 million), heating supply contracts (€ 19.7 million) and vehicle lease contracts (€ 6.3 million).

Development of Lease Liabilities

	Jan. 1, 2019			Dec. 31, 2019		
	Due within one year	Due in 1 to 5 years	Due after 5 years	Due within one year	Due in 1 to 5 years	Due after 5 years
Lease liabilities						
Leasehold contracts (IAS 40)	8.9	32.0	305.2	10.6	39.7	338.3
Interim rental agreements	1.0	0.4	-	0.9	0.2	-
Leasing of land for the construction of commercial properties used by the Group	0.1	0.4	26.0	0.1	0.3	26.1
Lease agreements	6.8	12.3	3.7	6.8	12.2	2.6
Contracting	1.8	9.4	10.0	1.9	9.1	8.9
Vehicle leases	6.2	5.6	-	4.7	1.6	-
Tenancy and license agreements	2.0	0.2	0.5	1.8	0.1	0.5
Leases of IT equipment	0.9	1.1	-	1.5	3.0	-
	27.7	**61.4**	**345.4**	**28.3**	**66.2**	**376.4**

As of December 31, 2019, the lease liabilities amount to € 470.9 million. This amount includes lease liabilities resulting from leases previously accounted for under IAS 17 in the amount of € 99.3 million. In addition to heat generation plants (€ 4.3 million), these are mainly attributable to the rented Spree-Bellevue property in Berlin (€ 95.0 million).

The majority of the newly recognized lease liabilities accounted for under IFRS 16 amounts to € 371.6 million and results from long-term leasehold contracts (€ 293.6 million).

Totaling € 376.4 million, the majority of the lease liabilities recognized as of December 31, 2019 are due after five years. Of this amount, € 338.3 million is attributable to lease liabilities from leasehold contracts (thereof € 72.5 million which were previously accounted for under IAS 17). Lease liabilities due within one year amount to € 28.3 million, € 5.4 million of which were previously accounted for under IAS 17.

The following table shows the development of the right-of-use assets reported under property, plant and equipment.

in € million	Carrying amount of right-of-use assets Jan. 1, 2019	Additions 2019	Deprecia-tion and amortization 2019	Carrying amount of right-of-use assets Dec. 31, 2019	Interest expenses 2019
Leasing of land for the construction of commercial properties used by the Group	26.5	–	0.3	26.2	0.7
Lease agreements	22.8	5.9	7.1	21.4	0.2
Contracting	21.2	0.6	1.9	19.7	0.6
Vehicle leases	11.8	0.9	6.3	6.3	0.1
Tenancy and license agreements	2.6	1.6	1.9	2.4	–
Leases of IT equipment	2.0	3.8	1.0	4.4	–
	86.9	**12.8**	**18.5**	**80.4**	**1.6**

The interest expenses recognized in the 2019 fiscal year resulting from leases pursuant to IFRS 16 amounted to € 14.0 million, mainly from leasehold contracts (€ 12.4 million).

In 2019, 1,176 lease contracts were classified as short-term leases and thus were not recognized in line with the accounting option available. The corresponding leasing expenses, recognized in fiscal year 2019, amounted to € 3.3 million. Expenses totaling € 8.8 million were incurred in connection with variable lease payments made in 2019. These have not been included in the measurement of lease liabilities.

In addition to variable lease payments as well as payments resulting from short-term leases, each included in the cash flow from operating activities, interest payments and repayments of lease liabilities totaling € 36.4 million were incurred in 2019. Of this amount, € 29.9 million relates to lease liabilities newly recognized in accordance with IFRS 16. Thus, the total cash outflow for leases within the 2019 fiscal year amounted to € 48.5 million.

Total income from subleasing right-of-use assets, mostly from subleasing of right-of-use assets in connection with rented residential and commercial properties, amounts to € 4.6 million. As of the reporting date, there were no significant non-cancellable subtenancies on the Spree-Bellevue property.

The gain arising from the rental of the sold Spree-Bellevue property (sale and leaseback transaction) in 2019 amounted to € 1.0 million. This does not have any material impact on the Group's cash flows.

43 Liabilities to Non-controlling Interests

Accounting Policies

Liabilities to non-controlling interests, which include obligations from the guaranteed dividend agreements, in particular, are stated at fair value when they are recognized for the first time. The fair value is, in principle, determined by the value of the respective company; if a contractually agreed minimum purchase price is higher than this amount, this purchase price is recognized.

The liabilities to non-controlling interests relate especially to the obligations to pay a guaranteed dividend under the valid profit-and-loss transfer agreements in a virtually unchanged amount of € 34.1 million in comparison to last year (Dec. 31, 2018: € 33.2 million).

44 Financial Liabilities from Tenant Financing

Accounting Policies

Financial liabilities from tenant financing include tenant financing contributions. The financing contributions relate to the contributions collected from tenants in Austria for subsidized apartments. These are reimbursed upon the termination of the rental contract following the deduction of a depreciation amount. The amount refunded can be collected again relating to new tenants. As these are generally rental contracts that can be terminated at any time, these liabilities are reported as current liabilities.

Financial liabilities from tenant financing also include maintenance and improvement contributions deposited by tenants (EVB). These contributions are paid by tenants in Austria to finance the costs associated with modernization work. The payment depends on the age of the building and must be used up for modernization work within 20 years of their receipt. Otherwise, the contributions have to be refunded to the tenant.

First-time recognition is at fair value. Subsequent measurement is at amortized cost.

The financial liabilities from tenant financing as of the reporting date include € 117.7 million (Dec. 31, 2018: € 118.3 million) in tenant financing contributions. In addition, the financial liabilities from tenant financing include € 44.5 million (Dec. 31, 2018: € 42.5 million) in maintenance and improvement contributions deposited by tenants (EVB).

45 Other Liabilities

	Dec. 31, 2018		Dec. 31, 2019	
in € million	non-current	current	non-current	current
Advance payments received	-	23.2	-	42.6
Miscellaneous other liabilities	42.5	574.6	26.1	313.2
	42.5	**597.8**	**26.1**	**355.8**

The advance payments received include on-account payments of € 30.9 million (Dec. 31, 2018: € 18.9 million) from tenants for ancillary costs after offsetting against the corresponding trade receivables.

The payment of the cash settlement (squeeze-out) to the minority shareholders of BUWOG AG reduces the miscellaneous other liabilities in the amount of € 335.8 million.

The miscellaneous other liabilities include purchase price liabilities in the amount of € 166.8 million (Dec. 31, 2018: € 139.1 million) for the acquisition of further shares in companies that are already consolidated.

Section (F): Corporate Governance Disclosures

46 Related Party Transactions

Vonovia had business relationships with unconsolidated subsidiaries in the 2019 fiscal year. These transactions generally resulted from the normal exchange of deliveries and services and are shown in the table below:

	Purchased services		Receivables		Liabilities	
in € million	2018	2019	2018	2019	2018	2019
Associated companies	0.6	2.2	0.4	0.3	1.5	3.0

At Vonovia, the individuals in key positions pursuant to IAS 24 include the members of the Management Board and the Supervisory Board of Vonovia SE.

The emoluments to key management personnel, which are subject to a disclosure requirement under IAS 24, include the remuneration paid to the active members of the Management Board and Supervisory Board.

The active members of the Management Board and Supervisory Board received the following remuneration:

in € million	2018	2019
Short-term employee benefits (without share-based payment)	6.5	7.2
Post-employment benefits	1.3	1.7
Termination benefits	–	0.5
Share-based payment	3.2	5.9
	11.0	**15.3**

The service cost resulting from provisions for pensions for the active Management Board members is reported under post-employment benefits. The disclosure on share-based payments is based on the expenses in the fiscal year, which are also reported in chapter [F47] Share-Based Payment.

The Management Board and Supervisory Board members were not granted any loans or advances.

Information on the individual remuneration of the Management Board and Supervisory Board members as well as a description of the remuneration system are given in the remuneration report, which is part of the combined management report, and in chapter [F48] Remuneration.

47 Share-Based Payment

Accounting Policies

The **obligations arising from share-based payments** are calculated using standard valuation methods based on option pricing models.

Equity-settled share-based payments are recognized at the grant date at the fair value of the equity instruments vested by that date. The fair value of the obligation is therefore recognized as personnel expenses proportionally over the vesting period and is offset directly against the capital reserves.

The cash-settled share-based payments are shown under other provisions and remeasured at fair value at each reporting date. The expenses are also recognized as personnel expenses over the vesting period (see chapter [E33] Provisions).

Management Board

As part of the new LTIP plan, the Management Board members are granted a fixed number of phantom stocks (performance share units or "PSU") annually, which are paid out at the end of a four-year performance period based on the extent to which a pre-defined target achievement level has been reached. The level of target achievement that determines the payout amount under the new LTIP plan is calculated based on the following parameters: Relative Total Shareholder Return (RTSR), Performance of NAV per Share, Performance of FFO I per Share and the Customer Satisfaction Index (CSI), which are all assigned an equal weighting of 25%. As a result, this new LTIP plan constitutes a form of cash-settled share-based payment pursuant to IFRS 2; in turn, the payout claim can be lost entirely if the defined target achievement level has not been reached.

The value of the total notional shares that had been granted but not paid out from the new LTIP plan as of December 31, 2019, was calculated by an external expert based on recognized actuarial principles. The obligation disclosed as of the reporting date breaks down as follows:

Tranche in €	End of vesting period	Rolf Buch	Arnd Fittkau	Helene von Roeder	Daniel Riedl
2016–2019	Dec. 31, 2019	2,868,367			
2017–2020	Dec. 31, 2020	2,702,393			
2018–2021	Dec. 31, 2021	1,335,978		327,825	327,825
2019–2022	Dec. 31, 2022	623,954	89,323	262,717	262,717

The LTIP plan program resulted in expenses pursuant to IFRS 2 totaling € 5.9 million in the 2019 reporting year (2018: € 5.9 million), with € 4.8 million attributable to Rolf Buch, € 0.5 million attributable in each case to Helene von Roeder and Daniel Riedl, and € 0.1 million attributable to Arnd Fittkau.

For further information, please refer to the remuneration report. → **p. 115 et seqq.**

Executives Below Management Board Level

A new LTIP plan was launched for the first level of management in 2016. This LTIP plan is based largely on the LTIP launched for the Management Board in 2015, also regarding the identical performance objectives and the calculation of the objective values with regard to the minimum value, the "target achievement value," and the maximum value.

The value of the total notional shares that had been granted but not paid out from the new LTIP plan as of December 31, 2019, was calculated by an external expert based on recognized actuarial principles. The obligation disclosed as of the reporting date breaks down as follows:

Tranche in €	End of Vesting Period	Dec. 31, 2019
2016	Dec. 31. 2019	2,662,269
2017	Dec. 31. 2020	2,013,126
2018	Dec. 31. 2021	948,076
2019	Dec. 31. 2022	592,437

The LTIP plan program results, in accordance with IFRS, in expenses of € 3.4 million in the 2019 reporting year (2018: € 1.5 million).

Employees

An employee share program was resolved on the basis of a works agreement in 2014. The program started in the first quarter of 2015 and the shares granted are subject to a vesting period of six months. The costs associated with the securities deposit account are borne by Vonovia. Shares with a value of between € 90.00 and € 360.00 at the most are granted to the eligible employees, depending on their gross annual salary, without the employees having to make any contribution of their own.

The new employee share program resulted in expenses totaling € 2.0 million in the 2019 reporting year (2018: € 1.8 million), which have been offset directly against the capital reserves.

48 Remuneration

Remuneration of the Supervisory Board

The members of the Supervisory Board received total remuneration of € 1.8 million during the 2019 fiscal year (2018: € 1.8 million) for their work.

Total Remuneration of the Management Board

The total remuneration paid to the individual members of the Management Board comprises the following:

Total remuneration of the Management Board in €	Rolf Buch CEO		Arnd Fittkau CRO since May 16, 2019		Klaus Freiberg COO until May 16, 2019		Helene von Roeder CFO since May 9, 2018	
	2018	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Fixed remuneration	1,150,000	1,150,000		375,000	600,000	225,000	386,957	600,000
Compensation payment							64,874	64,874
Cash remuneration/ deferred compensation	355,000	355,000		100,000	160,000	60,000	103,188	160,000
Fringe benefits	26,651	27,453		18,721	27,600	10,350	13,157	29,608
Total	**1,531,651**	**1,532,453**		**493,721**	**787,600**	**295,350**	**568,176**	**854,482**
Annual variable remuneration (bonus)	700,000	665,000		275,000	528,000	308,000*	283,768	425,812
Multi-year variable re-muneration (LTIP plan):								
2018–2021	1,902,392				801,007		516,592	
2019–2022		2,060,584		504,793		867,614**		867,614
(number of shares)	(48,669)	(46,151)		(9,531)	(20,492)	(19,432)	(13,216)	(19,432)
Total	**2,602,392**	**2,725,584**		**779,793**	**1,329,007**	**1,175,614**	**800,360**	**1,293,426**
Total remuneration	**4,134,043**	**4,258,037**		**1,273,514**	**2,116,607**	**1,470,964**	**1,368,536**	**2,147,908**

Total remuneration of the Management Board in €	Daniel Riedl CDO since May 9, 2018		Dr. A. Stefan Kirsten CFO until May 9, 2018		Gerald Klinck CCO until May 9, 2018		Total remuneration	
	2018	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**	**2019**
Fixed remuneration	386,957	600,000	215,217		215,217		2,954,348	2,950,000
Compensation payment	15,111						79,985	64,874
Cash remuneration/ deferred compensation	103,188	160,000	53,333		57,391		832,100	835,000
Fringe benefits	18,932	29,404	24,105		7,317		117,762	115,536
Total	**524,188**	**789,404**	**292,655**		**279,925**		**3,984,195**	**3,965,410**
Annual variable remuneration (bonus)	283,768	412,007	157,826		157,826		2,111,188	2,085,819
Multi-year variable re-muneration (LTIP plan):								
2018–2021	516,592		333,753		333,753		4,404,089	
2019–2022		867,614						5,168,219
(number of shares)	(13,216)	(19,432)	(8,539)		(8,539)		(112,671)	(113,978)
Total	800,360	1,279,621	491,579		491,579		6,515,277	7,254,038
Total remuneration	**1,324,548**	**2,069,025**	**784,234**		**771,504**		**10,499,472**	**11,219,448**

* Annual variable remuneration agreed in the termination.
** LTIP is granted for the complete financial year regardless of the termination during the year.

The remuneration paid to the Management Board members includes the remuneration for all mandates at Vonovia Group companies, subsidiaries and participating interests.

Pension Obligations to Members of the Management Board

Rolf Buch, Helene von Roeder and Arnd Fittkau are paying their contractual share of € 355,000 (Rolf Buch), € 160,000 (Helene von Roeder) and € 100,000 (Arnd Fittkau) respectively, based on their fixed remuneration, into the deferred compensation scheme. The annual benefit contribution for Daniel Riedl in the amount of € 160,000 on the part of BUWOG is paid into an external pension fund.

The pension obligations to members of the Management Board from deferred compensation comprise the following:

€	Contribution total as of December 31, 2018	Contribution total as of December 31, 2019	Defined benefit obligation as of December 31, 2018	Defined benefit obligation as of December 31, 2019
Rolf Buch	966,356	946,410	3,969,413	5,733,678
Helene von Roeder	265,457	437,241	265,677	864,057
Arnd Fittkau	–	291,772	–	363,890
Dr. A. Stefan Kirsten	116,396	–	–	–*
Gerald Klinck	192,180	–	–	–*

* For Dr. A. Stefan Kirsten and Gerald Klinck, these figures relate to the service cost up until May 9, 2018. In respect of Dr. A. Stefan Kirsten and Gerald Klinck, the pension obligations in accordance with the IFRS as of December 31, 2018, are recognized in pension obligations (DBO) to former members of the Management Board.

Remuneration of Former Management Board Members and Their Surviving Dependents

Total remuneration of former Management Board members and their surviving dependents amounts to € 0.7 million for the 2019 fiscal year (2018: € 6.2 million). In accordance with the provisions of the termination agreement with Klaus Freiberg, total remuneration includes the remuneration components to be paid after resigning from his position on the Management Board on May 16, 2019, until the termination of the contract of employment on December 31, 2019, amounting to € 0.5 million.

The defined benefit obligation (DBO) to former members of the Management Board and their surviving dependents amount to € 21.3 million (2018: € 19.1 million).

49 Auditors' Fees

In the fiscal year, the following fees (including expenses and excluding VAT) have been credited for the services rendered by the Group auditors KPMG Wirtschaftsprüfungsgesellschaft:

in € million	2018	2019
Audits	3.2	4.8
Other confirmation services	0.6	0.6
Tax consultancy services	–	–
	3.8	**5.4**

All of the services rendered were consistent with the activities performed as the auditor of the annual financial statements and consolidated financial statements of Vonovia SE. The fee paid for auditing services performed by KPMG AG Wirtschaftsprüfungsgesellschaft relates to the audit of the consolidated financial statements and annual financial statements of Vonovia SE as well as to various audits of annual financial statements and a review of one set of annual financial statements of Group companies. The consolidated interim financial statements were reviewed and the financial statements were audited in accordance with audit standard IDW PS 490.

The other confirmation services include reviews of reconciliations on the interest threshold based on audit standard IDW PS 900, business audits performed in accordance with Section 2 of the Act on the Code of Professional Practice for German Public Auditors (WPO) on compliance with the regulations governing loans granted by the German government-owned development bank KfW and business audits pursuant to ISAE 3000 relating to various housing assistance reports. Other confirmation services also include services associated with the issue of comfort letters pursuant to audit standard IDW PS 910 and the issue of valuation certificates.

50 Declaration of Conformity with the German Corporate Governance Code

In January and November 2019, the Management Board and the Supervisory Board issued a Declaration of Conformity with the recommendations of the German Corporate Governance Code in accordance with Section 161 of the German Stock Corporation Act (AktG) and made the declaration permanently available on the company's website (**www.vonovia.de**).

Section (G): Additional Financial Management Disclosures

Other Notes and Disclosures

51 Additional Financial Instrument Disclosures

Measurement categories and classes: in € million	**Carrying amounts Dec. 31, 2019**
Assets	
Cash and cash equivalents	
Cash on hand and deposits at banking institutions	500.7
Trade receivables	
Receivables from the sale of properties	66.6
Receivables from property letting	41.7
Other receivables from trading	11.8
Receivables from sale of real estate inventories (Development)	85.6
Financial assets	
Investments valued at equity	29.5
Loans to other investments	33.3
Other non-current loans	11.7
Non-current securities	4.4
Other investments	142.2
Derivative financial assets	
Cash flow hedges (cross currency swaps)	29.8
Stand-alone interest rate swaps and interest rate caps as well as embedded derivatives	3.3
Liabilities	
Trade payables	224.2
Non-derivative financial liabilities	23,574.9
Derivative financial liabilities	
Purchase price liabilities from put options/rights to reimbursement	39.0
Stand-alone interest rate swaps and interest rate caps	52.5
Other swaps	23.6
Lease liabilities	470.9
Liabilities from tenant financing	162.2
Liabilities to non-controlling interests	34.1

Amounts recognized in balance sheet in accordance with IFRS 9						
Amortized cost	Fair value affecting net income	Fair value recognized in equity with reclassification	Fair value recognized in equity without reclassification	Amounts recognized in balance sheet in acc. with IFRS 16/IAS 28	Fair value Dec. 31, 2019	Fair value hierarchy level
500.7					500.7	1
66.6					66.6	2
41.7					41.7	2
11.8					11.8	2
85.6					85.6	2
				29.5	29.5	n. a.
33.3					56.8	2
11.7					11.7	2
			4.4		4.4	1
			142.2		142.2	2
	-10.2	40.0			29.8	2
	3.3				3.3	2
224.2					224.2	2
23,574.9					24,724.7	2
39.0					39.0	2
	52.5				52.5	2
	0.2	23.4			23.6	2
				470.9		2
162.2					162.2	2
34.1					34.1	2

Measurement categories and classes: in € million	Carrying amounts Dec. 31, 2018
Assets	
Cash and cash equivalents	
Cash on hand and deposits at banking institutions	547.7
Trade receivables	
Receivables from the sale of properties	258.6
Receivables from property letting	44.4
Other receivables from trading	6.4
Receivables from sale of real estate inventories (Development)	183.7
Financial assets	
Investments valued at equity	29.1
Loans to other investments	33.4
Other non-current loans	10.2
Non-current securities	4.0
Other investments	792.1
Derivative financial assets	
Cash flow hedges (cross currency swaps)	16.3
Stand-alone interest rate swaps and interest rate caps as well as embedded derivatives	4.5
Liabilities	
Trade payables	243.5
Non-derivative financial liabilities	20,136.0
Derivative financial liabilities	
Purchase price liabilities from put options/rights to reimbursement	36.8
Stand-alone interest rate swaps and interest rate caps	54.6
Other swaps	19.8
Liabilities from finance leases	99.4
Liabilities from tenant financing	160.8
Liabilities to non-controlling interests	33.2

The section below provides information on the financial assets and financial liabilities not covered by IFRS 9:

> Employee benefits in accordance with IAS 19: Gross presentation of right to reimbursement arising from transferred pension obligations in the amount of € 4.4 million (Dec. 31, 2018: € 4.7 million).
> Amount by which the fair value of plan assets exceeds the corresponding obligation of € 0.8 million (Dec. 31, 2018: € 1.1 million).
> Provisions for pensions and similar obligations: € 569.9 million (Dec. 31, 2018: € 520.6 million).

Amounts recognized in balance sheet in accordance with IFRS 9						
Amortized cost	Fair value affecting net income	Fair value recognized in equity with reclassification	Fair value recognized in equity without reclassification	Amounts recognized in balance sheet in acc. with IAS 17/IAS 28	Fair value Dec. 31, 2018	Fair value hierarchy level
547.7					547.7	1
258.6					258.6	2
44.4					44.4	2
6.4					6.4	2
183.7					183.7	2
				29.1	29.1	n. a.
33.4					48.1	2
10.2					15.8	2
			4.0		4.0	1
			792.1		792.1	2
	-11.0	27.3			16.3	2
	4.5				4.5	2
243.5					243.5	2
20,136.0					20,471.2	2
36.8					36.8	2
	54.6				54.6	2
	-2.6	-17.2			19.8	2
				99.4	198.0	2
160.8					160.8	2
33.2					33.2	2

The following table shows the assets and liabilities that are recognized in the balance sheet at fair value and their classification according to the fair value hierarchy:

in € million	Dec. 31, 2019	Level 1	Level 2	Level 3
Assets				
Investment properties	52,759.1			52.759.1
Financial assets				
Non-current securities	4.4	4.4		
Other investments	140.2		140.2	
Assets held for sale				
Investment properties (contract closed)	134.1		134.1	
Derivative financial assets				
Cash flow hedges (cross currency swaps)	29.8		29.8	
Stand-alone interest rate swaps and caps as well as embedded derivatives	3.3		3.3	
Liabilities				
Derivative financial liabilities				
Cash flow hedges	23.6		23.6	
Stand-alone interest rate swaps and caps	52.5		52.5	

in € million	Dec. 31, 2018	Level 1	Level 2	Level 3
Assets				
Investment properties	43.490.9			43.490.9
Financial assets				
Non-current securities	4.0	4.0		
Other investments	792.1	672.8	119.3	
Assets held for sale				
Investment properties (contract closed)	105.9		105.9	
Derivative financial assets				
Cash flow hedges (cross currency swaps)	16.3		16.3	
Stand-alone interest rate swaps and caps as well as embedded derivatives	4.5		4.5	
Liabilities				
Derivative financial liabilities				
Cash flow hedges	19.8		19.8	
Stand-alone interest rate swaps and caps	54.6		54.6	

In general, Vonovia measures its investment properties on the basis of the discounted cash flow (DCF) methodology (Level 3). The material valuation parameters and valuation results can be found in chapter [D28] Investment Properties.

The investment properties classified as assets held for sale are recognized at the time of their transfer to assets held for sale at their new fair value, the agreed purchase price (Level 2).

No financial instruments were reclassified to different hierarchy levels as against the comparative period.

Securities and shares in listed companies included in other investments are generally measured using the quoted prices in active markets (Level 1).

For the measurement of financial instruments, cash flows are initially calculated and then discounted. In addition to the tenor-specific EURIBOR/STIBOR rates (3M; 6M), the respective credit risk is taken as a basis for discounting. Depending on the expected cash flows, either Vonovia's own credit risk or the counterparty risk is taken into account in the calculation.

For the consolidated financial statements, Vonovia's own credit risk was fundamentally relevant for interest rate swaps. This credit risk is derived for material risks from rates observable on the capital markets and ranges of between 10 and 130 basis points, depending on the residual maturities of financial instruments. Regarding the positive market values of the cross currency swaps, a counterparty risk of 33 basis points was taken into account.

The calculated cash flows of the cross currency swap result from the forward curve for USD/EUR. The cash flows are discounted on the basis of the reference interest rate of each currency (LIBOR and EURIBOR) and translated into euros at the current exchange rate (Level 2).

The fair values of the cash and cash equivalents, trade receivables as well as other financial receivables approximate their carrying amounts at the reporting date owing to their mainly short maturities. The amount of the estimated impairment loss on cash and cash equivalents was calculated based on the losses expected over a period of twelve months. It was determined that the cash and cash equivalents have a low risk of default due to the external ratings and short residual maturities and that there is no need for any material impairment of cash and cash equivalents.

			From subsequent measurement						
in € million	From interest	Dividends from other investments	Impairment losses	De-recognized receivables	De-recognized liabilities	Financial result affecting income 2019	Measurement cash flow hedges	Measurement financial instruments categorized as equity instruments	Total financial result 2019
2019									
Debt instruments carried at (amortized) cost	8.9	–	-28.6	5.2	–	-14.5	–	–	-14.5
Debt instruments measured at FV through P&L	–	11.8	–	–	–	11.8	–	–	11.8
Derivatives measured at FV through P&L with reclassification	-35.1	–	–	–	–	-35.1	–	–	-35.1
Debt instruments measured at FVOCI with reclassification	–	–	–	–	–	–	11.8	–	11.8
Equity instruments measured at FVOCI without reclassification	–	–	–	–	–	–	–	48.6	48.6
Financial liabilities measured at (amortized) cost	-358.4	–	–	–	0.7	-357.7	–	–	-357.7
	-384.6	**11.8**	**-28.6**	**5.2**	**0.7**	**-395.5**	**11.8**	**48.6**	**-335.1**

in € million	From interest	Dividends from other invest-ments	From subsequent measurement: Impair-ment losses	De-recognized receivables	De-recognized liabilities	Financial result affecting income 2018	Measure-ment cash flow hedges	Measure-ment financial instruments categorized as equity instruments	Total financial result 2018
2018									
Debt instruments carried at (amortized) cost	5.7	–	-21.6	1.1	–	-14.8	–	–	-14.8
Debt instruments measured at FV through P&L	–	23.1	–	–	–	23.1	–	–	23.1
Derivatives measured at FV through P&L with reclassification	-30.8	–	–	–	–	-30.8	–	–	-30.8
Debt instruments measured at FVOCI with reclassification	–	–	–	–	–	–	3.5	–	3.5
Debt instruments measured at FVOCI without reclassification	–	–	–	–	–	–	–	60.0	60.0
Financial liabilities measured at (amortized) cost	-375.2	–	–	–	0.9	-374.3	–	–	-374.3
	-400.3	**23.1**	**-21.6**	**1.1**	**0.9**	**-396.8**	**3.5**	**60.0**	**-333.3**

52 Information on the Consolidated Statement of Cash Flows

The statement of cash flows shows how Vonovia's cash has changed during the reporting year as a result of cash inflows and outflows. In accordance with IAS 7 (Statements of Cash Flows), a distinction is made between changes in cash flow from operating activities, investing activities and financing activities.

The cash flow from operating activities is determined from the profit for the period using the indirect method, the profit for the period being adjusted for effects of transactions that are not cash-effective, any deferrals or accruals of past or future operating cash receipts or payments as well as items of income or expense associated with investing or financing cash flows.

The effects of changes in the scope of consolidation are shown separately. Therefore, direct comparison with the corresponding changes in the items of the consolidated balance sheet is not possible.

The proceeds from the disposal of intangible assets, property, plant and equipment and investment properties are shown in cash flow from investing activities.

Exercising the IAS 7 option, interest received is shown under cash flow from investing activities and interest paid is shown under cash flow from financing activities.

The item "Payments for acquisition of investment properties" mainly shows expenses for modernization measures.

53 Financial Risk Management

In the course of its business activities, Vonovia is exposed to various financial risks. The Group-wide financial risk management system aims to identify any potentially negative impact on the financial position of the Group early on and take suitable measures to limit this impact. For the structure and organization of financial risk management, we refer to the management report (see chapter Structure and Instruments of the Risk Management System → p. 125 et seqq.). This system was implemented on the basis of Group guidelines, which were approved by the Management Board and which are continually reviewed. The risks associated with financial instruments and the corresponding risk management are described in detail as follows:

Market Risks

Currency Risks

The cash-effective currency risks arising in connection with the still existing USD bond were eliminated by the simultaneous contracting of cross currency swaps. Fixed and expected purchase price payments in connection with the acquisition of Victoria Park and Hembla were secured through the conclusion of foreign currency forwards. In addition, currency fluctuations are expected to result from financing relationships with Swedish subsidiaries. All in all, loans denominated in euros totaling € 1,268.1 million (Dec. 31, 2018: none) and loans denominated in Swedish krona totaling SEK 5,657.7 million (Dec. 31, 2018: none) were granted to Swedish subsidiaries. Based on the interest rate structure as of December 31, 2019, a -50 basis point change in the value of the Swedish krona against the euro would result in currency gains of € 90.9 million, whereas a change of +50 basis points would result in a currency loss of € 82.6 million. Vonovia is subject to no further material currency risks in the scope of its usual business activities.

Interest Rate Risks

In the course of its business activities, Vonovia is exposed to cash-effective interest rate risks as a result of floating-rate debt as well as new and follow-on loans. Within this context, the interest markets are continually monitored by the Finance and Treasury department. Its observations are incorporated into the financing strategy.

As part of its financing strategy, Vonovia uses derivative financial instruments, in particular interest rate swaps and caps, to limit or manage interest rate risks. Vonovia's policies permit the use of derivatives only if they are associated with underlying assets or liabilities, contractual rights or obligations and planned, highly probable transactions.

A sensitivity analysis for cash flow hedges is provided under chapter [G55] Cash Flow Hedges and Stand-alone Interest Rate Swaps.

Credit Risks

Vonovia is exposed to a default risk resulting from the potential failure of a counterparty to fulfill its part of the contract. In order to minimize risks, financial transactions are only executed with banks and partners whose credit rating has been found by a rating agency to be at least equivalent to Vonovia's. These counterparties are assigned volume limits set by the Management Board. The counterparty risks are managed and monitored centrally by the Finance and Treasury department.

Liquidity Risks

The companies of Vonovia are financed by borrowings to a notable degree. Due to their high volume, the loans are in some cases exposed to a considerable refinancing risk. The liquidity risks arising from financing transactions with high volumes (volume risks) have become apparent in the financial sector, especially in the wake of the financial crisis. In order to limit these risks, Vonovia is in constant contact with many different market players, continuously monitors all financing options available on the capital and banking markets and uses these options in a targeted manner. Moreover, Vonovia subjects its existing financings to an early review prior to the respective final maturity date in order to ensure refinancing.

Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants such as the debt service coverage ratio or debt-equity ratio. If financial covenants are violated, the breach is not rectified within so-called cure periods and no mutually acceptable agreement can be reached with the lenders, the financing may be restructured and the cost structure changed. Should all commonly practiced solutions be unsuccessful, the lenders could call in the loan. The fulfillment of these financial covenants is continually monitored by Finance and Treasury on the basis of current actual figures and budgetary accounting.

In order to ensure its ability to pay at all times, Vonovia has put a system-supported cash management system in place. This system monitors and optimizes Vonovia's cash flows on an ongoing basis and provides the Management Board with regular reports on the Group's current liquidity situation. Liquidity management is supplemented by short-term rolling, monthly liquidity planning for the current fiscal year, of which the Management Board is also promptly notified.

The following table shows the forecast for undiscounted cash flows of the non-derivative financial liabilities and derivative financial instruments for the 2019 reporting year. The loan repayments shown for the following years contain only contractually fixed minimum repayment amounts:

in € million	Carrying amount as of Dec. 31, 2019	2020 Interest	2020 Repayment	2021 Interest	2021 Repayment	2022 to 2026 Interest	2022 to 2026 Repayment
Non-derivative financial liabilities							
Liabilities to banks	7,403.0	101.1	892.6	97.1	951.6	301.2	3,542.8
Liabilities to other creditors	16,071.7	147.8	1,385.4	222.8	520.9	755.2	9,319.7
Deferred interest from other non-derivative financial liabilities	100.2	–	–	–	–	–	–
Liabilities from finance leases	470.9	13.2	22.8	16.5	15.2	60.4	47.5
Financial liabilities from tenant financing	162.2	–	117.8	–	2.0	–	10.0
Derivative financial liabilities							
Purchase price liabilities from put options/rights to reimbursement	39.0	–	3.3	–	34.0	–	1.7
Cash flow hedges/stand-alone interest rate derivatives	70.8	37.8	–	36.1	–	78.3	–
Cash flow hedges (cross currency swap) USD in €	-29.1	-11.1	–	-11.1	–	-22.3	-185.0
Cash flow hedges (cross currency swap) in €		8.5	–	8.5	–	16.8	185.0
Deferred interest from swaps	1.4	1.4					

in € million	Carrying amount as of Dec. 31, 2018	2019 Interest	2019 Repayment	2020 Interest	2020 Repayment	2021 to 2025 Interest	2021 to 2025 Repayment
Non-derivative financial liabilities							
Liabilities to banks	5.200.1	94.2	325.0	88.7	1.026.3	263.8	2,960.5
Liabilities to other creditors	14,816.0	134.6	2,255.0	195.2	1,842.4	616.8	6,972.4
Deferred interest from other non-derivative financial liabilities	119.9	119.9	–	–	–	–	–
Liabilities from finance leases	99.4	5.8	–	9.8	–	26.9	–
Financial liabilities from tenant financing	–	–	104.7	–	1.9	–	9.5
Derivative financial liabilities							
Purchase price liabilities from put options/rights to reimbursement	36.8	–	0.7	–	2.2	–	33.9
Cash flow hedges stand-alone interest rate derivatives	65.6	22.7	–	22.0	–	67.8	–
Cash flow hedges (cross currency swap) USD in €	-15.7	-10.4	–	-10.4	–	-31.3	-185.0
Cash flow hedges (cross currency swap) in €		8.5	–	8.5	–	25.4	185.0
Deferred interest from swaps	3.8	3.8	–	–	–	–	–

In April 2014, Vonovia issued a subordinated hybrid bond with terms and conditions stating that the issuer has its first special right of termination after five years. This bond was repaid in full in April 2019. In September 2019, a buyback offer was made to the investors holding two outstanding EMTN bonds due to mature in March and December 2020. This offer resulted in approx. 40% of the outstanding nominal volume of the two bonds being bought back, meaning that the maturity amounts of these instruments fell from an original amount of € 500 million to € 301 million in March, and from an original amount of € 1,250 million to € 752 million in December.

Credit Line

In October 2018, Vonovia concluded a syndicated revolving credit facility of € 1,000 million with several banks, led by Commerzbank AG, via its Dutch financing company. This unsecured credit line runs until October 2021 and is subject to interest on the basis of EURIBOR plus a mark-up. This credit line had not been used as of December 31, 2019.

Project-specific credit lines totaling around € 112.9 million were available on the reporting date in connection with bank-financed development projects. The nominal amount of these agreements totals € 243.2 million. These credit lines can be utilized based on the progress of the construction work, provided that corresponding evidence is submitted, taking the contractually agreed payment requirements into account.

There is also a guarantee credit agreement in place between Vonovia and Commerzbank for an original amount of € 10 million. This agreement was increased to € 25 million in December 2019. Bills of exchange of approximately € 7.3 million had been drawn from this amount as of the end of the fiscal year. A second guarantee credit agreement originally totaling € 50 million was canceled without replacement in the course of the third quarter of 2019. There is another guarantee credit agreement with Raiffeisen Bank International AG in the amount of € 5 million within the conwert subgroup. It had not been drawn by the end of the fiscal year. A guarantee credit agreement with Landesbank Baden-Württemberg in the amount of € 0.75 million was repaid and canceled in the fourth quarter of 2019.

Within the BUWOG subportfolio, there were four guarantee lines that can be used on a revolving basis with UniCredit Bank Austria AG, Atradius Credit Insurance N.V., Swiss Re International SE and VHV Allgemeine Versicherung AG. In December 2019, new contracts were concluded by Atradius Credit Insurance N.V., Swiss Re International SE and VHV Allgemeine Versicherung AG with Vonovia SE. The guarantees outstanding under the original contracts with Atradius and Swiss Re were transferred to these new contracts. These original guarantee lines were terminated in December 2019. The transfer of the guarantees outstanding under the original contract with VHV and the termination of this agreement is scheduled for implementation in the first quarter of 2020. As of December 31, 2019, the total volume available under general guarantee agreements came to € 123 million, € 21.5 million of which had been drawn by the reporting date. In addition, a project-specific development financing arrangement with Berliner Volksbank eG allows for the possibility of making use of bills of exchange, bonds and/or guarantees. On the reporting date, an amount of € 14.9 million was used.

In April 2019, Victoria Park AB entered into a revolving line of credit of SEK 1,050 million with a two-year term with Commerzbank. Vonovia SE acts as the guarantor for this line of credit.

In November 2017, Vonovia concluded a master commercial paper agreement via its Dutch financing company with a total volume of € 500 million with Commerzbank AG as lead arranger and several banks as traders. This master program was increased to a total volume of € 1,000 million in September 2018. Issues in the amount of € 300 million were outstanding under this program as of December 31, 2019.

All in all, Vonovia has cash on hand and deposits at banking institutions of € 500.7 million on the reporting date (Dec. 31, 2018: € 547.7 million). The master credit agreements/the commercial paper program, together with the cash on hand, guarantee Vonovia's ability to pay at all times.

We refer to the information on financial risk management in the management report.

54 Capital Management

Vonovia's management aims to achieve a long-term increase in value in the interests of customers, employees and investors. Within this context, maintaining a degree of financial flexibility in order to be able to pursue the company's growth and portfolio optimization strategy is crucial. This is why Vonovia's capital management focuses on ensuring our investment grade rating. The priority is to ensure sufficient liquidity resources and maintain an efficient ratio between secured and non-secured capital components.

As part of the opportunities and risk management of Vonovia, the members of the Management Board are given monthly reports on the development of results and their potential effects on the capital structure.

The equity situation of the subsidiaries is regularly examined.

Vonovia's equity developed as follows:

in € million	Dec. 31, 2018	Dec. 31, 2019
Total equity	19,664.1	21,069.7
Total assets	49,387.6	56,497.7
Equity ratio	39.8%	37.3%

Vonovia plans to continue funding possible acquisitions by an optimal mix of debt capital and equity.

In order to protect itself against changes in exchange rates and interest rates, Vonovia regularly contracts derivative hedging transactions in the case of liabilities with variable interest rates or liabilities in foreign currencies. The Finance and Treasury department is responsible for implementing the approved financing strategy.

55 Cash Flow Hedges and Stand-alone Interest Rate Swaps

On the reporting date, the nominal volume of cash flow hedges held in euros amounts to € 972.9 million (Dec. 31, 2018: € 680.9 million). Interest rates on hedging instruments are between 0.390% and 3.760% with original swap periods of between 4.75 and ten years.

Deutsche Annington Acquisition Holding GmbH took over a secured loan from BUWOG Norddeutschland GmbH in January 2019. The redemption-free loan has a maturity until April 30, 2024 and bears interest at a rate corresponding to the three-month Euribor. At the same time, two hedging instruments with a nominal volume of € 146.6 million each were executed with HELABA and Berlin Hyp within this context.

For three hedging instruments that are maintained within a so-called passive hedge accounting, € 9.7 million was reclassified to profit or loss in the reporting year in line with the expected cash flows from the underlying hedged items. This reduced the value recognized in other comprehensive income to € 38.0 million.

All derivatives are included in netting agreements with the issuing banks. Whereas the cross currency swaps were all recognized with positive market values, basically the euro interest rate swaps have an inherently negative market value as of the reporting date. No economic or accounting offsetting was performed in the reporting year.

Key parameters of the interest rate swaps were as follows:

in € million	Face value	Beginning of term	End of term	Current average interest rate (incl. margin)
Bonds (EMTN)				
Hedged items	600.0	Mar. 22, 2018	Dec. 22, 2022	3M EURIBOR margin 0.45%
Interest rate swaps	600.0	Mar. 22, 2018	Dec. 22, 2022	0.793%
HELABA				
Hedged items	146.6	Jan. 28, 2019	Apr. 30, 2024	1M EURIBOR margin 0.0%
Interest rate swaps	146.6	Jan. 28, 2019	Apr. 30, 2024	0.390%
Berlin Hyp				
Hedged items	146.6	Jan. 28, 2019	Apr. 30, 2024	1M EURIBOR margin 0.0%
Interest rate swaps	146.6	Jan. 28, 2019	Apr. 30, 2024	0.390%
Norddeutsche Landesbank (2)				
Hedged items	79.7	June 28, 2013	June 30, 2023	3M EURIBOR margin 1.47%
Interest rate swaps	79.7	June 28, 2013	June 30, 2023	2.290%

In 2013, two cross currency swaps were contracted in equal amounts with each of JP Morgan Limited and Morgan Stanley Bank International Limited; these hedging instruments (cross currency swaps/CCS) became effective on the issuance of two bonds for a total amount of USD 1,000 million. The CCS, each for an amount of USD 375 million, fell due in October 2017 in line with the bonds. The hedging instruments, each for an amount of USD 125 million, originally had a term of ten years. This means that the EUR/USD currency risk resulting from the coupon and capital repayments was eliminated for the entire term of the bonds.

Key parameters of the cross currency swaps were as follows:

	Face value USD (in million)	Face value € (in million)	Beginning of term	End of term	Interest rate USD	Interest rate €	Hedging rate USD/€
J.P. Morgan Securities plc **Morgan Stanley & Co. International plc**							
Hedged items	250.0	185.0	Oct. 2, 2013	Oct. 2, 2023	5.00%		
CCS	250.0	185.0	Oct. 2, 2013	Oct. 2, 2023		4.58%	1.3517

In connection with the acquisition of the Hembla Group as of November 7, 2019, three stand-alone interest rate swaps and eight interest rate caps with a nominal volume of € 987.7 million were assumed. The unchanged nominal value, hedged in Swedish krona, corresponds to a volume of € 1,004.7 million as of the reporting date, with the fair value amounting to € -0.2 million in total.

In connection with the transfer of financial liabilities from BUWOG Norddeutschland GmbH to Deutsche Annington Acquisition Holding GmbH, the BUWOG Group terminated four interest rate swaps prematurely in the reporting year. This resulted in hedge break costs of € 12.1 million being incurred, which were offset by the reversal of previously recognized negative fair values in the amount of € 10.7 million. As of December 31, 2019, the hedged nominal value of the remaining 16 stand-alone interest rate swaps came to € 487.9 million.

On the reporting date, the Victoria Park Group recognized 25 stand-alone interest rate swaps, six interest rate caps and one interest rate floor. The nominal value hedged in Swedish krona corresponds to a volume of € 1,964.0 million as of December 31, 2019. The embedded derivatives have been reduced to 10 loan termination rights with a positive fair value of € 1.5 million.

The designation of the cash flow hedges as hedging instruments is prospectively determined on the basis of a sensitivity analysis, retrospectively on the basis of the accumulated dollar offset method. The fair value changes of the hedged items are determined on the basis of the hypothetical derivative method. In the reporting year – as in the prior year – the impact of default risk on the fair values is negligible and did not result in any adjustments of the balance sheet item.

In the reporting year, the cash flow hedges held in euros were shown at their negative clean fair values totaling € -21.6 million as of December 31, 2019 (Dec. 31, 2018: € -15.2 million). The corresponding deferred interest amounted to € -2.0 million (Dec. 31, 2018: € -4.6 million). At the same time, positive market values from cross currency swaps in the amount of € 29.1 million (Dec. 31, 2018: € 15.7 million), together with positive market values in the amount of € 3.3 million from embedded derivatives of Victoria Park and other interest rate derivatives of Victoria Park and Hembla were disclosed (Dec. 31, 2018: € 4.3 million). The corresponding deferred interest amounted to € 0.7 million (Dec. 31, 2018: € 0.8 million). Financial liabilities also included negative fair values from stand-alone interest rate derivatives in the amount of € -52.5 million (Dec. 31, 2018: € -54.6 million).

The impact of the cash flow hedges (after income taxes) on the development of other reserves is shown below:

		Changes in the period		Reclassification affecting net income		
in € million	As of Jan. 1	Changes in CCS	Other	Currency risk	Interest risk	As of Dec. 31
2019	-63.3	8.6	-7.2	-2.9	12.6	**-52.2**
2018	-68.8	7.0	-3.6	-6.7	8.8	**-63.3**

The impact of the cash flow hedges (including income taxes) on total comprehensive income is shown below:

Cash Flow Hedges

in € million	2018	2019
Change in unrealized gains/losses	0.4	2.0
Taxes on the change in unrealized gains/losses	3.0	-0.6
Net realized gains/losses	3.1	9.8
Taxes due to net realized gains/losses	-1.0	-0.1
Total	**5.5**	**11.1**

In the reporting year, after allowing for deferred taxes, negative cumulative ineffectiveness for cash flow hedges amounted to € 0.6 million (2018: € 2.7 million), improving net interest by € 2.1 million.

On the basis of the valuation as of December 31, 2019, Vonovia used a sensitivity analysis to determine the change in equity given a parallel shift in the interest rate structure of 50 basis points in each case:

	Change in equity		
in € million	Other reserves not affecting net income	Income Statement affecting net income	Total
2019			
+50 basis points	3.8	11.5	**15.3**
-50 basis points	0.4	-10.5	**-10.1**
2018			
+50 basis points	8.1	23.4	**31.5**
-50 basis points	-5.9	-41.1	**-47.0**

A further sensitivity analysis showed that a change in the foreign currency level of -5% (+5%) would lead, after allowance for deferred taxes, to a change in the other reserves not affecting net income of € -1.0 million (or € +0.8 million), while ineffectiveness affecting net income in the amount of € +1.1 million (or € -1.0 million) would result at the same time. In the previous year, a change in the other reserves not affecting net income of € -1.5 million (or € +1.3 million) was recognized in connection with ineffectiveness affecting net income in the amount of € +1.0 million (or € -1.0 million).

56 Contingent Liabilities

Contingent liabilities exist for cases in which Vonovia SE and its subsidiaries give guarantees to various contractual counterparts. The terms are in many cases limited to an agreed time. In some cases, the term is unlimited.

Contingent liabilities of Vonovia are as follows:

in € million	Dec. 31, 2018	Dec. 31, 2019
Guarantees in connection with Development	42.9	55.4
Payment guarantees	7.9	0.3
Rent surety bonds	1.3	1.1
Other	5.9	27.7
	58.0	**84.5**

Vonovia is involved in legal disputes resulting from normal business activities. In particular, these involve disputes under the law of tenancy and sales disputes and, in individual cases, company law disputes (mainly following squeeze-out processes). None of the legal disputes, taken in isolation, will have any material effects on the net assets, financial position or results of operations of Vonovia.

57 Other Financial Obligations

The other financial obligations are as follows:

in € million	Dec. 31, 2018	Dec. 31, 2019
Other financial obligations		
Cable TV service contracts	295.7	283.0
IT service contracts	41.9	41.2
Supply contracts	13.9	12.1
Surcharges under the German Condominium Act (WoEigG)	4.5	3.3
Other	4.0	8.6
	360.0	**348.2**

The obligations under cable TV service contracts are set against future income from the marketing of the cable TV service.

Bochum, Germany, February 25, 2020

Rolf Buch
(CEO)

Arnd Fittkau
(CRO)

Helene von Roeder
(CFO)

Daniel Riedl
(CDO)

Informa-tion

To offer a high degree of transparency, we publish detailed information in line with the requirements of the European Public Real Estate Association (EPRA). The organization represents the interests of Europe's listed real estate companies and takes sector-specific features into account in its requirements.

Information

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List of Vonovia Shareholdings

as of December 31, 2019, according to Section 313 (2) HGB

Company	Company domicile	Interest %
Vonovia SE	Bochum/DE	
Consolidated Companies		
Germany		
Alboingärten Bauvorhaben Bessemerstraße GmbH	Schönefeld	100.00
alt+kelber Immobilienverwaltung GmbH	Berlin	100.00
Barmer Wohnungsbau GmbH	Wuppertal	91.39
Barmer Wohnungsbau Grundbesitz I GmbH	Wuppertal	100.00
Barmer Wohnungsbau Grundbesitz IV GmbH	Wuppertal	100.00
Barmer Wohnungsbau Grundbesitz V GmbH	Wuppertal	100.00
Baugesellschaft Bayern mbH	Munich	94.90
Bau- und Siedlungsgesellschaft Dresden mbH	Dresden	94.73
BBH Entwicklungs GmbH	Leipzig	100.00
Beamten-Baugesellschaft Bremen Gesellschaft mit beschränkter Haftung	Bremen	94.90
Blitz B14-347 GmbH	Berlin	100.00
Börsenhof A Besitz GmbH	Bremen	94.00
Bremische Gesellschaft für Stadterneuerung, Stadtentwicklung und Wohnungsbau mit beschränkter Haftung	Bremen	94.90
Bundesbahn Wohnungsbaugesellschaft Kassel Gesellschaft mit beschränkter Haftung	Kassel	94.90
Bundesbahn-Wohnungsbaugesellschaft Regensburg mbH	Regensburg	94.90
BUWOG Bauträger GmbH	Berlin	94.90
BUWOG – Berlin I GmbH & Co. KG	Bochum	94.90
BUWOG – Berlin II GmbH	Kiel	94.90
BUWOG – Berlin Kreuzberg I GmbH & Co. KG	Bochum	94.90
BUWOG – Berlin Wohnen GmbH	Kiel	94.90
BUWOG – Berlin Wohnen II GmbH	Kiel	94.90 [1]
BUWOG – Berlin Wohnen III GmbH	Kiel	94.90
BUWOG – Brandenburg I GmbH & Co. KG	Bochum	100.00 [2]
BUWOG – Braunschweig I GmbH	Kiel	94.90
BUWOG – Brunnenstraße GmbH & Co. KG	Berlin	100.00 [2]
BUWOG – Brunnenstraße Verwaltungs GmbH	Berlin	100.00
BUWOG – Chausseestraße 88 GmbH & Co. KG	Berlin	100.00 [2]
BUWOG – Chausseestraße 88 Verwaltungs GmbH	Berlin	100.00
BUWOG – Gartenfeld Development GmbH	Berlin	94.90
BUWOG – Gartenfeld Wohnen GmbH	Kiel	94.90
BUWOG – Gervinusstraße Development GmbH	Berlin	100.00

Company	Company domicile	Interest %
BUWOG – Goethestraße Development GmbH	Berlin	94.90
BUWOG – Grundstücks- und Betriebs GmbH	Kiel	94.90
BUWOG – Hamburg Süd GmbH	Kiel	94.90 [1]
BUWOG – Hamburg Umland I GmbH	Kiel	94.90
BUWOG – Hamburg Umland II GmbH	Kiel	94.90
BUWOG – Hamburg Wohnen GmbH	Kiel	100.00
BUWOG – Harzer Straße Development GmbH	Berlin	94.90
BUWOG – Hausmeister GmbH	Kiel	100.00
BUWOG – Heidestraße Development GmbH	Berlin	94.90
BUWOG – Herzogtum Lauenburg GmbH	Kiel	94.90
BUWOG – High-Deck Residential GmbH & Co. KG	Kiel	100.00 [2]
BUWOG – High-Deck Verwaltungs GmbH	Kiel	94.90
BUWOG – Humboldt Palais GmbH & Co. KG	Berlin	100.00 [2]
BUWOG – Immobilien Management GmbH	Kiel	100.00
BUWOG Immobilien Treuhand GmbH	Bochum	100.00 [1]
BUWOG – Jahnstraße Development GmbH	Berlin	94.90
BUWOG – Kassel I GmbH & Co. KG	Bochum	94.90
BUWOG – Kassel II GmbH & Co. KG	Bochum	94.90
BUWOG – Kassel Verwaltungs GmbH	Kiel	100.00
BUWOG – Kiel I GmbH & Co. KG	Bochum	94.90
BUWOG – Kiel II GmbH	Kiel	94.90
BUWOG – Kiel III GmbH	Kiel	94.90
BUWOG – Kiel IV GmbH	Kiel	94.90
BUWOG – Kiel Meimersdorf GmbH	Kiel	94.90 [1]
BUWOG – Kiel V GmbH	Kiel	94.90
BUWOG-Lindenstraße Development GmbH	Berlin	100.00
BUWOG – Lübeck Hanse I GmbH	Kiel	94.90
BUWOG – Lübeck Hanse II GmbH	Kiel	94.90
BUWOG – Lübeck Hanse III GmbH	Kiel	94.90
BUWOG – Lübeck Hanse IV GmbH	Kiel	94.90
BUWOG – Lückstraße Development GmbH	Berlin	94.90
BUWOG – Lüneburg GmbH	Berlin	94.90
BUWOG – Mariendorfer Weg Development GmbH	Berlin	94.90
BUWOG – NDL I GmbH	Kiel	100.00
BUWOG – NDL II GmbH	Kiel	100.00
BUWOG – NDL III GmbH	Kiel	100.00
BUWOG – NDL IV GmbH	Kiel	100.00
BUWOG – NDL IX GmbH	Kiel	100.00
BUWOG – NDL V GmbH	Kiel	100.00
BUWOG – NDL VI GmbH	Kiel	100.00
BUWOG – NDL VII GmbH	Kiel	100.00
BUWOG – NDL VIII GmbH	Kiel	100.00
BUWOG – NDL X GmbH	Kiel	100.00
BUWOG – NDL XI GmbH	Kiel	100.00
BUWOG – NDL XII GmbH	Kiel	100.00
BUWOG – NDL XIII GmbH	Kiel	100.00
BUWOG – Niedersachsen/Bremen GmbH	Kiel	94.90 [1]

Company	Company domicile	Interest %
BUWOG – Palais/Scharnhorststraße Verwaltungs GmbH	Berlin	100.00
BUWOG – Parkstraße Development GmbH	Berlin	94.90
BUWOG – Regattastraße Development GmbH	Berlin	100.00
BUWOG – Region Ost Development GmbH	Berlin	100.00
BUWOG – Scharnhorststraße 26-27 Development GmbH	Berlin	100.00
BUWOG – Scharnhorststraße 4 Townhouse GmbH & Co. KG	Berlin	100.00 [2)]
BUWOG – Scharnhorststraße 4 Verwaltungs GmbH	Berlin	100.00
BUWOG – Scharnhorststraße 4 Wohnbauten GmbH & Co. KG	Berlin	100.00 [2)]
BUWOG – Schleswig-Holstein GmbH	Kiel	94.90 [1)]
BUWOG – Seefeld GmbH & Co. KG	Berlin	100.00 [2)]
BUWOG – Seefeld Verwaltungs GmbH	Berlin	100.00
BUWOG – Spandau 1 GmbH & Co. KG	Berlin	100.00 [2)]
BUWOG – Spandau 2 GmbH & Co. KG	Berlin	100.00 [2)]
BUWOG – Spandau 3 GmbH & Co. KG	Berlin	100.00 [2)]
BUWOG – Spandau Primus GmbH	Kiel	100.00
BUWOG – Syke GmbH	Berlin	100.00
BUWOG – Weidenbaumsweg Development GmbH	Berlin	94.90
BUWOG – Westendpark Development GmbH	Berlin	100.00
BWG Frankfurt am Main Bundesbahn-Wohnungsgesellschaft mbH	Frankfurt/Main	94.90
conwert & kelber Besitz 10/2007 GmbH	Berlin	94.80
conwert & kelber Besitz 11/2007 GmbH	Zossen	94.80
conwert & kelber Bestand 10/2007 GmbH	Berlin	94.80
conwert Alfhild II Invest GmbH	Berlin	94.90
conwert Alfhild Invest GmbH	Berlin	94.90
conwert alpha Invest GmbH	Zossen	94.90
conwert Aries Invest GmbH	Zossen	100.00
conwert Berlin 2 Immobilien Invest GmbH	Zossen	94.90
conwert beta Invest GmbH	Berlin	94.90
conwert Capricornus Invest GmbH	Zossen	100.00
conwert Carina Invest GmbH	Berlin	100.00
conwert Cassiopeia Invest GmbH	Berlin	94.90
conwert Centaurus Invest GmbH	Zossen	94.90
conwert Corvus Invest GmbH	Berlin	94.00
conwert delta Invest GmbH	Berlin	100.00
conwert Deutschland Beteiligungsholding GmbH	Berlin	100.00
conwert Deutschland GmbH	Berlin	100.00
conwert Deutschland Holding GmbH	Berlin	94.90
conwert Dresden Vier Invest GmbH	Berlin	100.00
conwert Eisa Invest GmbH	Zossen	94.90
conwert Elbflorenz Invest GmbH	Berlin	100.00
conwert Epitaurus Invest GmbH	Zossen	94.00
conwert epsilon Invest GmbH	Berlin	94.90
conwert Fenja Invest GmbH	Berlin	94.90
conwert gamma Invest GmbH	Berlin	94.90
conwert Gemini Invest GmbH	Zossen	100.00
conwert Grazer Damm Development GmbH	Zossen	94.90
conwert Grundbesitz Leipzig Besitz GmbH	Berlin	94.90

Company	Company domicile	Interest %
conwert Grundbesitz Leipzig Bestand GmbH	Zossen	94.90
conwert Immobilien Development GmbH	Berlin	94.90
conwert lambda Invest GmbH	Berlin	100.00
conwert Lepus Invest GmbH	Berlin	100.00
conwert Libra Invest GmbH	Berlin	100.00
conwert omega Invest GmbH	Zossen	94.90
conwert Pegasus Invest GmbH	Berlin	94.90
conwert Phoenix Invest GmbH	Berlin	100.00
conwert Sachsen Invest GmbH	Zossen	100.00
conwert Tizian 1 Invest GmbH	Berlin	94.90
conwert Tizian 2 Invest GmbH	Berlin	94.90
conwert Wali Invest GmbH	Berlin	94.90
conwert Wohn-Fonds GmbH	Zossen	100.00
DA EB GmbH	Nuremburg	100.00
DA Jupiter Wohnanlage GmbH	Düsseldorf	94.00 1)
DAIG 1. Objektgesellschaft mbH	Düsseldorf	100.00 1)
DAIG 12. Objektgesellschaft mbH	Düsseldorf	94.00 1)
DAIG 13. Objektgesellschaft mbH	Düsseldorf	94.00
DAIG 2. Objektgesellschaft mbH	Düsseldorf	100.00 1)
DAIG 3. Objektgesellschaft mbH	Düsseldorf	100.00 1)
DAIG 4. Objektgesellschaft mbH	Düsseldorf	100.00 1)
Deutsche Annington Acquisition Holding GmbH	Düsseldorf	100.00 1)
Deutsche Annington Beteiligungsverwaltungs GmbH	Düsseldorf	100.00
Deutsche Annington DEWG GmbH & Co.KG	Bochum	100.00 2)
Deutsche Annington DEWG Verwaltungs GmbH	Düsseldorf	100.00
Deutsche Annington DMB Eins GmbH	Bochum	100.00
Deutsche Annington Fundus Immobiliengesellschaft mbH	Cologne	100.00
Deutsche Annington Fünfte Beteiligungsgesellschaft mbH	Düsseldorf	100.00
Deutsche Annington Haus GmbH	Kiel	100.00
Deutsche Annington Heimbau GmbH	Kiel	100.00
Deutsche Annington Holdings Drei GmbH	Bochum	100.00
Deutsche Annington Holdings Eins GmbH	Düsseldorf	100.00
Deutsche Annington Holdings Fünf GmbH	Düsseldorf	100.00 1)
Deutsche Annington Holdings Sechs GmbH	Bochum	100.00 1)
Deutsche Annington Holdings Vier GmbH	Düsseldorf	100.00 1)
Deutsche Annington Holdings Vier GmbH & Co. KG	Bochum	100.00 2)
Deutsche Annington Holdings Zwei GmbH	Düsseldorf	100.00
Deutsche Annington Immobilien-Dienstleistungen GmbH	Düsseldorf	100.00
Deutsche Annington Interim DAMIRA GmbH	Düsseldorf	100.00
Deutsche Annington Kundenservice GmbH	Bochum	100.00 1)
Deutsche Annington McKinley Eins GmbH & Co. KG	Bochum	100.00 2)
Deutsche Annington McKinley Eins Verwaltungs GmbH	Düsseldorf	100.00
Deutsche Annington McKinley-Holding GmbH & Co. KG	Bochum	100.00 2)
Deutsche Annington Rhein – Ruhr GmbH & Co.KG	Bochum	100.00 2)
Deutsche Annington Rheinland Immobiliengesellschaft mbH	Cologne	100.00
Deutsche Annington Sechste Beteiligungs GmbH	Düsseldorf	100.00
Deutsche Annington WOGE Sechs Verwaltungs GmbH	Bochum	100.00 1)

Company	Company domicile	Interest %
Deutsche Annington WOGE Sieben Verwaltungs GmbH	Düsseldorf	100.00
Deutsche Annington WOGE Vier Bestands GmbH & Co. KG	Bochum	100.00 [2]
Deutsche Annington WOGE Vier GmbH & Co. KG	Bochum	100.00 [2]
Deutsche Annington Wohnungsgesellschaft I mbH	Essen	100.00
Deutsche Annington Zweite Beteiligungsgesellschaft mbH	Düsseldorf	100.00
Deutsche Eisenbahn-Wohnungs-Gesellschaft mbH	Leipzig	100.00
Deutsche Multimedia Service GmbH	Düsseldorf	100.00 [1]
Deutsche TGS GmbH	Düsseldorf	51.00 [1]
Deutsche Wohn-Inkasso GmbH	Bochum	100.00 [1]
Diak-Nd Pflege-Altenheime Besitz GmbH	Berlin	100.00
Eisenbahn-Siedlungsgesellschaft Augsburg mbH (Siegau)	Augsburg	94.90
Eisenbahn-Siedlungsgesellschaft Stuttgart gGmbH	Stuttgart	94.87
Eisenbahn-Wohnungsbau-Gesellschaft Karlsruhe GmbH	Karlsruhe	94.90
Eisenbahn-Wohnungsbaugesellschaft Köln mbH	Cologne	94.90
Eisenbahn-Wohnungsbaugesellschaft Nürnberg GmbH	Nuremburg	94.90
Franconia Invest 1 GmbH	Düsseldorf	94.90
Franconia Wohnen GmbH	Düsseldorf	94.90
Frankfurter Siedlungsgesellschaft mbH	Düsseldorf	100.00 [1]
FSG-Holding GmbH	Düsseldorf	94.80
GAG Grundstücksverwaltungs-GmbH	Berlin	94.90
GAGFAH Acquisition 1 GmbH	Bochum	94.80
GAGFAH Acquisition 2 GmbH	Bochum	94.80 [1]
GAGFAH Asset Management GmbH	Bochum	100.00 [1]
GAGFAH Dritte Grundbesitz GmbH	Bochum	94.80 [1]
GAGFAH Erste Grundbesitz GmbH	Bochum	94.80 [1]
GAGFAH GmbH	Bochum	94.90
GAGFAH Griffin GmbH	Bochum	94.90 [1]
GAGFAH Griffin Holding GmbH	Bochum	100.00 [1]
GAGFAH Hausservice GmbH	Essen	94.90 [1]
GAGFAH Holding GmbH	Bochum	100.00 [1]
GAGFAH M Immobilien-Management GmbH	Bochum	94.90
GAGFAH Zweite Grundbesitz GmbH	Bochum	94.80 [1]
GBH Acquisition GmbH	Bochum	94.80
GBH Service GmbH	Heidenheim an der Brenz	100.00
Grundwert Living GmbH	Berlin	100.00
Haus- und Boden-Fonds 38	Essen	54.15
HPE Hausbau GmbH	Zossen	94.90
HPE Sechste Hausbau Portfolio GmbH	Zossen	100.00
HPE Siebte Hausbau Portfolio GmbH	Berlin	100.00
HvD I Grundbesitzgesellschaft mbH	Berlin	100.00
IESA Immobilien Entwicklung Sachsen GmbH	Berlin	100.00
Immobilienfonds Koblenz-Karthause Wolfgang Hober KG	Düsseldorf	92.71
Immo Service Dresden GmbH	Dresden	100.00
JANANA Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
KADURA Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.91
Kieler Stadtentwicklungs- und Sanierungsgesellschaft mbH	Kiel	94.95
Kieler Wohnungsbaugesellschaft mit beschränkter Haftung	Kiel	94.90 [1]

Company	Company domicile	Interest %
KKS Projektentwicklung GmbH	Berlin	94.80
KWG Grundbesitz CI GmbH & Co. KG	Berlin	99.90
KWG Grundbesitz CIII GmbH & Co. KG	Berlin	95.41
KWG Grundbesitz I Verwaltungs GmbH	Berlin	100.00
KWG Grundbesitz III GmbH	Berlin	100.00
KWG Grundbesitz VI GmbH	Berlin	100.00
KWG Grundbesitz VII GmbH	Berlin	100.00
KWG Grundbesitz VIII GmbH	Berlin	100.00
KWG Grundbesitz X GmbH	Berlin	100.00
KWG Immobilien GmbH	Berlin	100.00
KWG Kommunale Wohnen GmbH	Berlin	94.02
LEMONDAS Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
LEVON Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
Liegenschaften Weißig GmbH	Dresden	94.75
MAKANA Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
MANGANA Grundstücksgesellschaft mbH & Co.KG	Grünwald	94.90
MELCART Grundstücks-Verwaltungsgesellschaft mbH	Grünwald	94.80
MIRA Grundstücksgesellschaft mbH	Düsseldorf	94.90
MIRIS Grundstücksgesellschaft mbH & Co. KG	Grünwald	94.90
Neues Schweizer Viertel Betriebs + Service GmbH & Co. KG	Berlin	94.99
NILEG Immobilien Holding GmbH	Hanover	100.00
NILEG Norddeutsche Immobiliengesellschaft mbH	Hanover	94.86
Osnabrücker Wohnungsbaugesellschaft mit beschränkter Haftung	Osnabrück	94.09
Prima Wohnbauten Privatisierungs-Management GmbH	Berlin	100.00 [1)]
RSTE Objektgesellschaft Wohnanlagen für Chemnitz mbH	Wuppertal	94.73
RVG Rheinauhafen Verwaltungsgesellschaft mbH	Cologne	74.00
Schweizer Viertel Grundstücks GmbH	Berlin	94.74
Seed 1 GmbH	Berlin	100.00
"Siege" Siedlungsgesellschaft für das Verkehrspersonal mbH Mainz	Mainz	94.90
Süddeutsche Wohnen Gebäude GmbH	Stuttgart	100.00 [1)]
Süddeutsche Wohnen GmbH	Stuttgart	94.33 [1)]
Süddeutsche Wohnen Grundstücksgesellschaft mbH	Stuttgart	100.00 [1)]
Süddeutsche Wohnen Management Holding GmbH	Stuttgart	100.00 [1)]
SÜDOST WOBA DRESDEN GMBH	Dresden	94.90
SWG Siedlungs- und Wohnhausgesellschaft Sachsen GmbH	Berlin	100.00
Tempelhofer Feld GmbH für Grundstücksverwertung	Kiel	94.90
Viterra Holdings Eins GmbH	Düsseldorf	100.00 [1)]
Viterra Holdings Zwei GmbH	Düsseldorf	100.00
Vonovia Eigentumsservice GmbH	Bochum	100.00 [1)]
Vonovia Eigentumsverwaltungs GmbH	Bochum	100.00 [1)]
Vonovia Elbe Berlin II GmbH	Nuremburg	94.90
Vonovia Elbe Berlin III GmbH	Nuremburg	94.90
Vonovia Elbe Berlin IV GmbH	Nuremburg	94.90
Vonovia Elbe Berlin VI GmbH	Nuremburg	94.90
Vonovia Elbe Dresden I GmbH	Nuremburg	94.90
Vonovia Elbe GmbH	Nuremburg	94.90
Vonovia Elbe Ost GmbH	Nuremburg	94.90

Company	Company domicile	Interest %
Vonovia Elbe Wannsee I GmbH	Nuremburg	94.90
Vonovia Elbe Wohnen GmbH	Bochum	100.00
Vonovia Energie Service GmbH	Bochum	100.00 [1)]
Vonovia Engineering GmbH	Bochum	100.00 [1)]
Vonovia Immobilien Treuhand GmbH	Bochum	100.00 [1)]
Vonovia Immobilienmanagement GmbH	Bochum	100.00 [1)]
Vonovia Immobilienmanagement one GmbH	Frankfurt/Main	94.90 [1)]
Vonovia Immobilienmanagement two GmbH	Frankfurt/Main	94.90 [1)]
Vonovia Immobilienservice GmbH	Munich	100.00 [1)]
Vonovia Kundenservice GmbH	Bochum	100.00 [1)]
Vonovia Managementverwaltung GmbH	Nuremburg	100.00 [1)]
Vonovia Mess Service GmbH	Essen	100.00 [1)]
Vonovia Modernisierungs GmbH	Düsseldorf	100.00 [1)]
Vonovia Operations GmbH	Bochum	100.00 [1)]
Vonovia Pro Bestand Nord GmbH	Bochum	100.00
Vonovia Pro Bestand Nord Invest GmbH	Bochum	94.90
Vonovia Pro Bestand Nord Properties GmbH	Bochum	94.90
Vonovia Pro Bestand Nord Real Estate GmbH	Bochum	94.90
Vonovia Technischer Service Nord GmbH	Essen	100.00 [1)]
Vonovia Technischer Service Süd GmbH	Dresden	100.00
Vonovia Wohnumfeld Service GmbH	Düsseldorf	100.00 [1)]
WOBA DRESDEN GMBH	Dresden	100.00
WOBA HOLDING GMBH	Dresden	100.00
WOHNBAU NORDWEST GmbH	Dresden	94.90
Wohnungsbau Niedersachsen GmbH (WBN)	Hanover	94.85
Wohnungsgesellschaft Norden mit beschränkter Haftung	Hanover	94.88
Wohnungsgesellschaft Ruhr-Niederrhein mbH Essen	Essen	94.90
Austria		
Anton Baumgartner-Straße 125, 1230 Wien, Besitz GmbH	Vienna	100.00
Brunn am Gebirge Realbesitz GmbH	Vienna	100.00
BUWOG Altprojekte GmbH	Vienna	100.00
BUWOG Baranygasse 7 GmbH	Vienna	100.00
BUWOG – Bauen und Wohnen Gesellschaft mbH	Vienna	100.00
BUWOG Bernreiterplatz 13 GmbH	Vienna	100.00
BUWOG Beteiligungs GmbH	Vienna	100.00
BUWOG Breitenfurterstraße 239 GmbH	Vienna	100.00
BUWOG Breitenfurterstraße Drei, GmbH & Co KG	Vienna	100.00
BUWOG Breitenfurterstraße Eins, GmbH & Co KG	Vienna	100.00
BUWOG Breitenfurterstraße Vier, GmbH & Co KG	Vienna	100.00
BUWOG Breitenfurterstraße Zwei, GmbH & Co KG	Vienna	100.00
BUWOG cw Dienstleistung Holding GmbH	Vienna	100.00
BUWOG cw Handelsges.m.b.H.	Vienna	100.00
BUWOG cw Immobilien Invest GmbH	Vienna	100.00
BUWOG cw Invest GmbH	Vienna	100.00
BUWOG cw Management GmbH	Vienna	100.00
BUWOG cw Neubaubesitz GmbH	Vienna	100.00

Company	Company domicile	Interest %
"BUWOG cw SECURITISATION" Holding GmbH	Vienna	100.00
BUWOG Demophon Immobilienvermietungs GmbH	Vienna	100.00
BUWOG Döblerhofstraße GmbH	Vienna	100.00
BUWOG – Gerhard-Bronner Straße GmbH	Vienna	100.00
BUWOG Gewerbeimmobilien Eins GmbH	Vienna	100.00
BUWOG Gewerbeimmobilien Zwei GmbH	Vienna	100.00
BUWOG Group GmbH	Vienna	100.00
BUWOG Handelskai 346 GmbH	Vienna	100.00
BUWOG Himberger Straße GmbH	Vienna	100.00
BUWOG Linke Wienzeile 280 GmbH	Vienna	100.00
BUWOG – Penzinger Straße 76 GmbH	Vienna	100.00
BUWOG Pfeiffergasse 3-5 GmbH	Vienna	100.00
BUWOG Projektentwicklung GmbH	Vienna	100.00
BUWOG – Projektholding GmbH	Vienna	100.00
BUWOG – PSD Holding GmbH	Vienna	100.00
BUWOG Rathausstraße GmbH	Vienna	100.00
BUWOG Schnirchgasse 11 Alpha GmbH	Vienna	100.00
BUWOG Seeparkquartier GmbH	Vienna	100.00
BUWOG Seeparkquartier Holding GmbH	Vienna	100.00
BUWOG Süd GmbH	Villach	99.98
BUWOG Versicherungsmakler GmbH	Vienna	100.00
CENTUM Immobilien GmbH	Vienna	100.00
Con Tessa Immobilienverwertung GmbH	Vienna	100.00
Con value one Immobilien GmbH	Vienna	100.00
conwert Treasury OG	Vienna	100.00
CWG Beteiligungs GmbH	Vienna	100.00
DAH Acquisition GmbH	Vienna	100.00
DATAREAL Beteiligungsgesellschaft m.b.H. & Co. Gablenzgasse 60 KG	Vienna	100.00
DATAREAL Beteiligungsgesellschaft m.b.H.& Co. Heiligenstädter Straße 9 OG	Vienna	100.00
EARNY Holding GmbH	Vienna	100.00
EB Immobilien Invest GmbH	Vienna	100.00
EBI Beteiligungen GmbH	Vienna	100.00
EBI Beteiligungen GmbH & Co,1190 Wien, Rampengasse 3-5, KG	Vienna	100.00
ECO Anteilsverwaltungs GmbH	Vienna	100.00
ECO Business-Immobilien GmbH	Vienna	100.00
ECO Business-Immobilien-Beteiligungen GmbH	Vienna	100.00
ECO CEE & Real Estate Besitz GmbH	Vienna	100.00
ECO Eastern Europe Real Estate GmbH	Vienna	100.00
ECO Immobilien Verwertungs GmbH	Vienna	100.00
ELNATH GmbH & Co KG	Vienna	100.00
"Epssilon" Altbau GmbH	Vienna	100.00
"Epssilon" Meidlinger Hauptstr.27 Liegenschaftsverwaltungs GmbH	Vienna	100.00
"G1" Immobilienbesitz GmbH	Vienna	100.00
GENA SECHS Immobilienholding GmbH	Vienna	100.00
GENA ZWEI Immobilienholding GmbH	Vienna	100.00
Gewerbepark Urstein Besitz GmbH	Vienna	100.00
Gewerbepark Urstein Besitz GmbH & Co KG	Vienna	100.00

Company	Company domicile	Interest %
GGJ Beteiligungs GmbH	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Drei OG	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Eins OG	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Fünf OG	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Sieben OG	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Zehn OG	Vienna	100.00
GGJ Beteiligungs GmbH & Co Projekt Zwei OG	Vienna	100.00
GJ-Beteiligungs GmbH	Vienna	100.00
GJ-Beteiligungs GmbH & Co Projekt Fünf OG	Vienna	100.00
"GKHK" Handelsgesellschaft m.b.H.	Vienna	100.00
"GK" Immobilienbesitz GmbH	Vienna	100.00
G-Unternehmensbeteiligung GmbH	Vienna	100.00
"Heller Fabrik" Liegenschaftsverwertungs GmbH	Vienna	100.00
Hertha-Firnberg-Straße 10, 1100 Wien, Immobilienbesitz GmbH	Vienna	100.00
Kapital & Wert Immobilienbesitz GmbH	Vienna	100.00
Lithinos Immobilien Invest GmbH	Vienna	100.00
Mariahilferstraße 156 Invest GmbH	Vienna	100.00
MARINA TOWER Holding GmbH	Vienna	51.00
MARINADECK Betriebs GmbH	Vienna	100.00
"MEZ" – Vermögensverwaltungs Gesellschaft m.b.H.	Vienna	100.00
PI Immobilien GmbH	Vienna	100.00
RESAG Property Management GmbH	Vienna	100.00
REVIVA Immobilien GmbH	Vienna	100.00
RG Immobilien GmbH	Vienna	100.00
Roßauer Lände 47-49 Liegenschaftsverwaltungs GmbH	Vienna	100.00
"SHG" 6 Besitz GmbH	Vienna	100.00
Stubenbastei 10 und 12 Immobilien GmbH	Vienna	100.00
Themelios Immobilien Invest GmbH	Vienna	100.00
TP Besitz GmbH	Vienna	100.00
TPI Immobilien Holding GmbH	Vienna	100.00
TPI Tourism Properties Invest GmbH	Vienna	96.00
"TPW" Immobilien GmbH	Vienna	100.00
T-Unternehmensbeteiligung GmbH	Vienna	100.00
Verein "Social City" – Verein zur Förderung der sozialen Kontakte und der sozialen Infrastruktur in Stadterneuerungsgebieten	Vienna	100.00
WZH WEG Besitz GmbH	Vienna	100.00
Sweden		
AB Nerke Holding 211	Malmo	100.00
AB Nerke Holding 411	Malmo	100.00
Bosystem TM AB	Stockholm	100.00
Bredbykvarn Fastighets AB	Stockholm	100.00
Bredbykvarn Garage AB	Stockholm	100.00
Bromsten Fastighetsförvaltning AB	Stockholm	100.00
Bronseri Aktiebolag	Eskilstuna	100.00
D. Carnegie & Co AB	Stockholm	100.00
Fastighets AB A-Ten 6	Malmo	100.00

Company	Company domicile	Interest %
Fastighets AB A-Ten 7	Malmo	100.00
Fastighets AB Bonden	Stockholm	100.00
Fastighets AB Brottaren 1	Malmo	100.00
Fastighets AB Brunteglet	Stockholm	100.00
Fastighets AB D-Ken	Malmo	100.00
Fastighets AB G-En 4	Malmo	100.00
Fastighets AB H-Ven 1	Malmo	100.00
Fastighets AB H-Ven 2	Malmo	100.00
Fastighets AB K-Backen 1	Malmo	100.00
Fastighets AB K-Danten 7	Malmo	100.00
Fastighets AB K-Ten 8	Malmo	100.00
Fastighets AB Läraren i Strängnäs	Stockholm	100.00
Fastighets AB Linrepan	Stockholm	100.00
Fastighets AB Löparen 2	Malmo	100.00
Fastighets AB M-Tören 1	Malmo	100.00
Fastighets AB Mull 3 & 4	Malmo	100.00
Fastighets AB Näkt	Malmo	100.00
Fastighets AB Rasmus C3	Malmo	100.00
Fastighets AB S-Ken 5	Malmo	100.00
Fastighets AB Träbalkongen	Stockholm	100.00
Fastighets AB Turemalm	Stockholm	100.00
Fastighetsbolaget Anelk AB	Stockholm	100.00
Fastighetsbolaget Erganten AB	Eskilstuna	100.00
Fastighetsbolaget Homiensis II AB	Stockholm	100.00
Fastighetsbolaget Klena Kommanditbolag	Stockholm	100.00
Fastighetsbolaget Kullerstensvägen AB	Stockholm	100.00
Fastighetsbolaget Kullerstensvägen Kommanditbolag	Stockholm	100.00
Fastighetsbolaget Lärdom AB	Eskilstuna	100.00
Fastighetsbolaget Nyfors City AB	Stockholm	100.00
Fastighetsbolaget Sågenvägen AB	Stockholm	100.00
Fastighetsbolaget Vaksam 8 AB	Eskilstuna	100.00
Fastighetsbolaget VP AB	Malmo	100.00
Fastighetsförvaltningsaktiebolaget Friheten 11	Eskilstuna	100.00
Fastighetsuthyrning Tranås AB	Stockholm	100.00
Flemingsberg Fastighetsförvaltning AB	Stockholm	100.00
Graflunds Byggnads Aktiebolag	Stockholm	100.00
Graflunds Fastighets Aktiebolag	Eskilstuna	100.00
Graflunds Holding AB	Stockholm	100.00
Graflunds Kommersiella Fastigheter AB	Eskilstuna	100.00
Hembla AB	Stockholm	94.08
Hembla AlbaStone I AB	Stockholm	100.00
Hembla AlbaStone II AB	Stockholm	100.00
Hembla AlbaStone III AB	Stockholm	100.00
Hembla AlbaStone IV AB	Stockholm	100.00
Hembla AlbaStone V AB	Stockholm	100.00
Hembla Holmiensis Inanis I AB	Stockholm	100.00
Hembla Holmiensis Inanis II AB	Stockholm	100.00

Company	Company domicile	Interest %
Hembla Holmiensis Inanis III AB	Stockholm	100.00
Hembla Holmiensis Inanis IV AB	Stockholm	100.00
Hembla Holmiensis Inanis V AB	Stockholm	100.00
Hembla Inanis Alba I AB	Stockholm	100.00
Hembla Inanis Alba II AB	Stockholm	100.00
Hembla Inanis Holdco AB	Stockholm	100.00
Hembla Norrköping AB	Stockholm	100.00
Hembla NYKR AT AB	Stockholm	100.00
Hembla NYKR FH AB	Stockholm	100.00
Hembla NYKR Holdco AB	Stockholm	100.00
Hembla Servicecenter AB	Stockholm	100.00
Holmiensis Affärsutveckling AB	Stockholm	100.00
Holmiensis Bostäder AB	Stockholm	100.00
Holmiensis Bostäder II AB	Stockholm	100.00
Holmiensis Duvholmen 1 AB	Stockholm	100.00
Holmiensis Huddinge Fyra AB	Stockholm	100.00
HomeStar InvestCo AB	Stockholm	100.00
Hyresbostäder Bollvägen Zenithegie AB	Stockholm	100.00
Hyresbostäder Borg AB	Stockholm	100.00
Hyresbostäder Fornhöjden AB	Stockholm	100.00
Hyresbostäder Grevgatan 20 Zenithegie AB	Stockholm	100.00
Hyresbostäder i Alby AB	Stockholm	100.00
Hyresbostäder i Arboga AB	Stockholm	100.00
Hyresbostäder i Katrineholm AB	Stockholm	100.00
Hyresbostäder i Köping AB	Stockholm	100.00
Hyresbostäder i Söderort AB	Stockholm	100.00
Hyresbostäder i Sverige Fyra AB	Stockholm	100.00
Hyresbostäder i Sverige II AB	Stockholm	100.00
Hyresbostäder i Sverige III AB	Stockholm	100.00
Hyresbostäder i Sverige V AB	Stockholm	100.00
Hyresbostäder i Tranås AB	Stockholm	100.00
Hyresbostäder i Tranås Två Handelsbolag	Tranås	100.00
Hyresbostäder Industrivägen 19 Zenithegie AB	Stockholm	100.00
Hyresbostäder Järna AB	Stockholm	100.00
Hyresbostäder Järnvägsgatan 28 AB	Stockholm	100.00
Hyresbostäder Linnean AB	Stockholm	100.00
Hyresbostäder Myran AB	Stockholm	100.00
Hyresbostäder Nynäsvägen 24 och 26 AB	Stockholm	100.00
Hyresbostäder Nynäsvägen 27 AB	Stockholm	100.00
Hyresbostäder Ösmo AB	Stockholm	100.00
Hyresbostäder Polhemsgatan 3 Zenithegie AB	Stockholm	100.00
Hyresbostäder Puddelprocessen Holdco AB	Stockholm	100.00
Hyresbostäder Renen AB	Stockholm	100.00
Hyresbostäder Sten AB	Stockholm	100.00
Hyresbostäder Svart AB	Stockholm	100.00
Hyresbostäder Turbinen och Zenith VI AB	Stockholm	100.00
Hyresbostäder VII Albyberget AB	Stockholm	100.00

Company	Company domicile	Interest %
Hyresbostäder Vitsippan AB	Stockholm	100.00
Hyresbostäder Zenithegie I AB	Stockholm	100.00
Hyresbostäder Zenithegie II AB	Stockholm	100.00
Hyresbostäder Zenithegie III AB	Stockholm	100.00
Hyresbostäder Zenithegie IV AB	Stockholm	100.00
Hyresbostäder Zenithegie V AB	Stockholm	100.00
Hyresbostäder Zenithegie VI AB	Stockholm	100.00
Hyresfastigheter i Strängnäs AB	Stockholm	100.00
Jordbroförvaltnings AB	Stockholm	100.00
Kattgun Aktiebolag	Eskilstuna	100.00
Kista Fastighetsförvaltning AB	Stockholm	100.00
Kista Kommanditdelägare AB	Stockholm	100.00
Kommanditbolaget Bergen 1	Stockholm	100.00
Kommanditbolaget Nidarosgatan	Stockholm	100.00
Kommanditbolaget Nordkapsgatan 4-19	Stockholm	100.00
Kommanditbolaget Telemark	Stockholm	100.00
Kommanditbolaget Tönsbergsgatan 1-15	Stockholm	100.00
Kungskatten Holding AB	Stockholm	100.00
Lövgärdet Business KB	Malmo	100.00
Lövgärdet Residential HB	Malmo	100.00
Märtuna I AB	Stockholm	100.00
Markarydsbostäder Holding AB	Stockholm	100.00
Markarydsbostäder i Södertälje Aktiebolag	Södertälje	100.00
Markarydsbostäder i Stockholm Aktiebolag	Upplands-Bro	100.00
Östgötafastigheter Gavotten 1 AB	Stockholm	100.00
Östgötafastigheter Hambon 1 AB	Stockholm	100.00
Östgötafastigheter Hambon 2 AB	Stockholm	100.00
Östgötafastigheter i Norrköping AB	Norrköping	100.00
Östgötafastigheter Kadriljen 1 AB	Stockholm	100.00
Östgötafastigheter Mazurkan 1 AB	Stockholm	100.00
Östgötafastigheter Menuetten 1 AB	Stockholm	100.00
Östgötafastigheter Tangon 1 AB	Stockholm	100.00
Östgötaporten AB	Stockholm	100.00
Östgötatornen AB	Stockholm	100.00
Provinsfastigheter I Magasinet 4 AB	Stockholm	100.00
Provinsfastigheter I Stallet 3 AB	Stockholm	100.00
Provinsfastigheter I Vedboden 1 AB	Stockholm	100.00
Provinsfastigheter I Visättrahem AB	Stockholm	100.00
Spånga Förvaltning AB	Stockholm	100.00
Trojeborgsfastigheter i Sverige AB	Stockholm	100.00
Valsätra Galaxen AB	Stockholm	100.00
Veningen B AB	Stockholm	100.00
Victoria Park AB	Malmo	100.00
Victoria Park Almen 17 AB	Malmo	100.00
Victoria Park Beethoven I AB	Malmo	100.00
Victoria Park Beethoven II AB	Malmo	100.00
Victoria Park Beethoven III AB	Malmo	100.00

Company	Company domicile	Interest %
Victoria Park Bergsjön AB	Malmo	100.00
Victoria Park Boliger AB	Malmo	100.00
Victoria Park Borås AB	Malmo	100.00
Victoria Park Bostäder Tensta AB	Malmo	100.00
Victoria Park Bygg och Projekt AB	Malmo	100.00
Victoria Park Cedern 18 AB	Malmo	100.00
Victoria Park Eskil Ctr AB	Malmo	100.00
Victoria Park Fastigheter AB	Malmo	100.00
Victoria Park Fastigheter Södra AB	Malmo	100.00
Victoria Park Fröslunda AB	Malmo	100.00
Victoria Park Gulsparven AB	Malmo	100.00
Victoria Park Haren 10 AB	Malmo	100.00
Victoria Park Herrgården AB	Malmo	100.00
Victoria Park Holding AB	Malmo	100.00
Victoria Park Holding Karlskrona AB	Malmo	100.00
Victoria Park Holding Växjö Magistern AB	Malmo	100.00
Victoria Park Holding Växjö S AB	Malmo	100.00
Victoria Park Karlskrona, Malmo AB	Malmo	100.00
Victoria Park Living AB	Malmo	100.00
Victoria Park Lövgärdet AB	Malmo	100.00
Victoria Park Lustgården AB	Malmo	100.00
Victoria Park Malmen 14 AB	Malmo	100.00
Victoria Park Malmo Centrum AB	Malmo	100.00
Victoria Park Markaryd AB	Malmo	100.00
Victoria Park Mozart AB	Malmo	100.00
Victoria Park Mozart Fastighets AB	Malmo	100.00
Victoria Park Myran 30 AB	Malmo	100.00
Victoria Park Myrtorp AB	Malmo	100.00
Victoria Park Nedogap AB	Malmo	100.00
Victoria Park Nygård AB	Malmo	100.00
Victoria Park Nyköping AB	Malmo	100.00
Victoria Park Örebro AB	Malmo	100.00
Victoria Park Ostbrickan AB	Malmo	100.00
Victoria Park Råbergstorp AB	Malmo	100.00
Victoria Park Rosengård AB	Malmo	100.00
Victoria Park Skiftinge AB	Malmo	100.00
Victoria Park Söderby 23 AB	Malmo	100.00
Victoria Park Söderby 394 AB	Malmo	100.00
Victoria Park Söderby 43 AB	Malmo	100.00
Victoria Park Söderby 51 AB	Malmo	100.00
Victoria Park Söderby 68 AB	Malmo	100.00
Victoria Park Stenby AB	Malmo	100.00
Victoria Park Tallriset AB	Malmo	100.00
Victoria Park V 21 AB	Malmo	100.00
Victoria Park Valfisken Större 28 AB	Malmo	100.00
Victoria Park Våmmedal AB	Malmo	100.00
Victoria Park Växjö Magistern AB	Malmo	100.00

Company	Company domicile	Interest %
Victoria Park Växjö S AB	Malmo	100.00
Victoria Park Vivaldi I AB	Malmo	100.00
Victoria Park Vivaldi II AB	Malmo	100.00
Victoria Park Vivaldi III AB	Malmo	100.00
Victoria Park Vivaldi IV AB	Malmo	100.00
Victoria Park Vivaldi V AB	Malmo	100.00
Victoria Park Vivaldi VI AB	Malmo	100.00
Other Countries		
BUWOG – Holding Niederlande B.V.	Amsterdam/NL	94.90
Buwog Lux I S.à.r.l.	Esch-sur-Alzette/LU	94.00
BUWOG Wohnwerk S.A.	Luxembourg/LU	94.84
DA DMB Netherlands B.V.	Eindhoven/NL	100.00
DA Jupiter NL JV Holdings 1 B.V.	Amsterdam/NL	100.00
DAIG 10. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 11. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 14. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 15. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 16. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 17. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 18. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 19. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 20. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 21. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 22. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 23. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 24. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 25. Objektgesellschaft B.V.	Amsterdam/NL	94.44
DAIG 9. Objektgesellschaft B.V.	Amsterdam/NL	94.44
Vonovia Finance B.V.	Amsterdam/NL	100.00
Vonovia France SAS	Paris/FR	100.00
Affiliated companies not consolidated		
BOKRÉTA Management Kft.	Budapest/HU	100.00
IMMO-ROHR PLUSZ Kft.	Budapest/HU	100.00
My-Box Debrecen Inglatian-Fejlesztö Kft Cg.	Budapest/HU	100.00
Companies with which joint activity is excercised		
Planungsgemeinschaft "Das-Neue-Gartenfeld" GmbH & Co. KG	Berlin/DE	38.44
Planungsgemeinschaft "Das-Neue-Gartenfeld" Verwaltungs GmbH	Berlin/DE	38.44

Company	Company domicile	Interest %
At equity consolidated joint ventures		
MARINA CITY Entwicklungs GmbH	Vienna/AT	50.00
Möser GbR	Essen/DE	50.00
Schaeffler-Areal 1. Liegenschaften GmbH	Bad Heilbrunn/DE	30.00
Schaeffler-Areal 2. Liegenschaften GmbH (in liquidation)	Bad Heilbrunn/DE	30.00
Wolmirstedt GbR	Essen/DE	50.00
At equity consolidated associated companies		
Malmo Mozart Fastighets AB	Malmo/SE	42.00
Rosengård Fastighets AB	Malmo/SE	25.00

Company	Company domicile	Interest %	Equity € k Dec. 31, 2018	Net income for the year € k Dec. 31, 2018
Other investments with more than 10% of Vonovia's share in the capital				
Hellerhof GmbH	Frankfurt/Main/DE	13.17	89,908	7,094
VBW Bauen und Wohnen GmbH	Bochum/DE	19.87	105,998	7,216

[1] Exemption according to Section 264 (3) HGB
[2] The unlimited liable shareholder of this company is a company which is integrated in the financial consolidated statement

Further Information About the Bodies

Management Board

The Management Board of Vonovia SE consisted of four members as of December 31, 2019.

Rolf Buch, Chairman of the Management Board

Function: Chief Executive Officer
Responsible for transactions, Value-add, general counsel, investor relations, IT, HR management, auditing, corporate communications and sustainability.

Appointments:
> Kötter Group (Member of the Council of Shareholders)[2]
> Hembla AB (Chairman of the Board of Directors)[2, 4]
> Victoria Park AB (Chairman of the Board of Directors)[2, 4]

Arnd Fittkau, Member of the Management Board (since May 16, 2019)

Function: Chief Rental Officer
Responsible for the Rental segment in the North, East, South, and West business areas, as well as for customer service and portfolio and tenant management.

Helene von Roeder, Member of the Management Board

Function: Chief Financial Officer
Responsible for controlling, finance, property evaluation, accounting, tax, insurance, central procurement and Immobilien Treuhand.

Appointments:
> AVW Versicherungsmakler GmbH (Member of the Supervisory Board)[2]
> E. Merck KG (Member of the Council of Shareholders)[2]
> Merck KGaA (Member of the Supervisory Board)[1]
> Vonovia Finance B.V. (Member of the Supervisory Board)[2, 4]
> Hembla AB (Member of the Board of Directors)[2, 4]
> Victoria Park AB (Member of the Board of Directors)[2, 4]

Daniel Riedl, Member of the Management Board

Function: Chief Development Officer
Responsible for development in Austria, development in Germany and operating business in Austria.

Klaus Freiberg, Member of the Management Board (until May 16, 2019)

Function: Chief Operating Officer
Responsible for product management, IT, customer service, residential environment, technical service, engineering and the local rental business in the various regions (North, South, Southeast, East, Central, West).

Appointment:
> VBW Bauen und Wohnen GmbH (Deputy Chairman of the Supervisory Board)[2]

Supervisory Board

The Supervisory Board currently consists of twelve members, all of whom were elected for a statutory term of office by the Annual General Meeting held on May 9, 2018.

Jürgen Fitschen, Chairman

Senior Advisor at Deutsche Bank AG

Appointments:
> CECONOMY AG (Chairman of the Supervisory Board)[1]
> CURA Vermögensverwaltung GmbH & Co. KG (Member of the Administrative Board)[2]
> Syntellix AG (Member of the Supervisory Board)[2]

Prof. Dr. Edgar Ernst, Deputy Chairman

President of the German Financial Reporting Enforcement Panel

Appointments:
> METRO AG (Member of the Supervisory Board)[1]
> TUI AG (Member of the Supervisory Board)[1]

Burkhard Ulrich Drescher

Managing Director of Innovation City Management GmbH

Appointment:
> STEAG Fernwärme GmbH (Member of the Advisory Board)[2]

Vitus Eckert

Attorney, Shareholder and Managing Director of Eckert Fries Carter Rechtsanwälte GmbH

Appointments:
> STANDARD Medien AG (Chairman of the Supervisory Board)[2]
> S. Spitz GmbH (Deputy Chairman of the Supervisory Board)[2]
> Vitalis Food Vertriebs-GmbH (Chairman of the Supervisory Board, group company of S. Spitz GmbH)[2]
> Simacek Holding GmbH (Chairman of the Supervisory Board)[2]
> Simacek Facility Management Group GmbH (Chairman of the Supervisory Board, group company of Simacek Holding GmbH)[2]

Dr. Florian Funck

Member of the Management Board of Franz Haniel & Cie. GmbH

Appointments:
> CECONOMY AG (Member of the Supervisory Board)[1]
> TAKKT AG (Chairman of the Supervisory Board)[3]

Dr. Ute Geipel-Faber

Self-employed management consultant

Appointment:
> Bayerische Landesbank (Member of the Supervisory Board)[1]

Daniel Just

Chairman of Bayerische Versorgungskammer

Appointments:
> DWS Grundbesitz GmbH (1st Deputy Chairman of the Supervisory Board)[2]
> Universal Investment GmbH (Member of the Supervisory Board)[2]
> GLL Real Estate Partners GmbH (Member of the Supervisory Board)[2]

Hildegard Müller

President of the German Association of the Automotive Industry (VDA)

Prof. Dr. Klaus Rauscher

Self-employed management consultant

Appointment:
Innogy SE (Member of the Supervisory Board)[1]

Dr. Ariane Reinhart

Member of the Management Board of Continental AG

Clara-Christina Streit

Self-employed management consultant

Appointments:
> NN Group N.V. (Member of the Supervisory Board)[2]
> Jerónimo Martins SGPS S.A. (Member of the Administrative Board)[2]
> Vontobel Holding AG (Member of the Administrative Board)[2]
> Deutsche Börse AG (Member of the Supervisory Board)[1]

Christian Ulbrich

President and Chief Executive Officer Jones Lang LaSalle Incorporated

[1] Supervisory Board mandates in accordance with Section 100 (2) of the German Stock Corporation Act (AktG)
[2] Membership in comparable German and foreign supervisory bodies of commercial enterprises
[3] Exempted Group mandates in accordance with Section 100 (2) no. 2 of the German Stock Corporation Act (AktG)
[4] Other Group bodies

Independent Auditor's Report

To Vonovia SE, Bochum

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

Opinions

We have audited the consolidated financial statements of Vonovia SE, Bochum, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as of December 31, 2019, and the consolidated income statement, consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report of Vonovia SE for the financial year from January 1 to December 31, 2019. In accordance with German legal requirements, we have not audited the content of those components of the combined management report specified in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

> the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2019, and of its financial performance for the financial year from January 1 to December 31, 2019, and

> the accompanying combined management report as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the management report does not cover the content of those components of the combined management report specified in the "Other Information" section of the auditor's report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with Section 317 HGB and EU Audit Regulation No 537/2014 (referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). We performed the audit of the consolidated financial statements in supplementary compliance with the International Standards on Auditing (ISAs). Our responsibilities under those requirements, principles and standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2)(f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Measurement of Investment Properties

Please refer to notes 13 and 28 to the consolidated financial statements as well as the section on opportunities and risks in the combined management report.

The Financial Statement Risk

Investment properties in the amount of € 52.8 billion are reported in the consolidated financial statements of Vonovia as of December 31, 2019. Of this amount, € 44.1 billion is attributable to properties located in Germany, € 2.9 billion to properties located in Austria and € 5.8 billion to properties located in Sweden. Vonovia measures investment properties at fair value in accordance with IAS 40 in conjunction with IFRS 13. In the year under review, increases in fair value of € 4.1 billion were recognized in the consolidated income statement.

Vonovia determines the fair values using internal valuation models. Exceptions to this are the real estate portfolio of Victoria Park AB (publ) (hereinafter "Victoria Park"), Malmo, Sweden, and the real estate portfolio of Hembla AB (publ), Stockholm, Sweden (hereinafter "Hembla"), which was acquired in financial year 2019. The fair values for the real estate portfolio of the BUWOG Group and the properties of the conwert Group not located in Germany were determined using an internal method for the first time in financial year 2019.

The fair values are determined internally by means of a discounted cash flow (DCF) method based on homogeneous valuation units of aggregated commercially related and comparable land and buildings. Further, an independent valuer provides an appraisal, which is used to verify the internal measurements. For the Victoria Park and Hembla real estate portfolios, fair value is determined by independent valuers.

The measurement of investment properties is complex and incorporates numerous assumptions and parameters relevant to measurement that involve considerable estimation uncertainties and judgment. Even minor changes in the assumptions and parameters relevant to measurement may have a material effect on the resulting fair value. The most significant assumptions and parameters are market rents, including the expected trend in rental rates, the planned maintenance costs and discount/capitalization rates. When determining the trend of discount/capitalization rates, Vonovia also takes into account the difference in dynamic of movements in real estate prices compared to rental rates (yield compression).

Due to existing estimation uncertainties and judgments, there is the risk for the consolidated financial statements that the fair values of properties are not within a reasonable range.

Moreover, there is the risk for the consolidated financial statements that the disclosures on investment properties in the notes required pursuant to IAS 40 and IFRS 13 are incomplete and inadequate.

Our Audit Approach

With the involvement of our own property valuation experts, using partly control-based and partly substantive audit procedures, we assessed the accuracy and completeness of the property portfolio data used in the internal valuation models. In addition, we particularly assessed the internal valuation techniques with a view to compliance with IAS 40 in conjunction with IFRS 13, the homogeneity of defined valuation units and the appropriateness of the assumptions and parameters used for measurement. We also used external market data to assess the assumptions and parameters used for measurement, such as the discount/capitalization rates applied, market rents and expected trend in rental rates as well as planned maintenance costs.

Based on partially representative and partially selective, risk-oriented sampling of German and Austrian portfolio valuation units, we conducted on-site visits to assess the condition of the respective properties. We verified the valuations conducted by Vonovia by comparing them with our own calculations based on the standardized capitalization model pursuant to the German Real Estate Appraisal Regulation [ImmoWertV].

We were satisfied with the qualification and objectivity of the external valuers commissioned by Vonovia, who audited the valuation methods used for the appraisal with regard to compliance with IAS 40 in conjunction with IFRS 13, assessed the material assumptions and parameters for measurement, and compared the internal measurements with those of the respective external appraisal.

We also assessed the completeness and adequacy of disclosures on investment properties required in the notes to the consolidated financial statements pursuant to IAS 40 and IFRS 13.

Our Observations

The valuation method implemented by Vonovia is appropriate and suitable for measuring fair value in compliance with IFRS. The assumptions and parameters used for valuation of the investment properties are appropriate. The disclosures on investment properties in the notes to the consolidated financial statements pursuant to IAS 40 and IFRS 13 are complete and appropriate.

Impairment Testing of Goodwill

Please refer to note 26 to the consolidated financial statements.

The Financial Statement Risk

Goodwill in the amount of € 1.5 billion is reported in the consolidated financial statements of Vonovia as of December 31, 2019. Goodwill is allocated pursuant to IAS 36 to groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. At Vonovia, these are the regional business areas in the Rental segment and the Value-add and Development segments.

Vonovia conducts annual impairment testing of recognized goodwill in the fourth quarter. As the value of the property portfolio increased during the year and the regional structure in Germany was revised as of July 1, 2019, Vonovia performed an additional impairment test in the second quarter.

For each group of cash-generating units, the carrying amount of the unit is compared with the recoverable amount of the unit. The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use.

Vonovia determines value in use by applying a complex calculation model based on a DCF method. In this regard, determination of the discount rate (WACC) is the primary source of judgment apart from cash flow forecasts. As even minor changes in the cash flow forecasts and the WACC may have a material effect on the recoverable amount, the measurement of goodwill is associated with considerable estimation uncertainties.

In the Rental segment, yield compression (i. e., the difference in dynamic of real estate prices compared to rental rates) had a material effect on the value of goodwill, as the carrying amounts of investment properties (which rose faster relative to the projected cash flows) reduced the difference (headroom) between value in use and the carrying amounts of the groups of cash-generating units. In financial year 2019, the appreciation in value of the investment properties and the associated increase in the carrying amounts of all groups of cash-generating units in the Rental segment led to a reduction in headroom, but not to an impairment of goodwill.

The impairment test during the year resulted in impairment losses for five regional business areas totaling € 1,901.0 million. Furthermore, the revision of the regional structure in Germany led to a reallocation of the residual goodwill, which resulted in further impairment in three regional business areas of € 202.5 million.

There is the risk for the consolidated financial statements that an impairment loss is not recognized in the amount required. There is also the risk that the disclosures in the notes to the consolidated financial statements are not appropriate.

Our Audit Approach

With the involvement of our own valuation experts, we assessed the adequacy of Vonovia's calculation model for the second and fourth quarter, among other things, and reconciled the expected future cash flows assigned to the model to the underlying detailed plan. For the impairment test performed as of the second quarter, this detailed plan was derived from the five-year plan adopted by the Management Board on November 27, 2018, and acknowledged by the Supervisory Board on December 5, 2018, while for the impairment test performed as of the fourth quarter, the detailed plan was derived from the five-year plan adopted by the Management Board on November 27, 2019, and acknowledged by the Supervisory Board on December 5, 2019. We assessed the plausibility of the planning assumptions based on sector-specific market expectations. We also assessed the quality of forecasts used for planning in the past by comparing the target figures with actual figures and analyzing the deviations.

As value in use for the regional business areas in the Rental segment is based to a considerable degree on cash flow forecasts beyond the detailed planning horizon (period of perpetuity), we particularly evaluated capitalized maintenance as well as the sustainable growth rates used for the period of perpetuity against the backdrop of regional differences in the various business areas and based on external market assessments.

With regard to the WACCs determined by Vonovia, we assessed the individual assumptions and parameters used in detail on the basis of available market data and also critically evaluated them as a whole compared to comparable companies in the real estate sector. Due to the material effect of even minor changes in WACC, we focused in particular on the sensitivity analyses conducted by Vonovia as another audit focus area and verified whether impairment losses could arise due to changes of individual WACC assumptions and parameters within an expected range.

We verified (recalculated) the values in use determined by Vonovia and compared them with the corresponding carrying amounts.

Finally, we assessed whether the disclosures in the notes regarding impairment of goodwill are appropriate. This also included an assessment of the appropriateness of disclosures in the notes on sensitivity in the event of reasonably possible changes in key assumptions and parameters used for measurement.

Our Observations

The calculation model used for impairment testing of goodwill is appropriate and in line with the accounting policies to be applied. The Company's assumptions and parameters used for measurement are within an acceptable range. The disclosures in the notes on impairment-testing of goodwill are appropriate.

Identification and Measurement of Assets and Liabilities Acquired in the Course of Acquisition of Hembla

See notes 3 and 4 to the consolidated financial statements.

The Financial Statement Risk

In financial year 2019, Vonovia acquired 94.1% of the shares in Hembla, largely as part of a share purchase and a public tender offer. The consideration transferred on the date of acquisition was € 1,891.9 million. Taking into account acquired net assets of € 1,147.2 million, goodwill amounts to € 744.7 million.

The acquired identifiable assets and assumed liabilities are usually recognized at fair value pursuant to IFRS 3 on the date of acquisition (November 7, 2019). Vonovia consulted an independent expert for determining and measuring the identifiable assets acquired and liabilities assumed.

The identification and measurement of assets acquired and liabilities assumed is complex and based on assumptions of the Management Board that require judgment. When determining fair value, there is considerable scope for judgment with regard to the measurement of investment properties, which requires judgments and estimates by management.

There is the risk for the consolidated financial statements that the assets acquired and liabilities assumed are identified improperly or measured inaccurately. There is also the risk that the disclosures in the notes to the consolidated financial statements are not complete and accurate.

Our Audit Approach

By involving our valuation experts, we have also assessed the appropriateness of key assumptions and parameters as well as the identification and valuation methods used. To that end, we first gained an understanding of the acquisition by consulting the Management Board and relevant members of staff, both of Vonovia and Hembla, and by assessing the agreement for the share purchase and the public takeover offer. To gain further insights into the business activities as well as economic and legal environment of Hembla, we held discussions with the local auditor. In addition, we assessed the process of identification of assets acquired and liabilities assumed considering our sector knowledge for compliance with the requirements of IFRS 3.

We assessed the competence, professional skills and impartiality of the independent expert engaged by Vonovia. Our other audit procedures focused in particular on the identification of value determinants for the investment properties to be valued, mainly market rents and the expected trend in rental rates, the maintenance costs used and discount/capitalization rates, and also the complete recognition and measurement of non-derivative and derivative financial liabilities. We investigated the valuation methods used for their compliance with the accounting policies.

Finally, we assessed whether the disclosures in the notes regarding the acquisition of Hembla were complete and accurate.

Our Observations

The approach used for identifying and measuring the assets acquired and liabilities assumed is appropriate and in line with the accounting policies to be applied. The key assumptions and parameters are appropriate and they are properly presented in the notes to the consolidated financial statements.

Other Information

Management and the Supervisory Board are responsible for the other information. The other information comprises the following parts of the combined management report, whose content was not audited:

> the non-financial statement, which is included in a separate section of the combined management report, and

> the corporate governance statement referred to in the combined management report.

The other information also includes the other parts of the annual report.

The other information does not include the consolidated financial statements, the combined management report information audited for content and our auditor's report thereon.

Our opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

> is materially inconsistent with the consolidated financial statements, with the information in the combined management report audited for content or our knowledge obtained in the audit, or

> otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report

Management is responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the combined management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatements, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and supplementary compliance with the ISAs will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

> Identify and assess the risks of material misstatements of the consolidated financial statements and of the combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

> Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

> Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

> Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

> Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

> Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by management in the combined management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other Legal and Regulatory Requirements

Further Information Pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor at the annual general meeting on May 16, 2019. We were engaged by the Supervisory Board on January 20, 2020. We have been the group auditor of Vonovia SE without interruption since the Company's IPO in financial year 2013.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor Responsible for the Engagement

The German Public Auditor responsible for the engagement is Martin C. Bornhofen.

Düsseldorf, February 28, 2020

KPMG AG
Wirtschaftsprüfungsgesellschaft
[Original German version signed by:]

[signature] Ufer Wirtschaftsprüfer [German Public Auditor]	[signature] Bornhofen Wirtschaftsprüfer [German Public Auditor]

Responsibility Statement

Balance Sheet Oath

"To the best of our knowledge and belief, and in accordance with the applicable reporting principles, the annual financial statements give a true and fair view of the company's net assets, financial position and results of operations, and the combined management report includes a fair review of the business development and position of the company, including the results, together with a description of the principal opportunities and risks associated with the expected development of the company in the remainder of the fiscal year."

Bochum, Germany, February 25, 2020

Rolf Buch
(CEO)

Arnd Fittkau
(CRO)

Helene von Roeder
(CFO)

Daniel Riedl
(CDO)

EPRA Reporting

Vonovia SE has been a member of EPRA since 2013. The eponymous European Public Real Estate Association (EPRA) is a non-profit organization that has its registered headquarters in Brussels and represents the interests of listed European real estate companies. Its mission is to raise awareness of European listed real estate companies as a potential investment destination that offers an alternative to conventional investments.

In order to make it easier to compare real estate companies and to reflect special features that apply to the real estate sector, EPRA has developed a framework for standardized reporting that goes beyond the scope of the IFRS.

Vonovia reports the EPRA key figures based on the EPRA Best Practice Recommendations (BPRs). Vonovia only uses some of the EPRA key figures as performance indicators, which is why they are reported outside of the management report. They are non-GAAP measures or also APMs (Alternative Performance Measures).

We would like to point out that the EPRA BPRs refer generally to both residential and commercial real estate companies. On the other hand, Vonovia is active almost exclusively in the area of housing. Vonovia's business model is based on the rental of homes, the development and construction of new apartments, both for its own portfolio and for sale to third parties, and the provision of housing-related services. Unlike companies with a commercial portfolio and, as a result, a relatively small number of properties, Vonovia's portfolio features a large number of fairly similar units. This means that it does not make sense for a company specializing in residential real estate to report much of the information recommended in the EPRA BPRs, which focus in particular on significant individual properties.

This is why, with regard to the current real estate portfolio, we have opted not to report an overview of lease agreement terms (the lease agreements tend to be concluded for an indefinite period), the estimated market rent upon the expiry of the lease or the ten biggest tenants in terms of rental income.

The Development segment was expanded further in the 2019 fiscal year. This business still relates almost exclusively to residential units. Further information on the Development segment can be found in the chapter Portfolio in the Development Business. → **p. 81 et seqq.**

EPRA Key Figures

in € million			2018	2019	Change in %
EPRA Performance Indicators	Definition	Target			
EPRA Earnings	Earnings from operational activities.	A key measure of a company's underlying operating results and an indication of the extent to which current dividend payments are supported by earnings.	685.3	785.8	14.7
EPRA NAV	Net Asset Value adjusted to include properties and other investment interests at fair value and exclude certain items not expected to crystallize in a long-term investment property business model.	Make adjustments to IFRS NAV to provide stakeholders with the most relevant information on the fair value of the assets and liabilities within a true real estate investment company with a long-term investment strategy.	26,105.0	29,654.6	13.6
EPRA NNNAV	EPRA NAV adjusted to include the fair values of financial instruments, debt and deferred taxes.	Make adjustments to EPRA NAV to provide stakeholders with the most relevant information on the current fair value of all the assets and liabilities within a real estate company.	17,669.5	18,554.8	5.0
EPRA net initial yield in %	Annualized rental income based on the cash rents passing at the balance sheet date, less non-recoverable property operating expenses, divided by the market value of the property, increased with (estimated) purchasers' costs.	A comparable measure for portfolio valuations. This measure should make it easier for investors to judge for themselves how the valuation of portfolio X compares with portfolio Y.	3.5	3.3	-0.2 pp
EPRA topped-up net initial yield in %	This measure incorporates an adjustment to the EPRA NIY in respect of the expiration of rent-free periods (or other unexpired lease incentives such as discounted rent periods and tiered rents).		3.5	3.3	-0.2 pp
EPRA vacancy rate in %	Estimated Market Rental Value (ERV) of vacant space divided by ERV of the whole portfolio.	A "pure" (%) measure of investment property space that is vacant, based on ERV.	2.3	2.4	0.1 pp
EPRA cost ratio incl. direct vacancy costs in %	Administrative & operating costs (including costs of direct vacancy) divided by gross rental income.	A key measure to enable meaningful measurement of the changes in a company's operating costs.	25.9	25.8	-0.1 pp
EPRA cost ratio excl. direct vacancy costs in %	Administrative & operating costs (excluding costs of direct vacancy) divided by gross rental income.		24.6	24.5	-0.1 pp

EPRA Earnings

The EPRA Earnings is a measure of the operating result. It indicates the extent to which current dividend payments are supported by the operating result. Based on the profit for the period, adjustments are made to reflect changes in the value of assets and liabilities affecting net income, and to reflect sale effects and costs for acquisition/integration.

The EPRA Earnings increased by 14.7% compared with 2018. In 2019, the effect of € 191.0 million that was caused by the discontinuation of the extended trade tax exemption at a series of BUWOG companies is included in the adjustment of deferred tax in relation to EPRA adjustments.

As far as company-specific adjustments are concerned, we include the earnings contributions made by the Development and Recurring Sales segments. Prior-year and non-recurring interest expenses, depreciation and amortization, other non-recurring items and taxes that do not correspond to current income taxes are also eliminated. The adjusted earnings correspond to Group FFO. This was up 7.7% in a year-over-year comparison.

As there were no diluting financial instruments on the reporting dates, the undiluted EPRA earnings equal the diluted figure.

in € million	2018	2019	Change in %
IFRS profit for the period	2,402.8	1,294.3	-46.1
Changes in value of investment properties, development properties held for investments and other interests	-3,517.9	-4,131.5	17.4
Profit or losses on disposal of investment properties, development properties held for investments and other interests	-232.3	-128.8	-44.6
Profit and losses on sales of trading properties including impairment charges in respect of trading properties	-43.3	-52.2	20.6
Selling costs	46.0	49.8	8.3
Taxes on profits or losses on disposals	59.7	33.7	-43.6
Goodwill impairment	681.2	2.103.5	>100
Changes in fair value of financial instruments and associated close-out costs	36.9	71.0	92.4
Acquisition costs	87.8	48.2	-45.1
Deferred tax in relation to EPRA adjustments	1,164.4	1,497.8	28.6
EPRA earnings	685.3	785.8	14.7
EPRA earnings per share in €*	1.32	1.45	9.8
Adjustments Development	20.7	25.6	23.7
Adjustments Recurring Sales	79.1	91.9	16.2
Adjustment other non-recurring items	18.8	44.9	>100
Adjustment depreciation and amortization	56.7	72.3	27.5
Adjustment of prior-year/one-time interest expense	60.4	-34.9	–
Adjustments for other/deferred/prior-year taxes	211.0	262.9	24.6
Adjustment for IFRS 16 effects	–	-29.9	–
Adjusted earnings (Group FFO)	1,132.0	1,218.6	7.7
Adjusted earnings (Group FFO) per share in €*	2.18	2.25	3.2

* Based on the shares carrying dividend rights on the reporting date: Dec. 31, 2018: 518,077,934, Dec. 31, 2019: 542,273,611.

NAV/NNNAV

The presentation of the NAV based on the EPRA definition aims to show the net asset value in a long-term business model. The total equity attributable to Vonovia's shareholders is adjusted to reflect the deferred taxes on investment properties/assets held for sale, the fair value of derivative financial instruments and the deferred taxes on derivative financial instruments. In order to boost transparency, an adjusted NAV, which involves eliminating goodwill in full, is also reported.

The EPRA NNNAV is designed to show the net asset value of a real estate company, taking the current market values of assets and liabilities into account.

in € million	Dec. 31, 2018	Dec. 31, 2019	Change in %
Total equity attributable to Vonovia shareholders	17,880.2	19,308.3	8.0
Deferred taxes on investment properties	8,161.1	10,288.9	26.1
Fair value of derivative financial instruments*	87.2	79.8	-8.5
Deferred taxes on derivative financial instruments	-23.5	-22.4	-4.7
EPRA NAV	26,105.0	29,654.6	13.6
Goodwill	-2.842.4	-1.492.7	-47.5
Adjusted NAV	23,262.6	28,161.9	21.1
EPRA NAV per share in €**	50.39	54.69	8.5
Adjusted NAV per share in €**	44.90	51.93	15.7

in € million	Dec. 31, 2018	Dec. 31, 2019	Change in %
EPRA NAV	26,105.0	29,654.6	13.6
Fair value of derivative financial instruments*	-87.2	-79.8	-8.5
Fair value of financial liabilities	-315.0	-1.126.3	>100
Deferred taxes on derivative financial instruments	23.5	22.4	-4.7
Deferred taxes on fair value of financial liabilities	104.3	372.8	>100
Deferred taxes on investment properties	-8,161.1	-10,288.9	26.1
EPRA NNNAV	17,669.5	18,554.8	5.0
EPRA NNNAV per share in €**	34.11	34.22	0.3

* Adjusted for effects from cross currency swaps.
** Based on the shares carrying dividend rights on the reporting date: Dec. 31, 2018: 518,077,934, Dec. 31, 2019: 542,273,611.

EPRA Net Initial Yield

The EPRA net initial yield shows the ratio of annualized rental income minus property outgoings (annualized net rent) to the gross fair values of the properties. The fair values are increased by the estimated purchasers' costs.

The topped-up net initial yield eliminates the rental incentives in the annualized net rental income. Rental incentives are of only minor importance to a company specializing in residential properties.

Despite the significant increase in annualized rental income, the EPRA net initial yield decreased from 3.5% in 2018 to 3.3% in 2019. The reason for this is a significant increase in the fair value of the real estate portfolio beyond the rent development (yield compression).

in € million	2018	2019	Change in %
Investment properties*	43,490.9	51,383.8	18.1
Assets held for sale*	105.9	129.7	22.5
Fair value of the real estate portfolio (net)	**43,596.8**	**51,513.5**	**18.2**
Allowance for estimated purchasers' costs	3,482.3	3,535.2	1.5
Fair value of the real estate portfolio (gross)	**47,079.1**	**55,048.7**	**16.9**
Annualized cash passing rental income	2,022.0	2,280.0	12.8
Property outgoings	-388.6	-480.0	23.5
Annualized net rents	**1,633.3**	**1,800.0**	**10.2**
Adjustments for rental incentives	2.8	3.8	35.7
Topped-up net annualized rent	**1,636.1**	**1,803.8**	**10.2**
EPRA net initial yield in %	**3.5**	**3.3**	**-0.2 pp**
EPRA topped-up net initial yield in %	**3.5**	**3.3**	**-0.2 pp**

* Fair value of the developed land excluding IFRS 16, development, undeveloped land and inheritable building rights granted.

EPRA Vacancy Rate

The calculation of the EPRA vacancy rate is based on the ratio of the estimated market rent for the vacant residential properties to the estimated market rent of the residential property portfolio, i. e., the vacancy rate shown in the management report is valued based on the market rent for the residential properties.

As of the end of 2019, our apartments were again virtually fully occupied. At 2.4%, the EPRA vacancy rate was slightly higher than the value for the previous year (2.3%).

in € million	Dec. 31, 2018	Dec. 31, 2019	Change in %
Market rent of vacant apartments	49.6	56.4	13.7
Market rent of residential property portfolio	2,181.4	2,303.3	5.6
EPRA vacancy rate in %	**2.3**	**2.4**	**0.1 pp**

EPRA Cost Ratio

As the ratio of EPRA costs to gross rental income, the EPRA cost ratio provides information on the cost efficiency of a real estate company. Adjustments are made to reflect ground rent and direct vacancy costs. Due to the first-time application of IFRS 16 this year, an adjustment of ground rents is no longer necessary in 2019.

in € million	2017	2018	Change in %
Operating expenses	289.4	328.6	13.5
Maintenance expenses	289.7	308.9	6.6
Adjusted EBITDA Value-add	-121.2	-146.3	20.7
Intragroup profits	38.8	43.9	13.1
Ground rent costs	-9.4	–	–
EPRA costs (incl. direct vacancy costs)	487.3	535.1	9.8
Direct vacancy costs	-23.6	-26.8	13.6
EPRA costs (excl. direct vacancy costs)	463.7	508.3	9.6
Rental income in the Rental segment	1,894.2	2,074.9	9.5
Ground rent costs	-9.4	–	–
Gross rental income	1,884.8	2,074.9	10.1
EPRA cost ratio incl. direct vacancy costs in %	25.9	25.8	-0.1 pp
EPRA cost ratio excl. direct vacancy costs in %	24.6	24.5	-0.1 pp

Property-related Capital Expenditure

The table below provides an overview of the property-related capital expenditure made by the company throughout the fiscal year.

In the “acquisitions” category, the previous year was largely characterized by the acquisitions of BUWOG and Victoria Park. In 2019, growth in Sweden was primarily suppressed by the acquisition of the Akelius Residential Property portfolio and of Hembla AB.

Investments in development more than doubled in 2019 compared with the previous year. There was an additional increase in the like-for-like portfolio from € 1,006.0 million in 2018 to € 1,117.6 million in 2019 (+11.1%).

in € million	2018	2019	Change in %
Acquisitions	6,346.2	3,694.1	-41.8
Development	234.3	493.0	> 100
Like-for-like portfolio	1,006.0	1,117.6	11.1
Other	–	–	–
Property-related capital expenditure	7,586.5	5,304.7	-30.1

Like-for-like Rent Increases

The following tables provide an overview of the like-for-like rent increases in the company's residential property portfolio.

Dec. 31, 2019	Residential units	Living area (in thou. m²)	Residential in-place rent (p.a. in € million)	Residential in-place rent like-for-like* Dec. 31, 2018 (in €/m²)	Dec. 31, 2019 (in €/m²)	Change (in %)
Strategic	321,980	19,926	1,581.3	6.55	6.78	3.5
Operate	83,986	5,266	434.9	6.83	7.14	4.6
Invest	237,994	14,660	1,146.4	6.46	6.65	3.0
Recurring Sales	28,144	1,882	151.0	6.71	6.90	2.8
Non-core disposals	4,195	299	20.9	6.24	6.26	0.4
Vonovia Germany	**354,319**	**22,107**	**1,753.2**	**6.56**	**6.78**	**3.4**
Vonovia Sweden	14,278	1,015	111.0	8.79	9.23	5.0
Vonovia Austria	22,060	1,649	86.9	4.52	4.59	1.5
Total	**390,657**	**24,771**	**1,951.1**	**6.52**	**6.74**	**3.4**

* The underlying portfolio has a fair value of € 45,272.3 million.

Regional market	Residential units	Living area (in thou. m²)	Residential in-place rent (p.a. in € million)	Residential in-place rent like-for-like* Dec. 31, 2017 (in €/m²)	Dec. 31, 2018 (in €/m²)	Change (in %)
Berlin	41,845	2,659	215.1	6.62	6.82	3.0
Rhine Main area	27,369	1,746	171.2	8.06	8.31	3.0
Southern Ruhr area	43,417	2,662	191.1	5.93	6.19	4.5
Rhineland	28,458	1,887	160.6	7.05	7.26	2.9
Dresden	38,382	2,182	157.6	6.02	6.23	3.4
Hamburg	19,798	1,251	105.5	6.93	7.16	3.4
Munich	9,617	632	61.7	8.04	8.22	2.1
Stuttgart	13,776	867	82.3	7.78	8.04	3.4
Kiel	23,191	1,334	100.0	6.14	6.39	4.0
Hanover	16,285	1,028	81.0	6.49	6.75	4.0
Northern Ruhr area	25,559	1,580	106.7	5.65	5.82	3.2
Bremen	11,819	714	49.1	5.67	5.93	4.7
Leipzig	9,185	589	41.9	5.96	6.11	2.5
Westphalia	9,473	616	44.5	5.96	6.25	4.9
Freiburg	4,031	276	24.5	7.31	7.49	2.5
Other strategic locations	26,485	1,679	131.6	6.56	6.76	3.0
Total strategic locations Germany	**348,690**	**21,702**	**1,724.4**	**6.57**	**6.79**	**3.4**
Non-strategic locations	5,629	405	28.8	6.32	6.35	0.5
Vonovia Germany	**354,319**	**22,107**	**1,753.2**	**6.56**	**6.78**	**3.4**
Vonovia Sweden	14,278	1,015	111.0	8.79	9.23	5.0
Vonovia Austria	22,060	1,649	86.9	4.52	4.59	1.5
Total strategic locations	**390,657**	**24,771**	**1,951.1**	**6.52**	**6.74**	**3.4**

* The underlying portfolio has a fair value of € 45,272.3 million.

Glossary

Adjusted EBITDA Development
The Adjusted EBITDA Development includes the gross profit from the development activities of "to sell" projects (income from sold development projects less production costs) and the gross profit from the development activities of "to hold" projects (fair value of the units developed for the company's own portfolio less incurred production costs) less the operating expenses from the Development segment.

Adjusted EBITDA Recurring Sales
The Adjusted EBITDA Recurring Sales compares the proceeds generated from the privatization business with the fair values of assets sold and also deducts the related costs of sale. In order to disclose profit and revenue in the period in which they are incurred and to report a sales margin, the fair value of properties sold, valued in accordance with IFRS 5, has to be adjusted to reflect realized/unrealized changes in value.

Adjusted EBITDA Rental
The Adjusted EBITDA Rental is calculated by deducting the operating expenses of the Rental segment and the expenses for maintenance in the Rental segment from the Group's rental income.

Adjusted EBITDA Total (Earnings Before Interest, Taxes, Depreciation and Amortization)
Adjusted EBITDA Total is the result before interest, taxes, depreciation and amortization (including income from other operational investments and intragroup profits) adjusted for effects that do not relate to the period, recur irregularly and that are atypical for business operation, and for net income from fair value adjustments to investment properties. These non-recurring items include the development of new fields of business and business processes, acquisition projects, expenses for refinancing and equity increases (where not treated as capital procurement costs), IPO preparation costs and expenses for pre-retirement part-time work arrangements and severance payments. The Adjusted EBITDA Total is derived from the sum of the Adjusted EBITDA Rental, Adjusted EBITDA Value-add, Adjusted EBITDA Recurring Sales and Adjusted EBITDA Development.

Adjusted EBITDA Value-add
The Adjusted EBITDA Value-add is calculated by deducting operating expenses from the segment's income.

Cash-generating Unit (CGU)
The cash-generating unit refers, in connection with the impairment testing of goodwill, to the smallest group of assets that generates cash inflows and outflows independently of the use of other assets or other cash-generating units (CGUs).

COSO
The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a private-sector U.S. organization. It was founded in 1985. In 1992, COSO published the COSO model, an SEC-recognized standard for internal controls. This provided a basis for the documentation, analysis and design of internal control systems. In 2004, the model was further developed and the COSO Enterprise Risk Management (ERM) Framework was published. Since then, it has been used to structure and develop risk management systems.

Covenants
Requirements specified in loan agreements or bond conditions containing future obligations of the borrower or the bond obligor to meet specific requirements or to refrain from undertaking certain activities.

CSI (Customer Satisfaction Index)
The CSI is determined at regular intervals by means of systematic customer surveys and reflects how our services are perceived and accepted by our customers. The CSI is determined on the basis of points given by the customers for our properties and their neighborhood, customer service and commercial and technical support as well as maintenance and modernization management.

EPRA Key Figures
For information on the EPRA key figures, we refer to the chapter on segment reporting according to EPRA.
→ p. 260 et seqq.

EPRA NAV/Adjusted NAV
The presentation of the NAV based on the EPRA definition aims to show the net asset value in a long-term business model. The equity attributable to Vonovia's shareholders is adjusted to reflect deferred taxes on investment properties, the fair value of derivative financial instruments and the deferred taxes on derivative financial instruments. In order to boost transparency, an adjusted NAV, which involves eliminating goodwill in full, is also reported.

European Public Real Estate Association (EPRA)
The European Public Real Estate Association (EPRA) is a non-profit organization that has its registered headquarters in Brussels and represents the interests of listed European real estate companies. Its mission is to raise awareness of European listed real estate companies as a potential investment destination that offers an alternative to conventional investments. EPRA is a registered trademark of the European Public Real Estate Association.

Fair Value
Fair value is particularly relevant with regard to valuation in accordance with IAS 40 in conjunction with IFRS 13. The fair value is the amount for which an asset could be exchanged between knowledgeable, willing parties in an arm's length transaction.

Fair Value Step-up
Fair value step-up is the difference between the income from selling a unit and its current fair value in relation to its fair value. It shows the percentage increase in value for the company on the sale of a unit before further costs of sale.

GAV
The Gross Asset Value (GAV) of the recognized real estate investments. This consists of the owner-occupied properties, the investment properties including development to hold, the assets held for sale and the development to sell area. In the latter, both residential properties for which a purchase contract has been signed and those with the intention to sell – i. e., a purchasecontract has not yet been signed – are included.

Group FFO
Group FFO reflects the recurring earnings from the operating business. In addition to the adjusted EBITDA for the Rental, Value-add, Recurring Sales and Development segments, Group FFO allows for recurring current net interest expenses from non-derivative financial instruments as well as current income taxes. This key figure is not determined on the basis of any specific international reporting standard but is to be regarded as a supplement to other performance indicators determined in accordance with IFRS.

LTV Ratio (Loan-to-Value Ratio)
The LTV ratio shows the extent to which financial liabilities are covered. It shows the ratio of non-derivative financial liabilities pursuant to IFRS, less foreign exchange rate effects, cash and cash equivalents less advance payments received by Development (period-related), receivables from disposals, plus purchase prices for outstanding acquisitions to the total fair values of the real estate portfolio, fair values of the projects/land currently under construction as well as receivables from the sale of real estate inventories (period-related) plus the fair values of outstanding acquisitions and investments in other real estate companies.

Maintenance
Maintenance covers the measures that are necessary to ensure that the property can continue to be used as intended over its useful life and that eliminate structural and other defects caused by wear and tear, age and weathering effects.

Modernization Measures
Modernization measures are long-term and sustainable value-enhancing investments in housing and building stocks. Energy-efficient refurbishments generally involve improvements to the building shell and communal areas as well as the heat and electricity supply systems. Typical examples are the installation of heating systems, the renovation of balconies and the retrofitting of prefabricated balconies as well as the implementation of energy-saving projects, such as the installation of double-glazed windows and heat insulation, e. g., facade insulation, insulation of the top story ceilings and basement ceilings. In addition to modernization of the apartment electrics, the refurbishment work upgrades the apartments, typically through the installation of modern and/or accessible bathrooms, the installation of new doors and the laying of high-quality and non-slip flooring. Where required, the floor plans are altered to meet changed housing needs.

Monthly In-place Rent
The monthly in-place rent is measured in euros per square meter and is the current gross rental income per month for rented units as agreed in the corresponding rent agreements at the end of the relevant month before deduction of non-transferable ancillary costs divided by the living area of the rented units. The rental income from the Austrian property portfolio additionally includes maintenance and improvement contributions (EVB). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating and heating costs.

The in-place rent is often referred to as the "Nettokaltmiete" (net rent excl. ancillary costs such as heating, etc.). The monthly in-place rent (in € per square meter) on a like-for-like basis refers to the monthly in-place rent for the residential portfolio that was already held by Vonovia 12 months previously, i. e., portfolio changes during this period are not included in the calculation of the in-place rent on a like-for-like basis. If we also include the increase in rent due to new construction measures and measures to add extra stories, then we arrive at the organic increase in rent.

Non-core Disposals
We also report on the Other segment, which is not relevant from a corporate management perspective, in our segment reporting. This includes the sale, only as and when the right opportunities present themselves, of entire buildings or land (Non-core Disposals) that are likely to have below-average development potential in terms of rent growth in the medium term and are located in areas that can be described as peripheral compared with Vonovia's overall portfolio and in view of future acquisitions.

Vacancy Rate
The vacancy rate is the number of empty units as a percentage of the total units owned by the company. The vacant units are counted at the end of each month.

Rating
Classification of debtors or securities with regard to their creditworthiness or credit quality according to credit ratings. The classification is generally performed by rating agencies.

Recurring Sales
The Recurring Sales segment includes the regular and sustainable disposals of individual condominiums from our portfolio. It does not include the sale of entire buildings or land (Non-core disposals). These properties are only sold as and when the right opportunities present themselves, meaning that the sales do not form part of our operating business within the narrower sense of the term. Therefore, these sales will be reported under "Other" in our segment reporting.

Rental Income
Rental income refers to the current gross income for rented units as agreed in the corresponding lease agreements before the deduction of non-transferable ancillary costs. The rental income from the Austrian property portfolio additionally includes maintenance and improvement contributions (EVB). The rental income from the portfolio in Sweden reflects inclusive rents, meaning that the amounts contain operating and heating costs.

Financial Calendar

March 5, 2020
Publication of 2019 Annual Report

May 5, 2020
Publication of the interim financial report for the first three months of 2020

May 13, 2020
Annual General Meeting

August 5, 2020
Publication of the interim financial report for the first half of 2020

November 4, 2020
Publication of the interim financial report for the first nine months of 2020

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Note
This Annual Report is published in German and English. The German version is always the authoritative text. The Annual report can be found on the website at www.vonovia.de.

EPRA is a registered trademark of the European Public Real Estate Association.

Disclaimer
This report contains forward-looking statements. These statements are based on current experience, assumptions and forecasts of the Management Board as well as information currently available to the Management Board. The forward-looking statements are not guarantees of the future developments and results mentioned therein. The future developments and results depend on a large number of factors. They involve certain risks and uncertainties and are based on assumptions that may prove to be inaccurate. These risk factors include but are not limited to those discussed in the risk report of the 2019 Annual Report. We do not assume any obligation to update the forward-looking statements contained in this report. This financial report does not constitute an offer to sell or the solicitation of an offer to subscribe for or buy any securities of Vonovia SE.

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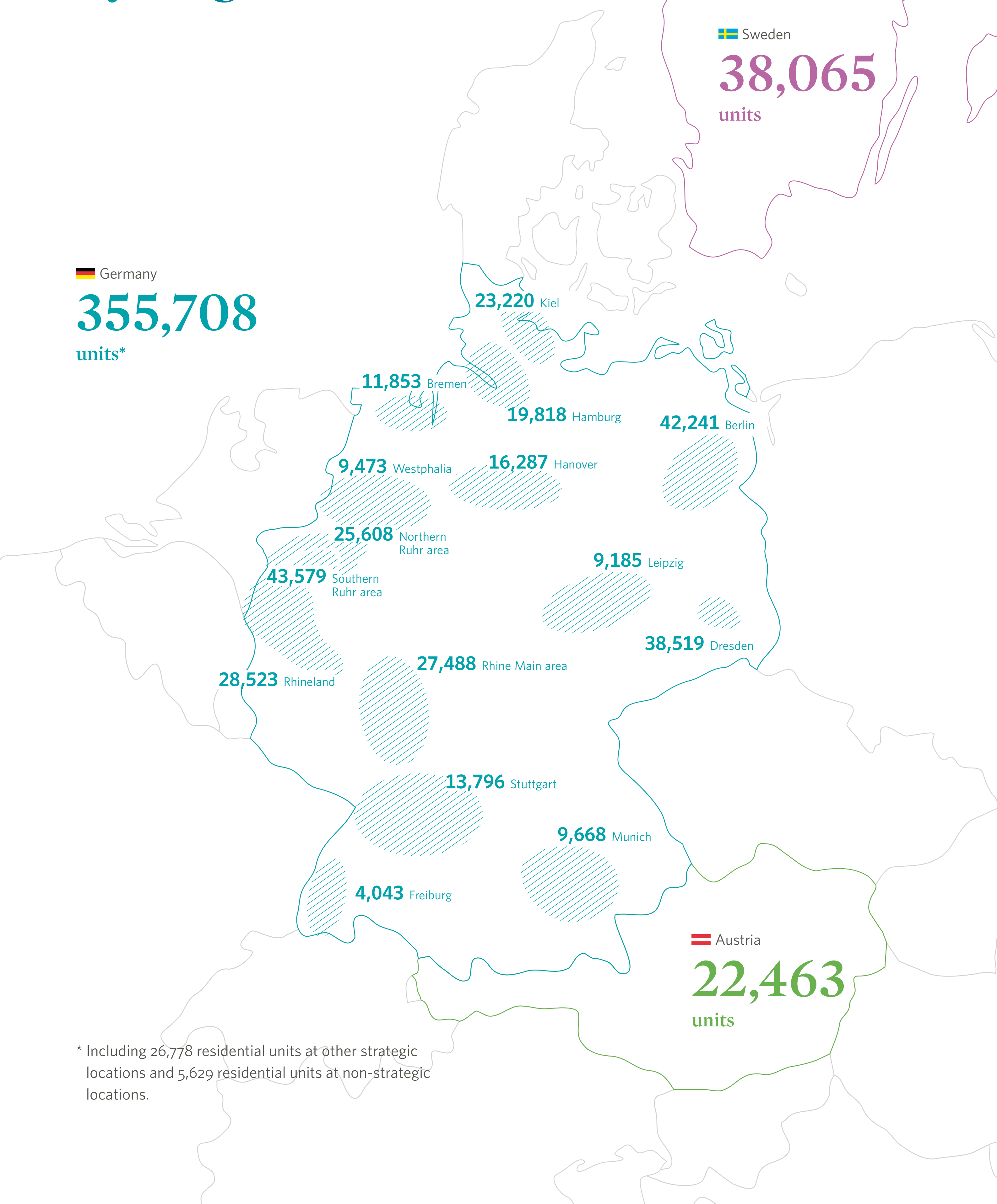
As of March 2020

Housing Stock by Regional Market



* Including 26,778 residential units at other strategic locations and 5,629 residential units at non-strategic locations.