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# REAL ESTATE MARKET GERMANY 2020 | 2021

## Office and housing markets perform solidly, retail sector faces increasing challenges

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# PREFACE

Dear readers,

Maximum transparency on the real estate market is of great importance. DZ HYP contributes to this by regularly examining the locations where it is active. This year, the thirteenth edition of the present study focuses on real estate market developments concerning retail, office and housing properties in Germany's top locations – namely, Hamburg, Berlin, Dusseldorf, Cologne, Frankfurt, Stuttgart and Munich.

Due to the coronavirus pandemic, 2020 turned out to be an exceptional year. The real estate market overall is performing solidly, particularly in the residential real estate segment, despite numerous challenges and changes. Whilst recessionary effects dampen rental dynamics, all locations studied performed well. The office property market is also largely stable.  In this segment, the coronavirus pandemic encountered a market with falling vacancy rates and increasing demand at the beginning of the year – in all of the country's prime locations. Against this background, rents remained on the high levels seen in the previous year during the first three quarters of 2020. Going forward, demand for office space is expected to show a moderate decline, as a result of which top rents should also go down slightly. 2020 was a difficult year for the retail sector. For a few years now, the asset class has been undergoing structural changes: the coronavirus pandemic accelerated these changes, forcing numerous retailers to close outlets. Rents in all top locations are anticipated to drop slightly in 2021.

This study includes a detailed discussion on urban logistics. The advancement of e-commerce is also affecting the logistics market, with demand for inner-city space climbing significantly. The 'last mile' is becoming an increasingly relevant challenge for urban designers and logistics providers, to which small distribution centres in conurbations (known as 'micro-depots') could be a solution.

The German real estate market report 2020/2021 is of course also available in German. All current reports can be downloaded from our website (on www.dzhyp.de/en/about-us/market-research/).

Yours sincerely,

**DZ HYP**

December 2020

## SUMMARY

**13th issue of our report highlights diverging trends in real estate markets in the pandemic: Negative impact on commercial properties while residential market remains upbeat**

- The economic crisis triggered by the coronavirus could have a more sustained impact on the real estate market than previous recessions. The familiar trend of demand picking up again as the economy recovers could therefore be weaker than usual this time: Digitalisation, home working, and online shopping have gained momentum massively as a result of the pandemic, and are likely to have an adverse impact on future demand for office and retail space. Conversely, residential properties have become more desirable. Anyone who spends a lot of time at home appreciates the merits of a pleasant apartment.

- The consequences are already clearly visible in this **13th issue of our market report** on the commercial real estate market in the seven largest German cities. While it is becoming more difficult to let office and retail space in the **top locations of Berlin, Cologne, Düsseldorf, Frankfurt, Hamburg, Munich and Stuttgart,** residential properties remain in demand.

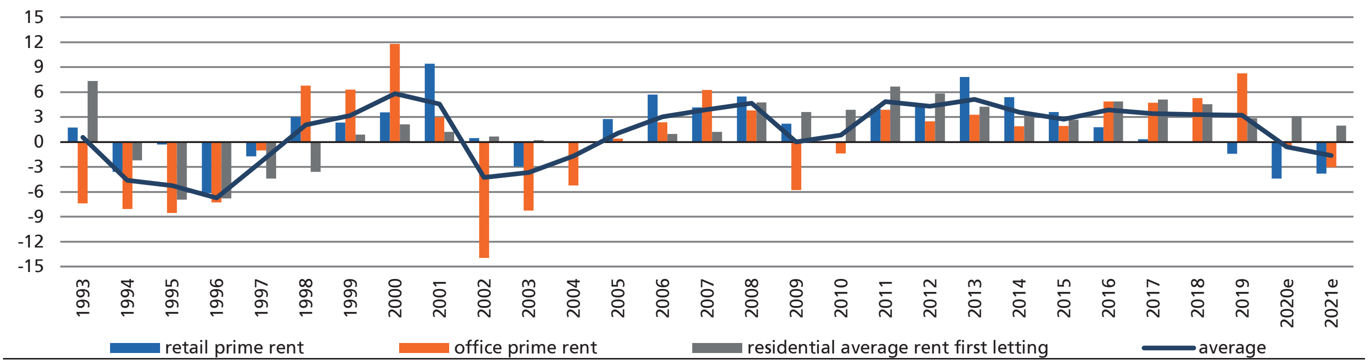
- E-commerce has long been a cause of concern for the **retail sector**. Several years ago the retail sector already started to thin its expensive branch networks. However, high economic power, demographic growth, and tourism insulated the top locations from any negative impact. The pandemic is nevertheless forcing retailers to carry out extensive branch closures. Tourism has also slumped. Landlords are facing falling rents, renegotiated rental contracts, and most importantly, questions about the future of obsolete retail space.

- Thanks to low vacancy rates as a result of previously high space demand and a low volume of new office construction, the **office market** has proved robust. With vacancy rates increasing moderately, prime office rents have remained largely stable. However, as demand for space falls, they could weaken marginally in 2021.

- **Residential markets** in the top locations reflect the supply shortage. A growing volume of new properties, high rents, slower demographic growth, and the consequences of the recession, are nonetheless dampening rent growth. But residential letting will remain a solid business.

- There is still a high level of investor interest in the German property market, which is regarded as a comparatively safe haven. The main focus is once again on core properties and only a few asset classes.

**TOP LOCATIONS: DIVERGING TRENDS – RESIDENTIAL RENTS STILL RISING, COMMERCIAL RENTS FALLING**
RENTS VS. PREVIOUS YEAR IN PER CENT (TOP LOCATIONS)




Source: bulwiengesa, DZ BANK forecast

## Retail – pandemic accelerates structural change

**Retail: Widespread branch closures lead to falling rents and higher vacancy rates**

» Digitalisation became established early in the retail sector and has led to rapid growth in online sales for more than 20 years. Most products bought online also feature strongly in the ranges of goods on offer in high street stores and shopping centres. Virtually every retail chain also therefore has an online presence. However, the expansion of branch networks has also continued for a long time.

» Various city centre shopping centres were built in response to ongoing demand for sales space. The average prime rent for premium sites in top locations has climbed to nearly EUR 300 per sqm. However, the high costs of operating parallel sales channels have reversed the trend for branch expansion. Despite a positive economic climate for retail, rents in prime locations have now stopped increasing.

» The coronavirus pandemic has created uncertainty for retailers already weakened by cost-cutting pressure. Sales lost due to the lockdown have led to many insolvencies and massive losses of rental income. To mitigate the damage, many retailers have hit the brakes. Instead of gradually scaling down branch networks, many shops and department stores have simply been shut. The recovery is also proving difficult. The recession is denting incomes, tourist revenue has dried up, and hopes of buoyant Christmas business are receding. Many gifts are likely to be purchased online this year as a result of the soft lockdown in November and the cancellation of Christmas markets.

» Accelerated structural change in the retail sector will permanently reduce demand for city centre sales space. However, the risk of the "death of the high street" faced by many city centres, is not generally affecting the top locations. Substantial customer potential, high purchasing power, and long-term tourism potential will ensure the revival of shopping streets with corresponding interest from retailers. Many city centre locations will also lend themselves to repurposing. Alternative uses include apartments, accommodation for students or retired people, hotels and coworking space.

» Growing vacancy rates, falling retail rents, and a depreciation in the value of peripheral sites in premium locations are likely. The differentiation between individual city centres locations is also likely to grow. Retailers will also renegotiate rental agreements to obtain shorter, and turnover-based contract terms.

**FORECASTS FOR RETAIL PROPERTIES**

| | Prime rents EUR per sqm | | | Change in prime rents % vs. prev. yr. | | |
|---|---|---|---|---|---|---|
| | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e |
| Berlin | 300 | 280 | 265-275 | -3.2 | -6.7 | ↘ |
| Cologne | 255 | 245 | 230-240 | 0.0 | -3.9 | ↘ |
| Düsseldorf | 285 | 280 | 265-275 | 1.1 | -1.8 | ↘ |
| Frankfurt | 300 | 290 | 270-280 | 0.0 | -3.3 | ↘ |
| Hamburg | 285 | 275 | 260-270 | 0.0 | -3.5 | ↘ |
| Munich | 345 | 340 | 320-330 | 0.0 | -1.4 | ↘ |
| Stuttgart | 235 | 225 | 215-225 | -4.1 | -4.3 | ↘ |
| **Average for top locations** | 294 | 281 | 270-280 | -1.4 | -4.4 | ↘ |

Source: bulwiengesa, Scope, DZ BANK Research forecast
Prime rents are based on the average of the top 3 to 5 per cent of market rentals, and the stated figure does not therefore represent the absolute top rent.

## Office – recession and home working dent office demand

**Office: Not yet clear how badly home working is depressing office demand**

» While the retail sector was already struggling with weakening demand for space before the coronavirus pandemic, the main factor in the office market was a supply shortage. Continuing demand for office space and a fairly low volume of new construction led to a streamlining of available space. Large rental contracts were increasingly focused on project developments. The gradual reduction in vacant office space was accompanied by a steady rise in office rents. Within five years, prime office rents increased by about a quarter to more than EUR 33 per sqm.

» The coronavirus pandemic therefore impacted on a booming office market. However, unlike previous recessions, the consequences extend beyond a temporary demand dip. To curb the transmission of coronavirus in the spring, nearly all office employees started to work from home from one day to the next. This worked so well that the proportion of flexible office jobs is likely to increase visibly. One clear advantage for employees is the time saved on commuting. Conversely, employers benefit from lower costs for office space, if they are able to significantly reduce the number of office workplaces.

» Despite the emerging economic recovery, future demand for office space will therefore be weaker as a result of the impact of home working. This is likely to depress rent growth and increase the number of vacant properties. The accelerated growth in available space will also play a minor role here. Given the shortage of the office supply, new office construction has gained pace, which is certainly positive given that many office properties are outmoded.

» However, no major distortions are expected in the office markets. The low volume of vacant office space will be a major factor here. The largest volume of new office space will also be in Berlin - the office market where the shortage of space is most acute. Office rents are therefore fairly unlikely to fall sharply. The divergence could nevertheless widen. Relatively unattractive office properties and locations will probably suffer more from weak market conditions.

» However, home working is not the only factor which is dampening demand for office space. In the years ahead, the “baby boomer” generation, with its high birth rates in the 1950s and 1960s, will start to retire, resulting in a clear contraction of the potential labour force in Germany.

**FORECASTS FOR OFFICE PROPERTIES**

| | Prime rents EUR per sqm | | | Change in prime rents % vs. prev. yr. | | |
|---|---|---|---|---|---|---|
| | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e |
| Berlin | 39.0 | 38.5 | 37.0-38.0 | 16.4 | -1.3 | ↘ |
| Cologne | 23.5 | 23.2 | 22.0-23.0 | 6.8 | -1.3 | ↘ |
| Düsseldorf | 26.5 | 26.1 | 24.5-25.5 | 3.9 | -1.5 | ↘ |
| Frankfurt | 41.0 | 40.5 | 38.5-39.5 | 3.8 | -1.2 | ↘ |
| Hamburg | 29.0 | 29.5 | 28.0-29.0 | 5.5 | 1.7 | ↘ |
| Munich | 39.5 | 39.0 | 37.5-38.5 | 6.8 | -1.3 | ↘ |
| Stuttgart | 23.0 | 23.8 | 22.5-23.5 | 4.5 | 3.5 | ↘ |
| **Average for top locations** | **33.4** | **33.2** | **31.7-32.7** | 8.2 | -0.5 | ↘ |

Source: bulwiengesa, Scope, DZ BANK Research forecast
Prime rents are based on the average of the top 3 to 5 per cent of market rentals, and the stated figure does not therefore represent the absolute top rent.

### Residential – demand overhang in housing market gradually shrinking

**Residential: Housing demand unaffected by pandemic**

- In contrast to commercial real estate, demand in the residential market has been unaffected by the coronavirus pandemic. In fact, the home environment has become more important. Less contact with family and friends, less travel, the lockdown and home working: since the outbreak of the pandemic, everyone has spent more time at home, and the benefits of a pleasant apartment have tended to be appreciated more.
- As a result, rent growth in the seven largest cities is increasing at roughly the same rate as last year. Average initial rents in the top locations have risen by about 3 per cent to EUR 15.50 per sqm and range from around EUR 13.50 per sqm in Düsseldorf and Cologne to EUR 20 per sqm in Munich.
- Since 2019, it has no longer been able to achieve the significantly higher annual rent growth of around 5 per cent which was evident from 2016 to 2018. There are probably three main reasons for this. Firstly, although housing is in short supply in the large cities, it is gradually improving as housebuilding increases. Secondly, the fairly high rents which are now being achieved are having a braking effect. And thirdly, demographic growth in cities has slowed.
- The increasing regulation of the housing market could also hamper rent growth. Although the rent brake and the Berlin rent cap do not apply to new properties, by dampening the pace of rent growth for existing properties they could also have an impact on new apartments.
- The pace of rent growth is likely to weaken again slightly next year. One contributory factor will be the higher unemployment caused by the economic crisis. The impact of home working could also depress demand for expensive apartments in cities. Workers who do not have to be present in offices so often may accept a longer commute, and extend the radius of their property search into more outlying areas.

**FORECASTS FOR RESIDENTIAL PROPERTIES**

| | Average initial rent EUR per sqm | | | Average initial rent % vs. prev. yr. | | |
|---|---|---|---|---|---|---|
| | 2019 | 2020e | 2021e | 2019 | 2020e | 2021e |
| Berlin | 13.9 | 14.6 | 14.8-15.0 | 3.0 | 5.0 | ↗ |
| Cologne | 13.3 | 13.6 | 13.8-14.0 | 2.3 | 2.3 | ↗ |
| Düsseldorf | 13.1 | 13.4 | 13.5-13.7 | 1.6 | 2.3 | ↗ |
| Frankfurt | 16.1 | 16.5 | 16.8-17.0 | 3.9 | 2.5 | ↗ |
| Hamburg | 14.4 | 14.8 | 15.0-15.2 | 1.4 | 2.8 | ↗ |
| Munich | 19.8 | 20.0 | 20.2-20.4 | 4.2 | 1.0 | ↗ |
| Stuttgart | 15.9 | 16.3 | 16.5-16.7 | 2.6 | 2.5 | ↗ |
| **Average for top locations** | **15.0** | **15.5** | **15.7-15.9** | 2.8 | 3.1 | ↗ |

Source: bulwiengesa, Scope, DZ BANK Research forecast

## ECONOMIC CONDITIONS IN GERMANY

**Economic growth already slowing in 2019**

Economic growth in Germany was already slowing last year as export business weakened. Economic output grew by only about half of one per cent in 2019. Braking factors were the US-China trade war, Brexit and new customs duties. However, expectations that economic growth would accelerate again slightly in 2020 have been dashed by the coronavirus pandemic.

**Coronavirus pandemic drives down economic output by more than 5 per cent in 2020**

The spring lockdown led to a dramatic slump in economic activity in the second quarter. However, a recovery was already clearly under way in the third quarter, before the momentum slowed again in the autumn. The number of Covid cases has risen again rapidly in Europe in the “second wave”. The German government imposed a partial lockdown to prevent the healthcare system from being overwhelmed, while minimising collateral damage to the economy as much as possible. The main impact has been felt by the hospitality sector, and leisure and sport. The economic recovery is nevertheless slowing. Below the line, economic output is likely to collapse by about 5 per cent this year. We expect growth of 3 per cent in 2021.

**Unemployment up sharply**

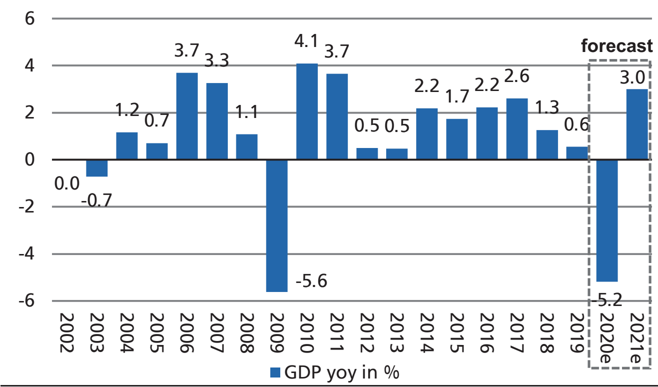
Despite the billions spent on economic measures, unemployment has increased visibly. The unemployment rate - which fell to an annual average of 5 per cent in 2019 - is likely to grow by a good one percentage point this year and in 2021, thus curbing consumer spending.

**ECONOMIC FORECAST GERMANY**

| *Year-on-year (%)* | 2018 | 2019 | 2020e | 2021e |
|---|---|---|---|---|
| **GDP** | **1.3** | **0.6** | **-5.2** | **3.0** |
| Private consumption | 1.5 | 1.6 | -6.9 | 0.8 |
| Public consumption | 1.2 | 2.6 | 4.8 | 5.2 |
| Investment | 3.5 | 2.4 | -2.6 | 5.1 |
| Exports | 2.3 | 1.0 | -12.1 | 6.9 |
| Imports | 3.7 | 2.6 | -8.9 | 7.0 |
| **Unemployment rate (in %)** | **5.2** | **5.0** | **6.0** | **6.9** |
| Inflation rate (HICP) | 1.9 | 1.4 | 0.3 | 1.5 |
| Budget balance (as % of GDP | 1.9 | 1.4 | -5.9 | -2.9 |

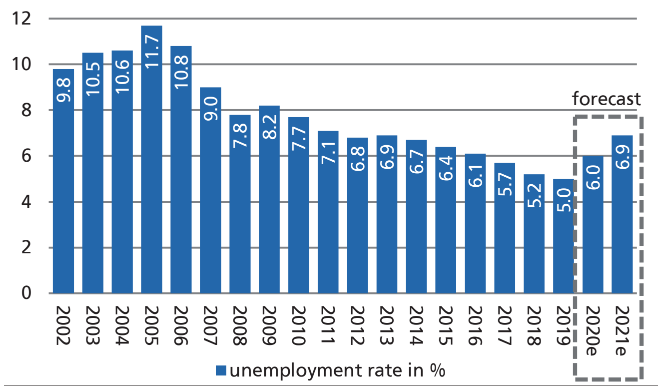
Source: Eurostat, Federal Employment Agency, DZ BANK forecast

**CORONAVIRUS PANDEMIC: MUTED RECOVERY AFTER STEEP DOWNTURN IN ECONOMIC OUTPUT**




Source: Eurostat, DZ BANK forecast

**ECONOMIC CRISIS DRIVES UNEMPLOYMENT UP SHARPLY**




Source: Federal Employment Agency, DZ BANK forecast

## CITY LOGISTICS

### Micro depots – the future of city logistics?

**Logistics an essential precondition for e-commerce**

Sophisticated logistics is the backbone of our global and highly collaborative economy. For example, it facilitates just-in-time manufacturing in the automotive industry, where components made by international suppliers are available at the right time and an individually configured vehicle can be produced. However, rapidly growing e-commerce could not function either without precise logistics. This is the only way to facilitate the delivery of a product ordered online, often as early as the next day. The supply chain must be fast, as well as reliable and cost-efficient.

**Online shop plus logistics chain increasingly replacing in-store retail**

E-commerce is not only convenient for the buyer. A huge range of products is also offered, and at attractive prices. On the other hand, city centre retail still provides an enhanced shopping experience in attractive city centres and shopping centres, and the opportunity to try products out. However, the competitive situation deteriorates with shorter delivery times because the advantage of immediate availability disappears. This is certainly the case when supply logistics enable same-day delivery. The combination of an online shop and the logistics chain will increasingly replace in-store retail.

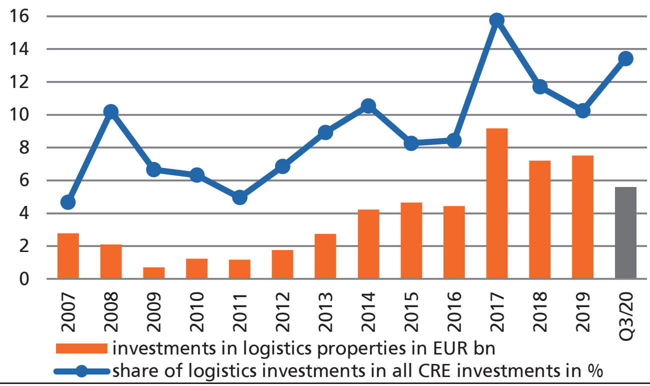
**E-commerce has become the scourge of the retail sector within only a few years**

At the new millennium, online sales were still irrelevant to the retail sector. Conversely, they could be worth nearly EUR 70bn this year, more than 12 per cent of total retail sales. However, successful online shopping is also leading to steady growth in the volume of parcels. And delivery volume could increase again significantly if e-commerce also takes off in the local supply market which is worth billions.

**Logistics infrastructure must be expanded as online retail grows**

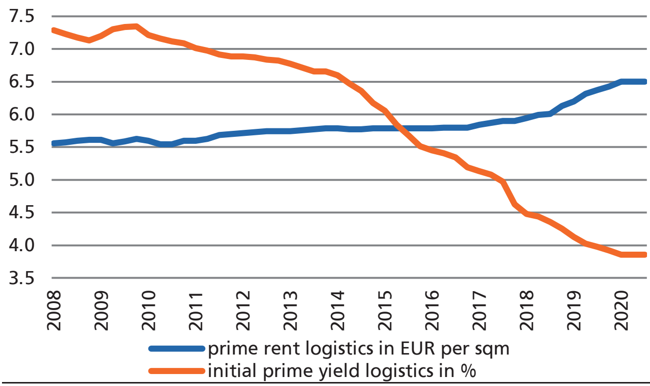
However, capacity for the underlying logistics will also have to be expanded in line with the rapid growth in online retail. Demand for logistics properties is correspondingly high. On the one hand, these are logistics centres the size of football pitches, often conveniently situated at central motorway junctions, and on the other hand, smaller logistics properties closer to cities, which are used to make deliveries to customers. The second of these has played a particularly important role in recent years. While investor interest in the iconic shopping centres which were previously so popular has all but disappeared, for some time e-commerce has led to demand for unremarkable logistics properties exceeding supply.

**LOGISTICS: HIGH INVESTOR DEMAND**




Source: BNP Paribas Real Estate

**LOGISTICS: RENT AND YIELD TRENDS IN TOP LOCATIONS**




Source: bulwiengesa

Average Top 7 cities

**Logistics a particularly popular asset class with investors**

Logistics has overcome its niche status as an asset class. Since 2017, at least EUR 7bn has been invested in logistics properties each year. Logistics has thus consistently accounted for a double-digit share of total investment in commercial real estate. The proportion would probably be even higher given a larger supply of properties. As a result of the demand overhang, the initial rental yield for prime logistics properties has halved within ten years to less than 4 per cent. However, prime rents for logistics properties are increasing only moderately. The slightly higher growth which started in 2018 has not continued into the pandemic year of 2020.

### The challenge of the "last mile"

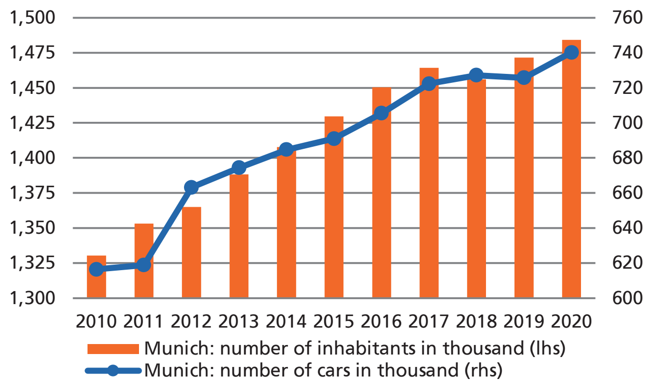
**On average, 50 deliveries made to each household per year**

However, supply logistics poses a growing challenge for online retail in conurbations. Urbanisation is progressing, and cities are becoming increasingly congested. Major cities have expanded particularly rapidly in recent years. An increasing number of parcels are also being delivered to households. In 2009, there were 22 deliveries per household, and the number is likely to exceed 50 in 2020. Added to this are deliveries to companies. Last year, a total of 3.65bn parcels were delivered by courier, express and parcel services (CEP). Throughout Germany, more than 12 million deliveries are made to around 7 million customers on each delivery day.

**Delivery traffic a nuisance for residents**

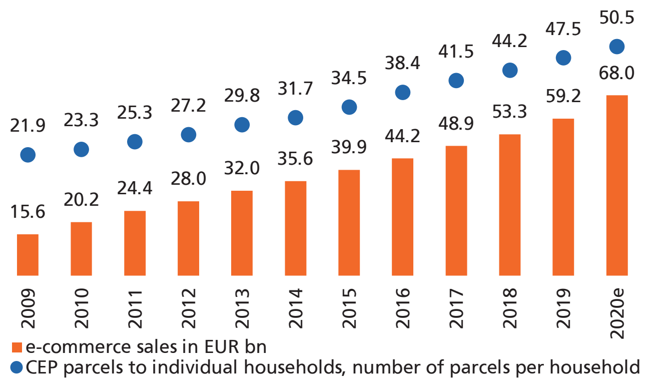
However, the continuing growth in conurbations is not the reason why the flow of goods is expanding. As the population grows, private transport also increases. Take Munich as an example: Between 2010 and 2020, the population grew by 150,000, while the number of cars increased by 120,000. This leads to increasing obstruction for city dwellers and delivery services, for example from traffic jams caused by delivery vehicles double parking or blocking cycle paths.

**MUNICH AS AN EXAMPLE: GRIDLOCK IN THE METROPOLITAN AREA**




Source: Bavarian State Office for Statistics, Federal Motor Transport Authority

**ONLINE RETAIL SALES**




Source: BIEK, German Retail Federation (HDE)

**High levels of environmental pollution in cities**

The situation is compounded by environmental problems. Air in cities is already heavily polluted with harmful substances largely due to the volume of traffic. For example, EU nitrogen oxide thresholds are often exceeded. This has led to a ban on diesel vehicles in a number of cities. The growing number of vans used by logistics companies which are continuously stopping and starting, are aggravating the problem further. Ambitious climate protection targets can only be achieved if the volume of traffic – powered by combustion engines – declines. Noise pollution is also a problem.

**Bottleneck of the "last mile"**

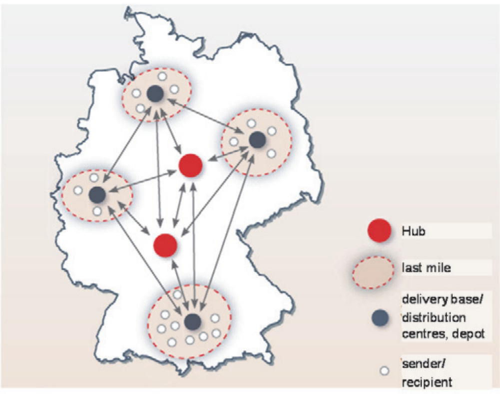
The "last mile" thus represents a growing challenge for parcel deliveries in metropolitan areas. City planners and logistics providers must respond to avoid burdening city centres with an excessive number of delivery vehicles. The previous delivery model is not sustainable in the long run. Alternative concepts must therefore be found

### What does the current logistics model used by CEP service providers look like?

**Logistics infrastructure based on national, and smaller regional parcel centres**

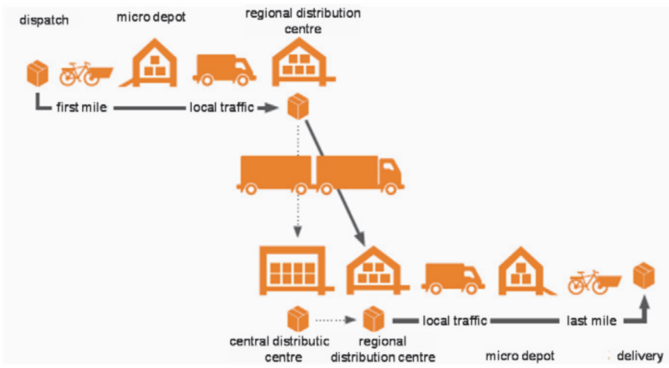
Logistics service providers generally have access to a large number of regional distribution centres close to cities as well as a few large centres, or hubs, which also play an important role for international transport. Parcels are brought from the parcel shop to the regional depots where they are sorted. They are then transported by truck either via the hub or directly to the regional depot near the delivery address. The parcels are then sorted again and transported to the end customer by a delivery vehicle. While the regional distribution centres are often situated on the periphery of cities with good long distance transport links, hubs are frequently located near airports where night flights are permitted.

**NETWORK STRUCTURES IN THE COURIER, EXPRESS AND PARCEL SERVICES MARKET**




Source: Cologne Chamber of Commerce and Industry (IHK)

**LOGISTICS INFRASTRUCTURE WITH MICRO DEPOTS**




Source: IHK Middle Lower Rhine region

**Delivery traffic increasing rather than declining**

As we have described, although this logistics concept is convenient for customers, it also has a negative impact on residents, partly because most of the delivery vehicles used by CEP service providers have diesel engines. Nor are deliveries by different service providers combined, although this would reduce the volume of delivery traffic. In fact, CEP service providers want to make "their" deliveries to customers themselves. Given the pace of growth in e-commerce, this means that there is unlikely to be any reduction in the volume of delivery traffic, and emissions per delivery must instead be reduced.

**REQUIREMENTS OF PARTICIPANTS IN / THOSE AFFECTED BY THE LOGISTICS PROCESS**

| | Transporters | Public bodies | Recipients | Residents | Sender/ Producer |
|---|---|---|---|---|---|
| Flexible delivery times | X | | X | | X |
| Cost-saving | X | | X | | X |
| Reduction in truck journeys | X | X | X | X | |
| Reduction in negative external impact | X | X | X | X | X |
| Time-saving | X | | X | | |

Source: Federal Ministry of Transport and Digital Infrastructure

### Can micro depots and delivery bikes solve the problem?

**Mini depot in city centre**

Micro depots could be used to provide a more sustainable delivery method on the "last mile". These are small logistics warehouses, located in districts where there is a large volume of deliveries. In the morning, a transport vehicle brings the deliveries from a large distribution centre on the outskirts of a city to a micro depot; onward delivery to customers is then carried out, preferably by electric cargo bikes. This makes the last part of the delivery process emission-free and has a less negative impact on traffic volume. At the moment, a conventional delivery vehicle makes an average of 12 deliveries per hour. The more stops a transport vehicle makes per hour, the greater the benefits of cargo bikes, since the average distance between individual deliveries is reduced.

**Size of micro depots varies**

The transport capacity of cargo bikes is small compared to a spacious van. The delivery radius is therefore generally considered to be about one kilometre per micro depot. Micro depots require different amounts of space, depending on whether the cargo bikes are stored there. Another consideration is whether the depot is used by one or more service providers. Utilisation models based on several parcel services operating out of one micro depot are at least under discussion. Without parking space for cargo bikes, the minimum space needed is estimated to be 20 sqm, and including parking space, at least 50 sqm. A loading bay and sufficient space for delivery traffic are an advantage.

**Micro depots: Still not standard, so far only a pilot project**

So far, only a few pilot projects have been started. However, they show how creative the model of the micro depot can be. UPS and Hermes are using mobile containers and trailers in Munich and Hamburg as micro depots; these are delivered in the morning from regional distribution centres and are parked on rented space. Cargo bikes are then used for the onward transportation of deliveries. As an alternative concept, GLS in Düsseldorf is using an extended parcel shop as a micro depot and combining all important functions on one site. The "KoMoDo" project in Berlin also shows that joint use of a property is possible. There, four CEP service providers have been given government subsidies to create micro depots, each with their own dedicated area. The requirements of the properties differ depending on the concept used.

**Use of micro depots hampered by high costs**

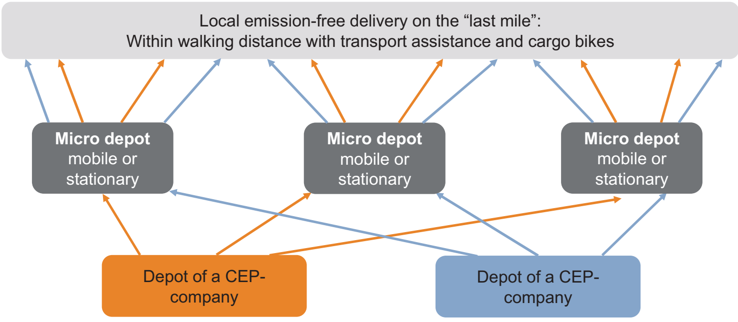
But why are micro depots still only at the pilot project stage? The delivery logistics model we have described, with its very small depots and cargo bikes, generates higher costs compared to the current standard delivery model in a segment characterised by intense competition and price-sensitive customers. One of the cost

**OVERVIEW: WHAT TYPE OF PROPERTIES ARE USED FOR LOGISTICS?**

| Type of property | Description | Type of location | Ideal location | Deadline | Sector | Space required | Example |
|---|---|---|---|---|---|---|---|
| E-fulfilment centre | Mega hubs in broader agglomeration | Out of town | Agglomeration of large cities, very good transport hub | Standard shipping | Retail logistics/ e-commerce | from 25,000 sqm up to 150,000 sqm | Zalando |
| Regional depot | Medium-sized hubs close to subsequent delivery | Out of town/city centre | In the agglomeration or hinterland of a city, in some cases in a city centre | Replenishment, standard shipping | Retail logistics/ CEP sector | approx. 15,000 sqm | Deutsche Post DHL |
| Urban fulfilment centre | City-centre local supply centres | City centre | Convenient city-edge location or within an urban district | Same-day delivery (last mile) | Retail logistics | approx. 4,000 sqm - 6,000 sqm | Amazon Fresh |
| Micro-fulfilment centre | Direct delivery of online orders to customers | City centre | City centre in densely populated locations [close to the customer] | Same-hour delivery (last mile) | Retail logistics | approx. 1,000 sqm- 3,000 sqm | Amazon Prime Now |
| Micro hub | Fine-meshed and small-scale fine distribution | City centre | Network-type distribution over whole city [very close to the customer] | Same-hour delivery (last mile) | CEP sector, to some extent retail | approx. 15sqm-25 sqm (CEP), approx. 200 sqm – 500 sqm (retail) | UPS, Hermes |

Source: bulwiengesa

**OVERVIEW OF DELIVERY PROCESS WITH MICRO DEPOT**




Source: German Parcel and Express Association (BIEK)

drivers is the increase in the number of logistics stations from two to three (hub plus regional depot plus micro depot). The costs for the third depot are increased even further by the need to reload goods consignments. Cargo bikes also have limited capacity, which means that the courier has to return to the depot several times during a shift. Conversely, a delivery driver in a van can deliver the whole load of parcels in one trip. This means that the most expensive element of the logistics process – the delivery person – can be employed more efficiently. The size of package which can be delivered by a cargo bike is also limited.

**Subsidies could make micro depots and cargo bikes more attractive**

One advantage of city-centre logistics space such as micro depots could be that ordered products can often be stored here. These products can then be delivered within a very short period of only a few hours. However, micro depots currently have only limited attractions for CEP service providers because of the higher costs compared to existing efficient logistics infrastructure. One way to change this would be to make journeys into the city centre more expensive by imposing a city centre toll. Alternatively, CEP service providers could be given subsidies – similar to those for electric cars or renewable energy – to enable them to switch from Mercedes Sprinter vans to micro depots and cargo bikes. This would be in the interests of the general public. City dwellers often make intensive use of online shopping. Alternatively, logistics providers could also start to use climate-neutral vehicle technology, although this would not reduce the negative impact of traffic.

**Doubtful whether vacant retail properties would be suitable for logistics**

If micro depots become established, they may provide potential for city centre property markets. The shortage of space in city centres could prove to be less of an obstacle. Demand for space is after all comparatively low. It is doubtful whether the sales space which is increasingly becoming available in many city centres - because it is no longer needed due to growth in online shopping - would be suitable for this purpose. Vacant shops in shopping centres or space in department stores which have shut down could be repurposed. These properties also have loading ramps and goods elevators. However, repurposing is regarded as controversial by logistics experts. Ultimately, it might be better to build optimised properties for logistics purposes on the sites of obsolete retail properties.

**Potential for micro depots**

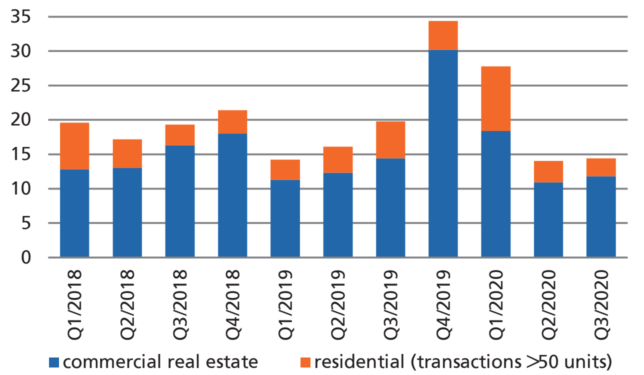
The potential for micro depots certainly exists. For sooner or later alternatives to current logistics concepts will be needed in cities. However, typical logistics rents of up to EUR 7 per sqm would have to be considerably higher for this to be an interesting option from a real estate perspective.

## INVESTMENT MARKET – CORE PROPERTIES VERSUS THE REST

Commercial real estate is being hit very hard by the coronavirus pandemic. Based on the substantial volume of transactions over the year, investors have not been deterred. A total of EUR 41bn was invested in the first three quarters of 2020, similar to previous years. In the same period in 2018 the figure was EUR 42bn, and EUR 38bn in 2019. However, the impact varies depending on the asset class. Investor interest in hotels and city centre retail property has fallen sharply. Offices have also suffered slightly because home working could curb demand for premises. This is still the most important asset class, although market share has fallen to its lowest level since 2011. Conversely, demand is strong for retail properties in the local supply sector, and for logistics which is benefiting strongly from the rapid growth in e-commerce.

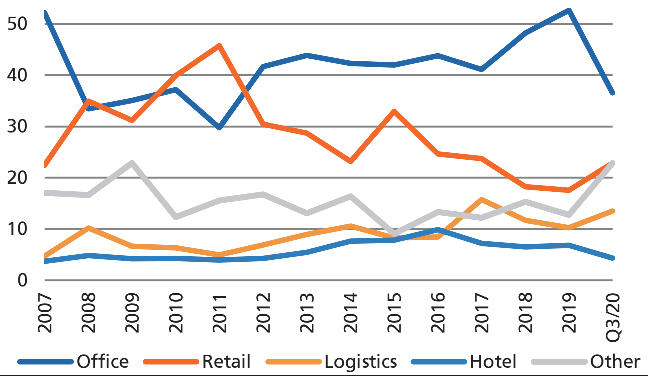
**Despite the negative effects of the pandemic, large sums are being invested in commercial real estate**

**INTEREST IN HOUSING PORTFOLIOS AND COMMERCIAL REAL ESTATE MAINTAINED DURING PANDEMIC**
INVESTMENT VOLUME (EUR BN)




Source: BNP Paribas Real Estate

**OFFICES STILL THE STRONGEST ASSET CLASS, BUT MARKET SHARE DOWN SHARPLY DUE TO THE IMPACT OF HOME WORKING**
SHARES OF COMMERCIAL REAL ESTATE INVESTMENT (%)

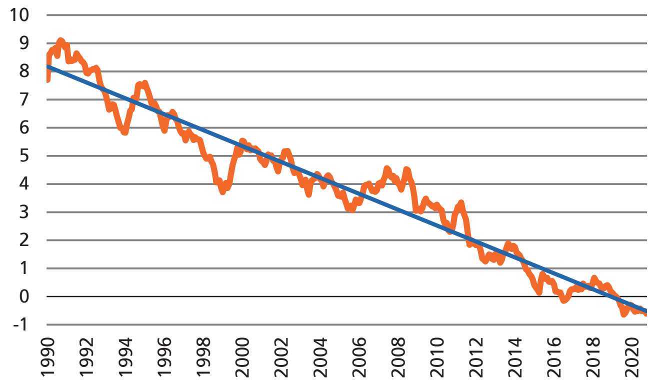



Source: BNP Paribas Real Estate, CBRE

Investor interest in the housing market has continued to grow. Despite increasing regulation, residential letting is regarded as a solid business model. Losses of rent due to coronavirus have also largely failed to materialise. Below the line, purchases of housing portfolios, which reached around EUR 15bn in the first three quarters of 2020, exceeded the 2019 figure by EUR 3bn and 2018 by EUR 1bn.

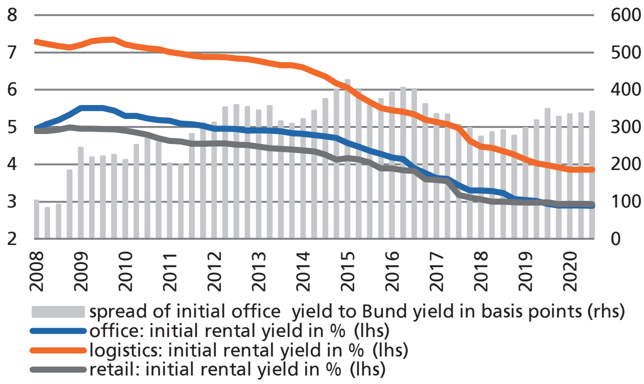
**Investment volume has increased again for rented apartments**

**ALMOST LINEAR DECLINE IN BUND YIELD FOR 30 YEARS, 10-YEAR FIGURE CONSISTENTLY NEGATIVE SINCE APRIL 2019**




Source: Refinitiv As of 20.11.2020

**DECLINE IN INITIAL RENTAL YIELDS SLOWS AS WIDE DIVERGENCE FROM BUND YIELDS CONTINUES**

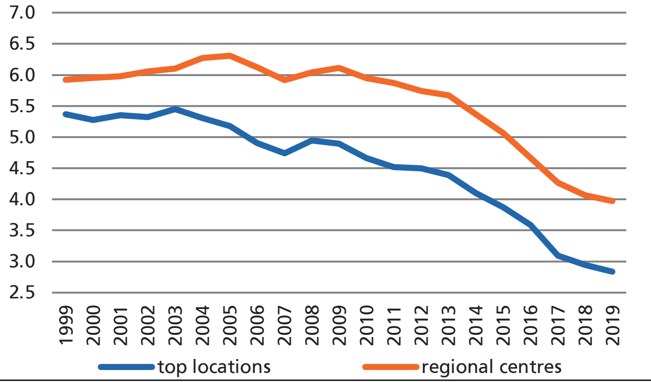



Source: bulwiengesa, Refinitiv, DZ BANK

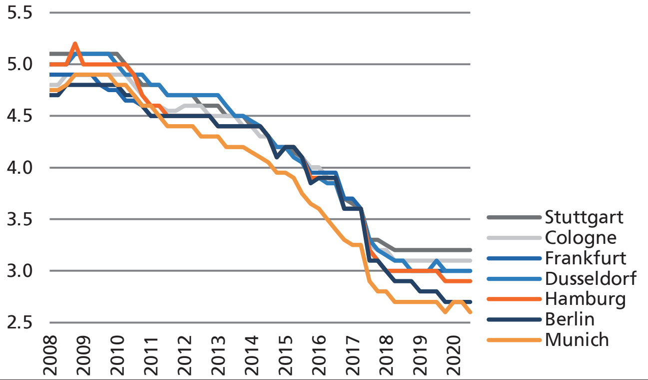
Property demand is being driven by low bond yields. The investment problem for pension funds, life insurance companies and foundations remains unresolved given the consistently negative yields for 10-year Bunds since April 2019. Conversely, commercial properties offer a substantial yield advantage, which exceeds 300 basis points for prime office properties. As a result, property investment has been growing for years. Insurance companies have increased their proportion of property investment from 6 per cent in 2010 to 11 per cent. High demand - despite the heightened risks in the property market - is likely to keep rental yields low. The divergence between asset classes could however widen.

**Investor interest keeps rental yields low, but divergence between asset classes could widen**

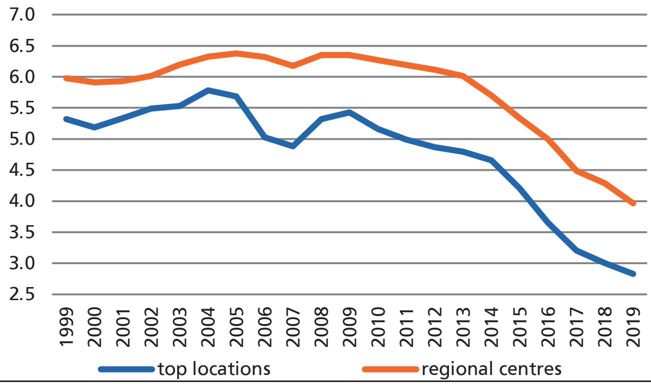
**RETAIL: TREND IN INITIAL RENTAL YIELD**
NET INITIAL YIELD IN CENTRAL RETAIL LOCATIONS (%)



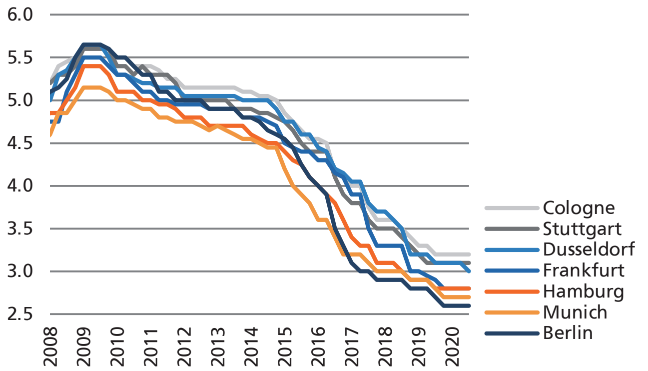

**YIELD TREND IN INDIVIDUAL TOP LOCATIONS**
NET INITIAL YIELD IN CENTRAL RETAIL LOCATIONS (%)



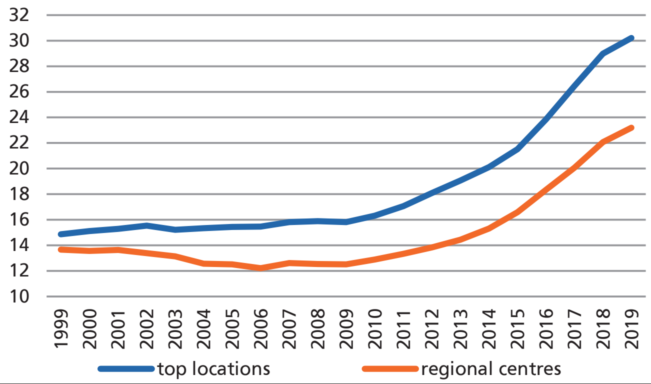

**OFFICE: TREND IN INITIAL RENTAL YIELD**
NET INITIAL YIELD IN CENTRAL OFFICE LOCATIONS (%)



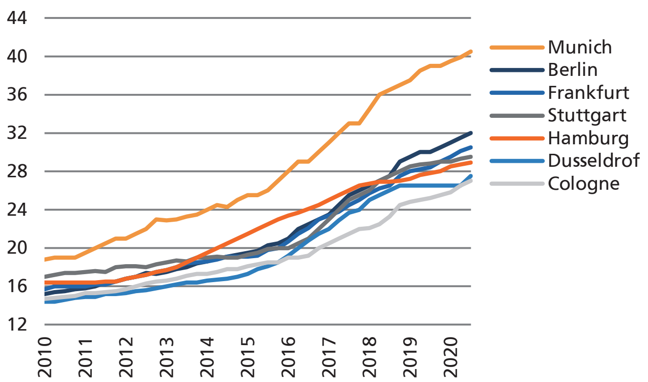

**YIELD TREND IN INDIVIDUAL TOP LOCATIONS**
NET INITIAL YIELD IN CENTRAL OFFICE LOCATIONS (%)




**RESIDENTIAL: RENT MULTIPLIER FOR MULTI-FAMILY PROPERTIES**
AVERAGE RENT MULTIPLIER




**RENT MULTIPLIER IN INDIVIDUAL TOP LOCATIONS**
AVERAGE RENT MULTIPLIER




Source: bulwiengesa

Explanation: the office/retail net initial yield is calculated from the annual net rental and the total purchase price including ancillary costs. For the multi-family property multiplier, the purchase price is divided by the "cold" rent in the first year and thus corresponds to the inverse of the gross initial yield.
Top 7: Index of top locations in Berlin, Düsseldorf, Frankfurt, Hamburg, Cologne, Munich and Stuttgart
Regional 12: Index of regional centres Augsburg, Bremen, Darmstadt, Dresden, Essen, Hannover, Karlsruhe, Leipzig, Mainz, Mannheim, Münster and Nuremberg

## RETAIL

### Crisis in city centre retail started long before the coronavirus

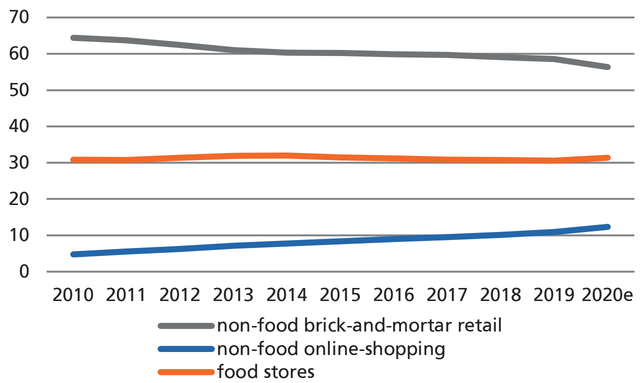
**Reacting to online shopping: The retail sector has long relied on space and customer proximity**

Until a few years ago, demand for retail space in prime locations often exceeded supply. Many existing tenants were bought out of rental contracts for attractive sales space with “key money”. New tenants usually had to accept much higher rents and ten-year rental contracts. The “golden era” for landlords of city centre retail properties was based on the strategy adopted by many fashion chains of responding to growth in online retail by offering proximity to customers and correspondingly close-knit branch networks. The economic upturn in Germany, demographic growth, and a boom in tourism enhanced the attractions of city centre sales space.

**Property sector provided the required space – and shopping centres are still being built today**

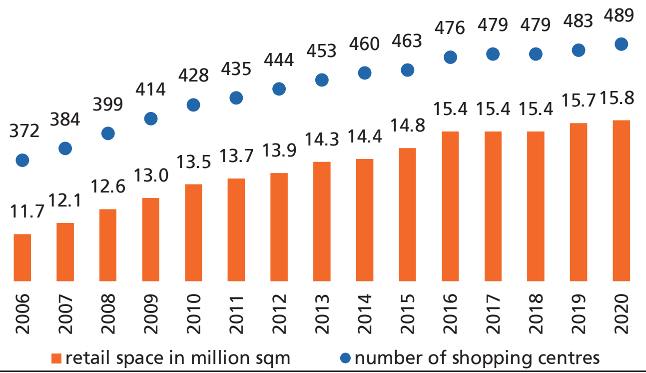
The property market reacted to high demand for sales space in prime locations with numerous city centre project developments. As well as large shopping centres, many small business premises were also created, often extending the outer limits of prime locations. Space demand made it possible to raise prime rents, despite the expansion of space.

**APART FROM FOOD, PROPORTION OF IN-STORE RETAIL SALES DECLINING STEADILY**
PROPORTIONS (%)




Source: German Retail Federation (HDE), DZ BANK

**REACTING TO THE ONLINE SHOPPING TREND: SALES SPACE HAS CONTINUED TO GROW**
NUMBER AND SALES SPACE OF GERMAN SHOPPING CENTRES




Source: German Retail Federation (HDE)

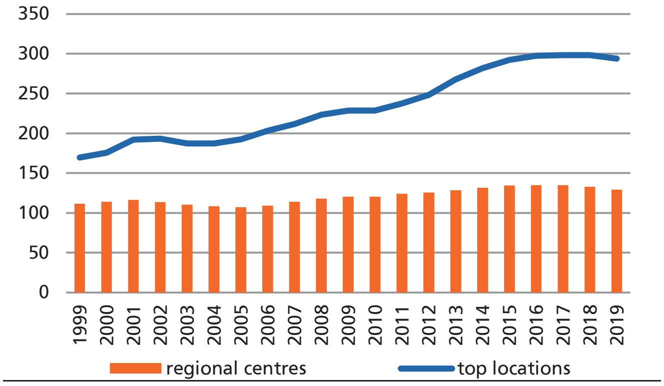
**Disadvantage of hybrid sales strategy is high costs**

Customers should be able to see the products everywhere, and most importantly, try them out, or try them on. Whether shoes, trousers or pullovers are then purchased in the branch or online is of secondary importance. Hybrid sales strategies have therefore focused on both a large branch network as well as online shops. The disadvantage of this approach is the high cost of operating parallel sales channels. On top of the growing rental and personnel costs associated with shops, are the considerable costs of online retail.

**Strategic shift towards slimmed down branch network already started before Covid**

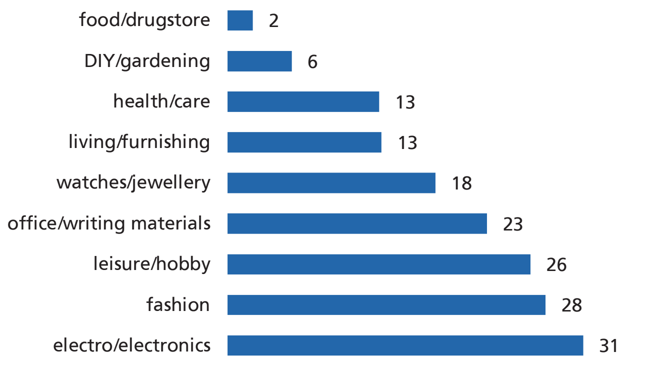
Despite rapid growth in retail sales, high sales costs forced retailers to change course. The strategic shift towards smaller and cheaper branch networks started before the outbreak of the coronavirus pandemic. Prime rents in the retail sector have stopped increasing since 2017, after reaching an average of nearly EUR 300 per sqm in top locations. While rent levels remained stable here, rents outside large cities started to fall. However, the gradual withdrawal of fashion retailers has not always resulted in vacant properties in prime locations and shopping centres. Fast food chains or local suppliers such as drugstores have often moved into the vacant premises.

**DOWNWARD RENT TREND REFLECTS STRATEGIC SHIFT IN RETAIL SECTOR**
PRIME RENTS (EUR PER SQM)




Source: bulwiengesa

**TYPICAL "CITY CENTRE PRODUCTS" INCREASINGLY BOUGHT ONLINE**
ONLINE PROPORTION OF RETAIL SALES (%; 2018)




Source: German Retail Federation (HDE)

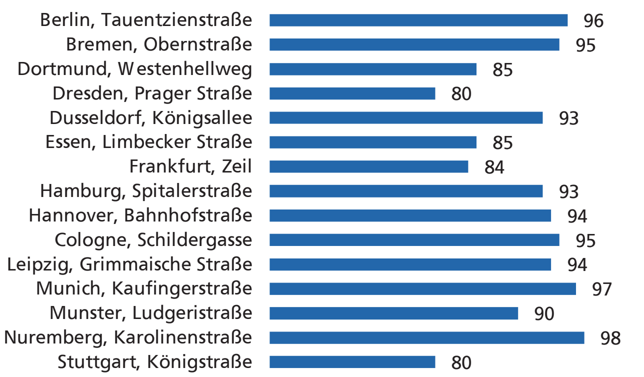
The contraction process in city centre locations would probably have continued gradually even without the coronavirus. The typical products on offer in city centre retail – fashion, jewellery and electronics – are increasingly ordered online. Conditions in the retail sector, which had been favourable for a long time, have also deteriorated, for example as a result of the visibly weaker macroeconomic growth in 2019. And demographic growth in large cities has been braked by slower immigration to Germany, and expensive apartments.

**Contraction of retail sector would probably have continued gradually even without the pandemic**

Many city centres have also become less attractive. The proliferation of chain store branches has made the retail sector more homogenous and interchangeable. Conversely, local retail consisting of specialist shops run by the owners have been displaced. Shopping trips to large cities are thus becoming less attractive because the retail offer in many places is largely identical. Landlords are understandably focusing on large, well-known fashion chains, which are regarded as solvent tenants. However, the diversity of the shopping offer has suffered as a result.

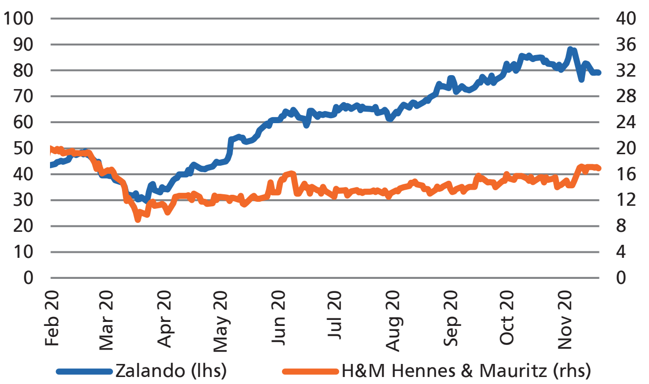
**Interchangeable: City centre retail less attractive as chain store branches proliferate**

**CITY CENTRE RETAIL NOW INCREASINGLY INTERCHANGEABLE**
NUMBER OF CHAIN STORES IN PRIME LOCATIONS (%; 2019)




Source: BNP Paribas Real Estate

**STOCK MARKET FOCUSED ON ONLINE RETAIL: ZALANDO ONLINE FASHION PLATFORM CLEARLY OUTPERFORMS FASHION CHAIN H&M**
SHARE PRICES (XETRA) IN EUR




Source: Refinitv
As per 19.11.2020

### Coronavirus pandemic forces retail sector to take drastic action

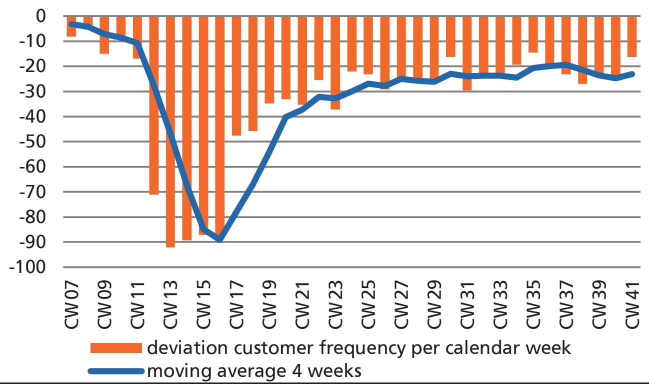
**Sales and rental income down sharply due to lockdown**

The outbreak of the coronavirus caused a further deterioration in retail conditions. The spring lockdown resulted in massive sales losses for already financially stricken fashion chains. Many retailers applied for insolvency or creditor protection measures. Rent payments were missed or reduced, and landlords suffered large losses of rental income. Although shoppers returned to high streets at the end of the lockdown, footfall is still down by about a quarter on previous years.

**Pandemic forces retailers to apply "emergency brake"**

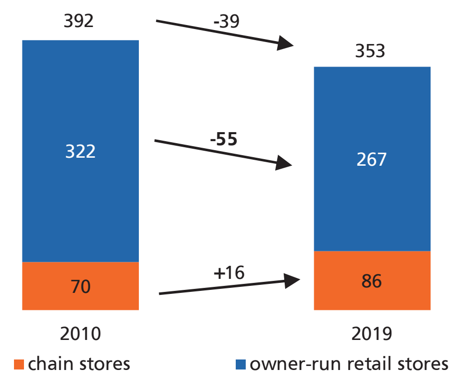
However, the consequences of the pandemic are more far-reaching for city centre retailers. They include the negative impact of the recession on households, the collapse in tourism which will probably not recover for some years, and the unstoppable advance of online shopping. Faced with these prospects, and strained finances, many retailers have applied the emergency brake. Instead of a gradual thinning out of branch networks, sales space is now being drastically downsized with the closure of many sites. The closure of roughly a quarter of around 170 Karstadt/Kaufhof department stores is of particular significance. These stores played a key role in encouraging customers into many cities, and the closures will have a knock-on effect on retail activity in the surrounding area.

**ABSENCE OF TOURISTS: CUSTOMER NUMBERS STILL WELL BELOW PREVIOUS YEARS**
FOOTFALL IN 2020 COMPARED TO PREVIOUS YEAR (%)




Source: statista    CW = calendar week

**GERMAN RETAIL SECTOR UP TO 2019: NO. OF SHOPS FALLING, BUT MORE BRANCHES OF CHAINS**
NO. OF SHOPS IN '000




Source: German Retail Federation (HDE)

**Excess demand has now shifted to an oversupply**

As a result of the expansion of city centre sales space and the partial withdrawal of store branches from prime locations, there has now been a shift from the previous excess demand to an oversupply of space. As a result, prime locations which were previously extended are now likely to be consolidated again. This is bad news for property owners. For, in addition to an increasing vacancy rate and falling rents, sites on the edge of prime locations could decline in value. And this is a permanent trend and not just a temporary dip.

**Potential for city centres: Lively city centre areas instead of monotonous pedestrian zones**

One positive factor is that many city centre locations are often well suited to alternative uses. City centres are easily accessible, have a large hospitality and cultural offer, and provide extensive shopping opportunities. Potential uses might be apartments, accommodation for students or retired people, hotels, coworking space and city logistics. Others could be fitness and leisure activities, such as theatres or museums. This would provide an opportunity to transform monotonous pedestrian zones into lively city centres with a high quality of stay.

Fears about permanently vacant properties in city centre locations are likely to be unfounded. However, there are many unanswered questions. What volume of sales space is likely to be needed for city centre retail? What rents can be generated from retail activity and the mix of alternative uses we have described? Can existing properties be repurposed? And what level of investment will be needed? Property owners face the difficult decision of whether to maintain their focus on retail, or to favour an alternative type of usage for the building in question.

**Central question: What sustainable rents can be achieved in prime locations in future?**

### Market conditions for retail

The pace of economic growth was already slowing before the outbreak of the pandemic. However, unemployment only started to rise as the coronavirus crisis started to impact. The unemployment rate has climbed from 5 per cent by more than 1 percentage point. Without short-time working allowances, the rate of increase would have been even higher. During the lockdown, nearly 6 million working people accessed short-time working allowances. When the economy started to recover in the summer, the figure fell to just over 4 million.

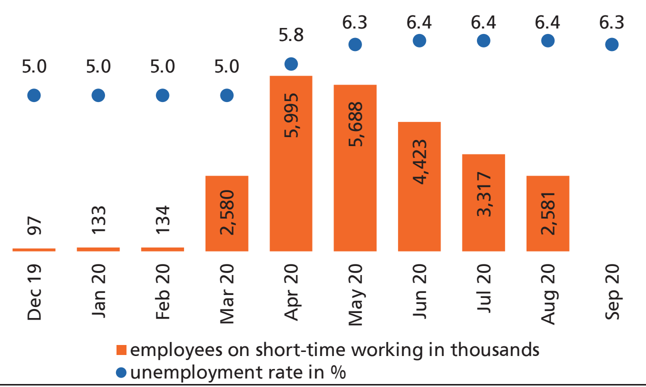
**Coronavirus pandemic hits labour market hard**

The pandemic caused a collapse in the consumer climate, although it subsequently recovered to a large extent. Consumer sentiment is nevertheless significantly more downbeat than in previous years due to economic uncertainty. The soft lockdown in November acted as a further drag, particularly since risk factors such as the USA/China trade war and Brexit are still factors. The decline in consumption as a result of uncertainty is reflected in a sharp increase in household savings. The savings ratio, which was still around 11 per cent in 2019, rose to just over 20 per cent in the second quarter of 2020.

**Consumer climate collapsed, before broadly recovering again quickly**

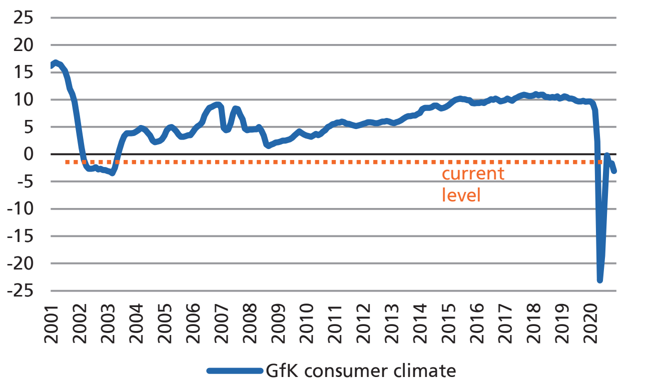
**Uncertainty encourages saving**

**SHORT-TIME WORKING CUSHIONS STEEP RISE IN UNEMPLOYMENT**
MONTHLY DATA FOR SHORT-TIME WORKING AND UNEMPLOYMENT




Source: Federal Employment Agency

**CONSUMER CLIMATE RECOVERS AT A LOW LEVEL**
BALANCE OF RESPONSES IN POINTS (BETTER/WORSE)

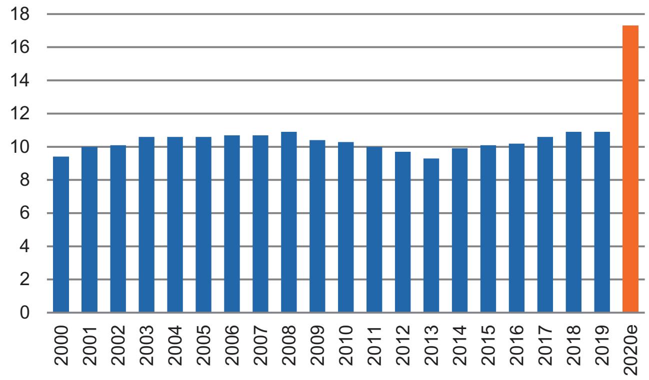



Source: GfK

In-store retail is also suffering as online competition grows. A survey by the German Retail Federation (HDE) showed a clear improvement in sentiment among online retailers in the first half of 2020, while city centre retail business had deteriorated consistently. Although individual shops and shopping centres reopened after the lockdown, social distancing rules and the wearing of face masks are having a negative impact on the shopping experience. Although retailers are not included in the soft lockdown in November, concerns about contracting Covid-19 are likely to reduce city centre footfall. The closure of restaurants, cinemas, theatres and museums is also reducing the quality of stay. Important Christmas business is likely to be weaker than usual. Online retail will therefore continue to benefit from the pandemic.

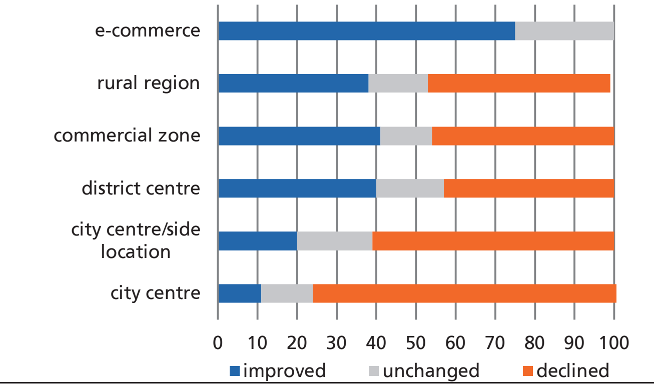
**City centres particularly hard hit by Covid, while online retail continues to benefit**

**PANIC SAVING: UNCERTAINTY CLEARLY ENCOURAGES SAVING**
SAVINGS RATIO IN PER CENT OF DISPOSABLE INCOME



Source: Feri

**IMPACT OF PANDEMIC ON RETAIL VARIES WIDELY DEPENDING ON LOCATION**
PROPORTION (%)




Source: HDE (economic survey summer 2020)

**Dismal year for in-store retail, but positive for food, bicycles and DIY stores**

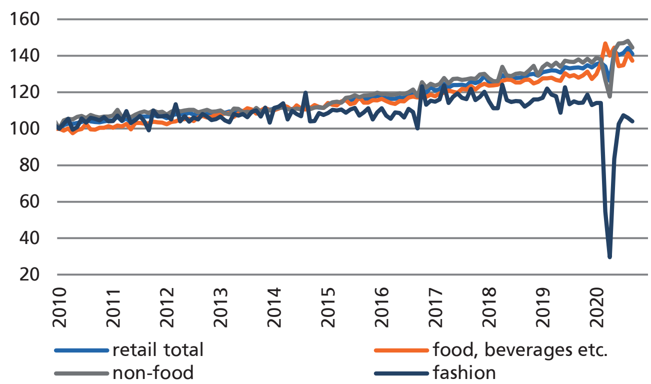
Based on a forecast from the German Retail Federation (HDE), total retail sales will increase to about EUR 550bn this year. However, the 1.5 per cent increase compared to 2019 represents the weakest growth since 2013. Conversely, average annual growth was more than twice as high between 2015 and 2019. Because online retail is likely to grow even more strongly than usual in 2020, increasing by a good 15 per cent to EUR 68bn, in-store retail sales will probably decline slightly. Business has been extremely buoyant in some retail segments. In addition to local businesses, bicycle shops and DIY stores have also benefited.

**Steep decline in fashion retail**

Apart from hotels and restaurants, fashion retail has suffered the most. However, in contrast to the hospitality sector, fashion sales have been far from satisfactory for some time. Clothing and shoes in particular are often purchased online. About a third of this type of in-store retail has now moved online. Home working, the cancellation of events and family celebrations has reduced demand for new clothing. Another contributory factor is the more relaxed dress code which already applies in workplaces. Sales to tourists are also down sharply. And sales of winter sports equipment are likely to be virtually non-existent.

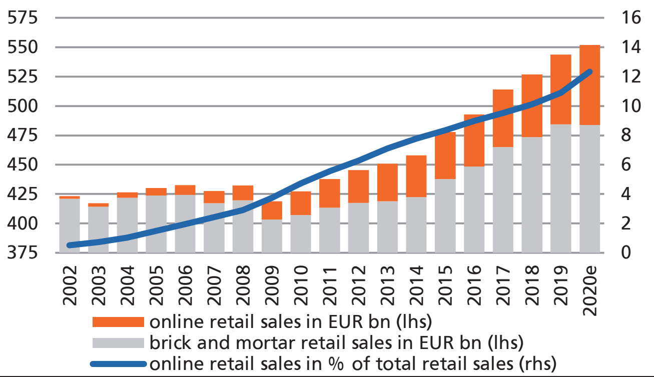
**Fewer clothes purchases needed**

**FASHION RETAIL - ALREADY WEAKER BEFORE THE PANDEMIC - CLEARLY DECOUPLING FROM MARKET TREND**




Source: Federal Statistical Office

**FOR THE FIRST TIME SINCE 2009, IN-STORE RETAIL SALES LIKELY TO DECLINE IN 2020, WHILE E-COMMERCE CONTINUES TO GROW**
RETAIL SALES (EUR BN)




Source: HDE
Retail sales excl. vehicles, petrol stations and pharmacies and excl. VAT

However, the outlook for city centre retail is not completely bleak. A stroll in the city centre is likely to remain a popular leisure activity, even if fewer purchases are made there. Customers like to visit shopping streets and shopping centres, many of which have been refurbished by project development and urban planning. Many people also do not want to shop exclusively online, if at all. Tourism demand will also undoubtedly revive.

**City centre stroll will remain a popular leisure activity**

City centre locations are also interesting for various retail concepts such as supermarkets, pharmacies and restaurants. Online sellers are also extending their sales by opening physical shops. Examples are the muesli mail order company mymuesli and the online optician Mr. Spex. The online fashion retailer Zalando has outlet stores in some cities. Retail concepts are also moving into cities where they did not previously have a presence. One example is IKEA whose large branches on the periphery of cities are generally only accessible by car. To provide access for city dwellers who do not have a car, the Swedish furniture giant is opening city centre planning studios, for example recently in Potsdam.

**City centre space interesting for many retail concepts**

### Retail: Comparison of top locations

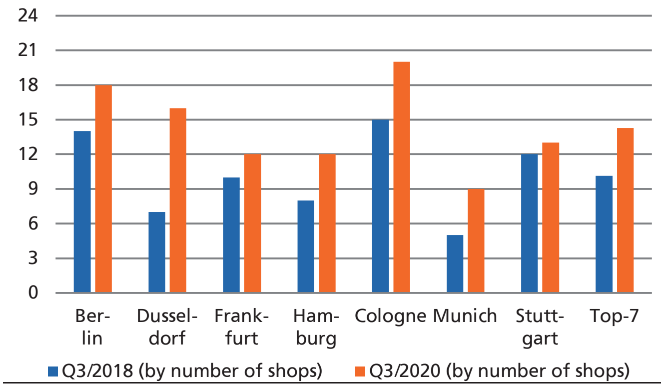
The crisis in the retail sector is also affecting the major players in locations. While in many cities, shop rents and footfall are declining, and the number of vacant properties is growing, retail activity in the major cities has largely prospered. Before coronavirus, prime rents had fallen only in individual cases. However, the negative effects of the pandemic and the retail crisis are now also visible in the top locations. On the one hand, rents are falling more steeply, and on the other hand, the supply of available sales space is increasing.

**Retail crisis and pandemic lead to marked increase in supply of sales space**

Compared to the third quarter of 2018, the volume of sales space for which new tenants are being sought, has increased visibly. Figures include vacant space, sales space for which new tenants are being sought, as well as space where rental contracts ended within 18 months but where no new tenant was acquired. It is striking that the space-related increase is significantly greater than the increase based on the number of shops. Marketing large sales space clearly poses particular difficulties. This category includes the Karstadt-Kaufhof stores and Karstadt Sport branches which have closed.

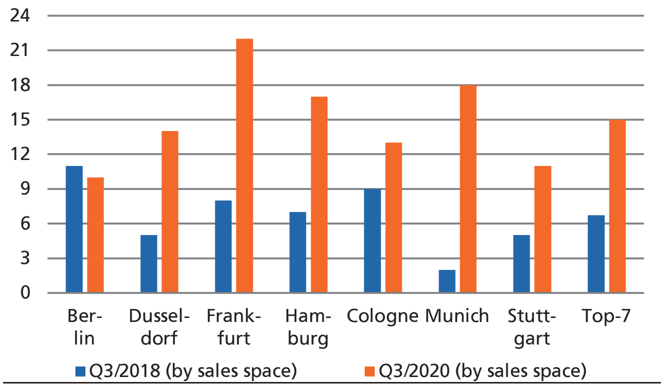
**Space availability growing much faster than the number of shops**

**AVAILABLE SALES SPACE HAS INCREASED…**
AVAILABILITY RATIO (%; BASED ON NUMBER OF SHOPS)



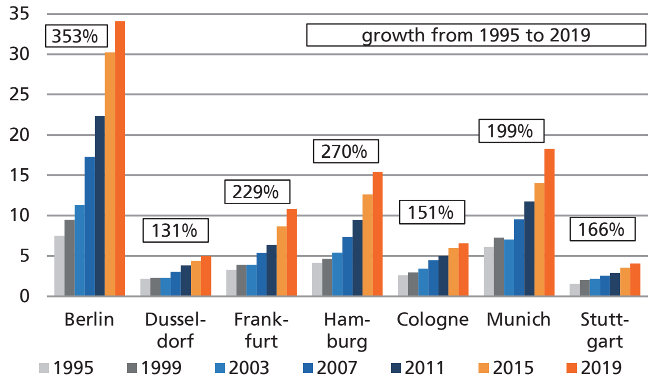

Source: JLL

**… MORE SIGNIFICANTLY THAN THE NUMBER OF SHOPS**
AVAILABILITY RATIO (%; BASED ON SALES SPACE)



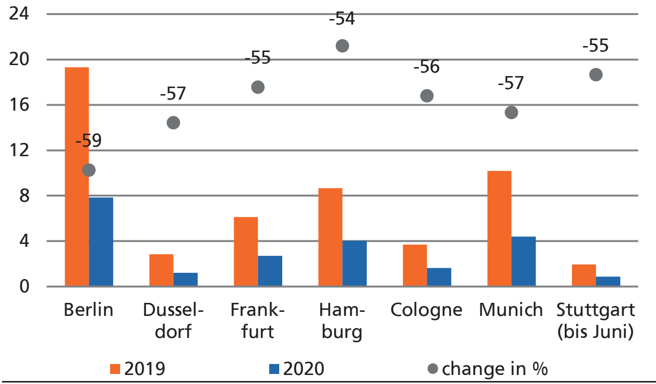

Source: JLL

**TOURISM IN ALL TOP LOCATIONS GREW STRONGLY UP TO 2019**
NO. OF OVERNIGHT STAYS (MILLIONS)




Source: bulwiengesa

**STEEP DOWNTURN IN 2020: IN THE FIRST 7 MONTHS, THE NUMBER OF OVERNIGHT STAYS FELL BY MORE THAN A HALF**
NO. OF OVERNIGHT STAYS FROM JANUARY TO JULY (MILLIONS)




Source: Statistical offices

**Top 7 benefited strongly from growth in the population, the economy and tourism**

Generally speaking, city centre retail in the seven largest cities has performed comparatively well in recent years. Positive economic conditions and strong employment growth, marked demographic growth and flourishing tourism have made it possible to mitigate the encroachment of e-commerce. As the number of visitors continued to grow, retail demand from private and business travellers became increasingly important. While the number of overnight stays in the seven cities was still below 30 million in 1995, by 2019 the figure exceeded 94 million. Without coronavirus, the 100 million level would have been within reach in 2020.

**Berlin, Munich and Frankfurt the frontrunners for tourism so far**

Growth in the economy and the population leads to prosperity for many large cities. However, the top locations are the frontrunners for tourism. Only a few popular tourist destinations such as Dresden or Nuremberg achieve similarly high numbers of overnight stays relative to their populations. The top performers are Berlin, Munich and Frankfurt which reported overnight stays of respectively more than 9,000, 12,500, and more than 14,000 per 1,000 inhabitants in 2019. The sharp fall in visitor numbers in the top tourist destinations caused by coronavirus is accordingly leading to painful sales declines in the hospitality and retail sectors. Apart from travel restrictions, the cancellation of many trade fairs and conferences is also a factor here.

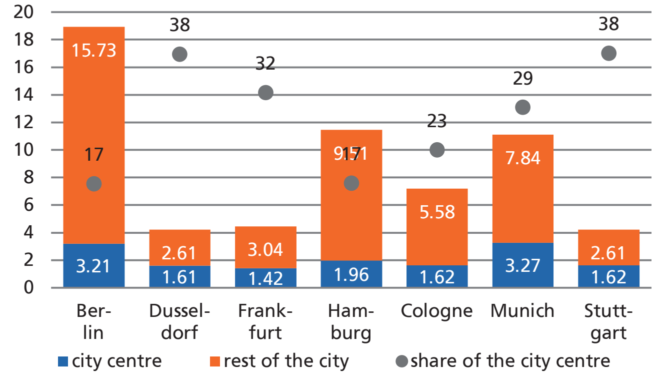
**Visitor revenue in top locations will fall sharply in 2020 and 2021**

In 2019, city centre retail activity in the top 7 locations generated revenue of nearly EUR 15bn, about a quarter of total retail sales. If a visitor spends on average EUR 30 on city centre retail per overnight stay, a decline of 50 million in the number of overnight stays would result in the loss of around EUR 1.5bn for city centre shops, or about a tenth of previous sales. Tourism should recover, but the process may take some years. Visitor numbers are in any case unlikely to return to their high levels of 2019. Revenue generated from business travellers and trade fair and conference delegates could suffer permanently.

**November lockdown could depress retail again**

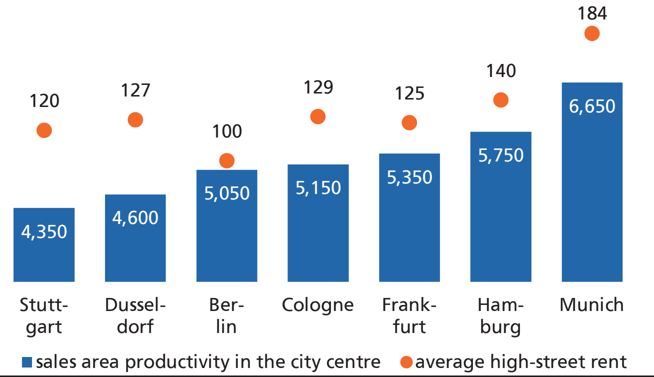
The “soft lockdown” in November did spare the retail sector, but could nevertheless have an impact if customers shop online for Christmas gifts. An “on/off” situation with recurrent restrictions continuing into next year would be even worse. There is also a risk of a sharp decline in overall Christmas business. The revenue generated from large Christmas markets in top locations – some of which attract several million visitors – will probably also be missing.

**PROPORTIONS OF CITY CENTRE SALES SHOW A WIDE RANGE**
RETAIL SALES (EUR BN; 2019)




Source: Comfort

**CLEAR DIFFERENCES IN SPACE PRODUCTIVITY OF CITY CENTRES RELECTED IN RENT LEVELS**
IN EUR PER SQM (2019)




Source: bulwiengesa, Comfort

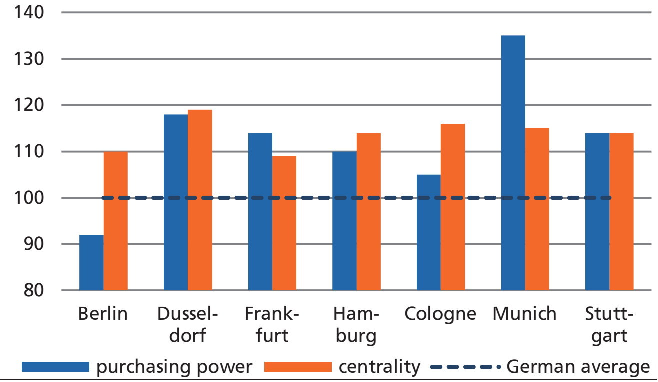
**Demographic growth braked by strained housing market and slower migration**

The slower demographic growth in the seven largest cities could continue to have an impact beyond the pandemic. There are two reasons for this. Firstly, the strained – and most importantly – expensive housing markets in major cities are hampering migration. Secondly, demographic growth has generally slowed due to lower net migration. In the first half of 2020 the population of Germany even contracted slightly. Because migrants often move to large cities, weaker migration is also having an impact in the form of weaker population growth in the major cities.

**Top locations supported by large catchment areas and high purchasing power**

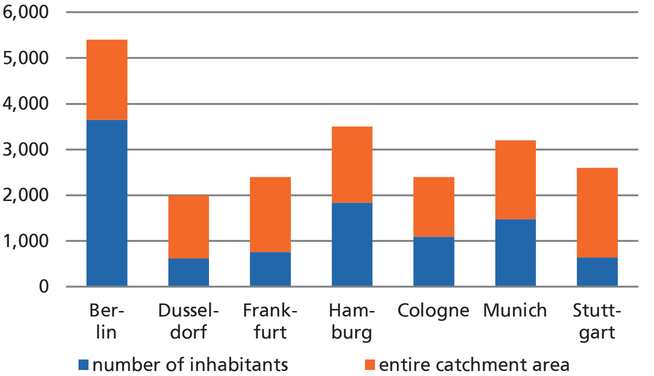
Despite all the negative factors, the top locations are still attractive retail destinations, supported by large catchment areas combined with high purchasing power. Retailers in top locations have access to the urban population plus the surrounding catchment area, where between 2 million (Düsseldorf) and more than 5 million (Berlin) people live. With the exception of Berlin, high buyer potential is also reflected in above-average purchasing power. Munich is the frontrunner with a purchasing power figure of more than 130 points. However, high levels of between 110 and nearly 120 points are also achieved in Düsseldorf, Frankfurt, Hamburg and Stuttgart.

**RETAIL FIGURES FOR TOP LOCATIONS**
PURCHASING POWER AND CENTRALITY IN POINTS




Source: bulwiengesa

**CUSTOMER POTENTIAL IN THE RANGE OF MILLIONS OF PEOPLE**
PER '000 PEOPLE




Source: bulwiengesa, Comfort

**Strong expansion of retail offer**

Thanks to a generally positive retail climate in the top locations, the shopping offer has been increasingly expanded. Whereas, in the past, shopping opportunities were mainly created in peripheral areas, in recent years urbanisation has encouraged city centre retail projects. The following table shows a selection of large retail developments as well as refurbishments of shopping centres and extensions. Cologne remains an exception, since virtually no large-scale retail development has been realised there.

**HIGH INVESTMENT IN SHOPPING CENTRES: SELECTED DEVELOPMENT MEASURES SINCE 2009**
SHOPPING CENTRES FROM APPROX. 20,000 SQM

| town | name | adress | location | construction measures | completion | year of construction | status | space (sqm) | expansion (sqm) |
|---|---|---|---|---|---|---|---|---|---|
| Berlin | Einkaufszentrum Tempelhofer Hafen | Lorenzweg / Tempelhofer Damm | city-fringe | new construction | 2009 | 1908 | completed | 24,000 | |
| Berlin | Boulevard Berlin / Karstadt | Schloßstraße | city-fringe | new construction | 2012 | 1970 | completed | 76,000 | |
| Berlin | Bikini Berlin | Budapester Straße | city | new construction | 2014 | 1957 | completed | 25,000 | |
| Berlin | LP 12 Mall of Berlin (Mall of Berlin I) | Leipziger Platz | city | new construction | 2014 | | completed | 51,203 | |
| Berlin | Leipziger Platz LP N°2 (Mall of Berlin II) | Wilhelmstraße / Voßstraße | city | new construction | 2014 | 1919 | completed | 20,700 | |
| Berlin | Hallen am Borsigturm | Am Borsigturm | suburban | reconstruction | 2018 | 1999 | completed | 33,300 | |
| Berlin | Gropius-Passagen | Johannisthaler Chaussee | suburban | reconstruction | 2018 | 1969 | completed | 85,500 | |
| Berlin | Neues Kranzler Eck | Kurfürstendamm | city | reconstruction | 2018 | 2001 | completed | 22,150 | 950 |
| Berlin | Schultheiss Quartier | Turmstraße / Stromstraße | city | new construction | 2018 | 1871 | completed | 27,000 | |
| Berlin | East Side Mall | Tamara-Danz-Straße | city | new construction | 2018 | | completed | 38,700 | |
| Berlin | Schönhauser Allee Arcaden | Schönhauser Allee | city | reconstruction | 2019 | 1999 | completed | 27,380 | |
| Berlin | Wilmersdorfer Arcaden | Wilmersdorfer Straße / Schillerstraße | city-fringe | reconstruction | 2019 | 2005 | completed | 27,400 | |
| Berlin | Tegel-Quartier / Gorkistraße | Gorkistraße | suburban | new construction | 2021 | | under construction | 44,600 | |
| Berlin | Rathaus-Center Pankow | Breite Straße / Mühlenstraße | city-fringe | reconstruction | 2021 | 1999 | development | 26,700 | 5,000 |
| Berlin | Potsdamer Platz Arkaden | Alte Potsdamer Straße | city | conversion | 2022 | 1998 | under construction | 40,900 | |
| Berlin | Märkisches Zentrum | Senftenberger Ring | periphery | conversion | 2022 | 1968 | under construction | 30,800 | |
| Dusseldorf | Sevens | Königsallee | city | reconstruction | 2011 | 2000 | completed | 22,800 | |
| Dusseldorf | Kö-Bogen I | Königsallee | city | new construction | 2014 | | completed | 19,000 | |
| Dusseldorf | Kö Galerie | Königsallee | city | reconstruction | 2017 | 1986 | completed | 24,400 | |
| Dusseldorf | Düsseldorf Bilk Arcaden | Friedrichstraße / Ludwig-Hammers-Platz | city | reconstruction | 2019 | 2008 | completed | 38,000 | |
| Dusseldorf | Kö-Bögen II | Königsallee | city | new construction | 2020 | | under construction | 24,000 | |
| Frankfurt | MyZeil | Zeil | city | new construction | 2009 | | completed | 42,000 | |
| Frankfurt | Skyline Plaza | Europa-Allee | city-fringe | new construction | 2013 | | completed | 45,600 | |
| Frankfurt | Nordwest Zentrum | Limescorso / Erich-Ollenhauer-Ring | periphery | reconstruction | 2018 | 1968 | completed | 106,800 | 7,100 |
| Frankfurt | Hessen-Center | Borsigallee | periphery | reconstruction | 2020 | 1971 | under construction | 45,700 | |
| Hamburg | CCB (City Center Bergedorf) | Bergedorfer Straße / Bahnhofsvorplatz | suburban | reconstruction | 2010 | 1973 | completed | 21,500 | |
| Hamburg | Phönix - Center | Hannoversche Straße / Wilstorfer Straße | suburban | conversion | 2016 | 2004 | completed | 34,000 | 2,500 |
| Hamburg | Rahlstedt Center (ehem. Rahlstedt Arcaden) | Wariner Weg | suburban | reconstruction | 2019 | 1983 | completed | 21,621 | |
| Hamburg | QUARREE Wandsbek Markt | Wandsbeker Marktstraße | city-fringe | reconstruction | 2020 | 1988 | under construction | 31,600 | |
| Hamburg | Europa Passage | Ballindamm | city | conversion | 2017 | 2006 | completed | 30000 | |
| Hamburg | Überseequartier | HafenCity | city-fringe | new construction | 2023 | | under construction | 80500 | |
| Cologne | Quincy (ehem. DuMont-Carré) | Breite Straße / Du-Mont-Straße | city | conversion | 2020 | 2001 | completed | 19,100 | |
| Munich | Stachus Passagen | Karlsplatz | city | reconstruction | 2011 | 1970 | completed | 27,000 | |
| Munich | Pasing Arcaden | Pasinger Bahnhofsplatz | suburban | new construction | 2013 | 2011 | completed | 25,400 | |
| Munich | PEP Einkaufs-Center Perlach | Thomas-Dehler-Straße / Von-Knoeringen Straße | suburban | reconstruction | 2018 | 1981 | completed | 65,000 | |
| Munich | Forum Schwanthalerhöhe | Gollierstraße / Schwanthalerstraße | city | reconstruction | 2019 | 1970 | completed | 25,000 | |
| Munich | Olympia-Einkaufszentrum (OEZ) | Hanauer Straße / Pelkovenstraße | suburban | reconstruction | 2020 | 1972 | under construction | 56,900 | |
| Munich | mira Einkaufszentrum | Schleißheimer Straße / Neuherbergstraße | suburban | reconstruction | 2020 | 2008 | under construction | 20,000 | |
| Stuttgart | Milaneo | Wolframstraße / Budapester Platz | city | new construction | 2015 | | completed | 51,600 | |
| Stuttgart | Königsbau Passagen | Königstraße | city | conversion | 2016 | 2006 | completed | 27,000 | |
| Stuttgart | Gerber | Sophienstraße / Marienstraße | city | conversion | 2022 | 2015 | development | 18,000 | |

Source: bulwiengesa, DZ BANK

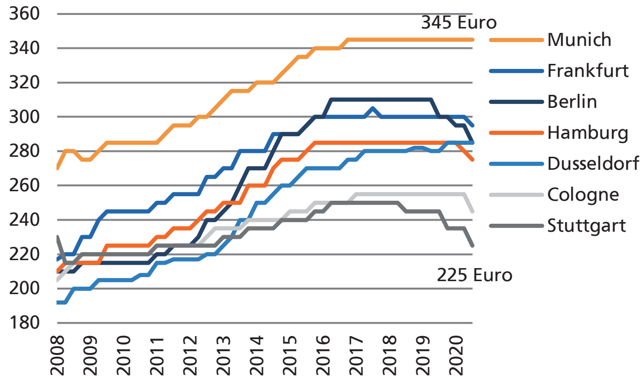
**Rents have not fallen everywhere**

The structural change in the retail sector and the consequences of the coronavirus crisis are also having an impact on rent trends in top locations. With the exception of Düsseldorf and Munich, prime rents have fallen everywhere. However, while the rate of decline in Cologne, Frankfurt, and Hamburg has been moderate so far, Berlin and Stuttgart have already shown larger corrections. In both locations prime rents have fallen by EUR 25 per sqm. The prime rent of EUR 225 per sqm in Stuttgart has thus already fallen to its 2012 level. Conversely, Berlin remains an expensive retail locations, because prime rents there climbed sharply to EUR 310 per sqm by 2016.

**Divergence in retail rents likely to increase**

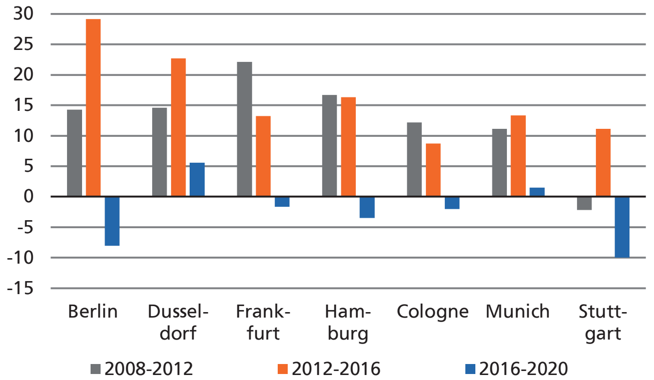
This structural shift in the retail sector will continue. However, the top locations will arguably be unaffected by the desolation which poses a risk to many city centres. High customer potential and purchasing power, and the return of tourists, will still lead to a revival of shopping streets and corresponding interest from retailers. However, the differentiation between various city locations is likely to increase. The crucial factor will be how footfall develops in individual city centre locations. Particularly attractive city centres could remain stable, while rents could fall much more steeply in locations where footfall is declining.

**RETAIL RENTS NOW ALSO FALLING IN GERMANY'S BEST SHOPPING LOCATIONS**
PRIME RENTS IN EUR PER SQM




Source: bulwiengesa

**RENT TRENDS IN TOP LOCATIONS DIVERGE WIDELY**
CHANGE IN PRIME RENTS (%)



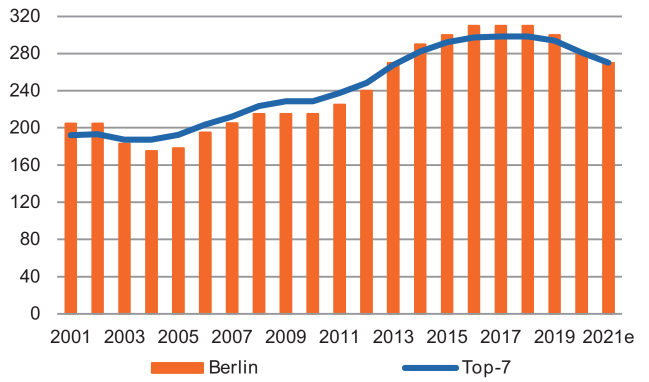

Source: bulwiengesa, DZ BANK

**Prime rents weakening, but not plummeting**

This trend will not be fully reflected in prime rents. Although they are likely to continue to fall, they will remain at a high level – but for a smaller proportion of prime locations than currently. The marked widening in recent years of the divergence between prime rents and average rents in prime locations will narrow again slightly as a result. The emerging trend towards shorter rental contracts, turnover-based rents or cancellation options will also continue.

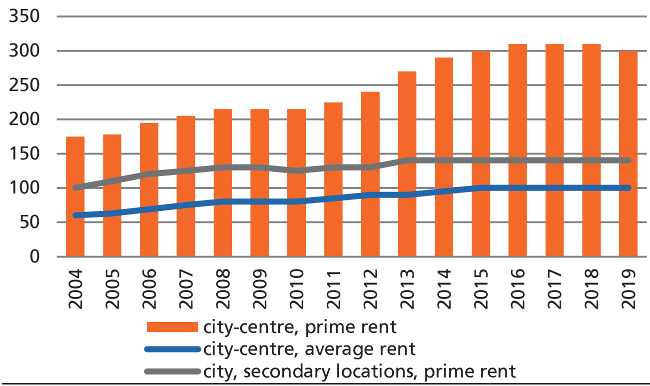
**Berlin: Retail space**

PRIME RETAIL RENTS IN EUR PER SQM




Source: bulwiengesa, Scope, DZ BANK forecast

RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM

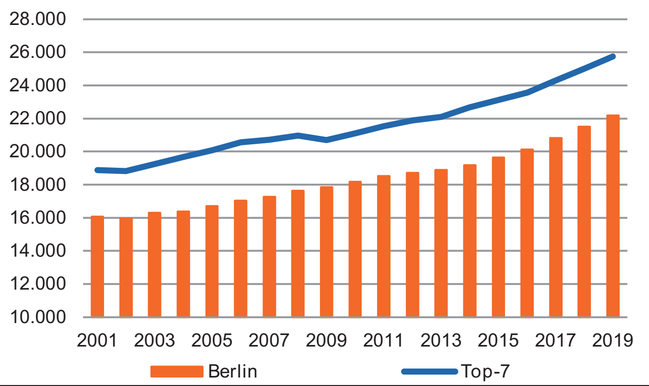



Source: bulwiengesa

**Berlin is one of the leading shopping destinations in Europe**

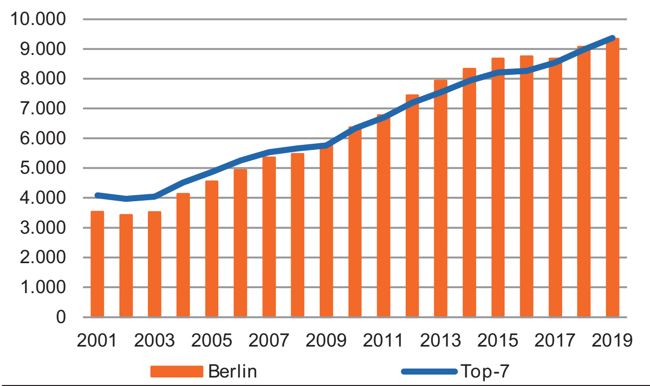
The retail sector has benefited significantly from the upturn in Berlin. The extremely high unemployment rate - still nearly 20 per cent about 15 years ago - had more than halved by 2019. Customer potential has also expanded considerably. Within ten years, the population of the German capital has grown by more than 400,000. The Berlin commuter belt has also grown. This means that the retail sector in the capital city has the largest catchment area in Germany of nearly 5.5 million people. Tourism was also flourishing until the outbreak of the coronavirus pandemic. In 2019, the number of overnight stays reached around 34 million. Visitors to the city play an even more important part than in other top locations, given that Berliners themselves have relatively low purchasing power. The sharp fall in the volume of tourists is therefore likely to have a disproportionately negative impact on retail in Berlin. Apart from its size, the Berlin retail sector is characterised by several geographically separate prime locations. These include Ku'damm and Tauentzienstraße where prime rents are highest, Alexanderplatz with its high footfall, and Friedrichstraße. The trendy Hackescher Markt district is also well positioned. There are also around 70 shopping centres, the most important of which is the large Mall of Berlin. Recent additions in 2018 were the Schultheiss Quartier – the first shopping centre in the Moabit district – and the East Side Mall. Prime rents – which had risen to EUR 310 per sqm in 2016 – have been falling since mid-2019. The steepest decline has been in Friedrichstraße. In the third quarter of 2020, prime rents were still around EUR 285 per sqm. By the end of next year, they could fall further to EUR 265 to 275 per sqm.

PURCHASING POWER PER CAPITA IN EUR '000




Source: bulwiengesa

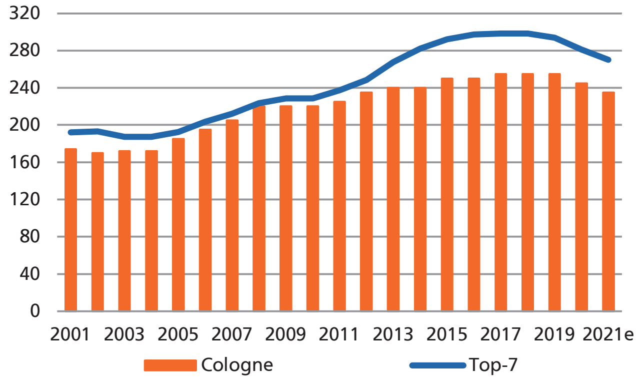
GUEST OVERNIGHT STAYS PER '000 INHABITANTS




Source: bulwiengesa, Scope

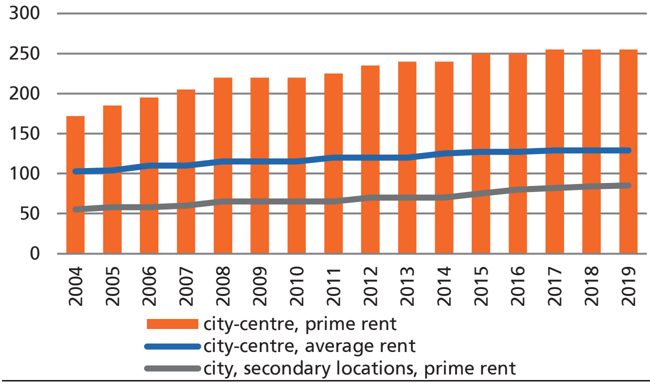
## Cologne: Retail space

PRIME RETAIL RENTS IN EUR PER SQM




Source: bulwiengesa, Scope, DZ BANK forecast

RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM

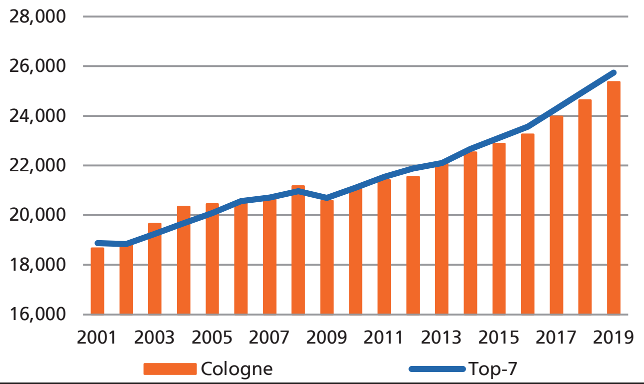



Source: bulwiengesa

**Strong mass-market shopping location with relatively high footfall**

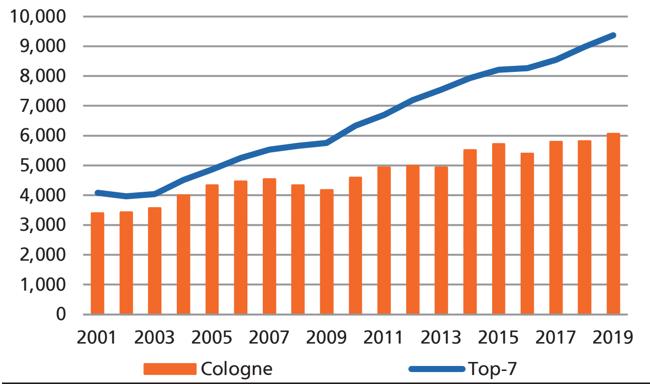
The million-strong city of Cologne is one of two top locations in western Germany − the other one being Düsseldorf − as a result of which there is a certain degree of competition between the two cities. Cologne is attractive for retailers in view of a 2.4-million strong catchment area and many day-trippers from the Benelux countries. Tourism with over 6,000 overnight stays per 1,000 inhabitants per annum is not quite on a par with the other top locations, and moreover, purchasing power is rather weak for a top location at 105 points. Unlike Düsseldorf which has an important luxury segment, Cologne's city centre focuses on the mass market. The city has a three-kilometre long shopping circuit which invites shoppers to stroll through its prime locations and supports a high footfall. This applies above all to the Schildergasse where 90 per cent of stores are high-street chains. The Hohe Straße also has a high footfall, but not quite up to the Schildergasse level. In contrast, the Ehrenstraße is more trendy. The Domkloster/ Wallraffplatz area has a smaller luxury segment. Cologne has hardly seen any major project developments, although a more recent example is the revamp of the long-established Jacobi store on Hohe Straße. The former DuMont-Carré has been transformed into a mixed use outlet, Quincy, which is aimed at younger consumers. A relatively good supply of retail space in Cologne's city centre has slowed down the rise in the prime rent. In addition, there have been recurrent store closures. This trend is likely to be compounded by the pandemic and structural changes in the retail sector. The prime rent could fall to EUR 230-240 per sqm by the end of 2021.

PURCHASING POWER PER CAPITA IN EUR '000




Source: bulwiengesa

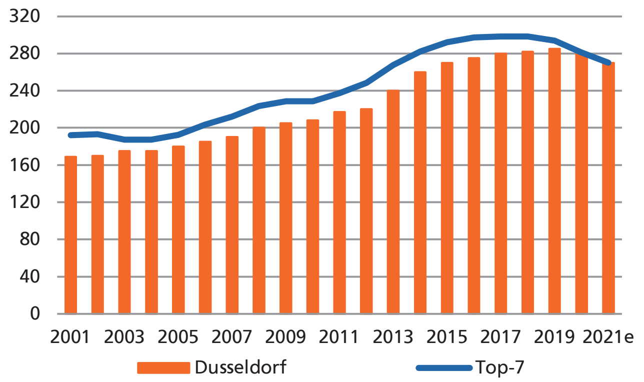
GUEST OVERNIGHT STAYS PER '000 INHABITANTS




Source: bulwiengesa, Scope

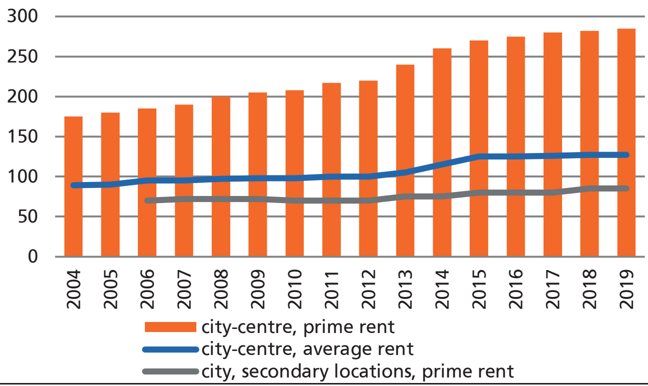
**Düsseldorf: Retail space**

PRIME RETAIL RENTS IN EUR PER SQM




Source: bulwiengesa, Scope, DZ BANK forecast

RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM

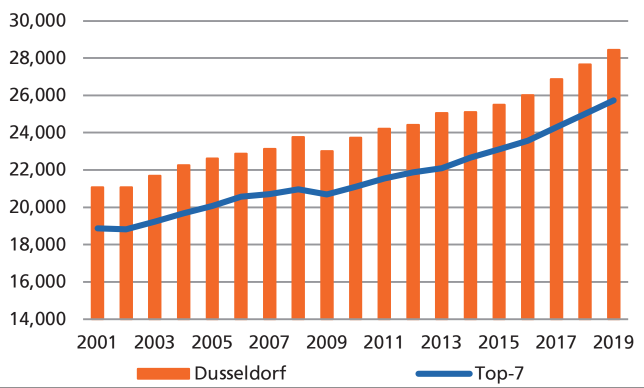



Source: bulwiengesa

Düsseldorf has clearly developed successfully as a shopping destination in recent years. Its success is mainly attributable to a catchment area of 2 million people, and high purchasing power which is nearly 20 per cent above the German average. Düsseldorf City, with its famous “Kö” centre, is also synonymous with fashion and luxury. Thanks to extensive urban development and iconic retail projects such as Kö-Bogen I and II, and the Kö-Galerie which has been completely renovated, the city centre now provides an appropriate setting. Major infrastructure projects – the demolition of a flyover, the construction of a road tunnel, and the new Wehrhahn metro line – have now been completed. However, the city centre construction work has not yet come to an end with the completion of Kö-Bogen II. The final element will be the extension of the pedestrian zone in the prime shopping location of Schadowstraße. Another highlight could be the opening of a branch of KaDeWe in Carschhaus in 2022. In all its new glory, Duesseldorf City should be well equipped for the continuing structural shift in the retail sector. The improved quality of stay, enhanced by the wide range of restaurants and cafés in the “Kö”, should help to keep footfall high in the city centre. This is particularly true given the steep decline in tourism, which has also made a significant contribution to city centre retail sales. Confidence among retailers clearly remains very high. Prime rents were still EUR 285 per sqm in the third quarter of 2020. However, the economic consequences of the pandemic are likely to drive the figure down to EUR 265-275 per sqm by the end of 2021.

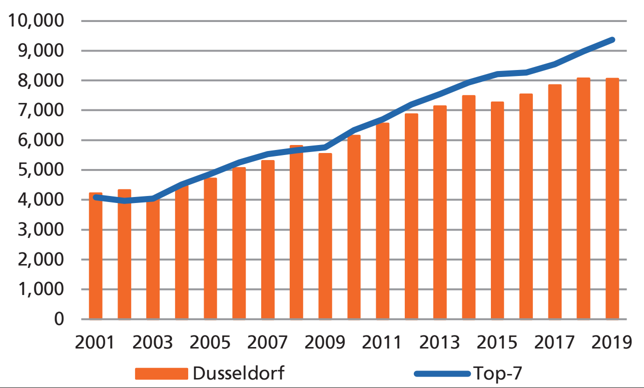
**Retail: Major “Düsseldorfer City” construction project close to completion**

PURCHASING POWER PER CAPITA IN EUR '000




Source: bulwiengesa

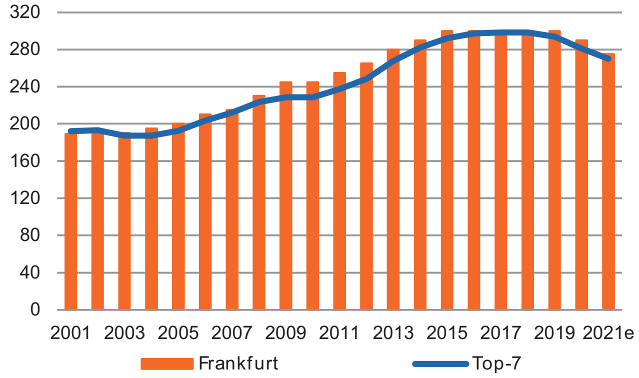
GUEST OVERNIGHT STAYS PER '000 INHABITANTS




Source: bulwiengesa, Scope

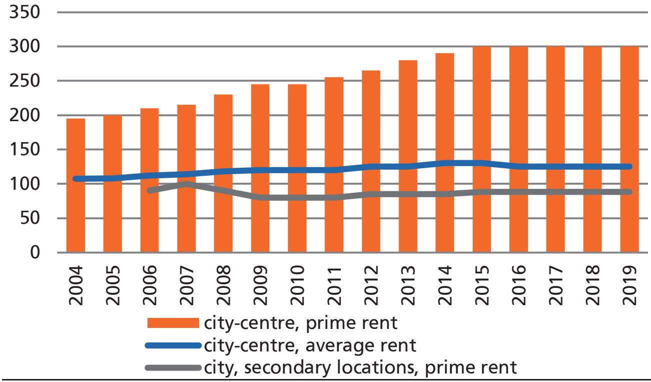
## Frankfurt: Retail space

PRIME RETAIL RENTS IN EUR PER SQM




Source: bulwiengesa, Scope, DZ BANK forecast

RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM

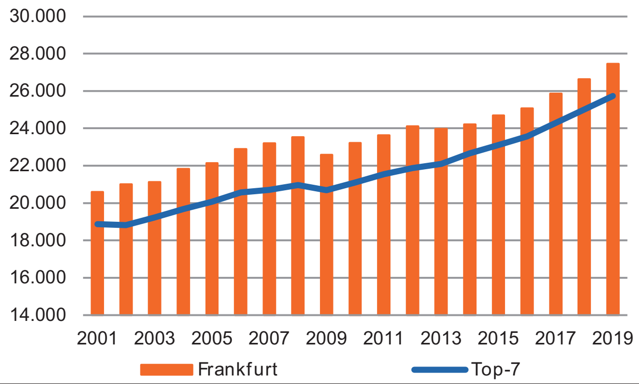



Source: bulwiengesa

The conurbation around Frankfurt has seen strong growth in the last few years. Along with Frankfurt, the population has also risen in other cities in the Rhine-Main region and in smaller towns in the area around Frankfurt. Overall, Frankfurt's retail sector has a catchment area of around 2.5 million people. At the same time, there has been strong job growth which is supporting the region's high purchasing power. Another building block underpinning the retail sector is a large number of visitors which rose rapidly up to 2019. Sales space was expanded significantly within a few years in view of a growing customer base. Two large city-centre shopping centres – MyZeil (2009) and Skyline Plaza (2013) – were accompanied by various smaller projects. However, after just a few years the need to revamp MyZeil and a rather low footfall in the Skyline-Plaza have shown that there is now more than enough retail space. The slump in tourism brought about by the pandemic has been a bitter blow since Frankfurt normally attracts a huge number of visitors. One minus point is the city's rather unappealing Zeil area along with the Konstablerwache and Hauptwache, although the rebuilt Old Town is now a major plus point for Frankfurt. The planned closure of the Karstadt an der Zeil store has been staved off until 2025, but Karstadt Sport on the Hauptwache is definitely closing down. In Q3 of this year, the prime rent fell to just below the level of EUR 300 per sqm which it had maintained since 2015. However, we regard a reduction in the prime rent to as low as EUR 270-280 per sqm by the end of 2021 as entirely possible.

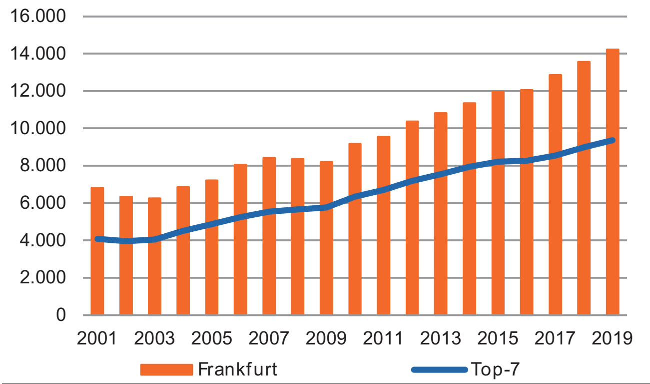
**Retail sector hit disproportionately by sharp fall in large visitor numbers**

PURCHASING POWER PER CAPITA IN EUR '000




Source: bulwiengesa

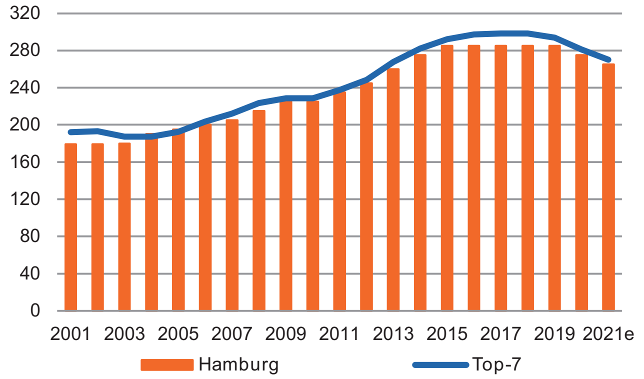
GUEST OVERNIGHT STAYS PER '000 INHABITANTS




Source: bulwiengesa, Scope

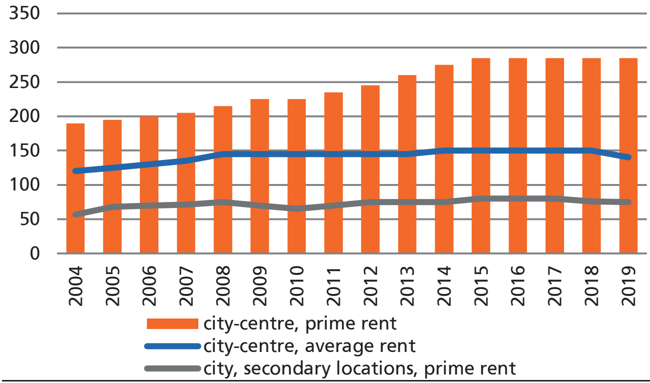
## Hamburg: Retail space

**PRIME RETAIL RENTS IN EUR PER SQM**




Source: bulwiengesa, Scope, DZ BANK forecast

**RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM**

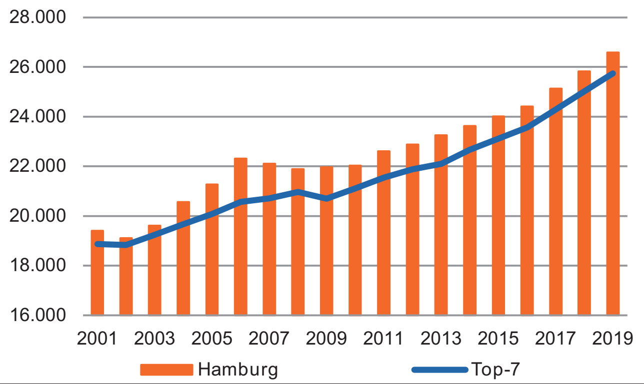



Source: bulwiengesa

**Attractive shopping location offering a broad range of shops from high street-type locations to luxury end**

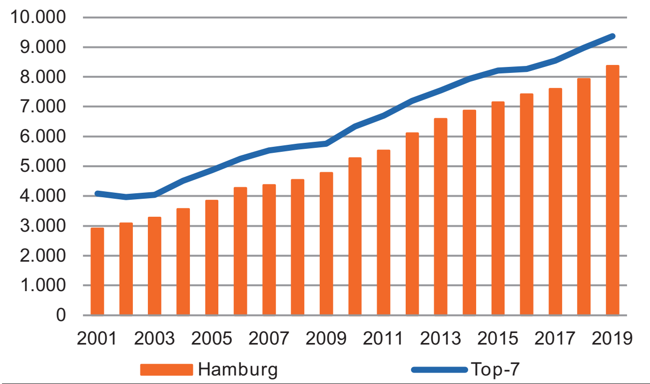
Hamburg scores as the leading shopping location in Northern Germany with a catchment area of 3.5 million people, strong population growth and high purchasing power. Until 2019, tourists and cruise ships passengers were an important shopper group. What makes Hamburg attractive as a city for customers is its broad offer, ranging from classic high street-type locations like the Spitalerstraße and Mönckebergstraße all the way up to the luxury end in the Neuer Wall. In between, there is the one and only large city-centre shopping centre, the Europa-Passage. At 350,000 sqm, sales space in the city centre is on the tight side for a major city of 1.8 million inhabitants and only has only grown slowly through various smaller developments. The Mönckebergstraße has now been hit by the closure of the Kaufhof store in October. Its future use is unclear, but first of all, the building which is over 100 years old will have to be renovated. Although Hamburg's city centre will remain a sought-after shopping destination, the retail sector is likely to be hit hard by the pandemic through two lockdowns and a slump in the number of visitors. The prime rent has already fallen by EUR 10 to EUR 275 per sqm so far this year and the decline is likely to continue to EUR 260-270 per sqm by the end of 2021. The city centre is set to take an extra hit in 2023 with the opening of a 70,000 sqm shopping centre being built by Unibail-Rodamco-Westfield in the southern Overseas Quarter. This "island solution" with around 200 new businesses could become new competition for the city centre.

**PURCHASING POWER PER CAPITA IN EUR '000**




Source: bulwiengesa

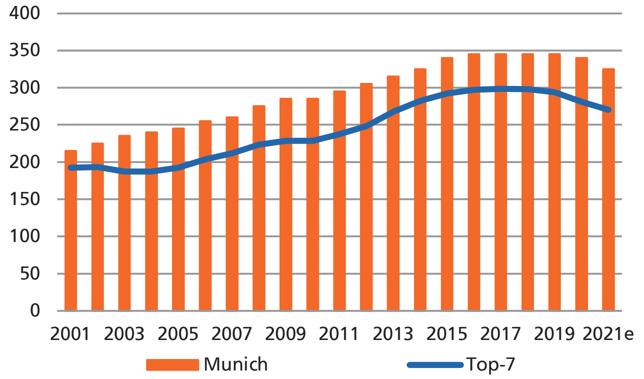
**GUEST OVERNIGHT STAYS PER '000 INHABITANTS**




Source: bulwiengesa, Scope

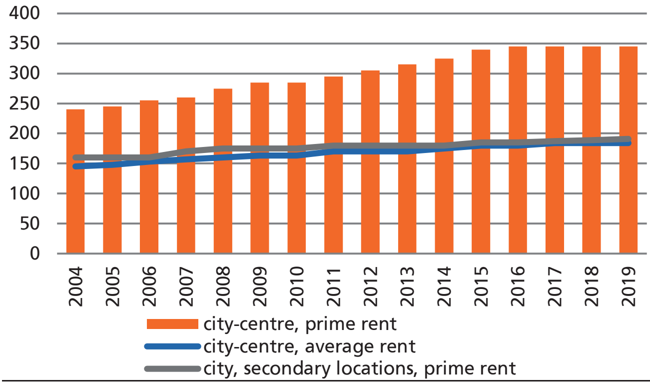
## Munich: Retail space

PRIME RETAIL RENTS IN EUR PER SQM




Source: bulwiengesa, Scope, DZ BANK forecast

RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM

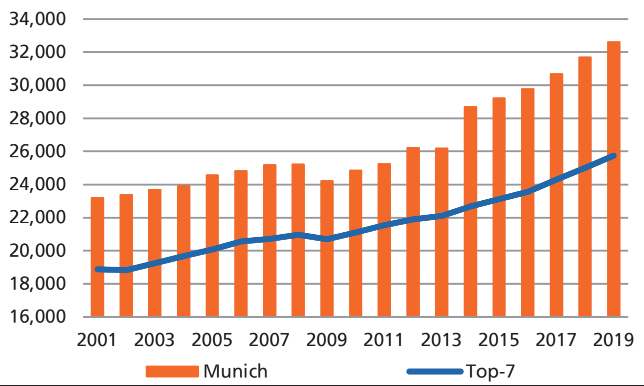



Source: bulwiengesa

**Munich's retail sector benefits from a large catchment area with high purchasing power**

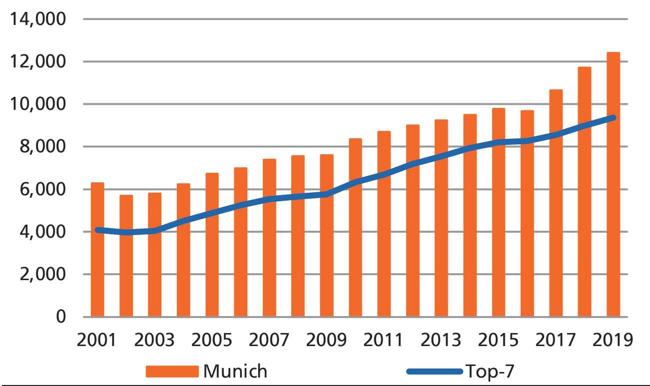
Munich is top of the leader board in the German retail sector for prime rent, retail-space productivity and purchasing power. This is based on outstanding conditions reflecting an economically strong and fast growing catchment area of around 3.2 million people. Another plus point in Munich's favour is that offers a high quality stay in an attractive city centre with a very Bavarian atmosphere and a good range of places to eat and drink. Another positive factor is a comprehensive spectrum of shopping options from mass-retail concepts to family-run specialist stores and luxury shops. Munich has half a million sqm of retail space; only Berlin has more in its city centre. Nevertheless, in the past this was not enough to meet demand. In the last few years, there has been an increase in the amount of attractive retail space with inner-city project developments such as the Palais an der Oper or the Hofstatt. Outside the city centre, new developments have included the Forum Schwanthalerhöhe in the former XXXLutz. Another project is the Alte Akademie which has a projected completion date of 2023. The planned closure of the Kaufhof department store on Stachus has been postponed to 2022. In view of its great attraction, Munich has benefited substantially from a flourishing tourist trade, and therefore the slump in the number of visitors brought about by pandemic is leading to a corresponding loss of sales. So far, the prime rent has remained at its high level of EUR 345 per sqm because of the strength of the location. However, we expected it to fall to EUR 320-330 per sqm by the end of 2021.

PURCHASING POWER PER CAPITA IN EUR '000




Source: bulwiengesa

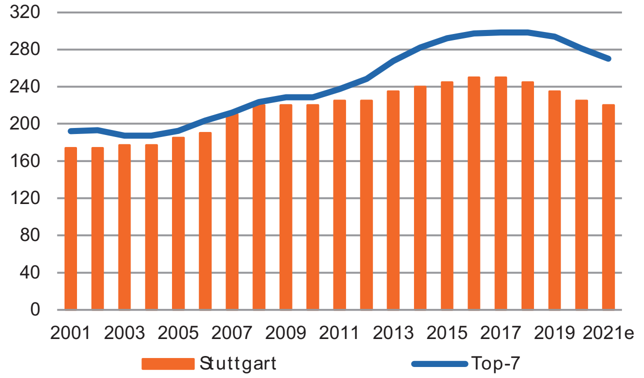
GUEST OVERNIGHT STAYS PER '000 INHABITANTS




Source: bulwiengesa, Scope

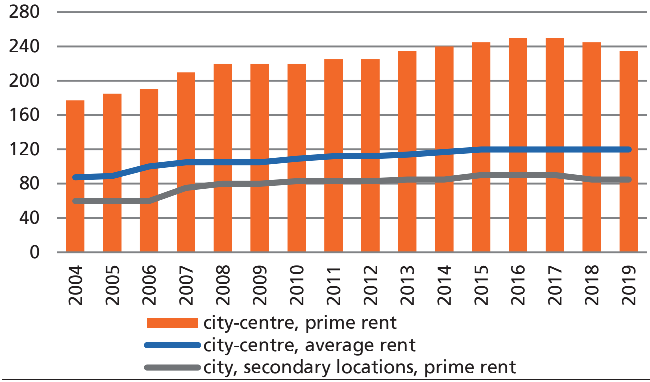
## Stuttgart: Retail space

**PRIME RETAIL RENTS IN EUR PER SQM**




Source: bulwiengesa, Scope, DZ BANK forecast

**RETAIL RENTS PRIME/SECONDARY LOCATIONS IN EUR PER SQM**

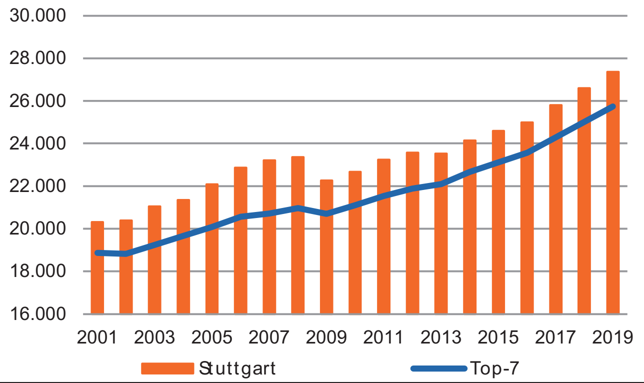



Source: bulwiengesa

**Ongoing fall in rents in Stuttgart's prime retail locations**

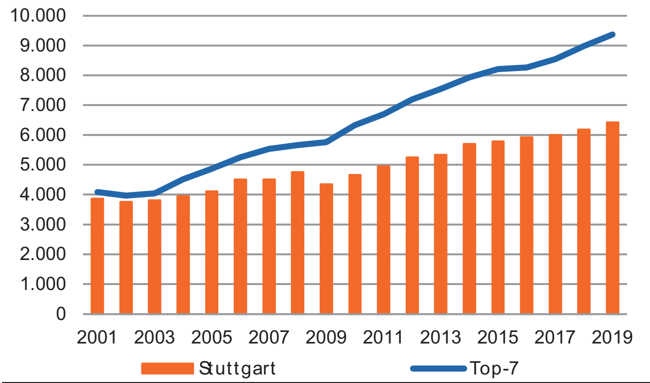
The city-centre's retail trade in the heavily industrialised Stuttgart conurbation taps into a catchment area of 2.6 million people with high purchase power. Tourism is less important for Stuttgart than it is for the other top locations. This means that the consequences of the slump in the number of visitors brought about by the pandemic are less serious for Stuttgart's retail sector. Nevertheless, there has been a relatively sharp fall in the prime rent in the city's prime retail locations although the decline had already begun in 2018. Various reasons can be given for this. One dampening factor has been major civil engineering works such as the once-in-a-lifetime project surrounding the city's mainline station or building work on the city's Marktplatz. A more serious factor in the last few years though has been the increase in retail space available in shopping centres. A high footfall and shortage of available space in the Königstraße, Stuttgart's prime retail location, spurred on the development of large city-centre retail projects and this in turn has led to an increase in city-centre retail space of over 20 per cent at a stroke. In 2014, the MILANEO and Gerber shopping centres opened simultaneously at opposite end of the city centre, offering a total of 60,000 sqm of retail space. It seems that this was too much of a good thing. Whereas the MILANEO was able to establish itself, the Gerber was beset by problems, especially in connection with its top floor. This led to the decision in 2019 to remodel the centre. The plan is now to use the top floor for office and hotel use. The fall in rent already mentioned has continued this year because of the impact of the pandemic. We assume that the prime rent will decline to EUR 215-225 per sqm by the end of 2021.

**PURCHASING POWER PER CAPITA IN EUR '000**




Source: bulwiengesa

**GUEST OVERNIGHT STAYS PER '000 INHABITANTS**




Source: bulwiengesa, Scope

## OFFICE SPACE

### Flexible working as successful model – what is to become of offices?

**Working from home has become the new normal for office workers**

Although the lockdown in the spring paralysed large parts of the economy, business divisions and development units were able to continue with their work because millions of office staff worked from home. In spite of often poor IT equipment and makeshift conditions – like using a laptop on the kitchen table – it proved successful, and although some people went back into the office over the summer, the bulk of office work continued to be done at home.

**People and technology have adjusted to demands of digital working**

Remote working went increasingly smoothly as many temporary arrangements were turned into professional working environments with large monitors, webcams and headsets. This was also the case with work processes. Many office workers have become adept at using Skype, Teams, Webex and other tools of a digital working environment, and conferences and product presentations are taking place online. The lockdown in November and potential further measures to dampen infections are no longer a challenge in view of the structures which have been put in place − at least not in everyday office work.

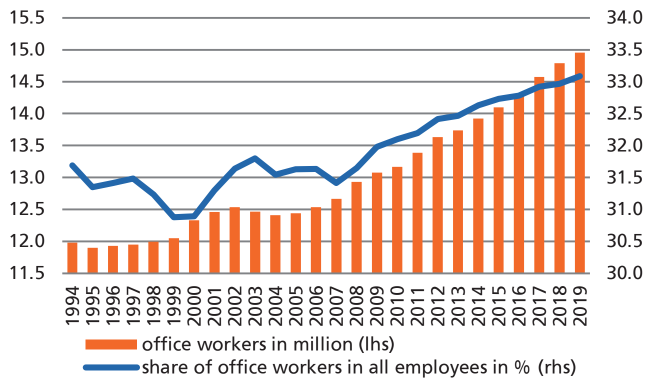
**Many companies creating conditions for permanent flexible working**

It is likely to be some time before a vaccine allows life to return to what it was before the outbreak of the pandemic. During this period, working from home or – more broadly put – flexible working is set to become part and parcel of our working world and, even post coronavirus, it is unlikely to disappear from everyday office life. After all, working from home offers many advantages. Companies can make do with less office space and therefore save on related costs; employees can arrange their day in a more flexible manner and save time which they would otherwise spend commuting. Many companies are already looking into or creating the conditions to make flexible working a successful permanent solution in addition to working in the office.

**Recession and home working dampening demand for office space and bringing an end to a tight office market**

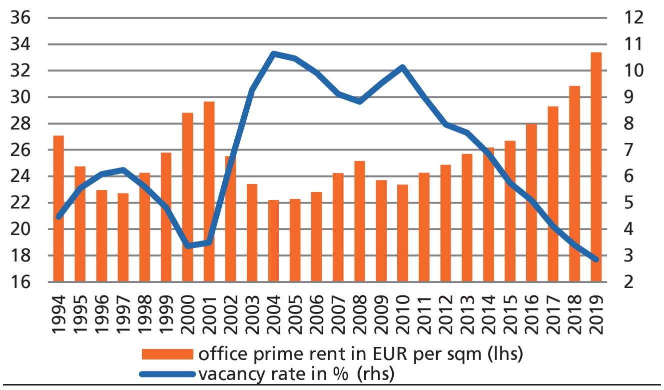
What does this all mean for the office market? How will demand for office space change? Will flexible working now be allowed three days a week, or three days a month? And what sort of office environment will be suitable for hybrid working to be efficient? In these times of upheaval, clients are likely to be more cautious in their demand for office space in order not to lease any space which will no longer be required in future or which might be unsuitable in the way it is divided up. This means that the combination of a home-working effect and recession have brought to an end the increasing scarcity of space in the office market up to 2019 brought about by growing demand for space at a time of ever dwindling supply.

CHANGE TO A KNOWLEDGE ECONOMY LEADING TO INEXORABLE RISE IN OFFICE-BASED EMPLOYMENT




Source: bulwiengesa

TOP LOCATIONS: SHORTAGE OF OFFICE SPACE AND HIGH DEMAND LED TO INCREASINGLY TIGHT MARKET




Source: bulwiengesa

Data for top locations

Prior to the coronavirus crisis, it had become difficult for companies to lease office space as supply had become scare. In some locations such as Berlin, Munich and Stuttgart, vacancy rates fell to below 2 per cent or less, leaving a virtually dried up stock. Larger rental transactions therefore mainly involved developments still under construction. This problem would be largely solved with a rising proportion of flexible working. In addition, it would mean a substantial potential savings on space-related costs. Assuming office space of 25 sqm per employee and based on prime rents of around EUR 40 per sqm plus related costs, the trend towards working from home could definitely bring annual savings in the five-digit euro bracket per workstation.

**Home working saves on overheads for companies and obviates need for arduous search for office space**

However, working from home could also prove to be a financial trap. Bearing in mind the fact that personnel costs are considerably higher than the cost of premises, any savings could prove a false economy if efficiency suffers as a result of staff working from home, e.g. through poorer communication. However, losses that might be incurred in this way are far less visible, unlike falling costs for office space. In addition, the amount of office space will not be reduced in line with the number of workstations because, apart from flexible workstations − i.e. unassigned desks used by various people – additional space is needed for communication. Additional costs can also be incurred if a flat-rate user fee is agreed with employees for their home office.

**Could working from home prove to be a financial trap?**

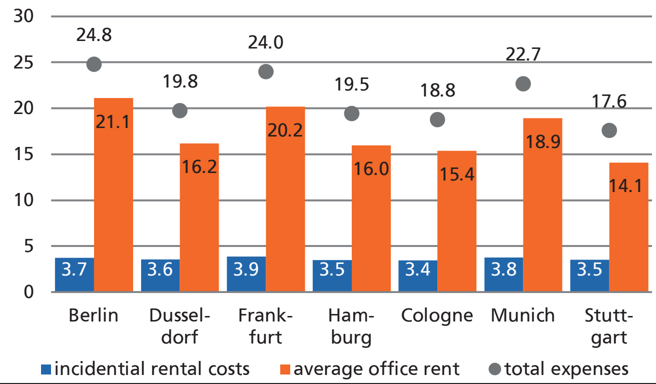
Surveys on working from home mostly suggest that productivity at home is rated as constant or even higher. This is also what emerges from a recent survey carried out by PwC on remote working. It is worth bearing in mind with such statements that many teams have been working in the office for a long time and therefore they are well trained and have been able to cope successfully with the challenges of lockdown and working from home. This could change, however, because team development is more difficult if a high proportion of flexible working and hot-desking are involved. This also applies to training new colleagues.

**Only a snapshot in time? Many rate home working productivity as high**

According to the PwC survey mentioned above which targeted 100 companies and their employees, around 70 per cent of respondents would like to work more from home. Sixty per cent of companies assume that they will be shrinking their office footprint in the next three years. All in all, this would lead to a reduction in office space of around 20 per cent. As many as 15 per cent of the companies surveyed assume a reduction in their office footprint by as much as 31 to 50 per cent. Two companies expect their office footprint to be reduced by over half.

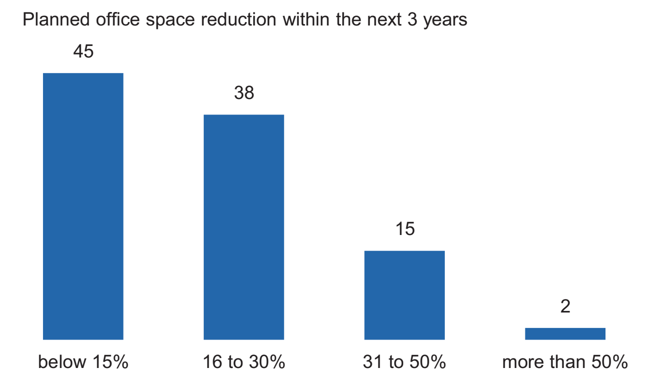
**Offices could be much smaller in future**

**SUBSTANTIAL POTENTIAL FOR SAVINGS: OFFICE SPACE HAS BECOME EXPENSIVE**
OFFICE COSTS IN EURO PER SQM




Source: JLL

**COMPANIES AIMING TO CUT OFFICE FOOTPRINT BY 20 PER CENT**
PERCENTAGE QUOTED




Source: PwC (study on corporate real estate management, Oct. 2020)

**Not the end of the line for offices**

It remains to be seen whether demand for office space does actually shrink on this scale through home working. However, offices will definitely not become redundant. Only a proportion of working hours are likely to be flexible. While concentrated work is successful at home, the strength of the traditional office is when it comes to communication. In any case, not all tasks can be carried out at home. The division of many office floors into many smaller, separate offices could prove to be less suitable if space is required above all for hot-desking and communication areas.

### Conditions for the office market

**Major deterioration in conditions for the office market through coronavirus pandemic**

The pandemic has led to a significant deterioration in conditions for the office market. The recession in Q2 was followed by a strong recovery in Q3. However, it has now suffered a set-back. A sharp rise in the number of Covid-19 infections in the autumn of 2020 and fresh lockdowns have shown that the economy still faces huge threats because of the pandemic. Uncertainty facing companies is compounded by further risk factors such as the US-Chinese trade dispute and Brexit, for example.

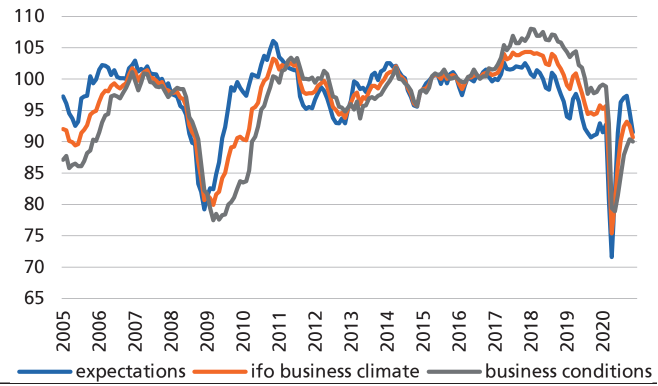
**Downright slump in ifo Business Climate Index and ZEW Economic Sentiment Index**

The deterioration in economic prospects is clear from the monthly ifo Business Climate and ZEW Economic Sentiment Index. Although upbeat sentiment had already cooled in 2019 because of a slower economic momentum, the outbreak of the coronavirus pandemic then led to a real slump in survey results. The ifo Business Climate Index fell to below its level during the international financial markets crisis, but quickly recovered. Nevertheless, the current index reading is still some way below previous-year levels. Above all, the expectation component is down. Economic analysts surveyed by ZEW moreover estimate the current situation as weak.

**Labour market suffers reversal after upturn of many years**

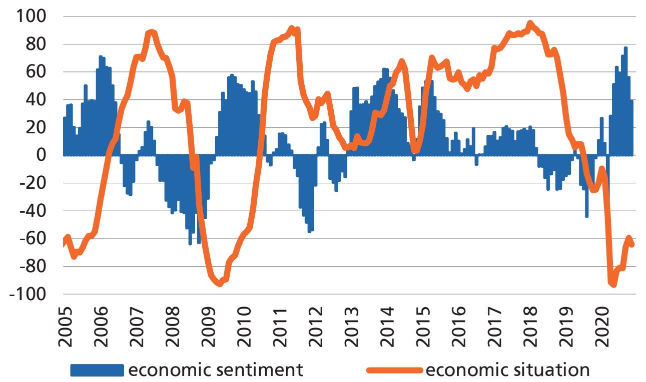
The recession has brought about an end to the increase in employment which remained intact over many years. By the autumn of 2019, the number of people in employment had climbed to a record of 45.2 million. Since the outbreak of the pandemic, however, the figure has fallen back to 44.5 million. As such, employment remains high, but several million people are still on short-time work. The number of job vacancies has also fallen sharply – down by around one quarter. Although looking back, the level is still high at not quite 600,000 jobs.

**IFO BUSINESS CLIMATE (2015 = 100) CLEARLY DOWN SINCE 2018**



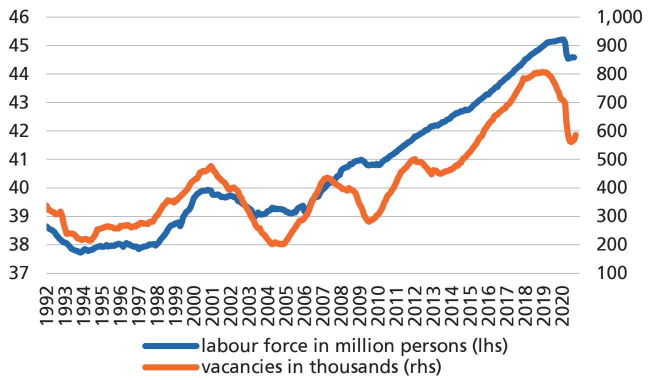

Source: ifo Institute

**ZEW ECONOMIC SENTIMENT: AFTER EXPECTATIONS, CURRENT SITUATION HAS ALSO FALLEN INTO NEGATIVE TERRITORY**



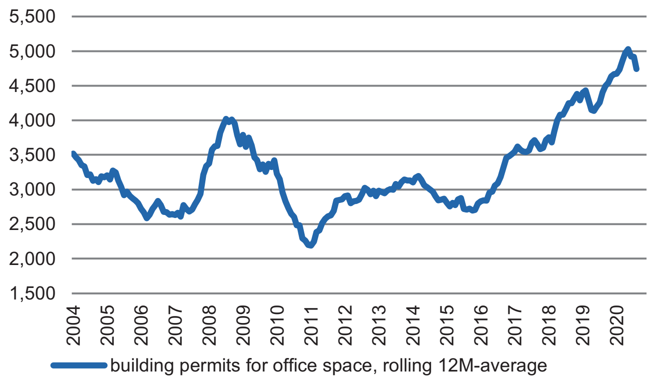

Source: ZEW

**STEADY RISE IN EMPLOYMENT OVER MANY YEARS BROUGHT TO AN END BY CORONAVIRUS PANDEMIC**




Source: Federal Employment Agency

**OFFICE CONSTRUCTION IN GERMANY HAS PICKED UP**
IN '000 SQM




Source: Federal Statistical Office

**Marked increase in planning permits for office space since 2017,…**

In the last few years, demand for office space has been driven by job growth. Because there was hardly any new office space coming onto the market, supply became increasingly scarce while rents rose steadily – cf. page xx. It was not until 2017 that there was any noticeable response in terms of new office construction. From 2012 to 2016, planning permits were issued for around 3 million sqm of space for new offices and administration buildings p.a. Up to the beginning of 2020, the annual amount of space authorised increased to around 5 million sqm, although it has since fallen back again.

**...but hardly any rise in office completions**

However, a decline in demand for office space through a fall in employment and home working is unlikely to coincide with any sharp rise in the supply of office space. After all, the completion of new space in the office market lags even further behind the issue of planning permits than it does in the housing market. In 2019, office completions did not even reach 3 million sqm, and it seems rather unlikely that the pace of new office construction would be stepped up now in view of the pandemic and the trend towards working from home. There is therefore no danger of any surplus of office space. Moreover, there is a need for modern offices, not least in view of a fairly large proportion of older buildings.

**Demographics leading to a decline in buying potential**

It remains to be seen how quickly the economy recovers after the coronavirus crisis. However, even in the event of a rapid return to a path of strong growth, job growth is unlikely to continue in the next few years since an ageing population is also likely to prove an additional dampener.

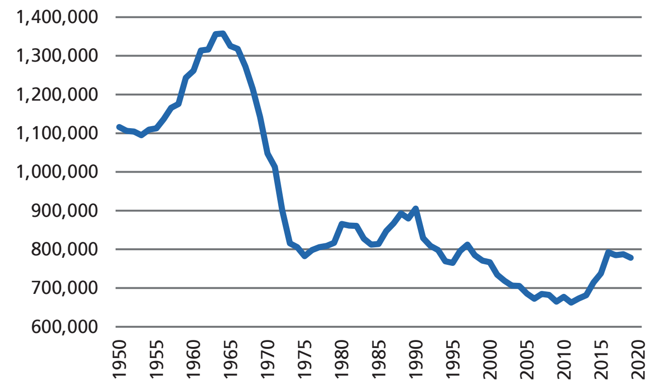
**Growing number of baby boomers retiring**

Until now, baby boomers have played a big part in the high level of employment. However, people born in bulge years of the 1950s and 1960s – when over 1 million children were born every year – are coming up to retirement, and the birth rate in subsequent years was much lower. By 2035, for example, when people born in 1970 get to the age of 65, the potential workforce could fall by several million. The number of people working in offices is also likely to decline. A growing proportion of people with office-based jobs is likely to slow down this trend to some extent, but it will definitely not stop it.

**Boom in coworking at least interrupted by pandemic**

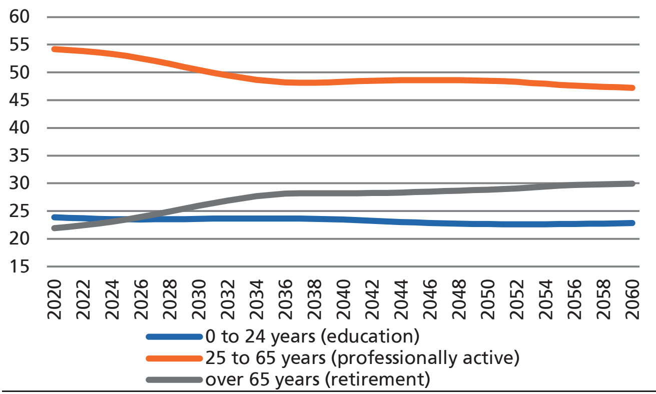
A relatively new segment in the office market had grown substantially until the outbreak of the coronavirus pandemic as providers of flexible and coworking space available to rent at short notice benefited from a major shortage of supply in the

**BABY BOOMERS COMING UP TO RETIREMENT**
NUMBER OF LIVE BIRTHS




Source: Federal Statistical Office

**AGEING POPULATION MEANS SHRINKING POTENTIAL WORKFORCE**
IN MILLION PEOPLE




Source: Federal Statistical Office
Moderate scenario based on 14th coordinated population projection

office market. Companies such as Wework or Design Offices let attractive office space in central locations in which they provide desks in communal spaces as well as separate offices. The advantage for clients is flexibility; the downside is a high rent per sqm. Both have proved a disadvantage during the pandemic, as illustrated by the price war waged by providers, with two-digit percentage price cuts against 2019 in some cases, according to press reports.

**Coworking could pick up again though**

This reflects the fact that companies which rented coworking desks have been able to give up this expensive space quickly and thus save on costs. There is now hardly any call for coworking space since people are working from home and a large proportion of company offices are not being used at present. In the long run, though, the upturn in coworking could continue. If companies reduce their physical footprint, they will be able to fall back on flexible desks if space in their actual offices becomes tight. However, it could take some time before this happens. Whereas home working solutions can be implemented fairly quickly, it is likely to take companies much longer to shrink their office footprint because of long-term rental agreements, for example.

### Comparison of office market in top locations

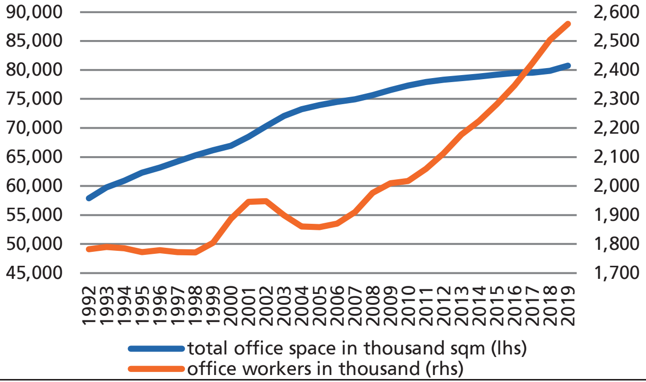
**Office market in top locations in rude health prior to the pandemic**

Prior to the outbreak of coronavirus, office landlords were in a comfortable position since a tight market meant that even rather unattractive space could be let. In view of a dearth of available space, prospective tenants often had to turn to projects under development in any case. In 2019, major transactions of over 10,000 sqm mostly involved offices which were not yet completed. In view of sustained strong demand for space, it was still possible to generate high take-up in spite of a dwindling supply. The volume of empty office space fell from quarter to quarter during this period.

**Coronavirus pandemic visibly slowing down office market in top locations**

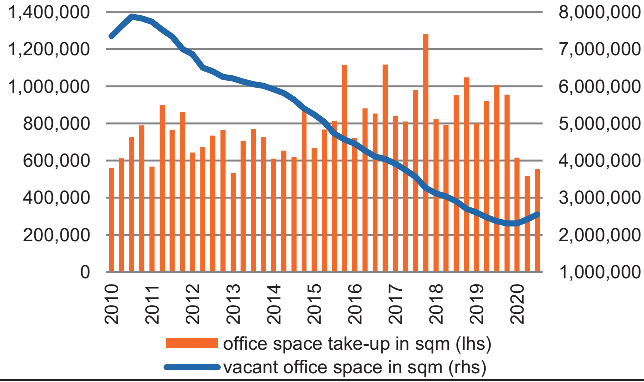
The multi-year boom in the German office market only came to an end with the outbreak of the pandemic. In addition to the lockdown, the recession and uncertainty surrounding the future economic trend, there is the question of what impact flexible working will have on future demand for office space. Bearing all this in mind, it seems that the office market in the top 7 locations survived quite well in the first three quarters of 2020. In the current market situation, an even more pronounced decline in office space take-up would not have come as any surprise although a decline of almost 40 per cent against the same previous-year period undoubtedly represents a sharp slump in market activity. In absolute terms, office space take-up shrank from around 2.7 million sqm in 2019 to around 1.7 million sqm.

**TOP LOCATIONS: WIDE GAP BETWEEN OFFICE STOCK AND OFFICE-BASED EMPLOYMENT IN THE PAST**




Source: bulwiengesa, Scope

**OFFICE MARKET BOOM IN TOP LOCATIONS CONTINUED TO THE END OF 2019**




Source: bulwiengesa

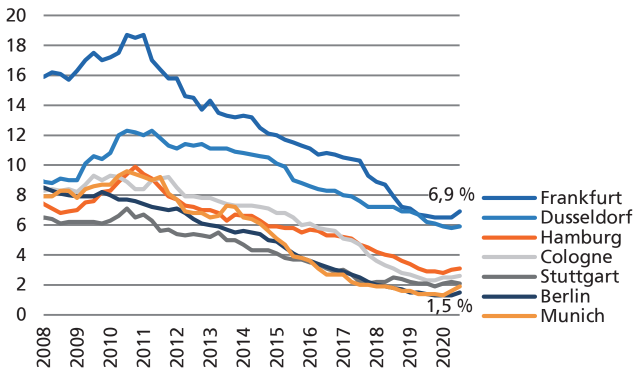
**Lockdown has dampened Q2 and Q3**

The economic upturn in Q3 2020 hardly had any impact on quarterly figures for the office market. Take-up in Q3 was only marginally better than in Q2 which was hit by lockdown. This is likely to reflect the necessary lead time involved in rental agreements. As such, there were still transactions being signed in Q2 which had been prepared prior to the outbreak of the pandemic. Because of the time lag, the cooling effect from the lockdown also fed through to Q3. Whether Q4 can deliver noticeably higher office space take-up once again is questionable. After all, the uncertainty factors mentioned are still being felt because of a sharp rise in coronavirus infections.

**Vacancy rate still very low in spite of coronavirus crisis**

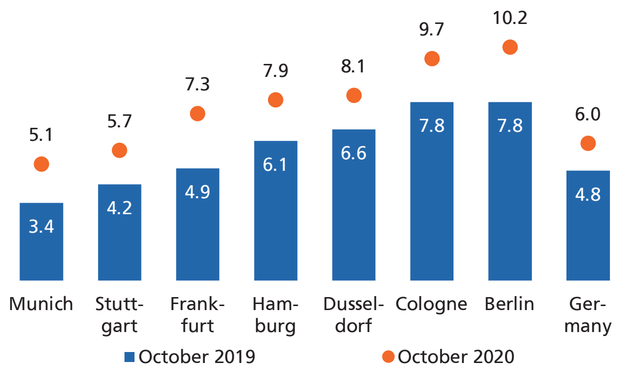
The volume of vacant office space has increased for the first time in over ten years in light of a fall in letting activity. As at the end of 2019, vacant office space in the top 7 locations amounted to a total of around 2.3 million sqm – the lowest figure since 2000. At the end of Q3 2020, the figure had risen to 2.55 million sqm. However, even after this rise, vacant space is still at a very low level. It was only even lower around the turn of the millennium and at the beginning of the 1990s. The average office vacancy rate at the end of Q3 was just over 3 per cent, ranging from 1.5 per cent in Berlin to 6.9 per cent Frankfurt

**VACANCY RATE HAS HARDLY INCREASED SO FAR**
OFFICE VACANCY RATE (%)




Source: bulwiengesa

**DISPROPORTIONATE RISE IN UNEMPLOYMENT RATE IN BIG CITIES**
UNEMPLOYMENT (%)




Source: Federal Employment Agency

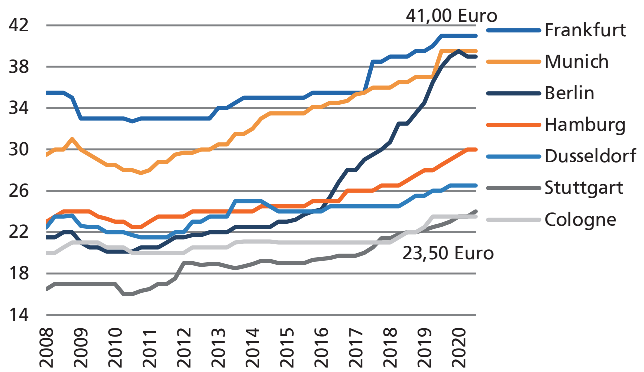
**Marked rise in unemployment in top locations**

The labour market in the top locations as a whole has been hit hard by the coronavirus crisis. In October 2020, the unemployment rate across Germany rose by 1.2 percentage points to 6.0 per cent against the same month last year, whereas the rate in the seven cities under consideration in our study rose by 1.5-2.4 percentage points. The rate is highest in Berlin and Cologne at around 10 per cent. The job losses which have brought this about are also likely to have a dampening effect on demand for office space.

**Stable prime rents in 2020 show there is still demand for attractive offices**

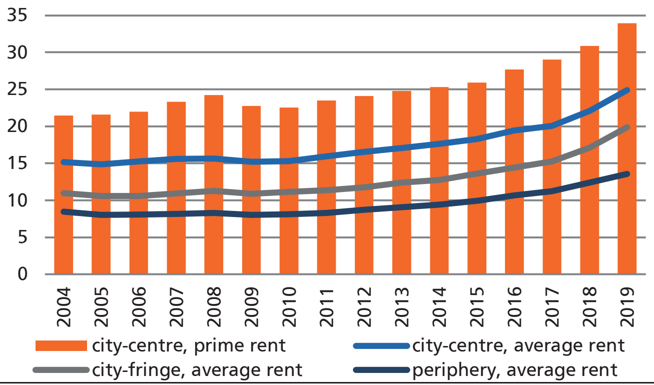
In spite of generally negative effects for the office market, high-end office space is still sought after. Although the sharp rise in rents has not continued, prime rents for office space have remained largely unchanged so far this year in spite of a decline in take-up and a moderate increase in vacant space. The stable trend is being helped by a shortage of space on offer. This applies especially to attractive, centrally located office space.

**PRIME RENTS HAVE HELD SO FAR**
PRIME RENTS FOR OFFICES IN EURO PER SQM




Source: bulwiengesa

**INCREASE IN OFFICE RENTS AFFECTING WHOLE MARKET**
OFFICE RENTS IN EURO PER SQM

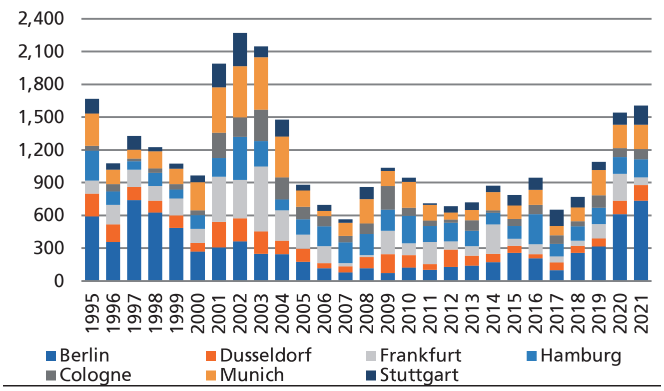



Source: bulwiengesa

**Prime rent for offices ranges from around EUR 24 to EUR 41 per sqm**

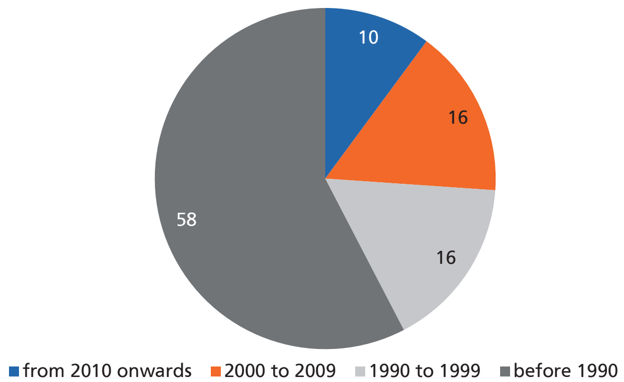
At the end of Q3 2020, prime rents for office space ranged from EUR 23.50 per sqm in Cologne to EUR 41 per sqm in Frankfurt. Rents in five cities are unchanged against the end of 2019. In Hamburg and Stuttgart, the prime rent for offices has in fact increased by EUR 1 per sqm respectively. In the past few years, prime rents rose across all the top locations, albeit at a different pace. They rose by around

**INCREASE IN NEW OFFICE SPACE ABOVE ALL IN BERLIN**
NEW OFFICE SPACE IN '000 SQM




Source: bulwiengesa

**NEW BUILD REQUIREMENT: LARGE PROPORTION OF OFFICE BUILDINGS RELATIVELY OLD**
CONSTRUCTION PERIOD AS PERCENTAGE




Source: bulwiengesa

10 per cent against Q3 2015 in Düsseldorf and Cologne. In Frankfurt, Hamburg and Munich, rents rose roughly twice as fast. In contrast, Berlin is way ahead with a five-year rise in prime rent for offices of 65 per cent to EUR 39 per sqm most recently.

**Office rents have risen fast outside city centres, as potential tenants widen their search area**

However, a strong trend in office markets in previous years did not just boost prime rents. In view of an ever growing scarcity of office space, office rents in top locations rose across all locations. From 2014 to 2019, prime rents in city centres rose by 34 per cent to just under EUR 34 per sqm, whereas the average rent in the inner city rose by around 40 per cent to some EUR 25 per sqm. The rise on the edge of the city was even stronger at 55 per cent to just under EUR 20 per sqm. On the periphery, rents rose by some 45 per cent to around EUR 13.5 per sqm − i.e. also faster than in the city centre. This illustrates the fact that the search for office space has expanded to surrounding areas in view of a tight supply and high rents in city centres.

**Weaker demand and increase in supply dampening rental growth**

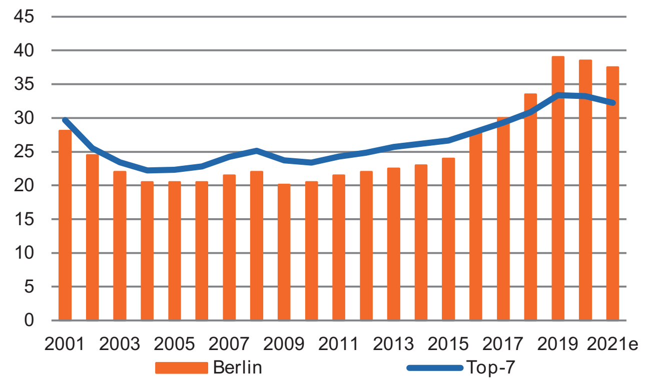
In spite of the economic recovery, demand for office space next year is likely to be lower because of the home working effect, and this will have a dampening impact on rental growth. The vacancy rate is also likely to rise slightly further, not least also in view of an increase in space in office locations as new building has picked up in response to the tight supply. The construction of new office space should also be seen as positive in light of the age of the existing office stock.

**Increasing variations likely in office markets**

However, the rise in supply which has coincided with a fall demand, as described earlier, is unlikely to have any major impact on the office market. One contributory factor is likely to be a very low vacancy rate overall. In addition, the sharpest increase in new office space coming onto the market happens to be in the market with the most extreme shortage, namely Berlin. A sharp fall in office rents is therefore rather improbable. However, we can expect a greater differentiation between office locations, and we can expect less attractive locations to be hit harder by a weak market.

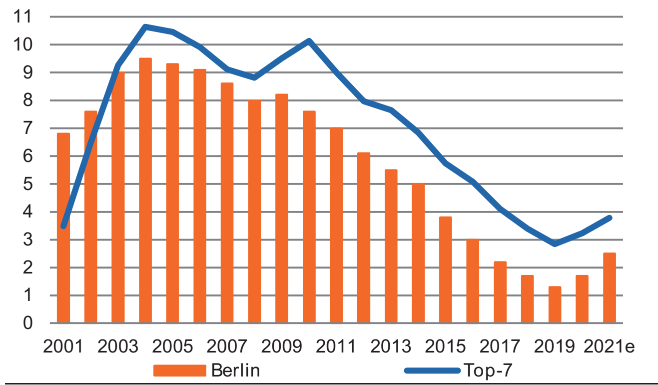
## Berlin: Office space

PRIME OFFICE RENT IN EUR PER SQM




Source: bulwiengesa, DZ BANK forecast

VACANCY RATE (%)

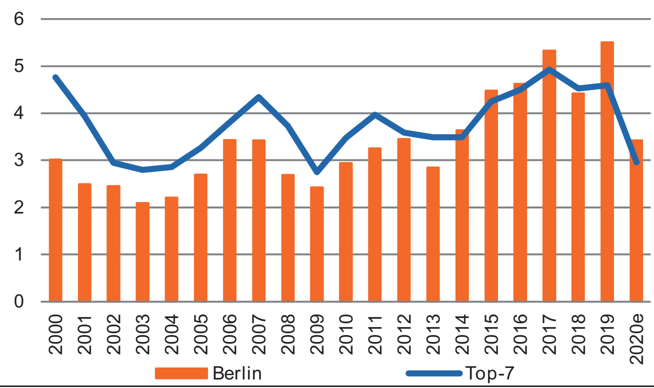



Source: bulwiengesa, DZ BANK forecast

**Coronavirus crisis an opportunity for Berlin office market to take a breather**

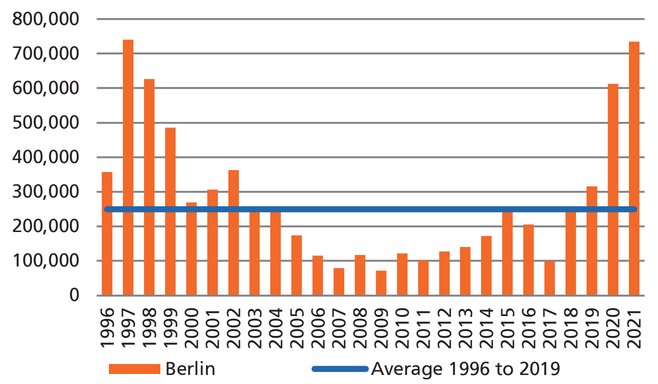
Berlin's upturn in the last few years has led to a major surge in the capital's office market. Although office rents also rose in other top locations, it was nothing like the rate in Berlin. In 2010, the prime rent in Berlin was only slightly above EUR 20 per sqm. Ten years later, it is almost twice as high, while the average prime rent across the top locations rose much slower at around 40 per cent. Rental growth was driven by high demand for office space through a rise in the number of office workers at a time of increasingly scarce space. In view of an earlier weak market trend and low rents by European capital standards, hardly any new office space was built in Berlin. This led the vacancy rate to fall to just over 1 per cent by the beginning of 2020. High demand is reflected in a high office space take-up which reached almost 1.1 sqm in 2019. After Berlin became home to many IT and e-commerce start-ups, established companies are increasingly also opting to settle in the city. One example is Siemens: the group is planning to invest EUR 600m in a technology park, Siemensstadt 2.0. The break in the upturn brought about by the coronavirus crisis offers the market a chance to take a breather. Urgently needed space is now coming onto the market after construction efforts were stepped up, and this will help replenish an almost exhausted stock of available office space. At the same time, the prime rent is likely to dip to EUR 37-38 per sqm by the end of 2021.

TAKE-UP AS % OF OFFICE STOCK




Source: bulwiengesa, DZ BANK forecast

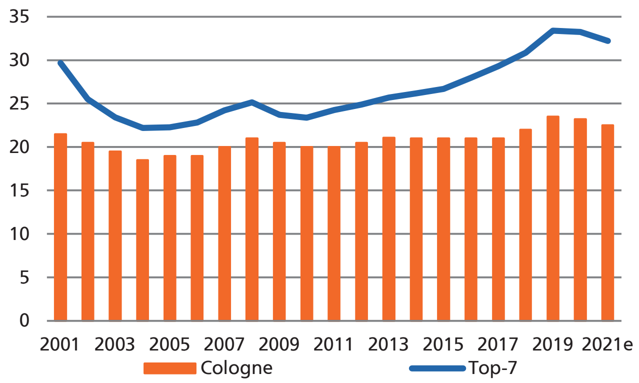
OFFICE SPACE COMPLETIONS (SQM)




Source: bulwiengesa

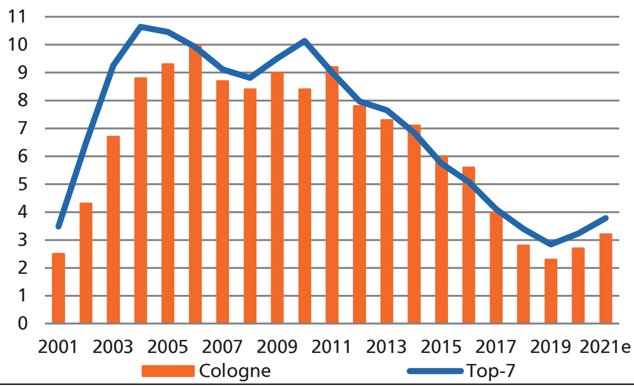
## Cologne: Office space

PRIME OFFICE RENT IN EUR PER SQM




Source: bulwiengesa, DZ BANK forecast

VACANCY RATE (%)

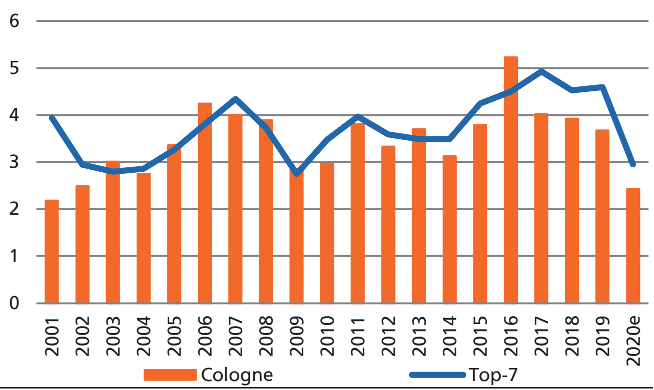



Source: bulwiengesa, DZ BANK forecast

**Stable office market with little available space and a relatively low rent level**

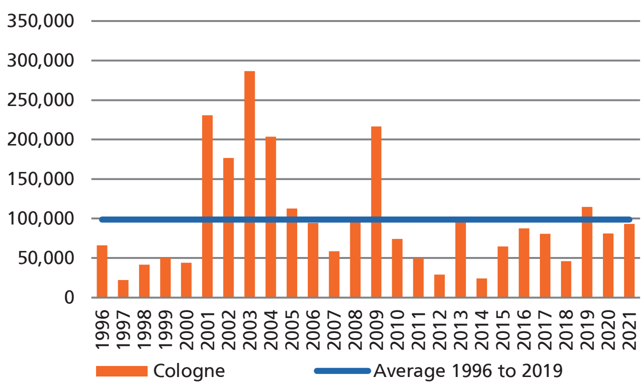
The Cologne office market has been largely stable for some time now. Annual take-up tends to be around 300,000 sqm with the exception of 2016 when a transaction involving the Zurich Insurance head office led to a much higher level. Like in Düsseldorf, the prime rent for office space has increased moderately, albeit with regular "sideways phases". As a result of this, rents in the Cologne office market are now lagging some way behind the level in the top locations. The office market in the cathedral city is currently the cheapest among the top locations with a prime rent of EUR 23.50 per sqm. Rents in Cologne have hardly benefited from the growing shortage of space of the last few years. A moderate amount of new space coming onto the market has led the vacancy rate to fall to 2.3 per cent. As in other top locations, larger tenancy agreements have tended to involve primarily projects under development. In the pandemic year, take-up totalled not quite 130,000 sqm up to Q3, and therefore the final figure by year end is likely to reach the 200,000 sqm mark at best. The biggest tenants during this period have been AOK and the Hauptzollamt (main customs office). Like the majority of major rental deals, these two transactions also involved projects which are still under construction. Although new office building has picked up, it is still not at a high level and therefore, like in 2020, the vacancy rate is set to increase slightly in 2021. As such, the supply of office space is set to remain tight and therefore the prime rent is likely to dip slightly to EUR 22-23 per sqm by the end of 2021.

TAKE-UP AS % OF OFFICE STOCK




Source: bulwiengesa, DZ BANK forecast

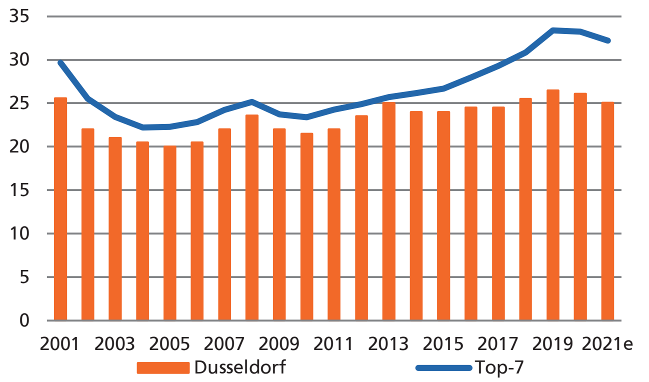
OFFICE SPACE COMPLETIONS (SQM)




Source: bulwiengesa

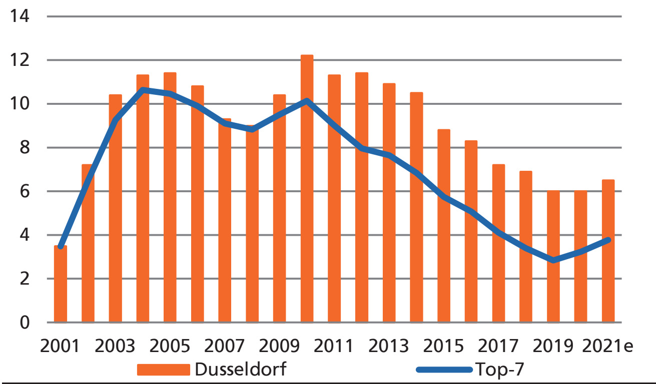
## Düsseldorf: Office space

PRIME OFFICE RENT IN EUR PER SQM




Source: bulwiengesa, DZ BANK forecast

VACANCY RATE (%)

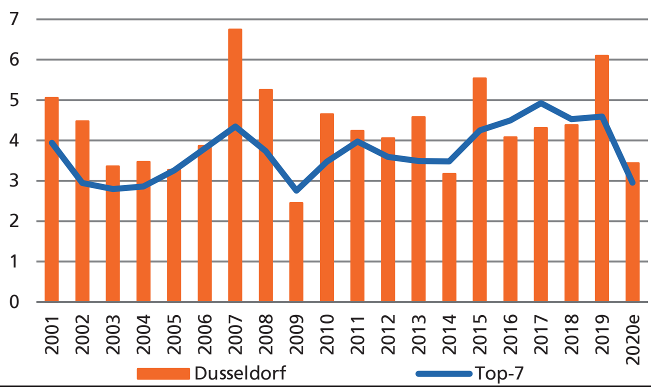



Source: bulwiengesa, DZ BANK forecast

Düsseldorf is the smallest office market among the top 7 locations at 7.7 million sqm, albeit Stuttgart and Cologne are only marginally ahead in fifth and sixth place. On the other hand, the prime rent is around EUR 3 higher than in Stuttgart and Cologne at EUR 26.50 per sqm. Office space take-up is also mostly higher, but likewise the vacancy level. Although the vacancy rate has fallen sharply in the last few years, at not quite 6 per cent, it is nevertheless almost twice as high as the top location average. As in most locations, the coronavirus pandemic has significantly slowed down business in the office market. A sharp reduction in take-up of office space in relation to 2019 reflects not only the pandemic but above all the huge transaction volume the previous year. Eight signings alone of over 10,000 sqm each accounted for over 150,000 sqm of space let in 2019. In contrast, so far this year, there have only been two big deals, amounting to space of slightly over 40,000 sqm (tenants are the regional finance office and Alltours). Overall, the public sector makes up a major share of demand in North Rhine-Westphalia's office market. The office vacancy rate in Düsseldorf has only increased marginally during this pandemic year. At the end of Q3, it was in fact down slightly against the level at the end of last year. However, office building has picked up slightly and therefore the vacancy rate is likely to edge up slightly by the end of 2021. By then, the prime rent is likely to dip to EUR 24.5-25.5 per sqm.

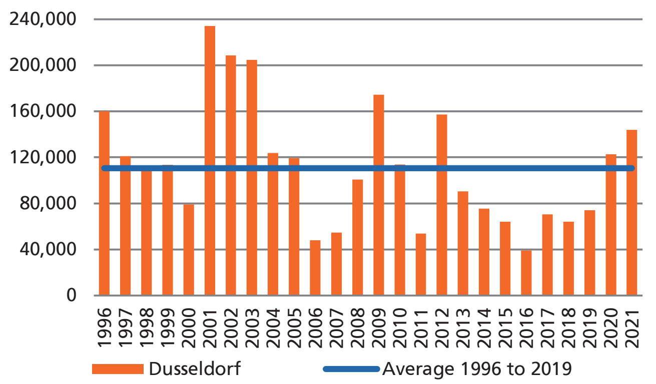
**Pandemic has only led to a marginal increase in vacant space in Düsseldorf office market**

TAKE-UP AS % OF OFFICE STOCK




Source: bulwiengesa, DZ BANK forecast

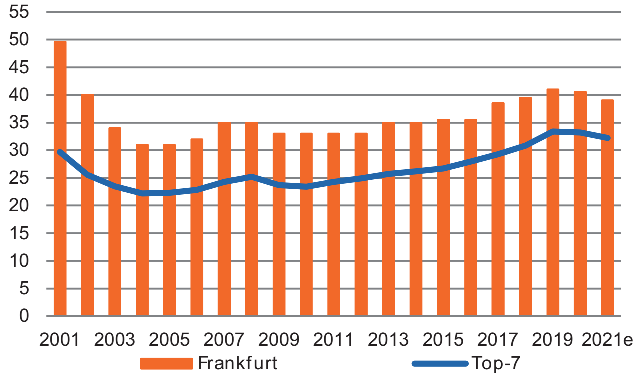
OFFICE SPACE COMPLETIONS (SQM)




Source: bulwiengesa

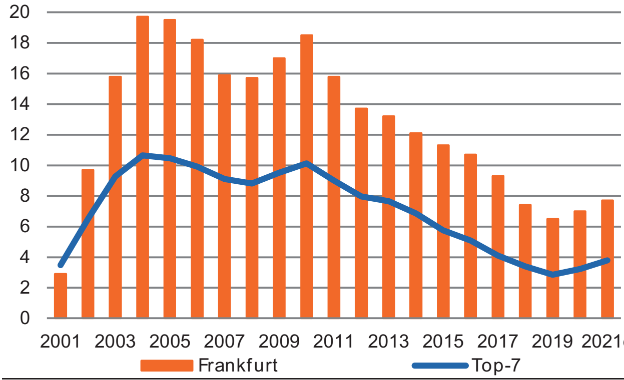
### Frankfurt: Office space

PRIME OFFICE RENT IN EUR PER SQM




Source: bulwiengesa, DZ BANK forecast

VACANCY RATE (%)

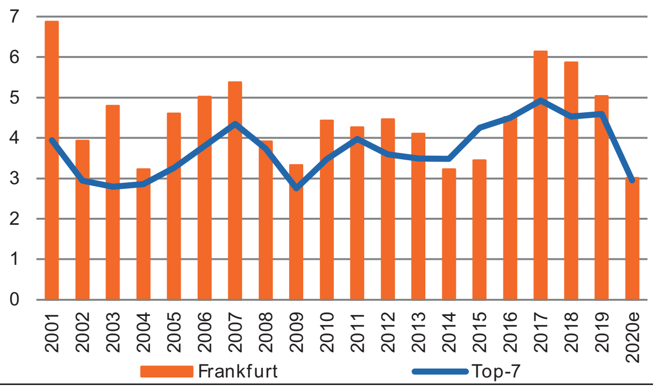



Source: bulwiengesa, DZ BANK forecast

The office market in Frankfurt towers above the remaining top 7 markets, with the most expensive prime rent and highest vacancies. A relatively high level of vacancies in periphery office locations such as Niederrad or the Mertonviertel stands in contrast with tight supply in the expensive bank district, city centre and Westend. New offices are being developed in the Europaviertel and at the airport (Gateway Gardens). Banks and their service providers account for an important share of demand in the financial district. The office market was hardly hit by the financial crisis in view of rising employment figures overall. The market is being supported to some extent by the relocation of UK banks and their staff because of Brexit. In the more recent past, annual office space turnover reached a fairly high level of 500,000 to 600,000 sqm p.a. (2015 to 2017), with major deals accounting for a substantial chunk of the space. During that period there was little new space coming onto the market. The situation in the pandemic year looks quite different. Based on take-up of less than 200,000 sqm in the first three quarters, total take-up in 2020 is hardly likely to reach more than 300,000 sqm. Continental is behind the biggest single transaction. Other major deals involve Deka, Freshfields and the Frankfurt University of Applied Sciences. In contrast, new completions have risen this year, and Frankfurt's skyline is set to be enhanced by new skyscrapers such as Tower ONE or Ensemble FOUR in the next few years. The vacancy rate is likely to increase moderately. In contrast, the prime rent could dip slightly from EUR 41 per sqm at present to below the EUR 40 mark by the end of 2021. A sharper fall in rents is unlikely in view of tight supply in the city centre locations.

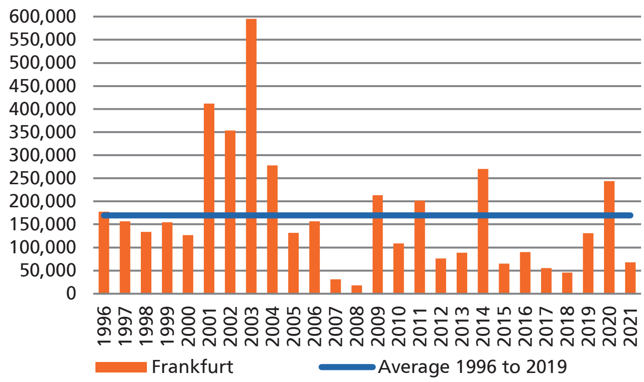
**Frankfurt's sky line set to be enhanced with new skyscrapers in the next few years**

TAKE-UP AS % OF OFFICE STOCK




Source: bulwiengesa, DZ BANK forecast

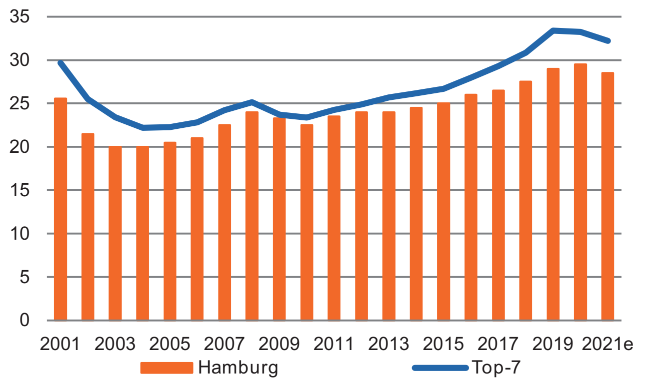
OFFICE SPACE COMPLETIONS (SQM)




Source: bulwiengesa

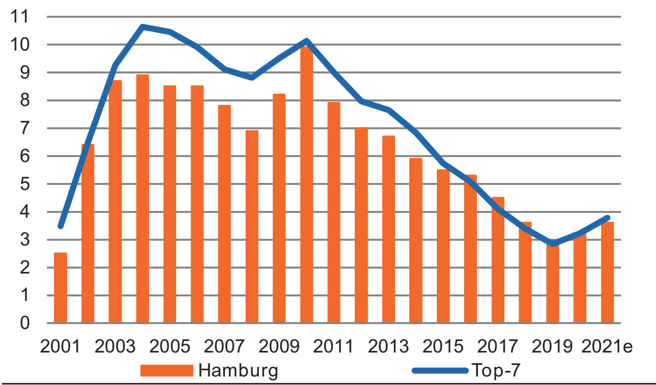
## Hamburg: Office space

PRIME OFFICE RENT IN EUR PER SQM




Source: bulwiengesa, DZ BANK forecast

VACANCY RATE (%)

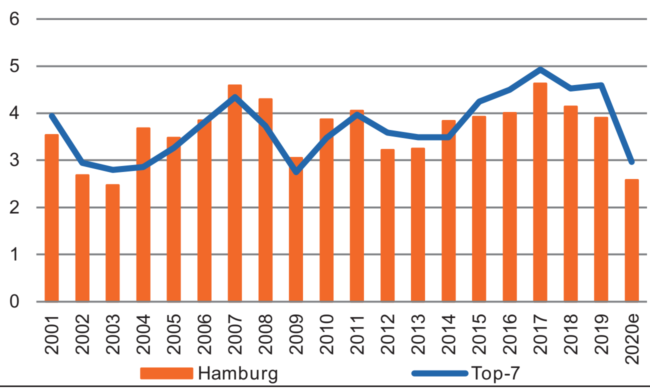



Source: bulwiengesa, DZ BANK forecast

**Solid market with further rise in prime rent in Hamburg during the pandemic**

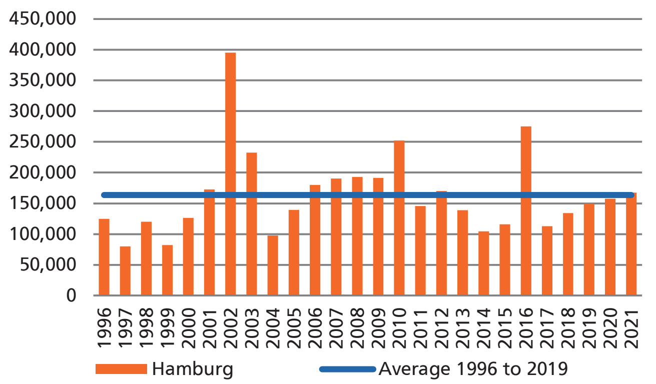
After Berlin, the office markets in Hamburg and Munich are virtually neck-and-neck with 14 million sqm of office space each. The uptrend in the Hamburg office market which has been driven by a broadly diversified economy continued in 2019. Since 2014, take-up has consistently been over 500,000 sqm p.a. At 540,000 sqm, the figure for 2019 was remarkable not least in view of an ever dwindling supply of office space. From an almost two-digit figure ten years ago, the vacancy rate fell to 2.8 per cent in Q1 2020. In view of a tight supply – the vacancy rate is even lower in the city centre – almost all of last year's major deals related to projects still under development. However, the outbreak of the pandemic has interrupted this surge. Take-up in the first three quarters of 2020 was only 250,000 sqm in view of the absence of major transactions in 2020 with one exception – the tenant is the public prosecutor's office. Weaker demand because of the pandemic has led to an increase in the vacancy rate to just over 3 per cent. In contrast, there was a further rise in the already very high prime rent in Q2. At EUR 30 per sqm, the current level is up by EUR 1 on the figure at the end of 2019. Supply of office space remains tight in Hamburg even though completions have picked up. Consequently, we expect a slight dip in the prime rent as the vacancy rate widens a little. The prime rent is likely to settle back down at around EUR 28-29 per sqm by the end of 2021.

TAKE-UP AS % OF OFFICE STOCK




Source: bulwiengesa, DZ BANK forecast

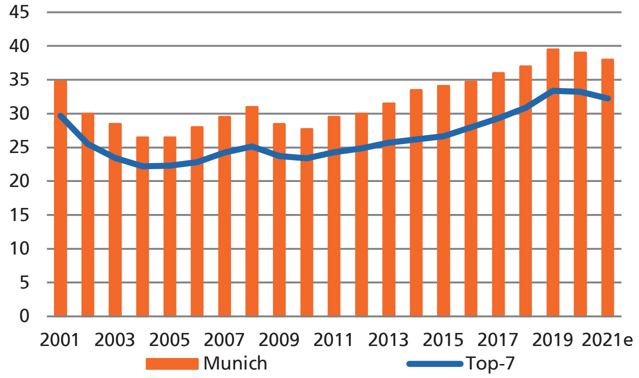
OFFICE SPACE COMPLETIONS (SQM)




Source: bulwiengesa

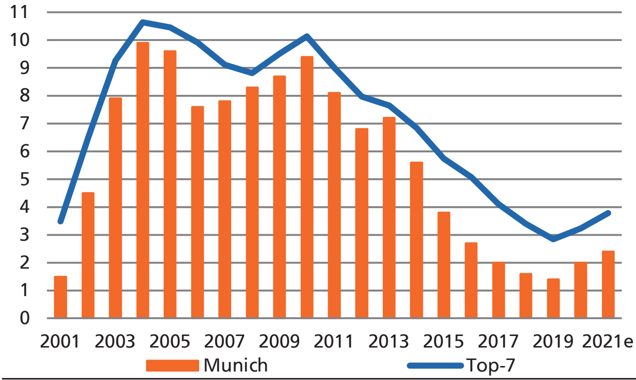
### Munich: Office space

PRIME OFFICE RENT IN EUR PER SQM




Source: bulwiengesa, DZ BANK forecast

VACANCY RATE (%)

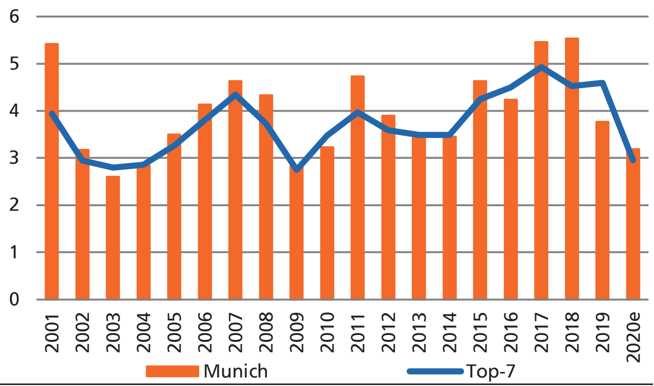



Source: bulwiengesa, DZ BANK forecast

**Amazon, Apple, Google, Microsoft: headquarters of US IT giants concentrated in Munich**

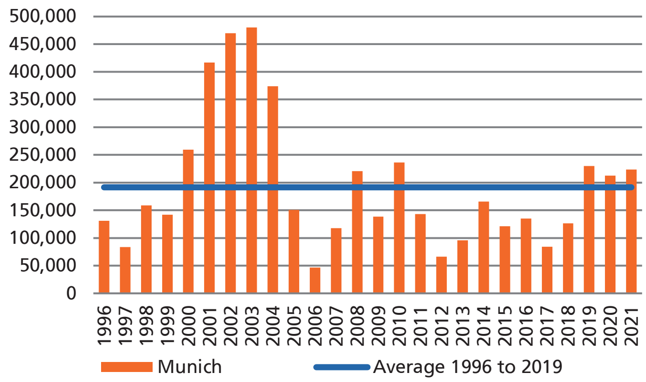
The Munich conurbation is among the strongest regions in Germany in terms of economy and growth. This means correspondingly high demand in the office market, where, like in the housing market, supply has virtually dried up. The vacancy rate fell to 1.3 per cent in Q1 2020, while the prime rent edged towards the EUR 40 per sqm mark. Take-up of office space can still be amazingly high; it reached 750,000 sqm in 2017 and 2018, but could not maintain that level last year with a figure of 530,000 sqm. Major transactions involved projects under development. The pandemic is also leading to a sharp fall in take-up of office space in Munich. Take-up of around 350,000 sqm was generated in the first three quarters, so that a figure of around 450,000 sqm seems possible by the end of the year. This would be only moderately down on the previous-year result. The biggest rental transaction so far this year was signed by Amazon – last year it was Apple. However, Google also has big plans in Munich's former central parcel collection point in Arnulfstraße. Following on from Microsoft's German headquarters which opened in Schwabing in 2016, this will mean that all four US IT giants will now be represented in Munich, underlining the location's technology potential. The rental deals in second and third place involve KPMG and the tax office. The vacancy rate in Q2 and Q3 which were hit hard by the pandemic rose to just over 2 per cent, while the prime rent dipped slightly. In view of an increase in new space, the vacancy rate is likely to lift to 2.5 per cent by the end of 2021, while the prime rent could ease up marginally to EUR 37.5-38.5 per sqm.

TAKE-UP AS % OF OFFICE STOCK




Source: bulwiengesa, DZ BANK forecast

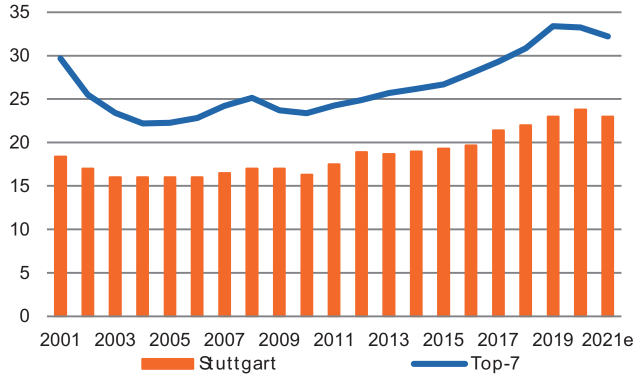
OFFICE SPACE COMPLETIONS (SQM)




Source: bulwiengesa

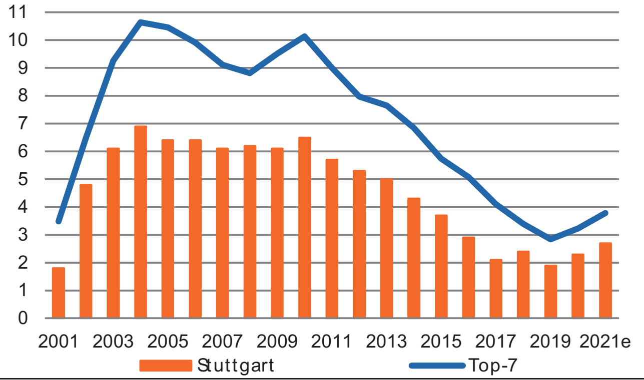
## Stuttgart: Office space

**PRIME OFFICE RENT IN EUR PER SQM**




Source: bulwiengesa, DZ BANK forecast

**VACANCY RATE (%)**

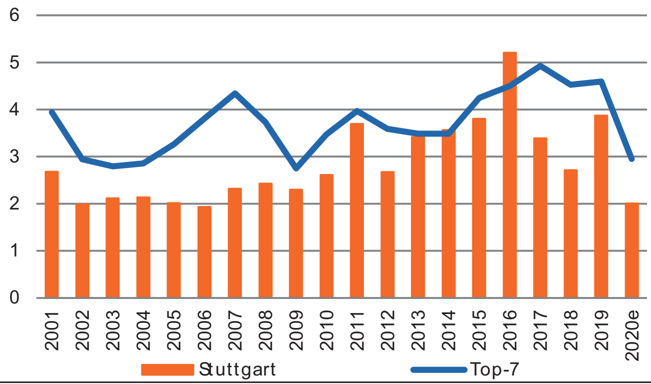



Source: bulwiengesa, DZ BANK forecast

**Upheavals in automotive industry could depress economy and slow down office market**

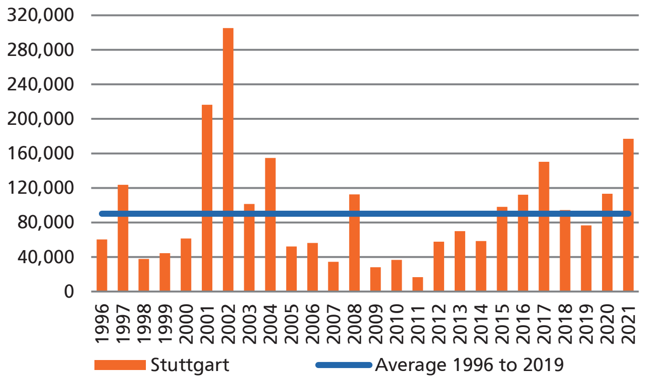
Stuttgart's economic structure differs from that of other top locations in view of its industrial rather than service bias. This probably also explains why the office market has been rather quiet for many years. Up to 2010, annual take-up was often well below 200,000 sqm. Since then, however, activity in the market has picked up and annual take-up is now around 100,000 sqm higher p.a. Strong demand for office space in the economically strong conurbation has whittled down an already rather low volume of vacant space. In 2019, the vacancy rate fell to just under 2 per cent. Growing scarcity led to a gradual increase in the prime rent. This year, the pandemic has slowed down activity just as it has in other locations. Office space take-up in the first three quarters did not even reach 100,000 sqm. Apart from one major deal involving public sector administration, transactions were mostly small. The weaker market momentum hardly had any negative impact and the vacancy rate has only just lifted back up over the 2 per cent mark. In Q3, the prime rent even rose to EUR 24 per sqm. Apart from the current economic crisis, Stuttgart's economy could be hit by the current major upheaval in the car manufacturing and automotive supplier industry in light of the sector's huge importance for the city. Moreover, a substantial increase in new office space is expected although the market should prove resilient in view of the scarcity of available space. The vacancy rate could increase to just under 3 per cent by the end of 2021, while the prime rent could dip to EUR 22.50-23.50 per sqm.

**TAKE-UP AS % OF OFFICE STOCK**




Source: bulwiengesa, DZ BANK forecast

**OFFICE SPACE COMPLETIONS (SQM)**




Source: bulwiengesa

## RESIDENTIAL MARKET

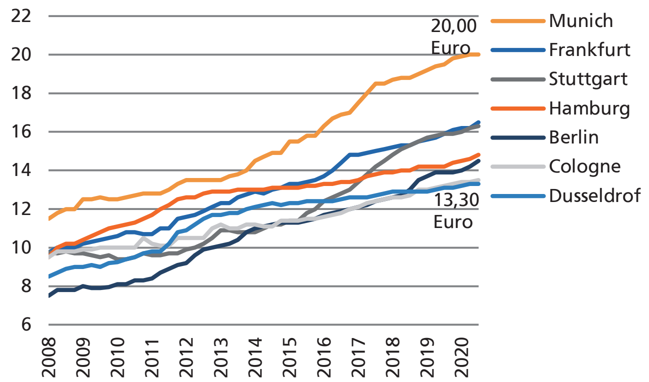
**So far, robust residential market untouched by the pandemic**

Whereas the pandemic has hit commercial real estate hard, the residential market has been largely unaffected. Property prices continue to increase across the country and rents likewise. This is the case even in top locations even though prices and rents are already very high. There are a number of reasons for this. The coronavirus crisis has not led to any reduction in demand for housing – unlike in the case of demand for retail or office space. In addition, the supply of housing is still tight overall and cheap financing is still attracting private buyers, while investors regard buy-to-let property as a solid investment in view of negative bond yields.

**Pandemic pushes up property prices even further**

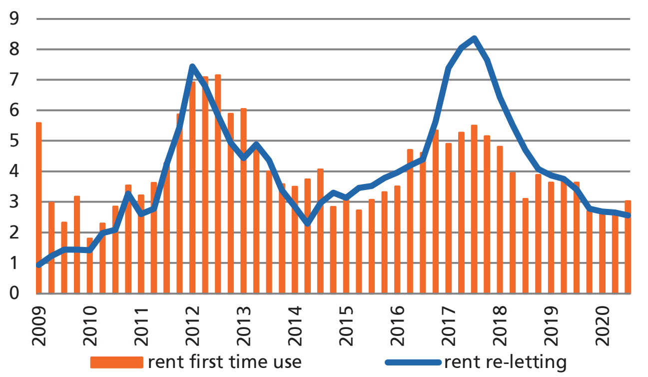
There are other reasons why the recession has hardly dented the residential market. One aspect is the widespread expectation – at least prior to rising inflation figures in the autumn – that there should be a rapid economic recovery. A more important factor, though, is likely to be that the pandemic has in fact pushed up the intrinsic value of residential property. When people spend more time at home through lockdown, restrictions on contacts with other people and home working, the value of a nice home increases. Moreover, investor interest in housing has also increased. A deterioration in the outlook for commercial real estate means that investors are now only focusing on a just few segments of the real estate market – and in particular on flats.

**RISE IN RENTS IN MAJOR CITIES UNTOUCHED BY PANDEMIC**
AVERAGE INITIAL RENT IN EUR/SQM




Source: bulwiengesa

**NOTICEABLE SLOWDOWN IN RENTAL GROWTH BASED ON AVERAGE OF TOP LOCATIONS**
TOP 7 AVERAGE: YOY % CHANGE IN RENT




Source: bulwiengesa, DZ BANK

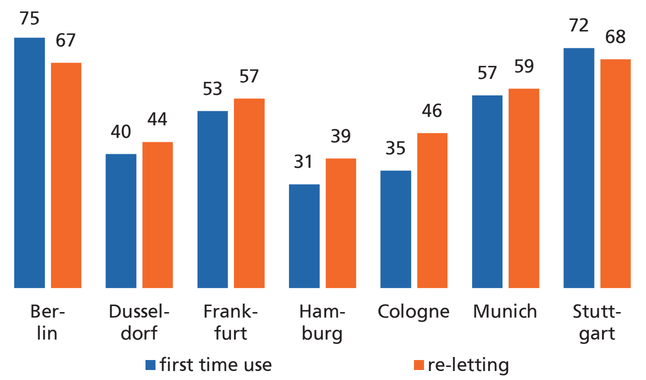
**Rental growth momentum gradually slowing since 2017**

Rental growth has slowed down noticeably though. The trend had already set in prior to the pandemic – rents have been rising at a more muted pace since 2017. Reasons for this are likely to include already high rents, slower population growth and a gradual improvement in housing supply. Intervention in the market such as the rent brake or rent cap in Berlin are also likely to be feeding through. On average, both initial rents and existing rents rose by around 3% this year in the top locations.

**Gap between rents in top 7 locations of around EUR 7 per sqm**

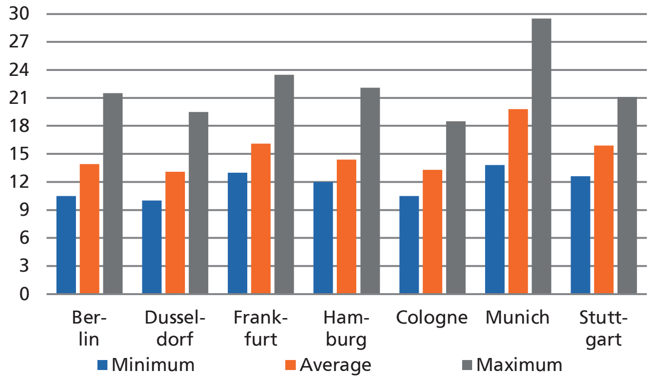
Initial rents ranged from EUR 13.30 per sqm in Düsseldorf to EUR 20.00 per sqm in Munich in Q3 2020. There is a considerable gap in rent of almost EUR 4 per sqm between Munich and the second most expensive city, Frankfurt. The range is similar in the case of existing rents. At EUR 10.70 per sqm, rents for re-lets are the cheapest among the top 7 locations. Once again, Munich is top of the list at EUR 17.70 per sqm.

**SHARP INCREASE IN RENTS IN TOP LOCATIONS BUT RANGING FAIRLY WIDELY**
INCREASE IN RENTS FROM Q3 2010 TO Q3 2020 (%)




Source: bulwiengesa, DZ BANK

**HIGH RENTS: NEW FLATS ARE INCREASINGLY BECOMING LUXURY GOODS**
RENT FIRST USE IN EUR PER SQM (2019)




Source: bulwiengesa, DZ BANK Data for new builds and existing stock

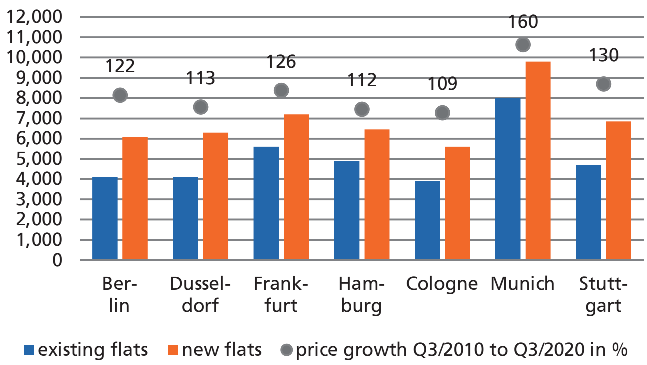
Apart from the wide range in rents for flats depending on location, rental growth over a longer period of time also shows wide variations. The slowest increase in rents for existing flats in 2010 was in Hamburg at just under 30 per cent. Rents in Düsseldorf and Cologne also rose relatively moderately. In contrast, rent rises for new build flats in Berlin and Stuttgart were much sharper at over 70 per cent respectively. In absolute terms, tenants for newly built flats in Munich and Stuttgart can now expect to pay around EUR 6 per sqm more than they did in 2010. The figure in Frankfurt is around EUR 5. Düsseldorf, Hamburg and Cologne have done slightly better with an increase of only EUR 3-4.

**Increase in rents over ten years ranging from around 30 to over 70 per cent**

The rise in prices for owner-occupied flats has also slowed down, in spite of a further fall in interest rates. Annual growth rates in purchase prices and rents have followed a similar trajectory in the last ten years, although purchase prices for owner-occupied flats have risen around twice as fast as rents across the board. Overall, prices for flats in top locations have gone up by an average of 125 per cent over a ten-year period. The average price of a new build flat in Munich is now almost EUR 10,000 per sqm. The figure in Cologne is still under EUR 6,000.

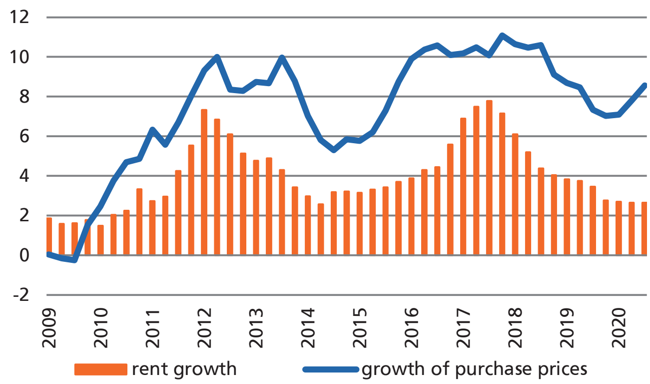
**Prices for owner-occupied flats rising about twice as fast as rents**

**FLAT PRICES MORE THAN DOUBLED WITHIN TEN YEARS**
PRICES FOR OWNER-OCCUPIED FLATS IN EUR/SQM (Q3 2020)



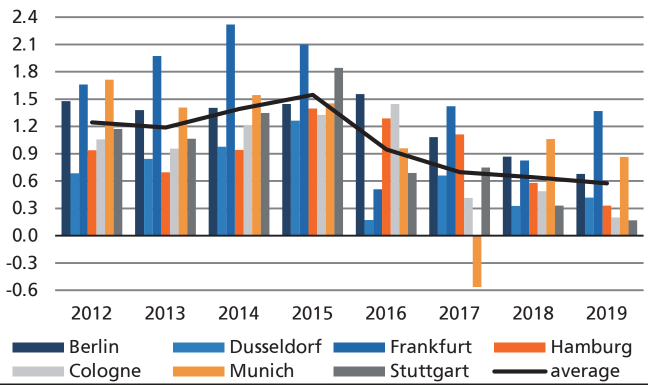

Source: bulwiengesa, DZ BANK

**TOP 7: PRICE OF FLATS RISING ROUGHLY TWICE AS FAST AS RENTS**
YOY % CHANGE IN PRICES AND RENTS



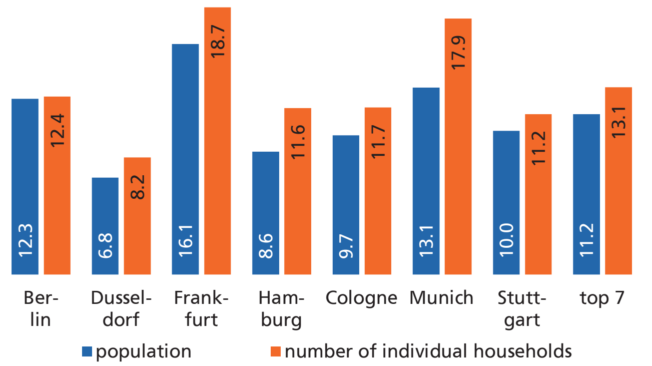

Source: bulwiengesa, DZ BANK Data for new builds and existing flats

**MARKED SLOWDOWN IN POPULATION GROWTH IN MAJOR CITIES**
ANNUAL POPULATION GROWTH (%)




Source: bulwiengesa, DZ BANK

**NUMBER OF HOUSEHOLDS GROWING FASTER THAN POPULATION**
POPULATION AND HOUSEHOLDS: INCREASE FROM 2009 TO 2019 (%)




Source: Scope, DZ BANK

**Urbanisation and migration led to population growth in cities**

Urbanisation has been a major driver behind the sharp rise in rents in the housing market. Although a detached house is still the preferred form of housing for many, it seems that the advantages of city living outweigh overall for many. The move to many large and university cities began around the turn of the millennium, leading to a strong population growth in those cities. Another factor behind population growth has been from migrants who mostly move to big cities. Relatively high net migration from 2011 onwards initially reflected immigration from other European countries because of favourable conditions in the labour market. In contrast, there was a surge in the number of refugees in 2015.

**Marked slowdown in population growth in top locations**

However, population growth in the top locations has slowed down. Whereas the annual growth rate in 2015 stood at around 1.5 per cent, last year the figure was down to just 0.6 per cent. In 2019, only Frankfurt, Munich and Berlin experienced a sharper increase. Düsseldorf and Hamburg only saw slow growth, while numbers in Cologne and Stuttgart mostly stagnated. Firstly, there has been a sharp reduction in net migration and secondly, many people keen to rent have widened their search area further out in view of a tight supply and high rents.

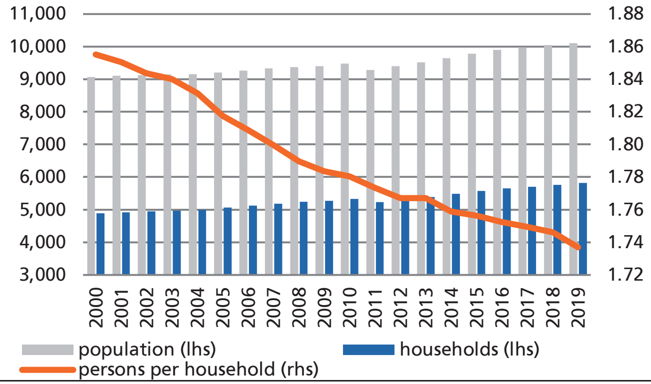
**Population in top locations up by one million in space of ten years**

On balance, all the top locations have seen strong population growth. The increase over a ten-year period has ranged from around seven per cent in Düsseldorf to as much as 16 per cent in Frankfurt. In all, the population in the seven cities in our study has increased by slightly more than one million to just over ten million. The number of households rose even faster because the number of people per household is dwindling in view of an ageing population. Around the turn of the millennium average household size was 1.86 people. The figure had fallen to 1.78 by 2009 and 1.74 by 2019. This has led to an increase in the number of households within a ten-year period of around 8 per cent in Düsseldorf against almost 20 per cent in Frankfurt.

**Demand for housing in top 7 cities would increase even in the event of slower population growth**

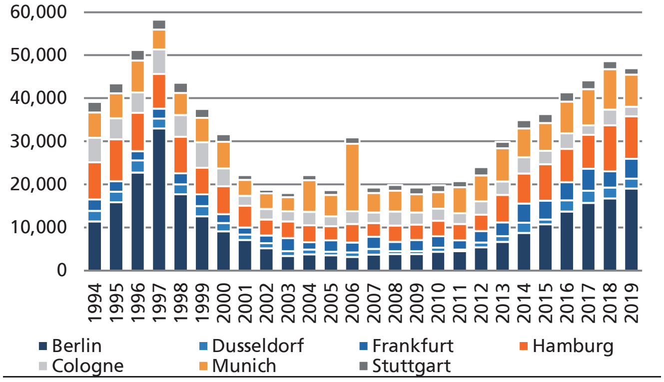
Should this hitherto almost linear trend continue, then the number of households and hence demand for housing would rise further, even if the population in the seven cities in question remained stable. It is only the effect of shrinking households which would lead to an increase in the number of households of around 130,000 in the top 7 locations by 2030. If we assume moderate population growth − in relation to the pace so far − of six per cent up to 2030, this would even lead to an increase in the number of total households by almost 500,000. If the growth rate continues to vary from one city to another, the regional increase would vary correspondingly.

**TOP 7: POPULATION GROWING, BUT HOUSEHOLD SIZE SHRINKING INEXORABLY**
POPULATION AND HOUSEHOLDS IN '000 (CUMULATIVE GROWTH)




Source: bulwiengesa, DZ BANK

**NUMBER OF COMPLETIONS BACK UP TO HIGH LEVEL OF 1990S**
NUMBER OF COMPLETIONS




Source: bulwiengesa

For example, bulwiengesa's population growth forecast from 2019 to 2030 in fact assumes growth of slightly over 1 per cent for Stuttgart, of around 4 per cent for Berlin and Hamburg and around 6 per cent for Düsseldorf, Cologne and Munich. The figure is slightly higher still for Frankfurt at 8 per cent.

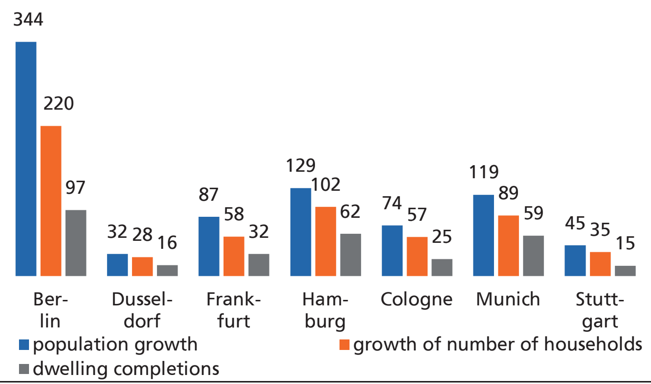
**Growing shortage of housing has fuelled a tight market in top 7 cities**

If the projections up to 2030 in the above rough calculations prove correct, then the calculated housing requirement and supply of new housing would largely even each other out − assuming completions remained at their current level of just under 50,000 units p.a. In previous years, however, this was not the case. During the period from 2012 to 2019, the increase in the number of households was roughly twice the level of completions in the top 7 locations. A dearth of vacant properties led to a tight supply in individual housing markets, driving up rents and purchase prices.

**Marked reduction in supply gap in housing market in top 7 cities**

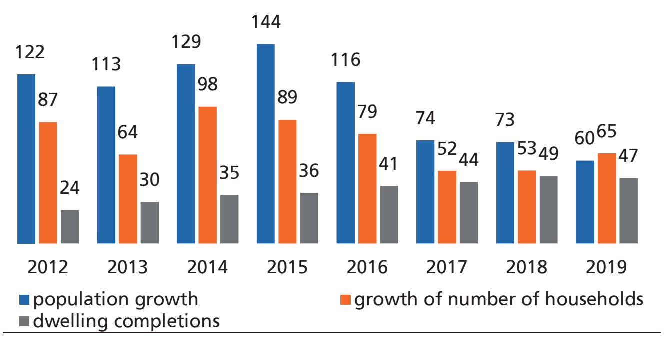
However, there has been a noticeably reduction in the mismatch between housing demand and housing construction. Firstly, there has been a slowdown in migration to cities and secondly a marked upturn in housing construction. The volume of completions in Berlin has increased more than fivefold in the space of ten years,

**HOUSE BUILDING CANNOT KEEP UP WITH GROWTH OF CITIES**
POPULATION, HOUSEHOLDS AND COMPLETIONS IN '000, CUMULATIVE OVER THE PERIOD 2012 TO 2019




Source: bulwiengesa, DZ BANK

**TOP 7: SUPPLY GAP IN HOUSING MARKET SHRINKING**
POPULATION, HOUSEHOLDS AND COMPLETIONS IN '000 ACROSS THE TOP 7 LOCATIONS




Source: bulwiengesa, DZ BANK

albeit from a very low level. In Hamburg, the housing construction programme has allowed a threefold rise while in Frankfurt and Munich, the number of new builds has more than doubled from an already fairly high level. New construction activity in Düsseldorf, Cologne and Stuttgart is somewhat weaker. Cumulative completions across the seven cities from 2017 to 2019 have almost caught up with the increase in households.

**Market mechanisms effective, easing the need for regulation**

This trend shows that market mechanisms are working. Housing supply has reacted – with a sluggishness that is typical of the housing market – to the rise in demand and therefore dampened the sharp rise in rents and prices, thus reducing the need for regulation measures in the housing market. The Berlin rent cap above all represents a major intervention in rents. According to F+B, the cap on rents for existing flats has pushed rents to well below market level. The regulatory reduction in rents could lead to a further increase in demand for flats, while making investment in such real estate less attractive. This in turn could lead to a decline in housing construction.

**Landlords could cut back on renovation expenditure**

Luckily for the housing markets, investors are faced with a seriously restricted investment spectrum and therefore any risk of an exodus on their part should be manageable. However, owners of existing multi-family real estate are likely at least partly to offset declining rental income through a reduction in renovation expenditure. In due course, this would hit the quality of available housing.

**Working from home making it more attractive to live further out of town**

The coronavirus pandemic could also have an indirect impact on the housing market in top locations. Flexible working is likely to be here to stay. In future, anybody wishing to or having to work from home more frequently will need a suitable work space. If both partners regularly work from home, then in fact they will need two work stations, if possible in separate rooms for each person to be able to work in peace and quiet. This sort of solution would be difficult to achieve in a compact city flat and could therefore benefit more out-of-town locations if some city dwellers now start to

**TOP 7: HOUSING MARKET DATA**

| | | Berlin | Cologne | Düsseldorf | Frankfurt | Hamburg | Munich | Stuttgart | Top 7 |
|---|---|---|---|---|---|---|---|---|---|
| **Population growth** | | | | | | | | | |
| Average from 2010 to 2016 | % p.a. | 1.26 | 1.13 | 0.73 | 1.63 | 0.83 | 1.56 | 1.15 | 1.20 |
| Average from 2017 to 2019 | % p.a. | 0.95 | 0.48 | 0.50 | 1.21 | 0.82 | 0.50 | 0.52 | 0.77 |
| **Households** | | | | | | | | | |
| Average from 2017 to 2019 | % p.a. | 0.62 | 0.58 | 0.41 | 0.96 | 0.76 | 0.93 | 0.44 | 0.69 |
| **Completions** | | | | | | | | | |
| 2011 to 2014 | p.a. | 6,323 | 3,155 | 1,305 | 3,099 | 5,226 | 6,584 | 1,678 | 27,400 |
| 2015 to 2018 | p.a. | 14,189 | 3,131 | 2,284 | 4,370 | 8,709 | 7,880 | 2,058 | 42,600 |
| 2019 | p.a. | 18,999 | 2,253 | 2,315 | 4,641 | 9,805 | 7,526 | 1,486 | 47,000 |
| **Unemployment rate** | | | | | | | | | |
| October 2020 | % | 10.2 | 9.7 | 8.1 | 7.3 | 7.9 | 5.1 | 5.7 | 7.7 |
| **Initial rent (average)** | | | | | | | | | |
| 2019 | EUR/sqm | 13.90 | 13.30 | 13.10 | 16.10 | 14.40 | 19.80 | 15.90 | 15.00 |
| 2020e | EUR/sqm | 14.60 | 13.50 | 13.30 | 16.50 | 14.80 | 20.00 | 16.30 | 15.50 |
| 2021e | EUR/sqm | 14.80-15.00 | 13.80-14.00 | 13.50-13.70 | 16.80-17.00 | 15.00-15.20 | 20.20-20.40 | 16.50-16.70 | 15.70-15.90 |
| 5 years (2015-2020e) | % | 27.0 | 18.3 | 8.1 | 22.2 | 12.1 | 26.6 | 35.8 | 22.2 |
| 1 year (2019-2020e) | % | 5.0 | 2.3 | 2.3 | 2.5 | 2.8 | 1.0 | 2.5 | 3.1 |

Source: bulwiengesa, Scope, DZ BANK forecast look for a suitably large property in neighbouring districts and suburbs. The more infrequently office workers have to travel into town, the less important the longer drive will be. However, it is difficult to estimate the extent to which this sort of home working effect will actually materialise.

**Forecast to 2021: more numerous dampening factors**

There are now more reasons for the cooling in the upward trend in prices and rents in the top locations. In addition to already high prices and rents, a slowdown in migration to cities and more housing construction, there has also been increasing regulation and, as a result of the pandemic, the home working effect and above all the economic crisis. Higher unemployment is leading to a deterioration in the financial situation of households and thus reducing their spending power when it comes to rent. Rental growth is therefore likely to ease next year. Overall, however, rents should continue to rise in view of a shortage of available housing. The economic impact from the pandemic would have to be even more severe than assumptions so far for a scenario of stagnating or event falling rents.

# FORECASTS AT A GLANCE

| Structural data 2019 | Inhabitants in '000 | Inhabitants 2009-2019 (%) | GDP EUR m | per capita GDP EUR | Disposable per capita income EUR p.a. | Unemployment rate (% October 2020) |
|---|---|---|---|---|---|---|
| Berlin | 3,653 | 12.3 | 133 | 36,418 | 24,480 | 10.2 |
| Cologne | 1,086 | 9.7 | 65 | 59,615 | 26,835 | 9.7 |
| Düsseldorf | 620 | 6.8 | 52 | 83,785 | 31,044 | 8.1 |
| Frankfurt | 758 | 16.1 | 75 | 99,435 | 26,465 | 7.3 |
| Hamburg | 1,843 | 8.6 | 128 | 69,557 | 29,074 | 7.9 |
| Munich | 1,474 | 13.1 | 109 | 74,232 | 35,698 | 5.1 |
| Stuttgart | 636 | 10.0 | 56 | 88,225 | 30,602 | 5.7 |
| **Top locations** | **10,070** | **11.2** | **619** | **61,453** | **28,157** | **7.7** |

| Retail space | Retail space 2019 | | | Prime rent EUR per sqm | | | Prime rent % change | | | Prime rent 2019 EUR per sqm | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | in '000 sqm | 2008-2018 (%) | per inhabitant (sqm) | 2019 | 2020e | 2021e | 2010 to 2020e | 2015 to 2020e | 2019 to 2020e | City-centre side locations | suburban locations |
| Berlin | 6,900 | 21.5 | 1.9 | 300 | 280 | 265-275 | 30.2 | -6.7 | -6.7 | 140 | 47 |
| Cologne | 1,415 | 1.7 | 1.3 | 255 | 245 | 230-240 | 11.4 | -2.0 | -3.9 | 85 | 35 |
| Düsseldorf | 1,251 | 28.4 | 2.0 | 285 | 280 | 265-275 | 34.6 | 3.7 | -1.8 | 85 | 48 |
| Frankfurt | 1,542 | 11.0 | 2.0 | 300 | 290 | 270-280 | 18.4 | -3.3 | -3.3 | 88 | 42 |
| Hamburg | 3,018 | 11.3 | 1.6 | 285 | 275 | 260-270 | 22.2 | -3.5 | -3.5 | 75 | 72 |
| Munich | 2,140 | 16.2 | 1.5 | 345 | 340 | 320-330 | 19.3 | 0.0 | -1.4 | 191 | 75 |
| Stuttgart | 1,115 | 16.2 | 1.8 | 235 | 225 | 215-225 | 2.3 | -8.2 | -4.3 | 85 | 34 |
| **Top locations** | **17,381** | **16.3** | **1.7** | **294.0** | **281.0** | **270-280** | **23.1** | **-3.9** | **-4.4** | **-** | **-** |

| Office space | Existing office space 2019 | | | Prime rent EUR per sqm | | | Prime rent % change | | | Vacancy rate in % | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | in '000 sqm | per inhabitant (sqm) | per office worker (sqm) | 2019 | 2020e | 2021e | 2010 to 2020e | 2015 to 2020e | 2019 to 2020e | 2019 | 2020e | 2021e |
| Berlin | 19,427 | 5.3 | 29.9 | 39.0 | 38.5 | 37.0-38.0 | 87.8 | 60.4 | -1.3 | 1.3 | 1.7 | 2.5 |
| Cologne | 7,756 | 7.1 | 29.2 | 23.5 | 23.2 | 22.0-23.0 | 16.0 | 10.5 | -1.3 | 2.3 | 2.7 | 3.2 |
| Düsseldorf | 7,621 | 12.3 | 35.0 | 26.5 | 26.1 | 24.5-25.5 | 21.4 | 8.8 | -1.5 | 6.0 | 6.0 | 6.5 |
| Frankfurt | 10,156 | 13.4 | 31.9 | 41.0 | 40.5 | 38.5-39.5 | 22.7 | 14.1 | -1.2 | 6.5 | 7.0 | 7.7 |
| Hamburg | 13,836 | 7.5 | 30.3 | 29.0 | 29.5 | 28.0-29.0 | 31.1 | 18.0 | 1.7 | 2.9 | 3.2 | 3.6 |
| Munich | 13,989 | 9.5 | 30.3 | 39.5 | 39.0 | 37.5-38.5 | 40.8 | 14.4 | -1.3 | 1.4 | 2.0 | 2.5 |
| Stuttgart | 7,907 | 12.4 | 37.4 | 23.0 | 23.8 | 22.5-23.5 | 46.0 | 23.3 | 3.5 | 1.9 | 2.3 | 2.7 |
| **Top locations** | **80,691** | **8.0** | **31.3** | **33.4** | **33.2** | **31.7-32.7** | **42.2** | **24.6** | **-0.5** | **2.8** | **3.2** | **3.8** |

| Housing stock | Growth from 2014 to 2019 (%) | | | Average initial rent EUR per sqm | | | Change in initial rent (%) | | | Rent 2019 EUR per sqm | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Inhabitants | Households | Housing stock | 2019 | 2020e | 2021e | 2010 to 2020e | 2015 to 2020e | 2019 to 2020e | Maximum initial rent | Re-lets |
| Berlin | 6.2 | 6.3 | 3.5 | 13.9 | 14.6 | 14.8-15.0 | 75.9 | 27.0 | 5.0 | 21.5 | 10.5 |
| Cologne | 4.5 | 5.4 | 2.4 | 13.3 | 13.6 | 13.8-14.0 | 29.5 | 18.3 | 2.3 | 18.5 | 11.7 |
| Düsseldorf | 3.2 | 3.7 | 3.3 | 13.1 | 13.4 | 13.5-13.7 | 38.1 | 8.1 | 2.3 | 19.5 | 10.9 |
| Frankfurt | 6.8 | 7.1 | 6.2 | 16.1 | 16.5 | 16.8-17.0 | 54.2 | 22.2 | 2.5 | 23.5 | 14.0 |
| Hamburg | 5.4 | 7.0 | 4.4 | 14.4 | 14.8 | 15.0-15.2 | 28.7 | 12.1 | 2.8 | 22.1 | 11.7 |
| Munich | 4.1 | 5.8 | 4.3 | 19.8 | 20.0 | 20.2-20.4 | 56.3 | 26.6 | 1.0 | 29.5 | 17.5 |
| Stuttgart | 4.6 | 4.9 | 2.7 | 15.9 | 16.3 | 16.5-16.7 | 68.0 | 35.8 | 2.5 | 21.1 | 14.0 |
| **Top locations** | **5.3** | **6.1** | **3.8** | **15.0** | **15.5** | **15.7-15.9** | **52.8** | **22.2** | **3.1** | **-** | **-** |

Source: Scope, bulwiengesa, DZ BANK forecast

**Note on the prime rents used for retail and office space:** The figures adopted by bulwiengesa represent the mean of the three top three to five per cent of the rentals in the market, which means that the prime rents given are not the same as the absolute top rent. For this reason, the higher rent figures shown for individual locations, some of which are quoted in alternative market reports, are not fundamentally contradictory.

# GLOSSARY

| | |
|---|---|
| **Office space take-up** | Office space newly occupied during a one-year period in a location either through letting or owner occupation. The figure does not include contract extensions. The timing factored in is not the beginning of the actual use of the space, but when the contract was signed. |
| **New space** | Office space completed in a particular year from new building. |
| **Vacancy rate** | Proportion of vacant space in a location in relation to existing space. |
| **Purchasing power score** | Purchasing power relevant to the retail sector defines that part of the income of households in a region which is available for purchasing goods and services. The purchasing power figure describes a location's ability to purchase goods and services in relation to the German average which is set at 100 points. |
| **Apartment blocks** | The purchase price is divided by the basic rent (excl. bills) in the first year and therefore equates to the reciprocal value of the gross initial rent. Bills are not factored in. |
| **Net initial yield** | The initial rental yield for office and retail space is calculated dividing the annual net rent by the overall purchase price, taking into account additional charges. |
| **Reg-12/Regional-12** | Space-weighted index consisting of 12 regional centres, namely Augsburg, Bremen, Darmstadt, Dresden, Essen, Hanover, Karlsruhe, Leipzig, Mainz, Mannheim, Münster and Nuremberg. |
| **Prime rent** | The prime rent represents a mean of the top 3 to 5 per cent of lettings in the market and therefore the figure given does not correspond to the absolute top rent. |
| **Top-7** | Space-weighted index of the seven top locations under consideration in this report, namely Berlin, Cologne, Düsseldorf, Frankfurt, Hamburg, Munich and Stuttgart. |
| **Centrality score** | Retail centrality is calculated by dividing retail sales in a specific location by retail spending and then multiplying the result by 100. The figure will be above 100 points if retail sales are higher than retail spending and consequently that location in question has additional purchasing power. |

Source: bulwiengesa, DZ BANK

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**Published by:**
DZ HYP AG

**Hamburg Head Office**
Rosenstrasse 2, 20095 Hamburg
Phone +49 40 3334-0

**Münster Head Office**
Sentmaringer Weg 1, 48151 Münster
Phone +49 251 4905-0

**Homepage:** www.dzhyp.de
**E-Mail:** info@dzhyp.de

**Represented by the Board of Managing Directors:**
Dr. Georg Reutter (Chairman), Jörg Hermes, Manfred Salber

**General Executive Managers:** Markus Wirsen

**Chairman of the Supervisory Board:** Uwe Fröhlich

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# DZ HYP ADDRESSES

**Hamburg Head Office**
Rosenstrasse 2
20095 Hamburg, Germany
PO Box 10 14 46
20009 Hamburg, Germany
Phone: +49 40 3334-0

**Münster Head Office**
Sentmaringer Weg 1
48151 Münster, Germany
Mailing address:
48136 Münster, Germany
Phone: +49 251 4905-0

## Commercial Real Estate Investors

**Real Estate Centre Berlin**
Pariser Platz 3
10117 Berlin, Germany
Phone: +49 30 31993-5101

**Real Estate Centre Düsseldorf**
Ludwig-Erhard-Allee 20
40227 Düsseldorf, Germany
Phone +49 211 220499-30

**Real Estate Centre Frankfurt**
CITY-HAUS I, Platz der Republik 6
60325 Frankfurt/Main, Germany
Phone: +49 69 750676-21

**Real Estate Centre Hamburg**
Rosenstrasse 2
20095 Hamburg, Germany
Phone: +49 40 3334-3778

**Real Estate Centre Munich**
Türkenstrasse 16
80333 Munich, Germany
Phone: +49 89 512676-10

**Real Estate Centre Stuttgart**
Heilbronner Strasse 41
70191 Stuttgart, Germany
Phone: +49 711 120938-0

**Hanover Regional Office**
Berliner Allee 5
30175 Hanover, Germany
Phone: +49 511 866438-08

**Kassel Regional Office**
Rudolf-Schwander-Str. 1
34117 Kassel, Germany
Phone: +49 561 602935-23

**Leipzig Regional Office**
Schillerstrasse 3
04109 Leipzig, Germany
Phone: +49 341 962822-92

**Mannheim Regional Office**
Augustaanlage 61
68165 Mannheim, Germany
Phone: +49 621 728727-20

**Münster Regional Office**
Sentmaringer Weg 1
48151 Münster, Germany
Phone: +49 251 4905-7314

**Nuremberg Regional Office**
Am Tullnaupark 4
90402 Nuremberg, Germany
Phone: +49 911 940098-16

**Institutional Clients**
Rosenstrasse 2
20095 Hamburg, Germany
Phone: +49 40 3334-2159

# DZ HYP ADDRESSES CONTINUED

## Housing Sector

**DZ HYP Berlin**
Pariser Platz 3
10117 Berlin, Germany
Phone: +49 30 31993-5080

**DZ HYP Düsseldorf**
Ludwig-Erhard-Allee 20
40227 Düsseldorf, Germany
Phone: +49 251 4905-3830

**DZ HYP Frankfurt**
CITY-HAUS I, Platz der Republik 6
60325 Frankfurt/Main, Germany
Phone: +49 211 220499-5833

**DZ HYP Hamburg**
Rosenstrasse 2
20095 Hamburg, Germany
Phone: +49 40 3334-4705

**DZ HYP Munich**
Türkenstrasse 16
80333 Munich, Germany
Phone: +49 89 512676-55

**DZ HYP Stuttgart**
Heilbronner Strasse 41
70191 Stuttgart, Germany
Phone: +49 89 512676-55

## Retail Customers

**DZ HYP Berlin**
Pariser Platz 3
10117 Berlin, Germany
Phone: +49 40 3334-4706

**DZ HYP Düsseldorf**
Ludwig-Erhard-Allee 20
40227 Düsseldorf, Germany
Phone: +49 211 220499-5830

**DZ HYP Frankfurt**
CITY-HAUS I, Platz der Republik 6
60325 Frankfurt/Main, Germany
Phone: +49 69 750676-12

**DZ HYP Hamburg**
Rosenstrasse 2
20095 Hamburg, Germany
Phone: +49 40 3334-4706

**DZ HYP Munich**
Türkenstrasse 16
80333 Munich, Germany
Phone: +49 89 512676-41

**DZ HYP Stuttgart**
Heilbronner Strasse 41
70191 Stuttgart, Germany
Phone: +49 711 120938-39

## Public Sector

Sentmaringer Weg 1
48151 Münster, Germany
Phone: +49 251 4905-3333

**DZ HYP AG**

Rosenstrasse 2
20095 Hamburg
Germany
Phone +49 40 3334-0

Sentmaringer Weg 1
48151 Münster
Germany
Phone +49 251 4905-0

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