Facts and Figures
Office Investment and Office Lettings Market
Germany 2017
One partner – all services – all asset categories

Learn more about the varied opportunities offered to you by the NAI apollo group and its owner-managed partner companies across Germany. Contact us at any time for a personal discussion about the additional benefits our network can provide. We look forward to hearing from you! We are represented across Germany with offices in Frankfurt am Main, Hamburg, Berlin, Munich, Cologne/Bonn, Dusseldorf, Stuttgart, Mannheim, in the Ruhr area and Ulm. As a partner of NAI Global, we offer our customers access to more than 6,700 real estate specialists in 375 partner offices worldwide.

Strong partnership – throughout Germany

NAI apollo group is the leading network of independent real estate consultancies in Germany. For more than 25 years our active partners have been successfully advising national and international companies. The service range of our group encompasses sales, lettings, construction management, valuation, research, investment management and property and asset management.

NAI apollo group – your partner for Germany

Berlin – Kasten-Mann Real Estate Advisors
Hamburg – VÖLKERS & CIE
Munich – apollo real estate
Frankfurt am Main – apollo real estate
Stuttgart – apollo real estate
Dusseldorf – corealis Commercial Real Estate
Cologne/Bonn – Larbig & Mortag Immobilien
Ulm – Objekta Real Estate Solutions
Mannheim – STRATEGPRO REAL ESTATE
Ruhr Area – CUBION Immobilien
Dear readers, business partners and friends of the NAI apollo group,

At the beginning of the year, no one could have predicted that the real estate industry would again experience such a positive development in 2016. The record-breaking trend is continuing apace.

This was evident in a number of ways: last year’s office transaction volume of €25.35 billion almost matched the record result that was achieved in 2007. The office markets in top German cities made very positive progress, with almost all cities registering increases in letting performance and rental prices. In Berlin, Munich and Hamburg, it can already be said that there is a shortage of space in the segment for new, high-grade buildings. In any event, this trend will bring about a further increase in rental prices - which in turn will contribute towards the long-term establishment of market factors that are causing overinflated prices.

Beyond all this, what else is in store? Skepticism mounts with every year of continuous positive development, amid growing concerns about a possible market correction. Investors have become more cautious - certainly since the hike in U.S. interest rates.

At least it seems that prices outside the top locations and core risk categories have stopped rising. Risks that have emerged this year - the markets are feeling the impact of a zealous U.S. president, the consequences of the Brexit vote and upcoming elections in core European countries - could at least have an adverse effect on this ongoing positive market development.

The NAI apollo group also expanded further in 2016, and has continued to develop its business operations. We were able to secure Larbig & Mortag as a new partner with offices in Cologne and Bonn, and also made our first foray into a new segment with the Infantum “Kindergarten” fund, which was launched at the end of last year. Now, we have compiled market data on local markets that are supported by our partner companies in order to provide you with the necessary facts and figures to help you safely navigate the market in 2017.

We look forward to continuing our close and dedicated collaboration with you in the coming year.

Yours,

Andreas Krone SIOR
Managing Partner
apollo real estate GmbH & Co. KG
NAI APOLLO GROUP – WHO WE ARE

apollo real estate GmbH & Co. KG

For more than 25 years we have been firmly established on the Frankfurt and Munich markets as an owner-managed and independent real estate service provider with a high-performance team. The highest standards of professional ethics are part and parcel of our everyday business, which is always oriented towards the customer and not controlled by cash flow. We are your professional partner for all real estate matters, from purchasing, letting, restructuring and expansion through to management, valuation and sales. Together with our NAI partners we have established excellent networks in all economically strong locations throughout Germany.

Our team covers the entire spectrum of services relating to real estate matters. apollo real estate operates across Germany as part of the NAI apollo group and also functions as the central location of this high-performance network. apollo real estate, which was founded in 1988 and is run today by its owners, has access to over 6,700 real estate specialists worldwide through its role as the exclusive partner of NAI Global in Germany.

corealis Commercial Real Estate GmbH

corealis Commercial Real Estate GmbH is an owner-managed consultancy in the area of commercial real estate. The company was founded in 2010 in North-Rhine Westphalia’s capital. Based in Dusseldorf, we occupy one of the top five markets in Germany, corealis provides specialist advice on leasing and property sales by internationally active companies and medium-sized industry leaders.

CUBION Immobilien AG

We have run an extremely successful operation in the Ruhr area for more than ten years. Our expertise focuses on finding suitable locations for companies including the preparation of decision proposals. Our marketing performance ranges from 60,000 sqm to 80,000 sqm of office space a year, which makes us the market leader. Investment transactions are a further focus area for our company. Here, we work for international opportunistic investors as well as for private buyers.

KASTEN-MANN REAL ESTATE ADVISORS GmbH & Co. KG

Kasten-Mann Real Estate Advisors advises companies, organisations and associations that are seeking a new location in Berlin - from traditional office spaces to creative loft conversions. Our company has made a name for itself in Berlin as an owner and developer of attractive office properties. In 2002, we also established Kasten-Mann Real Estate Advisors as a further branch of the company. As an owner-managed family company we have maintained an unparalleled network of contacts in the German capital for decades. We thus provide our customers with preferential access to the local market and cover the full office property market in Berlin.

Larbig & Mortag Immobilien GmbH

Our real estate consultancy work covers the entire value chain of a commercial property in the office lettings segment, commercial investment and retail lettings in secondary locations. Our services extend from market analysis and property valuation through to marketing concepts for existing buildings and new building projects (lettings and sales). Since 2008, our customers have been able to rely on our strengths including market penetration, innovative and targeted consulting, and long-term, personal support. Our structure as an owner-managed consultancy firm ensures that we are able to act locally and independently, and we are now one of the leading real estate consultancies in the Cologne/Bonn region. We have built up a broad knowledge base through the negotiation of over 1,300 lease contracts, and are more than happy to share this knowledge with our customers.

Objekta Real Estate Solutions GmbH

We are one of the leading real estate service providers in the Stuttgart – Ulm – Augsburg and Lake Constance region with a registered office in Ulm and other branches in Stuttgart / Filder und Göppingen. Our philosophy: individual and performance-based strategies and concepts for owners, investors and users. Our highly qualified and multilingual team offers a mix of experience, market knowledge, creativity and innovative thinking and provides consultancy services in the areas of marketing, the development of building strategies, the optimisation of income, investment and property management.

STRATEGPRO REAL ESTATE GmbH

We are an owner-managed company specialising in real estate consultancy and brokerage in the Rhine-Neckar metropolitan region. Our focus is on the marketing of commercial and residential property. Our many years of experience on the Mannheim, Heidelberg and Ludwigshafen sub-markets have given us a deep knowledge of the market and a strong network of partners. With our assistance you gain a transparent overview of the market - one of the basic requirements for a correct and successful property strategy. We take a holistic approach to property, putting the focus on you and the agreed strategy. We firmly believe in the statement that “only when the customer succeeds will we also succeed.”

VÖLCKERS & CIE Immobilien GmbH

Real Estate Advisors

For more than 20 years VÖLCKERS & CIE has operated as a reputable real estate agent in the office, retail, industrial and residential segments. As one of the largest owner-managed brokerage houses in Hamburg, we rely on our strengths and the values we have created. We always want to be a step ahead of our colleagues and competitors. An abiding interest in challenging tasks related to real estate brokerage continually spurs us on to new achievements.
ECONOMY & POPULATION

The German economy continued to grow in 2016 and registered the highest increase since 2011. According to information from the Federal Statistical Office, the gross domestic product (GDP) increased by 1.8 % year-on-year in real terms, adjusted for seasonal and calendar effects. This growth was primarily driven by the domestic economy, which remains on an upward trend. As well as private consumption, which benefited from the positive situation on the employment market and earnings growth, public spending also provided a strong impetus. Investments, especially construction investments, represented a further pillar of economic growth.

The economic conditions in Germany remain extremely positive for the coming year. Current GDP forecasts expect to see growth of up to 1.8 % for 2017 and up to 2.0 % for 2018.

OFFICE PROPERTY MARKET IN 2016

<table>
<thead>
<tr>
<th>Office Stock (in sqm)</th>
<th>Berlin</th>
<th>Hamburg</th>
<th>Munich</th>
<th>Frankfurt</th>
<th>Stuttgart</th>
<th>Dusseldorf</th>
<th>Cologne</th>
<th>Bonn</th>
<th>Ulm</th>
<th>Dortmund</th>
<th>Essen</th>
<th>Duisburg</th>
<th>Mannheim</th>
<th>Heidelberg</th>
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<td>18,520,000</td>
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<td>9,120,000</td>
<td>7,840,000</td>
<td>3,800,000</td>
<td>660,000</td>
<td>3,005,000</td>
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<td>895,000</td>
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<td>28.20</td>
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<td>2.9</td>
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<td>8.4</td>
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<td>4.5</td>
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<td>2,200</td>
<td>2,800</td>
<td>5,010</td>
<td>5,430</td>
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Source: NAI Apollo Group
The German office property investment market can look back on an outstanding final quarter of 2016. In the last three months of the year, the transaction volume amounted to €11.40 billion, accounting for 45% of the total annual volume of €25.35 billion. Besides the acquisition of the OfficeFirst portfolio by Blackstone, a number of other large deals contributed to the year-end rally. This not only led to a slight increase in the 2016 transaction volume compared to the previous year (+2.4%), but also resulted in the second-highest volume of office property sales since 2007.

The office portfolio transaction volume was virtually unchanged from the previous year (2015: €6.65 billion), amounting to €6.51 billion or 25.7% of the overall figure. This was primarily due to the €3.3 billion purchase of the OfficeFirst portfolio. Individual deals accounted for sales totalling €18.84 billion (74.3% share), meaning that investments in single properties increased by 4.1% compared to 2015.

German investors continued to dominate the office transaction market, accounting for €14.12 billion or 55.7% of the overall volume. Compared to the previous year, domestic players invested around 5% less in offices (2015: €14.85 billion). U.S. investors were ranked in second place and more than doubled their investment volume to €5.41 billion. The sale of the OfficeFirst portfolio also had an impact here.

In terms of the different types of investors, “asset managers / fund managers” and “open property funds / special funds” accounted for almost half of the transaction volume. “Open-ended funds / special funds” also increased their share of the overall volume by 14.6%.

The signing of a number of large deals had a significant impact on the year-end result 2016. Such transactions included the sale of the OfficeFirst portfolio as mentioned above, together with the acquisition of the Taunus Tower in Frankfurt for approximately €650 million by a joint venture of Tishman Speyer, Qatar Investment Authority, Varma Mutual Pension Insurance Company and Elo Mutual Pension Insurance Company.

Also worth noting is the sale of Highlight Towers in Munich for €500 million to the Hausinvest funds of Commerz Real. In addition, Commerzbank Tower in Frankfurt was sold to Samsung SRA Asset Management for an estimated €675 million in the third quarter of the year.

The continuing strong demand for the office asset class was also reflected by a noticeable reduction in yields in the fourth quarter. Compared to the previous year, the average prime yield for the top 7 locations fell by 56 basis points. At present, the yield spread for the top 7 office locations is 3.36 percentage points compared to low-risk alternative investments.

In 2016, Hamburg and Stuttgart recorded the sharpest reduction in yields by 0.70 and 0.65 percentage points (Hamburg: 3.40%; Stuttgart: 3.85%). However, Munich remained the most expensive location for office investments with a prime yield of 3.35% (-0.40 percentage points compared to 2015). Within the last 12 months, yields also declined significantly by 0.60 percentage points in Berlin and Cologne (Berlin: 3.50%; Cologne: 3.90%). The two remaining top 7 cities, Dusseldorf and Frankfurt, saw yields drop by 0.40 and 0.50 percentage points respectively (Frankfurt: 3.75%; Dusseldorf: 3.95%).

Demand is expected to remain at a high level in 2017 due to continuing strong interest from institutional investors. Despite the limited availability of products, office properties currently on the market will also quickly find new owners in the coming year.

The NAI Apollo group therefore expects transactions on the office property investment market to reach around €20 billion in 2017. However, it is highly unlikely that this year’s figure will exceed the very good result of €25.35 billion that was achieved in 2016. With regard to office prime yields, further yield compression is expected over the course of the year.

Office Transaction Volume in Germany

<table>
<thead>
<tr>
<th>Year</th>
<th>Transaction Volume Office (in bn €)</th>
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<tbody>
<tr>
<td>2011</td>
<td>7.15</td>
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<tr>
<td>2012</td>
<td>11.30</td>
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<tr>
<td>2013</td>
<td>15.60</td>
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<tr>
<td>2014</td>
<td>18.60</td>
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<tr>
<td>2015</td>
<td>24.75</td>
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<td>2016</td>
<td>26.35</td>
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</table>

Source: NAI Apollo Group

Office Transaction Volume by Investor Type 2016

- Asset / Fund Manager: 27.0%
- Open-ended Funds / Special Funds: 23.9%
- Opportunity / Private-Equity Funds: 8.6%
- Insurance / Pension funds: 19.3%
- Others: 20.4%

Source: NAI Apollo Group
The German market for office space ended 2016 with a positive result. Space take-up by tenants and owner-occupiers in the top 7 cities (Berlin, Hamburg, Munich, Frankfurt am Main, Cologne, Dusseldorf and Stuttgart) amounted to a total of 3.99 million sqm. Compared to 2015, take-up therefore increased by 10.6%.

The other seven cities included in the report (Bonn, Essen, Dortmund, Mannheim, Heidelberg and Ulm) achieved a take-up volume of 534,000 sqm (+5.8% compared to 2015). All cities recorded a total of 4.52 million sqm, which was 10.0% above the previous year’s level.

Stuttgart and Frankfurt am Main stood out here after recording significant increases of 49.5% to 429,000 sqm and 37.3% to 540,900 sqm respectively. Outside the top 7, Mannheim and Ulm also registered the strongest growth rates of 62.5% to 91,000 sqm and 50.0% to 19,500 sqm respectively. Of the 14 cities, only Dusseldorf (-9.9%), Essen (-32.3%) and Duisburg (-19.1%) were characterised by a downturn in take-up during 2016.

Office take-up growth also went hand in hand with a continuing decline in vacancies. In the last 12 months, the supply of space within the top 7 fell by approximately 900,000 sqm of office space to 4.72 million sqm. This corresponds to a vacancy rate of just 5.3%. Total available space in the other locations amounts to approx. 590,000 sqm, representing a vacancy rate of 3.7%.

Overall office vacancies in all of the cities in this report currently amount to approximately 5.31 million sqm, corresponding to a vacancy rate of 5.1%. This is 1.0 percentage points lower than the previous year.

Among the 14 cities, the bank metropolis of Frankfurt am Main again recorded the highest level of office vacancies with 1.25 million sqm, or a vacancy rate of 10.8%. In contrast, Heidelberg and Ulm registered the lowest supply of office space (in absolute terms) with around 30,000 sqm.

At the end of 2016, total office stock in the top 7 amounted to around 88.43 million sqm, which equated to an increase of 0.4% or approximately 370,000 sqm during the year. Office stock in all cities totalled 104.33 million sqm, representing an increase of almost 473,000 sqm or 0.5%.

Munich remained the largest market for office space with a total stock of 20.14 million sqm. Berlin was next (18.52 million sqm), followed by Hamburg (13.62 million sqm), Frankfurt am Main (11.49 million sqm), Dusseldorf (9.12 million sqm), Cologne (7.84 million sqm) and Stuttgart (7.70 million sqm). In the Ruhr region, the total stock in Essen, Dortmund and Duisburg stood at 8.27 million sqm. Bonn registered 3.80 million sqm, Mannheim and Heidelberg (Rhine-Neckar) 2.99 million sqm and Ulm 0.85 million sqm.

As in the previous year, high space take-up alongside a decline in available space combined with insufficient building activity continued to have a strong influence on the office markets.

In 2017, the continuing positive economic development combined with current record employment levels will again translate into strong take-up on the German office market. The first half in particular will be boosted by some large searches for office space within the top 7 that were postponed until the new year.

Although the current level of demand suggests that office take-up will grow disproportionately this year, the sharp decline in space availability will nevertheless have a limiting effect. Sizeable completions that would be accessible to prospective tenants, thus easing the situation on the supply side, will not take place until the years to follow.
OFFICE INVESTMENT BERLIN

Transaction Volume & Yield
In 2016, a total of €2.2 billion was invested in office property in Berlin. Although this was 38.0 % below the previous year’s figure, the 2015 result was influenced by the sale of the Potsdamer Platz Ensemble for approximately €1.3 billion. Since such market-defining transactions are rare events on the Berlin office property investment market, the 2016 volume can also be described as a good result overall. Transaction activity is also broadly in line with the long-term average of €2.28 billion. The high demand in Berlin also led to one of the sharpest declines in yields among the top 5 locations. The prime yield for office assets fell from 4.10 % at the end of 2015 to 3.50 % in the fourth quarter of 2016.

Investor Type & Origin
As was the case in the previous year, international investors dominated the Berlin office property investment market during 2016. This group accounted for sales of €1.28 billion overall. In contrast, German investors were responsible for approximately €890 million. Among the foreign investors, U.S. investors were the most active players with a 29.1 % share of transactions. The four investor groups “asset managers”, “project developers”, “private equity funds” and “open-ended funds / special funds” accounted for the biggest proportion of the transaction volume with shares ranging from 17.0 % to 22.0 %. In terms of the size of deals, the biggest share of transactions took place in the “€100 m < €500 m” segment (30.9 % share).

The signs are extremely positive for the Berlin office property investment market in 2017, with several large office transactions due to be completed this year. Thus the office transaction volume is currently expected to remain above the €2.0 billion mark, continuing the positive trend from 2016.

Top 3 Transactions
1. Allianz “An den Treptowers 3” acquired by JV Blackstone and Quantum for approx. €230,000,000
2. "City Carré", 93, Koppenstraße acquired by Art-Invest Real Estate
3. "Victoriastadt Lofts", Schreiberhauер Straße acquired by Schroder Real Estate for approx. €130,000,000
OFFICE LETTINGS & OWNER-OCCUPIERS BERLIN

Space Take-Up
The very positive development on the Berlin market for office space lettings in the first three quarters of 2016 continued into the fourth quarter of the year. Space take-up by tenants and owner-occupiers amounted to 213,000 sqm for the period from October to December, whereby the total annual result amounted to 895,000 sqm for 2016. The Berlin office market was also able to secure a new record due to this very strong performance. Compared to the previous record year of 2015, take-up increased by 2.2%. Compared to the long-term average, the office market grew by as much as 29.7%.

Although some large deals for above 5,000 sqm took place in 2016, demand was more or less equally distributed across all size categories. The largest deals of the year included the owner-occupier project of Axel Springer in Kreuzberg for more than 41,000 sqm, the contract signed by the Federal Minister for Health for 27,000 sqm on Maurerstraße, and the leasing of 17,000 sqm on Darwinstraße by the Regional Office for Refugees.

The strong demand from start-ups influenced how take-up was distributed across the different industries. The “communication & IT” sector accounted for the largest share of 20.3%. The large contracts signed by regional and federal authorities also ensured that the “public institutions” achieved a share of 19.2%.

Property Stock & Space Availability
In 2016, the Berlin office property market was clearly influenced by continuing strong take-up combined with a moderate completions volume and a short supply of space. The vacancy rate within the last 12 months therefore fell by 2.0 percentage points to 2.9%. It is particularly the case in central locations that almost no suitable vacancies are to be found. Although more project developments are planned for 2017 and 2018, much of the space has already been let in advance. Thus any improvement in this situation due to an increase in speculative construction is not expected before 2019.

Rents
The high demand coupled with a diminishing supply of space drove up rental prices during 2016. The average rent stood at 15.90 €/sqm by the end of 2016 after increasing on a quarterly basis throughout the year, representing an annual growth rate of 8.2%. The prime rent increased by an even stronger rate in 2016. Compared to the fourth quarter of 2015, it grew by 15.1% to €28.20/sqm. The highest rents were attained in contracts signed by Beko for office space at 11, Potsdamer Platz (31.00 €/sqm) and in “Upper West” (11, Kurfürstendamm) for 36.00 €/sqm.

Outlook
Rents are expected to rise further in 2017 because of the shortage of space on the lettings market. Although the current level of demand suggests that office take-up will grow disproportionately this year, the lack of space could nevertheless have a limiting effect.
OFFICE INVESTMENT HAMBURG

Transaction Volume & Yield
The Hamburg office property investment market ended 2016 with its second-highest transaction volume ever recorded. Total transactions amounted to €2.80 billion, which was 10.2% above the previous year’s level or as much as 36.7% higher than the long-term average. The fourth quarter made a particularly strong contribution to the overall positive performance in 2016, generating almost a third of the total volume.

Yields continued to decline in Hamburg in the last 12 months. The strong demand for office property caused the prime yield to fall by a further 70 basis points to reach 3.40% by the end of the year.

Investor Type & Origin
German investors generated most of the Hamburg office property investment volume, accounting for approximately €1.6 billion. Foreign investors with significant market shares included U.S., Swedish, French and Austrian players.

Three types of investors dominated the Hamburg investment market: “asset managers”, “open-ended funds / special funds” and “private equity funds” with shares of between 20.7% and 27.0%. In addition, “insurers / pension funds”, “listed property companies / REITs” and “project developers / contractors” accounted for shares of around 7%. Properties in the “> €100 m” size category generated almost half of the transaction volume.

The Hamburg office property investment market is again expected to see a lively development in 2017. The office property transaction volume is therefore expected to rise well above the long-term average. Yield compression will in all probability continue this year.

Top 3 Transactions
1. 2-32, Alter Wall (office part) acquired by Art-Invest (Versorgungswerk der Ärztekammer Hamburg etc.)
2. Fernsprechamt, Schlüterstraße acquired by Peakside Real Estate Fund II
3. Gruner + Jahr HQ, 11, Am Baumwall acquired by the City of Hamburg for approx. €130,000,000
OFFICE LETTINGS & OWNER-OCCUPIERS HAMBURG

Space Take-Up
In 2016, the Hamburg office lettings market was again able to slightly improve on its already very good performance in the previous year. Total space take-up by tenants and owner-occupiers amounted to 557,000 sqm. This represented a year-on-year increase of 3.5%. However, the fourth quarter registered a decline in the volume to 139,000 sqm compared to the previous year (2015 Q4: 182,000 sqm) following the positive development in the first three quarters of the year. An increase in the number of deals above 5,000 sqm made a particular contribution to the very good take-up result. The biggest deals of 2016 included contract signings by Olympus Deutschland for 23,800 sqm in Poseidon-Haus, Nordex Energy in Langenhorner Chaussee for 12,000 sqm and KPMG in the “Springer Quartier” for 11,800 sqm. In addition, Vöckers & Cie negotiated the lease contract for 7,410 sqm of office space at 5-7, Gorch-Fock-Wall with the city of Hamburg for Hamburg University.

Due to large deals such as those with Olympus Deutschland and Nordex Energy, the “industrial production & processing trade sector” achieved the highest share of take-up at 16.0%. “Consulting, marketing and research” was close behind with a 15.3% share.

In terms of the different sub-markets, City and City-South still played a dominant role on the Hamburg market. These two areas accounted for a combined 270,000 sqm, which equated to almost half of the overall volume.

Property Stock & Space Availability
The vacancy rate fell by a further 0.1 percentage point to 5.2% by the end of 2016 after registering a steady decline during the previous quarters. Around 200,000 sqm of office space was completed in 2016, of which only close to 10% is still available on the market. The planned completions volume for 2017 will not lead to a significant increase in supply because much of the space has already been let. However, it appears that speculative new construction will increase slightly in the years ahead.

Rents
The prime rent increased significantly to 26.00 €/sqm by the end of 2016. This was 1.00 €/sqm higher than in the previous quarter and 1.20 €/sqm above the year-ago level. The average rent also reflected the demand for space in central locations and the willingness of office users to pay higher prices. In the recent quarter, the rate increased by 0.40 €/sqm to 15.30 €/sqm.

Outlook
The office lettings volume in 2017 is expected to be broadly in line with the previous year in view of the current level of searches on the market. As the lettings market continues to grow, vacancies will also decline further.

Office Stock & Take-Up

Take-Up by Industry

Vacancy Rate

Prime- & Average Rent

Top 3 Take-Up
1. 63-71, Amsinckstraße by Olympus for 23,800 sqm
2. Langenhorner Chaussee by Nordex Energy for 12,000 sqm
3. Caffamacherreihe / Kaiser-Wilhelm-Straße by KPMG for 11,800 sqm
OFFICE INVESTMENT MUNICH

Transaction Volume & Yield
The Munich office property investment market not only registered a significant increase in the transaction volume in 2016, but also achieved a new record result. The volume increased by 25.3% to €5.01 billion, and therefore slightly exceeded the previous record of almost €5 billion set in 2007. It was also as much as 40.7% above the long-term average. A number of large deals above €100 million were primarily responsible for this positive result.

Munich further reinforced its position as the most expensive office location in Germany, due to the continuing strong demand. The prime yield fell by 40 basis points during 2016 to reach 3.35% by the end of the year.

Investor Type & Origin
The Munich office property investment market is clearly dominated by German investors, which accounted for two thirds of overall transactions with investments amounting to approximately €3.8 billion. U.S. investors stood out among the foreign players with a 14.3% share. This was primarily due to the sale of properties in the OfficeFirst portfolio, which was acquired by Blackstone. In terms of the different investor types, “open-ended funds / special funds” played a leading role with almost €1.7 billion. “Asset managers” were next in line with more than €1.4 billion.

The very positive annual result was primarily attributable to large transactions. The “€100 m < €500 m” and “> €500 m” categories accounted for more than half of the transaction volume. In 2017, office transactions are again expected to give a strong impetus to the investment market, although overall transactions will be well below last year’s record result. The very high demand will also continue to put pressure on office prime yields.

Transaction Volume

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<th>Year</th>
<th>Transaction Volume Office (in m €)</th>
<th>5-Year Average (€3.560 m)</th>
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Prime Yield

<table>
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<tr>
<th>Year</th>
<th>Prime Office Yield (net) in %</th>
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</thead>
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<tr>
<td>2015</td>
<td>3.75</td>
</tr>
<tr>
<td>2016</td>
<td>3.36</td>
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</tbody>
</table>

Top 3 Transactions

1. Highlight Towers, 4-10, Mies-van-der-Rohe-Straße acquired by Hausinvest (Commerz Real) for approx. €500,000,000
2. HQ BayWa, 4, Arabellastraße acquired by WealthCap for approx. €280,000,000
3. Nove by Citterio, Lilli-Palmer-Straße acquired by BNP REIM for approx. €250,000,000
Space Take-Up

The Munich market for office space lettings was able to maintain the momentum of the past five years because of very strong take-up in the fourth quarter of 2016. Total space take-up by tenants and owner-occupiers amounted to 784,000 sqm, which was 3.0% higher than the previous year’s volume. Almost 30% of take-up was generated in the last three months of the year due to the signing of some large contracts. The fourth quarter was responsible for a total of 227,000 sqm, although this was slightly lower than in the prior year. The largest deal of the year was also completed in the final quarter and concerned the lease signed by BMW for 32,000 sqm of office space in the “Business Campus Unterschleißheim” development.

The large lease contracts in 2016 also had an impact on the industry ranking by take-up volume. The lease contracts signed by BMW and its subsidiary company Alphabet helped secure a dominant position for the “industrial production and processing trade sector” with a 20.1% share. “Consulting, marketing and research” was in second place with a 15.2% share.

In terms of location, although the city centre sub-market registered the highest share of take-up, some of the largest lease contracts took place on the outskirts. Thus the take-up volume in the outlying districts grew strongly compared to the previous year while the city itself registered slight losses. The growing shortage of space in the city centre, particularly with regard to large continuous spaces, will also further limit take-up in this sub-market.

Property Stock & Space Availability

Vacancies were reduced further in the fourth quarter because of the take-up of space in the last few months combined with very high pre-letting quotas in current project developments. The vacancy rate stood at 4.2% by the end of December 2016, representing a decline of 1.3 percentage points over the last 12 months. Since project developments in 2017 are for the most part no longer vacant, they will not contribute towards an increase in supply. In fact the opposite situation is more likely to be the case, with available space again set to fall slightly in 2017.

Rents

After having already risen in the previous quarters, the prime rent in Munich increased by a further 1.00 €/sqm in the fourth quarter to reach 35.50 €/sqm. This equates to a year-on-year increase of 4.4%. The average rent also increased by 1.9% to 16.50 €/sqm compared to the previous year. The growth in rental prices is expected to continue in 2017.

Outlook

Since a number of clients are already seeking large office units on the market, take-up development is set to be very positive in 2017. Thus the volume is expected to exceed 700,000 sqm by some margin.
OFFICE INVESTMENT FRANKFURT

Transaction Volume & Yield
The Frankfurt office property investment market achieved an outstanding result for 2016. A total of €5.43 billion was invested in office properties, meaning that last year replaced 2015 as the second-strongest year after 2007. The volume increased by a further 29.6% compared to the already strong result from the previous year. The last three months of the year were primarily responsible for the very good performance in 2016. Following a number of major deals, including the sales of Commerzbank Tower for about €675 million and Taunus Tower for some €650 million, the transaction volume amounted to €2.96 billion in the fourth quarter alone. The strong demand for office properties in Frankfurt also had a detrimental impact on the yield, which fell by a further 50 basis points within the last 12 months to reach 3.75% by end-2016.

Investor Type & Origin
Foreign investors dominated the Frankfurt office property investment market in 2016. However, German investors still topped the ranking of different nationalities with a volume of about €2.21 billion. Second-placed U.S. investors benefited from the acquisition of the FirstOffice portfolio by Blackstone, with total purchases increasing by 50% from the previous year to approximately €1.5 billion. Investors from South Korea and the Middle East also accounted for significant shares of the overall transaction volume. In terms of the different types of investors, “asset managers” were the most active players, accounting for the largest share of more than €2.0 billion. Second-placed “insurers / pension funds” and third-placed “private equity funds” also generated more than €1 billion in total transactions. Besides the transactions already mentioned above, “The Squaire” - part of the OfficeFirst portfolio - also counted as one of the largest sales. As a result, the “> €500 m” size category accounted for a considerable €2.3 billion of the overall volume. The investment market is expected to remain buoyant in 2017, although the level of activity is expected to be more in line with the long-term average.

Top 3 Transactions
1. The Squaire, Am Flughafen Frankfurt acquired by Blackstone for approx. €680,000,000 (partly estimated)
2. Commerzbank-Tower, 17, Große Gallusstraße acquired by Samsung SRA Asset Management for approx. €675,000,000
3. Taunusturm, 1-3, Taunustor acquired by Tishman Spe. / Qatar Invest. A. / Varma Mutual P. Insur. / Elo Mutual P. Insur. for approx. €650,000,000
OFFICE LETTINGS & OWNER-OCCUPIERS FRANKFURT

Space Take-Up
The Frankfurt market for office space, including Eschborn and Offenbach-Kaiserlei, registered strong market activity and a large number of deals in the fourth quarter of 2016. Thus the market improved considerably on the positive results achieved in the previous quarters. Space take-up by tenants and owner-occupiers reached 193,700 sqm in the last three months of 2016, equating to a year-on-year increase of 79,200 sqm or 69.2%. Total office take-up in 2016 as a whole amounted to 540,900 sqm, which was not only 37.3% above the previous year’s level of 394,000 sqm but also represented the best result since 2007 (547,000 sqm).

The positive development in take-up on the Frankfurt office market was largely influenced by the return of large deals. In 2016, deals larger than 5,000 sqm accounted for 172,900 sqm, which was double the volume achieved in 2015. The largest deal in the fourth quarter concerned the lease signed by Deutsche Bahn AG in the “Grand Central” project for over 45,000 sqm of office space. Together with an additional five lettings for more than 5,000 sqm, the total volume in this segment reached 89,400 sqm in the last three months alone.

The “banking, financial services and insurance” sector again played a dominant role in 2016 with a market share of 22.8%. This was also higher than the previous year’s level of 19.2%. “Communication & IT” was in second place with a 10.9% share.

In terms of geographical distribution, users again focused mainly on the Central Business District. This area accounted for 316,200 sqm or 58.5% of the total volume.

Property Stock & Space Availability
A total of 155,000 sqm was removed from the market during 2016, and was well in excess of the completions volume of 126,200 sqm of office space. This net loss of space resulted in a total office stock of 11.493 million sqm at the end of the fourth quarter.

Vacancies on the Frankfurt market for office space also fell considerably in the fourth quarter of 2016. At the end of 2016, available office space stood at 1.246 million sqm. This equated to a vacancy rate of 10.8%.

Rents
Large lettings in project developments, such as the Deutsche Bahn contract, had an impact on rents in the fourth quarter of 2016. Compared to the previous year, the average rent increased by 0.20 €/sqm to 19.30 €/sqm. The prime rent was unchanged at 39.00 €/sqm compared to the previous quarter.

Outlook
While the highest take-up volume within the last nine years was achieved in 2016, 2017 is also expected to register a positive development in lettings. It is thus highly likely that total lettings will exceed the long-term average. Vacancies will continue to decline as a consequence, creating further potential for rental price growth.

Office Stock & Take-Up

Take-Up by Industry

Vacancy Rate

Prime- & Average Rent

Top 3 Take-Up

1. Adam-Riese-Str. / Hafenstr. by Deutsche Bahn AG for 45,000 sqm
2. 2, Taunustor by European Centralbank for 17,800 sqm
3. 2, Platz der Einheit by Zurich Versicherung for 17,500 sqm
OFFICE INVESTMENT STUTTGART

Transaction Volume & Yield
In 2016, the Stuttgart office property investment market was again able to improve on the already very good result from the previous year. A total of €1.14 billion was invested in office properties in 2016, representing growth of 28.1% compared to 2015 and as much as 58.8% compared to the long-term average.

The very strong development of the office market, which has almost no available vacancies, further contributed to the already extremely high investor demand for office property in Stuttgart. As a consequence, the prime yield fell by 65 basis points throughout 2016 to reach 3.85% by the end of the year. This again represented a new low point for the prime yield.

Investor Type & Origin
The acquisition of the OfficeFirst portfolio by Blackstone was also relevant for the Stuttgart office property investment market. As a consequence, U.S. investors played a dominant role and accounted for a 52.2% share of the market. Domestic investors were responsible for an investment volume of €410 million, or 36.5% of the overall figure. In line with this development, “private equity funds” represented the strongest investor group with a 39.6% share, followed by “asset managers” with 35.1%.

Activity on the Stuttgart investment market is expected to remain lively in 2017. At the same time, the transaction volume is unlikely to surpass the long-term average of €720 million. Yield compression will also continue this year, leading to a further reduction in the office prime yield.

Top 3 Transactions
1. 19-27, Reinsburgstraße by Blackstone for approx. €130,000,000 (partly estimated)
2. 2, Uhlandstraße by Blackstone for approx. €130,000,000 (partly estimated)
3. Telekom-Complex Nauheimer Straße, by J.P. Morgan A.M. / LGT Capital Part. for approx. €105,000,000
Space Take-Up
The Stuttgart market for office space achieved a new record in 2016. Space take-up by tenants and owner-occupiers amounted to 429,000 sqm, exceeding the previous year’s record level by 49.5%. Office take-up in 2016 was also 141,000 sqm higher than the long-term average. This development was largely attributable to owner-occupiers, which accounted for a very high share of more than 30%.

The largest contributors towards take-up also included owner-occupier projects, such as Daimler’s 75,000-sqm development on the KNV site in Vaihingen or the Robert Bosch GmbH project for 20,000 sqm on Spielberger Straße in Zuffenhausen. Robert Bosch GmbH also signed one of the largest lease contracts in 2016, involving 23,000 sqm on Borsigstraße in Feuerbach. Thus large deals were primarily responsible for the record take-up figure. Contracts in the “> 5,000 sqm” category accounted for more than 58% of the overall volume.

In view of these large deals, it is hardly surprising that companies from the “industrial production & processing trade sector” dominated the market with a 51.3% share of the overall take-up volume. The second- and third-placed sectors, “consulting, marketing & research” and “communication & IT”, were some way behind with shares of 11.1% and 9.2% respectively.

In terms of location, the City sub-market again accounted for the bulk of the deals. At the same time, the Vaihingen sub-market where the Daimler deal took place achieved the highest take-up of more than 130,000 sqm.

Property Stock & Space Availability
The reduction in vacancies continued on a massive scale in 2016. Besides the strong letting performance, the number of new building projects was also far too low. At the end of 2016, the vacancy rate stood at just 3.0% in Stuttgart after falling by a further 0.9 percentage points within the last 12 months. This means that only close to 230,000 sqm of space is available at short notice. The volume of new construction projects will not alleviate this space shortage since most of the space is either for owner-occupiers or has been let in advance.

Rents
The lack of available space is also reflected by the rental prices on the Stuttgart office market. Compared to 2015, the prime rent increased by 4.7% to 22.50 €/sqm by the end of 2016. The average rent also grew significantly by 0.50 €/sqm to 12.80 €/sqm.

Outlook
The Stuttgart office market will again be marked by significant excess demand. The shortage of supply will provide a limiting factor here. In this respect, the take-up volume will be below the record level of 2016, returning to a level that is more in line with the long-term average.
OFFICE INVESTMENT DUSSELDORF

Transaction Volume & Yield
In 2016 the Dusseldorf office property investment market was able to follow on from its very good performance in the previous year, exceeding the €1 billion mark for the fourth time in succession. The total office property investment volume amounted to €1.33 billion, which was 9.9% above the previous year’s level and 15.9% higher than the long-term average. The extremely high volume in the fourth quarter contributed to this positive development, accounting for €525 million or almost 40% of the overall result. The prime yield for offices also remained under pressure in Dusseldorf because of the strong demand from investors combined with a shortage of products. For example, the largest individual transaction of approximately €153 million - the sale of the new L’Oréal building to a foreign fund - was completed as a forward deal even before the topping-out ceremony took place. At the end of 2016, the office prime yield stood at 3.95% and was 40 basis points below the previous year’s level.

Investor Type & Origin
Domestic investors accounted for the lion’s share of the office property transaction volume in 2016 at more than 73%. Investors from the UK, Sweden and the Middle East were also active on the market. “Asset managers” and “open-ended funds / special funds” represented the strongest investor groups, accounting for a combined share of more than 80% of the transaction volume. In terms of size, most deals took place in the “€50 m < €100 m” segment, which accounted for an overall share of 40.6%.

The Dusseldorf office property investment market is again expected to benefit from a high level of activity in 2017. The overall volume should reach around €1.2 billion. In addition, rising office property prices will be reflected by a continuing decline in yields.

Top 3 Transactions
1. L’Oréal HQ Dusseldorf, Roßstraße / Johannstraße acquired by BNP REIM for approx. €153,000,000
2. Office 25, Breite Straße acquired by BNP REIM for approx €95,000,000
3. SIGN!, 1-3, Speditionstraße acquired by "HMG Grundwerte Büro Deutschland" (HanseMerkur Grundvermögen)
OFFICE LETTINGS & OWNER-OCCUPIERS DUSSELDORF

Space Take-Up
The Dusseldorf market for office space lettings, including Ratingen, Neuss, Erkrath and Hilden, registered a weaker second half in 2016 after a strong first six months. Office space take-up by tenants and owner-occupiers only amounted to 85,000 sqm in the fourth quarter of the year, which was 29.2% below the year ago level. In the months from January to December, total take-up reached 401,000 sqm. This represented a 9.9% decrease compared to the previous year, although the figure was still 6.3% above the long-term average.

The major deal signed by Uniper for almost 28,000 sqm in the "Medienhafen" (media harbour) sub-market at the beginning of the year remained the largest contract signing of the year. The lease signed by accident insurer for North Rhine-Westphalia for 14,000 sqm on Moskauer Straße represented the second-largest deal as well as the second deal in the > 10,000 sqm" size segment. The largest deals in 2016 also included the leases signed by Douglas and Stepstone for more than 8,600 sqm each in Medienhafen.

In the ranking of industries by take-up, “business consultancy, marketing and market research” took first place with a share of 19.8%. “Wholesale and retail companies” were next with 12.1%, followed by “communication & IT” with 11.7%.

As a result of the fact that three of the four largest deals took place in Medienhafen, this sub-market registered the highest take-up volume with more than 70,000 sqm.

Property Stock & Space Availability
The Dusseldorf market registered a further decline in vacancies during the fourth quarter. The removal of space, especially through the reclassification of office space, as well as robust take-up levels contributed towards this development. The vacancy rate stood at 8.4% by end-December 2016, representing a 1.0-percentage point decline within the last 12 months. In the year as a whole, the completions volume amounted to approximately 60,000 sqm, with almost no vacant space remaining. Furthermore, much of the space in the pipeline for the coming years has already been let in advance. As the removal of space far outweighs the completion of new space, current stock stood at 9.12 million sqm by the end of the year.

Rents
The prime rent increased to 26.50 €/sqm in the second quarter of 2016 and remained at this level during the second half of the year. This represents an increase of 1.9% compared to the previous year. The average rent was also higher than a year ago, rising by 4.3% to 14.70 €/sqm.

Outlook
The take-up volume is again forecast to be higher than average in 2017, and this is also expected to lead to a further slight reduction in vacancies. However, the prime rent will remain at the current level since premium spaces that are currently vacant will not facilitate a further increase.

Top 3 Take-Up
1. 2-4, Franziusstraße by Uniper for 28,000 sqm
2. 18, Moskauer Straße by accident insurer for North Rhine-Westphalia for 14,000 sqm
3. 1, Völklinger Straße by StepStone Deutschland GmbH for 8,600 sqm
OFFICE INVESTMENT COLOGNE

Transaction Volume & Yield
The Cologne office property investment market not only registered a significant increase in overall transaction volume in 2016, but also achieved a new record result. A total of €1.4 billion was invested in Cologne office property, exceeding the previous record from 2015 by around €0.13 billion. Cologne has therefore positioned itself among the top 7 locations in an impressive way. Large transactions, including the sales of the new Zurich headquarters for €350 million and the Cologne technology park for €188 million, contributed towards this excellent result.

Investors continued to show considerable interest in the Cologne market, and this led to a further adjustment in the prime yield for top office properties to 3.90% during 2016.

Investor Type & Origin
On the buyer side, three types of investors largely dominated the Cologne office property investment market. “Insurers / pension funds” took the leading position, followed by “private equity funds” and “open-ended funds / special funds”. International buyers were unable to maintain their previous year’s share of almost 50%; in 2016, their share of the transaction volume fell to less than a third.

In 2017, it will be extremely difficult to place large-scale investments on the Cologne office property investment market. However, such deals would be necessary to surpass last year’s record figure. Thus the transaction volume is expected to lie between the long-term average and the 2016 result. The yield compression for Cologne office property will in all probability continue this year.

Transaction Volume

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Prime Yield

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Top 3 Transactions
1. Zurich Headquarter, Cologne acquired by Warburg - HIH Invest Real Estate GmbH for approx. €350,000,000
2. Technologiepark Köln, Eupener Straße acquired by EQT Real Estate for approx. €188,000,000
3. Börsenplatz 1, Cologne acquired by MOMENI Projektentwicklung GmbH for approx. €62,000,000
Space Take-Up

Total space take-up by tenants and owner-occupiers on the Cologne office market reached 380,000 sqm in 2016. This was 25.0 % higher than the previous year’s level (2015: 304,000 sqm) and well above the long-term average of 294,400 sqm. This result also represented the highest value since records began for the Cologne office property market.

The large number of deals for more than 5,000 sqm of office space was partly responsible for this high figure. Five deals in the “> 10,000 sqm” segment contributed 118,200 sqm to the overall result. A flagship project is the new Zurich Versicherung development for circa 60,000 sqm in Cologne-Deutz (MesseCity project). Also worth noting are lease contracts signed by the employment agency for around 19,500 sqm in Cologne-Ossendorf (new development), Cologne city building management for 13,500 sqm in Cologne-Deutz (Cologne Triangle) and 13,000 sqm in Cologne-Kalk (new B3 Campus development), and by the Cologne job centre for a space on Wiener Platz in Cologne-Mülheim (existing building).

Two industries clearly played a dominant role on the office property lettings market. On one hand, the Zurich Versicherung contract considerably boosted the position of the “banking, financial services and insurance” sector (19.5 %). Following Generali’s relocation from Cologne to Munich, this can be regarded as a positive move towards securing Cologne as one of the most important insurance centres in Germany. On the other hand, “public institutions” accounted for 20.3 % of total take-up. In terms of location, the city centre experienced the strongest demand and accounted for 23.0 % of the volume. However, despite the strong demand this sub-market lost substantial market share because of the shortage of large rental spaces. The Deutz and Ehrenfeld / Braunsfeld were ranked second and third with shares of 21.7 % and 8.7 % respectively.

Property Stock & Space Availability

Due to the strong lettings performance in 2016, vacancies declined for the seventh year in succession to reach 390,000 sqm (2015: 460,000 sqm). Thus the vacancy rate in Cologne has now hit the 5.0 % mark. The reduction in vacancies took place primarily in the central locations of the city. Office buildings that are currently under construction will also not contribute towards an increase in the available supply of space.

Rents

The prime rent reached 21.04 €/sqm in 2016. In contrast, the average rent benefited from the continuing low level of building activity and the high number of lettings in project developments and achieved a value of 11.85 €/sqm by the end of the year.

Outlook

In 2017, take-up is expected to be broadly in line with the average of the past five years. A major deal comparable to the Zurich Versicherung contract is not expected to take place. The vacancy rate will continue to fall because of the lack of building activity. As a result, there is additional potential for an increase in rental prices.
Space Take-Up
Office space take-up by tenants and owner-occupiers on the Bonn office market reached 91,900 sqm in 2016, representing an increase of around 28.0 % compared to 2015 (71,600 sqm). This result enabled Bonn to consolidate its position as one of the top 10 markets in Germany.

The Bonn office market registered a large number of major deals for the first time in a long while. One letting was for around 9,400 sqm, while two others were for spaces of between 4,000 sqm and 5,000 sqm. Lettings in the “> 1,000 sqm” category accounted for approximately 55,600 sqm or 60.5 %.

In terms of take-up by industries, Bonn remains a prominent location for the public sector and “public institutions” again accounted for the highest share of take-up (38.0 %). The “other services sector” was in second place with a 12.0 % share. The “communication & IT” sector was a close third with 11.0 % of the volume.

The “Bundesviertel” (the former government area of the city) also accounted for the highest share of take-up with 44.4 % of the volume. Nordstadt was next with a 14.7 % share, followed by Bad Godesberg with 10.2 %.

Property Stock & Space Availability
One constant of the Bonn office market is the steady decline in the vacancy rate. Compared to the previous year (2015: 3.4 %), the vacancy rate fell by 1.0 percentage point to a critical level of 2.4 %. This steady decline continues to be caused by the increased lettings performance and the ongoing shortage of new developments in sought-after locations. The principal argument of project developers is that they cannot start work on different project developments until pre-letting quotas are fulfilled.

Rents
The prime rent for office buildings increased by approx. 2.70 €/sqm year-on-year to reach 20.45 €/sqm in 2016. The average rent also demonstrated a more positive performance compared to previous years, reaching a record level of 13.06 €/sqm by end-2016. This represented an increase of 1.86 €/sqm (+14.0 %) compared to 2015.

Outlook
Due to the robust demand, space take-up on the Berlin office market is expected to reach around 70,000 sqm in 2017. It is also highly probable that further large lettings will take place in the coming years. The amount of available space, which is currently below the fluctuation reserves, will have a limiting effect on the market. However, this will result in further growth potential for rental prices.
OFFICE LETTINGS & OWNER-OCCUPIERS ULM

Space Take-Up, Property Stock & Space Availability

The office space lettings market in Ulm ended 2016 with a very positive take-up result. Total space take-up by tenants and owner-occupiers amounted to 19,500 sqm. Office space take-up in Ulm was primarily influenced by three large deals during the year, which all took place in the 7,600 sqm Plaza Center development. The deals were signed by Transporeon GmbH, Prospitalia GmbH and Spherea GmbH. The “city edge” sub-market also attracted the highest demand. In popular office locations in the Science-Park and Ulm-North business parks, the lack of available space meant that only a few contracts for between 1,000 sqm and 2,000 sqm were signed. Apart from that, the lettings market in Ulm is dominated by the “< 500 sqm” category.

Since demand again exceeded supply on the Ulm office market in 2016, the vacancy rate fell by 0.2 percentage points to 3.9%. New office buildings that are currently in the pipeline, and which mostly consist of mixed-use properties such as Sedelhöfe or Ypsilon, will not help ease the situation on the market before mid-2018.

Rents

Despite the shortage of space, neither the average rent nor the prime rent reached a new high. In 2016, the prime rent settled at around 14.50 €/sqm and the average rent reached 10.20 €/sqm. Office users in Ulm are not prepared to accommodate higher rents and where necessary will move to surrounding communities along central transport routes.

Outlook

Due to the shortage of space, take-up in 2017 will mostly consist of deals for smaller units. Accordingly, the office lettings volume is expected to be in line with the long-term average. Even though the supply of space continued to fall, rents are likely to remain unchanged.
Transaction Volume & Yield
After experiencing strong growth in the previous year, the office property transaction volume declined in 2016. The total transaction volume decreased by 22.9 % to €825 million in 2016. However, this situation was brought about by the limited availability of products rather than a loss of investor interest. Had more properties been available in 2016, the transaction volume would have clearly exceeded the previous year’s figure.

Because of the continuing high demand for core properties in secondary locations, yields remained under pressure in the Ruhr area in 2016. In the three major cities of Essen, Dortmund and Duisburg, the office prime yield fell by between 30 and 60 basis points during 2016. Essen remains the most expensive office location in the Ruhr area with a prime yield of 5.35 %.

Investor Type & Origin
Domestic investors played a leading role on the office property investment market in the Ruhr area during 2016. These investors were responsible for 81.7 % of the overall volume. Otherwise, investors from the Netherlands, Canada, Switzerland and the UK were also active on the market. Given the local nature of the market, it comes as little surprise that “private investors / family offices” represented the second strongest investor group with a 19.5 % share. “Open-ended funds / special funds” were ranked in first place with a 21.8 % share. Other groups with shares of more than 10 % apiece included “asset managers”, “listed property companies / REITs”, and “project developers / contractors”. More than 50 % of transactions also took place in the sub-€25 million category, which had a significant impact on the market. The average size of transactions thus fell from about €14 million in 2015 to €12.5 million in 2016.

The Ruhr area will remain of interest to investors in 2017 because of the yield differential and robust development of the office markets. The office property transaction volume is therefore expected to reach around €1 billion, although this will depend on the availability of products.
Space Take-Up
The market for office space in Essen failed to reach the 100,000 sqm mark in 2016, with take-up by tenants and owner-occupiers amounting to 94,500 sqm. This means that the overall volume fell by 32.3 % compared to the previous year, and was also well below the five-year average of 111,100 sqm. However, to put this decline into perspective, the previous year was influenced by four major lease contracts (Funke Media / Brenntag / Bitmarck / Ista).
The lettings performance fell by as much as 53 % to 72,000 sqm, while the amount of space secured by owner-occupiers increased fourfold to approximately 22,500 sqm. The share attributable to owner-occupiers has therefore returned to a more normal level of 24 %, which is slightly above average, after falling to an extremely low value in the previous year. Pharmaceuticals wholesaler Noweda and the city of Essen emerged as the biggest owner-occupiers in 2016. Noweda expanded its Essen headquarters on Heinrich-Strunk-Straße by approximately 7,500 sqm. The city of Essen will use an office building at 27, Natorpstraße for an interim period until the renovation work on the town hall has been completed.

Property Stock & Space Availability
The supply reserves recovered slightly to 5.6 % during the past year, up from last year’s vacancy rate of 5.2 %. The office completions volume amounted to 52,000 sqm in 2016. Only 2,800 sqm of this volume is currently vacant since the completed buildings have either been fully let in advance or are reserved for owner-occupiers.
In 2017, the completions volume is expected to be at an above-average level of approximately 82,500 sqm. This also includes speculative project developments (refurbishments) that will be brought onto the open market and thus help ease the situation on the supply side. Around 22,000 sqm of the 2017 completions volume is currently still available.

Rents
The prime rent was virtually unchanged in 2016 at around 14.00 €/sqm and is attained in the area around the city centre or in Rüttenscheid / Bredeney. The average rent fell from 11.27 €/sqm in 2015 to 9.94 €/sqm in 2016, which was primarily due to fewer contract signings in new buildings. Excluding leases in new buildings, the average rent for existing buildings was 9.30 €/sqm and was thus 1.6 % higher compared to the previous year.

Outlook
Space take-up is expected to show a moderate increase in 2017. A volume of around 100,000 sqm can therefore be predicted for this year. This, combined with building completions that are still available on the market, will in all probability lead to a stable development in vacancies. Accordingly, rental prices will be virtually unchanged.
OFFICE LETTINGS & OWNER-OCCUPIERS DORTMUND

Space Take-Up

For the second time after 2012, Dortmund was ranked as the strongest office market in the Ruhr area in terms of take-up in 2016. The Dortmund office market (including the Airport office market zone in Holzwickede) achieved a record result for 2016. Take-up by tenants and owner-occupiers exceeded the already outstanding result of the previous year (97,000 sqm) by 20 % to reach 116,000 sqm.

It was particularly encouraging that the lettings performance was again at a high level, reaching approximately 83,500 sqm and thus almost unchanged for the third year in succession. The Dortmund office market is therefore extremely consistent. Lettings take-up was again generated by a broad range of deals in all size categories rather than being influenced by an exceptionally large deal. The largest lease contract for around 7,000 sqm was for the city’s health department at 9-11, Hoher Wall. This was followed by a contract signed by the Institute for Federal Real Estate for around 4,800 sqm at 95, Hansastrasse for the Federal Office for Migration and Refugees. The company Ampri-on, which is building a new 21,300 sqm central office on Robert-Schumann-Straße on the former Phoenix-West steelworks site, was registered in the 2016 figures as the largest owner-occupier on the market.

Property Stock & Space Availability

The high take-up result had a huge impact on vacancies. The vacancy rate fell from 5.2 % in 2015 to just 3.9 % at present. Thus the supply of space in Dortmund has reached a critical level - especially given that only some 18,000 sqm of the approximately 117,500 sqm of vacancies is of really good quality.

Current supply reserves, particularly in new buildings or in properties of an equivalent standard of quality, are in line with recent annual absorption levels. All buildings completed in 2016 (around 23,500 sqm) are fully let, and 2017 is expected to bring little relief here because 54 % of the expected completions volume of around 24,000 sqm has already been let.

Rents

The prime rent was unchanged at 13.50 €/sqm by the end of 2016 and is achieved in the city centre. However, the average rent fell by almost 5 % to 9.16 €/sqm compared to 2015. This is explained by the fact that there were fewer lettings in expensive new buildings. Excluding new buildings, the average rent for existing buildings was around 8.96 €/sqm, representing an increase of 4.8 % within a year.

Outlook

We again expect to see brisk market activity and positive space take-up in 2017, but last year’s record result is unlikely to be achieved. Total space take-up is expected to reach 80,000 sqm. Considering the low availability of newly completed space, the supply of space will remain at a low level. Since the average quality of the overall supply reserves is declining, rents are expected to fall slightly or remain at the same level.
OFFICE LETTINGS & OWNER-OCCUPIERS DUISBURG

Space Take-Up
Take-up on the Duisburg office market reached 65,500 sqm in 2016 and thus returned to a level that was more in line with the long-term average after an exceptional performance in the previous year. What this actually means is that take-up fell by 19.1 % year-on-year. The largest lease contract, negotiated by CUBION, was signed by VONOVIA SE and involved 6,600 sqm in the “Silberpalais” at the central station. The biggest owner-occupier deal, also for a space of 6,600 sqm, was completed by Schauinsland-Reisen on Stresemannstraße. Overall, owner-occupiers accounted for 12,500 sqm of the total take-up volume. This corresponded to a share of 19 %, which is normal for Duisburg.

Property Stock & Space Availability
The Duisburg vacancy rate was again in a steep descent and stood at only 2.4 % (3.0 %) at the end of the year. This corresponds to an absolute value of just 52,500 sqm of available office space. Around 80 % of the already low supply reserves are rated to be of basic or at most average quality. Some 14,000 sqm of office space was newly completed, of which practically nothing is still available on the market. The completions volume for 2017 is projected at only 6,000 sqm, of which all but 400 sqm has already been let in advance. Thus the Duisburg office market again faces a massive problem in terms of its supply reserves. Around two thirds of all lease contracts relate to spaces smaller than 500 sqm. Almost half of all completed lease contracts were even smaller than 250 sqm, which is hardly surprising given the lack of large continuous spaces.

Rents
The prime rent was unchanged at 14.00 €/sqm and is attained in good as new properties in the popular office market zone in the “inner harbour”. The average rent in existing buildings - excluding new developments - stood at 8.49 €/sqm by end-2016 and was therefore 3.5 % above the comparable level for 2015. Including contracts in new buildings, the average rent reached around 8.93 €/sqm.

Outlook
The market outlook for 2017 remains gloomy because of the structural problems on the supply side in Duisburg that have already been described above. Lettings in existing buildings barely reached 40,000 sqm and large owner-occupier projects are currently not in sight. On the other hand, this presents an opportunity for attractive project developments that were initiated by DUO at Marientor and in the inner harbour. The vacancy rate will probably fall well below 2 %. This corresponds to the level last seen at the turn of the century. Large continuous spaces of more than 1,500 sqm in size remain a rare commodity in Duisburg.

Top 3 Take-Up
1. 1-3, Am Silberpalais by Vonovia SE for approx. 6,600 sqm
2. Stresemannstraße by Schauinsland-Reisen for approx. 6,600 sqm
3. Schwanentorufer by Krankikom for approx. 2,800 sqm
OFFICE INVESTMENT RHINE-NECKAR

The continuing strong demand for commercial property investments that has been observed across Germany, combined with a low supply of suitable investment products, also led to a significant decline in prime yields in the regional centres of the Rhine-Neckar metropolitan region (Mannheim and Heidelberg). These rates fell to an all-time low by the end of 2016. The initial prime yield currently stands at 5.25 % in both cities, representing a drop of 75 and 65 basis points respectively. The high level of interest among investors, together with the scarcity of products, the expected continuation of low interest rates and the functioning lettings markets with low vacancy rates, will also cause prime yields to fall further in 2017.

New building products with mixed use (retail, residential, office, partly hotels) were largely responsible for higher transaction volumes within the region in 2016. In addition to the sale of the Q6/Q7 complex in the inner-city of Mannheim by Diringer & Scheidel to a fund managed by BMO Real Estate Partners, the Westarkaden project in Heidelberg Bahnstadt was sold to Quantum Immobilien AG. Of course, large-scale, pure office projects are still in demand within the Rhine-Neckar metropolitan region. However, this segment continues to suffer from a lack of supply.

In 2017, transactions for existing properties are expected to be in line with 2016. In the coming 12 months, property investors will increasingly turn their attention to good central locations in the “core” segment of second-tier cities. In addition, the transaction volume for office property developments is expected to increase significantly in 2017. This is due to the start of development work in the Glückstein district and “Postareal” of Mannheim and in Heidelberg’s district Bahnstadt. Overall, it is therefore expected that the transaction volume will increase in 2017 compared to the previous year.

Prime Yield Mannheim

Prime Yield Heidelberg

Top 3 Transactions

1. High-Tech-Park, Janderstraße / Schildkrötstraße, Mannheim as well as 8, Gottlieb-Daimler-Straße, Mannheim (OfficeFirst-Portfolio) acquired by Blackstone

2. Wissenschaftszentrum am Neckar, 18-20, Vangerowstraße, Heidelberg acquired by DIC Asset

3. Q6/Q7, Mannheim (mixed-use) acquired by BMO Real Estate Partners
OFFICE LETTINGS & OWNER-OCCUPIERS MANNHEIM

Space Take-Up
The Mannheim office market ended 2016 with a strong take-up result. Total take-up by tenants and owner-occupiers amounted to 91,000 sqm, which exceeded the previous year’s level by 62.5%. Compared to the average result for the past five years (74,700 sqm), last year’s increase was 21.9%. Owner-occupiers accounted for 13,000 sqm of the overall volume (2015: 1,000 sqm), while the lettings market was responsible for 78,000 sqm (2015: 55,000 sqm).

The significant increase in take-up was primarily due to the above-average number of contracts for units larger than 1,000 sqm, which accounted for more than half the volume in 2016. The largest deals in 2016 included the lease of 6,000 sqm by E&Y in the “Glückstein-Quartier”, 5,200 sqm by the city of Mannheim at 28-30, Karl-Ludwig-Straße, and 4,200 sqm by Dr. Knoell Consult GmbH at 3, Hermsheimer Straße.

Companies from the “consulting, marketing & research” sector dominated the industry ranking, partly because of the large contract signings. This sector accounted for 18.5% of take-up, followed by “public institutions” with an 11.6% share.

Property Stock & Space Availability
Compared to 2015, the vacancy rate fell by 0.7 percentage points to 4.5% in 2016. This corresponds to an available supply of approximately 90,000 sqm of office space, which represents an all-time low. In particular, there is still a shortage of supply in the segment for well-developed, modern properties in prominent office locations. In 2016, only 11,000 sqm of new office space was completed. Adjusted for the occasional removal of space, office stock increased only by a marginal amount compared to the previous year to 2.015 million sqm of office space. In 2017, the completions volume is expected to increase again to approximately 43,000 sqm. However, only 7,000 sqm of this office space is still available. Completions will not reach a significant level until 2019, when they will be available on the lettings market and thus help alleviate the situation on the supply side.

Rents
The average rent increased for the fourth time in succession and now stands at 11.80 €/sqm (2015: 11.40 €/sqm). The main reason for this increase in 2016 was again the fact that several large-scale lease contracts were signed in new office developments in Glücksteinallee, Kepler-Quartier and Eastsite. These contract signings had an even greater impact on the prime rent, which increased significantly from 15.00 €/sqm in 2015 to 16.40 €/sqm.

Outlook
Demand for office space will remain at a high level in 2017. Upcoming large contract signings, which will mostly be completed in the first half of 2017, will maintain take-up at the previous year’s level. Lettings in project developments will also continue to sustain, and help drive forward, the upward pressure on rental levels.
OFFICE LETTINGS & OWNER-OCCUPIERS HEIDELBERG

Space Take-Up
In 2016 the Heidelberg office market registered take-up by tenants and owner-occupiers of 56,000 sqm (2015: 49,000 sqm), which represents a new record volume. It also exceeded the already strong result from the previous year by a further 14.3% or 7,000 sqm, and was 20.6% above the five-year average (46,400 sqm). Owner-occupiers accounted for 7,000 sqm (2015: 4,000 sqm) of the total volume, while the lettings market was responsible for 49,000 sqm (2015: 45,000 sqm).

Heidelberg also registered an increase in service sector employees, reflecting the nationwide trend. The largest contracts included the lease of 7,940 sqm by Heidelberg Cement AG at 41-49, Berliner Straße, 5,200 sqm by cbs Corporate Business Solutions Unternehmensberatung GmbH at 5, Rudolf-Diesel-Straße, and 3,000 sqm by SRH Hochschule Heidelberg at 52-58, Kurfürsten-Anlage. Accordingly, the “> 1,000 sqm” segment accounted for the largest share of 23,000 sqm or 41.1% of overall take-up. These large deals also had an impact on the industry ranking. The “industrial production and processing trade sector” accounted for a 20.9% share, followed by “communication & IT” with 12.1% and “public institutions” with 9.8%.

Property Stock & Space Availability
The steady decline in office vacancies since 2012 gained considerable momentum in 2016. At the end of 2016, the vacancy rate stood at just 2.9%, equating to approximately 28,000 sqm of office space. Compared to the previous year, this represented a decline by 1.7 percentage points or net absorption of 16,000 sqm. Thus office space vacancies in Heidelberg have fallen to an all-time low.

Office completions in Heidelberg amounted to only 4,000 sqm in 2016, and will also remain at a very low level in 2017 with around 7,500 sqm in the pipeline. An appreciable increase in space, most of which is also still currently available on the lettings market, is thus expected only from 2018.

Rents
The average rent fell slightly to 11.60 €/sqm (2015: 11.80 €/sqm) despite the small supply of office space. This reduction was primarily caused by a few large lease contracts in existing buildings with below-average equipment standards. Lease contracts in new buildings were also unable to compensate for this decline. The prime rent, on the other hand, increased significantly from 15.00 €/sqm in the previous year to 16.00 €/sqm.

Outlook
Take-up on the Heidelberg office market is expected to be in line with the 2016 level or slightly higher. The large-scale owner-occupier project for the construction of the Heidelberg Cement AG headquarters will heavily influence the development of the market. Project developments will become of increasing importance due to a further reduction in vacancies, while pre-lettings in these projects will drive up rental prices.

Office Stock & Take-Up

Take-Up by Industry

Vacancy Rate

Prime- & Average Rent

Top 3 Take-Up
1. 41-49, Berliner Straße by Heidelberg Cement AG for 7,940 sqm
2. 5, Rudolf-Diesel-Straße by cbs Corporate Business Solutions Unternehmensberatung GmbH for 5,200 sqm
3. 52-58, Kurfürsten-Anlage by SRH Hochschule Heidelberg for 3,000 sqm
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