pbbIX
Office Property Market Germany
2022 Q3 **DEUTSCHE PFANDBRIEFBANK**



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Overview



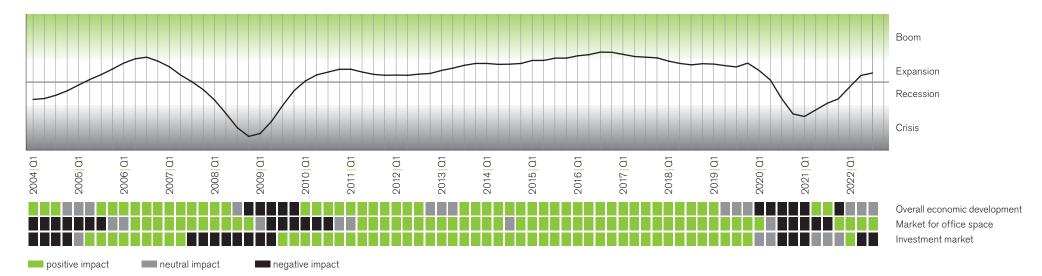
The pbbIX real estate index rose from 0.30 to 0.40 points in the third quarter of 2022. With its **sixth consecutive increase**, the index showed a significantly better performance than expected. The reasons are manifold: despite all the concerns and uncertainty, the economy grew slightly. The positive impact from the market for office space, however, was counteracted by an investment market that remained weak.

The **market for office space** continued its upward trend in the third quarter, with vacancy rates remaining on a moderate level due to a still comparatively strong letting performance. Solid demand, supported by high inflation, led to rising rents – but higher capital market interest rates and the significant uncertainty

regarding economic development resulted in another decrease in fund inflows on the **investment market** in the quarter under review. Compared to the previous quarter, however, inflows increased. The search for suitable contractual terms has inverted the price trend seen in the last few years and initial yields continue to rise.

The economic environment also impacts **developments on the office mar- kets:** soaring inflation will keep monetary policy restrictive for the time being, and interest rates on a high level. Expensive energy and persistent supply chain disruptions are additional burdens upon macroeconomic activity. This slows demand for space, as a result of which the performance of office properties is anticipated to weaken again.

pbbIX BIG 7 | Index



Overall economic outlook



In a highly challenging macroeconomic environment, real gross domestic prod-uct in the third quarter picked up 0.3% compared to the previous quarter. Full order books in the manufacturing industry were a key growth factor, as were the savings that private households had increased during the pandemic, with private consumption being the main driver for **GDP growth** according to the German Federal Statistical Office. A stable labour market also played its part: **employment** reached a historical peak in September, whilst the **unemployment** rate fell to 5.3%.

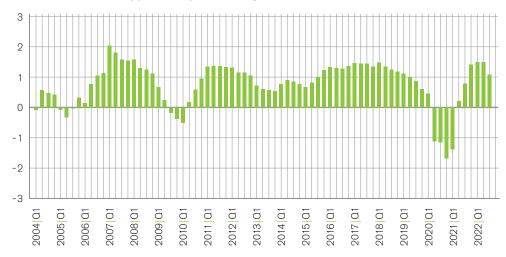
On the other hand, the high inflation, increased energy prices, and a **clouded global economic environment** are putting a damper on purchasing power and export volumes. Companies will probably react by exercising caution in their investment activities. **Sentiment amongst companies** continues to be **bleak** and according to the ifo business climate index, many businesses are concerned about the near future. The war in Ukraine and its impact – in the form of lost export markets, energy price inflation, and supply chain disruptions – are hampering corporate development.

Against this backdrop, most **economic forecasts** assume a further reduction in economic output in the fourth quarter, triggering a **mild recession** over the following quarters. The German Council of Economic Experts sees weak private consumption due to high gas and electricity prices as the main reason.

Real gross domestic product | year-on-year change in %



Working population | year-on-year change in %



Market for office space



The market for office space **held up well** in the third quarter. The letting per-formance of 860,000 sqm in the big 7 markets was only marginally below the previous quarter. On the one hand, **positive labour market trends** in the services sector caused demand for space to remain on a high level even though demand for space per capita was reduced; on the other hand, major real estate brokers state that **office space** in different locations is increasingly being merged or **centralised**. Especially high-quality office properties in good locations are becoming more attractive for market participants. A total of 2.8 million sqm, and thus 30% more than in the previous year, was newly taken up over the first nine months of the year.

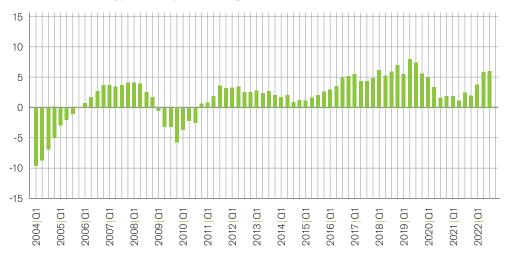
Supply and demand for office space have been moving in near synchronicity since the beginning of 2022; as such, **vacancy rates moved sideways**, meaning that depending on market and location, we are seeing both supply shortages and excess supply. Whilst hardly any space is unlet in Berlin and Stuttgart, the situation is reversed in Dusseldorf and Frankfurt.

Both top and average **rents showed a continued upward trend**, likely driven by contractual adjustments on staggered rent and indexation of rents based on the Consumer Price Index. Average top rents in the third quarter exceeded the second quarter of 2022 by 1.5% and the third quarter of 2021 by 6%. According to real estate brokers, landlords continued to offer incentives for new rentals.

Office space vacancies (BIG 7) | in % of the portfolio



Top rents (BIG 7) | year-on-year change in %



Investment market



At \in 4.3 billion, turnover on the big 7 investment markets remained subdued in the third quarter, albeit **increasing quarter-on-quarter**. Main beneficiaries were the office markets in Berlin, Hamburg and Munich which accounted for approximately 80% of turnover. Inflows year-to-date total around \in 14.2 billion, slightly above the previous year's figure of \in 14.1 billion. This solid development, however, includes a significant non-recurring effect related to the acquisition of alstria in the first quarter.

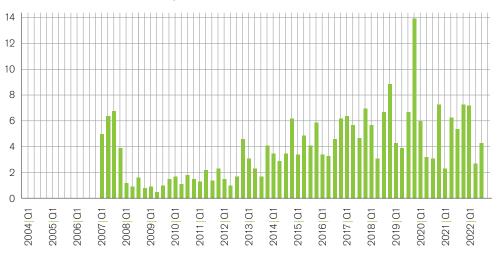
Since real estate purchases usually take a few months to unfold, it can take a while until all market changes are reflected in the transaction data. This **lag** is also visible in the way initial yields react to credit and capital market interest rates which have been rising since the beginning of the year. Whilst the current yield for German government bonds with a remaining term of ten years averaged 0.11% in the first quarter, it had soared to 1.8% by the end of the third quarter. Net initial yields for first-class properties first reacted to this development in the second quarter, gaining 10 basis points on all markets; the third quarter saw another increase of 12 basis points.

Initial yields should continue their **ascent** in the near future, and some market participants will have to re-calculate their investments in this high interest rate environment. Uncertain macroeconomic developments will also restrict rental development, which usually leads to reticence among investors. That in turn means that we can expect weak performance.

Net initial yield (BIG 7) | in %



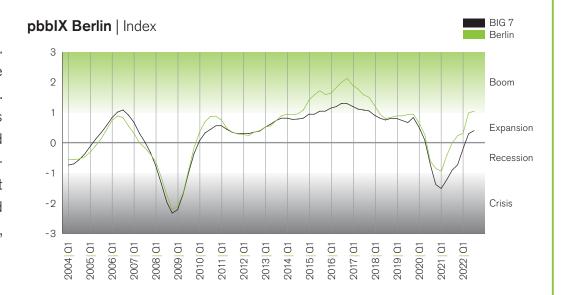
Investment volume (BIG 7) | in € billion





BERLIN

The market for office space once again showed a very stable development. Letting performance improved in the third quarter, with take-up year-to-date amounting to 620,000 sqm and exceeding the previous year's result by 13%. Rents went up 10 basis points quarter-on-quarter, whilst vacancy rates increased slightly. Peak prices per square metre for rental properties in the third quarter amounted to between \leq 41 and \leq 45 (depending on the source); land-lords continued to offer incentives. The indicators for the investment market show a mixed picture: whilst inflows of \leq 1.3 billion in the third quarter and approx. \leq 3.8 billion in the first nine months of the year were comparatively high, increasing initial yields are implying that property values are under pressure.



HAMBURG

In Hamburg, 485,000 sqm of space was taken up by new tenants or by owner-occupiers in the first nine months of 2022. Take-up was thus 30% above the previous year's figure and has returned to pre-pandemic levels. Less than 4% of total available space is vacant; in particularly sought-after city centre locations, vacancy rates are significantly below 3%. Top rents are rising — to €33 per square metre of rental space. Office properties worth approximately €2.9 billion changed hands between the beginning of January and the end of September, with €1.1 billion of the transaction volume attributable to the third quarter. Despite the high levels of investment demand reflected in these figures, initial yields continued their upward trend by another 10 basis points, reaching 2.8%.





MUNICH

Space take-up on the office market in Munich remained largely stable quarter-on-quarter, at just above 200,000 sqm, equating to approximately 600,000 sqm since the beginning of the year and surpassing the previous year's figure by 36%. Vacancy rates dropped slightly compared to the second quarter, hovering around 4.1%. The high take-up on Munich's office market was accompanied by stable average and increasing top rents. On the investment market, fund inflows surpassed the previous two quarters by far: third-quarter investment volume amounted to just under €1 billion, on a par with the development seen in the first six months of the year. Initial yields for first-class properties did not follow interest rate movements on the capital markets and remained at 2.75%.



COLOGNE

High demand from the public administration segment boosted the unusually high space take-up of ca. 290,000 sqm in Cologne in the first nine months of the year, surpassing not only the previous year's turnover but also the average of the 2015 to 2019 boom years by around 30%. At the same time, office space vacancies have been gradually decreasing since the beginning of the year, whilst rents once again have been trending upwards slightly up to €27.5 per sqm rental space. Whilst the market for office space has shown a solid development, the investment market has been very weak since the beginning of the year. Purchasing volumes for office properties ranged between €15 million and €40 million in the third quarter, depending on the source. In line with this data, net initial yields for prime properties rose by 20 basis points to 2.85%.





FRANKFURT

Take-up on Frankfurt's market for office space remained on a high level in the third quarter; office space totalling around 114,000 sqm was newly let or occupied between July and September, making a total of more than 320,000 sqm for the first nine months of the year. This corresponds to an increase of 19 % year-on-year. Significantly more new-built office space was offered on the market than in the previous quarters: thus, despite vacancy rates for office space being already at a high level compared to the German average, they continued to rise, reaching 8.5 %. Despite this development, top rents trended upwards once more, amounting to €44.5 per sqm in the third quarter. Fund inflows on the investment market decreased to €470 million in the quarter under review, following €660 million in the previous quarter. Net initial yields for first-class properties increased to 2.85 %.



DUSSELDORF

In Dusseldorf's office space market, letting performance fell significantly in the third quarter; following more than 100,000 sqm in the second quarter, only roughly 46,000 sqm was newly taken up between July and September 2022. Take-up in the first nine months of the year amounted to 230,000 sqm and was thus only in line with the meagre turnover level of the two previous years. The weak letting performance and a high vacancy rate of over 8% contributed to top rents remaining at €30 per sqm in the third quarter. Fund inflows on the investment market picked up significantly vis-à-vis the weak previous quarter, with volumes amounting to approximately €290 million. Net initial yields increased by 10 basis points to reach 2.8%.





STUTTGART

Letting performance on Stuttgart's market for office space was unusually strong in the first nine months of the year. Take-up amounted to ca. 250,000 sqm, of which only just under 34,000 sqm was attributable to the third quarter. Amid moderate new construction activity, the vacancy rate rose by 10 basis points to reach a still very low level of 2.5%. However, demand-driven pressure remains high, particularly in central locations. Top rents and average rents remained virtually unchanged, following the trends seen in previous quarters. Inflows on the investment market totalled more than €700 million in the first three quarters. Compared to the inflows recorded in the past years, and in light of higher capital market interest rates, this is a positive result. Prime yields in Stuttgart rose from 2.75% to 2.95%.



About the pbbIX real estate index



SCOPE AND METHODOLOGY

As the last two decades have shown very clearly, the development of real estate markets is not a continuous trend that is free of disruption – instead, these markets are characterised by significant cyclical fluctuations. The pbbIX index family tracks economic developments on Germany's key office property markets. The index family comprises a total of eight indices: seven individual indices for the office real estate markets in Berlin, Cologne, Dusseldorf, Frankfurt, Hamburg, Munich and Stuttgart, plus a composite index which tracks overall economic development of the BIG 7 markets.

The indices are based on the results of a dynamic factor model, which brings together eleven variables, using time series to extract the key driving forces for economic trends of office property markets. Specifically, these variables relate to macroeconomic developments, the rental market, and the investment market across the seven office property markets covered. As a preparatory step for the factor analysis, the various market-related indicators are aggregated to form a single market indicator that measures overall development (for example, vacancies or new construction activity). The data list shown below sets out the indicators which were used for the dynamic factor analysis.

Over and above the office real estate market index, the presentation contains assessments regarding the components of 'macroeconomic developments', 'market for office space', and 'market for office investments'. The directional impact of these components on the composite indicator is colour-coded: GREEN indicates a positive, BLACK a negative and GREY a neutral impact.

DATA LIST OF THE DYNAMIC FACTOR MODEL

Overall economic development

- Real gross domestic product (YOY change in %)
- Workforce in the BIG 7 markets (YOY change in %)
- Consumer prices (YOY change in %)
- Current yield (Umlaufrendite) for public-sector bonds with a minimum remaining term of 10 years (in %)

Rental market

- Completed office and administration buildings (in sgm of usable space in the BIG 7 markets)
- Marketing volume (in sgm of rental space in the BIG 7 markets)
- Vacancies (in % of gross available area in the BIG 7 markets)
- Top rent (in € per sqm for the BIG 7 markets)
- Average rent (in € per sqm for the BIG 7 markets)

Investment market

- Initial net yield (in % for the BIG 7 markets)
- Inflow of funds (€ million)