pbbIX
Office Property Market Germany
2022 Q2 DEUTSCHE PFANDBRIEFBANK



Disclaimer

Deutsche Pfandbriefbank AG (pbb) is the sponsor of this document. vdpResearch GmbH, Berlin, is responsible for the content.

pbb does not verify the figures and other information used and does not accept any liability for the content. It shall not be obliged to correct or point out any inaccuracies or incompleteness. pbb may stop publication at any time.

Any liability for negligence on the part of pbb arising from or in connection with this document shall be excluded unless it is a matter of injury to life, limb or health, and unless such exclusion of liability is excluded for other legally compelling reasons.

All legal relationships arising from, or in connection with, this document in relation to pbb shall be governed solely by the substantive law of the Federal Republic of Germany. Exclusive legal venue shall be Munich, as far as this can be permissibly agreed upon.

Data and information contained in this publication are based on sources and methodical approaches which **vdpResearch GmbH** considers to be reliable. However, vdpResearch GmbH cannot guarantee the accuracy or completeness of the information provided. Any opinions expressed reflect the current views of vdpResearch GmbH. However, no assurance can be given with regard to the content of such opinions or forecasts.

Imprint

Deutsche Pfandbriefbank AG Parkring 28 85748 Garching, Germany

Germany

Management Board:

Andreas Arndt (CEO), Thomas Köntgen (Deputy CEO),

Andreas Schenk, Marcus Schulte

Chairman of the Supervisory Board: Dr Günther Bräunig

Registered office: Munich Legal form: Aktiengesellschaft

Companies Register No: Munich District Court, record HRB 41054

International VAT ID code: DE811223976

Supervisory authorities:

Federal Financial Supervisory Authority, Graurheindorfer Str. 108, 53117 Bonn

and Marie-Curie-Straße 24-28, 60439 Frankfurt am Main

European Central Bank, Sonnemannstraße 20, 60314 Frankfurt am Main

Overview



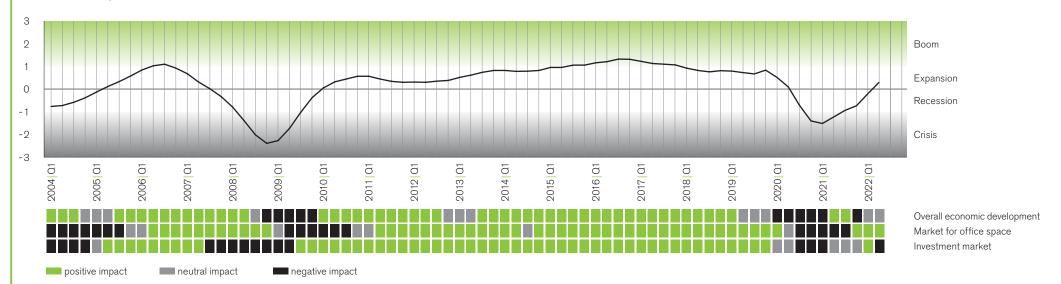
During the second quarter of 2022, the pbbIX real estate index increased markedly from -0.20 to 0.30 points. With its fifth consecutive increase, the index crossed the zero line – and thus the **threshold between contraction and growth**. The dampening effects of the investment market were countered by a strong market for office space. Recent stagnation in economic development had neither a positive nor a negative impact.

Despite the challenging environment, the office space market demonstrated extraordinary stability. The central pillars of the upward trend into positive index values were the **strongly rising demand for office space and increasing rents**. Relatively low vacancy rates and restrained new construction activity also contributed to stability.

Activity on the listless investment market – which is currently realigning in view of rising capital market interest rates – was **at a very low level in the second quarter of 2022**. As a consequence, capital inflows were low and accompanied by rising initial yields.

Economic development is having varying to contradictory effects on the office market. The upward trend in employment supports the office space market. At the same time, production is stagnating while inflation is high and interest rates are rising. It remains unclear which side will dominate in the coming quarters. In light of the cautious forecasts regarding further economic development, which are attributable to the war in Ukraine and a possible halt to gas supplies, the risks seem to predominate.

pbbIX BIG 7 | Index



Overall economic outlook



Germany's economic development stagnated in the second quarter of 2022. After seasonal and calendar adjustment, real **GDP was flat compared to the previous quarter**. However, this followed Q1 2022's notable 0.8% increase compared to the quarter before that (Q4 2021). Increasing consumer spending, following the lifting of most COVID-19 restrictions, were contrasted by negative net exports. All in all, domestic and external demand were balanced.

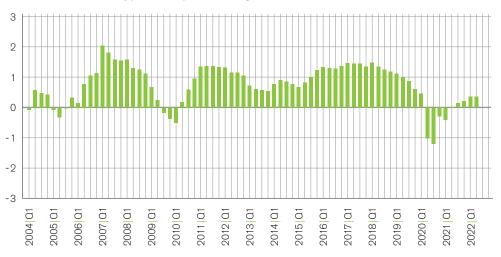
The **labour market was exceptionally strong**. On the one hand, the unemployment rate increased slightly due to the influx of refugees from Ukraine in the months May to June. On the other hand, new jobs were also created on a considerable scale. Within one year, the number of jobs subject to social security contributions has increased by almost 650,000. Furthermore, there was an increase in job vacancies – at present, there are significantly more job openings than before the start of the pandemic.

The German economy therefore proves to be more stable than suggested by the currently prevailing sentiment, which, according to the ifo Business Climate Index, deteriorated significantly in July. After a short phase of stabilisation at the beginning of the quarter, companies expect business development to be significantly worse in the months ahead. The current business situation is also seen as less positive than in previous months. According to these estimates, **Germany is on the brink of a recession**. In fact, the risks predominate in the outlook. The war in Ukraine could lead to a complete stop of gas imports from Russia. Inflation is decreasing purchasing power and might be more difficult to reduce if inflation expectations become rooted in the economy and the tight labour market causes significant wage increases.

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



Working population | year-on-year change in %



Market for office space



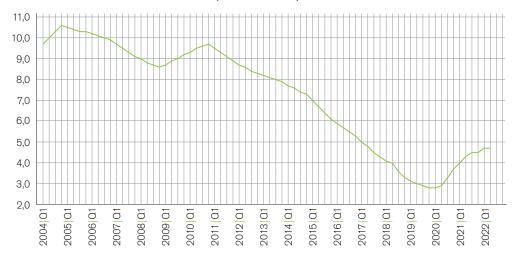
The second quarter of 2022 was defined by an unexpectedly positive development. **Take-up of office space soared**, exceeding the 1 million sqm threshold. In the BIG 7 markets, a total of 1.9 million sqm was newly taken up during the first six months, almost 50 % more than during the first half of 2021. Even in the long term, this is a very strong result. It comprises catch-up effects from the last two years as well as additional lettings in the wake of new office space completions and conversions. According to major real estate brokers, there was especially high demand for offices in central locations with high equipment standards that allow for modern workplaces and usage concepts.

rates, which had been persisting for some quarters. As in the first three months, 4.7% of office space in the BIG 7 markets remained vacant in the second quarter. Depending on the market, however, both shortages as well as larger supply surpluses can be observed. In view of rising construction costs and uncertainty regarding the prospective space demand, new construction activity is expected to slow in the near future. Therefore, vacancy will generally not be a dominant issue, especially as many companies will continue to increase employee presence in the office again.

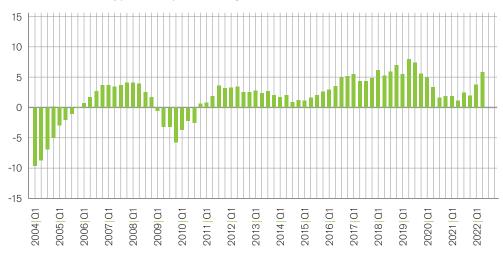
On average, top rents are strongly trending upwards in all BIG 7 markets.

Compared to the first quarter, they increased by 2%; compared to the same quarter in the previous year, rents even increased by 5.8% on a space-weighted average. Average rents were also pointing upward in the second quarter – a trend that is expected to continue, albeit at a slower pace.

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



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



Investment market



In contrast to the rental market, the investment market developed weakly during the second quarter. In the BIG 7 markets, only around €2.2 billion was invested in the purchase of office properties. The last time there was a lower inflow of funds was in the third quarter of 2013. Investors are currently driven by **prudence and caution**. This trend was already indicated at the beginning of the year. In the first quarter of 2022, the relatively high transaction volume was heavily influenced by the acquisition of alstria by Canadian investor Brookfield.

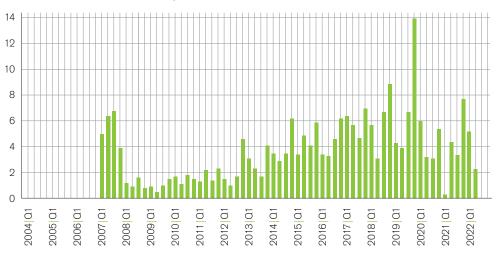
The altered market behaviour is also reflected in the fact that **net initial yields for first-class properties were up again for the first time since the second quarter of 2009**. This was brought about by various dampening effects on prices: growing economic uncertainty is weighing on the propensity to invest, accompanied by more pronounced investor preference for holding cash. In addition, the investment market is facing serious headwinds from the credit and capital markets. As a result of high inflation rates and the turnaround of the monetary policy that is slowly taking effect, current yields for German government bonds with long residual maturities rose by a good 180 basis points between December 2021 and June 2022. As a result, the cost of external financing has markedly increased and yield spreads between property investments and public-sector bonds have narrowed. After a long time, the latter finally constitute an effective investment alternative again.

The investment market has lost some of the momentum that was partly responsible for the strong performance of recent years. **Net income from properties remains intact**, however. The growth and stability of this income are once again at the heart of investments.

Net initial yield (BIG 7) | in %



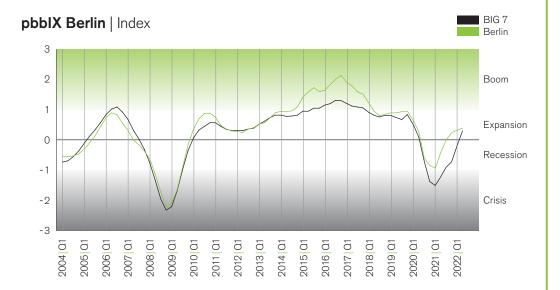
Investment volume (BIG 7) | in € billion





BERLIN

The letting performance on Berlin's office market has been very stable on a high level for a number of quarters now. With a take-up of 195,000 sqm, the second quarter of 2022 developed very much in line with this. Demand came mainly from the business-related services segment and the public administration segment. The vacancy rate fell from 4.3% to 3.9% during the quarter, as both average and especially top rents posted further increases. Top rents recently reached a level of $\{0.41\}$ per sqm, after $\{0.41\}$ per sqm in the previous quarter. Inflows in the second quarter amounted to around $\{0.41\}$ million, resulting in an amount of $\{0.41\}$ billion for the first half of the year, down by $\{0.45\}$ compared to the first half of $\{0.45\}$. Prime yields increased from $\{0.45\}$ to $\{0.45\}$.



HAMBURG

The indicators for Hamburg's office space market show a very positive second quarter. Space take-up was very high at 187,000 sqm − the second best half-year result in the past 10 years. The vacancy rate declined from 4% to 3%, and top rents trended upwards during the last three months. This strong development in the market for office space was contrasted by a weak investment market. Acquisition volumes for office properties amounted to around €220 million in the reporting period. This figure was preceded by €1.6 billion in the first quarter, which, however, resulted almost completely from the acquisition of alstria's portfolio by Canadian investor Brookfield. Prime yields rose by 10 basis points, to 2.7%, during the second quarter.





MUNICH

Space take-up on the market for office space in Munich has remained consistently high of late. Similar to the previous three quarters, around 200,000 sqm was newly let or occupied between April and June 2022. First-class office space dominated, and was mainly in demand from providers of business services. Despite high demand for space, the vacancy rate slightly increased to a quarterly average of 4.1 %. Top rents remained at €42.5 sqm, while average rents trended moderately upwards. The investment market was again defined by caution. At around €300 million, investments were exclusively attributable to foreign investors. Prime yields rose to 2.75 %, from 2.65 % in the previous quarter.



COLOGNE

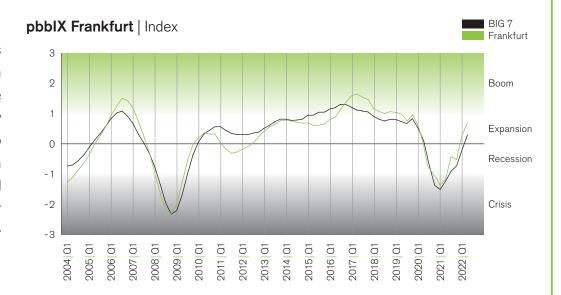
Space take-up on Cologne's office market was exceptionally high in the second quarter, at 164,000 sqm. This figure represents a top result even in a long-term comparison. The record was due, in particular, to a number of major contracts from the public administration segment. Vacancies were down to 3.2%. In combination with the high demand, rents for newly-let properties increased. In the second quarter, top rents were at $\ensuremath{\in} 27$ per sqm, up from $\ensuremath{\in} 26.5$ per sqm in the previous quarter. According to data provided by MSCI / RCA, the investment volume for office properties amounted to just $\ensuremath{\in} 44$ million. Other sources also show a very high reluctance to spend in the Cologne investment market. In line with this data, net initial yields for prime properties rose by 10 basis points to 2.65%.





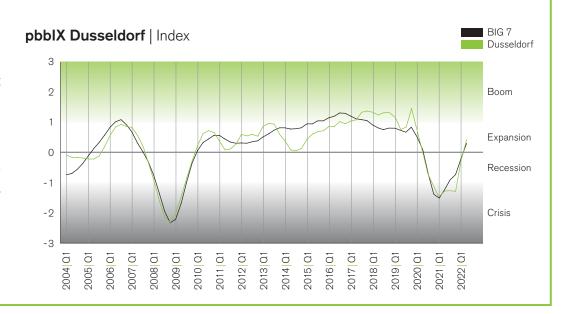
FRANKFURT

In Frankfurt, the take-up of office space fell slightly behind the figures of previous quarters. However, at 97,000 sqm it remained fairly high. A total of 208,000 sqm was newly let or occupied in the first half of 2022, up 25% compared to the previous year's figure. Despite subdued new construction activity the already relatively high vacancy rate increased further to 8.5%. Top rents rose again, to reach €43.5 per sqm in the second quarter, with average rents also showing an upward trend. The Frankfurt investment market recorded cash inflows of around €640 million in the quarter under review, thus ranking second after the frontrunner Berlin and clearly ahead of the other five BIG 7 cities. Net initial yields for first-class properties increased by 10 basis points to 2.8%.



DUSSELDORF

In terms of letting performance, the Dusseldorf office market showed a pronounced recovery. After 83,000 sqm in office space was taken up in the first quarter, the second quarter saw 102,000 sqm – taken together, this was around 60% more than in the first half of 2021. Some of this was due to advance lettings of planned buildings, which is why the vacancy rate outside the prime locations slightly increased again – despite the recovery. In total, the vacancy rate is currently at 8.2%. Nevertheless, top rents increased further to \leqslant 30 per sqm, up from \leqslant 28.5 per sqm in the previous quarter. Inflows on the North Rhine-Westphalian capital's investment market of slightly more than \leqslant 100 million were modest. In line with this low demand, net initial yields increased by 10 basis points to 2.8%.





STUTTGART

Stuttgart's office market had already produced a strong letting performance in the first three months of the year, but this was clearly exceeded in the second quarter. Space take-up amounted to 127,000 sqm, an unprecedented figure, which was mostly brought about by several larger transactions by owner-occupiers. The vacancy rate remains at a low 2.4%. Due to cautious new construction activity, this is not expected to change during the coming quarters. Having remained unchanged in the quarter under review after the strong increase in the first three months, rents will therefore trend upwards. According to MSCI / RCA data, the investment volume for office properties amounted to just €77 million in the second quarter. Prime yields rose to 2.75%, from 2.65% in the first quarter.



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)