pbbIX
Office Property Market Germany
2023 | Q2

DEUTSCHE PFANDBRIEFBANK

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. Louis Hagen
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

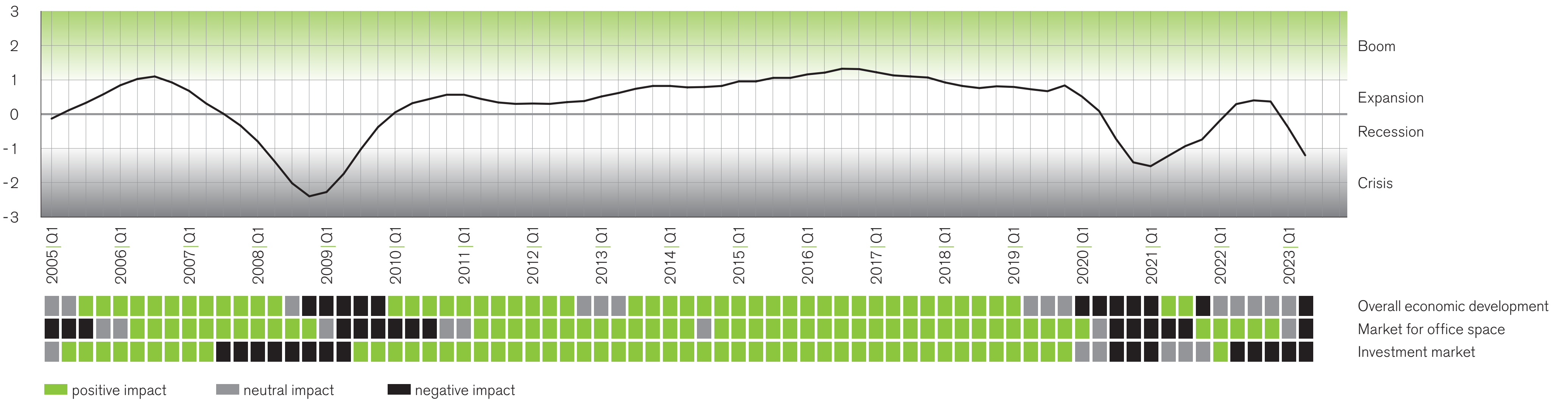
Overview

The pbbIX real estate index continued its decline during the second quarter of 2023. It moved down to -1.25, the **lowest level** since the beginning of 2021. The index thus remains significantly below the zero line, which represents the boundary between growth and contraction. The continued decline was due to persistent economic weakness as well as to the slowdown in the market for office space and a disappointing investment market.

Whilst a moderate economic recovery seemed to be within the realms of possibility at the outset of the year, the **economy stagnated** during the second quarter. This – as well as the associated drop in sentiment among companies – led to a lack of positive impulses for the office space market. The demand for office space – which was already weak to begin with – continued to decline, resulting in a further (albeit modets) increase in vacancy rates. This situation, together with higher capital market interest rates, has clearly persuaded investors to refrain from major investments for the time being. As in the first quarter, inflows on the investment market were very low during the second quarter, which led to another **marked increase in net initial yields**. Despite rising rents, this subsequently resulted in lower property values.

The modest economic optimism seen in the spring has faded, **and the economy is now ranging between a weak recession and a drowsy recovery**. The office space and investment markets are thus likely to develop as follows: there will stable demand (at a low level) for space, rents will rise due to high inflation and reflecting quality (price adjustments) will characterise the investment markets.

pbbIX BIG 7 | Index



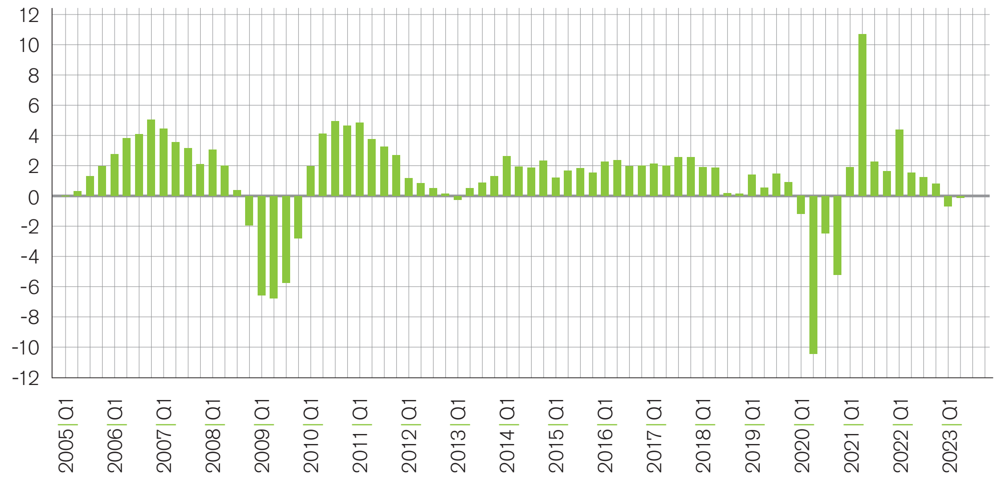
Overall economic outlook

After seasonal and calendar adjustment, **real gross domestic product** in the second quarter **remained unchanged from the first quarter**. The economy is stagnating due to sluggish industrial production and the construction industry treading water. Demand for construction work is still heavily burdened by restrictive financing conditions and high construction costs, whilst weak foreign demand is frustrating manufacturers. In contrast, private consumption is up slightly after a considerable decline in the first quarter. This was the result of the gradually declining inflation, growing household income and a continuously stable labour market.

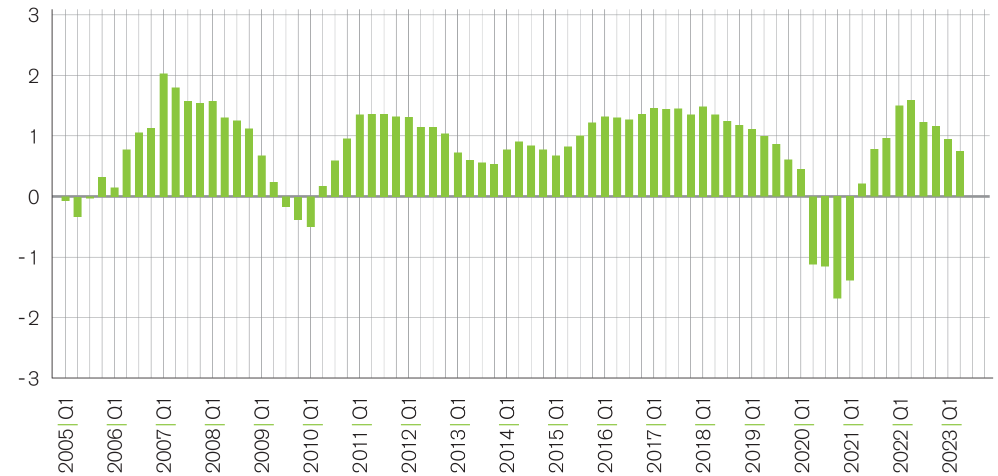
According to preliminary figures from the German Federal Statistical Office, 67,000 more people were employed in the second quarter than in the first. Thus, the ongoing upward trend remained intact, albeit at a slower pace. At the same time, the **unemployment rate declined slightly.** In June 2023, 5.5 % of the civil labour force was unemployed, after 5.7 % in March 2023.

The most recent ifo business climate index suggests **only slow growth** in the near future **for the German economy**. July saw a marked rise in dissatisfaction amongst entrepreneurs compared to June – marking a third consecutive cooling in sentiment. In this context, it was not only the current business climate being perceived in a weaker light than before. Future expectations were also more pessimistic. We can therefore expect economic weakness to persist for the time being. The forecasts from various economic research institutes confirm this assumption.

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



Working population | year-on-year change in %



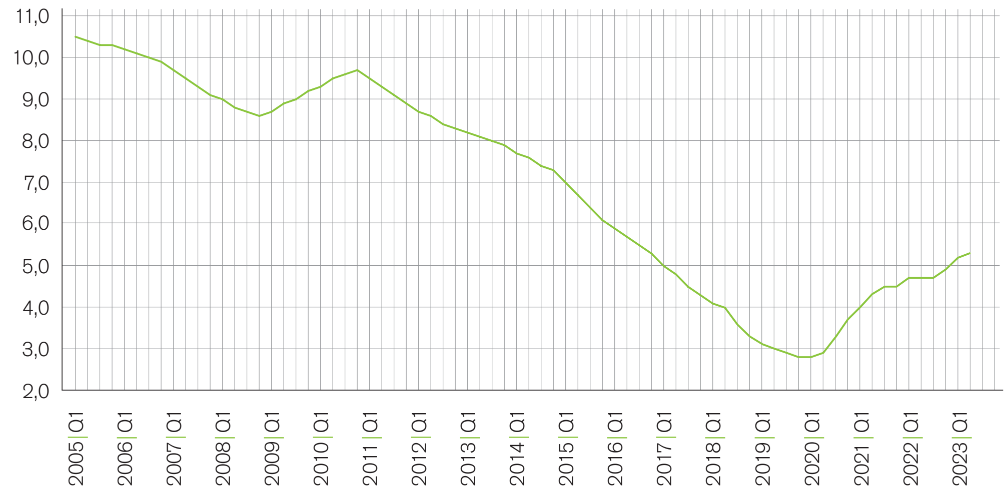
Market for office space

In the absence of any economic support, and due to the increasingly gloomy market sentiment, demand for office **space declined further in the second quarter**. Space take-up was down for the fourth consecutive quarter, even though the decrease was not as pronounced as in the previous quarters. A total of only 556,000 sqm was taken up in the big 7 markets, which compares to more than 600,000 sqm in the first quarter. In total, take-up during the first half of the year declined by 40 % compared to the previous year's figure. While this decline affected almost all sectors, the public administration and the industrial sector were hit the hardest, reducing the demand by more than 60 %. Looking at the individual markets, it was especially Stuttgart, Cologne and Dusseldorf that saw aboveaverage declines in take-up.

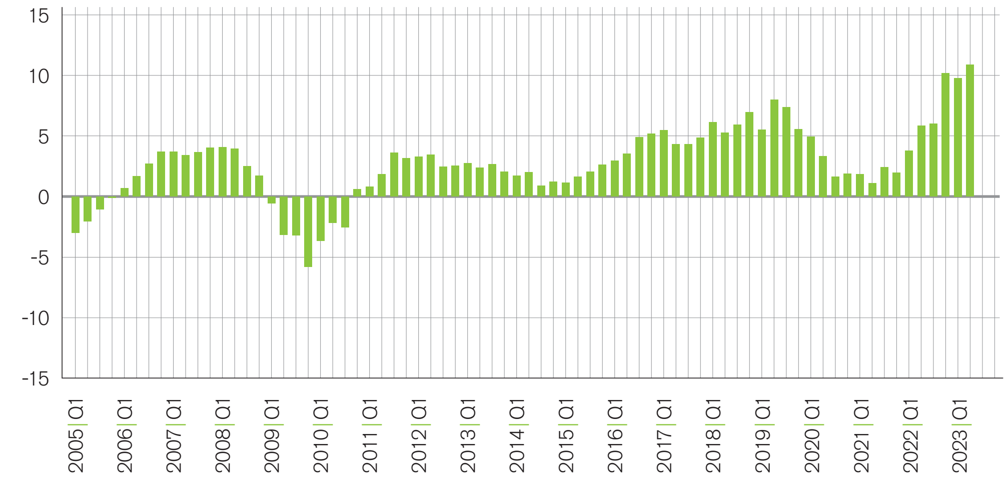
On a weighted average across all markets, **vacancies increased only slightly** despite weak demand. After 5.2 % in the first quarter of this year, 5.3 % of office space was unlet in the second quarter. In the individual markets, vacancies ranged from below 4 % in Cologne and Stuttgart up to about 8 % in Frankfurt and Dusseldorf. According to the major brokerages, a large proportion of vacant space relates to properties no longer up to date or only averagely equipped.

Contrary to the generally weak demand, **top rents** rose **up significantly**. Inflation, as well as the competition for higher-value offices, lifted rents for first-class properties by 3 % compared to the previous quarter, and by almost 11 % compared to the same quarter of the previous year.

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



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



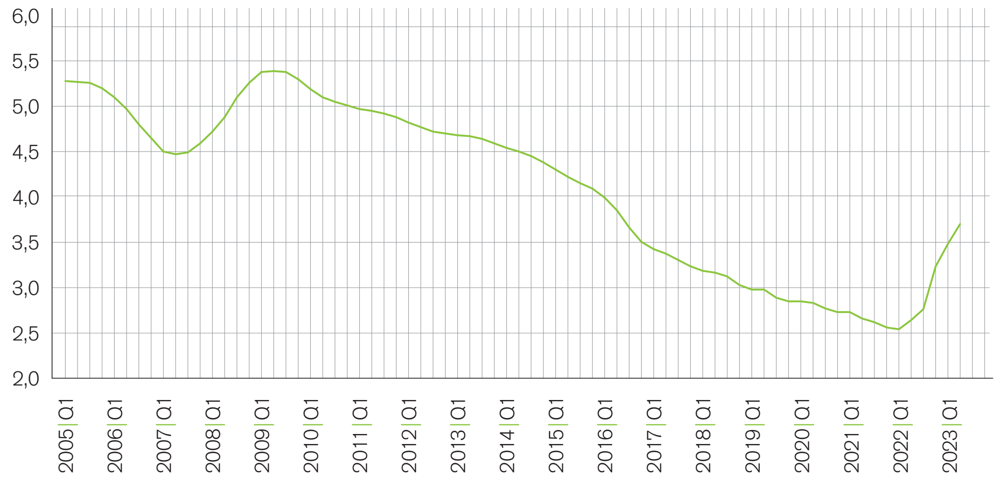
Investment market

Inflows on the investment market remained at a **very low level** during the second quarter. Whilst inflows were up compared to the previous quarter, the aggregate of the first six months was at its lowest since the first six months of 2009.

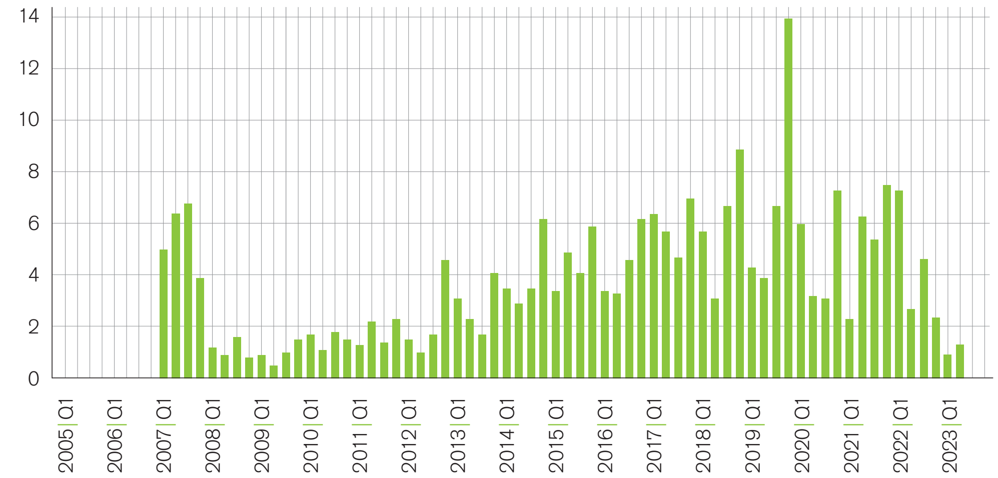
Market participants are currently exercising **considerable caution in their investment activities**, as entry prices are high and conditions on the investment market have changed fundamentally. In the wake of the rapid increase in capital market interest rates, disappointing economic data and the ailing market for office space, office properties as an asset class have lost their attraction. The market is going through an arduous phase of price adjustments. The supply side is currently still largely bein shaped by high price expectations that stem from the low capital market interest rates of recent years, and strong demand for office space. Present-day capital market interest rates, a deterioration in business sentiment, and the uncertainty with regard to what happens next for the office space market serve as the negotiating basis for the demand side.

It remains to be seen where this combination will take the market in the quarters ahead. At present, the **market result** from supply and demand manifests itself **in a strong volume adjustment**, i.e. fewer transactions, and price adjustments which are reflected in rising net initial yields: these increased by a further 25 basis points in the second quarter, reaching almost 3.8 %. In the previous year, net initial yields still stood at 2.7 %.

Net initial yield (BIG 7) | in %



Investment volume (BIG 7) | in € billion

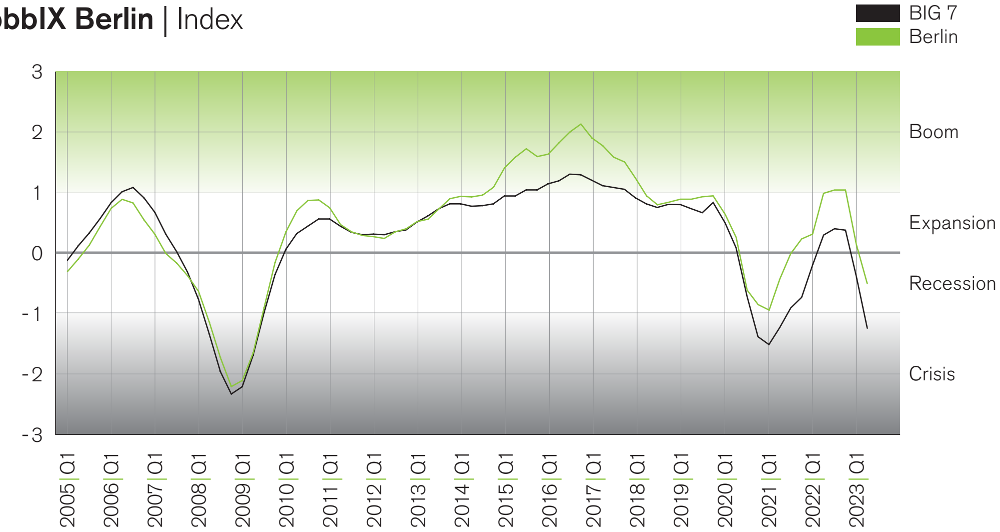


BIG 7

BERLIN

The market for office space in Berlin remains under downside pressure; only around 114,000 sqm was taken up in the second quarter of 2023, almost 20 % less than in the previous quarter. The difficulty of office space marketing is becoming increasingly evident in the vacancy rate, which is up 30 basis points to 4.8 %. At the same time, top rents increased by 2.8 % compared to the previous quarter. The investment market was still defined by caution. Investments in the first half of the year were down to approximately € 900 million, i.e. 65 % less than in the first half of the previous year. Investor reticence and higher capital market interest rates led to a 25 basis point increase in net initial yields for first-class office properties.

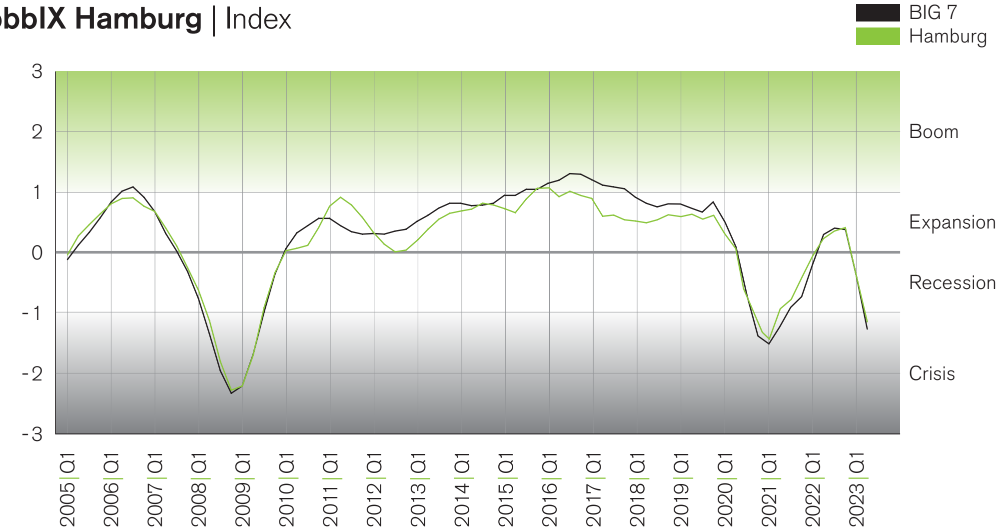
pbbIX Berlin | Index



HAMBURG

Letting performance in the Hamburg office market improved in the second quarter, leading to an overall decent result for the first half of the year. Unlike in the other big 7 markets, public-sector lettings – accounting for approximately 40 % of the take-up – were decisive for this. All things considered, supply and demand in the market for office space wer roughly in balance, and the vacancy rate increased only slightly to 4.5 %. Top and average rents remained unchanged from the previous quarter. However, investment market participants continued to exhibit reticence, with inflows in the first half of the year sinking to the lowest level since the first half of 2009. Net initial yields increased by 25 basis points to 3.75 %.

pbbIX Hamburg | Index

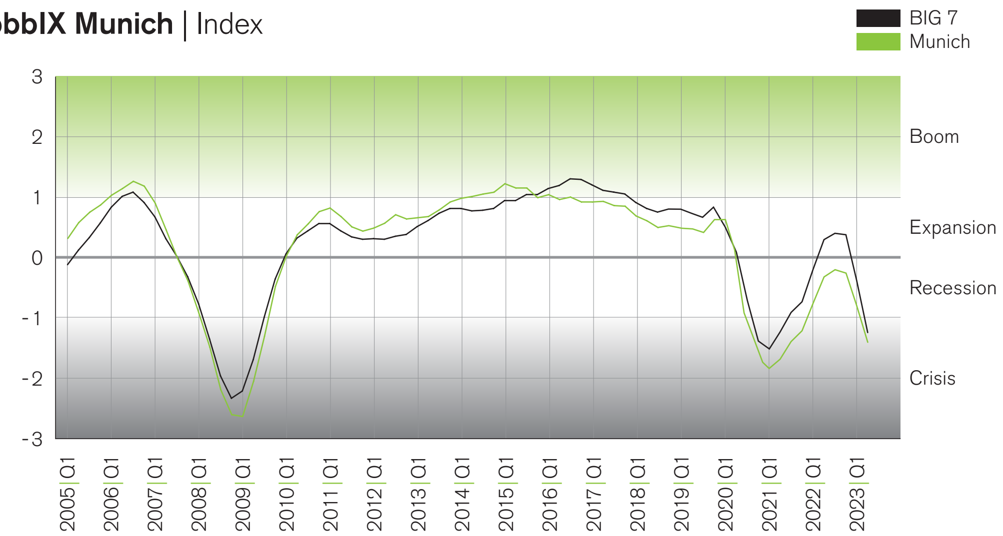


BIG 7

MUNICH

Demand for space in the Munich office market continued to decline. In the first half of the year only 250,000 sqm was taken up, about 40 % less than in the same period of the previous year. Accordingly, the vacancy rate rose by 30 basis points to 4.7 %. Rent levels increased significantly once again, carried by a number of smaller contract completions in prime locations. The situation on the investment market remains exceptionally gloomy. Inflows halved again and amounted to just € 90 million in the second quarter, while net initial yields have been under upward pressure for a year already. In the second quarter, they rose by 25 basis points to 3.7 %.

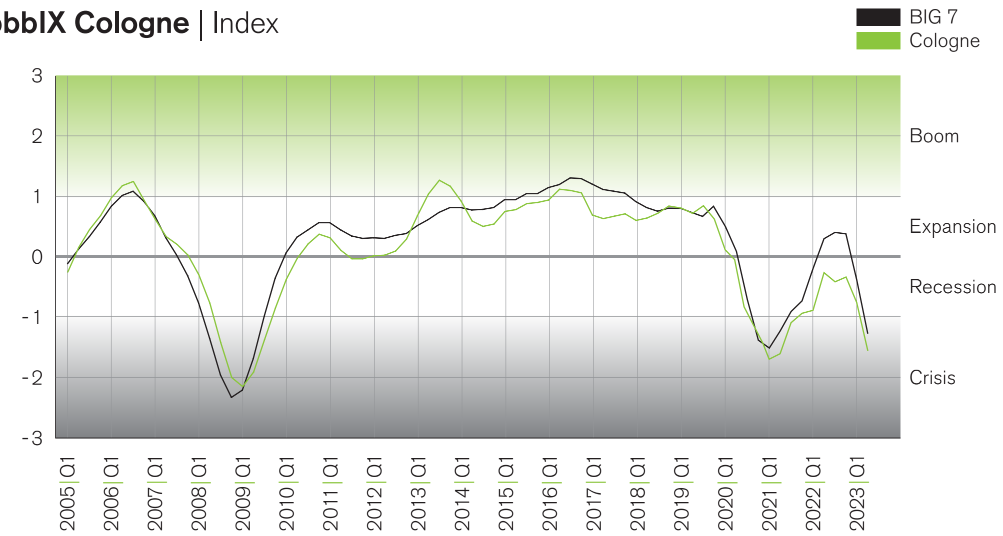
pbbIX Munich | Index



COLOGNE

Demand for office space was burdened in the second quarter: take-up amounted to only 33,000 sqm, falling significantly short of all quarterly figures of the last few years. With new construction activity slowing, demand weakness has had no real impact on the vacancy rate so far, which amounted to merely 3.1 %. Top and average rents remained unchanged compared to the previous quarter. The Cologne investment is also attracting barely any capital at present. Inflows in the second quarter were down to € 50 million, after € 130 million in the first quarter, and cross-border investments once again failed to materialise. Net initial yields for first-class properties increased by 35 basis points to 3.9 %.

pbbIX Cologne | Index

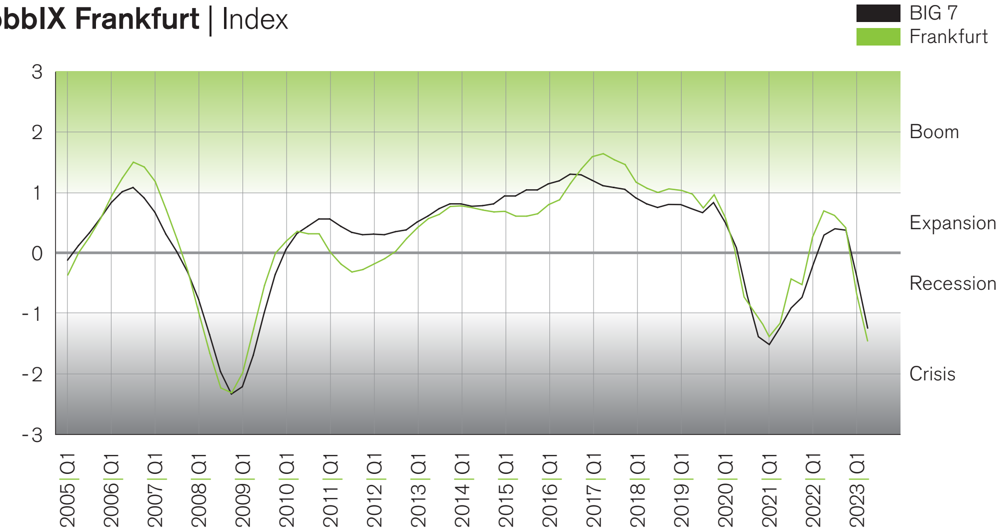


BIG 7

FRANKFURT

The Frankfurt office market also suffered from sluggish demand for space, although the second quarter saw a slight increase to 92,000 sqm. Take-up amounted to around 175,000 sqm in the first half of the year, down 16% year-on-year. Public-sector administration bodies and consultancy firms rented markedly less space. The high vacancy rates eased somewhat, while top rents trended sideways. Despite all price adjustments, inflows on the investment market remained at a very low level. Depending on the source consulted, investment volumes for office properties amounted to between € 120 million and € 180 million in the first half of the year, compared to € 2.5 billion for the first half of 2022. Net initial yields for first-class prop-erties increased by 25 basis points to 3.9% at the last count.

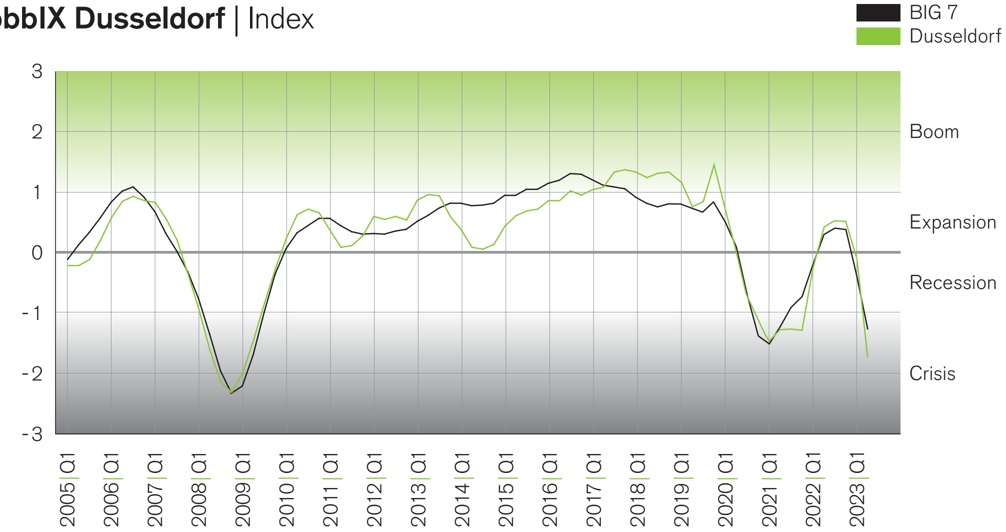
pbbIX Frankfurt | Index



DUSSELDORF

On the market for office space in Dusseldorf, letting performance sank to a very low level in the second quarter of 2023. After a modest take-up of 72,000 sqm in the first quarter of the year, the second quarter saw just 32,000 sqm, the lowest level in a long time. This was accompanied by a slight increase in the vacancy rate, which is now sitting at a relatively high level of 8.7 %. Both top and average rents remained unchanged compared to the previous quarter. The office investment market is dom-inated by scepticism. Only € 50 million was spent in the second quarter, resulting in a weak total of € 210 million for the first half of the year. Due to the lack of demand, property values remain under considerable downward pressure, which is reflected in rising net initial yields. For first-class properties, the latter increased by 30 basis points to 3.9 %.

pbbIX Dusseldorf | Index

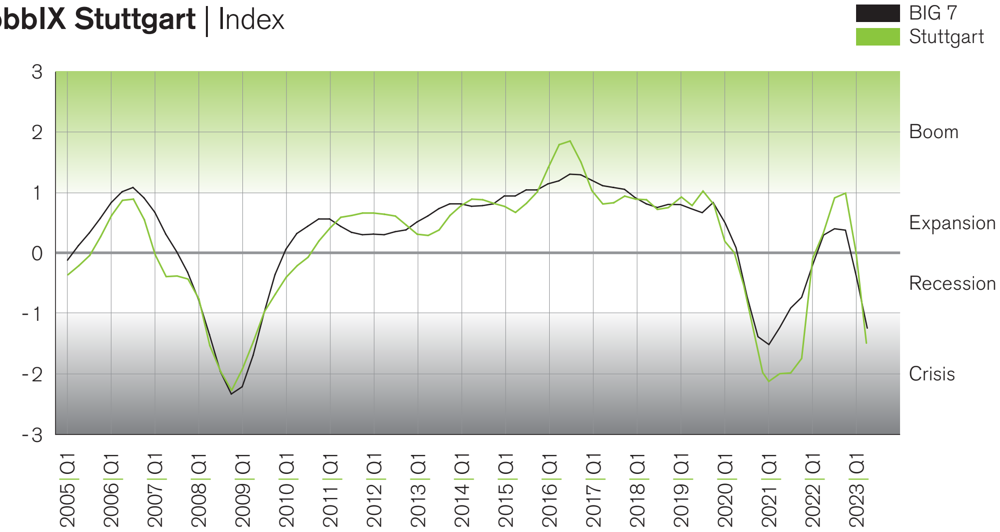


BIG 7

STUTTGART

Demand remained weak on Stuttgart's office space market in the second quarter. Take-up amounted to 22,000 sqm, or 64,500 sqm for the first half of the year, down 70 % compared to the first half of 2022. The vacancy rate, which increased by 10 basis points, remains low at 3.6 %. Top rents increased by € 2 to € 35 per sqm compared to the previous quarter. Inflows on the investment market rose compared to the previous quarter, but remained at a low level of around € 165 million. As in the other big 7 markets, higher capital market interest rates and the gloomy economic outlook burdened the investment climate. Accordingly, net initial yields for first-class properties increased by further 10 basis points to 3.6%.

pbbIX Stuttgart | Index



About the pbbIX real estate index

DEUTSCHE PFANDBRIEFBANK

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 sqm of usable space in the BIG 7 markets)
- Marketing volume (in sqm 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)