pbbIX
Office Property Market Germany
2023 | Q 1

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

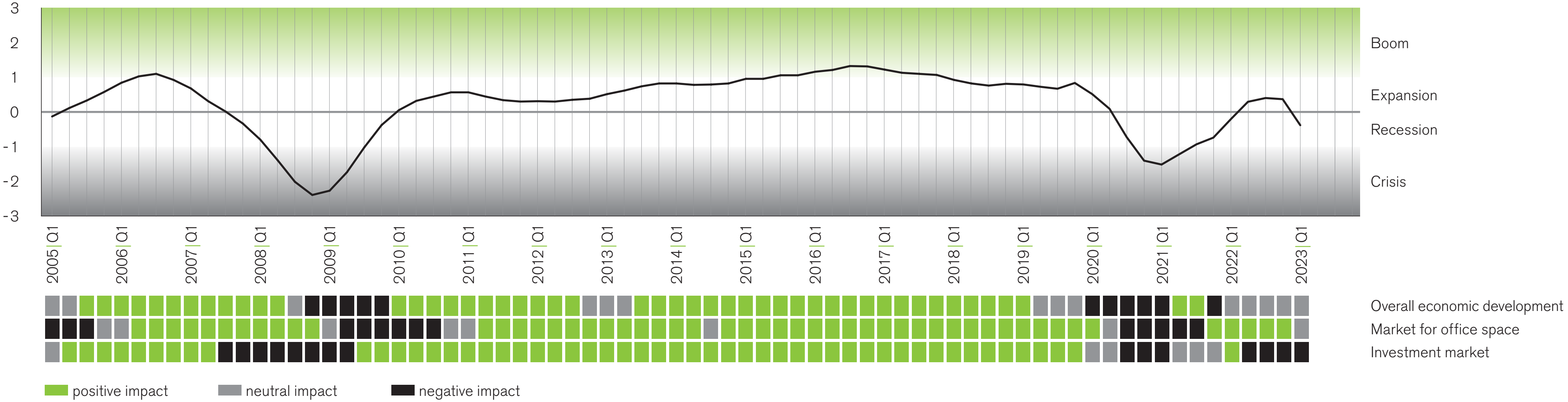
Overview

The pbbIX real estate index fell from 0.38 to -0.39 points in the first quarter of 2023, recording a second consecutive fall. The index is now **significantly below zero**, i.e. below the edge of growth and contraction. None of the index's sub-segments drove growth during the first quarter of the year. The German economy stagnated, the market for office space weakened, and the investment market exhibited a downward trend.

Demand for space was **weak** at the beginning of the year, with many companies maintaining a cautious stance especially in terms of larger lettings. Main factors in play were the weak macroeconomic momentum, meagre economic outlook, and the ongoing trend towards hybrid work. Investment demand on the big 7 markets also **continued to decline** in the first quarter of 2023, reaching the lowest level since the third quarter of 2009. Beyond the economic slowdown, this loss of liquidity is closely related to the interest rate hikes. The also related jump in initial yields shows that investment market players are embroiled in intensive pricing discussions.

For the second quarter, **demand is expected to remain muted** on both – the office space market as well as on the investment markets. It will probably take more time for the markets to adjust to the changed interest rate environment whilst recovering gradually in the wake of a moderate economic recovery.

pbbIX BIG 7 | Index



Overall economic outlook

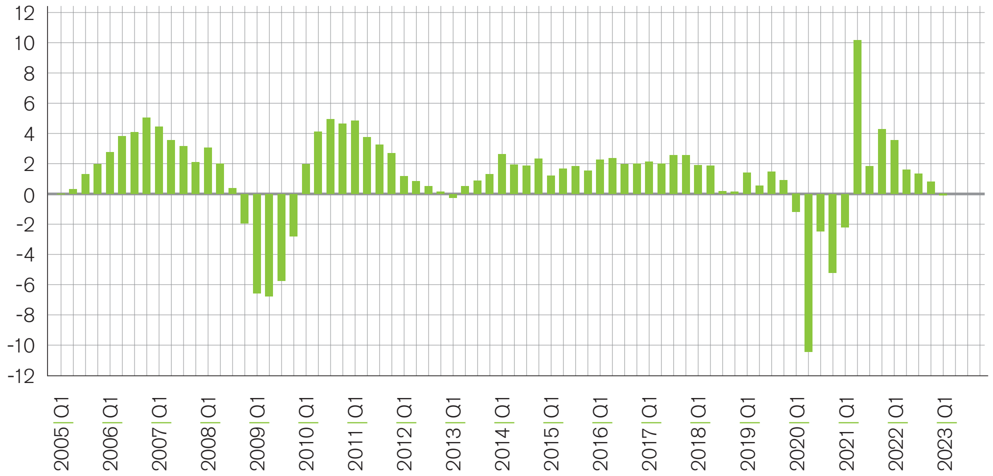
DEUTSCHE PFANDBRIEFBANK

The German economy is moving sideways. Following a decrease of 0.5% in the third quarter of 2022, **real gross domestic product remained unchanged** during the first quarter. Loss of purchasing power caused by inflation and weak consumer sentiment burdened private consumption. Public-sector consumption also dissipated, whilst exports and investments supported growth.

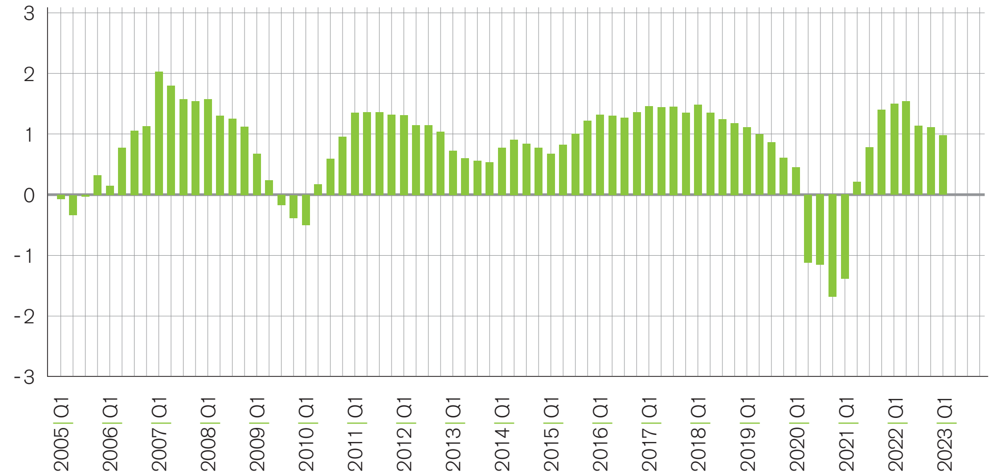
Despite a stagnating macroeconomic demand, the **labour market is still poised for growth**. As such, 446,000 more people were employed in the first quarter of 2023 than in the same quarter of the previous year. According to the ifo Employment Barometer this development is likely here to stay – and the outlook is positive overall, regardless of the sector. Whilst companies in the mechanical engineering, electrical and electronics sectors are looking for new staff, the construction sector is rather more cautious amid the current challenging situation.

The **macroeconomic outlook** for Germany has improved somewhat over the past months, with high order backlogs and easing supply chain tensions providing a boost for industrial production. The ifo Business Climate Index also calls for a recovery of the German economy in the upcoming months, despite the ongoing presence of economic burdens and risks such as the difficult environment in the construction sector, high inflation, and numerous geopolitical uncertainties.

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



Working population | year-on-year change in %



Market for office space

DEUTSCHE PFANDBRIEFBANK

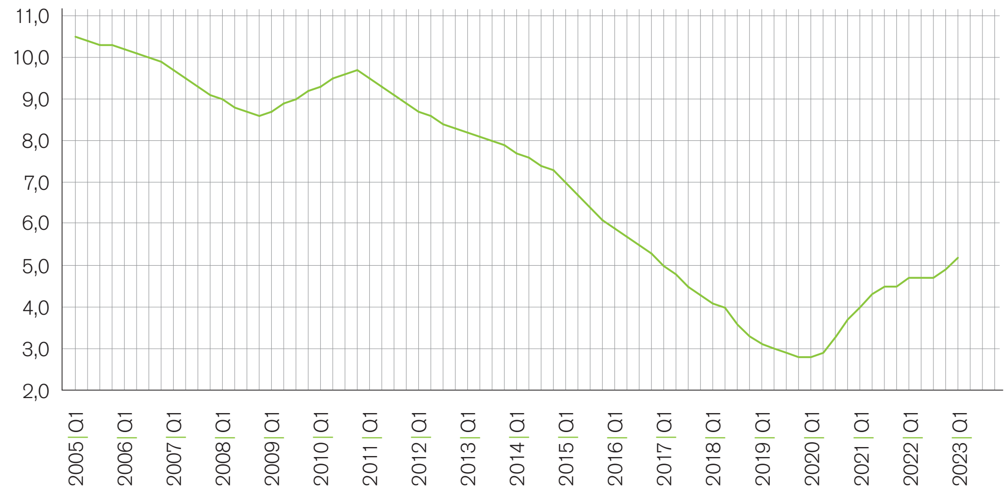
In terms of the letting performance, the market for office space has weakened: only around 600,000 sqm were let on the big 7 markets in the first quarter, **approximately 30% less than in the previous year**, which is mainly due to the weak economy and associated corporate cost-cutting. Mobile working and desk sharing are also reducing demand for space and triggering adjustment processes, which in turn lead to less space being absorbed.

Whilst demand decreased moderately in Berlin and Dusseldorf, it plunged in Stuttgart and Munich. Very few large-volume rental contracts were seen in any of the markets; however, competition for **ecologically sustainable space in prime locations** remained strong.

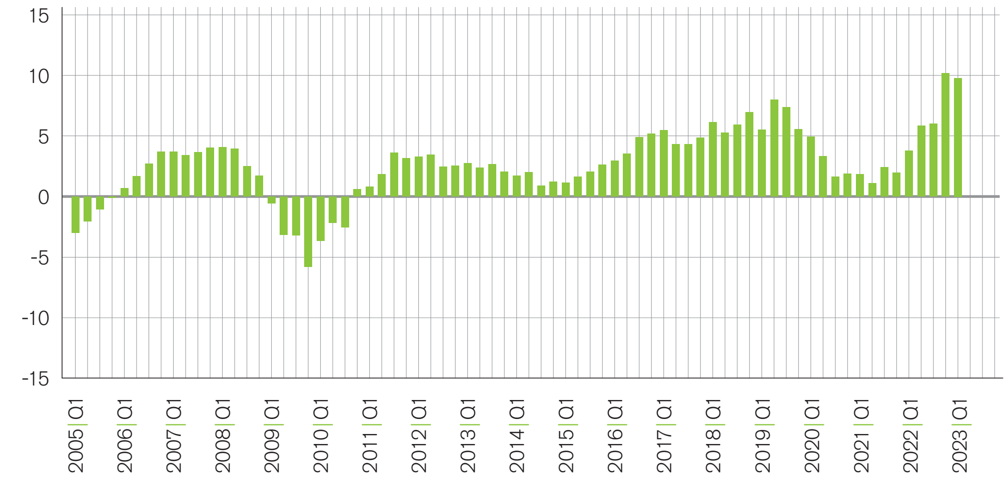
Despite slow new construction activity in the more recent past, waning demand continues to be accompanied by **increasing vacancy rates**: 5.2% of office space was vacant in March 2023 (March 2022: 4.7%). Oversupply of office space is particular high in Frankfurt and Dusseldorf, but relatively low at between 2.5% and 3% in Berlin, Cologne and Stuttgart, depending on the source and market definition.

Prime rents, however, continued their upward trajectory, albeit at a more moderate rate. The average increase was at 1.4% vis-à-vis the previous quarter, which had posted a rise of 4.6%.

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



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

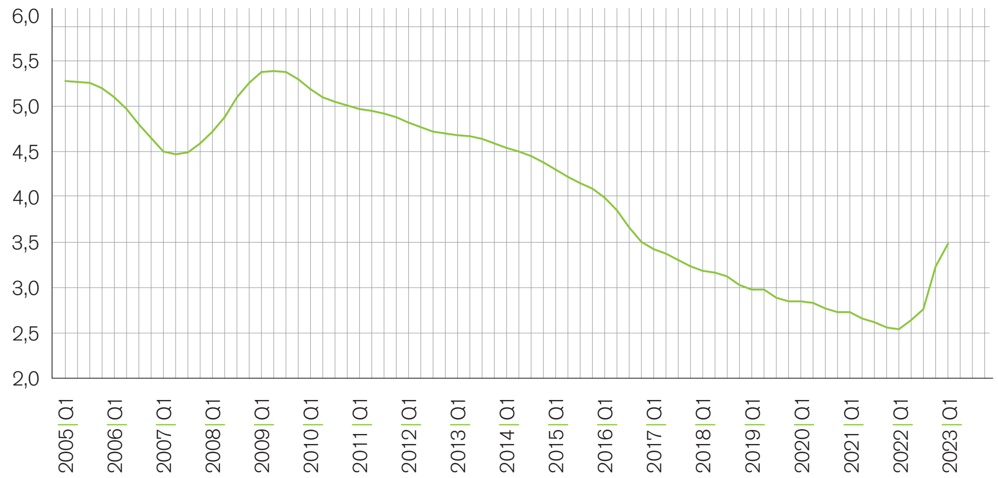


Investment market

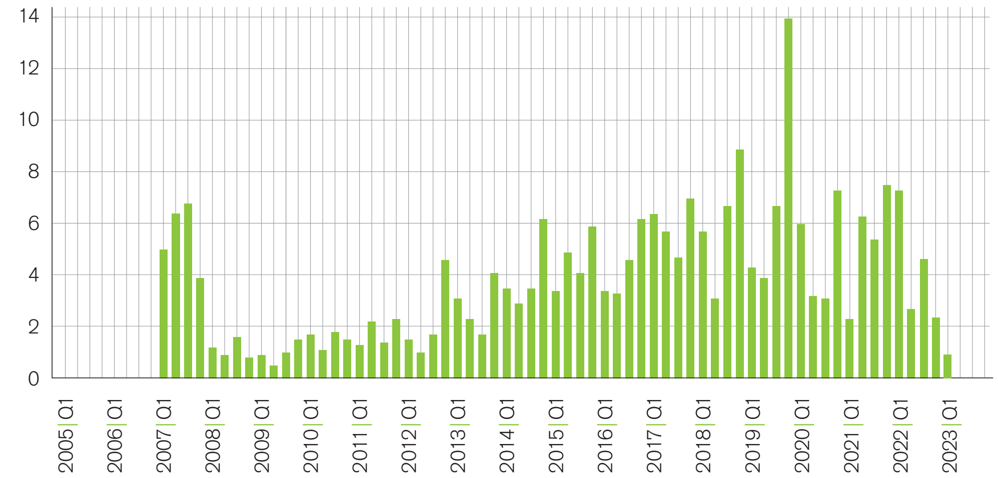
As highlighted by 2022's **declining inflows**, the office investment markets have been under a lot of pressure for a few quarters – a trend which continued unabated in the first quarter of 2023. Inflows in the big 7 markets plummeted to an investment volume of just under €1 billion for office properties. This is the lowest level recorded since the third quarter of 2009, at that time marked by the financial markets crisis. A changed lending and capital markets environment, the looming weaker market for office space, and still comparatively high purchase prices all pose challenges for many potential investors. Large-volume transactions, in particular, are rare in this market environment.

As manifested by low liquidity and increasing initial yields, pricing for office properties is undergoing a **difficult process,** with buyers' and sellers' expectations obviously still varying greatly. This phenomenon is particularly evident in the case of first-class properties, usually preferred by institutional investors: initial yields for these have risen by around 90 basis points over the past twelve months, equalling a **significant reduction in notional value**. In light of the prevailing uncertainty surrounding further interest rate developments on the capital markets, and very cautious investors, this development may have a while yet to run. Investor reticence is likely to continue to feature over the next months.

Net initial yield (BIG 7) | in %



Investment volume (BIG 7) | in € billion

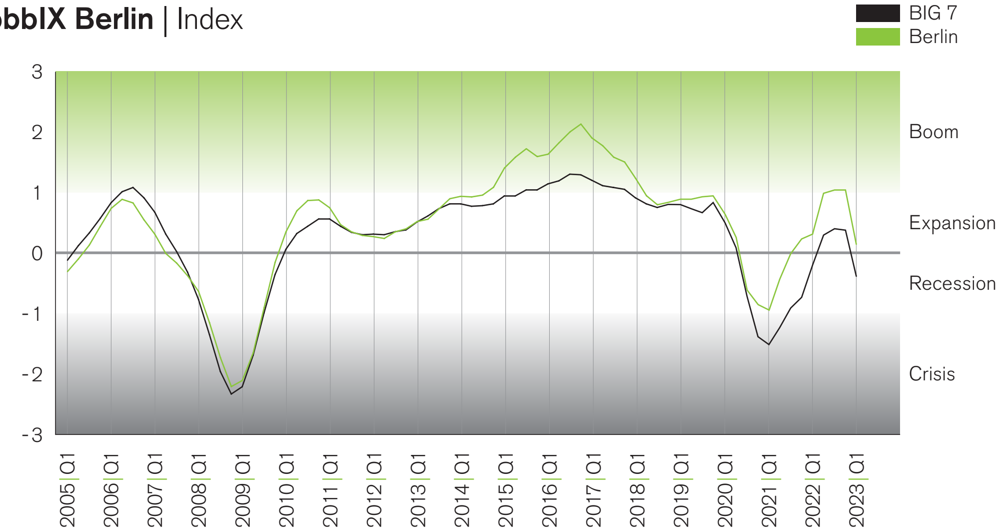


BIG 7

BERLIN

Office space totalling approximately 141,000 sqm was let in the first quarter of 2023, on par with the low level seen in the previous quarter, whilst the vacancy rate edged up from 4.3 % to 4.4 % despite muted new construction activity. Both average and top rents continued their upward trends, the latter from €41.5 to €42 per sqm. Inflows on the investment market plummeted once again. According to various sources, only around €285 million worth of office property was purchased in the first quarter of 2023. Foreign investors kept their distance. Initial yields for first-class properties, however, moved further north, ending the quarter at 3.45 %.

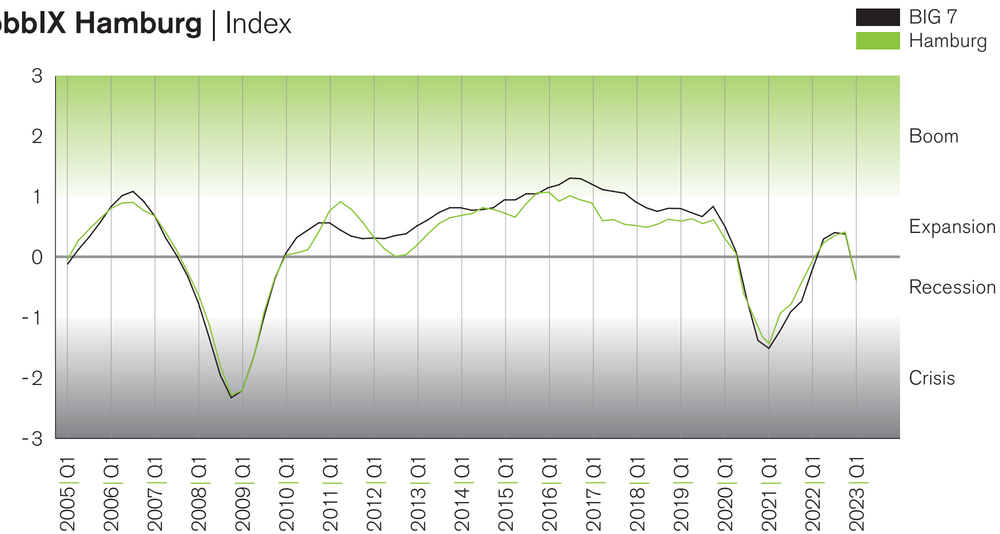
pbbIX Berlin | Index



HAMBURG

Letting performance declined in the first quarter of 2023, thus following the trend seen in previous quarters, mainly because large-scale lettings failed to materialise. Take-up amounted to just under 100,000 sqm, or approximately 10 % less than in the previous quarter, accompanied by a vacancy rate pushing up 20 basis points to reach 4.4 %. Rents for newly-let first-class properties remained unchanged at a high level, but receded on average for all properties. Liquidity on the investment market declined sharply; at €75 million, inflows fell to the lowest level since the second quarter of 2009. In contrast to this downward trend, and supported by higher capital market yields, net initial yields for first-class properties rose 25 basis points to 3.5 %.

pbbIX Hamburg | Index

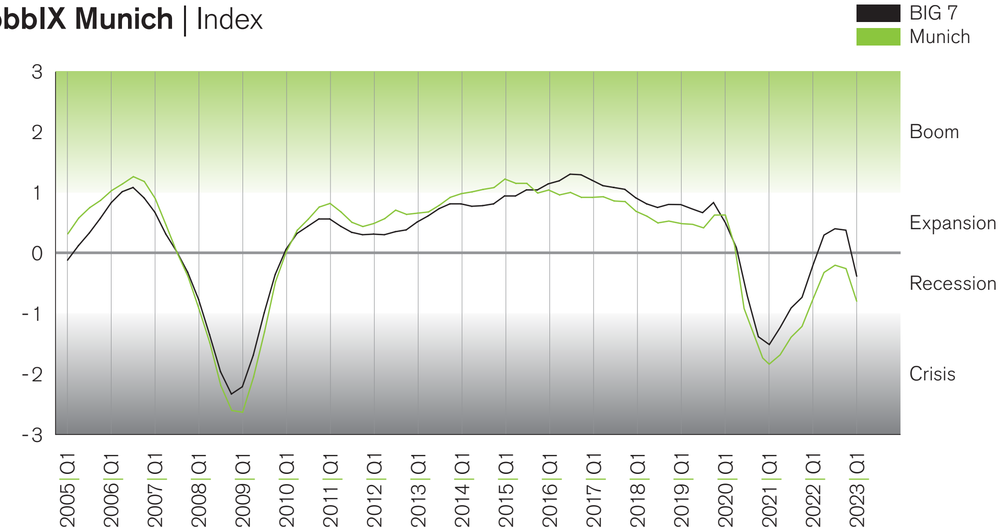


BIG 7

MUNICH

Demand for office space in Munich continued to decline at the beginning of the year. Space amounting to just under 120,000 sqm was taken up in the first three months of the year, falling significantly below the average quarterly take-up seen in the past years. As a result, the vacancy rate rose year-on-year, from 3.9 % to 4.4 %. Top rents however picked up again, whilst average rents eased slightly. The investment market was very weak: inflows in the first quarter dropped to just €180 million. And despite initial yields for first-class properties increasing by 25 basis points to 3.45 %, investor demand was low.

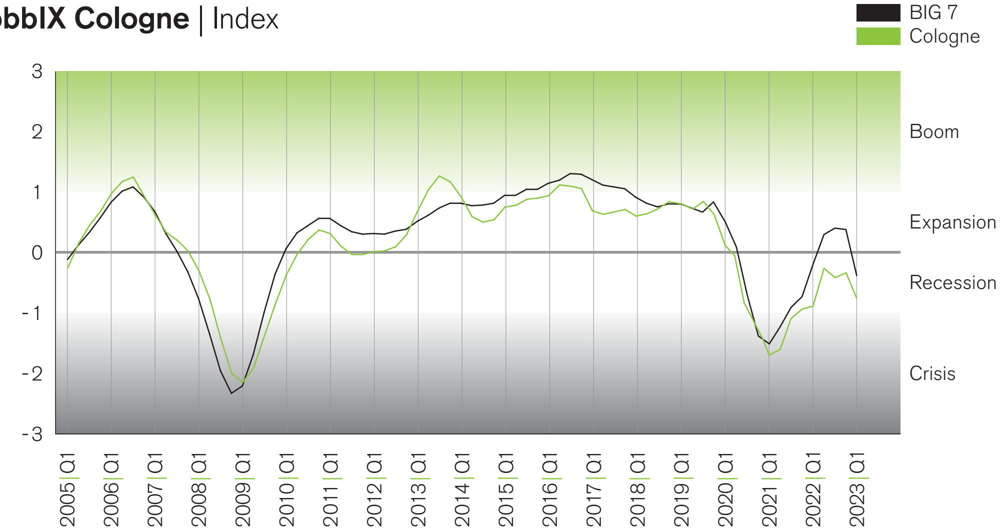
pbbIX Munich | Index



COLOGNE

Demand for office space in Cologne was weaker than a year ago. In figures: a total of about 51,000 sqm was taken up, marking a decrease of 35 % compared to the first quarter of 2022. Despite the meagre demand, the vacancy rate remained unchanged at a low 3 %, and rents for first-class properties as well as average rents across the entire market increased. Performance on the investment market was similar to other cities and characterised by buyers adopting a cautious stance, so that inflows – exclusively from domestic investors – amounted to only €130 million (source: MSCI/RCA). Due to this reticence, net initial yields for first-class properties rose by 20 basis points to 3.55 %.

pbbIX Cologne | Index

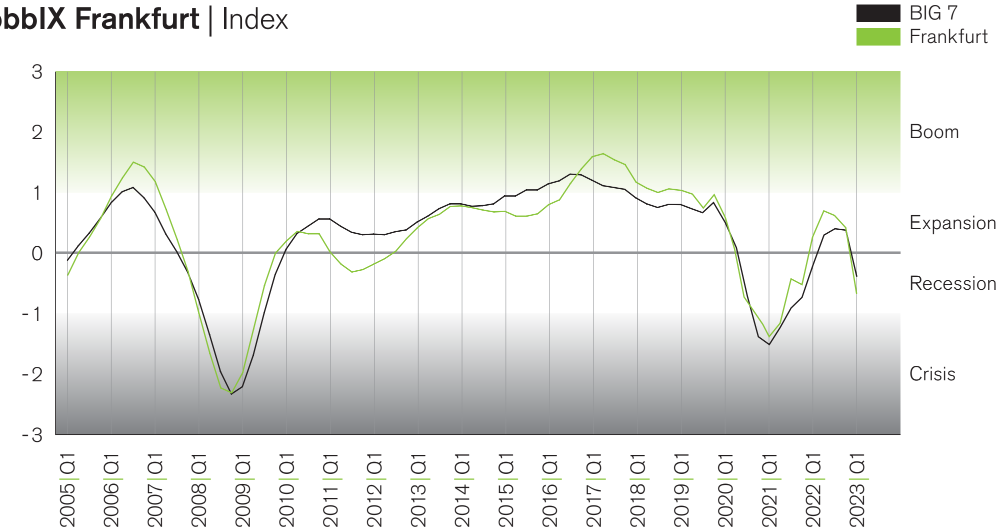


BIG 7

FRANKFURT

The combination of weak economic momentum and hybrid working also made itself felt on Frankfurt's market for office space. Following take-up of 109,000 sqm in the fourth quarter of 2022, this year's first quarter only saw 83,000 sqm of space taken up. At the same time, the vacancy rate continued to climb, reaching a high 9 %. Rents for newly-let first-class properties as well as average rents remained unchanged in the period under review. Inflows on the investment market nearly came to a standstill in the first quarter. Investment volumes for office properties only amounted to between €47 million and €65 million, depending on the source. Net initial yields for first-class properties increased by another 25 basis points to 3.65 %.

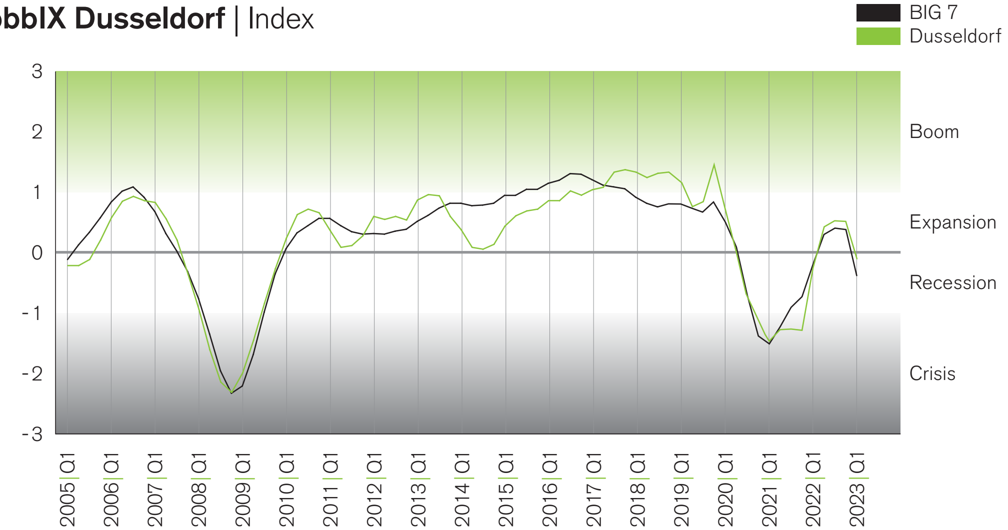
pbbIX Frankfurt | Index



DUSSELDORF

A distinct lack of large-scale lettings meant that the office market in Dusseldorf saw a muted first-quarter development, similar to that seen in the two previous years. 72,000 sqm of office space was newly taken up in the first quarter of 2023 (Q1/2022: 83,000 sqm), and the vacancy rate increased from 7.9 % to 8.6 % during the quarter, reaching the highest level since the end of 2015. Prime rents, which had soared in the previous quarter, remained unchanged at €38 per sqm. Inflows on the investment market remained low, with volumes amounting to approximately €160 million: continuously weak investment demand saw net initial yields for first-class properties increase by 25 basis points to 3.6 %.

pbbIX Dusseldorf | Index

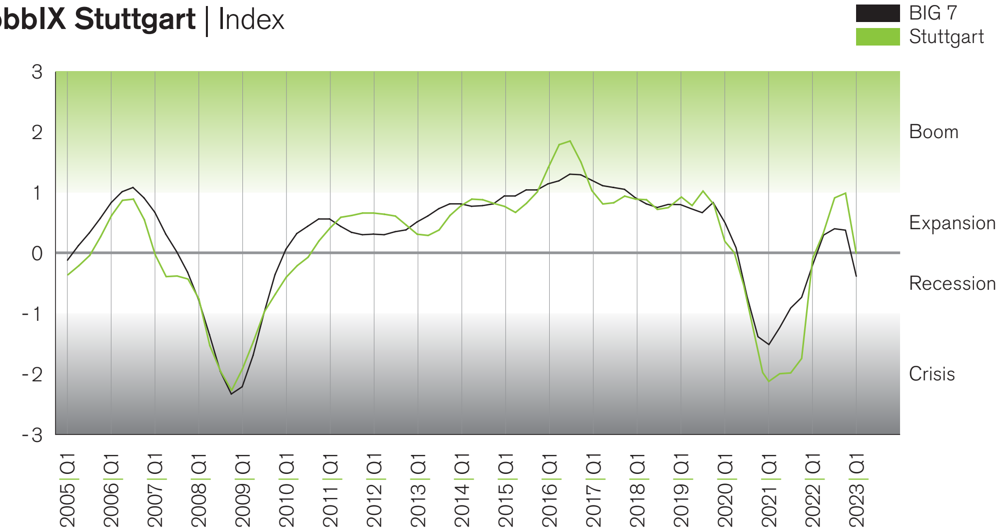


BIG 7

STUTTGART

Office space take-up in Stuttgart amounted to 42,000 sqm, plunging by 53 % com-pared to the first quarter of 2022. Despite low new construction activity, the weak demand was accompanied by an increased vacancy rate which, however, remained at a low level of 3.5 %. Prime rents and average rents were unchanged quarter-on-quarter. Looking at the office investment market, Stuttgart is comparatively small and typically subject to very volatile inflows. However, since net initial yields for first-class properties continued to rise – by 10 basis points to 3.5 % – the moderate level of investment volumes (€60 million) in the quarter under review is most likely a result of depressed investor sentiment.

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)