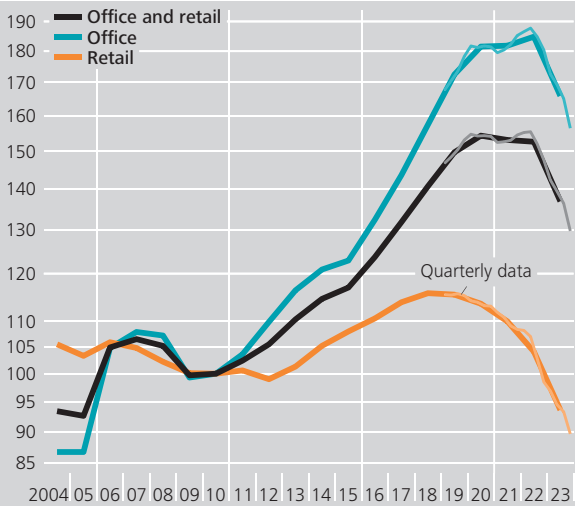


## System of indicators for the German commercial real estate market

### Price indicators

Prices of commercial real estate in Germany by type of property

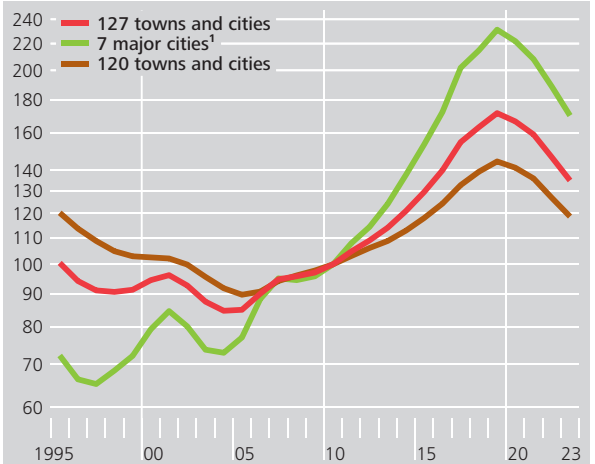
2010 = 100, log scale



Source: vdpResearch.  
Deutsche Bundesbank

Prices of commercial real estate\* in Germany by town category

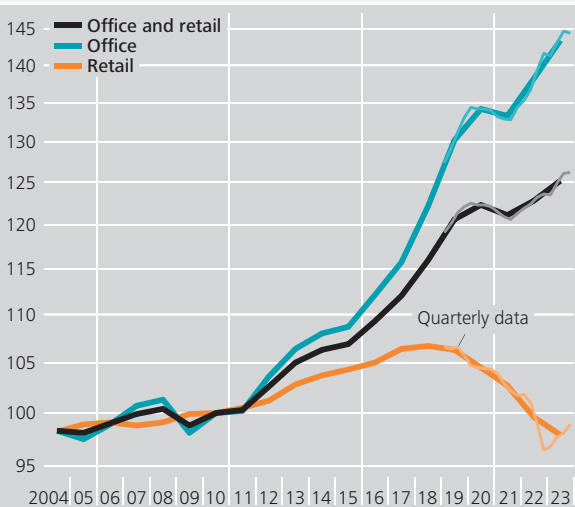
2010 = 100, log scale



Source: Bundesbank calculations based on data provided by bulwiengesa AG. \* Office and retail (core properties). ¹ Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.  
Deutsche Bundesbank

Rents for commercial real estate in Germany by type of property

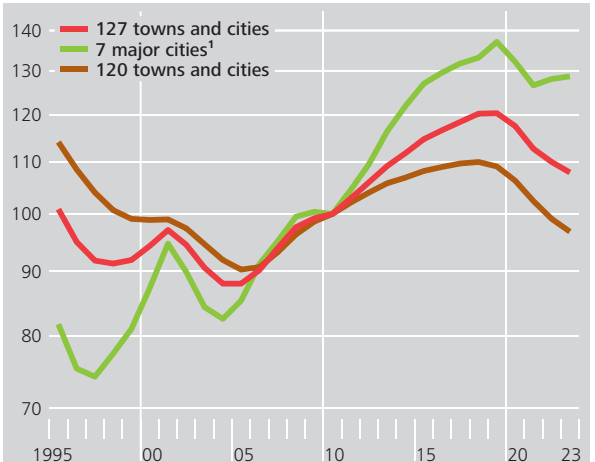
2010 = 100, log scale



Source: vdpResearch.  
Deutsche Bundesbank

Rents for commercial real estate\* in Germany by town category

2010 = 100, log scale

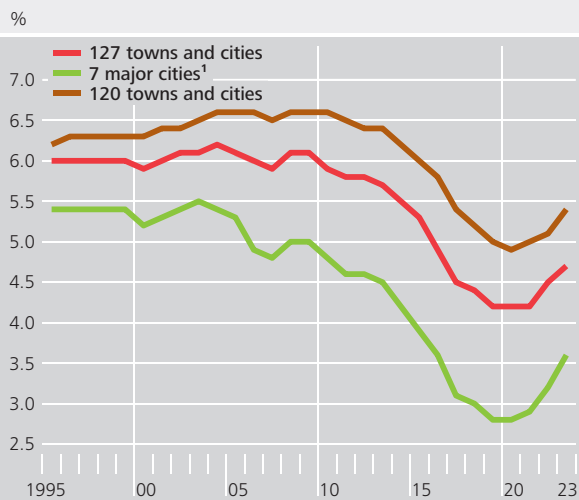


Source: Bundesbank calculations based on data provided by bulwiengesa AG. \* Office and retail (core properties). ¹ Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.  
Deutsche Bundesbank

## System of indicators for the German commercial real estate market

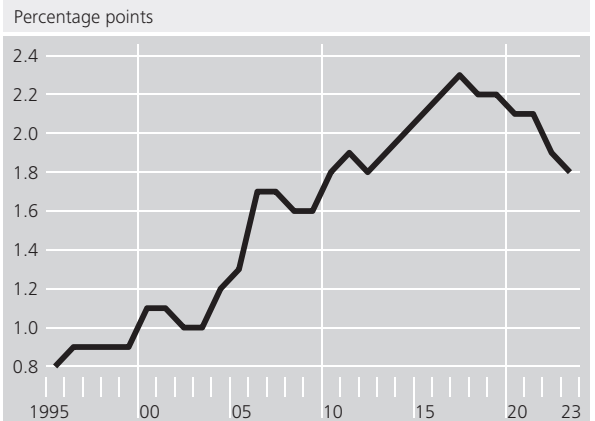
### Price indicators

#### Net initial yield for commercial real estate\* by town category



Source: Bundesbank calculations based on data provided by bulwiengesa AG. \* Office and retail (core properties). <sup>1</sup> Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.  
Deutsche Bundesbank

#### Yield differential between commercial real estate in 120 towns and cities and 7 major cities\*



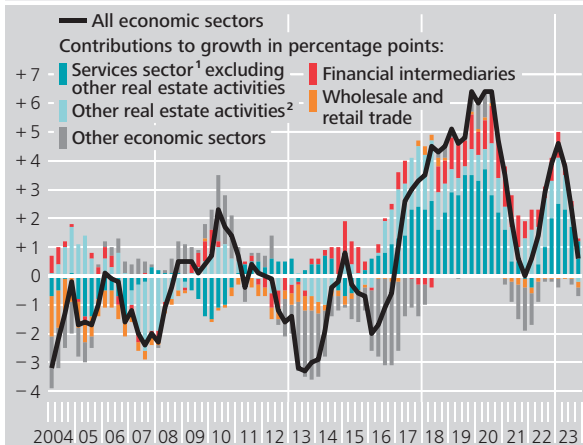
Source: Bundesbank calculations based on information provided by bulwiengesa AG. \* Office and retail (core properties), net initial yield of commercial real estate in 120 towns and cities minus net initial yield of commercial real estate in 7 major cities (Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart).  
Deutsche Bundesbank

## System of indicators for the German commercial real estate market

### Financial Indicators

#### Mortgage loans on property for commercial use in Germany\*

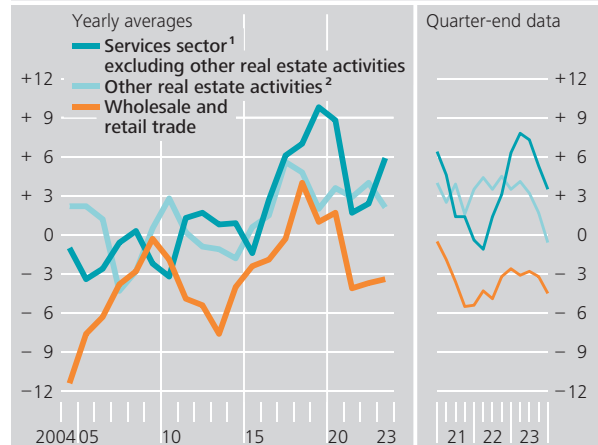
Year-on-year percentage changes, quarter-end data



\* Total mortgage loans minus mortgage loans on residential real estate according to the borrowers statistics. **1** Including self-employment. **2** Purchase, sale, rental and management of commercial real estate, facility management enterprises.  
Deutsche Bundesbank

#### Mortgage loans on property for commercial use in selected economic sectors\*

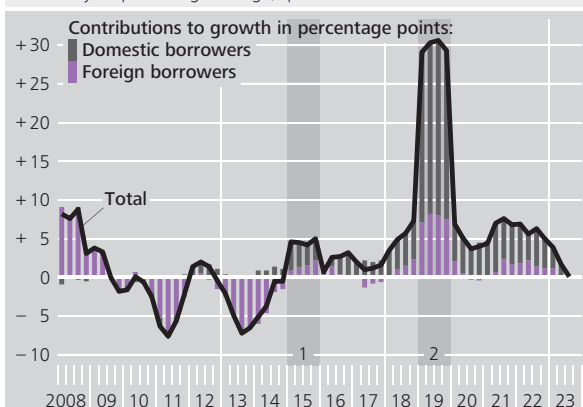
Year-on-year percentage change



\* Total mortgage loans minus mortgage loans on residential real estate according to the borrowers statistics. **1** Including self-employment. **2** Purchase, sale, rental and management of commercial real estate, facility management enterprises.  
Deutsche Bundesbank

#### Loans by domestic credit institutions entailing commercial property risk\*

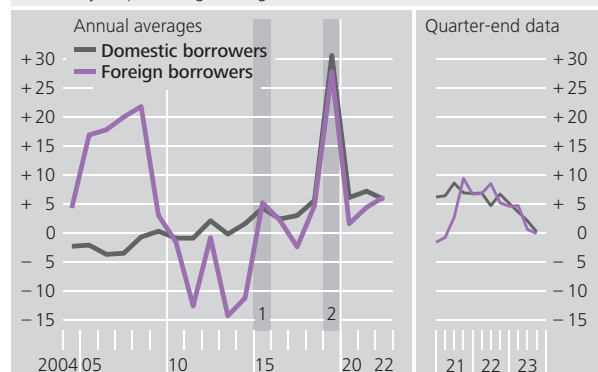
Year-on-year percentage change, quarter-end data



\* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1** Reporting threshold lowered from 2015. **2** Definition of "credit" expanded from 2019.  
Deutsche Bundesbank

#### Loans by domestic credit institutions entailing commercial property risk to domestic and foreign borrowers\*

Year-on-year percentage change



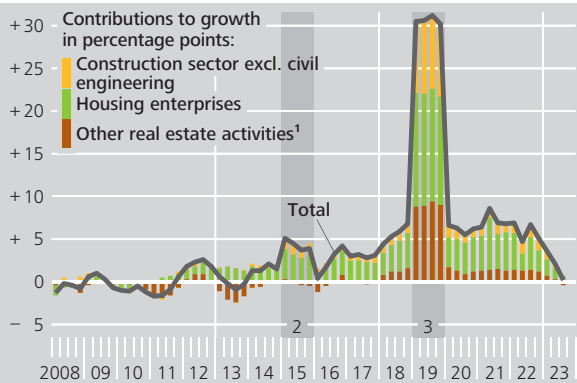
\* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1** Reporting threshold lowered from 2015. **2** Definition of "credit" expanded from 2019.  
Deutsche Bundesbank

## System of indicators for the German commercial real estate market

### Financial Indicators

#### Loans to domestic borrowers entailing commercial property risk\*

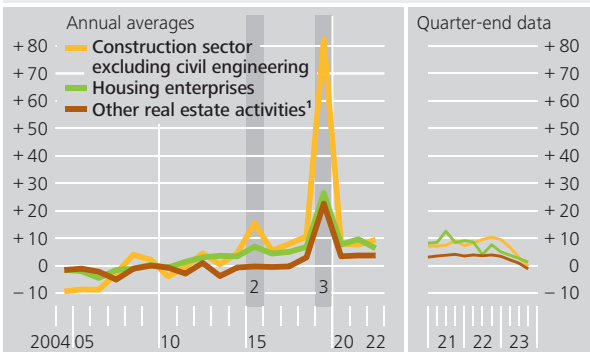
Year-on-year percentage change, quarter-end data



\* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1** Purchase, sale, rental and management of commercial real estate. **2** Reporting threshold lowered from 2015. **3** Definition of "credit" expanded from 2019.  
Deutsche Bundesbank

#### Loans to domestic borrowers entailing commercial property risk by economic sector\*

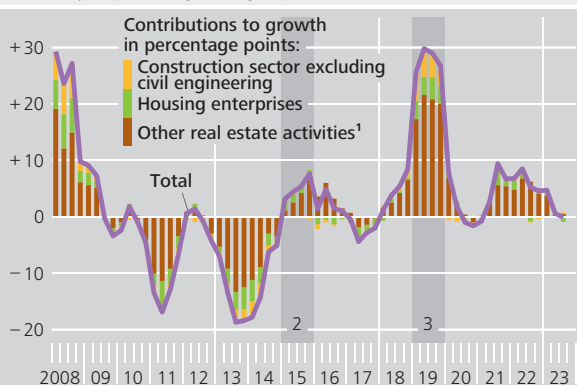
Year-on-year percentage change



\* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1** Purchase, sale, rental and management of commercial real estate. **2** Reporting threshold lowered from 2015. **3** Definition of "credit" expanded from 2019.  
Deutsche Bundesbank

#### Loans to foreign borrowers entailing commercial property risk\*

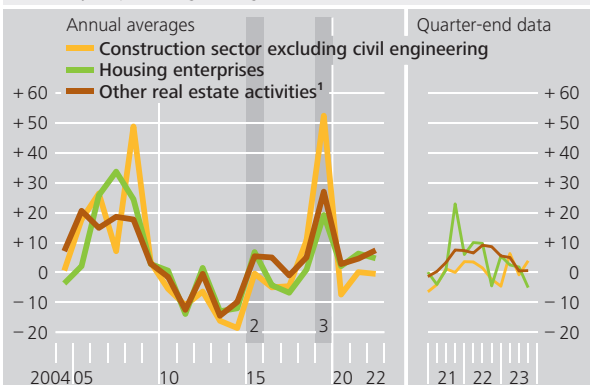
Year-on-year percentage change, quarter-end data



\* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1** Purchase, sale, rental and management of commercial real estate. **2** Reporting threshold lowered from 2015. **3** Definition of "credit" expanded from 2019.  
Deutsche Bundesbank

#### Loans to foreign borrowers entailing commercial property risk by economic sector\*

Year-on-year percentage change



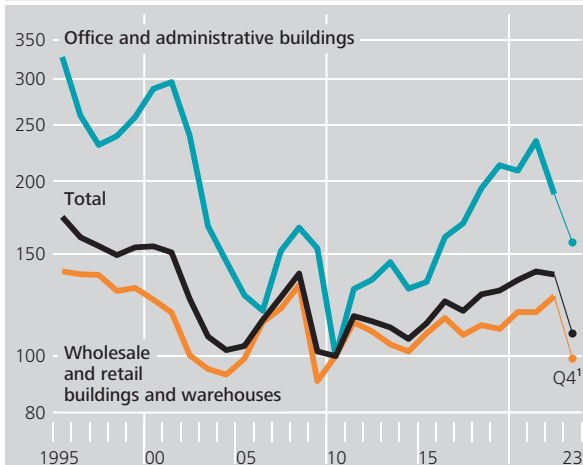
\* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1** Purchase, sale, rental and management of commercial real estate. **2** Reporting threshold lowered from 2015. **3** Definition of "credit" expanded from 2019.  
Deutsche Bundesbank

## System of indicators for the German commercial real estate market

### Real economic indicators

#### Building permits for commercial real estate in Germany by type of property\*

2010 = 100, log scale

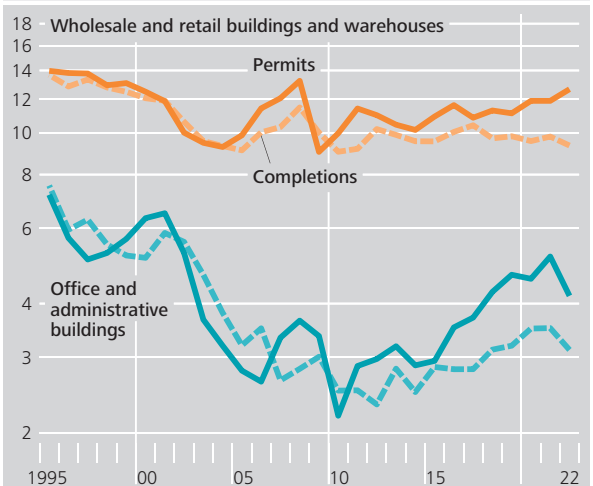


Source: Federal Statistical Office. \* Floor space of new buildings and existing buildings undergoing construction work. **1** Seasonally and calendar adjusted.

Deutsche Bundesbank

#### Building permits for and completions of commercial real estate in Germany\*

Floor space in millions of square metres, log scale

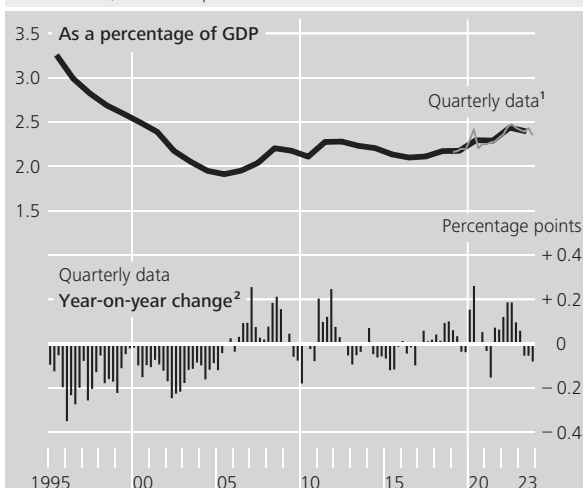


Source: Federal Statistical Office. \* Construction of new buildings and construction work on existing buildings.

Deutsche Bundesbank

#### Commercial building construction in Germany

Annual data, at current prices

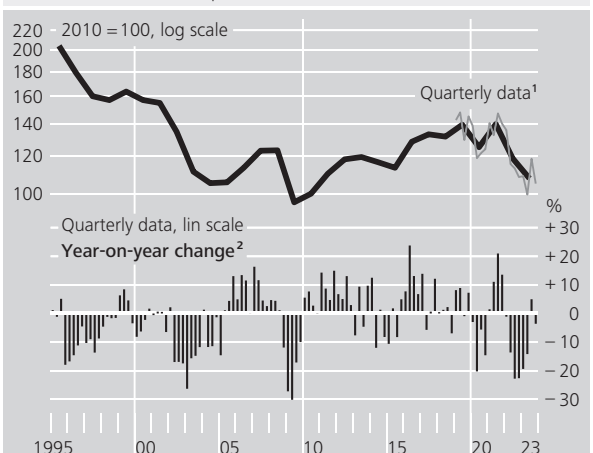


Source of the unadjusted figures: Federal Statistical Office. **1** Seasonally and calendar adjusted. **2** Only calendar adjusted.

Deutsche Bundesbank

#### New orders for commercial building construction in the main construction industry in Germany

Annual data, at constant prices



Source of the unadjusted figures: Federal Statistical Office. **1** Seasonally and calendar adjusted. **2** Only calendar adjusted.

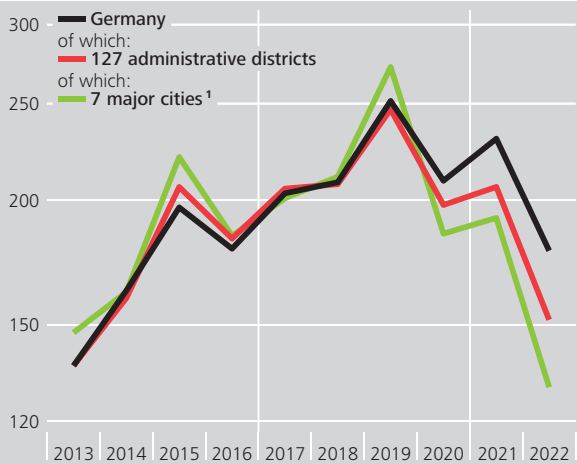
Deutsche Bundesbank

## System of indicators for the German commercial real estate market

### Real economic indicators

#### Transaction volumes for commercial real estate in Germany

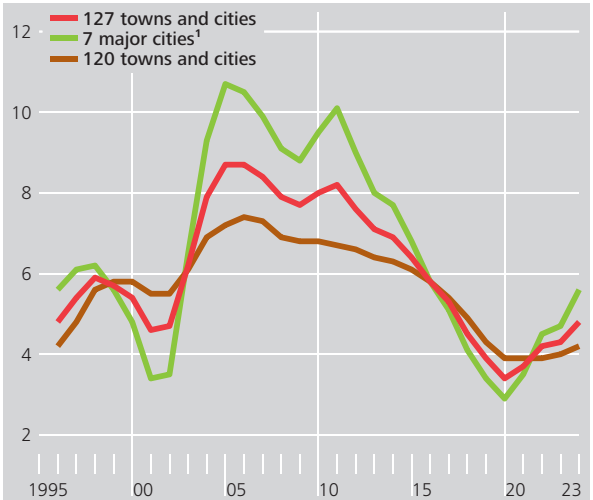
2010 = 100, log scale



Source: Extrapolation by vdpResearch GmbH based on purchase price data provided by surveyor committees. Excluding Share-Deals. <sup>1</sup> Berlin, Düsseldorf, Frankfurt am Main, Hamburg, Cologne, Munich and Stuttgart. Deutsche Bundesbank

#### Vacancy rate for offices in Germany

%



Source: Bundesbank calculations based on data provided by bulwiengesa AG. <sup>1</sup> Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart. Deutsche Bundesbank