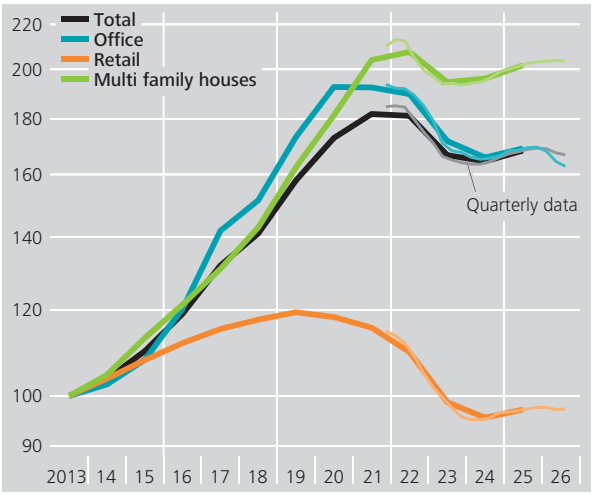
DEUTSCHE BUNDESBANK
EUROSYSTEM

System of indicators for the German commercial real estate market

Price indicators

Prices of commercial real estate in Germany by type of property*

2013 = 100, log scale

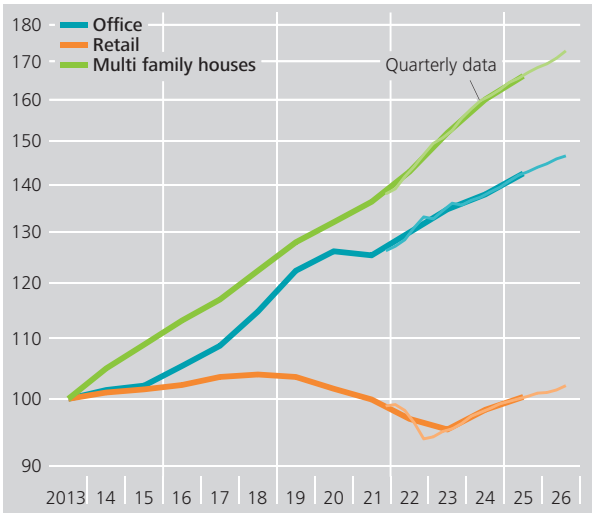


* Commercial property price index of vdpResearch GmbH and the Deutsche Bundesbank based on the Real Estate Monitoring Database.

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Rents for commercial real estate in Germany by type of property

2013 = 100, log scale

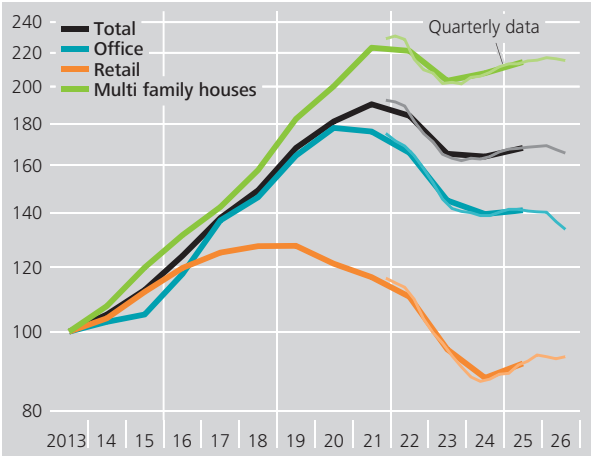


Source: vdpResearch GmbH.

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Prices of commercial real estate for German cities of supra-regional importance by type of property*

2013 = 100, log scale

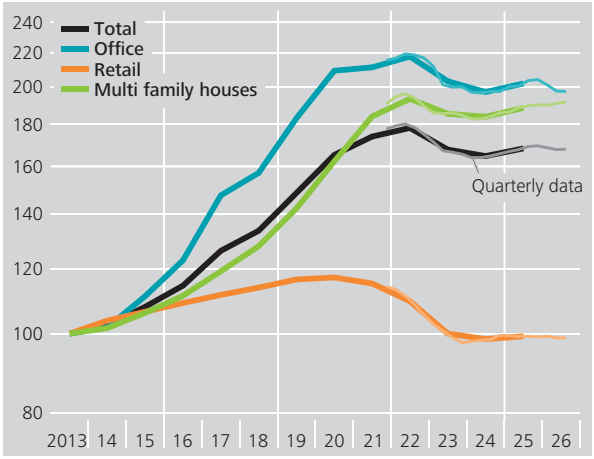


* Commercial property price index of vdpResearch GmbH and the Deutsche Bundesbank based on the Real Estate Monitoring Database.

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Prices of commercial real estate in Germany excluding cities of supra-regional importance by type of property*

2013 = 100, log scale



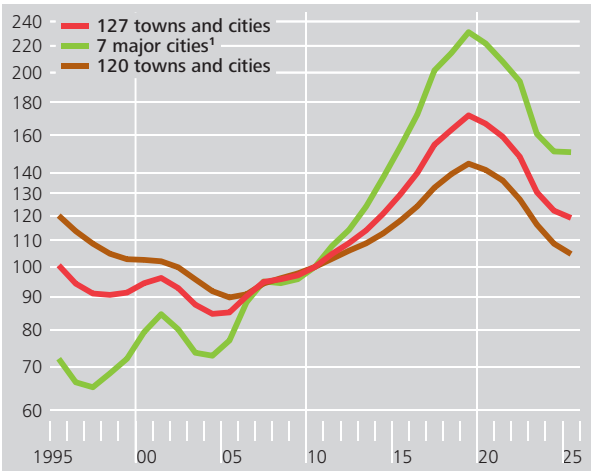
* Commercial property price index of vdpResearch GmbH and the Deutsche Bundesbank based on the Real Estate Monitoring Database.

Deutsche Bundesbank

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

Prices of commercial real estate* in Germany by town category

2010 = 100, log scale

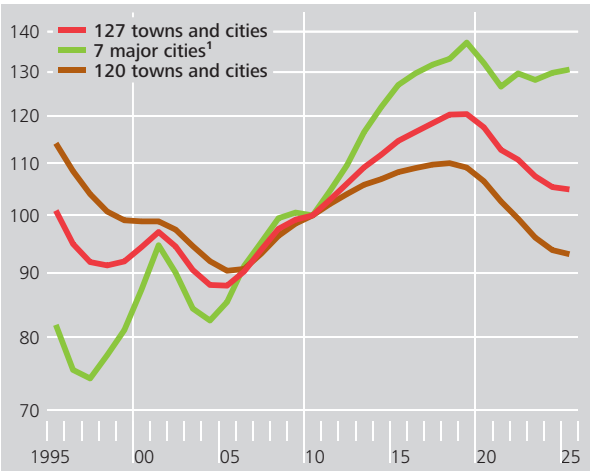


Source: Bundesbank calculations based on data provided by bulwiengesa AG. * Office and retail (core properties). **1** Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.

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Rents for commercial real estate* in Germany by town category

2010 = 100, log scale

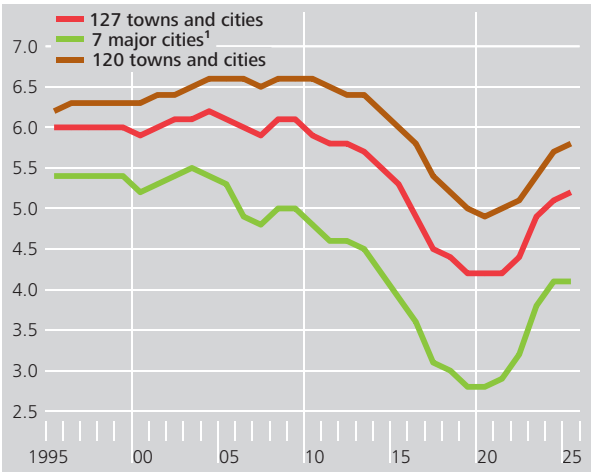


Source: Bundesbank calculations based on data provided by bulwiengesa AG. * Office and retail (core properties). **1** Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.

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Net initial yield for commercial real estate* by town category

%

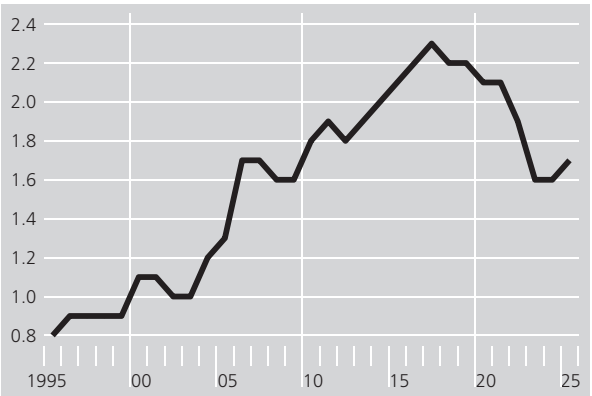


Source: Bundesbank calculations based on data provided by bulwiengesa AG. * Office and retail (core properties). **1** Berlin, Cologne, Düsseldorf, Frankfurt am Main, Hamburg, Munich and Stuttgart.

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

Percentage points



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).

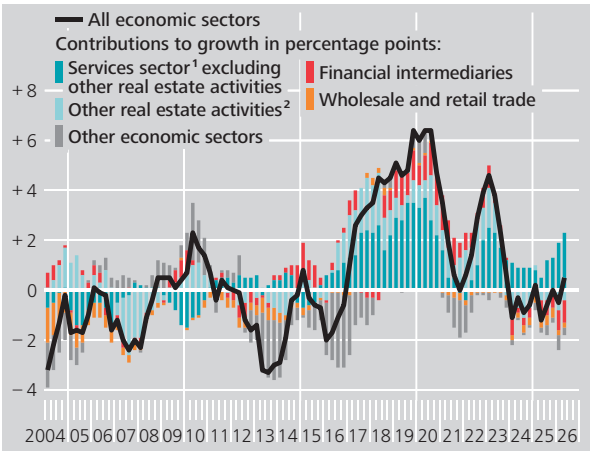
Deutsche Bundesbank

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

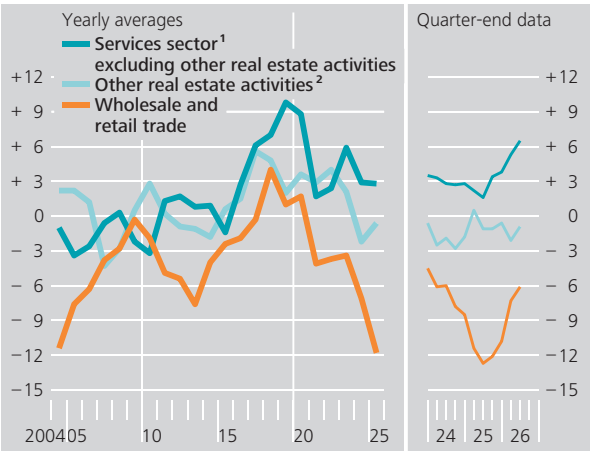


* Total mortgage loans minus mortgage loans on residential real estate according to the borrowers statistics. **1** Including self-employment. **2** Purchase, sale, rental and management of commercial real estate, facility management enterprises.

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

Year-on-year percentage change

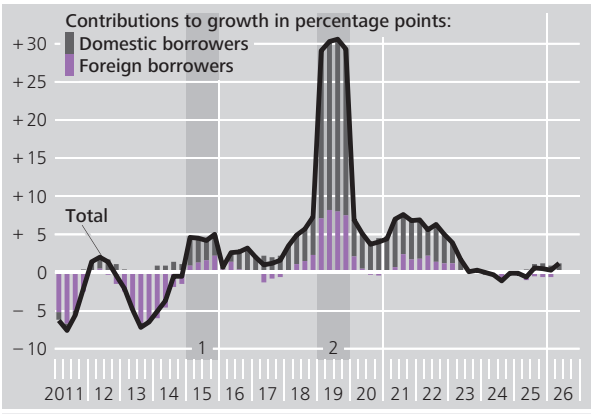


* Total mortgage loans minus mortgage loans on residential real estate according to the borrowers statistics. **1** Including self-employment. **2** Purchase, sale, rental and management of commercial real estate, facility management enterprises.

Deutsche Bundesbank

Loans by domestic credit institutions entailing commercial property risk*

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

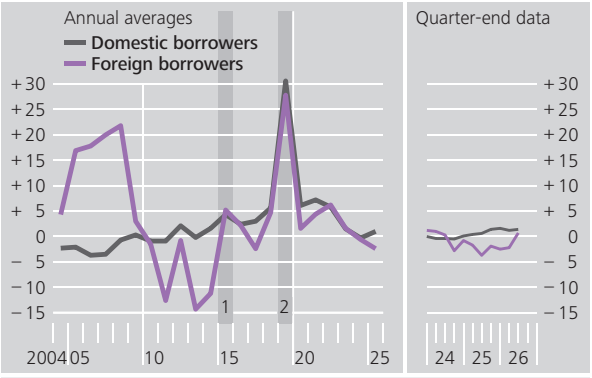


* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1**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

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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.

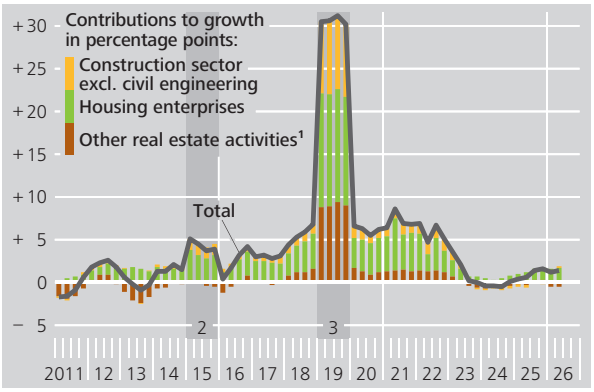
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DEUTSCHE BUNDESBANK
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System of indicators for the German commercial real estate market
Financial Indicators

Loans to domestic borrowers entailing commercial property risk*

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

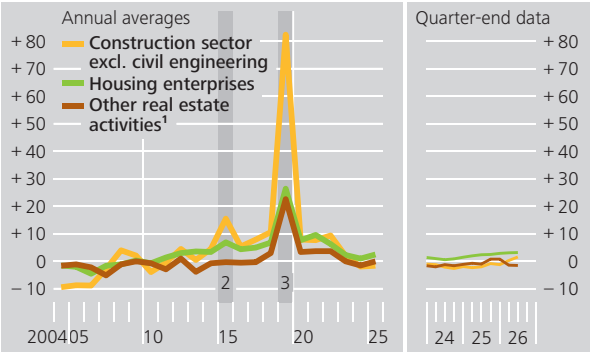


* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1**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

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

Year-on-year percentage change

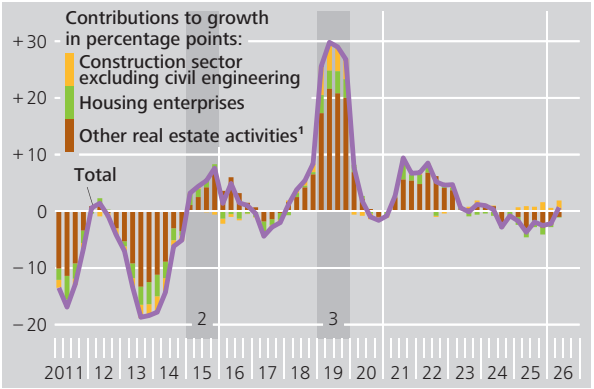


* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1**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

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Loans to foreign borrowers entailing commercial property risk*

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

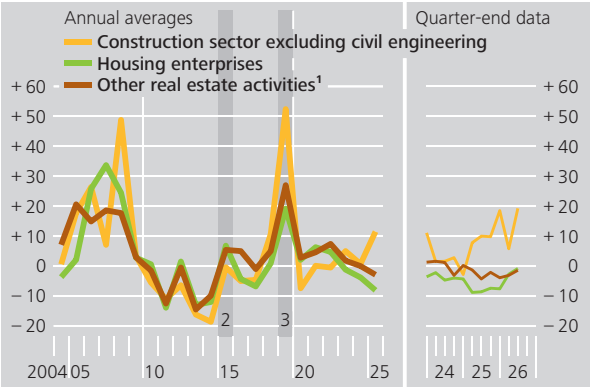


* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1**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

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

Year-on-year percentage change



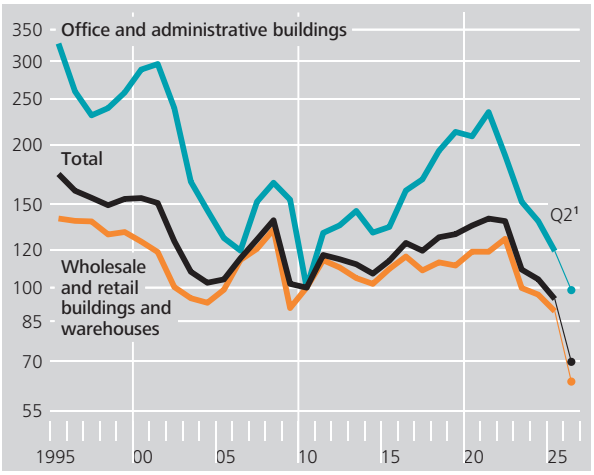
* Source: Bundesbank calculations consisting of balance sheet items, off-balance-sheet items and derivatives, based on data from the Deutsche Bundesbank's central credit register. Approximate implementation of the classification put forward by the European Systemic Risk Board ((ESRB), 2016/14). **1**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

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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

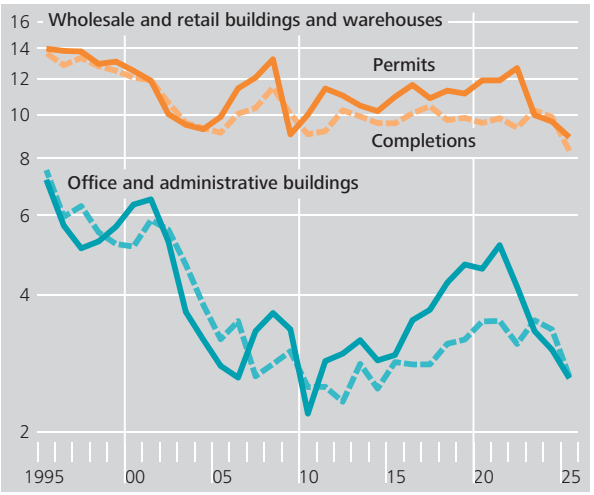


Source: Federal Statistical Office. * Floor space of new buildings and existing buildings undergoing construction work. **1** Seasonally and calendar adjusted.

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

Floor space in millions of square metres, log scale

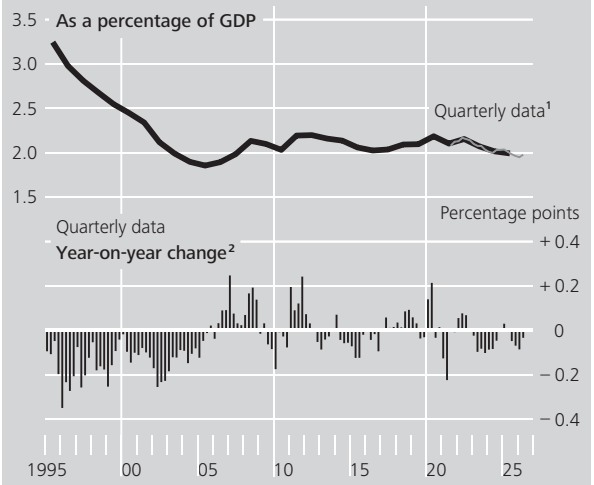


Source: Federal Statistical Office. * Construction of new buildings and construction work on existing buildings.

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Commercial building construction in Germany

Annual data, at current prices

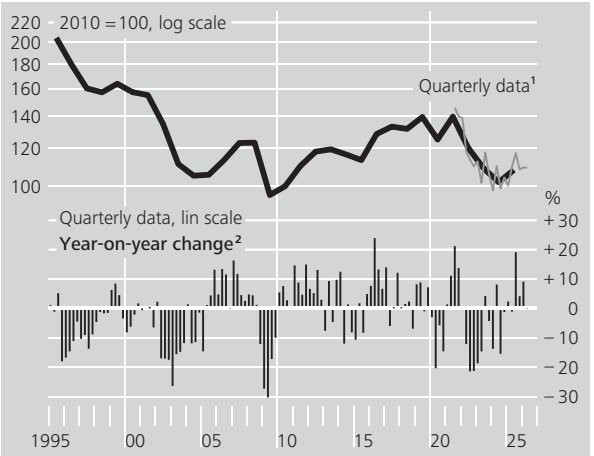


Source of the unadjusted figures: Federal Statistical Office. **1** Seasonally and calendar adjusted. **2** Only calendar adjusted.

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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.

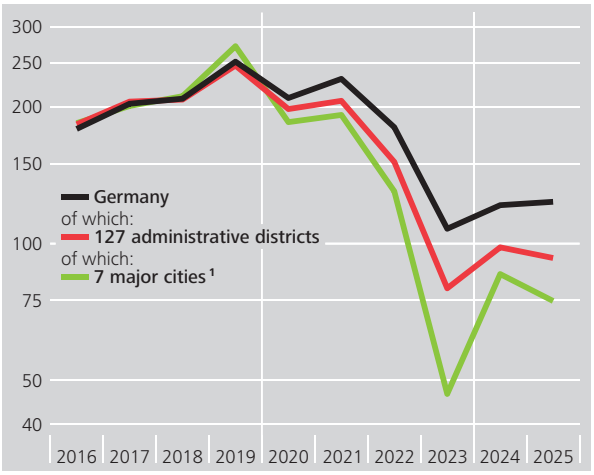
Deutsche Bundesbank

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

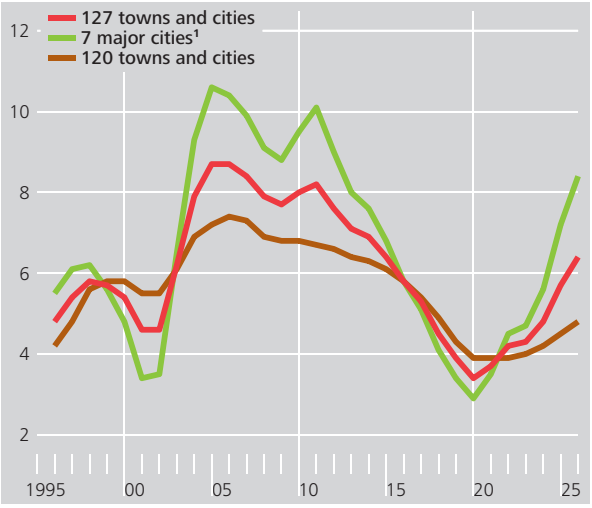


Source: Extrapolation by vdpResearch GmbH based on purchase price data provided by surveyor committees. Excluding Share-Deals. **1** Berlin, Dusseldorf, Frankfurt am Main, Hamburg, Cologne, Munich and Stuttgart.

Deutsche Bundesbank

Vacancy rate for offices in Germany

%



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

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