

A photograph of a modern office building courtyard. The building features a mix of blue-tinted glass panels and dark metal frames. The courtyard is paved with grey bricks and has a glass-enclosed staircase in the center. The sky is bright and clear.

THREE- COUNTRY SURVEY

Investment Opportunities in the
Major Residential and Office Markets of
Germany, France and the Netherlands

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and INDUSTRIA WOHNEN GmbH



#PREFACE

Dear Reader,

The real estate market is currently confronting several challenges at once. Unlike with previous crises, the present situation has external causes: a pandemic that has changed the way properties are used; an armed conflict in Ukraine that brings refugees to western Europe while driving up energy prices; regulatory requirements that call the sustainability of properties—not least in the ESG context—into question and demand responses from the real estate industry. Moreover, the interest rate reversal has significant ramifications for business models as it increases financing costs on the real estate market and slows down the economic development. It is reasonable to wonder, against this background, are there any places left where office and residential real estate investments remain a paying proposition? Which markets continue to report stable and sound parameters despite all of these predicaments? The purpose of the survey in front of you is to answer these seminal questions.

Three major European real estate markets—those of Germany, France and the Netherlands—may well differ in terms of size, structure and local parameters. But what they have in common is that their largest and leading cities represent unique models of success by their very nature, and that they managed to reinvent themselves in the past, each time pointing the way forward. That is why these cities were chosen as focus of this investigation. The survey hereby presented takes a closer look at the major residential and office markets of these three aforesaid countries before rating them in regard to their investability. Extensive data material on supply and demand, socio-demographic and economic parameters was evaluated and supplemented with analyses of the construction sector and of sustainability aspects. Deriving its conclusions from their findings, the survey proceeds to identify markets that encourage investments more than others.

We hope that you enjoy your read and that you will get in touch to engage in dialogue with us.

Jörn Stobbe,
Spokesman of the Management
Board of Becken Holding GmbH and
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Source: Becken Holding GmbH

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#1

What is the Status Quo for the REAL ESTATE MARKETS of GERMANY, FRANCE and the NETHERLANDS? – a Brief Introduction

The three leading rating agencies—S&P, Moody's and Fitch—unanimously awarded Germany and the Netherlands their highest ratings each. France was given the second-highest rating by S&P and Fitch, and the third-highest rating by Moody's.

A comparative analysis by ROBECO, an international asset management company, regarding the sustainability of 150 countries worldwide in terms of long-term ESG aspects such as human rights and labour rights, climate and energy, corruption, institutions and environmental risks, concluded that the

three countries examined in this market survey are among the most sustainable in the world, with Germany ranking 7th, the Netherlands ranking 8th and France ranking 15th. The ranking is headed by a solid block of Nordics, with Finland, Sweden, Norway and Denmark placing first through fourth, followed by Switzerland in rank 5, ahead of Iceland. The highest-scoring country outside Europe is New Zealand in rank 14.¹

Key facts on Germany, France and the Netherlands at a Glance

	Germany	France	Netherlands
Population (2022)	83.16 mn	67.66 mn	17.48 mn
Employment (Q1 2022)	42.05 mn	29.81 mn	9.46 mn
GDP at market prices per capita (2022)	43,314 euros	36,964 euros	49,003 euros
Government gross debt (consolidated), in percent of gross domestic product (2021)	69.3 %	112.9 %	52.1 %
Unemployment rate (2021)	3.6 %	4.2 %	7.9 %
Housing stock (2021)	43.1 mn	37.2 mn	8.0 mn
Homeownership rate (2020)	50.4 %	64.0 %	69.1 %

Source: Eurostat

	Germany	France	Netherlands
Credit rating by S&P (09/2022)	AAA (highest rating)	AA (second-highest rating)	AAA (highest rating)
Credit rating by Moody's (09/2022)	Aaa (highest rating)	AA2 (third-best rating)	Aaa (highest rating)
Credit rating by Fitch (09/2022)	AAA (highest rating)	AA (second-highest rating)	AAA (highest rating)
ROBECO Country Sustainability Ranking (2021)	Rank 7 (out of 150 countries worldwide)	Rank 15 (out of 150 countries worldwide)	Rank 8 (out of 150 countries worldwide)
Chandler Good Government Index (2022)	Rank 8 (out of 104 countries worldwide)	Rank 16 (out of 104 countries worldwide)	Rank 5 (out of 104 countries worldwide)
JLL – Global Real Estate Transparency Index 2022	1.76 (rank 9 worldwide)	1.34 (rank 3 worldwide)	1.54 (rank 6 worldwide)
Eurostat – Total House Price Index (2015=100) for Q1 2022	163.2 (Rank 14 within the EU)	128.6 (Rank 26 within the EU)	183.2 (Rank 6 within the EU)
Eurostat – House Price Index of new dwellings (2015=100) for Q1 2022	148.6 (Rank 15 within the EU)	124.4 (Rank 23 within the EU)	188.2 (Rank 4 within the EU)
RICS – Commercial Property Sentiment Index for Q2 2022	Rank 18 (out of 18 countries worldwide)	Rank 15 (out of 18 countries worldwide)	Rank 13 (out of 18 countries worldwide)
INREV Pan-European Quarterly Asset Level Index for Q2 2022	2.15 % total return	2.29 % total return	2.81 % total return

¹ ROBECO (2022): Country Sustainability Ranking

According to the Chandler Institute of Governance (CIG), which examines nations around the world to see, for instance, how well they are governed, how stable their legal systems are, how strong their government institutions are, how successful they are in terms of their economic indicators and how well developed participation is for all levels of society, the Netherlands rank 5th, Germany 8th and France 16th in the Chandler Good Government Index. The list is topped by Finland, Switzerland and Singapore.²

The gap between transparent and non-transparent real estate markets across the globe has kept widening in 2022, according to JLL's Global Real Estate Transparency Index. With its score of 1,76 points, Germany is in the group of the world's most transparent countries. The result is primarily explained by the positive effect of greater data coverage of niche real estate types, and by the Taxonomy. But top-performer of the ranking is the United Kingdom with an index score of 1.25, ahead of the United States and France with 1.34 each. The Netherlands are also among the highly transparent countries with a 1.54 score.³

Prices on the international housing markets in particular followed an upward trend in recent years, according to Eurostat's data coverage, largely growing in sync, but with differences in momentum. Similar findings were returned by the IREBS business

school (Prof. Dr. Tobias Just) based on an analysis of data provided by the Bank for International Settlements (BIS), which noted that the synchronicity "is not a piece of good news for 2022." Particularly in the Netherlands, the price dynamics were very strong when compared to other European countries, both on the overall market and even more so in the new-build segment, reaching index scores of more than 180 each (implying a price growth rate of over 80 % since 2015). By contrast, Germany made the midfield even though the price trend is seen as very dynamic among domestic observers. France, in turn, made the record with generally moderate price increases on the overall market and in the new-build segment, too.

For the commercial real estate segment, the Global Commercial Property Monitor published by RICS in Q2 2022 diagnosed headwinds in the form of strong inflationary pressure and the prospect of a seriously tightened monetary policy that are likely to put a damper on sentiment. This is particularly evident on the investment side of the market, with investor demand flatlining and the capital value expectations reverting into a modestly negative range. However, several national markets proved more resilient and were not yet seriously affected by the shift in the global economic conditions. But the Netherlands, France and Germany experienced particularly steep drops compared to their

prior-quarter figures, whereas smaller markets, such as Croatia and Greece, remain comparatively stable and returned positive scores.⁵

The INREV Pan-European Quarterly Asset Level Index registered a total rate of return of 2.69 % during the second quarter of 2022. The momentum is slowing across the board. The total rate of return of 2.69 % that was reported during the quarter was attributable to the slow capital growth by 1.86 %. The latest figures are 64 basis points below the rate of 3.33 % that was registered in Q1 2022, while implying a decline by 30 basis points compared to the previous year. The total rate of return in the United Kingdom still exceeds the rates reported from other regions, even if it is the lowest total return since Q2 2021. Next on the list were Dutch assets with a total return of 2.81 %. France was the only main region that achieved a better performance (2.29 %) this quarter, whereas German investments trailed behind at 2.15 %.⁶

At the moment, the market situation is certainly defined by several overlapping crises and challenges. The debate on the real estate market is currently shaped by the war in Ukraine, the energy crisis, the ongoing COVID-19 pandemic, the large-scale lockdowns in China, the disruption of global supply chains, high inflation, the end of the accommodative monetary policy, the interest rate reversal and surging construction costs. The situation is ex-

acerbated by the weakness of the euro, which was almost level with the US dollar by mid-September 2022. If nothing else, it offered international investors a favourable exchange rate for real estate investments in the eurozone.

At this time of several overlapping crises and challenges, having a detailed understanding of the major residential and office markets in Germany, France and the Netherlands in terms of their investment appeal is of the essence for making the right kind of investment decisions. The purpose of the subsequent analysis is therefore to facilitate this understanding, as it examines regional, economic and demographic trends as well as the supply and demand situations of 22 residential and 17 office markets on the basis of macroeconomic parameters.

2 Chandler Institute of Governance (2022): Chandler Good Government Index 2022
3 JLL (2022): Global Real Estate Transparency Index
4 IREBS Standpunkt 115 (2022): Internationale Wohnungsmärkte entwickeln sich synchron – keine gute Nachricht für 2022
5 RICS (2022): Q2/2022 – Global Commercial Property Monitor
6 INREV (2022): <https://www.inrev.org/news/inrev-news/european-asset-level-performance-slows-q2-2022-capital-growth-still-strong>



#2

EXECUTIVE SUMMARY



Source: Getty Images

Inflation, Interest Rate Reversal, War in Ukraine and Energy Crisis Dominating the Headlines

The outlook for the economic cycles in Germany, France and the Netherlands is characterised by a high degree of uncertainty regarding the further developments in the war in Ukraine. The possibility of a serious disruption of the European energy supply, which could lead to further sharp increases in energy prices and production cutbacks, poses a significant risk.

In response to the record inflation rate of 9.1 % in the eurozone in August 2022, the ECB announced a key lending rate increase by 0.75 percentage points on 9 September 2022. This raised the main refinancing interest rate to 1.25 %. Interest rate differentials within the eurozone have gone up in sync with the interest rate hike. Especially in countries with higher sovereign debt ratios and potentially poorer growth prospects, interest rates or spreads have gone up faster than in the eurozone. In this context, an increase in sovereign debt would represent one of the most serious economic and social consequences of the post-pandemic period in the medium to long term. Growing inflation concerns, but also an unexpectedly swift reversal of the accommodative monetary policy could lead to a significant hardening of yields for bonds of any maturity on the (global) bond market.

The elevated lending rates have now hit the real estate industry as well. As of 16 September 2022, the Interhyp mortgage broker quoted a rate of 3.36 % for a 10-year fixed-rate mortgage. In September of the previous year, the rate still stood at about 0.90 %.

Requirements for the Real Estate Industry are Intensifying although Sentiment has Deteriorated

The latest publications on sentiment indicators by the European Commission (Economic Sentiment Indicator) and on the situation specifically on the real estate market by RICS (Commercial Property Sentiment Index) and by Deutsche Hypo - NORD/LB Real Estate Finance (REECOX) paint a gloomy picture, and unanimously so.

At the same time, real estate market players face growing demands in the form of sustainability requirements for their activities and products. The Sustainable Finance Disclosure Regulation (Regulation 2019/2088), the EU Taxonomy Regulation (Regulation 2020/852), the CO₂ levy of 25 euros/ton of CO₂ that has been effective since 1 January 2021, and the changing behaviour of investors, who

are now gravitating towards ESG-compliant investments, all have resulted in an increasing need for transparency and growing financial risks for the real estate industry. Implementing the ESG criteria and setting up a reporting system of corresponding sustainability indicators, which is mandatory under EU regulations, is therefore indispensable for real estate companies that wish to retain their competitive edge. There is ample evidence that the real estate industry is intent on meeting these requirements, a case in point being the increased willingness of German, French and Dutch investors to participate in the GRESB Real Estate Assessment 2021. Still, the climate targets in the buildings sector will not be achieved through new-build construction alone. For this reason, a multi-tiered political framework has been set up in all three of the national economies studied herein that is supported not least by extensive public sector investments in the existing building stock.

Germany, France and the Netherlands – All Offer Attractive Investment Opportunities

Although the large housing markets in Germany, France and the Netherlands have a nationally specific structure (e. g. in regard to the proportion of tenant households and ownership structures), they have collectively gained in significance, number of residents and economic strength over the past years in conjunction with the urbanisation mega trend. Their ascendancy has triggered a corresponding demand for housing, which does not automatically suggest that it is always recommendable to invest in the residential asset class. In order to put the various market conditions, opportunities and risks in context, a scoring model was developed that merges a total of 19 market assessment indicators and, by weighting the influencing factors, arrives at a result that lends itself to an interpretation of the investment appeal of the residential markets in Germany, France and the Netherlands.

The real estate markets are primarily selected according to the criterion of “market size,” so that the selection covers the largest cities and housing markets in these three countries. Six of the indicators measure strengths, weaknesses and trends on the national level, focusing particularly on the national economy, the financial market and the labour market. Seven indicators measure economic and demographic facts and circumstances on the level of the cities and their metro regions. Six indicators measure the key ratios on the supply and demand side of the housing market.

According to the indicators, Amsterdam and Munich top the list as the most attractive cities for residential investments, well ahead of all other cities. The principal difference between Amsterdam and Munich, with otherwise very similar attractiveness scores, is the significantly higher yield level in Amsterdam. Frankfurt am Main ranks third, followed by Paris, Utrecht and Berlin. At the lower end of the scale, Hanover and Lille trail the other cities at some distance.

The major office markets of Germany, France and the Netherlands face a whole number of challenges because the COVID-19 pandemic has changed the working methods for a large number of office workers in particular. Many can no longer imagine a full return to their in-house office routines, which has prompted many companies to adapt their office concepts, while this in turn has changed the volume and structure of the demand for office accommodation. However, the im-

Overview of the housing market scoring results

City	Final scoring value (hypothetical maximum = 100)	Score national statistics (hypothetical maximum = 10)	Score regional statistics (hypothetical maximum = 30)	Score housing market data (hypothetical maximum = 60)
Amsterdam	89.7	7.5	29.7	52.4
Munich	81.7	6.6	23.8	51.4
Frankfurt am Main	67.0	6.6	23.2	37.2
Paris	65.4	4.5	17.9	42.9
Utrecht	64.6	7.5	24.7	32.4
Berlin	60.9	6.6	21.7	32.6
Lyon	60.8	4.5	23.2	33.0
Hamburg	60.5	6.6	20.8	33.1
The Hague	58.6	7.5	20.8	30.3
Bordeaux	58.5	4.5	21.3	32.6
Eindhoven	56.0	7.5	20.9	27.7
Rotterdam	50.3	7.5	20.8	22.0
Stuttgart	50.3	6.6	20.6	23.2
Toulouse	49.6	4.5	20.6	24.5
Montpellier	43.9	4.5	14.6	24.7
Düsseldorf	42.4	6.6	14.1	21.7
Nantes	40.7	4.5	21.6	14.6
Cologne	40.4	6.6	15.8	18.0
Marseille	38.4	4.5	11.1	22.7
Nice	31.8	4.5	6.4	20.8
Hanover	30.7	6.6	15.4	8.7
Lille	29.1	4.5	8.8	15.7

Source: bulwiengesa AG

pacts of these effects differ in strength depending on the economic structure and the defining industries of the analysed cities. While the office space supply still grew rather briskly in most office markets in 2021, the shifted parameters will begin to be visibly reflected in declining construction activities almost everywhere in 2022/2023. Driven by the pricier terms of financing as well as by the economic and geopolitical uncertainties, prime yields in some of the very high-priced markets already began to rise during the first half of 2022 whereas other markets have registered no price correction (yet). Generally speaking, there are certain trends that apply more or less uniformly in all of the surveyed markets, such as the increased significance of ESG criteria for office investments. But as a result of the heterogeneity of the office markets, local market conditions provide no uniform answers to the key challenges of the office market.

The real estate markets are primarily selected according to the criterion of “market size” for the office market scoring, so that the selection covers the largest cities and office markets in the three countries. Six of the indicators measure strengths, weaknesses and trends on the national level, focusing particularly on the national economy, the financial market and the labour market. Seven indicators measure economic and demographic facts and circumstances on the level of the cities and their metro regions. Nine indicators measure the supply and demand sides of the office market.

According to the indicators, Berlin and Munich emerged as the most attractive cities for office investments, slightly ahead of all other cities. Next in line are Amsterdam, Hamburg, Paris CBD and Frankfurt am Main. At the bottom of the list are Marseille and Lille.

Overview of the office market scoring results

City	Final scoring value (hypothetical maximum = 100)	Score National statistics (hypothetical maximum = 10)	Score regional statistics (hypothetical maximum = 30)	Score office market data (hypothetical maximum = 60)
Berlin	84.4	6.6	21.7	56.2
Munich	79.4	6.6	23.8	49.0
Amsterdam	70.7	7.5	29.7	33.5
Hamburg	65.2	6.6	20.8	37.8
Paris CBD	62.1	4.5	17.9	39.6
Frankfurt am Main	61.4	6.6	23.2	31.6
Paris Central	58.8	4.5	17.9	36.3
Lyon	55.1	4.5	23.2	27.3
Stuttgart	52.7	6.6	20.6	25.6
Cologne	51.8	6.6	15.8	29.5
Paris Western Business	49.2	4.5	17.9	26.7
Düsseldorf	39.8	6.6	14.1	19.2
Paris La Défense	38.9	4.5	17.9	16.4
Hanover	33.4	6.6	15.4	11.4
Rotterdam	29.2	7.5	20.8	0.9
Marseille	25.5	4.5	11.1	9.8
Lille	24.7	4.5	8.8	11.3

Source: bulwiengesa AG

#3

NATIONAL ECONOMIES of GERMANY, FRANCE and the NETHERLANDS in Search of Security while Running in Crisis Mode

“Transformation” does not come close to covering what the global economic and global politics are going through. The term fails to do justice to the dimension of what is happening and what has already happened. It sounds too harmless to capture the sheer momentum of events. War, inflation, interest rates and fears of recession: The global economy is currently in the frailest state it has seen since the financial crisis of 2008/2009. Kenneth Rogoff, a professor at Harvard, actually used the phrase “perfect storm” to describe the maximum threat that a simultaneous recession in the world’s three most important economic regions (Europe, East Asia and North America) has caused. This may be overdramatising things, but identical signals have been coming from the leading national economies since the end of 2021: rising inflation rates and the pressing need to abandon the course of accommodative monetary policy earlier than planned. The term “hiatus” comes closer to describing the cause of the cracks suddenly appearing on the foundations on which our post-war order has rested. A better metaphor to describe the process is perhaps the diagnosis of concrete cancer, an underestimated chemical reaction that causes road surfaces, roadside barriers or bridge structures to fracture suddenly. The trends in inflation rate and interest rates mark fractures in our economic activities. Add to this the war in Ukraine as a parallel development which represents not just a military and geopolitical hiatus, but which also changes and reinforces the other two breaks and thereby the economic conditions for (inter)national (real estate) markets. But even as risks can no longer be ignored, and even though the boom times may be over for the industry, it would be premature to join the choir of doomsday prophets. That being said, now is the time to review business models and to adapt them to the new parameters.

In economics, the metaphor “Goldilocks economy”—derived from the popular children’s story “Goldilocks and the Three Bears” by Robert Southey—describes a state of perfect economic balance. In this ideal scenario, the growth of national economies is neither too fast nor too slow. Rather, it slightly exceeds the long-term average while the inflation rate is low, allowing central banks to keep their lending rates low and with them the costs of borrowing. At the start of the year 2020, we inhabited a world in which even pandemics appeared to be a phenomenon of the past, vanquished by the medical advances of our society. Until last year, capital markets lived in a period in which central banks had tirelessly employed extremely low interest rates to ensure stock prices kept going up, and they had done so for at least a decade. For almost 40 years, yields rates had been declining and eventually stopped rising altogether. The “rational bubble” on the markets appeared largely risk free, the reliably low interest rate acting as new driver. Cheap gas and oil from Russia, neatly dovetailed with supply chains from China, led us to believe that we had found the perfect balance between two extremes: Marvellous conditions on the capital markets eased us into an ideal state of feeling secure. Yet the illusion underlying the perennial encouragement to “keep going!” has obviously outlived its usefulness.

Transformation, Perfect Storm, Hiatus? – The Quest for a Sense of Direction Begins

Source: Gettyimages

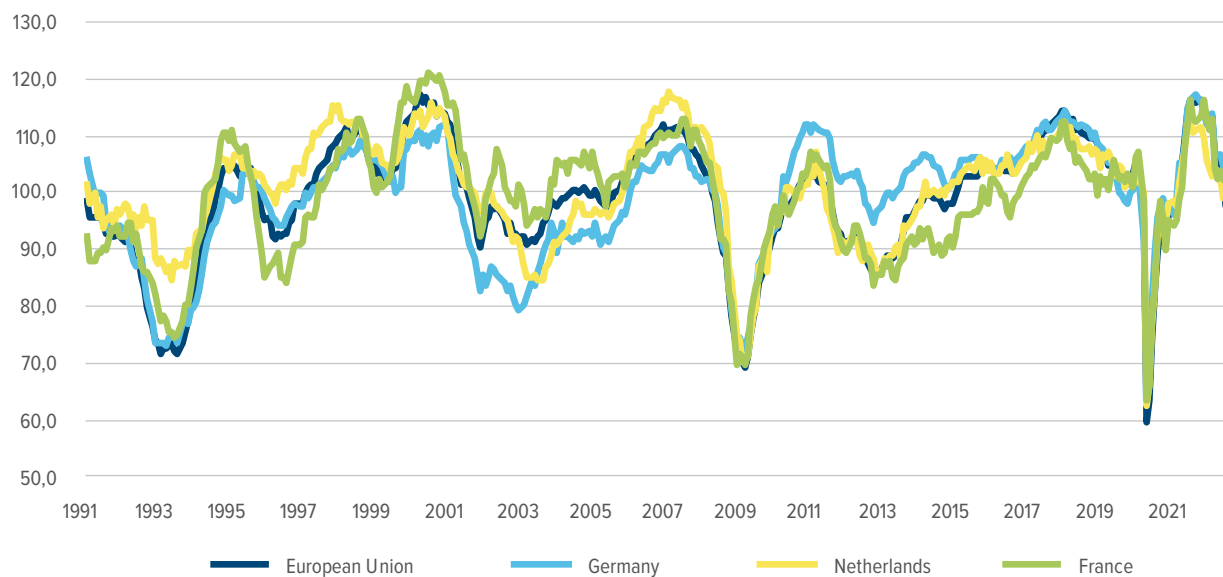
Source: INDUSTRIA FONES Immobilien

Sense of Security – a Thing of the Past

Russia's invasion of Ukraine and the strict zero-COVID-policy in China have fuelled the anyway accelerating inflation worldwide, and caused supply bottlenecks to start tightening again. Real wages have been falling sharply in many countries, slowing private consumption, even though many people still have the option to fall back on savings accumulated during the pandemic. Faced with high inflationary pressure, central banks have (some with initial reluctance) switched to a course of monetary tightening or have significantly intensified it. It is against this background that the outlook for the global economy has visibly dimmed. The effect is clearly reflected in the Economic Sentiment Indicator (ESI): Economic sentiment in the eurozone deteriorated faster than expected in August. Month over month, the ESI fell by 1.3 points to 97.6 points. High energy prices, persistent supply chain issues, the war in Ukraine and the strict COVID-19 policy pursued by China are factors that have collectively depressed economic sentiment throughout the eurozone, including the three countries at hand (Germany, France and the Netherlands). Losing almost five percent, the sentiment indicator in the export-driven Dutch economy took a particularly drastic dip.

Economic sentiment in the United Kingdom, home to the largest real estate investment market in Europe, is similarly defined by a strong sense of unease. During the twelve months leading up to August 2022, Britain's Consumer Price Index (CPIH) rose by 8.6 %, compared to 8.8 % in July. More than by anything else, the rates were driven up by increasing food prices.⁷ The US bank Citi, among others, has warned that inflation rates in 2023 could go as high as 18 %. This outlook in combination with the variable and, by German standards, short-term real estate financing arrangements creates a blend that is making investors very uneasy at the moment.

► Economic Sentiment Indicator (ESI) for selected EU countries (01/1991 – 08/2022)



Source: European Commission

⁷ Office for National Statistics (2022): <https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumer-priceinflation/august2022>

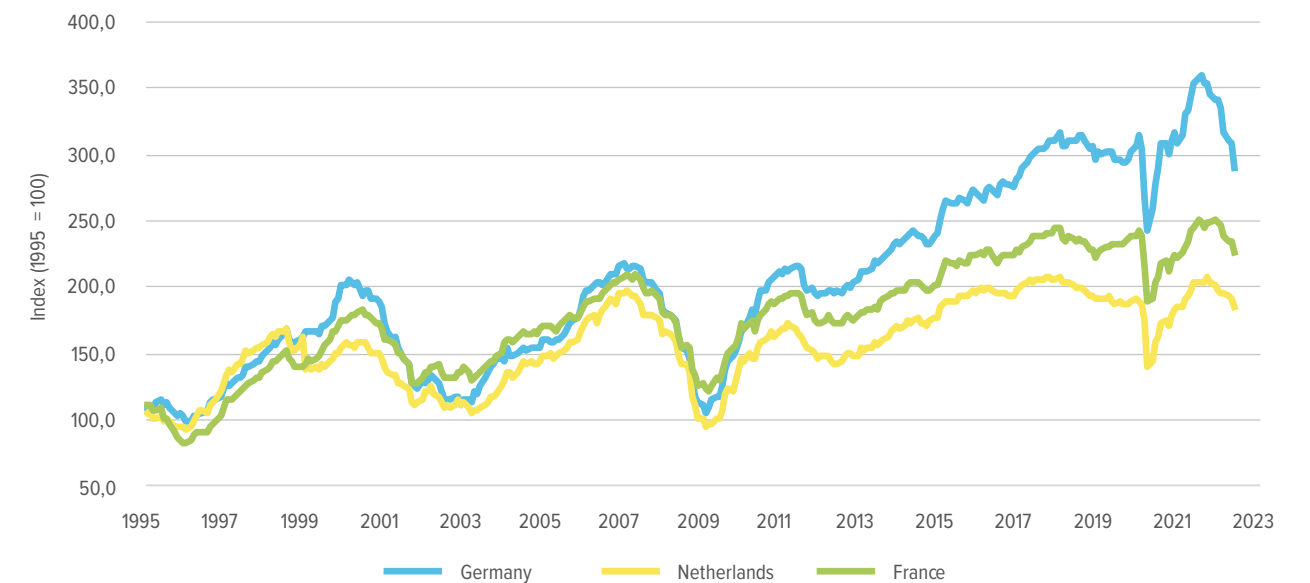
Bearish Sentiment on Real Estate Markets

The real estate industry counts among the most diverse and largest sectors of any national economy. This is mainly explained by the fact the property-related activities extend over a wide spectrum that includes property management, estate agency, funding, planning and construction, among many others. On the one hand, this makes it rather hard to clearly delineate the real estate sector, not least because the boundaries between the various industrial sectors are increasingly blurred anyway. On the other hand, the diversity of the real estate market shows that market segments and niches are subject to heterogeneous developments while the developments are in turn subject to various influencing factors, such as sustainability requirements (ESG) and changed occupier patterns (working from home).

Not just national economies, but real estate markets themselves respond sensitively to fluctuations in the various parameters of each economy. Within the framework of its REECOX family, bulwiengesa does its calculations concerning national real estate economies on the basis of macroeconomic key ratios that are generally available on any real estate market and that lend themselves to comparative analyses of economic situations. The chart below represents the real estate economies of the three target countries within the European Union to provide a first-look assessment of the situation on the domestic market and its historic development for orientation purposes.

The REECOX index provides, aside from a general economic assessment of a national economy, valuable information on the state the industry is in. In addition to the basic data from the national accounts of the respective countries, the REECOX also returns a general sentiment index. The real estate economy has had to cope with serious setbacks lately: Higher interest rates and construction costs have made market operators even more cautious. This makes it

► REECOX for selected EU countries (01/1995 – 06/2022)



Source: Deutsche Hypo – NORD/LB Real Estate Finance

reasonable to assume that the number of property developments in all segments is very likely to decline, not least because of the risk aversion among banks. Although this will not amount to a credit crunch for the construction and real estate industries, it points to higher equity requirements in future. Despite the diverse imponderables that define the current market, there is no reason to conclude that a credit crunch should be expected. On the contrary, financial institutions remain very much interested in granting real estate loans. After all, the relevant departments were massively expanded in recent years, including their human resources in many cases. Banks are now gravitating increasingly toward lower-risk financing arrangements, which is chiefly reflected in high equity requirements – in addition to the tightened requirements specified by national supervisory authorities.



Source: Envato

#3 Drab Days, Stress and Worries: Is the Autumn Blues Grabbing Hold of Europe's Economies?

Even during the second quarter of 2022, the European economy expanded in spite of the detrimental factors (by 0.7 % in the eurozone and by 0.6 % in the EU, quarter on quarter). The country level presents a mixed picture: While the economic output in Germany stagnated, it increased at an above-average rate in Spain (1.1 %), Italy (1.0 %) and Sweden (1.4 %) while moderate GDP growth at a rate of 0.5 % was recorded in France and Austria. Figures for Portugal, Lithuania and Latvia suggest that their economies contracted. Apparently, the degree to which the obstacles impeding the global economic development impacted the national economy varies from one country to the next. There is a risk that the economic recovery of the European Union will be gradually choked by the high rate of inflation (fuelled specifically by the high current energy prices) and the repercussions of the war in Ukraine.

The Euro system's June forecast predicts a real GDP growth by 2.8 % in 2022 and by 2.1 % each in 2023 and 2024 for the European single currency area. The OECD's June forecast for the eurozone assumes a strong increase in oil prices in 2023 and therefore expects a slightly slower growth rate of 2.6 % in 2022 and of 1.6 % in 2023. The differences in forecasts are explained by the underlying assumptions in either case: The forecasts of the Euro system are based on the assumptions that full-fledged combat operations in Ukraine will cease by the end of 2022, that sanctions against Russia will remain in place through 2024, and that energy deliveries from Russia will not be suspended altogether. In a downside scenario that assumes prolonged fighting in the Ukraine war, increasing geopolitical tensions, further sanctions packages and a cessation of Russian energy deliveries, the Euro system determined a GDP growth of merely 1.3 % for 2022, a decline in economic output by 1.7 % for 2023 and GDP growth by 3.0 % for 2024.

For the economic forecasts of the three countries examined herein (Germany, France, Netherlands), the technical assumptions in regard to interest rates, commodity prices and exchange rates orient themselves to the mentioned specifications of the Euro system, and are only modified in parts. The table below provides a clear overview of the most important assumptions for the projection period up to and including 2026.

Assumptions for the forecast (annual averages), 2021 – 2026

	2021	2022*	2023*	2024*	2025*	2026*
Oil price US dollar/barrel (Brent)	71.1	107.9	99.5	90.2	84.3	79.7
Global trade**	10.3	2.9	4.0	4.8	5.4	6.2
Exchange rate US dollar/euro	1.18	1.08	1.05	1.05	1.05	1.05
Main refinancing interest rate, ECB	0.00	0.75	2.00	2.25	2.25	2.00

Source: bulwiengesa AG *Forecast 2022–2026 (calculation date: 25 July 2022)

**adjusted for inflation; year-on-year changes in percent; global trade of goods in deviation from CPB world trade monitor.

Economic Forecast for Germany: Domestic Economy (Still) Defying the Headwinds

Germany's gross domestic product rose by 0.1 % quarter on quarter during Q2 2022 when adjusted for inflation, seasonal variation and calendar effects, thereby regaining the pre-crisis level of Q4 2019. The domestic economy was supported primarily by private and government consumption spending. Despite the steep price hikes and the energy crisis, Germany saw catch-up effects in the form of private travel, restaurant visits and event attendance as people exploited their regained freedoms after the pandemic restrictions were almost entirely rescinded during the second quarter of 2022. The above-average savings ratio that evolved during the pandemic is being reversed now that restrictions have been lifted; private consumption increased by 0.8 % quarter on quarter during Q2 2022. Positive contributions to growth (rate of change quarter on quarter) also came from government consumption expenditure (2.3 %) and investments in plant and machinery (1.1 %). Despite an unusually favourable and mild winter, building investments slipped into the negative range (-3.4 %). In our assessment, the signs of the contributions to GDP growth as discussed should remain in place during the summer quarter; Germany's economic output will ultimately keep flatlining during the third quarter – supported by catch-up effects as people now have the chance to order previously restricted services.

The uncertainties and the high rate of inflation weigh down not just on the economic prospects, but are also leaving their marks on the labour market. The speedy catch-up process that commenced once the pandemic restrictions had been lifted lost much of its momentum during the first half of the year. Nonetheless, the number of gainfully employed persons in Germany continued to increase, while being paralleled by a further increase in unemployment in July 2022. The latter trend is mainly due to the recognition of Ukrainian refugees, whose registration entitles them to government benefits under the German Social Security Code (SGB II). As of 1 June 2022, refugees from Ukraine were granted the right to apply for benefits under the basic subsistence income scheme for job seekers.

The economic outlook for the years ahead will be dominated by the war in eastern Europe and the concomitant energy crisis. The war weighs heavily on consumer and investor sentiment. It exacerbates

existing supply bottlenecks and deepens the fissures caused by inflation and interest rate developments. The sanctions imposed on Russia have, of course, proven to cut both ways, as they have caused an energy crisis in Europe. At a time when the COVID-19 crisis is finally losing its edge in Germany, wavelike outbreaks elsewhere (especially in China, prompting tightened pandemic restrictions) have caused persistent bottlenecks and imposed constraints on global trade. In short, COVID-19 remains a stress factor for the global economy. The risk that a stagflation or, in some cases, a recession (technically speaking) hits Europe cannot be ruled out.

In the ongoing year, the inflation rate will rise to 7.4 %, the highest level seen since Germany's reunification in 1990. The price upsurge will probably remain above-average in the year ahead with an anticipated 4.5 %. Russia's war against Ukraine has drastically worsened the energy price situation, as discussed above. Now the threat of a complete suspension of gas deliveries looms over parts of Europe along with the predictable downstream effects for national economies. Prices for commodities and food are currently the main inflation drivers. Temporary relief packages only deflect the ramifications of the inflation while leaving the caus-

es for the price growth untouched – in addition to the gas levy, the steady and significant increase in gas, petrol and electricity prices in particular will have an impact on consumer and industry sentiment, and not just when the heating season starts. Even after prices have peaked (not before early 2023), inflation is unlikely to return to its very low level of the past decade. Structural reasons such as higher prices on carbon emissions and the growing labour shortages all point to sustained high inflation rates.

Wages and salaries are rising at the fastest rate seen in 30 years, but are still expected to lag behind consumer price increases. The collective wage agreements of 2022 are largely in place. The negotiations still pending in the important metal and electrical industries will hardly influence this year's figures because they won't start until autumn. The same is true for the chemical industry where a one-off payment and the resumption of talks in autumn were agreed in April. Judging by the agreements already concluded, collective bargaining earnings will probably increase by 2.9 % this year. Although this means they will rise at a much faster rate than last year, when the crisis kept the increase at a low 1.6 %, they will lag far behind the rise in consumer prices.

Benchmark figures of the national economy and labour market forecast, Germany, 2018–2026*

	2018	2019	2020	2021	2022*	2023*	2024*	2025*	2026*
Private consumption**	1.5	1.7	-5.8	0.3	3.3	1.8	1.1	0.8	0.6
Public consumption**	0.8	2.6	4.0	3.8	0.3	-1.2	0.6	0.5	0.4
Gross fixed capital formation**	3.4	1.9	-2.3	1.2	1.7	4.4	2.2	1.9	1.5
Exports**	2.2	1.3	-9.3	9.7	2.0	5.0	3.6	3.0	2.8
Imports**	4.0	2.9	-8.5	9.0	3.1	3.6	4.0	3.3	3.0
Real GDP**	1.0	1.1	-3.7	2.6	1.7	2.5	1.6	1.2	1.0
Employed persons***	1.4	0.9	-0.8	0.0	1.3	0.4	0.2	0.0	-0.2
Unemployment rate***	3.2	3.0	3.7	3.6	3.0	3.0	2.9	2.8	2.6
Consumer prices (HCPI)***	1.9	1.4	0.4	3.2	7.4	4.5	2.5	2.1	2.0
Government balance****	1.9	1.5	-4.3	-3.7	-2.8	-1.6	-1.2	-0.3	0.3
Government gross debt (consolidated)****	61.2	58.9	68.7	69.3	68.1	65.3	64.3	63.0	61.8

Source: Eurostat. *Forecast 2022–2026 bulwiengesa AG (calculation date: 25 July 2022) **Figures represent year-on-year change in percent, chain-linked volumes (index 2015=100) ***Inflation and labour market figures represent year-on-year change in percent or the unemployment rate according to the Eurostat definition. ****Figures in percent of GDP



Economic Forecast for the Netherlands: Export-Driven Economy Braving the Heavy Seas with Ease

On the whole, the Dutch economy is going full tilt. According to our own projections, domestic demand in real money terms will expand significantly in 2022 while exports of goods and services will grow by 3.6 % when adjusted for inflation. Business prospects for importers will therefore remain bright, as the Netherlands are expected to import 4.2 % more goods and services in 2022 than the year before. In sum, the upward trend seen last year seems to continue. The Dutch economy had grown by nearly 5 % in 2021, after the pandemic-related decline of the gross domestic product by 3.9 % in 2020. The Dutch Government had prevented an even steeper drop by intervening with extensive funding programs. The public analytic institute CPB puts their volume at 185 billion euros.

The Netherlands, and Amsterdam in particular, received an additional boost when Amsterdam's stock exchange replaced London as Europe's largest trading centre for shares in 2021, as numerous investors outsourced their trading activities after the UK's withdrawal from the EU.

The high productivity and competitiveness of the Dutch economy is reflected in consistently high current account surpluses. The Netherlands also have an extremely open economy because of the country's role as primary logistics hub of Continental Europe:

Imports of goods amounted to about 75 % of the gross domestic product in 2021, matched by an exports share of about 82 %. However, the current political situation necessitates adjustments of the Dutch economy's maritime activities. The sanctions imposed on the Russian Federation also imply a significant increase in uncertainties concerning the future business development of the port in Rotterdam, the largest in Europe. Almost 13 % of all goods transhipped here used to originate in Russia, most notably fuels and metals.

Current growth drivers include the robust industrial economy, pandemic-related catch-up effects and the associated upgrade backlog. In the manufacturing industry, the capacity utilisation of more than 84 % in Q2 2022 matched the highest level registered the year before. In contradistinction to Germany, building investments in the Netherlands saw a real growth by 2.5 % this year to date. The positive trend is explained by pandemic-related delays, catch-up effects and investment programs involving the transport infrastructure as well as the health care and energy sectors.

The coming years are expected to see a real GDP growth of just under two percent, which would have positive effects for the labour market, too. The number of gainfully employed persons will grow

within a range of 0.4 % to 1.7 % annually through the end of the projection period. This will significantly reduce the jobless figure within the Dutch economy. The unemployment rate will drop to a level around three percent and, like in Germany, the shortage of skilled labour will become an issue. Wages and salaries are likely to increase, which in turn will significantly boost private consumption.

A look at the situation in the Netherlands shows that the country is able to meet the Maastricht criteria. Rising tax revenues will enable the Dutch Government to roll back the funding deficits caused by the pandemic in the years ahead. We expect the Dutch state budget to start reporting a surplus by 2025. In terms of consolidated government gross debt, the debt burden is steadily declining year after year. The Netherlands remain a model member of the eurozone and one of its reliably stabilising anchors.



Benchmark figures of the national economy and labour market forecast, Netherlands, 2018–2026*

	2018	2019	2020	2021	2022*	2023*	2024*	2025*	2026*
Private consumption**	2.2	0.9	-6.4	3.7	4.9	2.0	1.0	1.2	1.3
Public consumption**	1.7	2.8	1.6	5.2	2.0	1.5	1.4	1.6	1.7
Gross fixed capital formation**	3.6	6.2	-2.6	3.2	2.5	2.6	2.2	1.8	1.6
Exports**	4.3	2.0	-4.3	5.2	3.6	4.4	3.7	3.4	3.4
Imports**	4.7	3.2	-4.8	4.0	4.2	4.9	4.3	4.0	3.8
Real GDP**	2.4	2.0	-3.9	4.9	3.2	2.1	1.9	1.6	1.6
Employed persons***	3.0	2.2	0.6	1.8	1.7	0.9	0.7	0.5	0.4
Unemployment rate***	4.9	4.4	4.9	4.2	3.3	3.1	3.0	2.9	2.9
Consumer prices (HCPI)***	1.6	2.7	1.1	2.8	9.3	3.2	2.4	1.9	1.8
Government balance****	1.4	1.7	-3.7	-2.5	-1.9	-1.3	-0.8	0.1	0.4
Government gross debt (consolidated)****	52.4	48.5	54.3	52.1	50.8	50.1	48.9	48.2	47.3

Source: Eurostat. *Forecast 2022–2026 bulwiengesa AG (calculation date: 25 July 2022) **Figures represent year-on-year change in percent, chain-linked volumes (index 2015=100) ***Inflation and labour market figures represent year-on-year change in percent or the unemployment rate according to the Eurostat definition. ****Figures in percent of GDP

Economic Forecast for France: No Recession in Spite of Crises

With a real growth of 6.8 % in 2021, France emerged from the COVID-19 crisis more dynamically than other major economies in the European Union. Lately, however, the war in Ukraine has exacerbated the supply-side issues for the industry by disrupting supply chains. The problem is compounded by problems on the demand side, growing prices have caused a dip in consumer spending. Although government measures (including restrictions on price increases for gas and electricity) seek to cushion the impact, these have been unable to halt the decline in private consumption. Industrial production and gross fixed capital formation virtually flat-lined during the first half of the year, and consumption will probably continue to be stimulated by government measures through the end of 2022. During the election campaign, the government had promised a food cheque, the abolition of the public broadcasting fee, higher tax-free bonuses, along with increases in public sector salaries, social benefits and pensions. The fuel rebate will be raised from 18 to 30 cents per litre for the months of September and October, and afterwards, permanent benefits for frequent drivers will be considered.

The value of imports continued to surge in proportion to rising commodity prices. As consumption increases in the coming quarters, imports will also resume their growth in real money terms. Aircraft manufacturing and motor vehicle production are expected to rebound, which would be another factor driving the importation of intermediate products. Exports in these sectors and in the luxury goods sector have already been going up. The tourist trade is also making a positive contribution to the current account. Airbus has stepped up the pace of its production, and the fact is already reflected in trading figures. Still, the high commodity prices will probably cause the current account deficit to soar in 2022.

Benchmark figures of the national economy and labour market forecast, France, 2018–2026*

	2018	2019	2020	2021	2022*	2023*	2024*	2025*	2026*
Private consumption**	1.0	1.8	-6.7	5.2	3.6	1.7	1.2	0.9	0.6
Public consumption**	0.8	1.0	-4.0	6.4	2.1	0.5	0.6	0.6	0.5
Gross fixed capital formation**	3.3	4.0	-8.2	11.5	2.6	2.6	2.2	2.0	1.8
Exports**	4.5	1.6	-16.8	8.8	4.7	3.4	3.7	3.6	3.4
Imports**	3.1	2.3	-12.8	8.0	4.8	2.7	3.5	3.2	3.2
Real GDP**	1.9	1.8	-7.8	6.8	2.5	1.9	2.1	2.0	1.9
Employed persons***	1.0	1.3	-0.9	1.8	0.9	0.4	0.4	0.3	0.3
Unemployment rate***	9.0	8.4	8.0	7.9	7.4	7.2	7.1	7.0	6.9
Consumer prices (HCPI)***	2.1	1.3	0.5	2.1	5.8	4.0	2.4	2.0	2.0
Government balance****	-2.3	-3.1	-8.9	-6.5	-4.9	-3.4	-3.1	-3.0	-2.9
Government gross debt (consolidated)****	97.8	97.4	114.6	112.9	113.2	113.6	113.8	113.9	114.1

Source: Eurostat. *Forecast 2022–2026 bulwiengesa AG (calculation date: 25 July 2022) **Figures represent year-on-year change in percent, chain-linked volumes (index 2015=100) ***Inflation and labour market figures represent year-on-year change in percent or the unemployment rate according to the Eurostat definition. ****Figures in percent of GDP



Source: shutterstock

The GDP forecast for the years ahead predicts an annual growth by two percent, starting in 2023. The growth trajectory of the French economy will have a positive effect for the domestic labour market. But steadily rising employment figures do not translate into a significant reduction of the jobless figure because, unlike in Germany, the number of working-age persons entering the labour market is not decreasing but increasing for demographic reasons.

The failure to comply with the Maastricht criterion that governs debt remains a problem: Both the annual government balances and the consolidated government gross debt are increasing the burden on public budgets as the level of interest rates rises. In response, the EU Commission has already urged France several times to address its above-average national debt and its deviation from the common-market budget rules. While it is true that the European debt rules have been suspended since the beginning of the pandemic, the EU Stability Pact will be reinstated in 2023. International organisations have harshly criticised the distribution principles of the social system in France, yet urgent reforms are moving ahead at a sluggish pace, one reason being the sometimes violent protests of the “yellow vests,” a movement against the overdue reform efforts pursued by the Macron administration.

Outlook: Uncertainty to Remain a Steadfast Companion in the Years Ahead

The outlook for the economic cycle in the analysed countries is characterised by enormous uncertainty regarding the further developments in the war in Ukraine. The possibility of a serious disruption of the European energy supply, which could lead to sharp further increases in energy prices and production cutbacks, poses a significant risk. A surge in inflation may also lead to an increased risk of second-round effects on inflation through higher wage demands (the so called “wage-price spiral”). Model-based analyses show that temporary wage pressures resulting from stronger wage inflation indexation can have a significant impact on inflation dynamics. Moreover, we cannot rule out possible conflicts of objectives between a higher equalisation of real wages and the preservation of jobs.

An increase in sovereign debt would represent one of the most serious economic and social consequences of the post-pandemic period in the medium to long term. Growing inflation concerns, but also an unexpectedly swift reversal of the accommodative monetary policy could lead to a significant hardening of yields for bonds of any maturity on the (global) bond market.

At the ECB’s central bank meeting on 9 September 2022, the European Central Bank announced a 0.75-percentage-point increase in key lending rates. This raised the main refinancing rate to 1.25 %, the reason for the strong signal being the record inflation of 9.1 % in the eurozone in August 2022. Interest rate differentials within the eurozone have gone up in sync with the interest rate hike. Especially in countries with higher sovereign debt ratios and potentially poorer growth prospects, interest rates or spreads have gone up faster than in the eurozone.

#4

SUSTAINABILITY and ESG in the Three Real Estate Markets of GERMANY, FRANCE and the NETHERLANDS

Climate Change Mitigation Triggering the ESG Theme

Sustainability is one of the most important megatrends globally, and it has arguably evolved into a defining topic within the economy. The Paris Climate Accord was signed at the 2015 World Climate Conference. All of the ratifying states agreed to support climate change mitigation (“Paris Agreement,” 2016). The real estate industry plays a key role for the climate change mitigation effort because the sector accounts for a significant share of the world’s greenhouse gas emissions.

While the transformation of the regulatory environment does not qualify as a mega trend in its own right, it is an important driver influencing the real estate market: Answering to social and political pressure, the topic of sustainability and “Environmental, Social, Governance” (ESG) in the real estate industry has advanced from an environmental necessity into one of the most important and central issues. Regulatory obligations, such as the Sustainable Finance Disclosure Regulation (Regulation 2019/2088), the EU Taxonomy Regulation (Regulation 2020/852), and the CO₂ levy of 25 euros/ton of CO₂ that has been effective since 1 January 2021, along with the changing behaviour of investors, who are now gravitating towards ESG-compliant in-

vestments, all have resulted in an increasing need for transparency and growing financial risks for the real estate industry. Implementing the ESG criteria and setting up a reporting system of corresponding sustainability indicators, which is mandatory under EU regulations, is therefore indispensable for real estate companies that wish to retain their competitive edge.

Due to the importance of the sustainability mega trend for the real estate industry, the section below outlines the main regulations and measures that will significantly influence and regulate the real estate market in the coming years.

On 25 September 2015, the so-called 2030 Agenda (“Transforming our world: the 2030 Agenda for Sustainable Development”) was adopted by the United Nations General Assembly. The 2030 Agenda comprises 17 Sustainable Development Goals (SDGs), which were broken down into 169 sub-goals. The idea is to achieve these goals by 2030 and to use them as a normative framework for determining and classifying overarching impact goals.

The 17 global goals for sustainable development defined by the 2030 Agenda

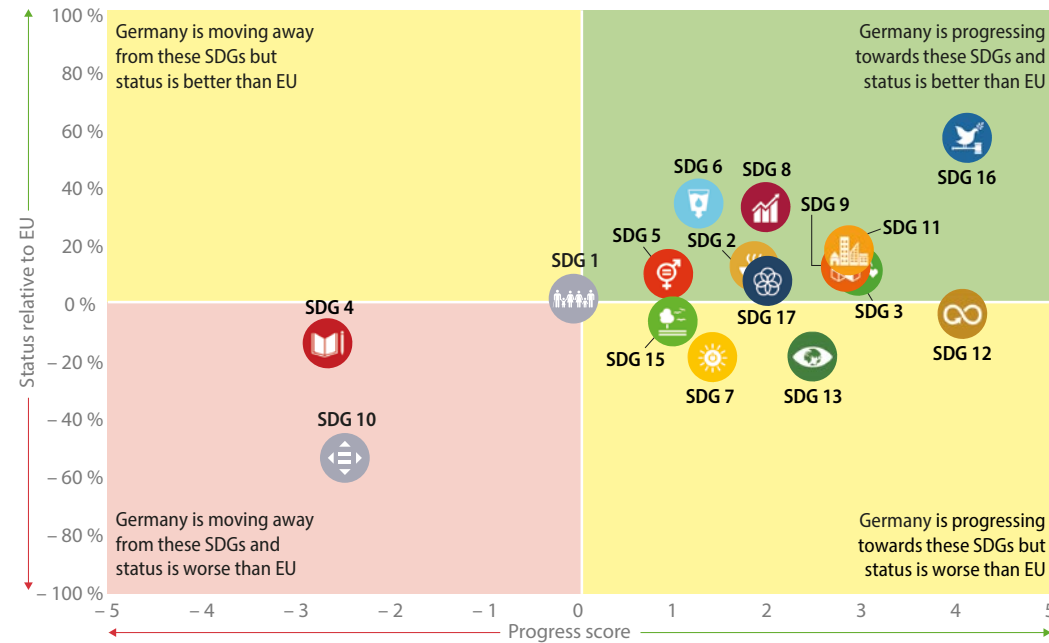


Source: <https://17ziele.de/>

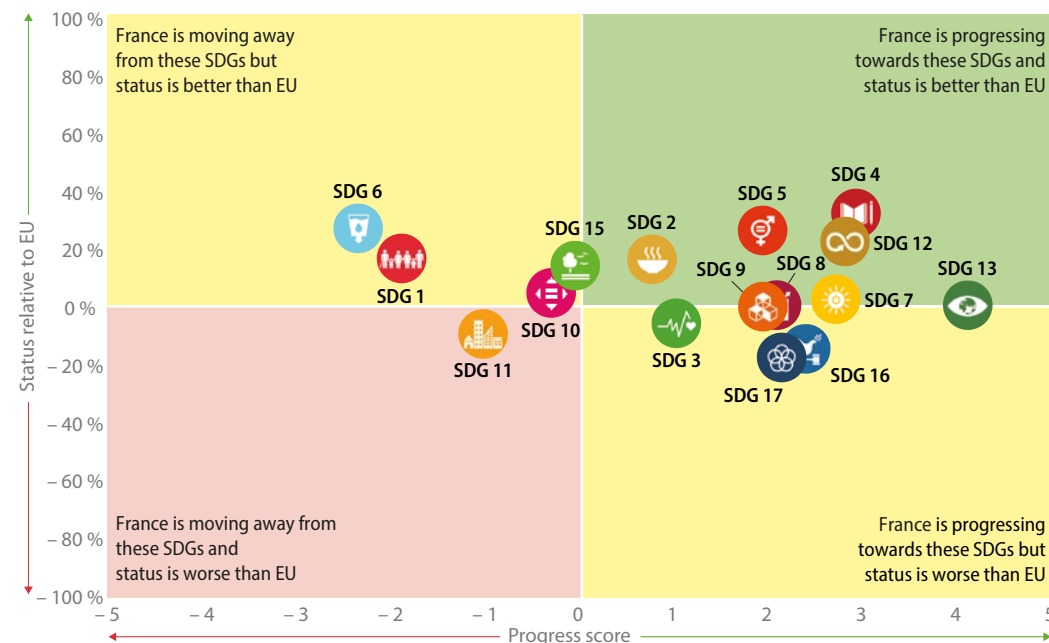
Current Status and Progress of Efforts by Germany, France and the Netherlands to Achieve the 17 SDGs

The respective status and progress of efforts made by Germany, France and the Netherlands to achieve the 17 sustainable development goals (SDGs) present a heterogeneous picture as of 2022. But generally speaking, it is reasonable to say that the Netherlands have advanced farthest in term of status, and that all three countries are closing in on the majority of the 17 SDG.

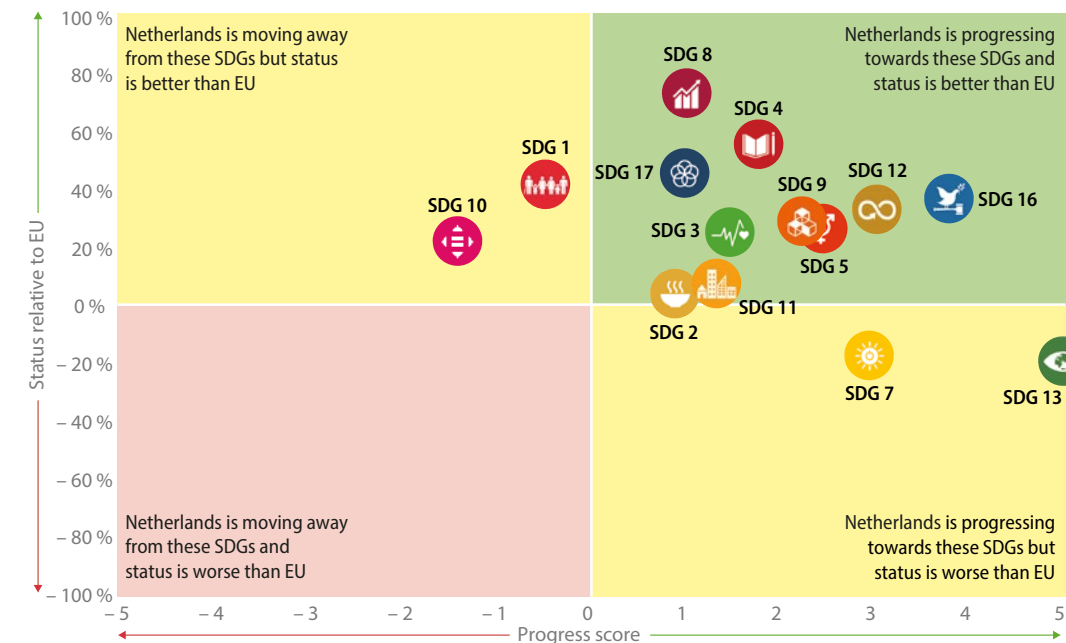
Current status and progress of Germany towards achieving the 17 global Sustainable Development Goals (SDGs)



Current status and progress of France towards achieving the 17 global Sustainable Development Goals (SDGs)



Current status and progress of the Netherlands towards achieving the 17 global Sustainable Development Goals (SDGs)



EU Action Plan

Based on milestones of the UN Principles for Responsible Investments (PRI) investor initiative published in 2006, the European Commission launched its EU Action Plan (“EU Action Plan: Financing Sustainable Growth”) on 8 March 2018, which makes compliance with a variety of regulations at various times mandatory for the financial sector. The idea is that a sustainable financial system should take environmental and social considerations into account when making investment decisions. The environmental considerations relate to the adaptation to and mitigation of climate change, while the social considerations address issues related to inequality, participation, employment relations and investments that affect people and the community (Europäische Kommission, 2018).

The Action Plan focuses on the development of the EU Taxonomy in order to be able to transparently collect reliable and comparable information on sustainable investments, using standard definitions. The Taxonomy is initially considered in regard to climate change mitigation, and later extended to include social sustainability aspects (Europäische Kommission, 2018).

The respective key topics are set out in the following regulations:

- ▶ Taxonomy Regulation (TR) of 18 June 2020,
- ▶ Sustainable Finance Disclosure Regulation (SFDR) of 27 November 2019, and the
- ▶ Benchmark Regulation (BMR) of 27 November 2019.

The overall objective of the Sustainable Finance Disclosure Regulation (Regulation EU 2019/2088 of the European Parliament and of the Council of 27 November 2019 on sustainability-related disclosure requirements in the financial services sector) is to create transparency, which in turn will help to redirect capital flows towards (environmentally and socially) sustainable investments. It breaks down into three sections: (1) managing sustainability risks, (2) adverse impacts of investment decisions on sustainability factors, and (3) product categories. For the time being, the Sustainable Finance Disclosure Regulation applies only to real estate fund companies.

The Taxonomy Regulation (Regulation (EU) 2020/852) of the European Parliament and of the Council dated 18 June 2020, which establishes a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088, defines criteria for determining the extent to which an economic activity qualifies as environmentally sustainable (a corresponding regulation regarding social criteria is in planning). However, classification as an environmentally sustainable economic activity is only possible if this activity is carried out in accordance with the OECD Guidelines for Multinational Enterprises and the United Nations Guiding Principles on Business and Human Rights, including the Declaration on Fundamental Principles and Rights at Work by the International Labour Organisation (ILO), the eight ILO core labour standards, and the International Bill of Human Rights (the so-called minimum protection). The objective here is to have a way to recognise the degree of an investment's envi-

ronmental sustainability. The criteria for environmental sustainability (Art. 3 a) to d), Taxonomy Regulation), refer primarily to the fact that defined environmental objectives (Art. 9, Taxonomy Regulation) must be met. In addition, the environmental objectives should have no significant adverse effects on each other (Art. 17 Taxonomy Regulation) and should ensure that the minimum protection (Art. 18, Taxonomy Regulation) is implemented (Taxonomie-VO, 2020).

In order to develop technical evaluation criteria for the environmental objectives, among other purposes, the EU Technical Expert Group on Sustainable Finance (TEG) was created. The TEG final report including annex examines seven economic sectors and defines screening criteria. Here, buildings constitute one of the seven economic sectors (EU Technical Expert Group on Sustainable Finance, 2020a, 2020b).

The annex to the final TEG report includes recommendations for technical screening criteria that contribute to climate change mitigation, which cover the real estate sector. The largest economic sector in Europe in terms of energy consumption is the real estate sector as it accounts for 40 % of the total energy consumption and for 36 % of the total carbon emissions. Around 75 % of the properties in Europe are considered inefficient and only between 0.4 % and 1.2 % of the property stock undergoes energy efficiency upgrades per year (EU Technical Expert Group on Sustainable Finance, 2020a).

EU Green Deal

In addition to the EU Action Plan, the European Green Deal for a Sustainable EU Economy ("EU Green Deal") was presented on 11 December 2019, specifying further requirements and strategies to implement the UN 2030 Agenda. In order to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy, no net greenhouse gas emissions should be released by 2050 anymore, and economic growth should be decoupled from resource use. Another objective of the EU Green Deal is the protection, preservation and enhancement of the EU's natural capital and the protection of people's health and well-being from environmental risks and impacts (European Commission, 2019).

The EU Green Deal comprises the following objectives (European Commission, 2019), of which (2), (3) and (4) concern specifically the real estate industry

- (1) Ambitious EU climate change targets for 2030 and 2050
- (2) Supply of clean, affordable and secure energy
- (3) Mobilisation of the industry for a clean and circular economy
- (4) Energy- and resource-conserving construction and refurbishment
- (5) Faster transition to a sustainable and smart mobility
- (6) A fair, healthy and environmentally friendly food system
- (7) Conserving and restoring the ecosystem and biodiversity, and a
- (8) Zero-pollution target for a pollution-free environment.



Snapshot: The ESG status in Germany, France and the Netherlands

Germany

- › Despite the difficult market environment with significantly lower stock market prices, German investors held more shares in investment funds with sustainability features by mid-year 2022 than ever before. Assets under management totalled 718 billion euros, which implies a 48 % increase year on year. Public funds accounted for 575 billion euros thereof. This means that Article 8 funds (with environmental and/or social features) and Article 9 funds (contributing to at least one sustainability objective) account for around 44 % of the entire public fund market.⁸
- › A very strong indication of how important ESG has become for German investors is the fast increase in the number of participants in the GRESB Real Estate Assessment 2021 since 2019, with 74 German investors ultimately participating. The assessment represents an investor-driven global ESG benchmark and reporting framework for listed real estate companies, private real estate funds, property developers and investors directly investing in real estate.⁹

France

- › As early as mid-2020, France boasted the biggest market share in sustainable funds. According to a survey by the BVI Federal Association for Investment and Asset Management, 21 % of all sustainable funds were domiciled in France. Germany accounted for only 10 % of all sustainable funds, the Netherlands for 8 %.¹⁰
- › The Task Force on Climate-related Financial Disclosures (TCFD) is an initiative launched in December 2015 by the Financial Stability Board (FSB), an international body established with the support of the G20 members to enhance international financial stability. The purpose of the TCFD is to “help identify the information needed by investors, lenders and insurance companies to appropriately assess and evaluate climate-related risks and opportunities.” While some countries are still mulling over the optimal timelines for implementing the TCFD, France has already made climate and biodiversity reporting mandatory via a legal provision (Article 29, LOI n° 2019-1147 du 8 novembre 2019 relative à l'énergie et au climat) that presents not just challenges but opportunities, too, for companies domiciled in France. That is because Article 29 obliges regulated financial institutions to report on both climate-related and biodiversity-related risks and impacts. It also shows that France is well ahead of other countries in Europe, at least when it comes to the disclosure of ESG data.^{11 12}
- › Just how important ESG has become for French investors is the rather lively participation in the GRESB Real Estate Assessment 2021 since 2019, in which 30 French investors ultimately participated.¹³

8 Source: BVI (2022): The Sustainable Fund Market during Q2 2022

9 Source: GRESB (2021): Real Estate Assessment Results

10 Source: BVI (2020): How far is the sustainable fund market in Europe?

11 Source: <https://assets.bbhub.io/company/sites/60/2020/10/FINAL-2017-TCFD-Report-11052018.pdf>

12 Source: <https://assets.bbhub.io/company/sites/60/2015/12/12-4-2015-Climate-change-task-force-press-release.pdf>

13 Source: GRESB (2021): Real Estate Assessment Results

Netherlands

- › For some time now, leading Dutch banks have required their borrowers to comply with sustainability standards, most of which are defined by the respective bank and more or less based on (future) legal requirements. In return for complying with these standards, borrowers could benefit directly from economic incentives, such as a reduction in profit margins, but also from wider benefits, such as long-term cost savings, a more favourable corporate image and increased interest shown by their (main) tenants, investors and financiers of their commercial property developments or investment portfolios.¹⁴
- › Especially for owners of ageing office properties in the Netherlands, the date of 1 January 2023 will mark a break. As of this date, occupancy of an office property will presuppose certification with a class “C” energy label as minimum requirement, which is achieved if the primary energy demand does not exceed 225 kWh per square metre and year. The relevant determination method is NTA 8800:2020, which is based on European CEN standards. This method uses 15 classification levels from A++++ to G to rate office buildings. For office buildings that fail to meet this label or have not been certified at all, this is tantamount to a prohibition of use, subject to few exceptions, e. g. if less than 50 % of the space is actually occupied by offices. The following stats illustrate the ramifications for the Dutch office market: By 1 October 2021, 12 % of all office buildings in the Netherlands still had an energy label of grade “D” or lower while 46 % had not yet received an energy label at all, which means that only 42 % of all relevant office buildings (67,000 in total) currently meet the legal requirements. This has consequences for property owners and tenants alike. Accordingly, Dutch real estate loans for financing office buildings that were taken out in recent years already contain provisions stating that the loan is granted on condition that such an energy label has been awarded (by 1 January 2023 at the latest). This will become even more important when all office buildings are expected to comply with the “A” energy label as of 1 January 2030 and will have to be carbon-neutral by 1 January 2050.¹⁵
- › But a strong indication of how important ESG has become for Dutch investors is the high and stable number of participants in the GRESB Real Estate Assessment 2021 in which 39 Dutch investors ultimately participated.¹⁶

A comparative analysis of the sustainability of 150 countries worldwide in terms of long-term ESG aspects such as human rights and labour rights, climate and energy, corruption, institutions and environmental risks, concluded that the three countries examined herein are among the most sustainable in the world, with Germany ranking 7th, the Netherlands ranking 8th and France ranking 15th. The ranking is headed by a solid block of Nordics, with Finland, Sweden, Norway and Denmark claiming ranks one through four, followed by Switzerland in rank five, ahead of Iceland. The highest-scoring country outside Europe is New Zealand in rank 14.¹⁷

14 Source: GRESB (2021): Real Estate Assessment Results

15 Source: GRESB (2021): Real Estate Assessment Results

16 Source: Vandoorne (2021): Sustainability in Dutch real estate finance – now really part of the deal

17 Source: ROBECO (2022): Country Sustainability Ranking



#5

SNAPSHOT of the Construction Sector and Building Industry in GERMANY, FRANCE and the NETHERLANDS



Source: INDUSTRIA Fonds Immobilien

Germany

In early 2022, the DIW German Institute for Economic Research in Berlin noted that the construction industry in Germany managed to expand its real construction output by over 10 % in 2021 and predicted significant growth rates for the coming years as well (2022: 13 %, 2023: 6 %). This result was achieved despite supply bottlenecks and material shortages of timber, steel, plastics and other important building materials and resulting price hikes, especially during the second half of the year. Some prices, such as for construction timber, have come back down lately, making it reasonable to expect the construction industry to recover during the remainder of the year. Commercial construction in particular should make a positive contribution, as pent-up investments are now expected to make a difference after two slow pandemic years.¹⁸

Similarly, the BBSR Federal Institute for Research on Building, Urban Affairs and Spatial Development observed in February 2022 that all construction sectors are showing growth, having rebounded after the slowdown due to the effects of the COVID-19 pandemic. The fastest growth was registered in commercial construction. Parameters for new-build housing construction have also remained favourable. In public construction, the prospect of working off the accumulated investment backlog seems realistic.¹⁹

The interest rate reversal that started in Q2 2022 has made it significantly more expensive for property developers to finance construction projects, and there is a good chance this could trigger a decline in property development activities in general. The muting effect of the increased interest rate level is practically two-fold whenever construction projects that are intended for sale are leveraged by the buyer. Another significant cut was the decision by the KfW development bank, after consultation with the Ministry of Economic Affairs, to suspend funding for energy-efficient building refurbishments on 24 January 2022. Although a new program was launched on 20 April 2022, it included far more restrictive energy efficiency requirements on and its funds were exhausted in a matter of hours. In the time since, measures have been renewed and amended in stops and starts. An extra allowance for worst-performing buildings is to be introduced on 22 September 2022. Eligible for this label are standing buildings with the lowest energy efficiency level relative to the German building stock as a whole.

The German Government has adopted the ambitious goal of completing 400,000 new-build apartments per year, thereof 100,000 with the help of public funding. In order to stimulate privately fi-



Source: Becken Holding GmbH

nanced new-build rental housing construction, the straight-line depreciation for new-build housing construction is to be raised from two to three percent. Serial construction and more digitisation in planning – such as the option to submit digital building applications – should ensure greater speed. The government also plans to increase funding for social housing, age-appropriate housing conversions and urban development.

Moreover, Germany is entitled to c. 25 billion euros in funds from the European Union on the basis of the “Next Generation EU” development instrument and its largest expenditure instrument – the Reconstruction and Resilience Facility (ARF). One of the four beacon projects of this program is “Climate-Friendly Building with Wood”, for which 500 million euros have been earmarked.

All things considered, the outlook for the German building sector is bright. The sector’s future growth will be fuelled not least by investments in public-sector infrastructure, digitisation, energy-efficient housing refurbishments and a green circular economy, and it will be supported by EU funding.²⁰

¹⁸ Source: DIW Berlin (2022): DIW Wochenbericht 1+2, 2022

¹⁹ Source: BBSR (2022): Bericht zur Lage und Perspektive der Bauwirtschaft 2022

²⁰ Source: European Commission (2021): European Construction Sector Observatory – Country Profile Germany

France

The French Government has already announced or implemented several measures to boost the real estate market:

- › The “Le Logement d’abord” program (2018-2022) facilitates access to residential accommodation.
- › The housing tax for the main residence was abolished.
- › The funding structure of the political subdivisions was reformed: In conjunction with the 2020 budget, 80 % of all French households were exempt from the housing tax. For the remaining 20.0 %, which are the wealthiest households in the country, the housing tax rate will be incrementally lowered, starting in 2021, before being repealed altogether in 2023.
- › The French government also adopted a “Climate and Resilience Law” in its National Resilience and Recovery Plan (NRRP) for the years 2021-2026 to support the transition to a green economy. In addition, the plan proposes a revision of the thermal regulation for new buildings (“RE2020”). Finally, the French NRRP endorsed the implementation of the “Mobility Law 2019,” a broad legislative initiative to update the general framework of the mobility policy that is to be implemented within the NRRP time frame.
- › Other similar legislative reforms that have been proposed are the “ASAP law” (for the acceleration and simplification of public action) and the “4D law” (for differentiation, deconcentration, decentralisation, decomplexification).
- › All these laws impact the French construction sector either directly or indirectly. The French NRRP plan also allocated 5.8 billion euros for a program to refurbish the building stock so as to increase its energy efficiency, which is also an important signal to stimulate ESG-compliant PPP investments.

On the whole, the French building sector can principally be said to have a bright outlook. Non-residential construction and underground engineering are expected to act as the main growth drivers. Investments in public infrastructure, digitisation and the circular economy, supported by EU funds and national resources, are expected to spearhead future growth in the building sector.

That being said, the increased construction prices, the shortage of materials and the elevated borrowing costs are also having an effect in France. As a result, the level of activities in the French building sector in August 2022 was virtually unchanged in regard to both main and secondary construction works. Orders on hand declined again, but still exceeded their long-term average. Entrepreneurs reported for the fourth time in as many months that the increase in asking prices had slowed on a high level. According to the entrepreneurs surveyed, business activity is expected to increase significantly by September.²²



21 Source: Banque de France (2022): Conjuncture Prévisions, Le 8 septembre 2022
 22 Source: European Commission (2021): European Construction Sector Observatory – Country Profile France

Netherlands

Revenues in the building trade showed a year-on-year increase by 8.3 % during the first quarter of 2022. What declined during the first quarter year on year, however, were planning consents for new-build apartments (-13 %) and the approved construction costs for commercial buildings (-11 %). Considering these trends, further revenue growth already appears to be drying up. The building production will continue to increase slight in 2022 and 2023. But the uncertain economic outlook and the surge in construction costs are also discouraging construction investments. Then again, the construction industry benefits from the high energy costs because they stimulate demand for thermal building insulation measures, (hybrid) heat pumps and solar panels. The order books of construction companies remain well filled, too, and profit margins are only under limited pressure.²⁴

In July 2020, the Dutch government announced that it will receive 82 million euros in grants from the European Commission for the non-residential and civil engineering sector, which is to be spent on the development of road, rail and water infrastructure. The government subsequently took measures to ensure that these construction and infrastructure works would continue even during the COVID-19 crisis. A special task force for the construction sector was set up to identify projects that could be brought forward or implemented on short notice. An additional 265.0 million euros were set aside to fund these projects over the next two years.²⁵

In July 2022, the Dutch Government officially submitted the Dutch Recovery and Resilience Plan (Nederlandse Herstel- en Veerkrachtplan (HVP)) to the European Commission. The plan includes 49 different measures, among them 21 reforms and 28 investment plans. Total investments will add up to c. 5.2 billion euros. The amount is, of course, higher than the 4.7 billion euros to which the Netherlands are entitled. But it gives the government room for possible adjustments if the opportunity presents itself before the European Commission has finalised its implementing decision, which it will announce within two months’ time. The Dutch HVP plan concentrates on themes that are of great significance for the government, such as climate change mitigation, public housing construction and the labour market. The plan will also invest in the areas of digitisation, education and health-care.²⁶

Despite these developments, the Dutch construction sector is hampered by two major issues. For one thing, there is a shortage in high-skilled construction workers. Secondly, late payments have become an increasingly worrisome issue since the outbreak of the COVID-19 pandemic. But on the whole, it is safe to say that the initiatives of the Dutch government in combination with upbeat forecasts regarding construction performance indicators like revenues and jobs translate into an optimistic outlook for the Dutch construction industry. On top of that, the government’s goals regarding relief of the housing shortage and future infrastructure projects are expected to create additional business opportunities for the construction industry.²⁷



23 Source: CBS (2022): <https://www.cbs.nl/nl-nl/nieuws/2022/20/omzet-in-de-bouw-ruim-8-procent-hoger>
 24 Source: ING (2022): <https://www.ing.nl/zakelijk/kennis-over-de-economie/uw-sector/outlook/bouw.html>
 25 Source: European Commission (2021): European Construction Sector Observatory – Country Profile Netherlands
 26 Source: Rijksoverheid (2022): Nederlands Herstel- en Veerkrachtplan
 27 Source: European Commission (2021): European Construction Sector Observatory – Country Profile Netherlands

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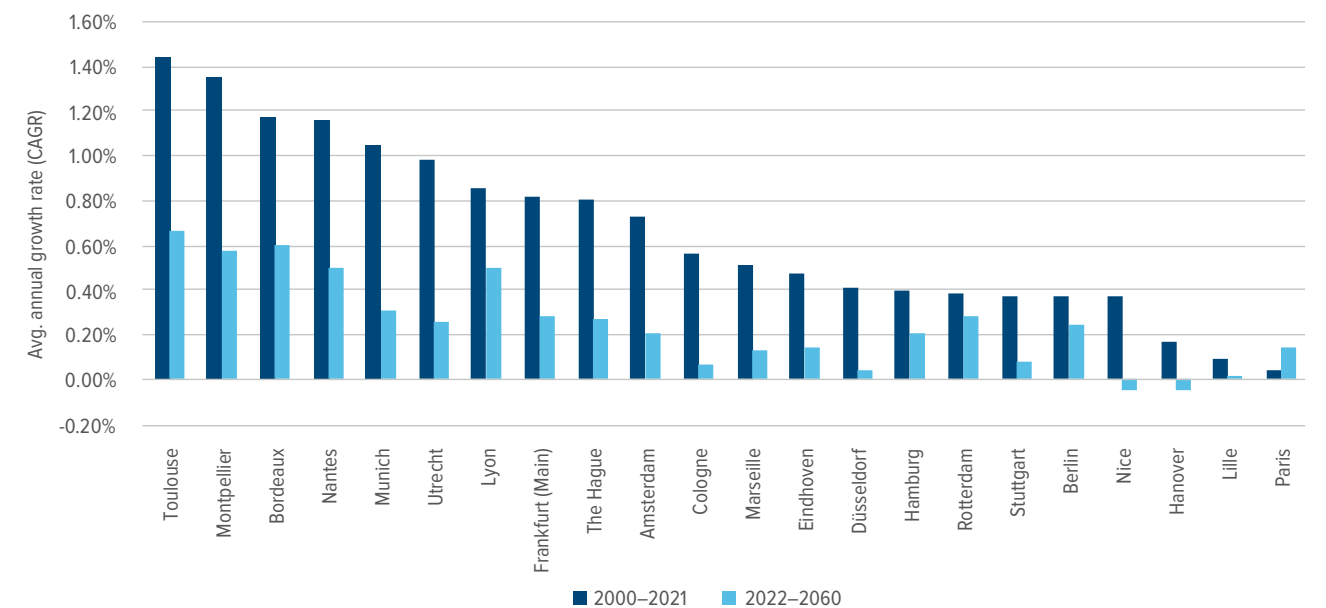
Where are the Major REAL ESTATE MARKETS of GERMANY, FRANCE and the NETHERLANDS Heading in Terms of their Demographic and Economic Trends?

During the period 2000 to 2021, all major real estate markets in Germany, France and the Netherlands registered positive growth as far as the number of residents goes. However, this trend will slow down between now and 2060 due to the demographic shift and a shortfall in immigration. Still, the long-term forecasts for virtually all cities project an upward demographic trend.

Population Growth Opens up further Opportunities for Real Estate Demand

The growth forecasts through 2060 are particularly auspicious for the populations of Toulouse (+0.67 % p.a.), Bordeaux (+0.61 % p.a.) and Montpellier (+0.58 % p.a.). By contrast, Hanover (-0.05 % p.a.) and Nice (-0.04 % p.a.) are likely to see their populations decline slightly in the long term.

► Demographic trends in the major real estate market of GER, FR and NL



Source: Eurostat; NUTS 3 level

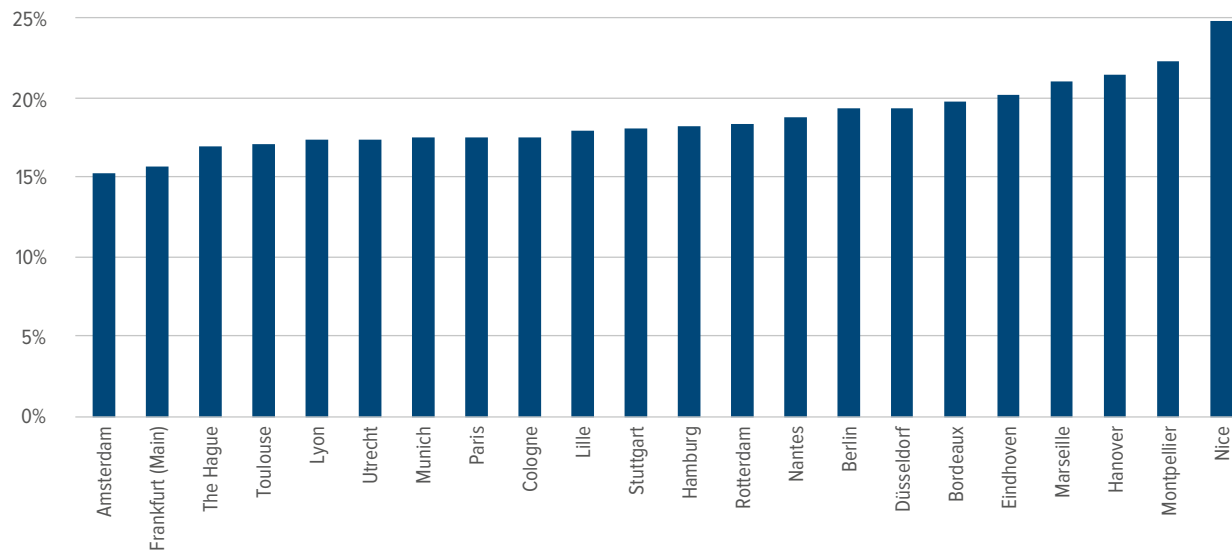


Source: Becken Holding GmbH

Another indicator of a city's attractiveness is the proportion of elderly people (aged 65 and over) living in it. The higher their percentage, the less attractive the cities are for younger incoming residents and the lower the innovativeness of the local economy.

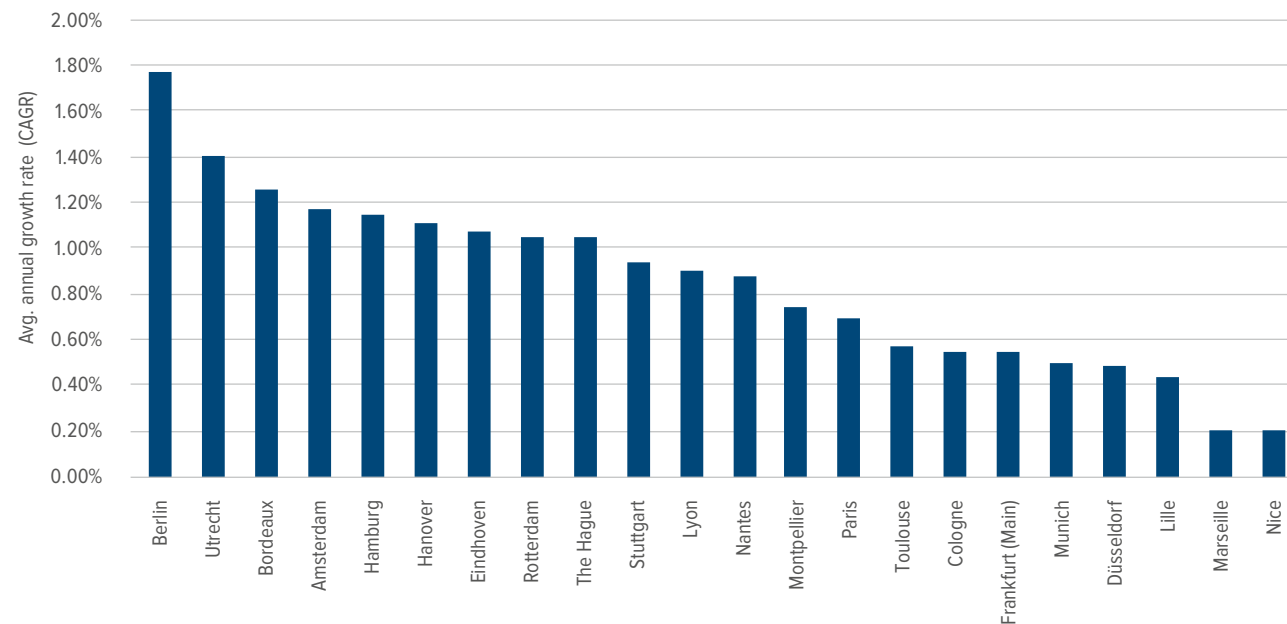
This indicator can be used to highlight the stark difference between Amsterdam (15.3 %) and Nice (24.8 %), which can be summed up as the triad of academia-culture-innovation (Amsterdam) versus sunshine-tourism-retirement (Nice).

► Share of residents aged 65+ in 2021



Source: Eurostat; NUTS 2 level

► Employment trend in the major real estate markets of GER, FR and NL (2011–2021)



Source: Eurostat; NUTS 2 level

An international comparison among the cities shows that Berlin (1.77 %) and Utrecht (1.40 %) recorded the fastest annual employment growth of all examined cities during the years 2011 through 2021. It is unsurprising to see Berlin take the lead as a result of strong incoming migration with a high share of younger population cohorts during the past decade. But to find the Dutch city of Utrecht in second place may be unexpected. Yet the European Union ranks Utrecht as the most competitive region in the EU,²⁸ which is explained, in addition to the city's geographically central location, by its attractive tax system and the attractive conditions for young and well-educated workers.

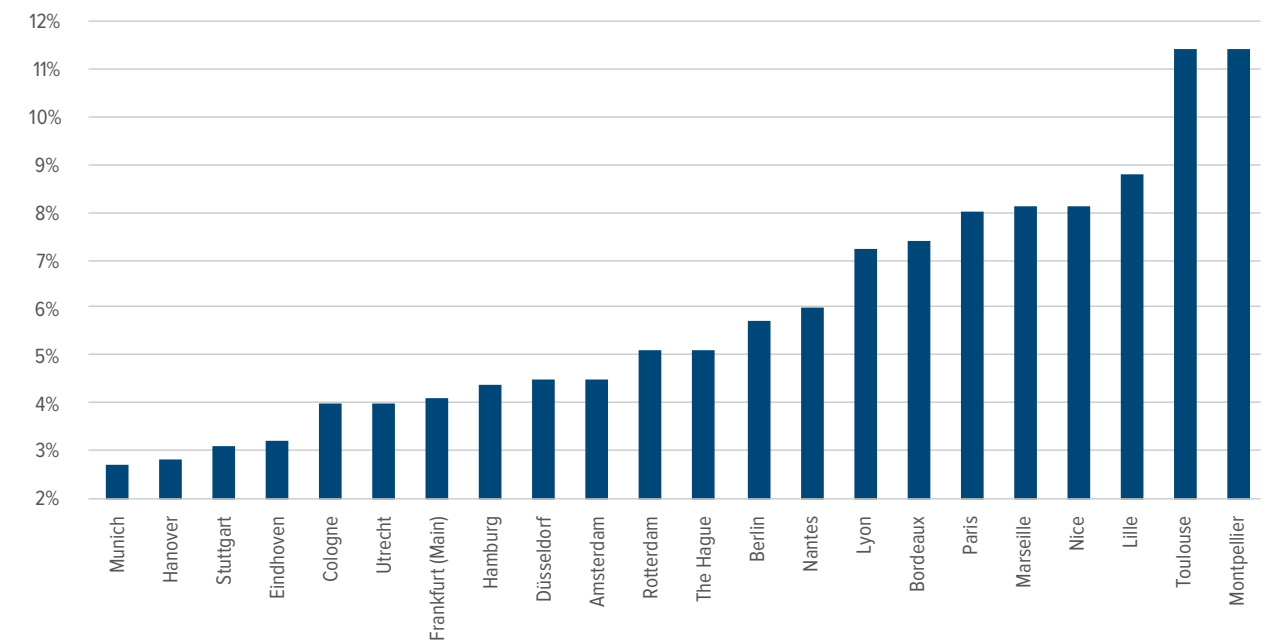
The dynamic was comparatively low in the French cities of Nice and Marseille, where the job growth amounted to 0.21 % per year.

Positive Job Growth Registered in All Real Estate Markets

Unemployment rates extend over a very wide spectrum at the NUTS 2 level, ranging from 2.7 % in Munich to 11.4 % in Toulouse and Montpellier. This indicator shows quite clearly that the French labour market is very different, in a negative sense, from the German and Dutch ones where unemployment rate remained (very) low, especially in the major real estate markets, and this despite a situation of several overlapping crises.

Highly Heterogeneous Unemployment Rates

► Unemployment rate in the major real estate markets of GER, FR and NL



Source: Eurostat; NUTS 2 level

28 RCI, European Union, 2010-2019



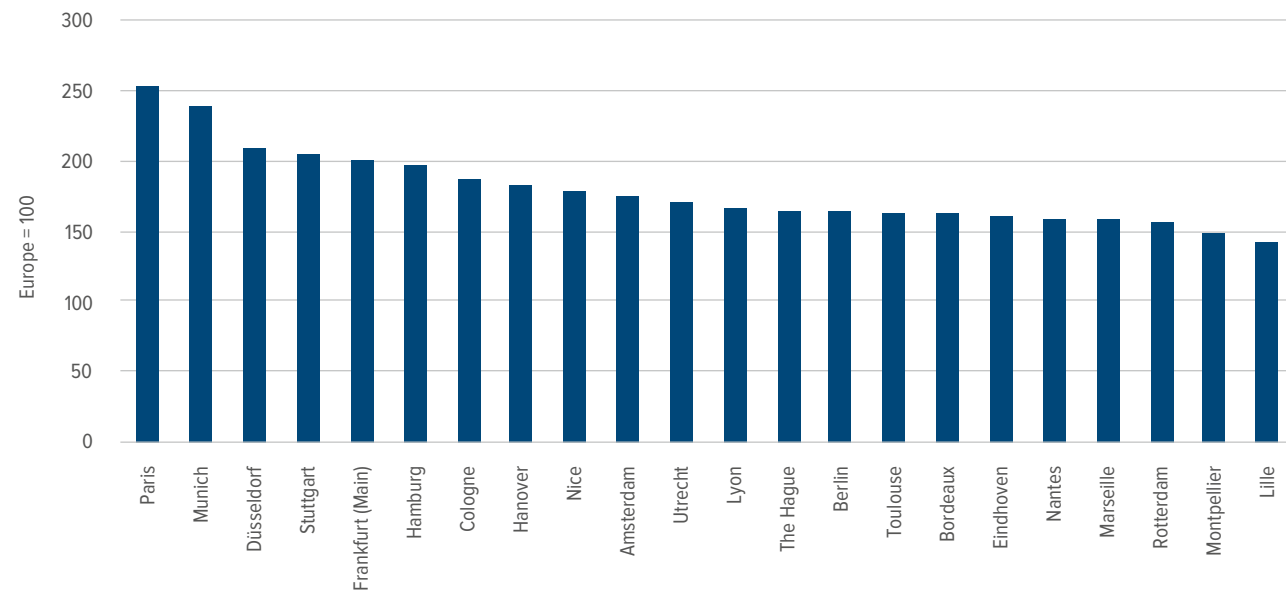
Source: INDUSTRIA Fonds Immobilien

Purchasing Power Highest in Paris and Munich

An international comparison of the cities reveals the highest consumer potential in Paris at 159.3 ahead of Munich (132.5) and Düsseldorf (115.8). More than anywhere else, life in the three leading cities requires above-average purchasing power from a corresponding income in order to be able to afford the high costs of living in the form of accommodation, food, services and other expenses.

Purchasing power refers to the disposable income (income after taxes and social security contributions but incl. transfer payments received, if any) of the population of a given region. All of the cities surveyed exceeded the European comparative value (100) by far. Among these cities, Paris and Munich stand out in particular with ratios of 253.4 and 239.1, respectively. Conversely, Montpellier (148.7) and Lille (142.0) rank at the bottom of the list.

► Purchasing power in the major real estate markets of GER, FR and NL (2021)



Source: MB Research; NUTS 3 level; Europe = 100



Source: Becken Holding GmbH

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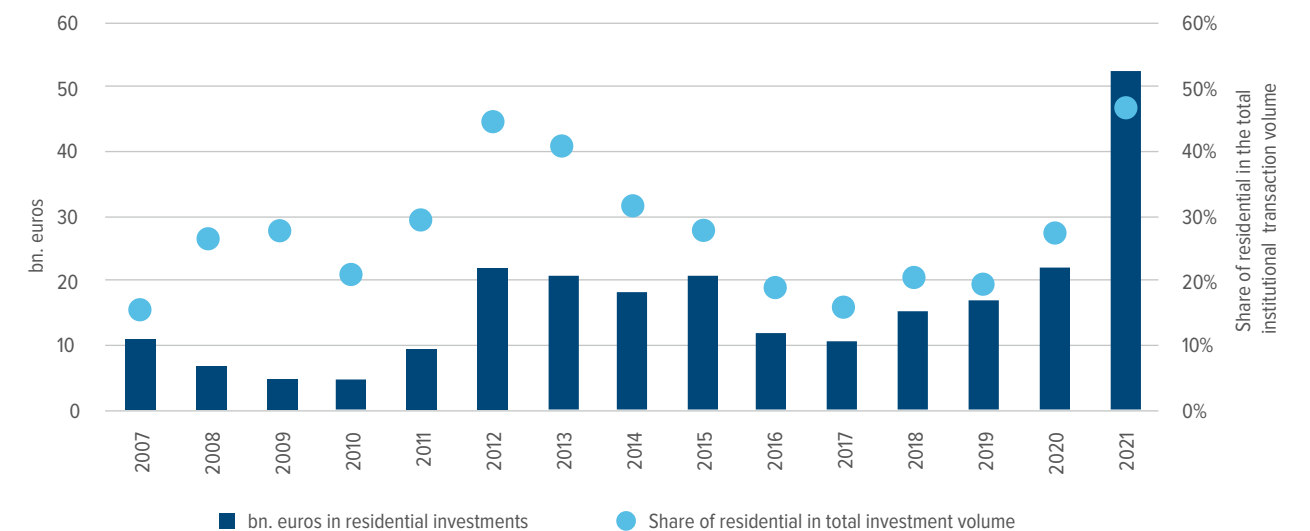
Status Quo and Perspectives of the Major HOUSING MARKETS in GERMANY, FRANCE and the NETHERLANDS

The rental housing market has traditionally been very prominent in Germany, both in the privately financed and in the government-sponsored market segments. This makes Germany the largest and most established market for residential property investments. The institutional investment market for residential real estate has been in steep ascent since 2017. The year 2020 had already set a record at 21.9 billion euros, but 2021 pulverised it with an all-time high of 52.3 billion euros. The transaction activity in 2021 was clearly dominated by Vonovia SE's takeover of Deutsche Wohnen SE along with its stock of residential units in the greater Berlin area for c. 31.5 billion euros. Another deal that contributed to the exceptional year-end total of 2021 was the acquisition of the housing stock of Aurelius in Berlin and Hamburg by Heimstaden Bostad, adding up to over 17,600 residential units, for c. 5 billion euros. As of mid-September 2022, Vonovia SE's share price had fallen by almost 50 % year on year, and thus joined the ranks of other German real estate companies that have suffered massive losses in share value lately. Reasons for the nosedives in most cases include the elevated costs of future refinancing, ESG risks and the prospect of mark-downs during revaluations.

A breakdown of residential real estate transactions by city category for the survey period 2008 through 2020 reveals that institutional sales in the Class A cities account for 40.9 % of the entire transaction volume. The second category in the ranking is "other cities" (38.4 %) ahead of Class B cities (9.8 %), Class C cities (5.6 %) and Class D cities (5.3%), in that order. Initial estimates now show that the Class A cities claimed a market share of about 66 % in 2021 and thus attained an unprecedented dominance, yet the fact is primarily due to the two company takeovers and portfolio deals mentioned above. The structure of buyer group active in 2021 again reflects the large-scale portfolio sales. The list is topped by investment/asset managers, and the Akelius acquisition contributed heavily to this result, followed by the public sector, whose disproportionate sum total is due to acquisitions of Vonovia and Deutsche

Germany is Home to the Most Established Residential Investment Market in Europe

► Residential investments in Germany (2007–2021)



Source: bulwiengesa

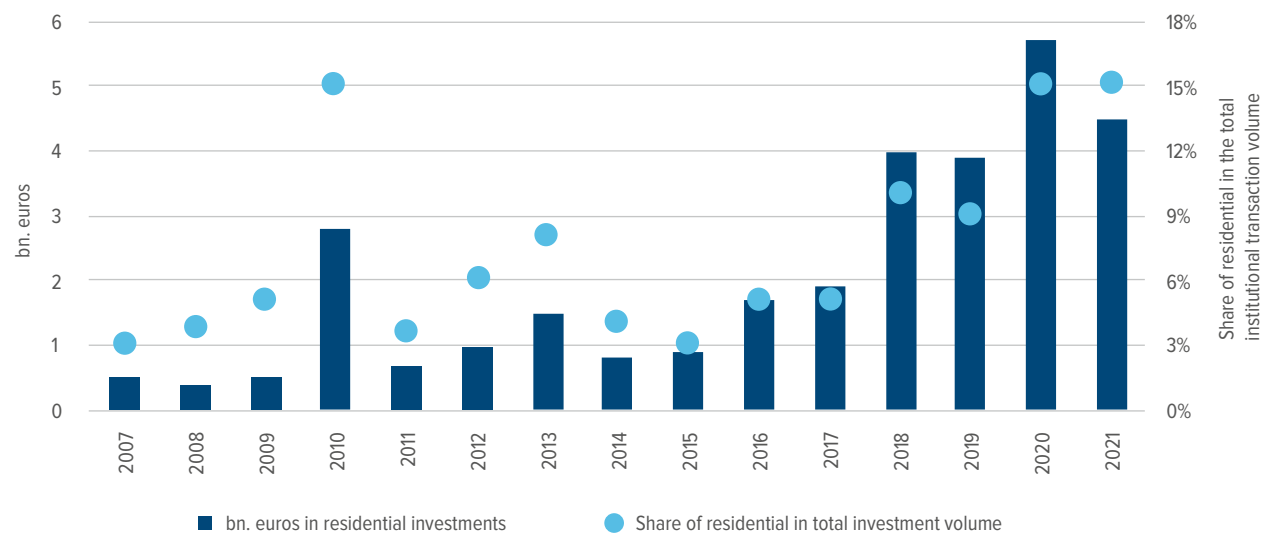
Wohnen portfolios by the State of Berlin. Similarly prominent on the buyer side were institutional funds.

The transaction volume dropped by 27 % during the first half of 2022 compared to the same period last year, and the resulting total of 7.5 billion euros illustrates the currently subdued state of the market.

Residential Investments in France Follow Upward Trend

A total of 7.4 billion euros in institutional capital was invested in the residential asset class France in 2021, implying an increase by around 7 % year on year and representing more than twice the volume invested in 2019. The transaction activity was limited by the fact that only about 23 % of the French rental housing stock is owned by private investors. About 85 % of the sum invested in 2021 were earmarked for the unregulated and partially regulated rental market segment. This market is dominated by the portfolio investments of large former social housing operators, such as CDC Habitat or In'Li. However, international buyers are also gradually expanding their share of the market (among them Fosun, M&G Real Estate, PGIM, Hines, BlackRock, etc.). There is also a visible diversification to include other residential formats: For the second time in a row, more than 1 billion euros worth of serviced apartments intended for specific target groups (senior citizens or students) changed hands. Within France, Paris is by far the most important market for institutional investments in residential real estate.

► Residential investments in France (2007–2021)



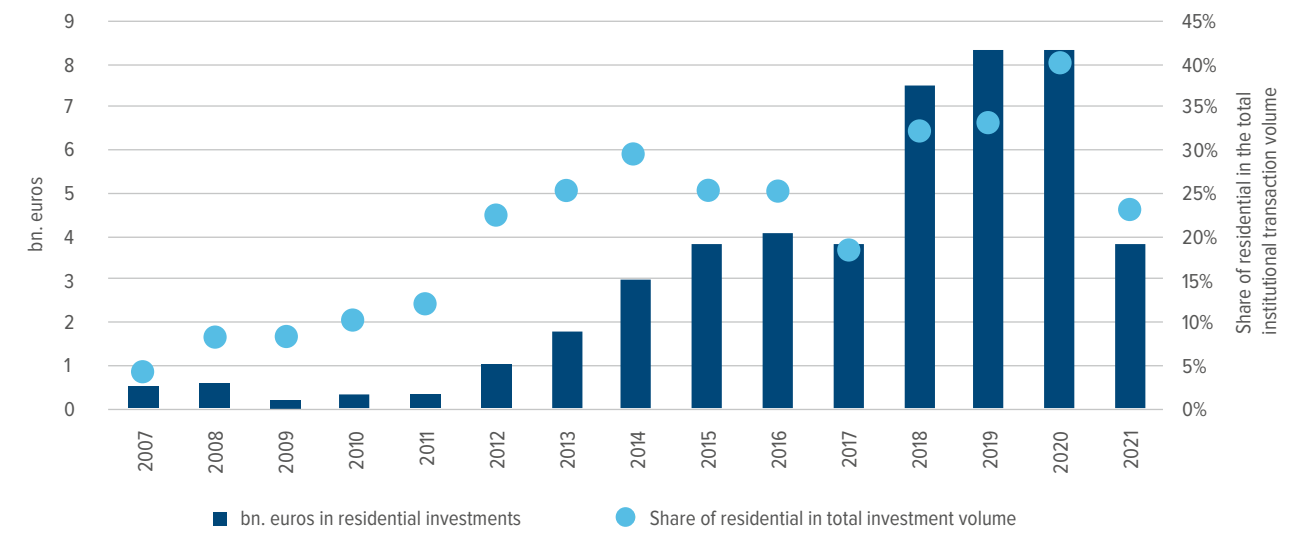
Source: Colliers (2022): European Living Snapshot

Residential Investments in the Netherlands have Consolidated on an Increased Level

In 2021, a total of 3.8 billion euros in institutional capital was invested in the Dutch housing market. Although this marks a substantial year-on-year drop (-52 %), the high prior-year result is explained primarily by the fact that the real estate transfer tax rate was raised as of 1 January 2021, prompting investors to close as many deals as possible before the end of 2020.

On the whole, the period of 2018 through 2021 was marked by very brisk growth but also by a consolidation of the residential asset class as an established investment target. The strained situation on the market for owner-occupied housing is also reflected in the private rented sector. In the major cities, demand for rental apartments has increased, conversely causing the supply to contract. Still, rent rates are growing at a slower pace than prices for owner-occupied apartments because the rental market never benefited from the low interest rates and generous lending standards that applied until recently. As a result, rent increases have been moderate. Nonetheless, buyers remain keenly interested in Dutch residential real estate even now. Especially new-build products that meet high ESG standards as well as niche products like senior living or student blocks of flats are in demand. Within the Netherlands, Amsterdam is the most important market for institutional residential investments.

► Residential investments in the Netherlands (2007–2021)



Source: Colliers (2022): European Living Snapshot



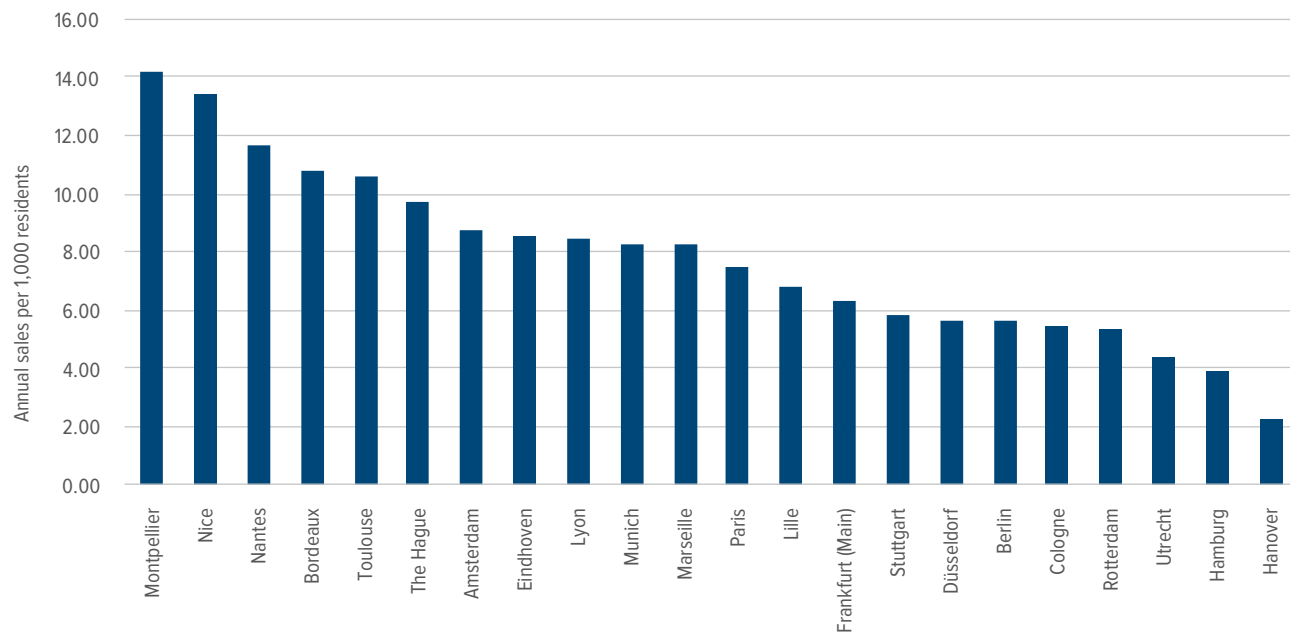
Source: Becken Holding GmbH

Apartment sales for intended home-ownership

Compared to French and Dutch cities, German cities record rather few apartment sales per 1,000 residents. The main reason for this is the structure of the German housing stock, which is characterised by a particularly large proportion of rental apartments in major cities.

An analysis of the selected German cities identifies Munich as the top performer with 8.2 sales per 1,000 residents. The figure is well below the ratios reported from numerous Dutch and French cities, Montpellier showing a ratio of 14.2, for example. By far the lowest number of apartments sold for every 1,000 residents in this ranking was measured in Hanover.

► Ownership apartment sales (2011–2021)



Source: RIWIS, CBS, CGEDD; NUTS 3 level

Building Activity Assumed to Fall Short of Long-Term Average

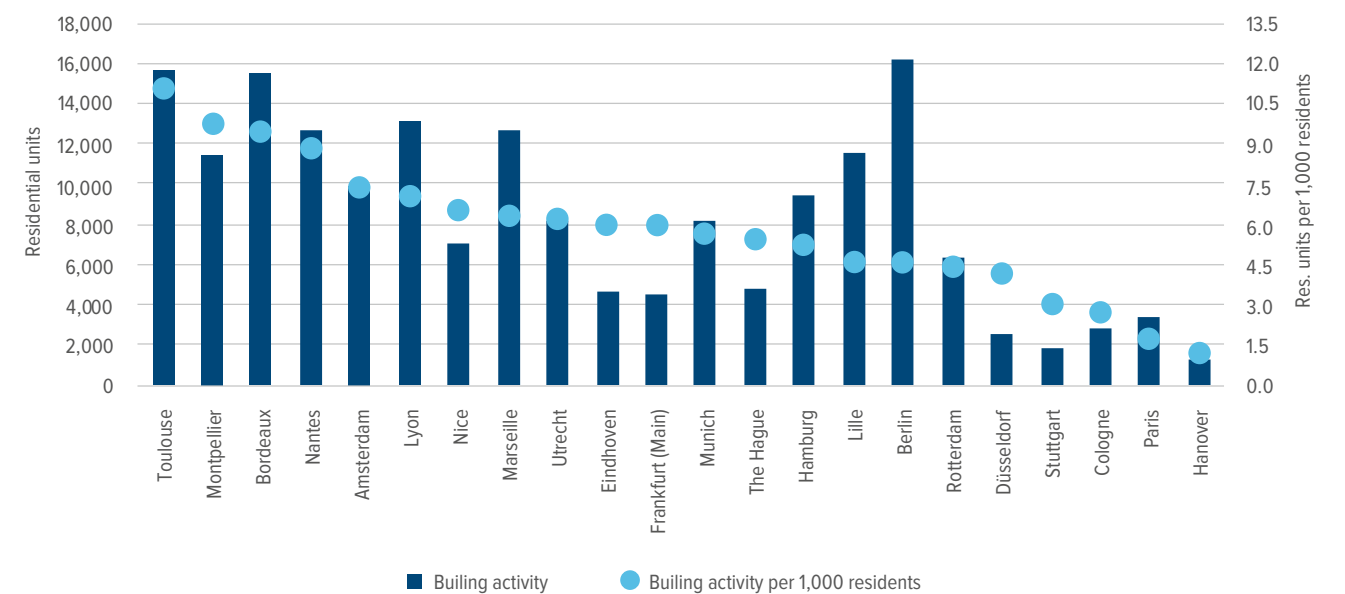
The survey period 2016 through 2020 return an average annual building activity that ranges from about 16,300 residential units in Berlin at the upper end to about 1,200 in Hanover. But in terms of building activity per 1,000 residents, the cities of Toulouse, Montpellier, Bordeaux and Nantes top the list with ratios of 8.7 to 10.9 units completed. Even in this ranking, Hanover brings up the rear with 1.0 unit completed for every 1,000 residents.

The brisk construction activities in the smaller French cities is no doubt attributable to the fact that the respective NUTS-3 regions include the surrounding region (départments). But still, a look at the national level shows that France boasts the busiest structural engineering sector among the countries examined. Then again, out of the roughly 350,000 units completed annually, no more than 60,000 are intended for the unregulated or partially regulated rental sector, so that the investability of the remaining number is doubtful. The low rate of construction in Paris is due to the fact that the city's reserves of development land are limited, its planning capacities are low and redevelopment measures outnumber new-build construction activities, especially in the inner city.

The leading cities in the Netherlands made the midfield in this analysis. As a popular city, Utrecht showed a high level of building activity relative to its area size. Wherever the selected metropolises report a lively building activity, it is generally attributable to a positive development both of the city proper and its suburbs as well as to the associated investor interest.

In this context, the decline in property development activities in general in the wake of the interest rate reversal, which started in Q2 2022 is visibly captured by the analysis period. However, it is safe to assume that the causes for the predictably reduced completions volumes are found on the national level and that regional trends have more or less negligible effects.

► Average annual building activity (2016–2020)



Source: RIWIS, CBS, Insee; NUTS 3 level

Arm's-length prices and rents for apartments

The evaluations of arm's-length residential purchase prices are quoted as average or the standard level value. Amsterdam trails Paris (10,310 euros/sqm) and Munich (10,400 euros/sqm) in the analysis with a selling price of 8,250 euros/sqm. The lowest prices were identified in Marseille (3,290 euros/sqm) and Montpellier (3,260 euros/sqm).

In a breakdown by country, the real estate markets in Dutch cities show that strong demand for housing coincides with insufficient construction activity, with correspondingly high rents and selling prices. In the direct comparison of cities, three out of five cities with the highest rent levels are located in the Netherlands. Overall, the city with the second highest rent is Amsterdam, averaging 25.00 euros/sqm. Utrecht and The Hague follow in fourth and fifth place, respectively.

In Germany's most expensive city, which is Munich, prices also top the cross-European list due to the city's high economic strength and quality of life combined with very limited availability of development land. The only city with higher rent rates is

Paris. In terms of selling prices, most of the other German Class A cities also rank high, even if their rent levels are rather affordable when compared to the French and Dutch cities selected for the survey.

On the European level, the metropolis of Paris retains its uncontested lead among the cities with an average rent rate of 28.80 euros/sqm. The French capital is particularly popular among young people and students, who generate a strong demand for rental accommodation in the city and ensure that investors remain eager to enter this attractive market. But there are few investment offers on the market, so that cities like Lyon (16.90 euros/sqm) and Lille (16.30 euros/sqm) are gaining in significance. Going forward, the suburban and satellite housing sector in the Parisian suburbs will become more popular and interesting for investors due to the consequences of the pandemic.²⁹

Arm's length initial yields for residential real estate

European residential real estate remained the most dynamic asset class in Q1 2022. However, the economic development is slowed by the war in Ukraine, inflation and the persistent pandemic. Other decisive factors include the rise in interest rates, a much reduced supply of product on the market, and the progressive urbanisation which ensures that markets remain under pressure.

Virtually all of the residential real estate markets chosen for this survey show significantly lower prime yields compared to previous years. Yet as far as the current global economic development and geopolitical situation are concerned, the further trend in yields depends on the price level expectations or assumptions among sellers and buyers as well as on the capital market pressure.

Prime yields (gross) range from 1.9 % in Munich to just below 4.0 % in several smaller residential markets in France and the Netherlands.

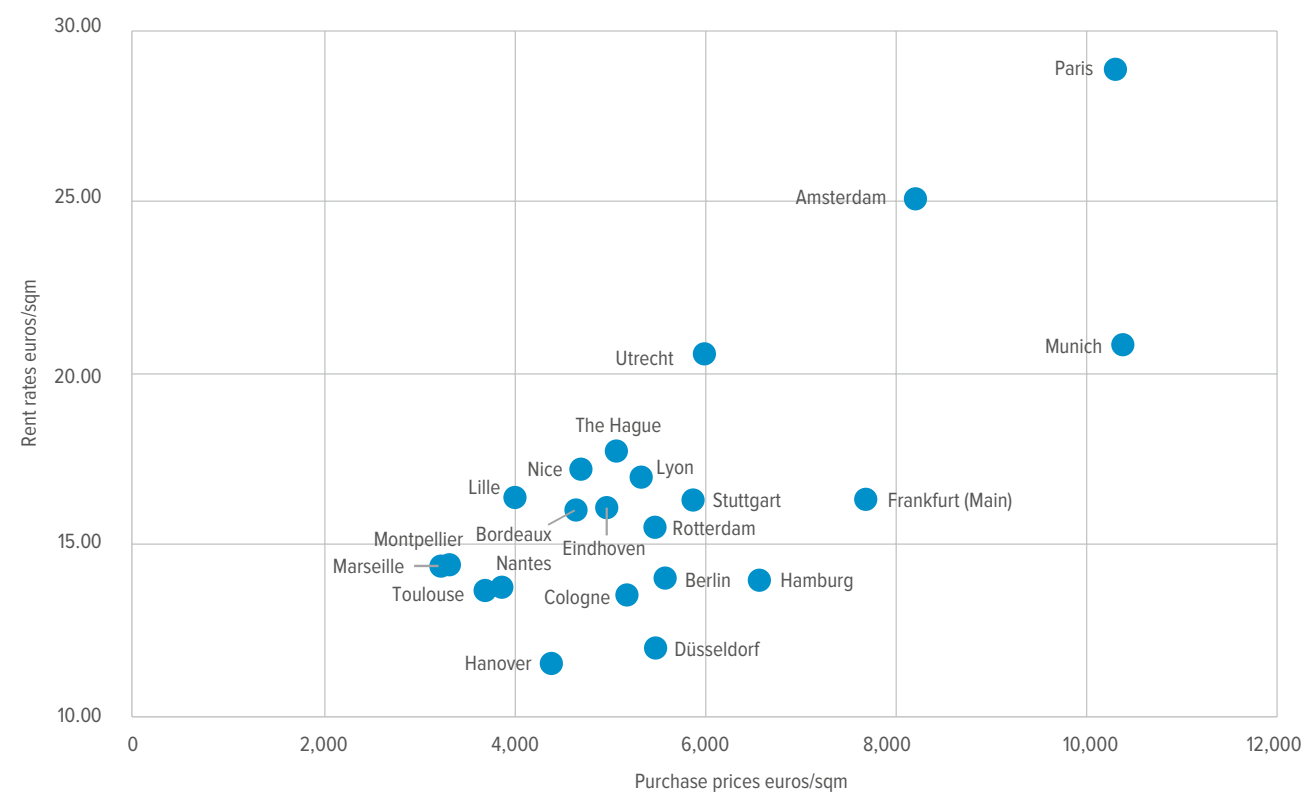
Prime yields (gross) in Dutch cities range from 3.0 % in Amsterdam and 3.5 % in Utrecht to somewhere between 3.8 % and 3.9 % in Rotterdam, The Hague and Eindhoven. Here as in the other coun-

tries, there is a wide spread between the first city of Amsterdam, which is particularly attractive for international investors, and the more regional markets, which primarily attract local players.

Analogously, the French market is dominated by Paris whose prime yield (gross) of 2.4 % puts the city among the top three in this group of three countries, after Berlin (2.3 %) and Munich (1.9 %). The arm's-length prime yields (gross) in Bordeaux, Lyon and Marseille, which make the midfield among the analysed cities, range from 3.0 % to 3.4 %. The major cities of Nice, Montpellier, Toulouse, Nantes and Lille offer comparatively high rates of return with prime yields of around 3.8 %. The significant regional disparities in France are thus reflected in the yield levels as well.

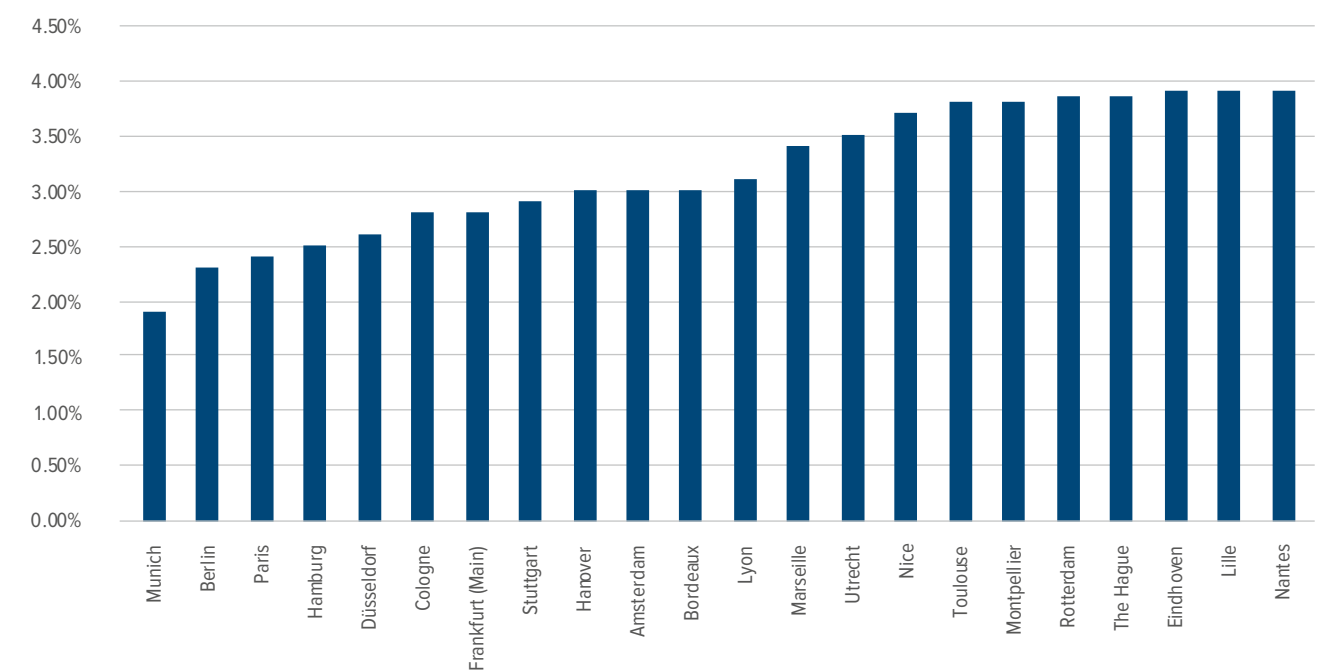
Multi-family houses in the German real estate strongholds are among the most expensive in terms of prime yields, Paris being the only city in the other two countries that is able to stay abreast of Germany's Class A cities.

► Arm's length purchase prices and rents for apartments in Q1 2022



Source: RIWIS, Catella

► Prime yields (gross) for residential real estate (2022)



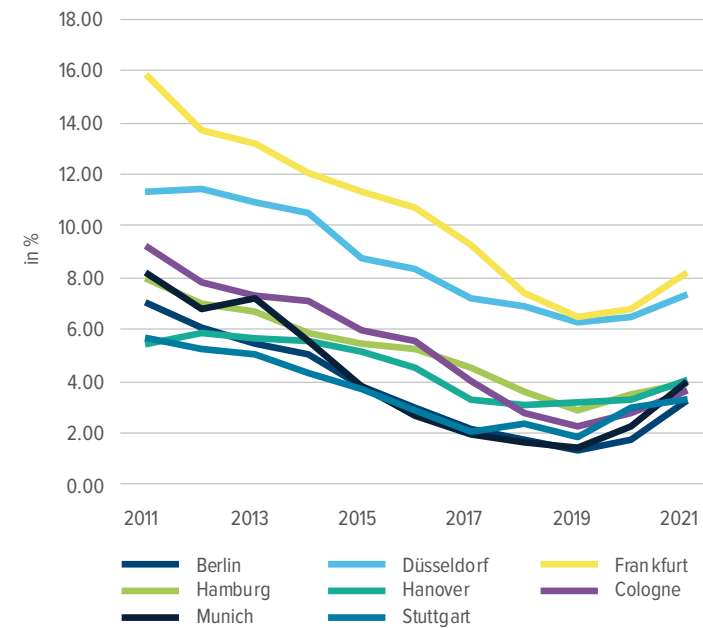
Source: RIWIS, Catella

²⁹ Colliers, 2021, European residential. On the rise.

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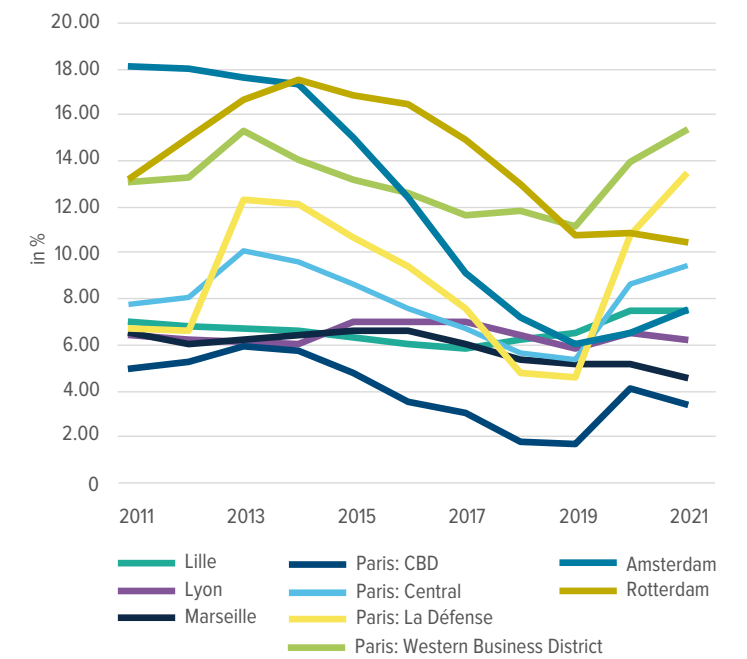
Status Quo and Perspectives of the Major OFFICE MARKETS in GERMANY, FRANCE and the NETHERLANDS

► Office vacancies in the leading German office markets



Source: bulwiengesa AG

► Office vacancies in the leading French and Dutch office markets



Source: Property Market Analysis

Key Ratios of the Office Supply in the Leading Office Markets in GER, FR, NL

In conjunction with the economic recovery process following the financial/economic crisis of 2007/2008, Germany's "Big Seven" or Class A cities experienced a steady decline in vacancies between 2011 and 2019. Key drivers of the trend included a significant increase in office employment in combination with moderate new-build completions. This trend was checked by the outbreak of the COVID-19 pandemic. Uncertainty about the further course of the pandemic prompted companies to postpone non-essential leasing decisions to a later date or to shelve them altogether. As a result, property developments no longer managed to achieve high occupancy rates ahead of their completion the way they used to. For similar reasons, subletting premises has gained in significance again and helped to ease the strain on the supply side. Apart from Frankfurt am Main and Düsseldorf, which traditionally report higher vacancy rates, the Class A cities show a healthy fluctuation reserve of 3% to 4%.

The vacancy level in the Netherlands significantly exceeds that of comparable office locations in Germany. Amsterdam and Rotterdam dropped to their lowest vacancy rates on record in 2019 at 6.0% and 10.8%, respectively. In the past, Amsterdam had struggled with vacancy rates as high as those

in Frankfurt am Main, Germany's financial centre, as a result of brisk construction activity, before tighter regulations by city hall managed to curb the over-supply. Developers had to submit evidence that a certain share of a new buildings was already pre-let before they could start with the construction works. In addition, conversions of office units for other types of use helped to downscale the office stock and bring down the vacancy rate in the process.

In the years 2020 and 2021, however, the cities of Amsterdam and Rotterdam followed divergent trends. While a slight increase in vacancies and an increase in sublet space has been observed in Amsterdam, the floor space supply in Rotterdam continued to contract in the wake of the pandemic. Although a vacancy rate of 10.5% may seem high when compared to other European countries, it represents the lowest level for this city since the early zero years. It was mainly achieved by a low volume of new-build space coming on-stream as well as through demolitions and conversions.

Ever since the Dutch government announced that, as of 2023, only office space with an energy label of C or better may be leased (and only space with an A energy label as of 2030), sustainability has played a major role for the Dutch office market. This could trigger a surge in refurbishment works, because many buildings would otherwise have to be taken off the market.

Source: Becken Holding GmbH

Office vacancies in France have declined steadily, in analogy to Germany. Paris, however, is characterised by imbalanced situations in some of its sub-markets. While the city's CBD recorded a very low vacancy rate of 1.6 %, which falls short of a healthy fluctuation reserve, the vacancy rate in the Western Business District remained at a persistently high level (11.1 %). This is due to particularly high completion volumes during the same year.

Germany's Class A markets were characterised by a moderate level of construction until 2018. Between 2011 and 2018, an annual average of about 770,000 sqm RAC was completed in the seven largest office markets. This is due in particular to a decline in speculative project developments. Not until 2019, when a combined total of over 1 million sqm RAC came on-stream, did the "Big 7" cities see another completions peak. The trend continued in 2020 and 2021. At about 1.5 million sqm RAC, the new construction volume in the German Class A cities increased by another 14 % year on year in 2021. By far the highest new-build construction volume was registered in Berlin at around 690,000 sqm RAC, with Munich, Düsseldorf, Hamburg and Stuttgart next in line. Developments currently in the pipeline in the A- and B-Class cities suggest an even higher completions total in 2022. To be sure, shortages in building capacities and materials are causing construction delays. But since a majority

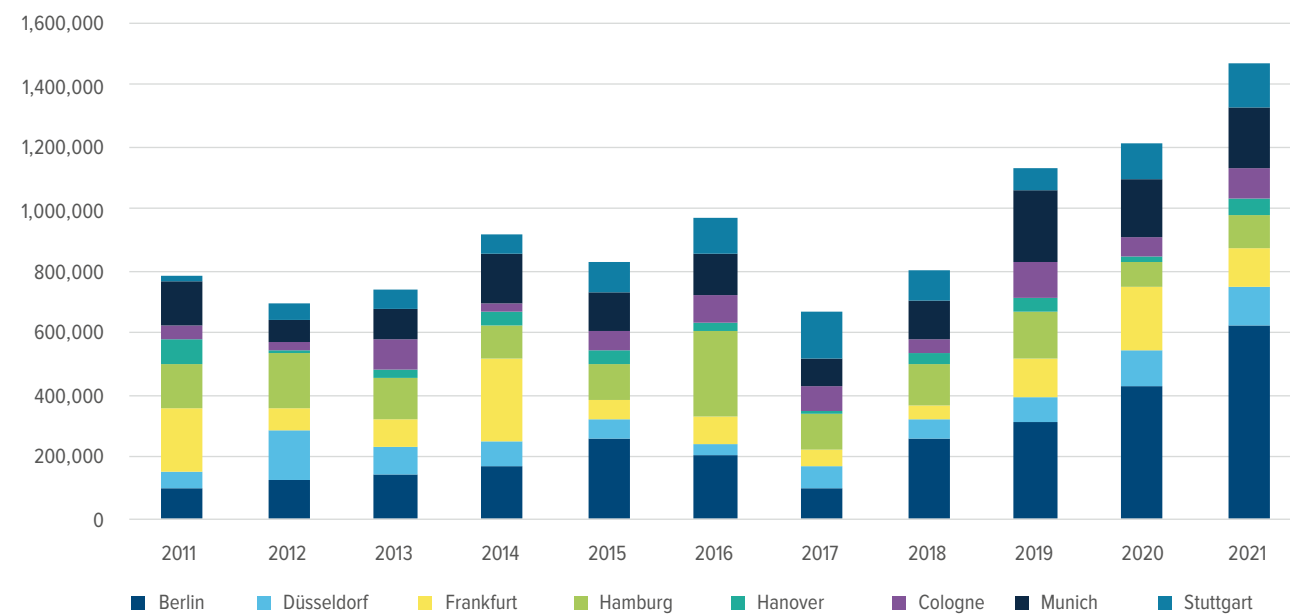


of the projects are already in an advanced state of completion, few are likely to be postponed. Significant shifts, by contrast, should be expected in the planning pipeline.

In line with their importance within the national office market structure, higher completion volumes have also been documented in Paris and Amsterdam than in smaller office markets such as Marseille or Rotterdam. While completion figures in the greater Paris market added up to an average of

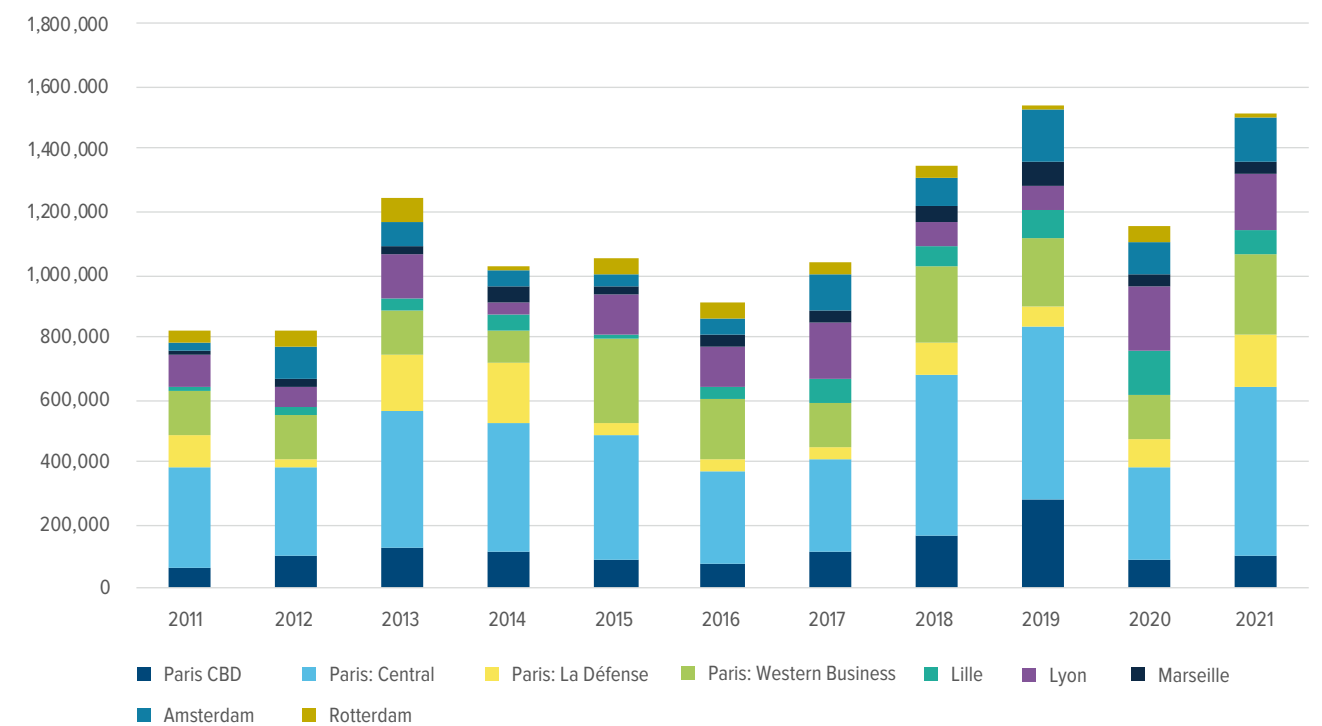
395,000 sqm per year during the period under review, only an average of 40,000 sqm per year were completed in Marseille. In 2021, the completions volume in Paris significantly exceeded previous years with a total of 529,000 sqm. The increase is to some extent explained by project delays in 2020, when annual completions fell to 305,000 sqm due to pandemic-related constraints.

► Trend in completions volumes in Germany's leading office markets



Source: Colliers (2022): European Living Snapshot

► Completions volumes on the leading office markets of France and the Netherlands



Source: Property Market Analysis (PMA)

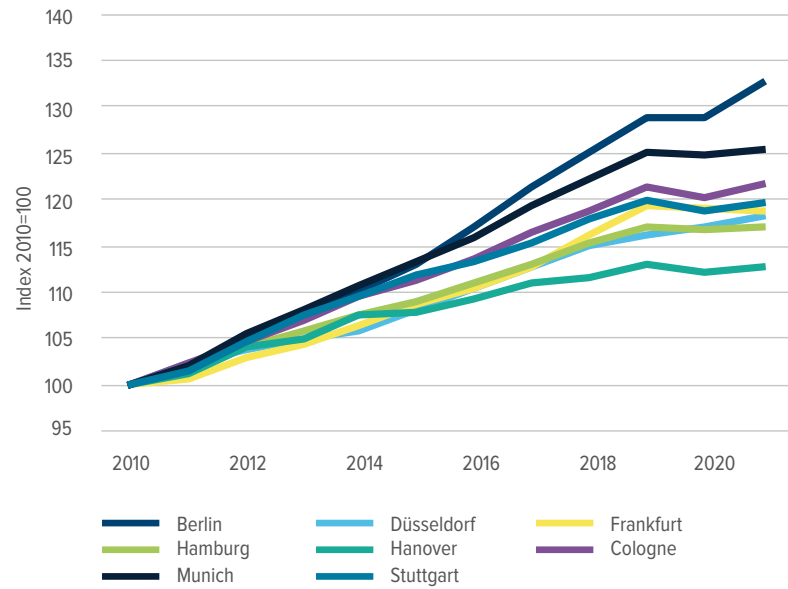
Key Ratios of Office Demand in the Leading Office Markets of GER, FR, NL

Based on a robust economic trend, all of Germany's seven Class A markets registered a boom in office employment between 2010 and 2019. Office jobs in Germany reached a total of about 15 million in

2019. The "Big 7" cities account for around 3.2 million office jobs, about 812,000 thereof in Berlin alone. In 2020, the outbreak of the pandemic caused office employment to suffer a slight setback in most of the Class A markets. Only Berlin and Düsseldorf recorded a modest growth by 0.1% and 0.7%, respectively, in 2020.

As early as 2021, most of the office centres resumed their growth trajectory. The German Government's comprehensive packages of measures to stabilise the labour and financial markets had a positive effect and seriously cushioned the economic setbacks. Especially the instrument of short-time work arrangements enabled many establishments to keep their employees on the payroll. This is of key importance for a company's further development, particularly in times of growing shortages in skilled labour.

Office employment trend in Germany's leading office markets



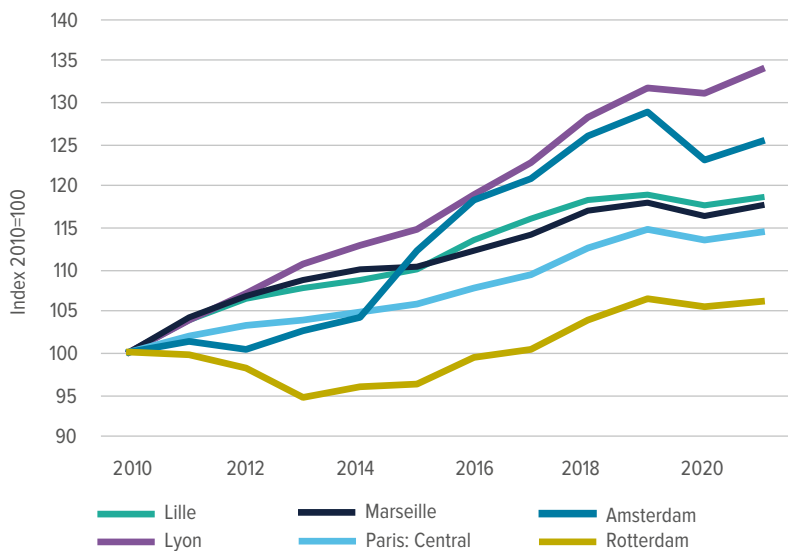
Source: bulwiengesa AG

The economic ramifications of the COVID-19 pandemic were far more acutely felt in France than they were in Germany, the fact being reflected in declining employment figures. However, office workers

were affected less than other employees by redundancies, so that the adverse impacts on the demand for office space were relatively minor. Between 2019 and 2020, Paris (Central) saw its office employment decline by 1.1% to around 974,000 jobs, thereby following a similar trend as the German Class A cities. By 2021, however, the economic recovery restored the upward trend on the market.

Amsterdam also suffered a steep drop in office employees, whose number declined by around 4.3% to about 244,000 during the first year of the crisis. Despite a modest recovery in 2021, the city has not yet regained its pre-crisis level. This contrasts with the situation in Rotterdam, where office employment remained relatively stable.

Office employment trend in the leading office markets of France and the Netherlands

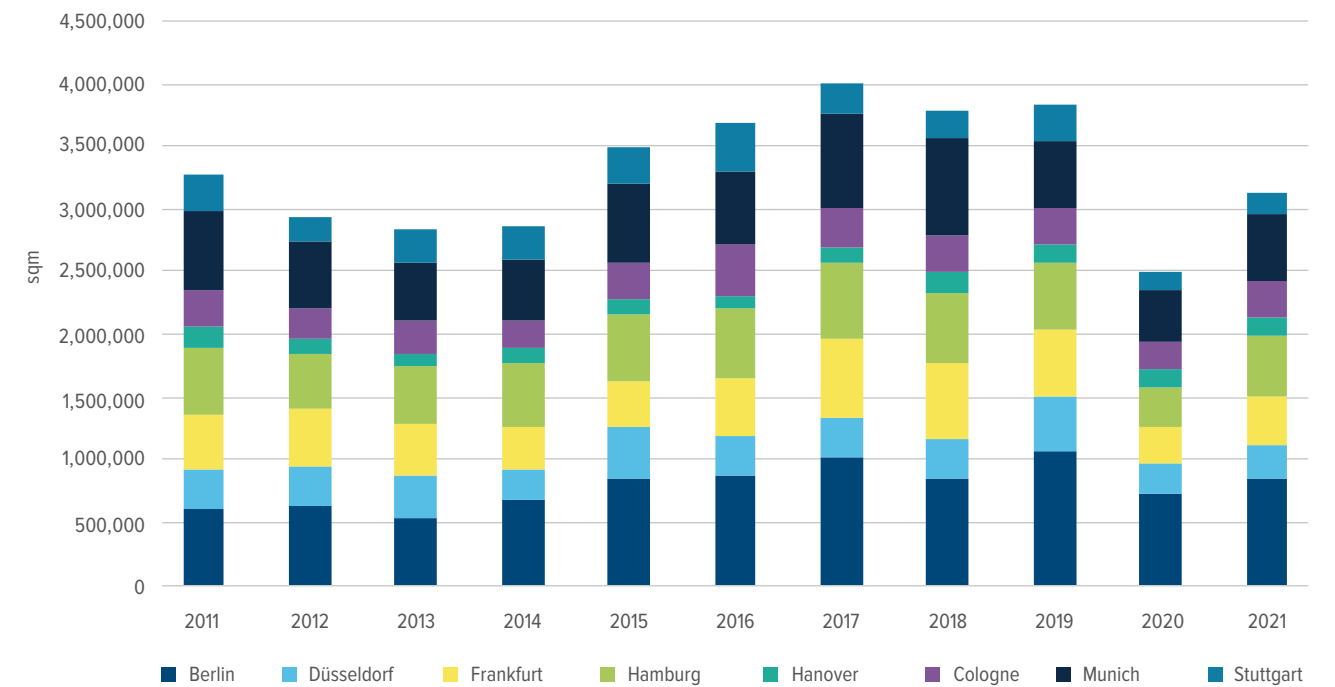


Source: Property Market Analysis (PMA)

Since 2015, the positive development of the office workforce has prompted a significant increase in office space take-up in Germany's seven major office markets. It reached a historic all-time high in 2017 with an aggregated take-up of about 3.9 million sqm RAC. Specifically the German capital developed an enormous dynamic, crossing the mark of 1 million sqm RAC in 2017 for the first time. In 2019, the city topped this take-up performance with a slightly higher total. The driving force behind this trend is robust growth in the sectors of services and technology, media and telecommunication as the city is home to many digital companies and start-ups. Analogously, the positive economic development in Munich—including an inflow of highly skilled professionals—made 2018 the second consecutive year in which take-up exceeded 700,000 sqm RAC. Frankfurt am Main achieved its second-highest take-up volume on record with 624,000 sqm RAC in 2017.

With the outbreak of the COVID-19 pandemic in 2020, maintaining operations and organising remote work with the appropriate equipment became a chief priority, so decisions regarding relocation or expansion were initially halted or postponed. The contraction in demand was more keenly felt in the Class A cities than elsewhere. In Berlin, public-sector demand had a stabilising effect on the office take-up. The other cities, where the public sector did not generate enough demand to stabilise the market, reported drops in take-up, in some cases drastic ones. While 2021 saw clear signs of recovery in some areas, the economic uncertainties continued to have an impact, which was reflected particularly in a reduced number of transactions in the large-scale units segment.

Take-up trend in Germany's leading office markets



Source: bulwiengesa AG



Source: Becken Holding GmbH

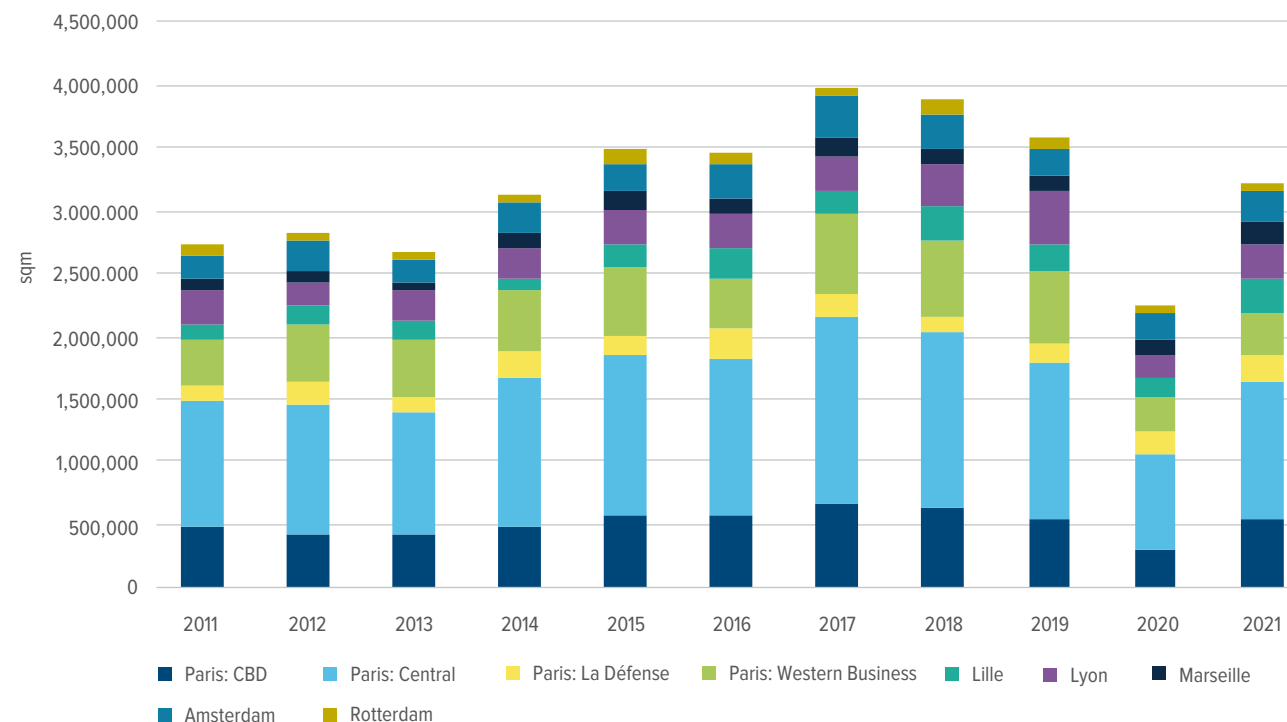
France has manifested a similar demand-side behaviour as Germany. Paris, home to the country's largest office market, always reports the highest take-up, the long-term average being around 1.2 million sqm. But with the exception of Paris La Défense, the crisis year 2020 caused a significant drop in demand down to around 757,000 sqm even here. As the pandemic progressed, companies here as elsewhere adopted a wait-and-see attitude. A large-scale signing for more than 125,000 sqm at the "Link" in Q1 2021 made La Défense the only Paris submarket with a significant increase in take-up during the first year of the pandemic. Smaller office markets such as Lille, Lyon and Marseille also proved crisis-resistant, suffering only minor dips in take-up.

Compared to other European centres, take-up in Amsterdam remained stable throughout the COVID-19 pandemic. In 2020, it only declined by 9 % year on year before stabilising at around 250,000 sqm in 2021, and it should be added that the figure slightly exceeded the ten-year average of around 235,000 sqm. Amsterdam draws on a broad demand base in this context, and the technology, media and telecommunications sector proved particularly resilient during the pandemic. The city consistently ranks

near the top as far as the number of jobs in the technology sector and the number of start-ups go.

The Netherlands have also played a pioneering role in the mobile working context among the European countries, and did so even prior to the pandemic. As early as 2015, the Dutch Home Office Act created a labour law foundation that favours mobile working. In 2020, a total of around 40 % (previous year: around 37 %) of the Dutch workforce worked from home, well above the European average of around 21 % (previous year: around 14 %)³⁰. However, it should be noted that the Netherlands, where a relatively high share of employees work in the tertiary sector of the economy, have a higher potential for working remotely than countries like Germany do that are heavily industrialised still. Rotterdam takes exception to the trend. Home to plenty of industry and to the largest port in Europe, Rotterdam's dependence on the commercial and industrial sector was cause for concern in terms of occupier demand during the pandemic. Here, the annual occupier demand for office accommodation in 2020 and 2021 averaged only about 25 % of the level seen during the five years preceding the pandemic.

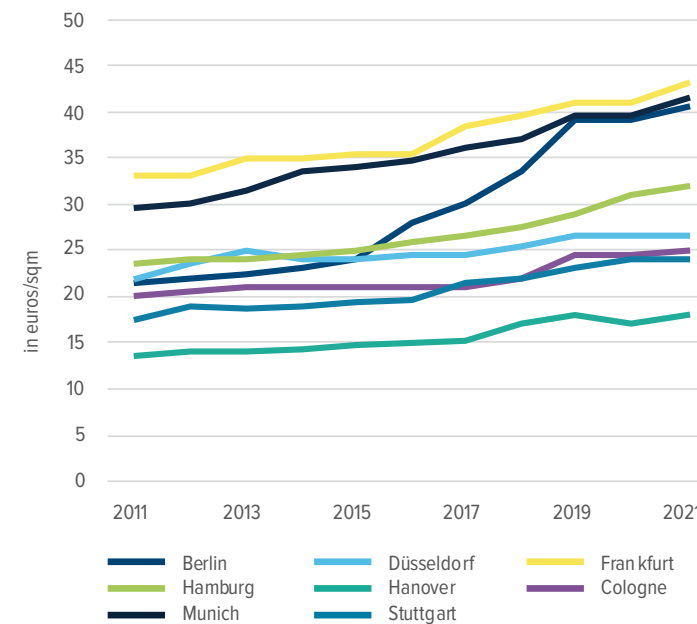
► Take-up in the leading office markets of France and the Netherlands



Source: Property Market Analysis (PMA)

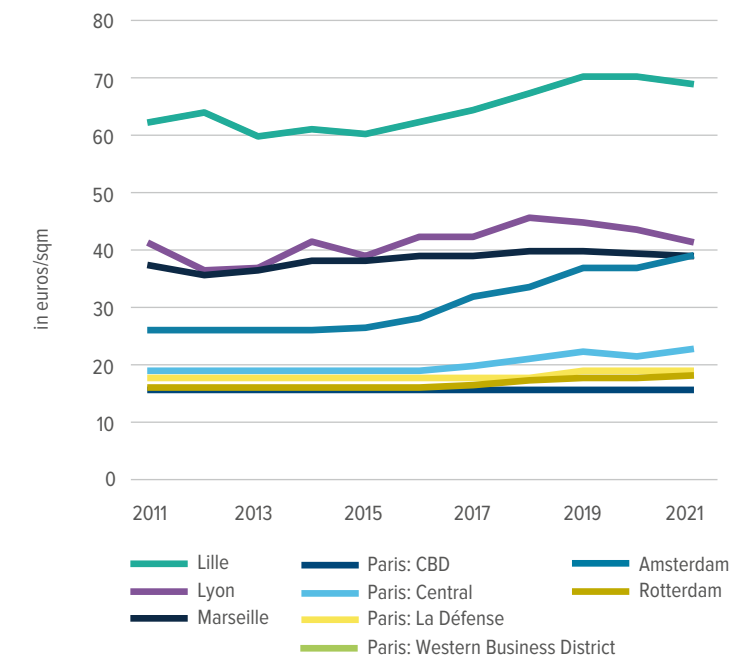
30 Source: Deutsche Hypo / Nord/ LB Real Estate Finance (2021): Niederlande. Immobilienmärkte im Zeichen konjunktureller Belebung.

► Prime rents in inner city locations of Germany's leading office markets



Source: bulwiengesa AG

► Prime rents in inner-city locations of the leading office markets in France and the Netherlands



Source: Property Market Analysis (PMA)

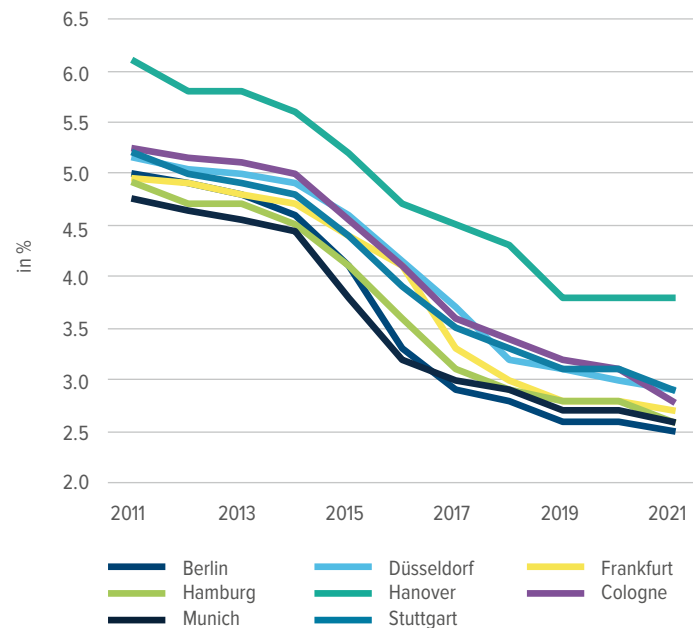
Rents and Yields in the Leading Office Markets in GER, FR, NL

During the period from 2011 to 2019, all of Germany's "Big 7" cities benefited from a very sound demand situation and moderate completions figures that ensured a steady increase in prime rents in the office segment. The fastest increase over a five-year period was registered in Berlin in this context. Here, the prime rent went up by about 63 % from 24.00 euros/sqm RAC to 39.00 euros/sqm RAC. The main driver of the trend is Berlin's evolution into a hub for start-up businesses. The same reason is to a large extent responsible for the dynamic growth in office jobs, which in turn has stimulated the demand for office accommodation. In response to the outbreak of the COVID-19 pandemic, the rent growth took a short breather in 2020. As early 2021, modest gains in take-up were registered again, in evidence of a market situation where the vacancy trend has decoupled from the trend in prime rents.

Prime rent levels in the French office markets, particularly in the Paris submarkets, show a divergent development for the period under review. Prime rent increases were mainly limited to the Paris CBD. In 2019, they stood at 70.40 euros/sqm. Even during the COVID-19 crisis, rents remained largely stable here, while the La Défense submarket registered a decline in rents by 1.25 euros/sqm to 43.75 euros/sqm that was caused by a surge in vacancies. The less dynamic trend in prime rents in Marseille, Lyon and Lille reflects the secondary role these office markets play. With the exception of Paris Central and Amsterdam, the rental growth in all of the French and Dutch office markets lagged behind the growth rates reported from the German office markets examined.

Rents in Amsterdam, which had seen above-average rental growth since 2016 as a result of robust demand, proved more or less immune to the recession of 2020 as they maintained the prior-year level of 37.00 euros/sqm. But even here, incentives gained noticeably in significance. Prime rents in Rotterdam, while also withstanding the pandemic environment, equal c. 18 euros/sqm and are thus markedly below Amsterdam's level.

► Prime yields (net) in inner-city locations of Germany's leading office markets

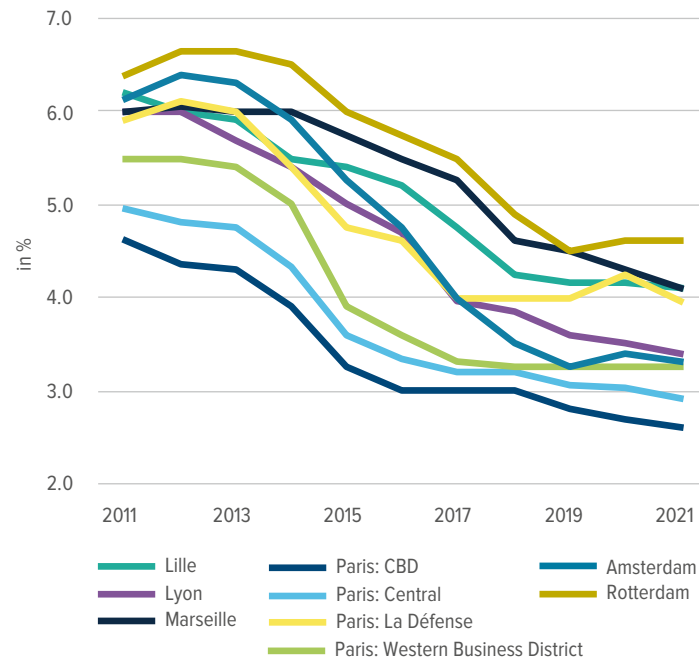


Source: bulwiengesa AG

The yield compression that lasted until 2019 came to an abrupt end in most Class A markets with the outbreak of the COVID-19 pandemic in 2020, and the fact was reflected in stagnating yields. The only Class A cities where yields continued to decline slowly were Düsseldorf and Cologne. Hanover counted among the priciest Class B cities, its yield level having slipped just below the 4 % mark. In other words, the investment market proved crisis-resilient as office properties remained a highly sought-after asset class in 2021. The persistently high demand pressure in combination with a limited supply kept driving the high price level up last year – prompting net initial yields across all city categories to start hardening again, albeit at a modest pace. In fact, the weighted average of net initial yields across all Class A cities approximated 2.6 %, undercutting the 2020 level by 15 basis points.

In the current market environment, defined by increased financing conditions, the tightening of the ECB's monetary policy, and economic and geopolitical uncertainties, prime yields in German Class A cities had gone up by 10 to 20 basis points by mid-year 2022. In this permanently changed funding environment, further price corrections are a realistic prospect for the short and medium term.

► Prime yields (net) in inner-city locations of the leading office markets in France and the Netherlands



Source: Property Market Analysis (PMA)

In France, prime yields remained mostly stable or even declined slowly during the first pandemic year. One exception was the Paris submarket La Défense, whose yield rate rose by 30 basis points to 4.3 % in 2020. But in 2021, yields in the selected cities and submarkets in France fell by 10 to 20 basis points across the board. Given the current market developments, there is a good chance that the yield compression will soon end for good in France, too. But in analogy to Germany, price corrections are to be expected, especially in the priciest cities and locations. In France, this applies particularly to the Paris CBD whose yield level stands at 2.7 %.

The markets in Amsterdam and Rotterdam registered a lateral movement in 2021 after prime yields had slightly softened in 2020 by gaining 10 basis points to 3.1 % and 4.2 %, respectively. Here as elsewhere, modest price corrections are to be expected in 2022.

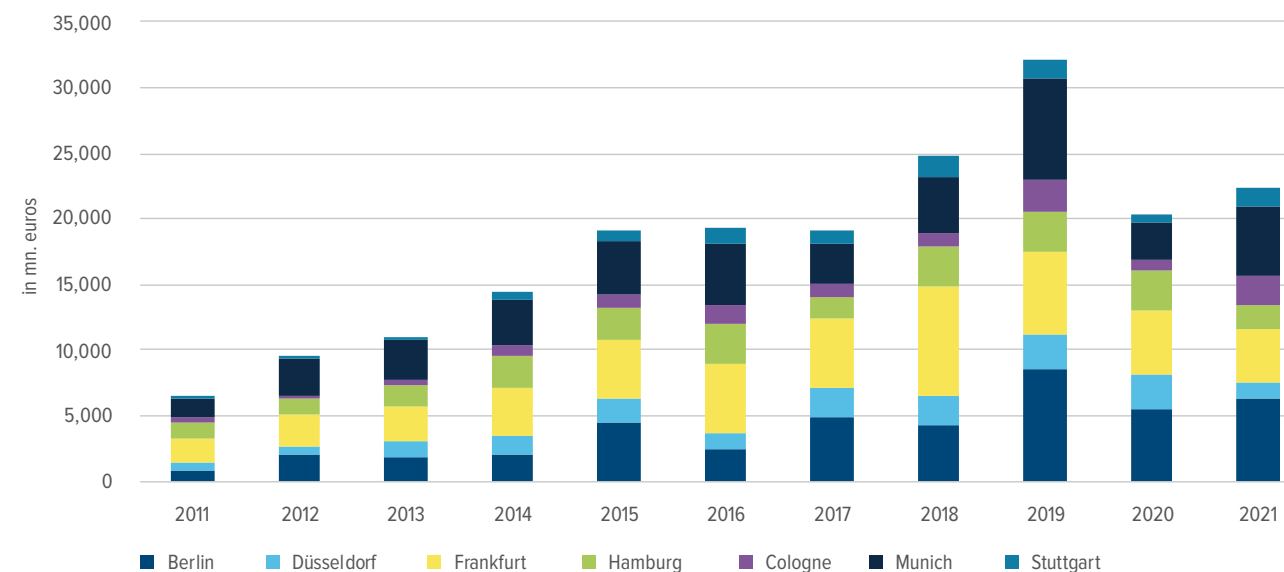
Office Investment Market in the Leading Office Markets in GER, FR, NL

Office properties in Germany's Class A cities are extremely popular with institutional investors. Key reasons for this, in addition to positive economic conditions, have included strong demand for floor space combined with significant rent growth and a gradual decline in vacancies over the past years. The largest investment volume in the office segment of the Class A cities to date was reported in 2019, totalling c. 32 billion euros and representing the equivalent of around 70 % of the total transaction volume in commercial real estate in Class A cities that year.

Yet the COVID-19 pandemic left its mark even on the investment market of the "Big 7." In 2020, the office real estate transactions in the seven Class A market added up to 20.3 billion euros, implying a decline by 36.5 % compared to the previous year. Analogously, the investment volume in the Class B cities, totalling 2.8 billion euros, fell short of the all-time high recorded the previous year (4.4 billion euros). By 2021, investments the "Big 7" rebounded with a modest increase to 22.3 billion euros. As in the previous year, Berlin topped the list with an investment volume of 6.3 billion euros, followed by Munich (5.2 billion euros) and Frankfurt am Main (4.9 billion euros).

After an auspicious start to the year with c. 9.8 billion euros in office property sales during the first quarter of 2022, the volume dropped back to c. 4.1 billion euros during the very next quarter. Uncertainties caused by the outbreak of war in Ukraine, the changing interest rate environment on the capital markets and rising inflation have made many market participants wary, and noticeably impacted the investment activity. Investors are proceeding with much more caution, and are no longer willing to pay the high prices still quoted at the beginning of the year, given the drastically changed funding terms.

► Trend in office transaction volumes in Germany's leading office markets



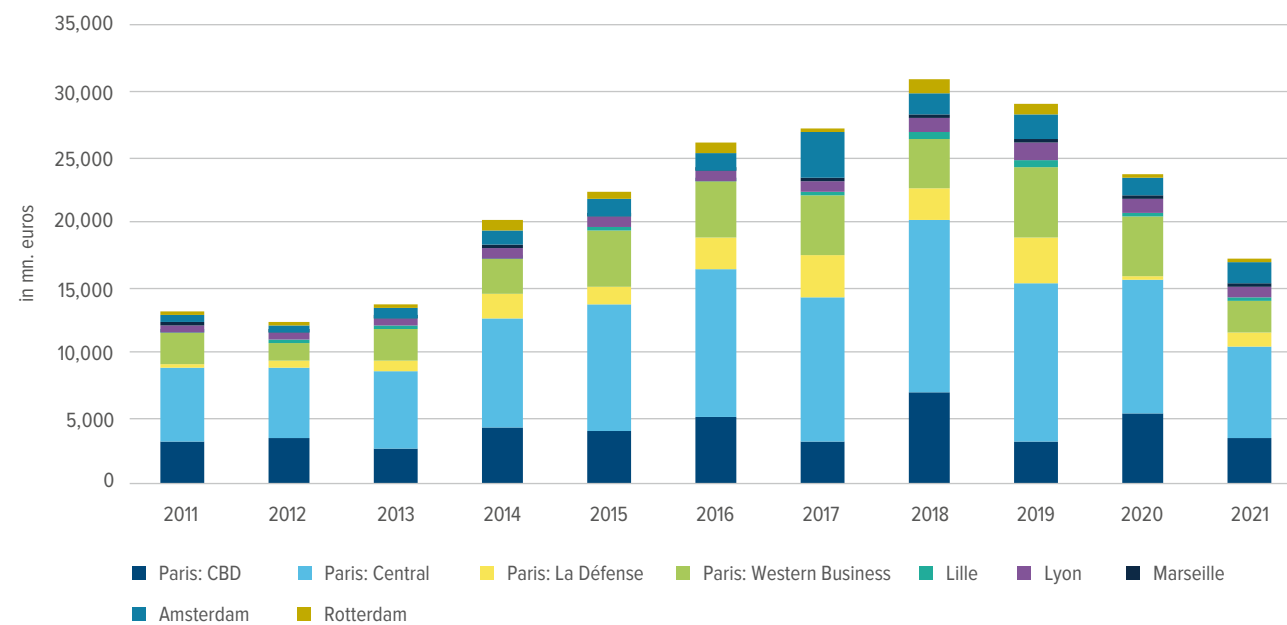
Source: bulwiengesa AG



Source: Becken Holding GmbH

Office investment markets in France and the Netherlands present a similar picture. Paris is considered one of the most liquid investment markets in Europe and it has a diversified international investor base. Following the banner years of 2018 and 2019 with investment volumes of 13.2 billion euros and 12.1 billion euros respectively, investment activity fell sharply here in 2020, just like elsewhere. That year, the investment volume equalled 10.3 billion euros before dropping by another third to 6.9 billion euros in 2021. Even Amsterdam saw its worst year in the office investment market since 2014 in 2020, with sales adding up to a mere 1.2 billion euros. The decline is arguably attributable to the city's high dependence on foreign capital. In 2021, the investment volume topped the 10-year annual mean again with a total of 1.6 billion euros.

► Trend in transaction volumes on the office markets of selected cities in France and the Netherlands



Source: Property Market Analysis (PMA)



Source: Becken Holding GmbH

#9

SCORING MODEL for Measuring the Investment Appeal of the HOUSING MARKETS in GERMANY, FRANCE and the NETHERLANDS



Source: Getty Images

Purpose of the Scoring

The preceding chapters elaborated the market trends currently shaping the housing markets along with the corresponding data coverage for the leading real estate markets in Germany, France and the Netherlands.

To permit a comparison of these real estate markets, a classification is called for that highlights the strengths/opportunities along with the weaknesses/risks of these markets in a comparative synopsis.

This is where the scoring model comes in, which merges different aspects and, by weighting the influencing factors, returns a result that indicates the investment appeal of the housing markets in Germany, France and the Netherlands. Selecting alternative inputs, different weightings or thresholds would be sure to return different outcomes. But according to the present data coverage and based on bulwiengesa's experience of many decades in the analysis of real estate markets, the scoring model that was applied should return verifiable results.

Methodology: How does the Scoring Work?

19 indicators grouped into three thematic clusters (national statistics, regional statistics, housing market) measure the investment appeal of the 22 most important housing markets in Germany, France and the Netherlands.

To this end, six of the indicators measure strengths, weaknesses and trends on the national level, focusing particularly on the national economy, the financial market and the labour market. Seven indicators measure economic and demographic facts and circumstances on the level of the cities and their metro regions. Six indicators measure the supply and demand side of the housing market.

To the extent possible, all indicators for all of the housing markets were in each case obtained from the same data sources (e. g. Eurostat). When only nationally available statistics were taken into account, every effort was made to ensure homogeneity with regard to the metadata.

Methodology: How are the Indicator Scores Translated into Scoring Results?

The example below elaborates the procedure using a model scenario:

- › 1. The annual population growth rate between 2000 and 2021 ranged from 0.04 % in Paris to 1.44 % in Toulouse.
- › 2. In this specific case, the value orientation was viewed as positive, because all cities with high population growth are considered favourable for future institutional investments.
- › 3. For each indicator, upper and lower limits (roughly 3 % to 5 % of the highest and lowest cases, respectively) were determined to adequately allow for outlier values. Within this value range, the values are converted into scores within the framework of an equal distribution.
- › 4. If you define the threshold values for the above indicator at 0.05 % and 1.00 %, all cities with a growth rate between 0.05 % and 1.00 % receive ascending score values from 1 to 99. In the example at hand, Paris is rated with a score of 0, while Toulouse is rated with a top score of 100.

How is the Potential of a Given Market Derived by the Scoring Results?

Each indicator is equally weighted within its thematic cluster. But the three thematic clusters are weighted differently—with a clear focus on housing market data and regional statistics—in order to be able to highlight the differences that characterise the investment appeal of each city.

The investment appeal is calculated as sum product of the scoring results of each thematic cluster.

Which Indicators are Used?

Overview of the scoring indicators of the housing market scoring

Reference	Indicator	Level	Unit	Reference year	Weighting	Data source(s)
Thematic cluster, national (10 % overall weighting)	10J government bond	national	%	June 2022	1.7 %	Eurostat
	Government gross debt (consolidated), in percent of gross domestic product (GDP)	national	%	2021	1.7 %	Eurostat
	HCPI	national	%	2015–2022	1.7 %	Eurostat
	GDP trend in market prices	national	%	2015–2022	1.7 %	Eurostat
	GDP in prices per capita	national	EUR	2022	1.7 %	Eurostat
	Unemployment rate	national	%	2021	1.7 %	Eurostat
Thematic cluster regional (30 % overall weighting)	Annual job growth rate	NUTS 2	%	2011–2021	4.3 %	Eurostat
	Unemployment rate	NUTS 2	%	2021	4.3 %	Eurostat
	Annual demographic growth rate	NUTS 3	%	2000–2021	4.3 %	Eurostat
	Annual demographic growth rate	NUTS 3	%	2022–2060	4.3 %	Eurostat
	Population share aged 65+	NUTS 3	%	2021	4.3 %	Eurostat
	GDP per capita	NUTS 3	Euro	2019	4.3 %	Eurostat
	Trend in GDP per capita	NUTS 3	%	2000–2019	4.3 %	Eurostat
Thematic cluster housing market (60 % overall weighting)	Average annual building activity	NUTS 3	absolute	2016–2020	10.0 %	Germany: RIWIS France: Insee Netherlands: CBS
	Arm's-length rents	NUTS 3	Euros/sqm	2022	10.0 %	Germany: RIWIS France/Netherlands: Catella
	Arm's-length purchase prices	NUTS 3	Euros/sqm	2022	10.0 %	Germany: RIWIS France/Netherlands: Catella
	Prime yields residential real estate	NUTS 3	% GIY	2022	10.0 %	Germany: RIWIS France/Netherlands: Catella
	Sustainable investment volume	NUTS 3	Absolute, in bn euros	2022	10.0 %	Estimate by bulwiengesa
Sales of ownership apartments per 1,000 residents	NUTS 3	absolute	2020	10.0 %	Germany: RIWIS France: impots.gouv.fr Netherlands: CBS	

Source: bulwiengesa AG

Notes on Acronyms and Abbreviations:

NUTS = Nomenclature of Territorial Units for Statistics (French: Nomenclature des unités territoriales statistiques) is a hierarchical system for the unambiguous identification and classification of geographical reference units of the official statistics in the member states of the European Union.

HCPI = The Harmonised Consumer Price Index (HCPI) is a consumer price index collected in the European Union by the national statistical offices and calculated by Eurostat according to rules applied uniformly across the EU.

Which Cities are the Most Attractive Ones for Residential Investments?

Overview of the housing market scoring results

City	Final scoring value (hypothetical maximum = 100)	Score national statistics (hypothetical maximum = 10)	Score regional statistics (hypothetical maximum = 30)	Score housing market data (hypothetical maximum = 60)
Amsterdam	89.7	7.5	29.7	52.4
Munich	81.7	6.6	23.8	51.4
Frankfurt (Main)	67.0	6.6	23.2	37.2
Paris	65.4	4.5	17.9	42.9
Utrecht	64.6	7.5	24.7	32.4
Berlin	60.9	6.6	21.7	32.6
Lyon	60.8	4.5	23.2	33.0
Hamburg	60.5	6.6	20.8	33.1
The Hague	58.6	7.5	20.8	30.3
Bordeaux	58.5	4.5	21.3	32.6
Eindhoven	56.0	7.5	20.9	27.7
Rotterdam	50.3	7.5	20.8	22.0
Stuttgart	50.3	6.6	20.6	23.2
Toulouse	49.6	4.5	20.6	24.5
Montpellier	43.9	4.5	14.6	24.7
Düsseldorf	42.4	6.6	14.1	21.7
Nantes	40.7	4.5	21.6	14.6
Cologne	40.4	6.6	15.8	18.0
Marseille	38.4	4.5	11.1	22.7
Nice	31.8	4.5	6.4	20.8
Hanover	30.7	6.6	15.4	8.7
Lille	29.1	4.5	8.8	15.7

Source: bulwiengesa AG

Overview of the detailed results of the housing market scoring based on national statistics

Country	Score national statistics (hypothetical maximum = 10)	Specific strengths acc. to national statistics (score >80) in regard to ...	Specific weaknesses acc. to national statistics (score >20) in regard to ...
Netherlands	7.5	Government gross debt, GDP trend, GDP per capita, Unemployment rate	HCPI trend
Germany	6.6	10J government bond, Unemployment rate	none
France	4.5	none	Government gross debt

Source: bulwiengesa AG

Overview of the results of the housing market scoring based on regional statistics

City	Final scoring value (hypothetical maximum = 100)	Score regional statistics (hypothetical maximum = 30)	Specific strengths acc. to regional statistics (score >80) in regard to ...	Specific weaknesses acc. to regional statistics (score >20) in regard to ...
Amsterdam	89.7	29.7	CAGR employed persons, Share of res. aged 65+, GDP per capita, GDP trend per capita	none
Munich	81.7	23.8	Unemployment rate, CAGR pop. historic, CAGR pop. forecast	CAGR employees
Frankfurt (Main)	67.0	23.2	Unemployment rate, CAGR pop. historic, CAGR pop. forecast, Pop. share aged 65+, GDP per capita	CAGR employees, Trend GDP per capita
Paris	65.4	17.9	GDP per capita	CAGR pop. historic
Utrecht	64.6	24.7	CAGR employees, Unemployment rate, CAGR pop. historic, CAGR pop. forecast	Trend GDP per capita
Berlin	60.9	21.7	CAGR employees, CAGR pop. forecast, Trend GDP per capita	none
Lyon	60.8	23.2	CAGR pop. historic, CAGR pop. forecast	none
Hamburg	60.5	20.8	CAGR employees, unemploy. rate	none
The Hague	58.6	20.8	CAGR employees, CAGR pop. forecast	Trend GDP per capita
Bordeaux	58.5	21.3	CAGR employees, CAGR pop. historic, CAGR pop. forecast	GDP per capita
Eindhoven	58.4	20.9	CAGR employees, unemploy. rate, Trend GDP per capita	none
Rotterdam	50.3	20.8	CAGR employees, CAGR pop. forecast	none
Stuttgart	50.3	20.6	Unemployment rate, GDP per capita	none
Toulouse	49.6	20.6	CAGR pop. historic, CAGR pop. forecast, trend GDP per capita	Unemployment rate
Montpellier	43.9	14.6	CAGR pop. historic, CAGR pop. forecast	Unemployment rate, Pop. share aged 65+, GDP per capita
Düsseldorf	42.4	14.1	GDP per capita	CAGR employees, CAGR pop. forecast
Nantes	40.7	21.6	CAGR pop. historic, CAGR pop. forecast	GDP per capita
Cologne	40.4	15.8	Unemployment rate	CAGR employees
Marseille	38.4	11.1	none	CAGR employees, Pop. share aged 65+, GDP per capita
Nice	31.8	6.4	none	CAGR employees, CAGR pop. forecast, Pop. share aged 65+, GDP per capita

Overview of the results of the housing market scoring based on regional statistics

Hanover	30.7	15.4	CAGR employees, Unemployment rate	CAGR pop. historic, CAGR pop. forecast, Pop. share aged 65+
Lille	29.1	8.8	none	CAGR employees, Unemployment rate, CAGR pop. historic, CAGR pop. forecast, GDP per capita

Source: bulwiengesa AG
Notes on Acronyms and Abbreviations:
CAGR = The Compound Annual Growth Rate (CAGR) represents the average annual growth of a variable to be examined.
Historic = Refers to the historic population CAGR during the years 2000-2021
Forecast = Refers to the forecast population CAGR for the years 2022-2060

Overview of the results of the housing market scoring based on housing market data

Stadt	Final scoring value (hypothetical maximum = 100)	Score housing market data (hypothetical maximum = 60)	Specific strengths acc. to housing market data (score >80) in regard to ...	Specific weaknesses acc. to housing market data (score >20) in regard to ...
Amsterdam	89.7	52.4	Rents, prices, investments	none
Munich	81.7	51.4	Rents, prices, yield, investments	none
Frankfurt (Main)	67.0	37.2	Prices	Building activity
Paris	65.4	42.9	Rents, prices, yield, investments	Building activity
Utrecht	64.6	32.4	Rents	Transactions
Berlin	60.9	32.6	Building activity, yield, investments	Transactions
Lyon	60.8	33.0	Building activity	Investments
Hamburg	60.5	33.1	Investments	Transactions
The Hague	58.6	30.3	Transactions	Building activity, yield
Bordeaux	58.5	32.6	Building activity, transactions	Investments
Eindhoven	58.4	30.0	none	Building activity, yield
Rotterdam	50.3	22.0	none	Yield, transactions
Stuttgart	50.3	23.2	none	Building activity, transactions
Toulouse	49.6	24.5	Building activity, transactions	Prices, yield, investments
Montpellier	43.9	24.7	Building activity, transactions	Prices, yield, investments
Düsseldorf	42.4	21.7	none	Building activity, rents, transactions
Nantes	40.7	14.6	Building activity, transactions	Prices, yield, investments
Cologne	40.4	18.0	none	Building activity, transactions
Marseille	38.4	22.7	Building activity	Prices, investments
Nice	31.8	20.8	Transactions	Yield, investments
Hanover	30.7	8.7	none	Building activity, rents, investments, transactions
Lille	29.1	15.7	none	Prices, yield, investments

Source: bulwiengesa AG

The ranking reveals that Amsterdam and Munich are more attractive for residential investments than any of the other cities. In a direct comparison of these two cities, the significantly higher yield level for residential real estate is the key factor explaining why Amsterdam has a higher score than Munich. Frankfurt am Main ranked third, followed by Paris, Utrecht and Berlin. At the lower end of the scale, Hanover and Lille trailed the other cities at some distance.

However, it is perfectly obvious that the ranking by its very nature analyses only the largest and most sought-after housing markets of Germany, France and the Netherlands. With this in mind, it should be added that the parameters of housing markets that scored a lower ranking herein suggest by no means that they are entirely unsuitable for residential investments. It is only when compared to the other cities examined that their scores fall short of the average. That said, the housing markets of Hanover and Lille, for example, could deliver a successful project if local market know-how and a residential product in line with demand in an attractive location are brought into play.



Source: INDUSTRIA Fonds Immobilien

#10

SCORING MODEL for Measuring the Investment Appeal of the OFFICE MARKETS in GERMANY, FRANCE and the NETHERLANDS

Purpose of the Scoring

The preceding chapters elaborated the market trends currently shaping the office markets and corresponding data coverage for the leading real estate markets in Germany, France and the Netherlands.

To permit a comparison of these real estate markets, a classification is needed that highlights the strengths/opportunities along with the weaknesses/risks of these markets in a comparative synopsis.

This is where the scoring model comes in, which merges different aspects and, by weighting the influencing factors, returns a result that indicates the investment appeal of the office markets in Germany, France and the Netherlands. Selecting alternative inputs, different weightings or thresholds would be sure to return different outcomes. But according to the present data coverage and based on bulwiengesa's experience of many decades in the analysis of real estate markets, the scoring model that was applied should return verifiable results.

Methodology: How does the Scoring Work?

22 indicators grouped into three thematic clusters (national statistics, regional statistics, office market) measure the investment appeal of the 17 most important office markets in Germany, France and the Netherlands.

To this end, six of the indicators measure strengths, weaknesses and trends on the national level, focusing particularly on the national economy, the financial market and the labour market. Seven indicators measure economic and demographic facts and circumstances on the level of the cities and their metro regions. Nine indicators measure the supply and demand sides of the office market.

To the extent possible, all indicators for all of the office markets were in each case obtained from the same data sources (e.g. Eurostat). When only nationally available statistics were taken into account, every effort was made to ensure homogeneity with regard to the metadata.

Methodology: How are the Indicator Scores Translated into Scoring Results?

The example below elaborates the procedure using a model scenario:

- 1. The annual growth rate for office jobs between 2012 and 2021 ranged from 0.88 % in Hanover to 2.64 % in Berlin.
- 2. In this specific case, the value orientation was viewed as positive, because all cities with high office employment growth are considered favourable for future institutional investments.
- 3. For each indicator, upper and lower limits (roughly 3 % to 5 % of the highest and lowest cases, respectively) were determined to adequately allow for outlier values. Within this value range, the values are converted into scores within the framework of an equal distribution.
- 4. If you define the threshold values for the above indicator at 1.00 % and 2.00 %, all cities with a growth rate between 1.00 % and 2.00 % receive ascending score values from 1 to 99. Here, Hanover is rated with a score of 0, while Berlin is rated with a top score of 100.

How is the Potential of a Given Market Derived by the Scoring Results?

Each indicator is equally weighted within its thematic cluster. But the three thematic clusters are weighted differently—with a clear focus on office market data and regional statistics—in order to be able to highlight the differences that characterise the investment appeal of each city.

The investment appeal is calculated as sum product of the scoring results of each thematic cluster.

Which Indicators are Used?

Overview of the scoring indicators of the office market scoring

Reference	Indicator	Level	Unit	Reference year	Weighting	Data source(s)
Thematic cluster, national (10 % overall weighting)	10y government bond	national	%	June 2022	1.7 %	Eurostat
	Government gross debt (consolidated), in percent of gross domestic product	national	%	2021	1.7 %	Eurostat
	HCPI	national	%	2015–2022	1.7 %	Eurostat
	GDP trend in market prices	national	%	2015–2022	1.7 %	Eurostat
	GDP in prices per capita,	national	EUR	2022	1.7 %	Eurostat
	Unemployment rate	national	%	2021	1.7 %	Eurostat
Thematic clusters regional (30 % overall weighting)	Annual job growth rate	NUTS 2	%	2011–2021	4.3 %	Eurostat
	Unemployment rate	NUTS 2	%	2021	4.3 %	Eurostat
	Annual demographic growth rate	NUTS 3	%	2000–2021	4.3 %	Eurostat
	Annual demographic growth rate	NUTS 3	%	2022–2060	4.3 %	Eurostat
	Population share aged 65+	NUTS 3	%	2021	4.3 %	Eurostat
	GDP per capita	NUTS 3	Euro	2019	4.3 %	Eurostat
	Trend in GDP per capita	NUTS 3	%	2000–2019	4.3 %	Eurostat
Thematic cluster office market (60 % overall weighting)	Prime rent (inner city)	NUTS 3	Euros/sqm	2021	6.7 %	Germany: RIWIS France: Insee Netherlands: CBS
	Annual growth of prime rent (inner city)	NUTS 3	%	2012–2021	6.7 %	Germany: RIWIS France/Netherlands: PMA
	Office vacancy	NUTS 3	%	2021	6.7 %	Germany: RIWIS France/Netherlands: PMA
	Office jobs	NUTS 3	%	2021	6.7 %	Germany: RIWIS France/Netherlands: PMA Oxford Economics
	Annual growth in office jobs	NUTS 3	absolute	2021	6.7 %	Germany: RIWIS France/Netherlands: PMA Oxford Economics
	Prime yield (%)	NUTS 3	% NIY	2021	6.7 %	Germany: RIWIS France/Netherlands: PMA
	Take-up relative to availability	NUTS 3	Average, %	2012–2021	6.7 %	Germany: RIWIS France/Netherlands: PMA
	Net absorption	NUTS 3	Sqm, average, absolute	2012–2021	6.7 %	Germany: RIWIS France/Netherlands: PMA
	Transaction volume, office market	NUTS 3	Euros, average, absolute	2017–2021	6.7 %	Germany: RIWIS France/Netherlands: PMA

Source: bulwiengesa AG

Notes on Acronyms and Abbreviations:

NUTS = Nomenclature of Territorial Units for Statistics (French: Nomenclature des unités territoriales statistiques) is a hierarchical system for the unambiguous identification and classification of geographical reference units of the official statistics in the member states of the European Union.
HCPI = The Harmonised Consumer Price Index (HCPI) is a consumer price index collected in the European Union by the national statistical offices and calculated by Eurostat according to rules applied uniformly across the EU.

Which Cities are the Most Attractive Ones for Office Investments?

Overview of the office market scoring results

City	Final scoring value (hypothetical maximum = 100)	Score national statistics (hypothetical maximum = 10)	Score regional statistics (hypothetical maximum = 30)	Score office market data (hypothetical maximum = 60)
Berlin	84.4	6.6	21.7	56.2
Munich	79.4	6.6	23.8	49.0
Amsterdam	70.7	7.5	29.7	33.5
Hamburg	65.2	6.6	20.8	37.8
Paris CBD	62.1	4.5	17.9	39.6
Frankfurt (Main)	61.4	6.6	23.2	31.6
Paris Central	58.8	4.5	17.9	36.3
Lyon	55.1	4.5	23.2	27.3
Stuttgart	52.7	6.6	20.6	25.6
Cologne	51.8	6.6	15.8	29.5
Paris Western Business	49.2	4.5	17.9	26.7
Düsseldorf	39.8	6.6	14.1	19.2
Paris La Défense	38.9	4.5	17.9	16.4
Hanover	33.4	6.6	15.4	11.4
Rotterdam	29.2	7.5	20.8	0.9
Marseille	25.5	4.5	11.1	9.8
Lille	24.7	4.5	8.8	11.3

Source: bulwiengesa AG

Overview of the detailed results of the office market scoring based on national statistics

Country	Score national statistics (hypothetical maximum = 10)	Specific strengths acc. to national statistics (score >80) in regard to ...	Specific weaknesses acc. to national statistics (score >20) in regard to ...
Netherlands	7.5	Government gross debt, GDP trend, GDP per capita, Unemployment rate	HCPI trend
Germany	6.6	10y government bond, Unemployment rate	none
France	4.5	none	Government gross debt

Source: bulwiengesa AG

Overview of the results of the office market scoring based on regional statistics

City	Final scoring value (hypothetical maximum = 100)	Score regional statistics (hypothetical maximum = 30)	Specific strengths acc. to regional statistics (score >80) in regard to ...	Specific weaknesses acc. to regional statistics (score >20) in regard to ...
Berlin	84.4	56.2	CAGR employees, CAGR pop. forecast, Trend GDP per capita	none
Munich	79.4	49.0	Unemployment rate, CAGR pop. historic, CAGR pop. forecast	CAGR employees
Amsterdam	70.7	33.5	CAGR employed persons, Share of res. aged 65+, GDP per capita, GDP trend per capita	none
Hamburg	65.2	37.8	CAGR employees, unemploy. rate	none
Paris CBD	62.1	39.6	GDP per capita	CAGR pop. historic,
Frankfurt (Main)	61.4	31.6	Unemployment rate, CAGR pop. historic, CAGR pop. forecast, Pop. share aged 65+, GDP per capita	CCAGR employees, Trend GDP per capita
Paris Central	58.8	36.3	GDP per capita	CAGR pop. historic,
Lyon	55.1	27.3	CAGR pop. historic, CAGR pop. forecast.	none
Stuttgart	52.7	25.6	Unemployment rate, GDP per capita	none
Cologne	51.8	29.5	Unemployment rate	CAGR employees
Paris Western Business	49.2	26.7	GDP per capita	CAGR pop. historic,
Düsseldorf	39.8	19.2	GDP per capita	CAGR employees, CAGR pop. forecast
Paris La Défense	38.9	16.4	GDP per capita	CAGR pop. historic,
Hanover	33.4	11.4	CAGR employees, Unemployment rate	CAGR pop. historic, CAGR pop. forecast, Pop. share aged 65+
Rotterdam	29.2	0.9	CAGR employees, CAGR pop. forecast	keine
Marseille	25.5	9.8	none	CAGR employees, Pop. share aged 65+, GDP per capita
Lille	24.7	11.3	none	CAGR employees, Unemployment rate, CAGR pop. historic, CAGR pop. forecast, GDP per capita

Source: bulwiengesa AG
 Notes on Acronyms and Abbreviations:
 CAGR = The Compound Annual Growth Rate (CAGR) represents the average annual growth of a variable to be examined.
 Historic = Refers to the historic population CAGR during the years 2000-2021
 Forecast = Refers to the forecast population CAGR for the years 2022-2060

Overview of the results of the office market scoring based on office market data

City	Final scoring value (hypothetical maximum = 100)	Score office market data (hypothetical maximum = 60)	Specific strengths acc. to office market data (score >80) in regard to ...	Specific weaknesses acc. to office market data (score >20) in regard to ...
Berlin	84.4	56.2	Prime rent, CAGR prime rent, office vacancy, office jobs, CAGR office jobs, prime yield, net absorption, transaction volume	none
Munich	79.4	49.0	Prime rent, office vacancy, office jobs, CAGR office jobs, prime yield, transaction volume	none
Amsterdam	70.7	33.5	Prime rent, CAGR prime rent, CAGR office jobs	Office jobs
Hamburg	65.2	37.8	Office vacancy, office jobs, prime yield	none
Paris CBD	62.1	39.6	Prime rent, office vacancy, office jobs, prime yield, transaction volume	CAGR prime rent, CAGR office jobs, net absorption
Frankfurt (Main)	61.4	31.6	Prime rent, prime yield, transaction volume	none
Paris Central	58.8	36.3	Prime rent, office jobs, take-up relative to availability, transaction volume	CAGR prime rent, CAGR office jobs, office vacancy
Lyon	55.1	27.3	CAGR office jobs	Prime rent, CAGR prime rent, transaction volume
Stuttgart	52.7	25.6	Office vacancy	Office jobs, take-up relative to availability, transaction volume
Cologne	51.8	29.5	Office vacancy, prime yield	
Paris Western Business	49.2	26.7	Take-up relative to availability, transaction volume	Office vacancy, CAGR office jobs
Düsseldorf	39.8	19.2	none	CAGR prime rent
Paris La Défense	38.9	16.4	Prime rent	CAGR prime rent, office vacancy, office jobs, prime yield
Hanover	33.4	11.4	Office vacancy	Prime rent, office jobs, CAGR office jobs, prime yield, take-up relative to availability, transaction volume
Rotterdam	29.2	0.9	none	Prime rent, CAGR prime rent, office vacancy, office jobs, CAGR office jobs, prime yield, take-up relative to availability, net absorption, transaction volume
Marseille	25.5	9.8	none	Prime rent, CAGR prime rent, office jobs, CAGR office jobs, prime yield, transaction volume
Lille	24.7	11.3	Take-up relative to availability	Prime rent, CAGR prime rent, office jobs, prime yield, transaction volume

Source: bulwiengesa AG
 Notes on Acronyms and Abbreviations:
 CAGR = The Compound Annual Growth Rate (CAGR) represents the average annual growth of a variable to be examined.

The ranking reveals that Berlin and Munich are more attractive for office investments than any of the other cities. In a direct comparison of these two cities, the sheer size of Berlin's office market is the key factor that gives Berlin a higher score than Munich. Amsterdam ranks third, ahead of Paris CBD, Frankfurt am Main and Paris Central. At the bottom of the list are Marseille and Lille.

However, it is perfectly obvious that the ranking by its very nature analyses only the largest and most sought-after office markets of Germany, France and the Netherlands. With this in mind, it should be added that the parameters of office markets that scored a lower ranking herein suggest by no means that they are entirely unsuitable for office investments. It is only when compared to the other cities examined that their scores fall short of the average. That said, the office markets of Marseille and Lille, for example, could deliver a successful project if local market know-how and an office building in line with demand in an attractive location are brought into play.



#11

CONCLUSION and OUTLOOK



Source: Gettyimages

The current market situation is no doubt defined by the slowdown of global economic growth due to the war in Ukraine, the energy crisis, the persistent COVID-19 pandemic, the large-scale lockdowns in China, and the disruption of global supply chains, while also being defined in the eurozone by particularly steep inflation rate increases. The situation forced the ECB along with 16 of the 20 central banks of the G20 countries to raise their key lending rates quickly and sharply, thereby marking the end of the accommodative monetary policy. This has made the financing of real estate loans significantly more expensive, and subsequently caused the institutional investment market, as well as the private owner-occupier and buy-to-let investor market, to experience yield compression and a generally muted interest.

At the same time, the ongoing climate change has tightened the requirements of the capital market and the regulatory environment due to the need to transact ESG-compliant real estate investments. This implies a growing need for transparency as well as increasing financial risks for the real estate industry. However, the situation also presents numerous opportunities, specifically in the form of energetic upgrades to the building stock, in the transformation of properties and the development of business models that help real estate market players to achieve ESG compliance. There are various initiatives and reform efforts under way in all three of the countries analysed in this survey that strive to successively achieve the 17 global sustainable development goals (SDGs).

Investment opportunities in the major office and residential markets of Germany, France and the Netherlands arise, seen from a national angle, in the context of their principally very competitive economies, the strength of their democratic order and legal systems as well as the international appeal and transparency of their real estate markets. At the level of the analysed office and residential markets, the differences are certainly starker and the market development more volatile, even if these aspects overlap to some extent with megatrends and with major political, fiscal, demographic and economic macro-situations.

Particularly the office and residential markets analysed in the context of this survey show an increased intrinsic appeal due to their comparatively positive demographic and economic parameters. A closer look reveals differences primarily in regard to their market size, their relevance for the investment market, the dichotomy of supply and demand as well as the arm's-length yield levels, which have declined significantly in virtually all of the markets



Source: INDUSTRIA Fonds Immobilien

in recent years. The investment market is currently characterised by investor restraint and by a still insufficient willingness among sellers to negotiate price corrections. Especially those real estate markets that no longer offer adequate risk premiums on real estate compared to government bonds and other fixed-income asset classes will have to accept greater discounts on the stiff property prices still quoted in the very recent past. The unprecedented gap between rental prices and capital values could close in the long term, and this would present a healthy market development.

The outlook for investments in the office and residential markets of Germany, France and the Netherlands is generally positive, provided that a given investment case integrates local market know-how, fully meets sustainability requirements, delivers office or residential accommodation in line with actual demand in attractive locations at affordable conditions, and relies on realistic assumptions regarding construction costs, funding conditions and transaction terms.

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We ask for your understanding that, for reasons of reader-friendliness, we have refrained from explicitly mentioning the respective female form in this study.

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