EUROPE
CRE 180

ECONOMIC OUTLOOK

REAL ESTATE PERSPECTIVES

CITY FOCUS

GLOBAL RESEARCH
January 2023

BNP PARIBAS REAL ESTATE

Real Estate for a changing world

EUROPE CRE 180

CONTENTS

EXECUTIVE SUMMARY

IN A NUTSHELL

IS RECESSION INEVITABLE?

The drop in gas prices, the decline in headline inflation and the improvement of survey data in December are giving the impression that for the Eurozone, 2023 might be better than expected. However, it is most likely that in twelve months' time we will look back at 2023 as a recession year, a year of disinflation, and a year when central bank interest rates reached their terminal rate and stabilized.

A YEAR OF DISINFLATION

All indicators are showing that the peak of inflation is behind us in the US and in Europe. However, disinflation might be slower than expected as energy prices could rise again this year.
As such, we are still expecting inflation to be above the ECB target in 2023 (+5.0%) and in 2024 (2.3%).

INVESTMENT PLUMMETING

The dramatic increase in financing costs in Europe during 2022, led to repricing in H2. Consequently, investment plummeted over the rest of the year to reach €248bn (-14% vs 2021), and 7% below the average of the last 5 years.
The Q4 volume of €47bn (-57% vs Q4 2021) was the lowest quarter of the year when Q4 is generally the most active.

YIELDS ARE EXPANDING

2022 shows the first strong signs of expansion and it is affecting all the main sectors of real estate. The principal factor behind yield expansion is the change in the macro-financial environment. The persistence of inflation is prompting more robust response from central banks to normalize monetary policy.

OFFICE TAKE-UP RETURNED TO ITS LONG-TERM AVERAGE

Take-up at the end of 2022 saw a significant increase (+12%) compared to last year. Almost 10 million sqm was transacted in Europe's 20 main markets, in line with the 10-year average. Letting activity showed first signs of consolidation in Q4, with the post Covid-19 rebound mitigating.

AN INCREASING FOCUS ON QUALITY OVER QUANTITY

With the widespread uptake of hybrid work models, companies are seeking attractive and modular workplaces offering greater connectivity. Demand is also high for energy-efficient and sustainable buildings. These increasing quality requirements drive values up in the most sought-after markets.

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ECONOMIC OUTLOOK

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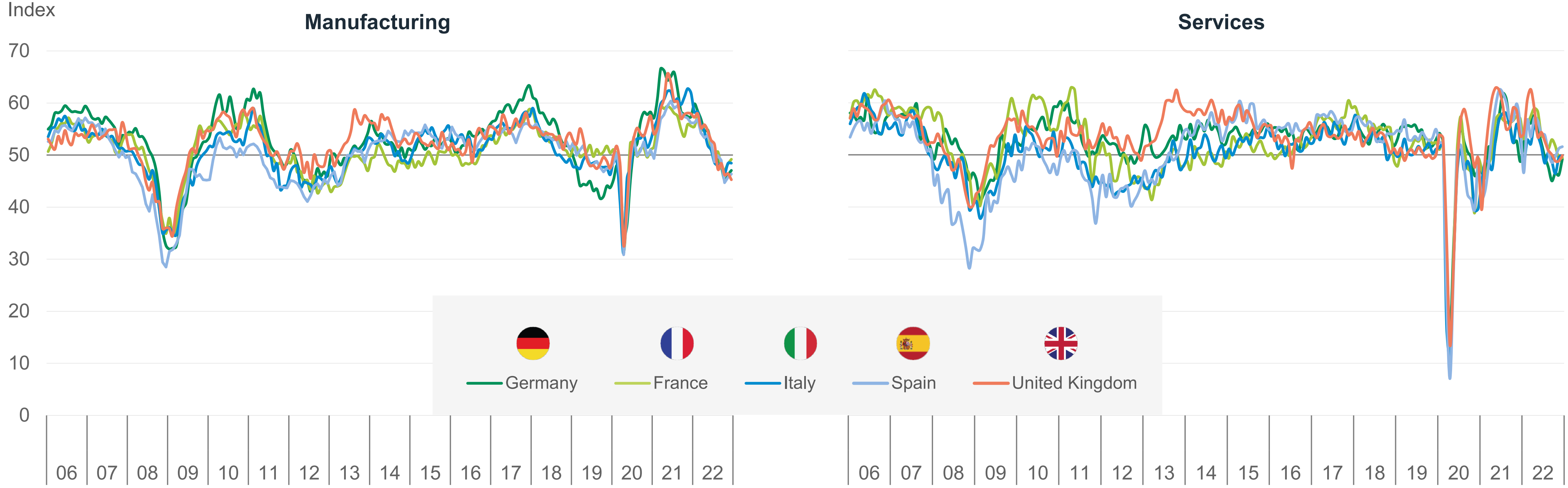
PURCHASING MANAGER INDEX SURVEYS

BUSINESS ORDERS STABILISE AT THE END OF 2022



Sources: Markit, BNP Paribas Economic Research.

PMI indexes are improving at the end of 2022

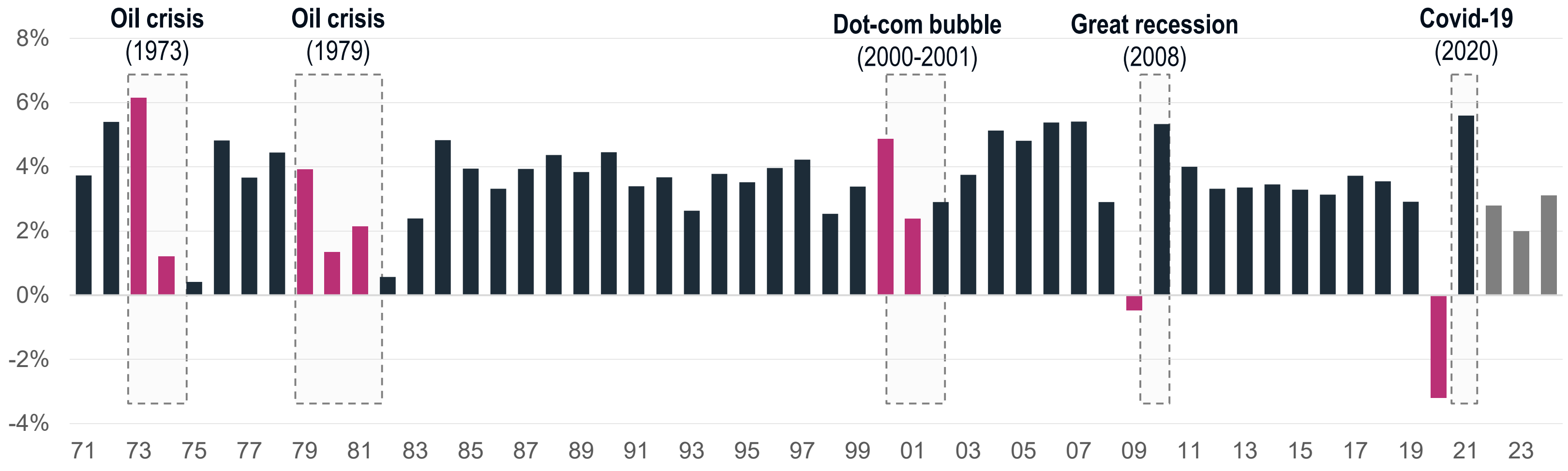
The survey data bodes well for growth momentum at the turn of the year, which could create a favorable carry-over effect for GDP this year. Some hope that lower inflation will mean fewer ECB rate hikes. However, caution is warranted. Inflation remains far too high and core inflation moved higher in December. Moreover, survey data provide little or no information on the pace of growth beyond the first quarter of this year.

Although this recent data has led others to argue that the recession may be shallower than expected, we think it's too early to become optimistic.

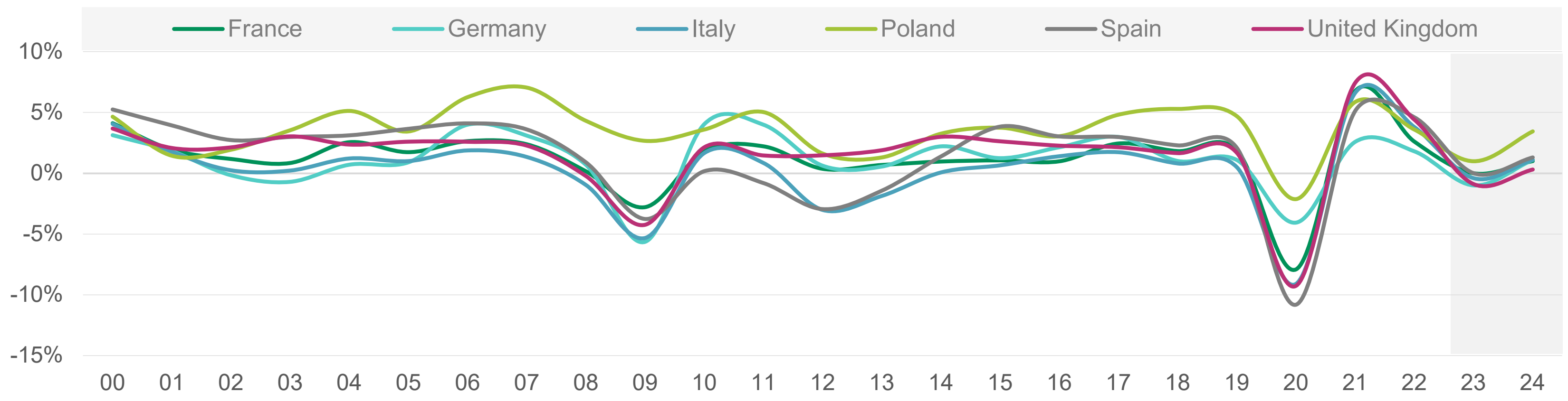
ECONOMIC OUTLOOK

WHAT OUTLOOK FOR THE MAIN ECONOMIES?

World GDP



GDP Growth in European countries



Sources: BNP Paribas Real Estate, OECD.

Recession is looming

- After a year characterized by an inflationary shock and a bond crash, 2023 may start with a marked slowdown in activity. There are roll over factors from 2022 that may dampen output:
    - The invasion of Ukraine by Russia may continue to shape energy and commodity prices. Its main impact in 2023 is to impose energy transition costs that may act as a drag on output,
    - The reopening of the Chinese economy following abandonment of zero-Covid will take time to feed into the global economy, particularly through supply chains,
    - Monetary tightening from the main central banks is likely to sustain over 2023 with no loosening

A mild recession in Europe

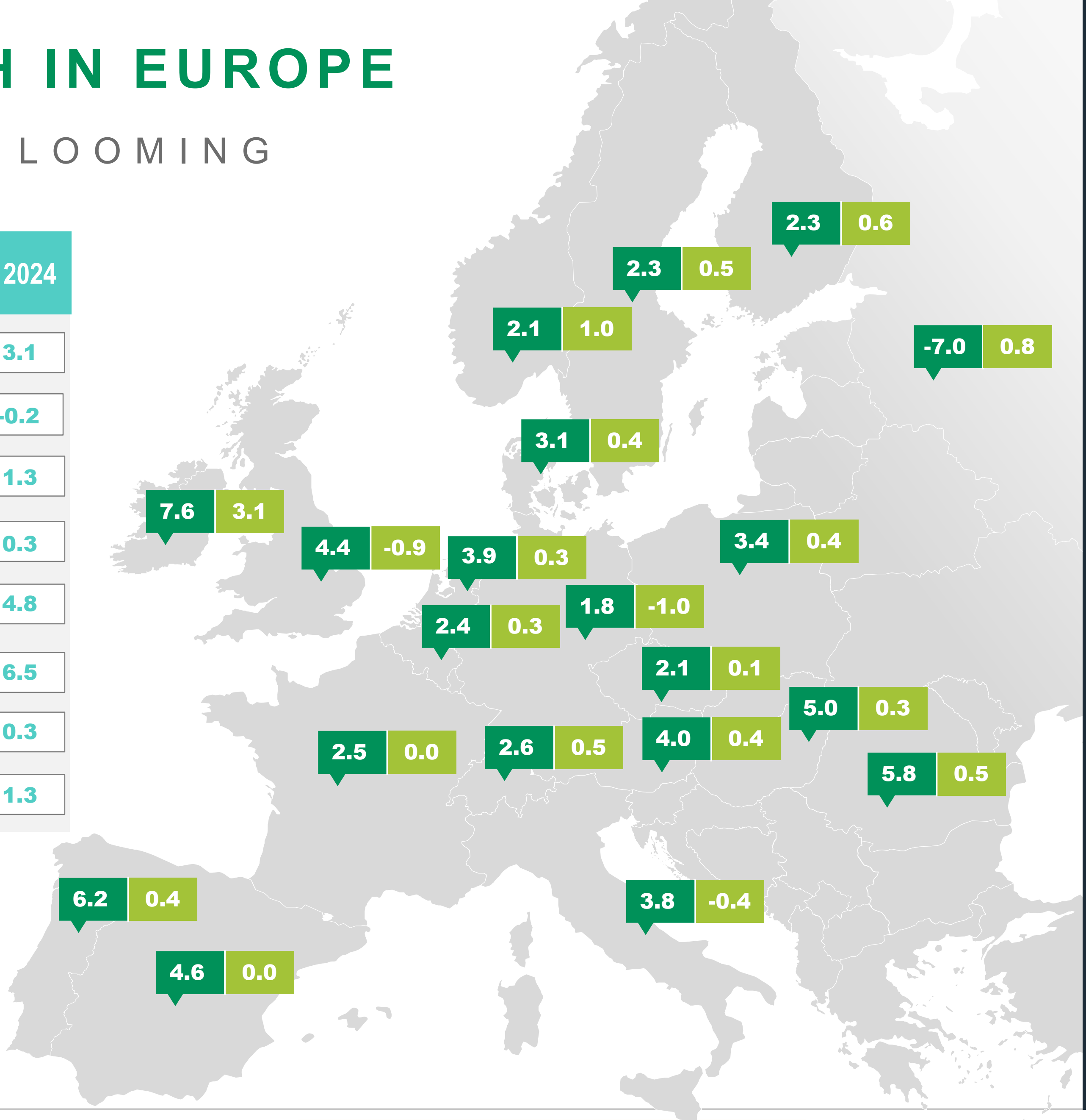
- Despite the current uncertainties, we expect only a limited recession in Europe. Indeed, the limited rise in unemployment, the support from fiscal policy in many European countries and the need to invest in the context of the energy transition should limit the economic shock.
- The recession should then be followed by a moderate recovery as the various shocks start to ease.
- Overall, we should have a mild recession in Europe in 2023 (-0.5%) as the rebound in H2 will not be strong enough to compensate for the slowdown.

GDP GROWTH IN EUROPE

RECESSION IS LOOMING

FORECAST (%):

	2022	2023	2024
World	2.8	2.0	3.1
United States	1.9	-0.1	-0.2
Euro area	3.2	-0.5	1.3
Japan	1.5	0.9	0.3
China	3.2	4.5	4.8
India	8.3	6.2	6.5
Russia	-7.0	0.8	0.3
Brasil	1.5	0.5	1.3



Source: BNP Paribas Real Estate Research.

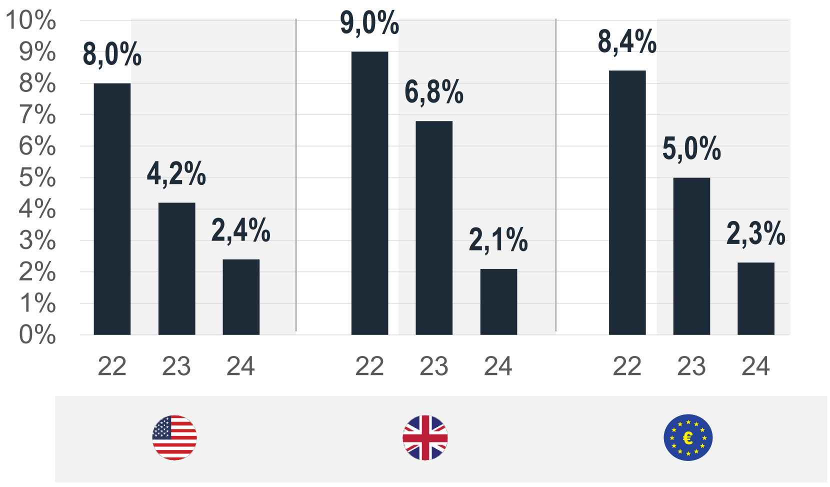
A possible recession in Europe

- It seems highly likely that for the Eurozone, 2023 will bring an easing in headline inflation, a contraction in GDP and a peak in the ECB's policy rates.
- In our base scenario, the economic environment is expected to get worse before getting better. Inflation should continue to be high, fuelled by supply chain disruptions and the war in Ukraine. The normalization of the monetary policies should also prevent strong level of GDP growth.
- The strength of the employment data reflects a degree of resilience in the economy in the face of the multiple shocks. Indeed, the robust performance of the job market, a key stronghold against the inflationary shock, was confirmed as the unemployment rate slipped to historical lows. Job creation is slowing as employers sacrifice vacancies before actual jobs.
- The US economy is now ahead of its inflation peak. However, the pace of disinflation could be longer than expected, impacting consumer and business confidence.
- In China, exports suffer from weaker global demand, and the discontinuation of the zero-Covid strategy will take to stabilise the economy. Ongoing problems in the property sector continue to weigh heavily on confidence, private consumption and investment.

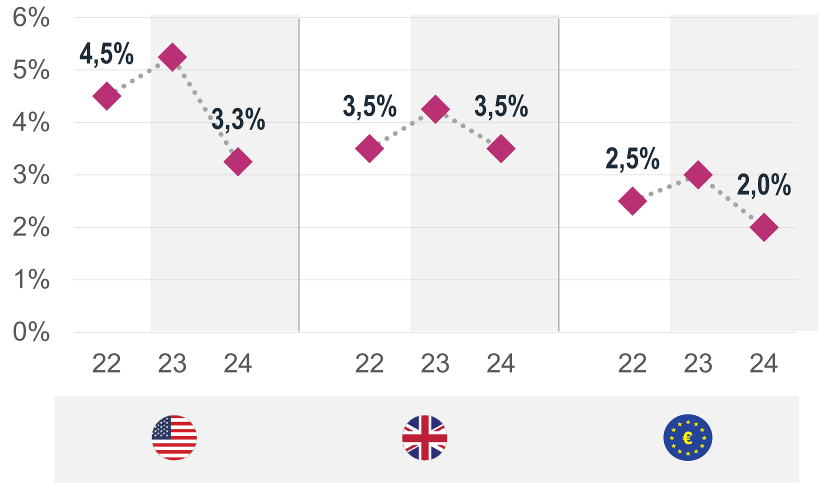
FINANCIAL OUTLOOK

ECONOMIC AND FINANCIAL INDICATORS

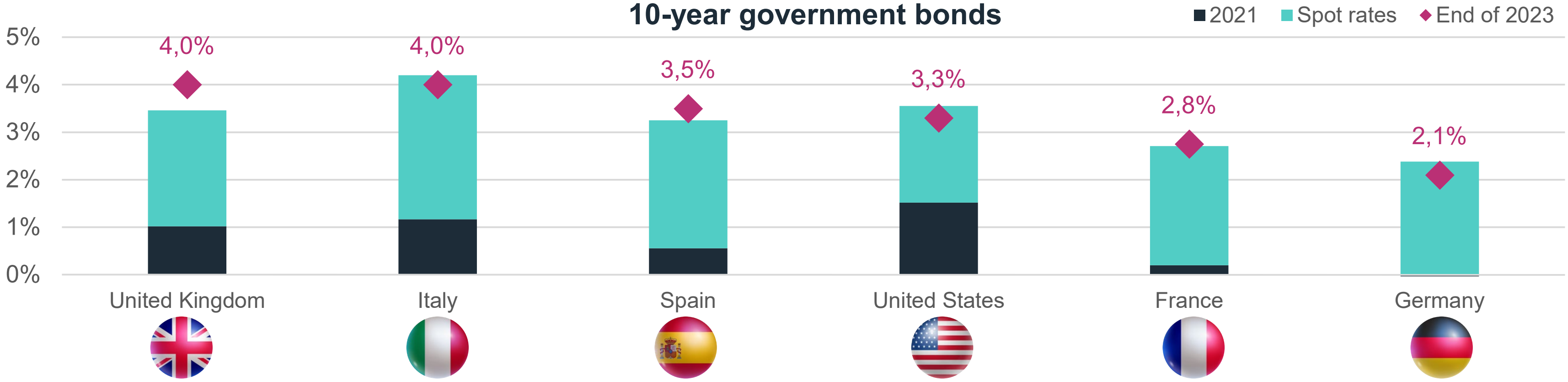
Inflation



Policy rates



10-year government bonds



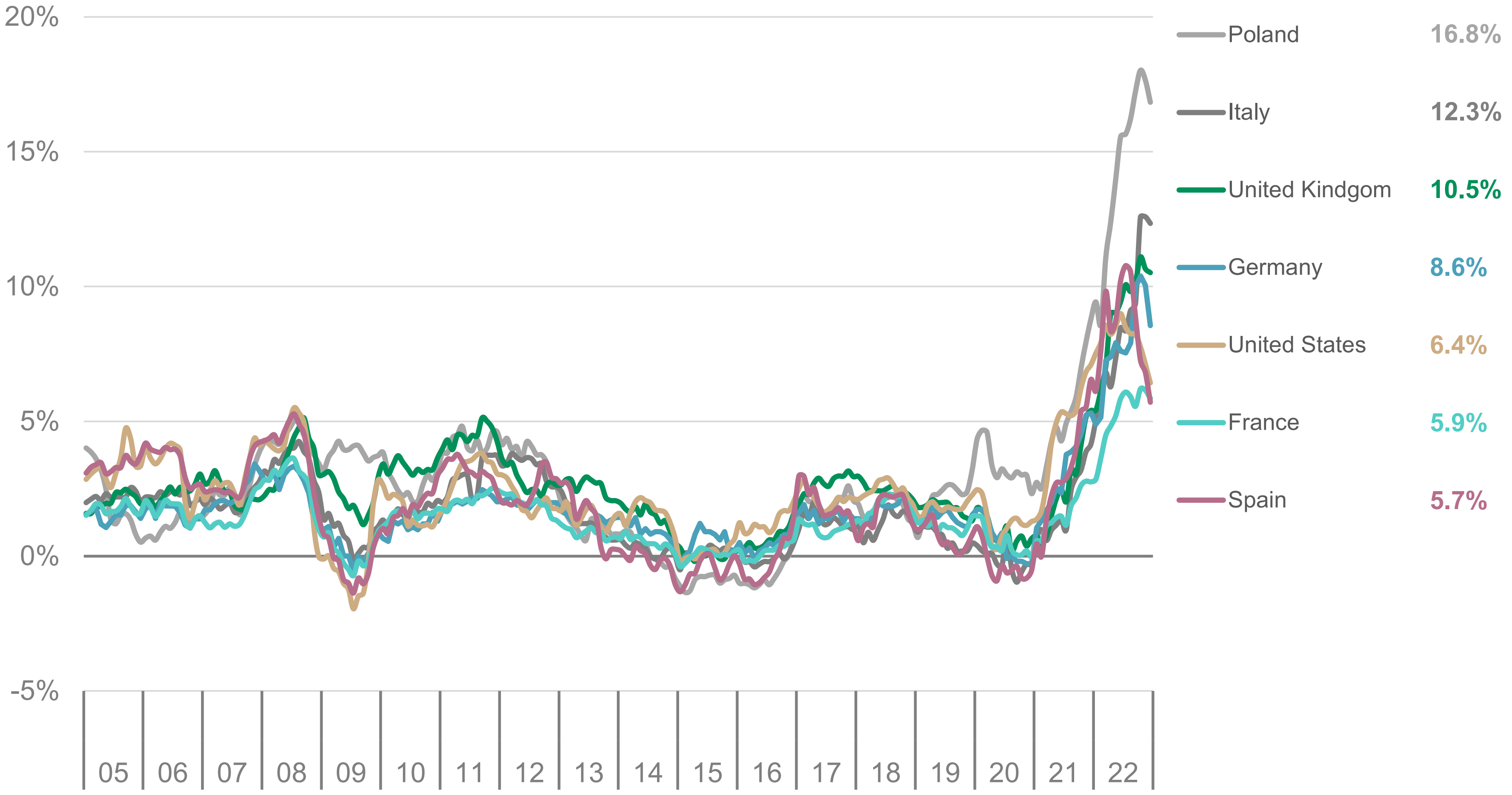
Sources: BNP Paribas Economic Research, OECD.

A normalization of monetary policy

- In the US, the Federal Reserve is continuing to tighten its monetary policy at a swift pace. The terminal rate of 5.25% (upper limit) should be reached towards the first quarter of 2023.
- The Fed is looking for economic slowdown and clear indication that the inflation is a downward path before it ends policy tightening.
- In the Eurozone, the ECB stopped its net asset purchases in July. During the latest meeting, the ECB rose its rate by 50bps. This increase may be followed by further hike to reach a rate of 3.0% in 2023.
- Government bonds already reflect monetary policy tightening, pricing in year-end levels that should not be that different from end 2022 levels. For 2024, we expect lower yields as growth slows and inflation declines.
- In addition, sovereign spreads widened significantly in Europe in June. The ECB has designed a new anti-fragmentation instrument to reduce the potential that monetary transmission results in an excessive increase in bond yields in certain countries.

STRUCTURALLY HIGHER INFLATION

UNCERTAINTY AROUND INFLATION PROJECTIONS



Sources: Macrobond.

The contribution of energy in the global rise of prices is decreasing

- Supply disruptions arising from the war in Ukraine and post pandemic economic adjustment created significant inflationary pressures in energy and commodity prices that may unwind over 2023.
- US inflation fell in December to its lowest level in more than a year, in a further sign that price pressures have peaked amid the Fed's campaign to tighten monetary policy.
- The peak for the Eurozone may have occurred at the end of 2022, but inflation is likely to remain elevated, well above the 2% target at the end of 2023 and in 2024.
- The elevated level and generalization of inflation in core products is persistent and therefore difficult to reduce.
- Although headline inflation should decelerate by the end of the year, we expect a more persistent core inflation in 2023 and 2024.
- In the UK, inflation continues to spread and the underlying inflation is increasing (10.5% y/y). We expect inflation to hit its peak in Q1 2023 at 13.8% before slowing down but still staying well above the 2% inflation target - 6.8% in 2023).

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REAL ESTATE PERSPECTIVES

COMMERCIAL REAL ESTATE INVESTMENT MARKETS

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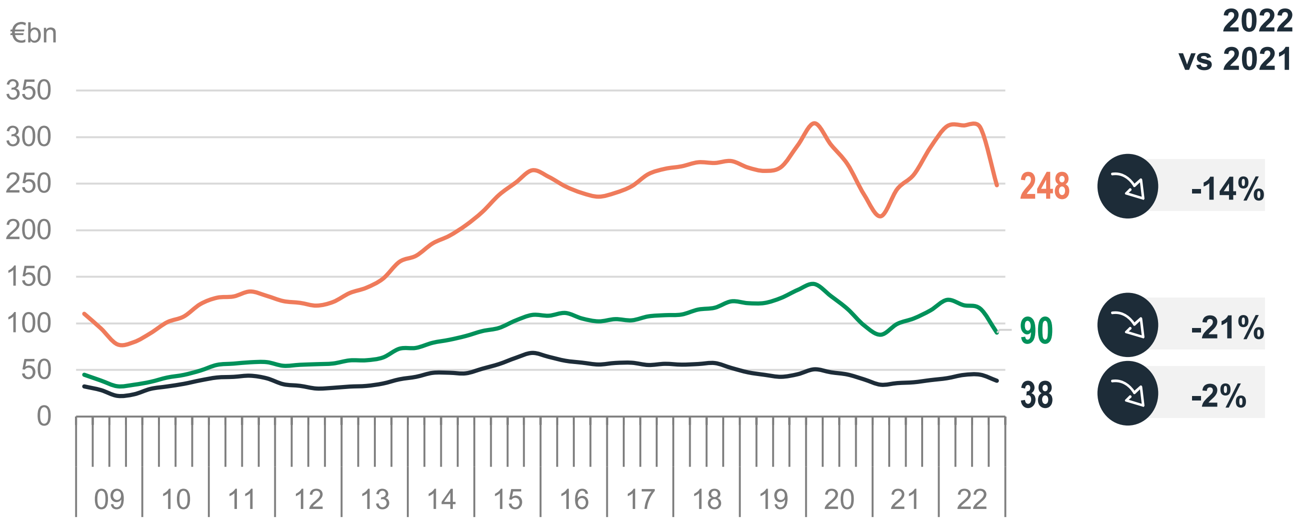
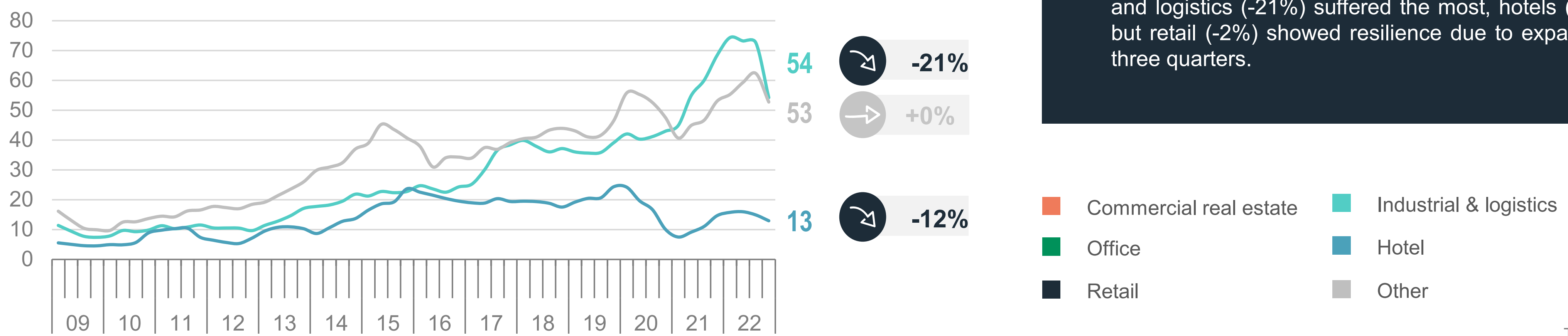
INVESTMENT IN COMMERCIAL REAL ESTATE IN EUROPE

BREAKDOWN OF INVESTMENT BY ASSET CLASS





Investment plummeting

- Investment regained momentum over 2021 after the Covid-19 crisis to reach pre-crisis levels as economies reopened with control of the pandemic outbreak. It reached a high of €313bn in Q2 2022, almost touching Q1 2020's record (€314bn).
- The dramatic increase in financing costs in Europe during 2022, led to repricing in H2. Consequently, investment plummeted over the rest of the year to reach €248bn (-14% vs 2021), and 7% below the average of the last 5 years.
- The Q4 volume of €47bn (-57% vs Q4 2021) was the lowest quarter of the year when Q4 is generally the most active.
- All asset classes experienced a reduction annually over 2021. Offices and logistics (-21%) suffered the most, hotels (-12%) saw a reduction, but retail (-2%) showed resilience due to expansion over the previous three quarters.

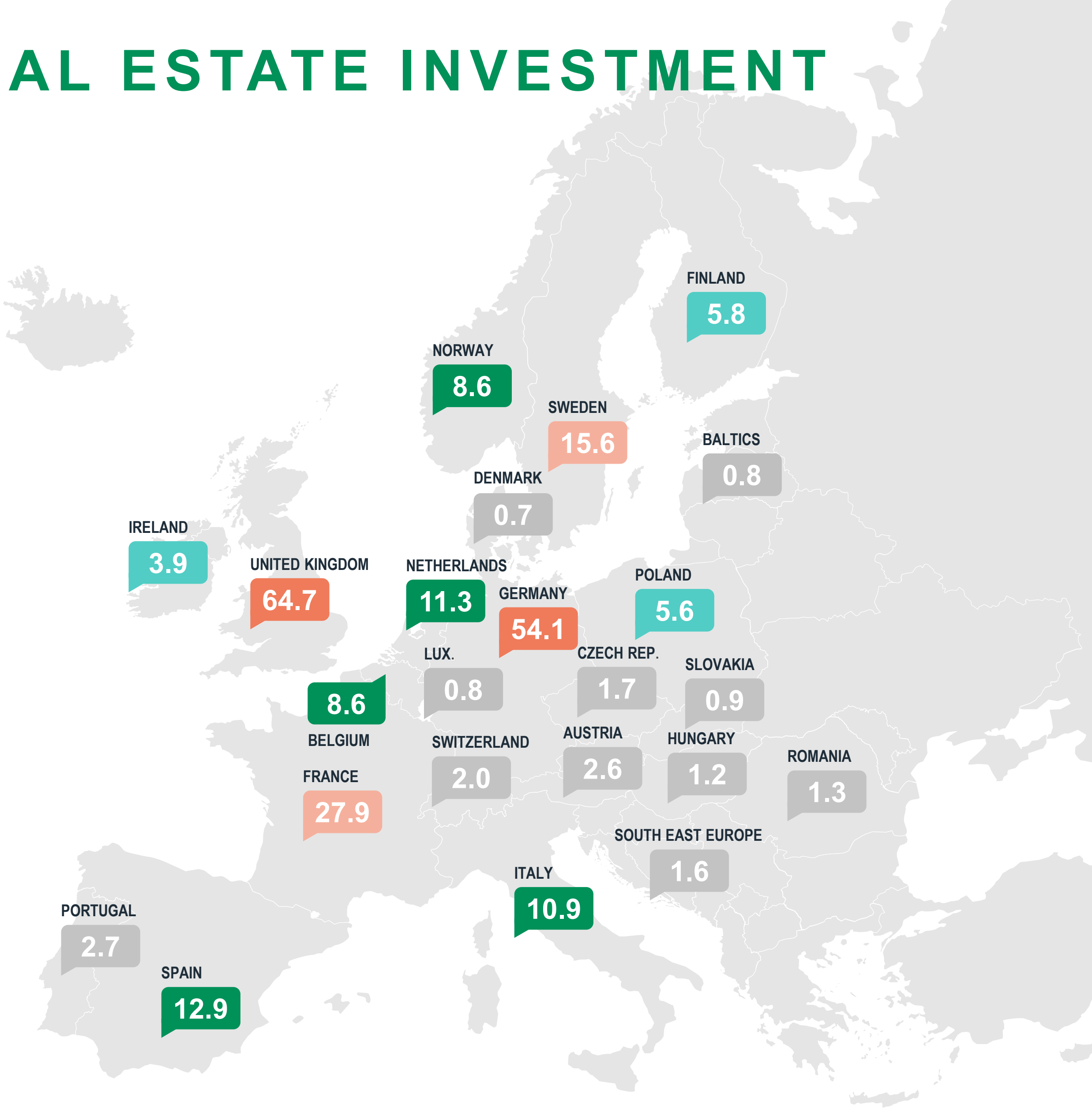
This excludes residential investment.

COMMERCIAL REAL ESTATE INVESTMENT

2022 vs 2021

GERMANY	-16%
UNITED KINGDOM	-19%
FRANCE	+1%
NETHERLANDS	-20%
ITALY	+25%
SPAIN	+29%
POLAND	-3%
IRELAND	+19%
BELGIUM	+177%
CZECH REPUBLIC	-1%
LUXEMBOURG	-38%

≥ €50bn
€15-50bn
€6-15bn
€3-6bn
< €3bn



(excludes residential investment)

Source : BNP Paribas Real Estate

EUROPE – 2022

€248.3bn

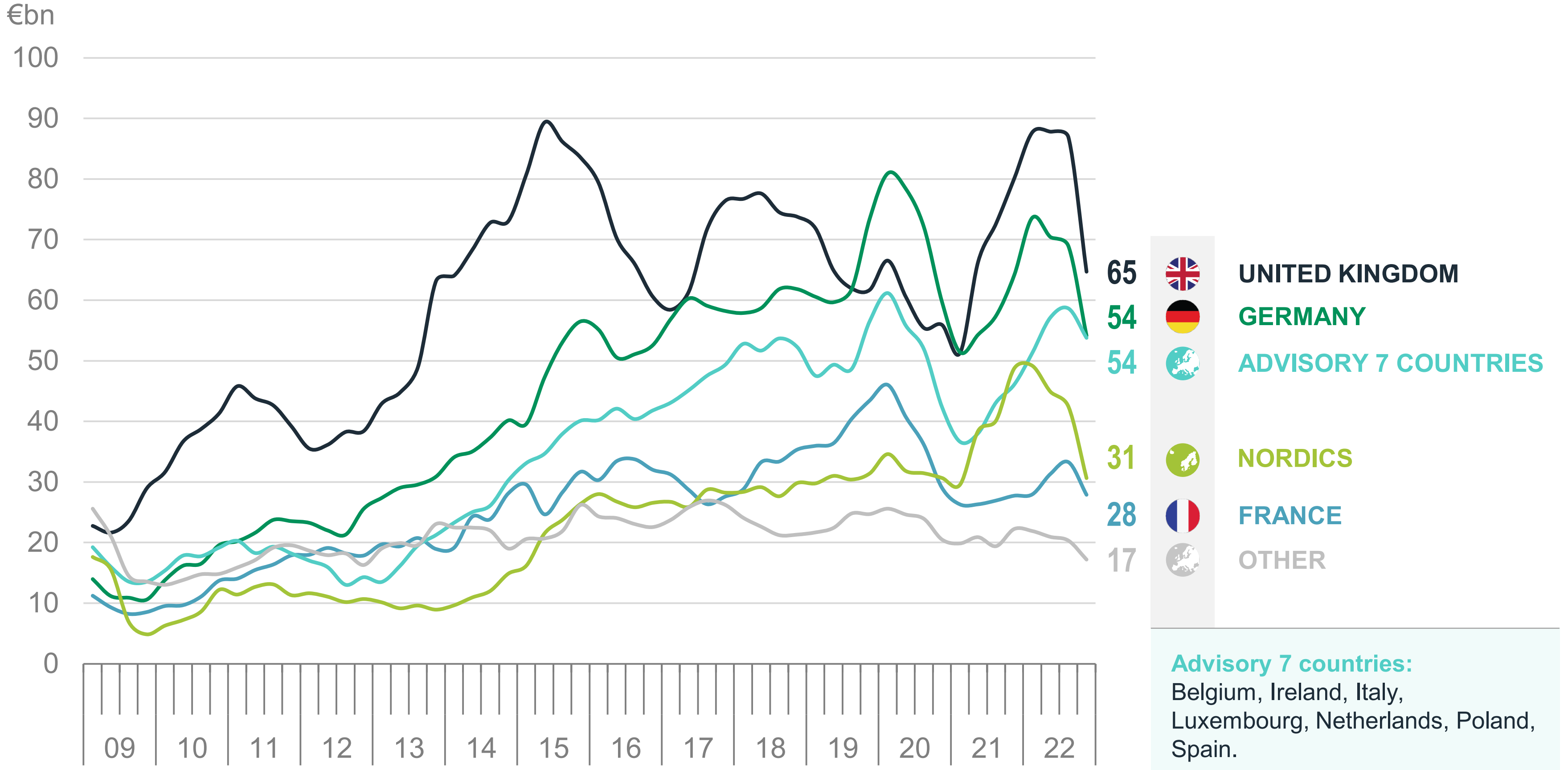
-14% vs 2021

- €248.3bn were invested in Europe over 2022, which represents a **14%** decrease vs 2021.
- A closer look at European countries shows great geographical variance. The strong declines in the two major countries Germany (-16%) and the UK (-19%) hide stabilization in France (+1%) and good performance in smaller countries such as Italy (+25%), Spain (+29%), Belgium (+177%) and Ireland (+19%).

COMMERCIAL REAL ESTATE INVESTMENT VOLUME

INVESTMENT REMAINS HIGH EVEN WITH BUYER CAUTION

CRE Investment volume (€ billion)



Advisory 7 countries:
Belgium, Ireland, Italy, Luxembourg, Netherlands, Poland, Spain.

- Over 2021 and early 2022, markets recovered sharply to post investment volumes similar to pre-pandemic levels.
- In the current climate of inflation and monetary policy tightening, rapid bond yield expansion is creating pricing uncertainty in real estate. It is also creating difficulty in lending which is now more expensive.
- The outcome is that a more selective approach to property from buyers is emerging at the end of 2022. All countries are now trending down in absolute investment volumes, except for Belgium.
- Activity remained historically high but Q4 marked a significant change with weakness not seen since the GFC.

Source: BNP Paribas Real Estate Research.

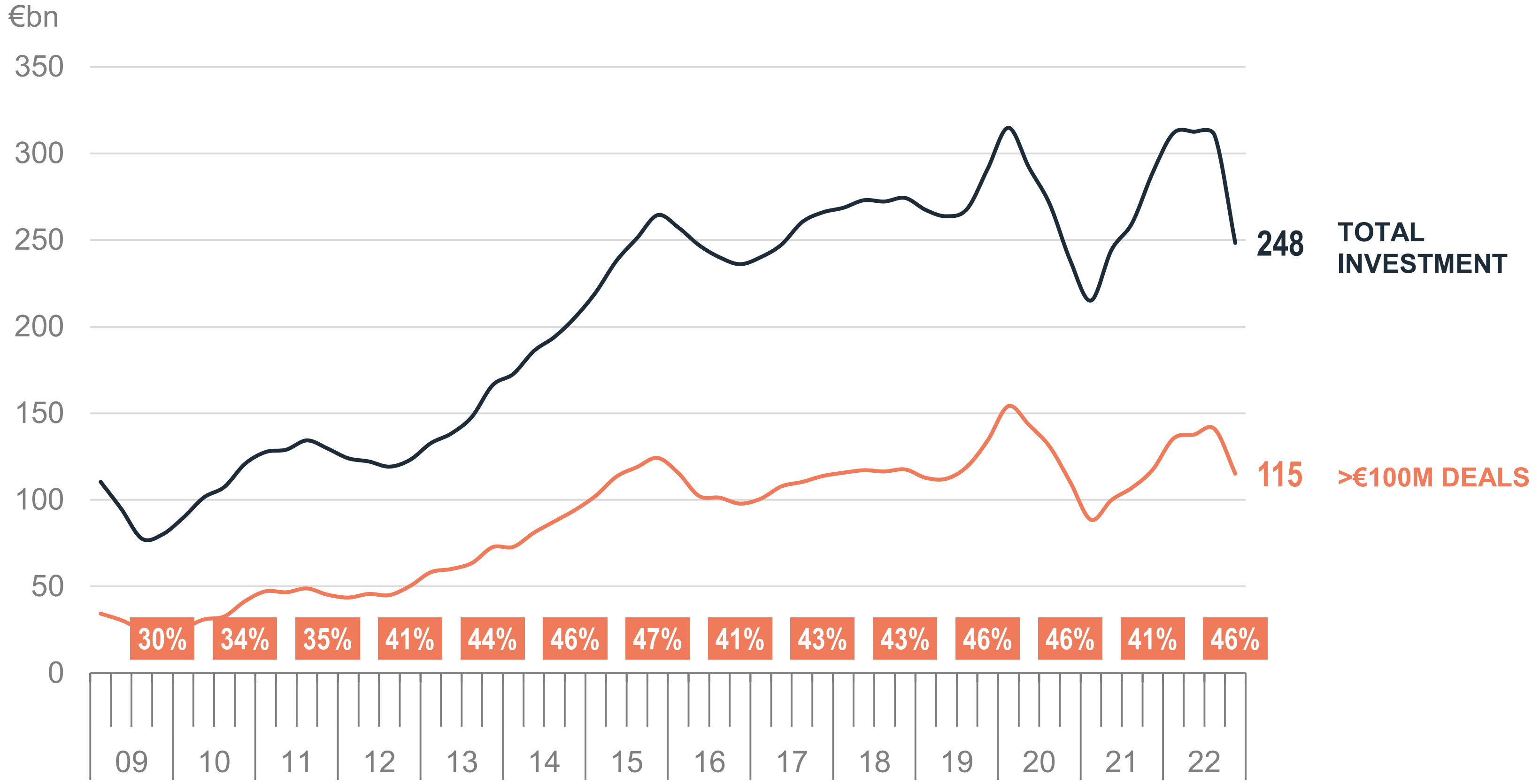
INVESTMENT BY SIZE BAND

Deep slowdown in mega deals yet to appear

- Mega deals (>€100m) volume in Q1 2020 reached a record figure of €155bn (on a rolling-year basis), which represents 49% of the total investment, an unusually big share for a Q1. Mega deals had been on the rise from mid-2019.
- The volume of mega deals dropped post Q2 2020 and only reached €89bn at Q1 2021 on a rolling-year basis. This was down 43% vs the 12 months to Q1 2020 figure and was the low point. The situation improved over the rest of 2021 and beginning of 2022 to reach €141bn at Q3 2022.
- The mega deals volume dropped over Q4 2022 but to a lesser extent than other size bands of deals. This may be a contract issue as these sort of deals take a long time to complete. Consequently the share of mega deals increased (46%).

Commercial Real Estate Investment in Europe

Total and >€100m size band - volume and share



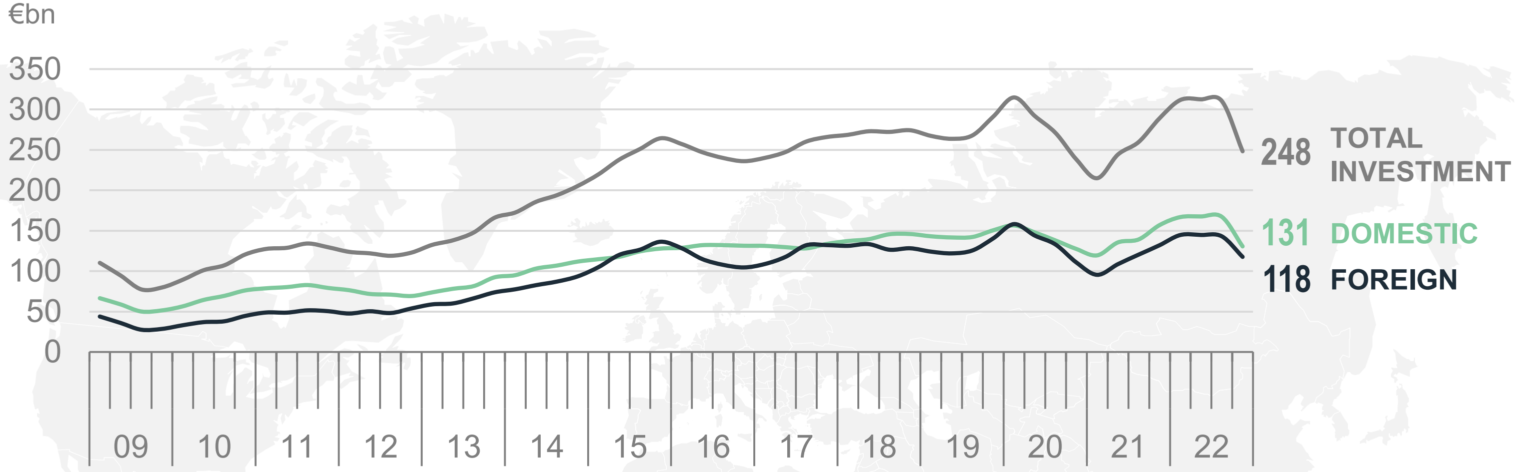
Source: BNP Paribas Real Estate.

CROSS-BORDER INVESTMENT MARKET

- Over 2022, foreign investment stood very high during the first 3 quarters, it reached €145bn (on a rolling-year basis) at Q1. It then declined sharply over Q4 (-54%) so that overall it reached €118bn in 2022 (-11%).
- Within foreign investment, **European cross-border investment was more affected (-18%).** It only represented 39% of foreign investment, such a modest share has not been seen since before the Covid-19 crisis (the share of European investment was around 45% during the pandemic).
- Conversely, investment from other continents proved more dynamic since the beginning of 2022. **American investors** showed strong interest in the European market in 2022. **With almost €45bn spent in 2022 (-3% vs 2021),** American investors (38%) are the most represented just after the Europeans (39%).
- Investments from Asia Pacific were also very important since the start of the year. **With almost €15bn invested over 2022 (+39% vs 2021),** Asian investor share increased slightly (12%).
- Middle East investors are less interested in the European market compared to Americans and Asians. **They only represented 2% of the last 12 months foreign investment with €2.1bn invested (-60% vs 2021).**

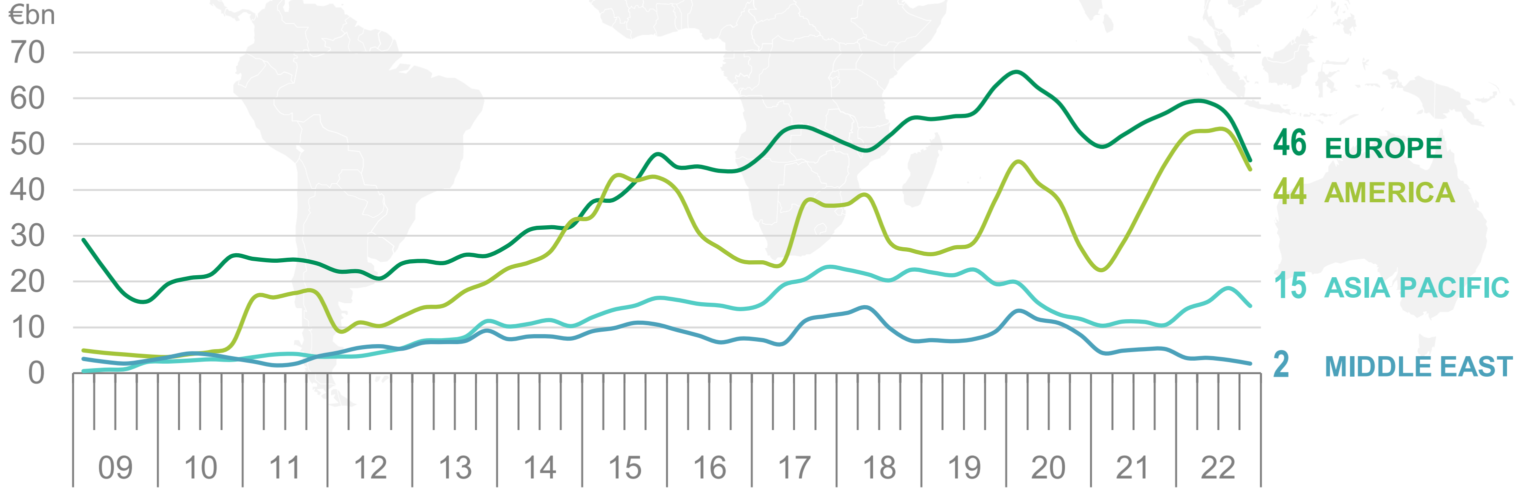
Commercial Real Estate Investment in Europe

Total, foreign and domestic investment



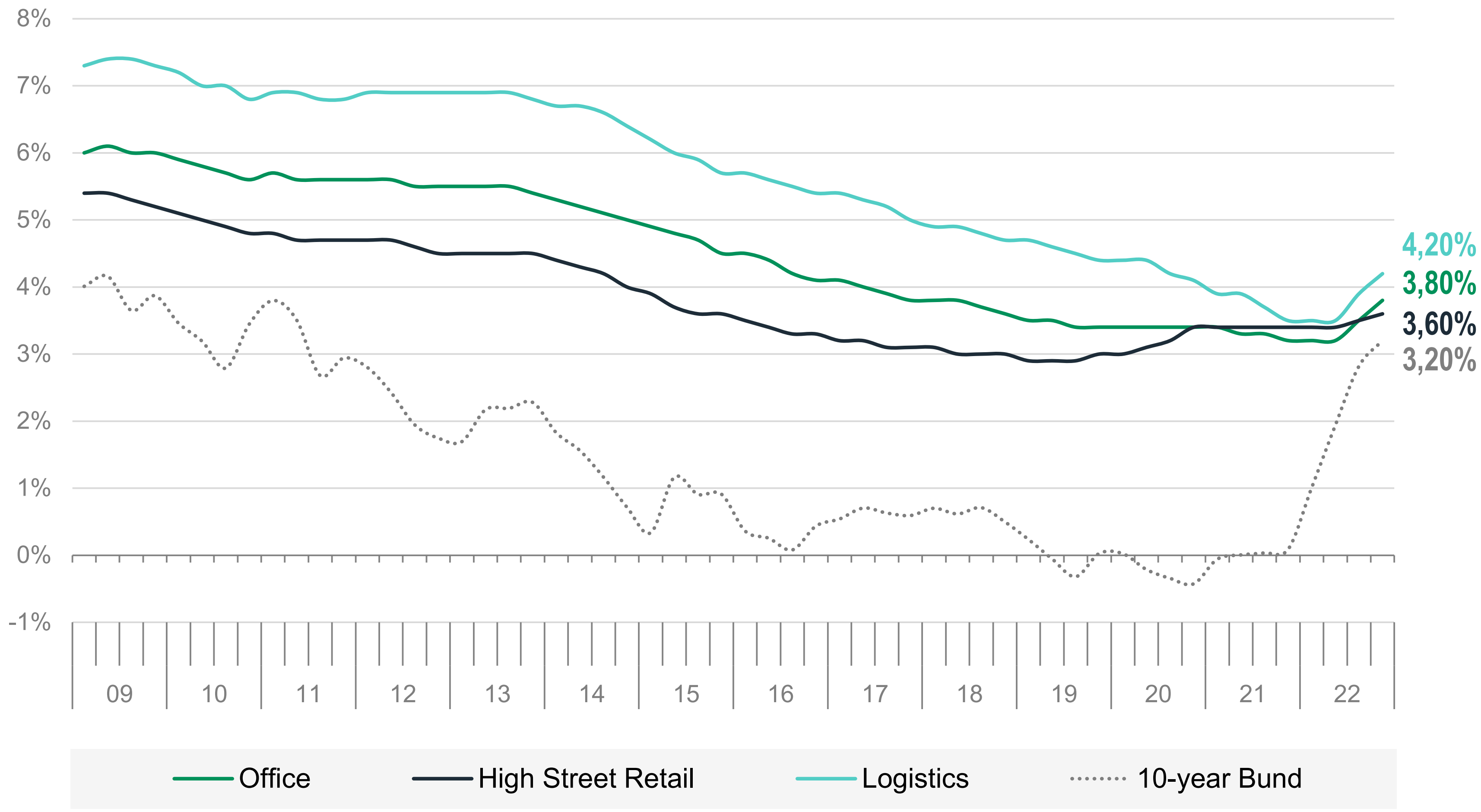
Commercial Real Estate Investment in Europe

Foreign investment detail



AVERAGE PRIME YIELDS IN EUROPE

BASED ON 16 MARKETS



Source: BNP Paribas Real Estate Research.

- Prime yield compression, mostly paused during 2020 with the pandemic except for logistics. Compression resumed over 2021 with resumption of market activity.
- Compression ended in 2022. From H2 onwards, the first strong signs of expansion occurred, affecting all the main sectors of real estate.
- The principal factor behind yield expansion is the change in the macro-financial environment. The persistence of inflation is prompting more robust response from central banks to normalize monetary policy.
- Bond yields are subsequently growing very rapidly, reducing the yield gap with real estate and prompting rethinking about the prices being paid for assets.

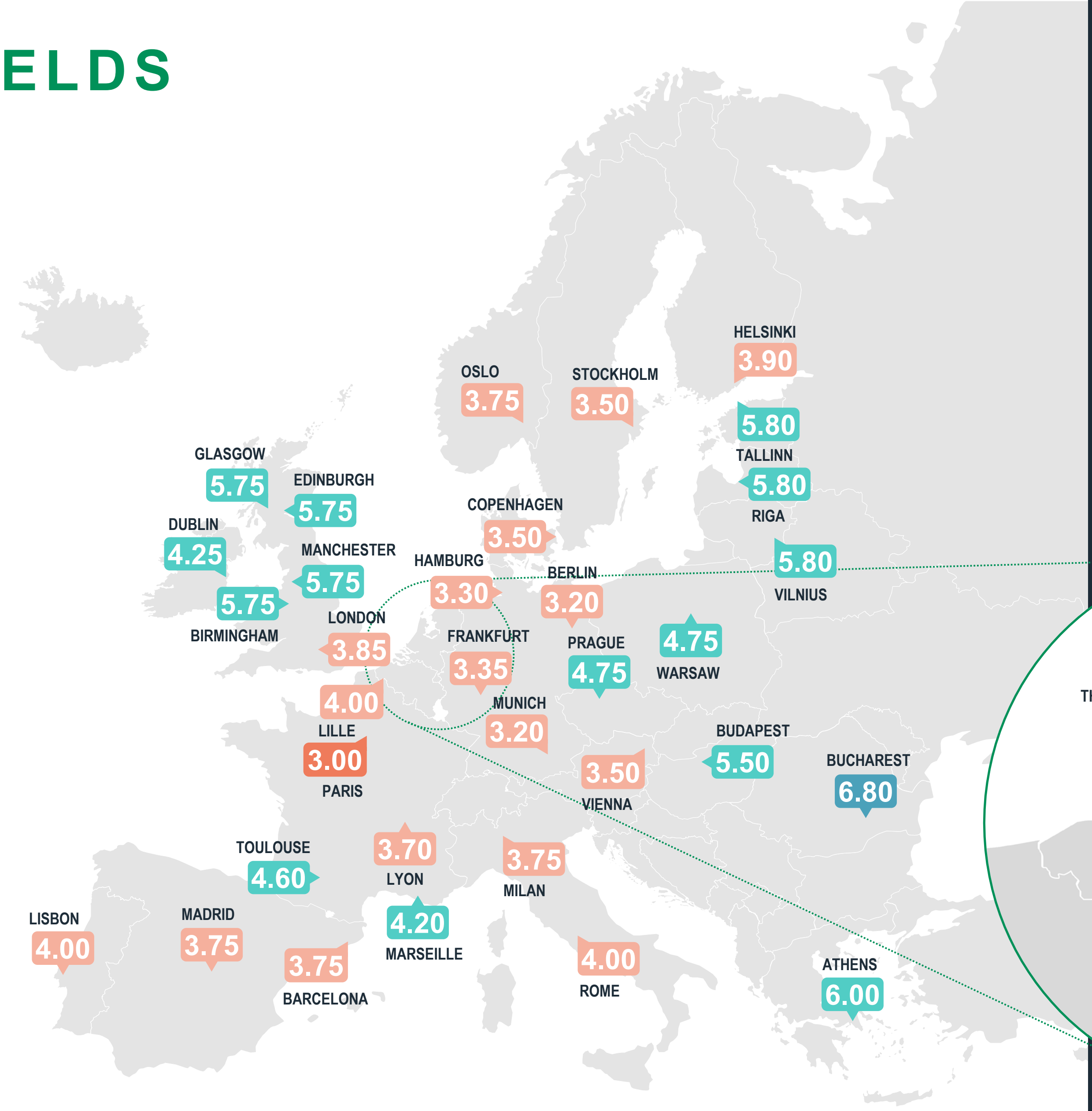
Based on 16 cities: Amsterdam, Berlin, Brussels, London, Paris, Dublin, Frankfurt, Hamburg, Lisbon, Luxembourg, Madrid, Milan, Munich, Prague, Vienna and Warsaw.

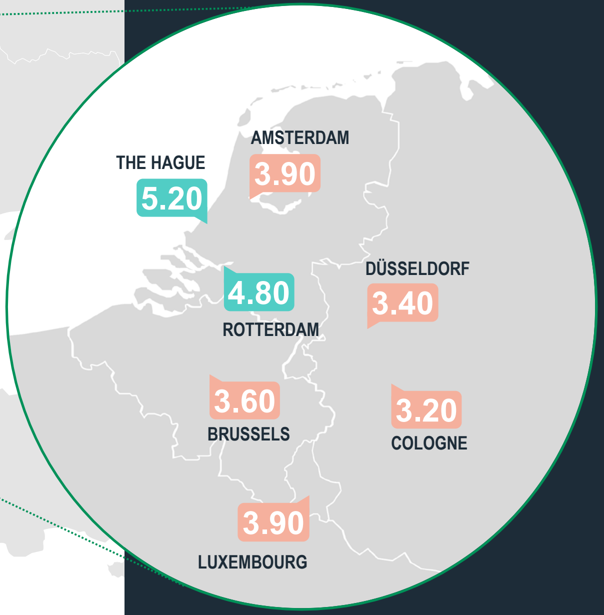
PRIME OFFICE YIELDS

Q4 2022 vs Q1 2022

BERLIN	+80bp
PARIS	+30bp
AMSTERDAM	+100bp
MADRID	+65bp
MILAN	+75bp
LONDON	+60bp
LUXEMBOURG	+50bp
BRUSSELS	+35bp
DUBLIN	+25bp
PRAGUE	+75bp
WARSAW	+25bp

≤ 3%
3-4%
4-6%
>6%





Source: BNP Paribas Real Estate

- Office yield compression over 2021 came to a halt. Q2 and Q3 2022 showed the first signs of expansion, a trend that generalized in Q4.
- All the main European markets experienced an expansion since Q1, the strongest have been observed in Amsterdam (+100bps), Berlin (+80 bps), Prague, Milan and Hamburg (+75 bps), Frankfurt and Munich (+70 bps).

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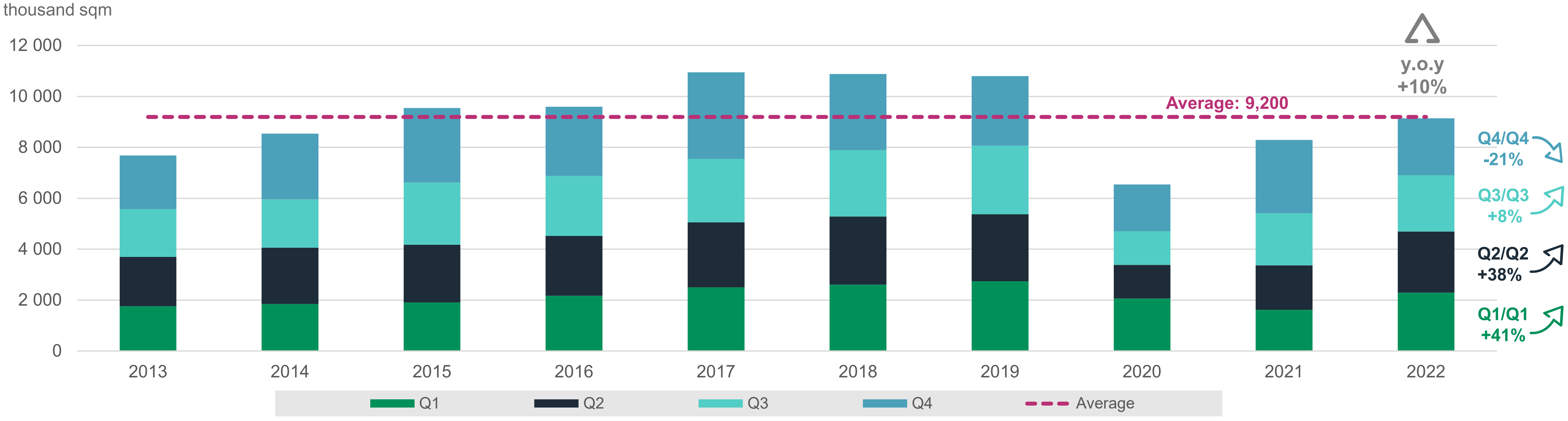
REAL ESTATE PERSPECTIVES

OFFICE MARKETS

OFFICE TAKE-UP IN EUROPE – 2022

17 MAIN EUROPEAN OFFICE MARKETS*



Letting activity returned to its long-term average in 2022

- 9.17m sqm was transacted in Europe's 17 main markets over 2022, in line with the long-term average.
- After solid first 9 months, take-up showed first signs of consolidation in Q4. The post-Covid rebound seems to be fading.
- Indeed, take-up reached 2.26m during Q4, decreasing by 21% vs Q4 21. This result is -14% below the Q4 10-year average.
- Most markets showed strong rebounds in volumes in 2022, such as Dublin (+63%), Central London (+45%), Milan (+28%), Madrid (+26%).
- Amsterdam and Luxembourg are still experiencing decreases in volumes, while the six main German markets, Rome and Barcelona remained stable compared to the previous year.

Source: BNP Paribas Real Estate Research.

* Berlin, Cologne, Düsseldorf, Frankfurt, Hamburg, Munich, Central Paris, Central London, Brussels, Barcelona, Madrid, Dublin, Milan, Rome, Luxembourg, Amsterdam, Warsaw

OFFICE TAKE-UP IN EUROPE

2022 vs 2021

CENTRAL LONDON	+45%
BERLIN	-7%
CENTRAL PARIS	+13%
AMSTERDAM	-23%
MADRID	+26%
MILAN	+28%
WARSAW	+48%
BRUSSELS	-37%
DUBLIN	+63%
LUXEMBOURG	+23%

Deals in thousand sqm

500
250
100

- > +5%
- 0 - +5%
- -5 - 0%
- < -5%

Source: BNP Paribas Real Estate.

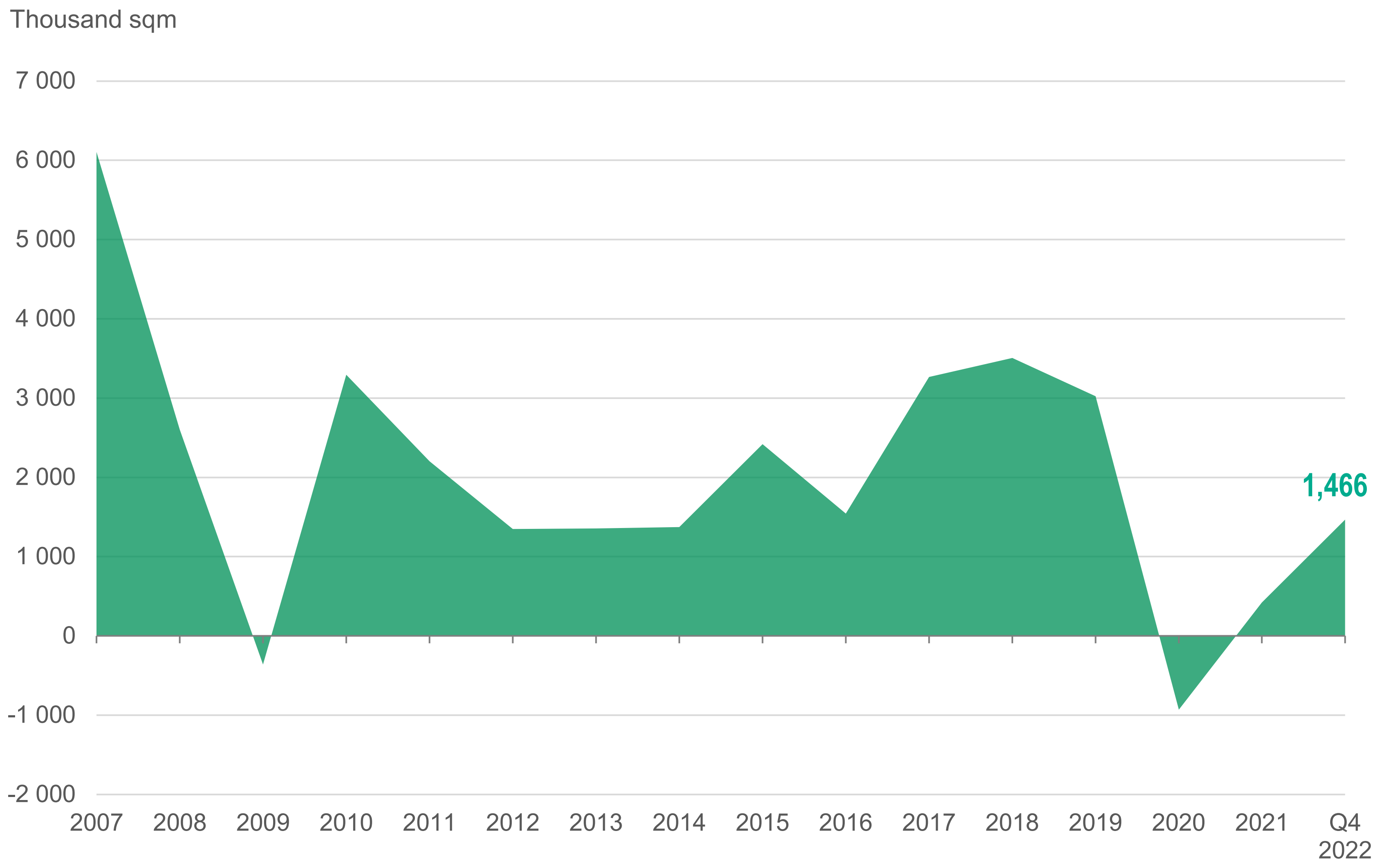
EUROPE – 2022
9.84m sqm
20 markets
+12% vs 2021

2022 take-up returned to its long-term average

- Take-up at the end of 2022 rose by +12% compared to last year.
- Thanks to this significant rebound, 2022 volumes exceeded 10-year averages in several markets including Milan (+38%), Cologne (+11%), Hamburg (+9%) and Warsaw (+7%).
- However, not all markets experienced a similar rebound in volumes, with some remaining below their long-term average.

OFFICE OCCUPIER MARKETS

NET ABSORPTION OF OFFICES



Source: BNP Paribas Real Estate Research.

Rising net absorption of offices

- Thanks to the rebound in take-up, the net absorption of offices in Europe* was increasing, and reached 1.47 million sqm (representing 0.6% of the total stock) at the end of 2022.
- Warsaw experienced a strong increase in net absorption (168,760 sqm, 2.7% of the stock), driven by the recovery of take-up over the year. The same trend occurred in Dublin where net absorption stood at 94,101 sqm (2.3% of the stock).
- Net absorption remained particularly high in Berlin (403,900 sqm, 1.9%), despite a significant amount of office completions (and consequently a larger stock) over the past 12 months.

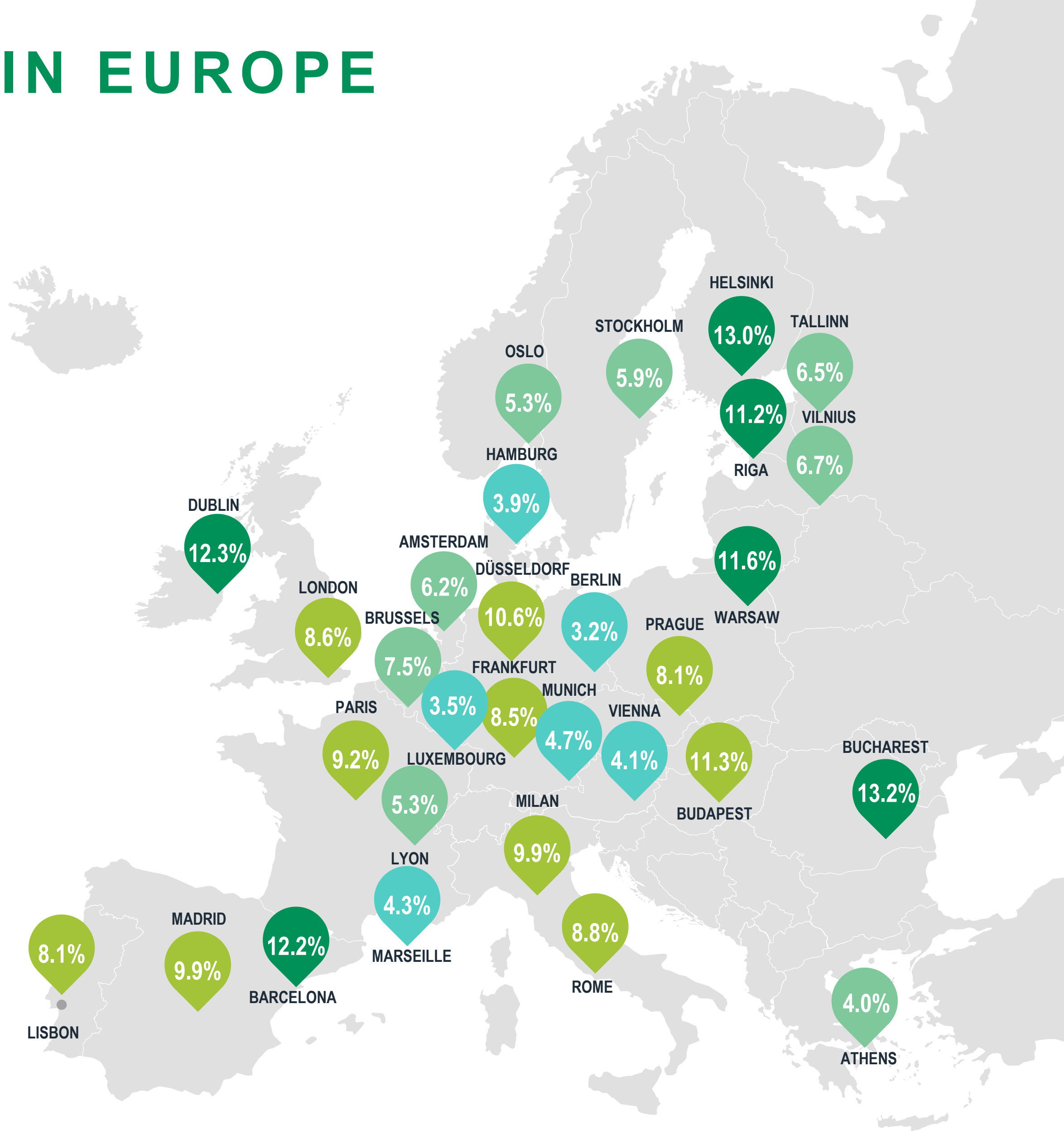
*Amsterdam, Barcelona, Berlin, Brussels, Dublin, Cologne, Düsseldorf, Frankfurt, Hamburg, Central London, Luxembourg, Madrid, Milan, Munich, Central Paris, Rome, Warsaw.

OFFICE VACANCY IN EUROPE

Q4 2022 vs Q4 2021

CENTRAL LONDON	+70 bp
BERLIN	-20 bp
CENTRAL PARIS	+70 bp
AMSTERDAM	+20 bp
MADRID	+10 bp
MILAN	-50 bp
WARSAW	-110 bp
BRUSSELS	-50 bp
DUBLIN	+230 bp
LUXEMBOURG	-40 bp

> 10% | 5 - 8% | 8 -10% | < 5%



Source: BNP Paribas Real Estate

EUROPE – Q4 2022

7.1%

26 markets
Stable vs. Q4 2021

Vacancy remains under control in Europe

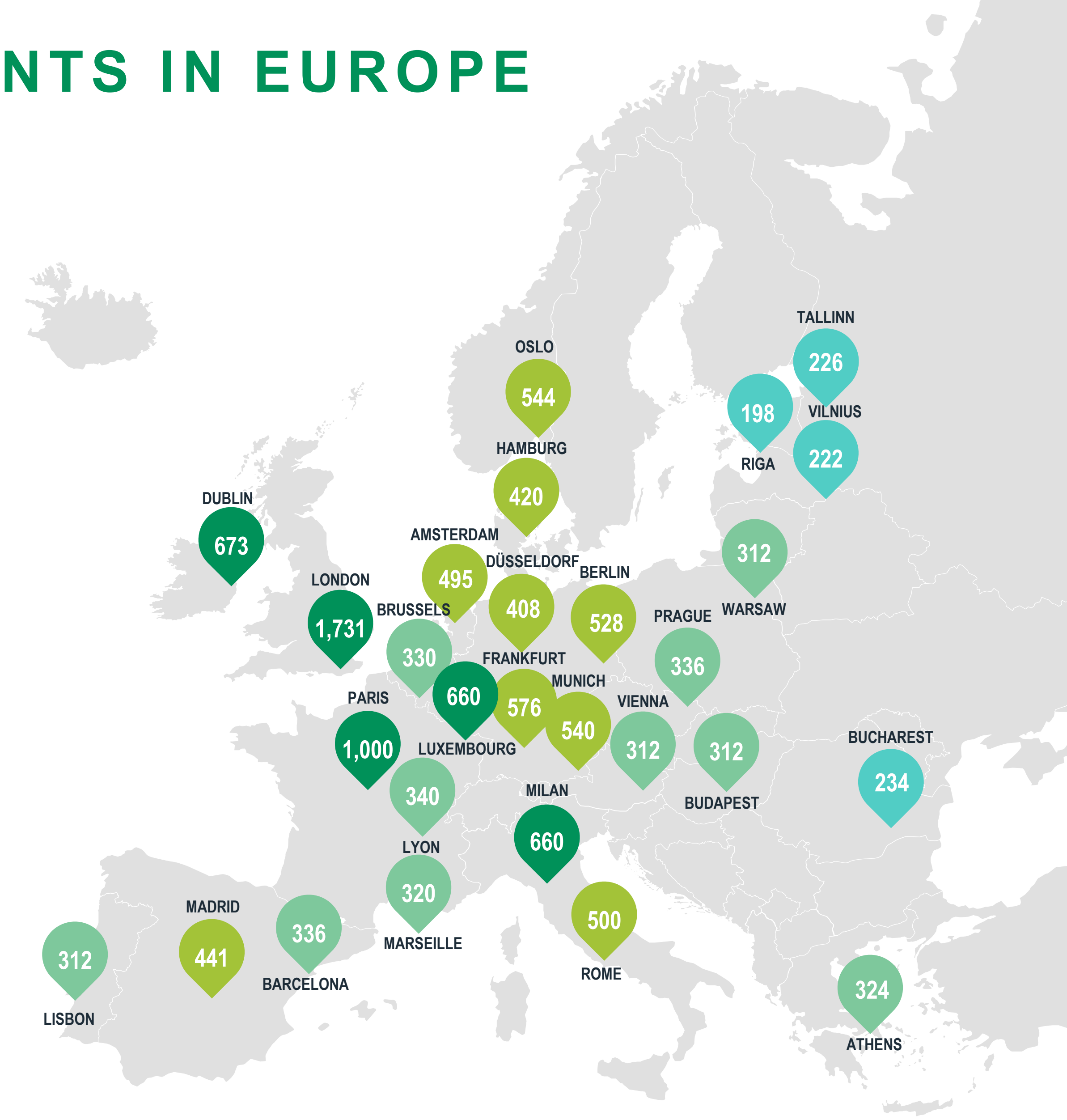
- The overall vacancy rate in Europe stood at 7.1% at the end of 2022 (stable vs. 2021).
- While most markets experienced stabilization or even a slight decrease, vacancy increased in some of them over the year, including Barcelona (+340 bps vs. 2021) and Dublin (+230 bps) which saw strong completions in 2022.
- Most markets are seeing two-speed dynamics, with low availability in central submarkets and in new buildings, and much higher vacancy rates in peripheral office districts.

OFFICE PRIME RENTS IN EUROPE

Q4 2022 vs Q4 2021

CENTRAL LONDON	+19%
BERLIN	+2%
CENTRAL PARIS	+8%
AMSTERDAM	+5%
MADRID	+2%
MILAN	+11%
WARSAW	+13%
BRUSSELS	+3%
DUBLIN	+9%
LUXEMBOURG	=

■ > €600 ■ € 300 - 400
■ € 400 - 600 ■ < € 300



Source: BNP Paribas Real Estate

Prime rents still driven by the demand for quality

- Having sustained value over the crisis period, prime office rents in the key cities are now growing again.
- With the widespread uptake of hybrid work models, companies are seeking attractive and modular workplaces offering greater connectivity.
- The very low availability of prime assets and the appeal of high quality buildings located in the most sought-after districts drive values up.
- Over the past 12 months, London (+19%), Warsaw (+13%), Milan (+11%) and Dublin (+9%) have seen the most significant increases in values.

LOCATIONS

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