

Focus on Logistics in Germany and Europe – Acute Challenges and Opportunities

logistik-und-immobilien.de

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Survey Partners











The partners of this survey series are prominent players in real estate financing, the developer business, in property development, in investment consultancy and in strategic analysis and advisory regarding the logistics and real estate field. Within the framework of what is now the eighth edition of the "Logistics and Real Estate" survey, these partners bring you an in-depth overview of the latest trends and contexts in this segment. As a joint competence centre, they are in a position to provide a collective angle on this topic, a perspective that will lend itself to forward-looking and strategically balanced decision-making.

Berlin Hyp AG

Berlin Hyp, a fully-owned subsidiary of LBBW, is a mortgage lender specialising in large-scale real estate financing for professional investors and housing companies. The bank also makes a comprehensive spectrum of products and services available to Germany's savings bank. The subject of sustainability has been a core component of its corporate strategy for many years. On the capital market, it plays a pioneering role in the development of sustainable refinancing products. At the same time, it endorses the financing of sustainable properties in an effort to help advance the transformation of the real estate market, and to contribute to carbon neutrality. Its clear-cut focus, more than 150 years of experience and its ability to play an active role in the digital transformation of the real estate industry define Berlin Hyp as a leading German real estate and mortgage credit bank.

Bremer AG

BREMER AG counts among Germany's leading companies in the turnkey construction of industrial and commercial buildings. Founded in 1947 and active across Europe today, the family-owned business maintains branches in Stuttgart, Leipzig, Ingolstadt, Hamburg, Bochum, Berlin-Brandenburg, Bremen, Karlsruhe, Hanover, as well as in Krakow and Poznan in Poland. Its products are planned and manufactured in plants in Paderborn, the company's domicile, and in Leipzig.

As a holistic provider for the property and construction industry, BREMER assists its clients with everything from property development to the production in proprietary plants, and all the way to the turn-key construction and service options for the building in operation.

Deliverables includes office schemes, home furnishing stores, refrigerated warehouses, logistics buildings, light industrial buildings and hypermarkets. BREMER takes a resource-conserving approach in its business and development activities by merging site, building, technology and use early on. The company continuously optimises value chains and supply chains together with its clients.

In 2021, BREMER AG reported EUR 1 billion in operating revenue, produced 130,000 cbm in prefab components, and had 1170 employees on its payroll.

BREMER AG is headed by Wolfgang Bremer (proprietor and chairman of the supervisory board), Michael Dufhues, Dr. Matthias Molter and Torsten Schuff (members of the management board).

bulwiengesa AG

bulwiengesa is one of the major independent analytics firms for the real estate industry in Continental Europe. For more than 40 years, bulwiengesa has supported its partners and clients in real estate industry issues with location and market analyses, providing detailed data services, strategic consultancy and bespoke expert opinions, among other deliverables. The company's proprietary information system RIWIS online provides well-informed microdata, time series, forecasts and transaction data. The data of bulwiengesa are used by Deutsche Bundesbank for the ECB, the Bank for International Settlements (BIS) and the OECD, among other clients.

GARBE Industrial Real Estate GmbH

Based in Hamburg, GARBE Industrial Real Estate GmbH ("GARBE") is one of Germany's leading companies selling and managing logistics, light industrial and technology real estate. For over 30 years, the company has counted among the most important collaboration partners for transport and logistics service providers, the trade sector and the manufacturing industry. GARBE develops, buys or sells, lets, manages and finances highend commercial properties in attractive transport nodes and industrial locations inside and outside Germany. At present, GARBE has around 5.3 million square metres of lettable area and a property development pipeline of around 2.2 million square metres in Germany and elsewhere in Europe under management that represent property and fund assets in a combined value of c. 10.3 billion euros (as of: 30 June 2022).

Savills Immobilien Beratungs-GmbH

Savills, domiciled and listed in London, is one of the leading real estate service providers with activities worldwide. Founded in 1855, the company looks back on a long history of tremendous growth. Rather than following fads, Savills sets its own trends, and today has more than 600 offices and partnering offices in the Americas, Europe, Africa, Asia Pacific and the Middle East, and employs over 39,000 professionals.

A unique combination of industry insider know-how and an entrepreneurial mindset and action offers our clients access to real estate expertise of the highest quality. Our employees, their creativity and their willingness to perform represent our true capital, and they are valued both for their innovative thinking and for their strong negotiating skills. Savills provides highly professional services to achieve common objectives, its name being synonymous with a premium brand and a high-end quality range of services that takes a bespoke approach to real estate and invests in strategic relationships.



The Bigger Picture







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1.1

A New Era in Global Trade and in European Logistics

The war in Ukraine marks not just a moral, military and geopolitical watershed moment. It has also changed the economic situation in Germany and elsewhere in Europe.

When saying that the "economic situation, growth and prosperity are fraught with uncertainties," economists try to be as rational as possible and propose models for the transition from a monetary policy that has dominated the eurozone in recent years into a politics rooted in the real economy. The alternative would be high sovereign debt to ensure political stability. In geopolitical terms, the global economy is gradually splitting into two blocks, one dominated by the United States and the other by China, that are merely supplemented by junior partners like the EU countries or Russia (but India and African countries, too), respectively. The armed conflict over Ukraine will probably not only weaken Russia as the aggressor, but will also cause a decline in prosperity in the rest of Europe.

The war in Ukraine marks not just a moral, military and geopolitical watershed moment. It also changed the economic situation in Germany and elsewhere in Europe – beyond the energy policy issue. The factors emerging from the situation will have more of an impact on European logistics than any technology or policy impulses. Of course, the crises overlap.

The hope that the EU economy will return to the pre-COVID19 growth trajectory as soon as possible is little more than a pipedream. The economic recovery previously expected has been stalled by the outbreak of the war in Ukraine, inflation, the rise in interest rates and the shaky stability of businesses. In the worst case, we are heading for a stagflation, which combines slow growth with fast inflation. The forecast table of our survey identified the following current metrics for Germany:



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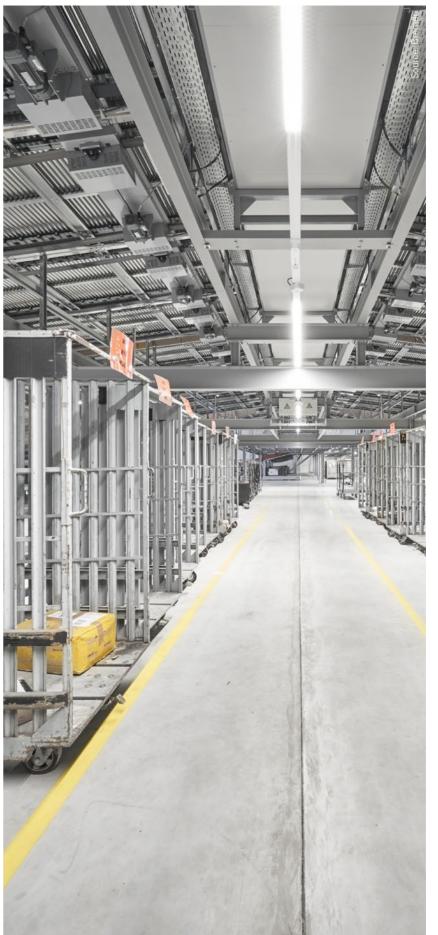
Benchmark figures of the national economy and labour market forecast

Selected indicators of the economic forecast dated 8 April 2022 (year-on-year change, in %)

Source: Federal Statistical Office Federal Labour Agency

^{*}Forecast 2022–2026 bulwiengesa AG (calculation date: 8 April 2022)

	2017	2018	2019	2020	2021	2022*	2023*	2024*	2025*	2026*	
Gross domestic product, YoY	2.7	1.1	1.1	-4.6	2.9	1.7	3.2	1.6	1.2	1.0	
Private consumer spending, YoY	1.4	1.4	1.6	-5.9	0.1	3.1	4.0	1.0	0.8	0.6	
Disposable income, YoY	3.3	4.1	2.1	0.8	1.9	4.6	4.8	2.7	2.4	2.1	
Consumer prices (CPI), YoY	1.5	1.8	1.4	0.5	3.1	5.7	2.5	2.2	2.0	1.9	
Labour market balance (annual average, in '000 persons)											
Gainfully employed persons, Germany	44,251	44,858	45,268	44,898	44,920	45,423	45,648	45,744	45,753	45,684	
Rate of change, in %, YoY	1.4	1.4	0.9	-0.8	0	1.1	0.5	0.2	0	-0.2	
Gainfully employed persons, domestic	44,131	44,719	45,125	44,803	44,804	45,291	45,518	45,618	45,631	45,564	
Rate of change, in %, YoY	1.3	1.3	0.9	-0.7	0	1.1	0.5	0.2	0	-0.1	
Self-employed persons	4,273	4,223	4,151	4,038	3,929	3,898	3,884	3,881	3,879	3,877	
Rate of change, in %, YoY	-1.6	-1.2	-1.7	-2.7	-2.7	-0.8	-0.4	-0.1	-0.1	-0.1	
Employees	39,978	40,635	41,117	40,860	40,991	41,525	41,764	41,863	41,874	41,807	
Rate of change, in %, YoY	1.7	1.6	1.2	-0.6	0.3	1.3	0.6	0.2	0	-0.2	
thereof:											
social security-covered jobs (as of 30/06)	32,165	32,870	33,407	33,323	33,802	34,362	34,685	34,820	34,862	34,838	
Rate of change, in %, YoY	2.3	2.2	1.6	-0.3	1.4	1.7	0.9	0.4	0.1	-0.1	
Marginally employed persons only	4,801	4,741	4,645	4,259	4,150	4,166	4,194	4,207	4,212	4,213	
Rate of change, in %, YoY	-1.3	-1.2	-2	-8.3	-2.6	0.4	0.7	0.3	0.1	0	
memo item:											
Registered unemployed persons	2,533	2,340	2,267	2,695	2,613	2,269	2,232	2,194	2,172	2,142	
Unemployment rate (in %)	5.7	5.2	5.0	5.9	5.7	4.9	4.9	4.8	4.7	4.5	



How Much and How Little Is "Still OK"?

Macro-economic research likes to apply the Goldilocks metaphor, according to which the porridge for the bears must neither be too hot nor too cold, and which in this context favours moderate growth or moderate developments in general.

With this in mind, the question presents itself: What qualifies as political mainstream in the EU and in Germany? Is it the trend to "keep going" and to keep up the political pressure on the ECB within the eurozone, or is it rather an inflation-focused finance policy like in the United Kingdom or in Poland?

The implementation of the global interest rate policy is sure to bring a faster tightening cycle than had been hoped for as recently as 2021. The reversal of the inflation and interest rate trends now defines business activities across all economic sectors. A hesitant or tardy response by the ECB harbours the risk of imported inflation. In the short and medium term, there is reason to expect a continued appreciation of the dollar against the euro – implying improved export conditions for companies in (continental) Europe.

A potentially stagflationary environment poses an enormous challenge for investors. On the one hand, the slowing economic growth weakens companies in terms of revenues. On the other hand, the high rate of inflation inevitably drives up the cost aspect, which, in the absence of market clout, will ultimately have a negative impact on margin development and profits. Beyond the revenueand cost-related challenges in the wake of stagflationary developments, other threats have emerged lately as a result of the changed interest landscape, which take the form of a duration matching between the investments and liabilities of different asset classes.

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Energy consumption of the German industry in Source: AG Energiebilanzen e.V. Basic Chemistry Food and tobacco Paper industry Metal production Glass and ceramics Processing of stones and earths Metalworking Non-ferrous metals and foundries Vehicle construction Other chemical industry Mechanical engineering Rubber and plastics processing

50.000

100.000

150,000

in Terajoule

200.000

250.000

Profits Stones and earths

Other industries

1.2moortant

Important
Determinants
of the Future
Development

Home to energy-intensive industries, Germany's economy threatens to lose its grip, even within the EU.

Technological and Structural Forces Could Offer a Way Out of the Crisis

Home to energy-intensive industries, Germany's economy threatens to lose its grip, even within the EU. Additional highcost investments in the national budget are of the essence in order to restore or expand the country's ability to defend itself. From today's perspective, it looks as if the decision to defund the military after the end of the Iron Curtain and to spend the money elsewhere was a mistake. In the long term, the deliberations regarding climate/energy and the defence/military topics may well prompt expenditures that will necessitate tax hikes and government spending cuts in other areas. In addition, the debt incurred to fight the pandemic will have to be faced and repaid.

However, there are six key factors that inform the core of technological and industrial funding by the EU Commission in order to push Industry 5.0 forward and to overcome the crisis scenario:

- personalised interaction between humans and machines
- 2) bio-inspired technologies and smart materials
- 3) digital twins and simulation
- 4) transmission, storage and analytic technologies
- 5) artificial intelligence (AI)
- 6) technologies for energy efficiency, the use of renewable energies, storage and autonomy

Potential Winners and Losers of the European "Green Deal"

A differentiated industrial angle suggests that the economic conditions, especially the energy crisis, will produce winners and losers both in Europe and around the world. Definitely on the losing side will be the extremely energy-intensive basic chemicals industry unless it quickly implements a transformation on a global scale. Next in line will be the steel and glass industries, but also the food industry

Conversely, the winner of the conflict in Ukraine and the current political situation is quite obviously the armament industry (Goldman Sachs has gone so far as to speak of a "super-cycle," meaning high and rising profits over an extended period of time). But fertiliser producers (with Russian suppliers out of the game), renewable energy producers, oil companies, oilfield equipment suppliers and electric power companies have also emerged as winners of the conflict. Certain countries like Saudi Arabia or Norway also benefit from the heightened demand for oil, while countries like Switzerland or Greek shipowners thrive because of their transformation role in global commodity trading.

>

Shortage of Skilled Labour Remains an Accelerator

Another probable consequence of the war is the inflow of a large number of refugees in Germany, who will need to get access to the German labour market as quickly as possible. The relevant EU directives and the presumably high qualification of the migrant community are likely to prompt a substantial increase in employment. This could relieve the shortage of skilled labour in certain industries at least to some extent. The (growing) shortage of skilled labour remains particularly dire in two economic sectors, one being "health, social services, teaching and education," the other "construction, architecture, surveying and building services engineering."

As the year progresses, the number of social security-covered jobs is likely to keep seeing significant growth. Self-employed professionals, by contrast, continue to suffer from pandemic-related jitters. These are not expected to see more than a negligible catch-up effect during the summer half-year of 2022. The number of marginally employed persons is also likely to rebound after having taken a nosedive during the successive pandemic waves, but it should be added that the increased minimum wage level is likely to trigger a decline in marginal employment in favour of social security-covered employment. Then again, marginal employment benefits from the fact that the mini-job wage limit was raised as well.

Is the Inflation Protection of Logistics Real Estate Eroding?

For the time being, real estate prices will probably keep following an upward trend in sync with inflation, but their effectiveness as safeguard against inflation depends strongly on the given (regional) market and future developments. Commercial real estate provides better protection against inflation than residential real estate because its rent is easier to raise.

Moreover, a higher degree of protection is provided by those asset classes and regions that are, and will continue to be, characterised by short supply, the logistics sector being one of them in 2022.

In Germany, the logistics industry is one of the biggest economic sectors, third behind the auto industry and the retail trade. This means it ranges ahead of the electronics industry and mechanical engineering, accounting for over 3 million jobs and thus employing more than three times as many people. Controlling the flow of goods and information, as well as transporting and storing the goods, are key economic functions that generate plenty of value added. In fact, logistics is vital for Germany as a business location not only because of its employment factor and its supply function.

The incisive challenges that the German logistics industry has been facing in 2022 can be summarised as follows: disruptions by the omicron variant of the COVID virus, the Russian war of aggression against Ukraine, the shortage of labour, high freight rates, and raw materials bottlenecks. Collectively, all of these factors put companies in the industry under strain. Persistently strong e-commerce sales add to the pressure on shipping services to streamline their processes in order to be able to handle the growing volume of parcel shipments and to ensure swift and reliable deliveries. At 3.75 billion euros in revenues, the segment doubled its prior-year quarter-end result, and once again secured second place—by market share—on the overall commercial real estate investment market, behind office real estate and ahead of retail real estate.

The market entry of new players and the expansion of ongoing activities, as the case may be, are accelerating the consolidation. However, the rapid yield compression of recent years came to a premature end during the second quarter of 2022 in the wake of the key lending rate hike announced for late July. In the top logistics regions, initial yield rates have already gone up by 20 to 30 basis points. Given the current funding terms, net rent multipliers upward of 30 times the annual rent have become virtually unsustainable. Indeed, in a permanently changed funding and interest environment, further price corrections are a realistic prospect for the short and medium term.

3.75 bn euros

revenues implies a doubling in the e-commerce segment



nd place

on the overall commercial real estate investment marke

The logistics sections is one of Germanic biggest economic sectors, third behind the auto industry and the retail sector.













2.1

The Market for Property Developments

5.3 mn sqm

completions volume (2021)

5.8 mn sqm

expected completions volume (2022)

More Developments than Ever

The evaluation of 2,900 assets from the logistics and light industrial segment for the period 2017 through 2022 returned new peak levels in completions.

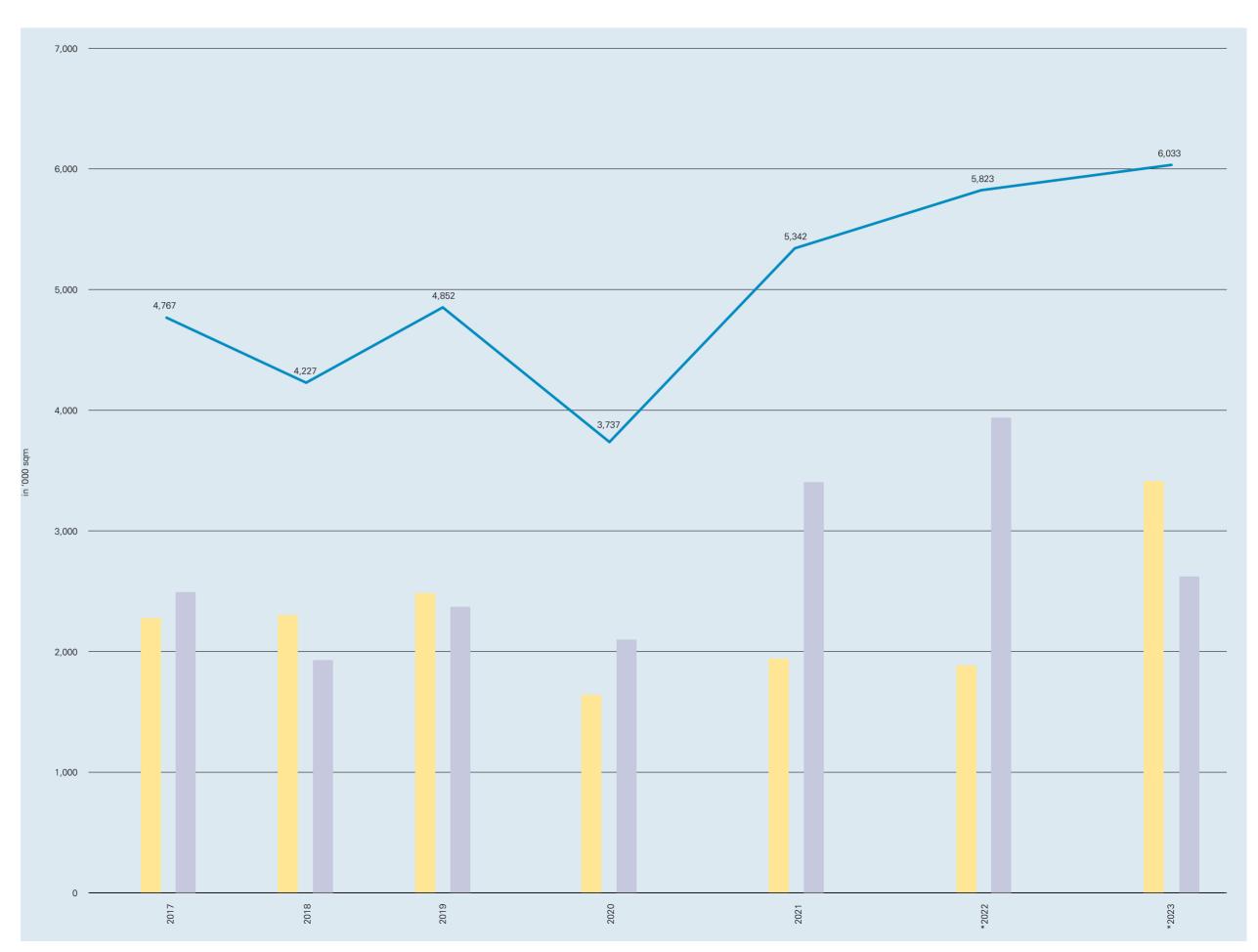
Following a short pandemic-related dip in 2020, the completions volume rebounded and crossed the mark of 5 million sgm for the first time with a total of about 5.3 million sqm. If the concrete volume in the pipeline is any indication, the year-end total in 2022 could actually top this level, although it should be added that this observation represents only a snapshot within an uncertain market environment. Increased financing and construction costs, the looming energy shortage by autumn and winter, and a possible contraction in demand (e. g. within the manufacturing industry) in the wake of an economic downturn could yet have considerable influence on the completions statistics.

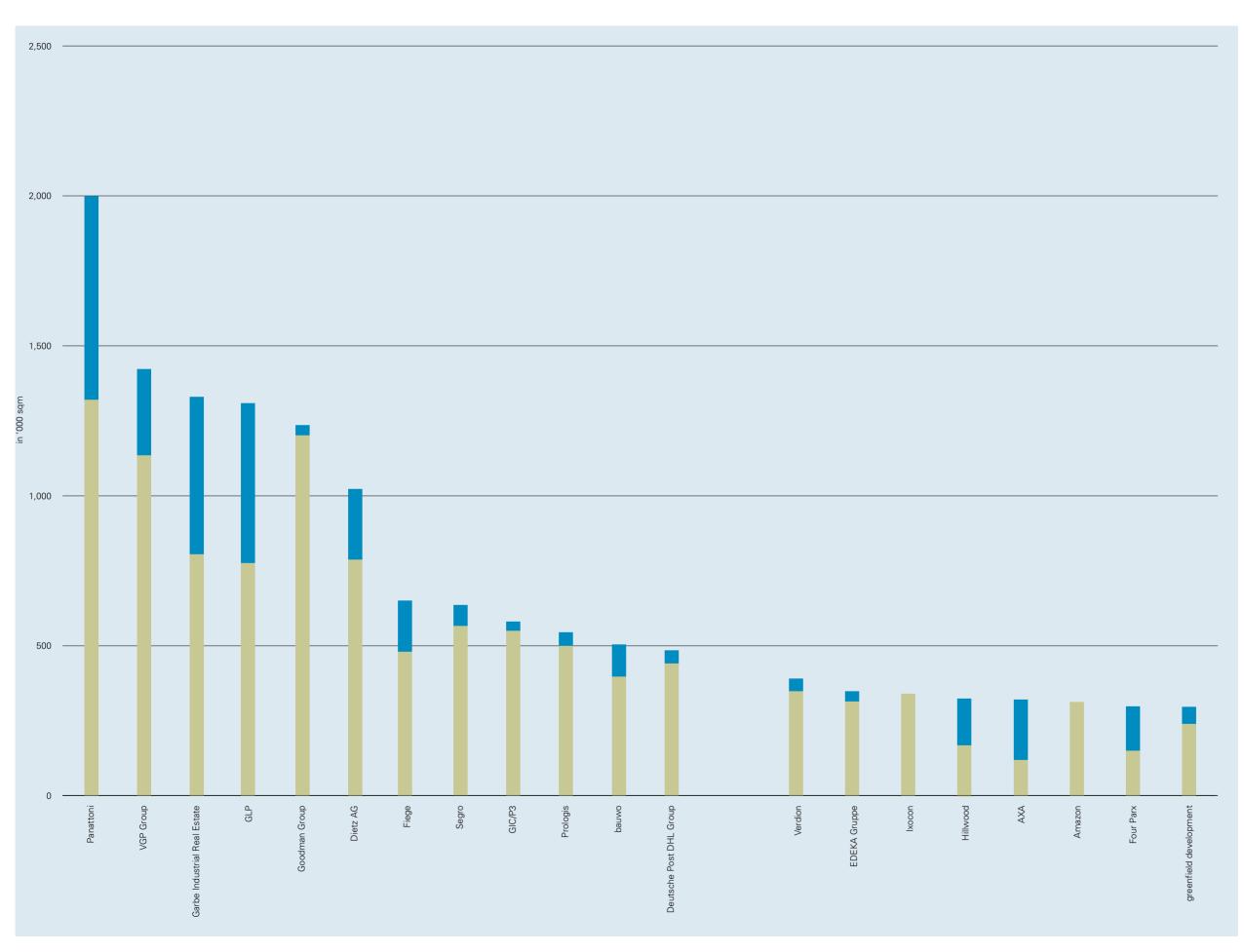
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Completions of logistics facilities over time

H1 Year-end

* The evaluation includes all completions up to the key date of 30/06/2022 plus units still in the pipeline (projects under construction or in planning, scheduled for completion before the end of 2022 or in 2023).





Top 20 developers of logistics facilities, 2017-2022*

25

2017–2021

2022

*The evaluation covers all completions up to the key date of 30/06/2022 plus floor space still in the pipeline (projects under construction or in planning, scheduled for completion before the end of 2022).

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Panattoni Claims Top Spot for the First Time

With over 1.9 million sqm of floor space either completed or in the pipeline, Panattoni is currently the most active player on the logistics development market. The Goodman Group—for many years the top dog of the ranking-made fifth place this year. Runner-up was VGP with more than 1.4 million sgm. Unchanged in third place this year as last year is Garbe Industrial Real Estate with more than 1.3 million sgm in development volume. In other words, this year's ranking presented no major surprises. The established players keep dividing the logistics property development market among themselves.

The years 2022 and 2023 present a similar picture. Panattoni again takes the lead with more than 1.8 million sqm, whereas Garbe contributed over 1.0 million sqm of logistics space to the total. Trailing these floor space volumes at some distance, Dietz AG placed third with around 880,000 sqm of development space in the years 2022 and 2023. Worth noting is that Amazon failed to place among the top ten this year.

Berlin Remains in the Lead

For the second year in a row, Berlin has claimed first place in the ranking of the 28 logistics regions. The old-new top-performer recorded about 2 million sqm in new construction volume during the examined period. The Rhine-Ruhr logistics region defended second place from last year with 1.7 million sqm. In quite a leap, the Hanover/Braunschweig region advanced into third place. Decisive for this feat were primarily large area developments like Panattoni Park Niedersachsen or VGP Park Laatzen. On the whole, more than 1.5 million sqm of logistics facilities will come onstream here before the end of 2022.

The positive trend currently observed in Germany's eastern regions is also in evidence in the Halle/Leipzig region: Leap-

frogging two spots with a development volume of nearly 1.3 million sqm, it advanced into rank six this year.

Property Developers Less of a Driving Force in the 2021 Market

The breakdown by developer types reveals that, by the end of 2021, property developers ultimately fell short of their predicted percentages of the developments total. At 15 %, property developers from the retail logistics sector account for a comparatively large proportion of the total development volume. Specifically food retail players constructed a large number of distribution facilities in order to meet the pandemic-related increase in space requirements. The share of property developers is expected to rebound in 2022 and to account for nearly three quarters of the total. The currently strong demand for space has prompted property developers to construct about half of their developments on speculation. The number of projects identified as speculative in nature is particularly high in the logistics regions of the Class A cities.



retail logistics share in the total

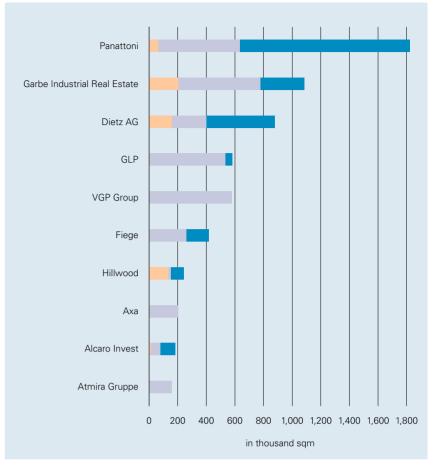
development volume (2021)

Top 10 developers of logistics facilities, 2022–2023*

completed under construction

detailed planning

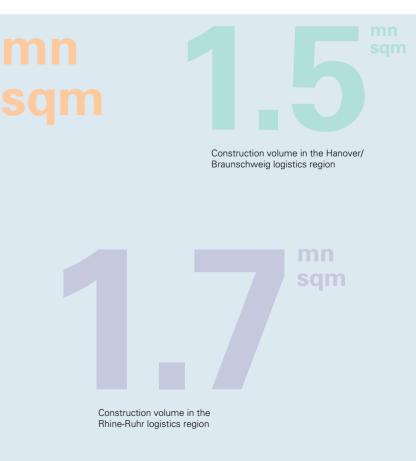
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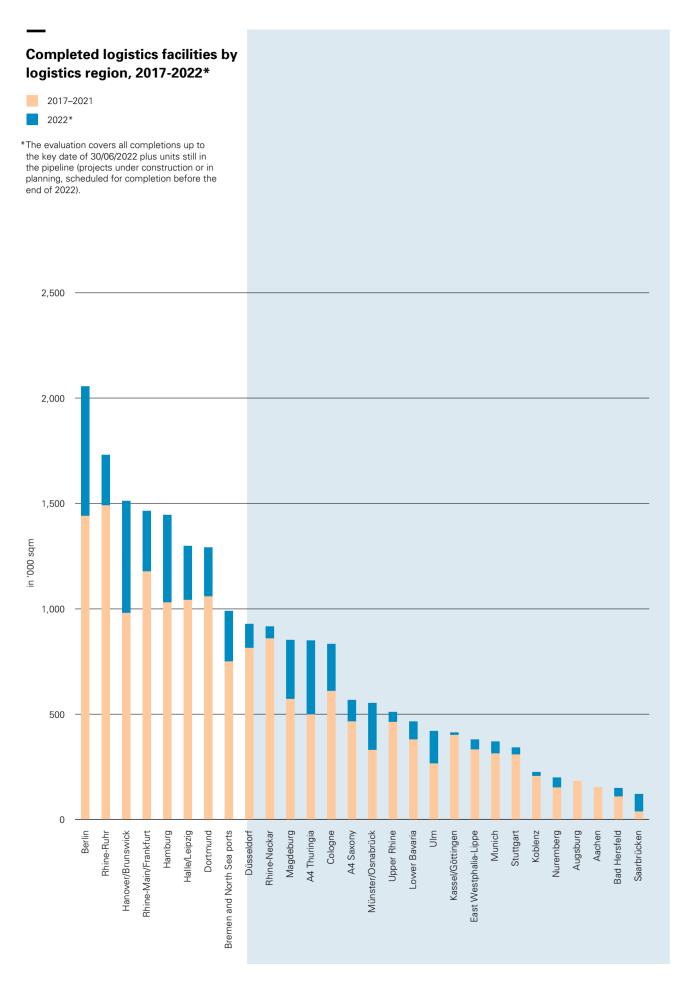
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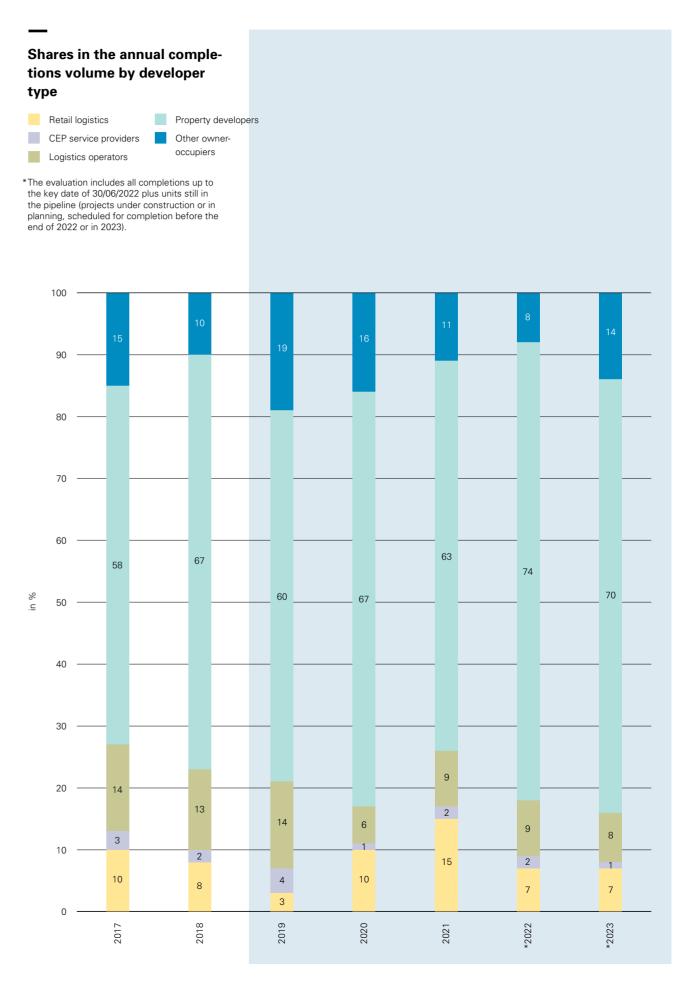


Construction volume in the Berlin logistics region



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2.2

Investment Market for Logistics Property

11.6 bn sqm

in industrial market investments (2021)



share of logistics real estate in the investments (2021)

Has the Cycle Peaked?

Logistics real estate remains hugely popular on the investment market. It is rather difficult to see at this time what sort of consequences the upheavals of this past spring will have for this asset class. Their effects for the investment market are usually subject to a certain delay because the deals were closed months earlier, and because these market players cannot respond abruptly to exogenous shocks. But there is currently no reason to expect investment activities to decline significantly. One thing that is safe to say is that this asset class just became attractive for new investors because vields already began to harden again while further price adjustments remain possible.

Catch-up Effects Drive Record-Breaking Investment Volume

In the year concluded, catch-up effects delivered a record-breaking volume of investments on the light industrial market that added up to 11.6 billion euros.

Logistics real estate made up the bulk of the investments on the industrial market, as it accounted for about 60 % or c. 7 billion euros. Light industrial real estate of the "Unternehmensimmobilien" type registered a record volume of nearly 4.6 billion euros. The industrial market evidently remains an attractive asset class on the real estate market.

Market about to be Reshuffled

The first half of 2022 continued the excellent performance of last year. Investments in logistics and industrial real estate totalled 4.6 billion euros, with logistics real estate accounting for 2.7 billion euros thereof. Yet the current market environment makes it almost impossible to say what the second half-year will bring. Even during the second quarter, the increase in financing costs and the economic uncertainties were reflected in palpable restraint among transactions market players. Prime

rents already rose by about 20 to 30 basis points in the leading logistics regions, ushering in the end of the yield compression cycle. For the time being, the ramifications are most keenly felt in the absolute core segment where price-to-rent multiples had regularly exceeded 30 times the annual rent until very recently. Given the current terms of financing, this has ceased to be economically viable. Much depends now on how long it will take buyers and sellers to find a common basis for market-consistent selling prices after their reappraisal of the current situation.

Few Changes in the Operator Structures on the Investment Market

This year's ranking of the investment operators on the logistics market is also marked by consistency. Garbe Industrial secured the top spot for the third time in as many years, reaching an investment volume of nearly 2.9 billion euros for the past five years in 2022. The company is trailed—at some distance—by Frasers Property with a total of 1.7 billion euros. Also among the top three this year is LIP Invest, a company that has steadily improved over the past years.

Collectively, the 20 leading operators invested approximately 828 billion euros in logistics real estate over the past five years. It is a remarkable sum, underlining the grown significance of logistics real estate as an asset product. Striking to note is that classic operators on the market for Unternehmensimmobilien assets, such as Beos/Swiss Life are gradually warming to the logistics market, too. The fact illustrates once more the development that commenced some time ago: The conventional distinction between logistics real estate and Unternehmensimmobilien assets is becoming more and more hazy. With the development of multi-user logistics properties, which house the urban logistics facilities of e-commerce operators, are gradually blurring the boundary that sets them apart from classic business parks.



Investments of the top 20 logistics real estate players

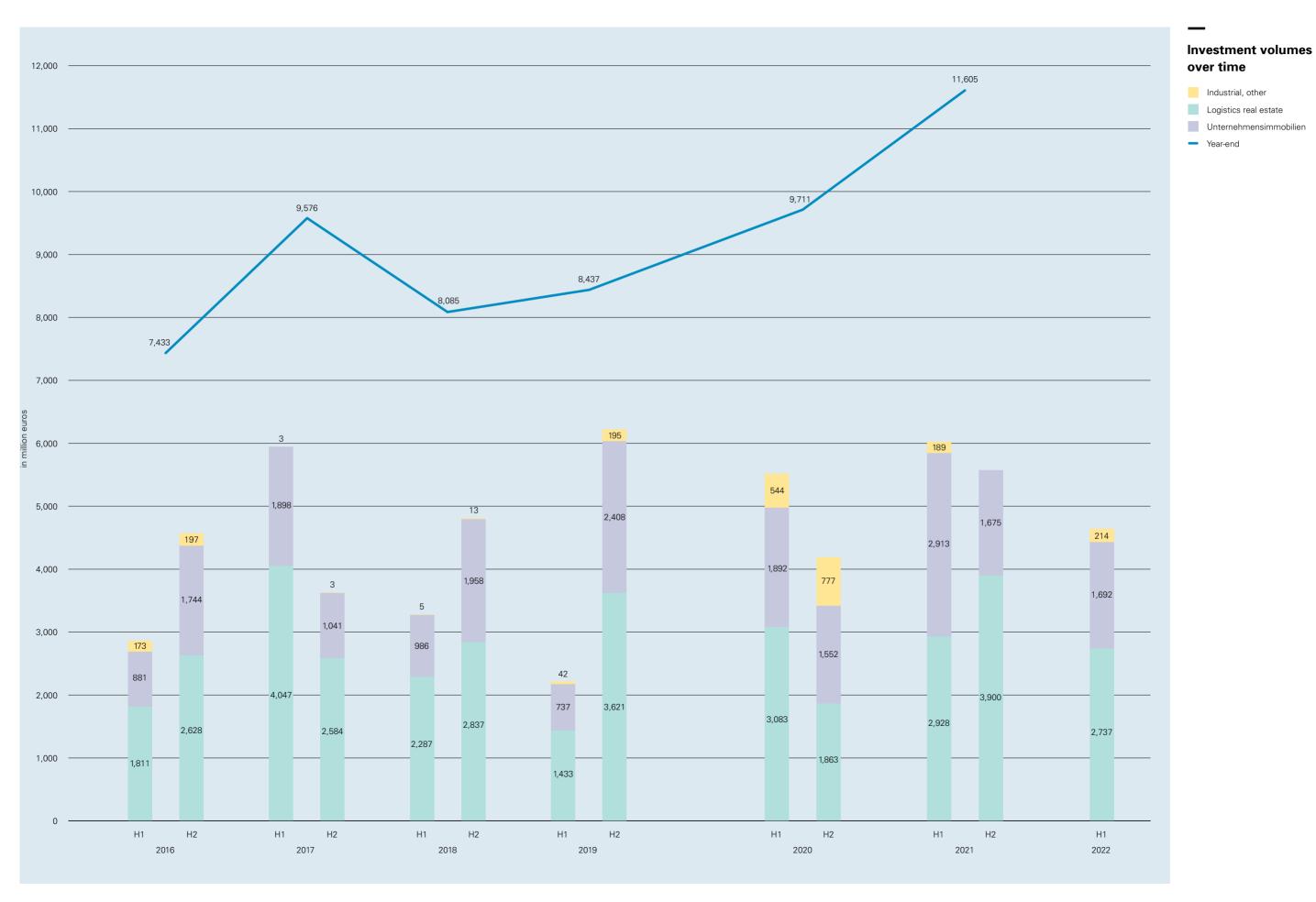
bn euros





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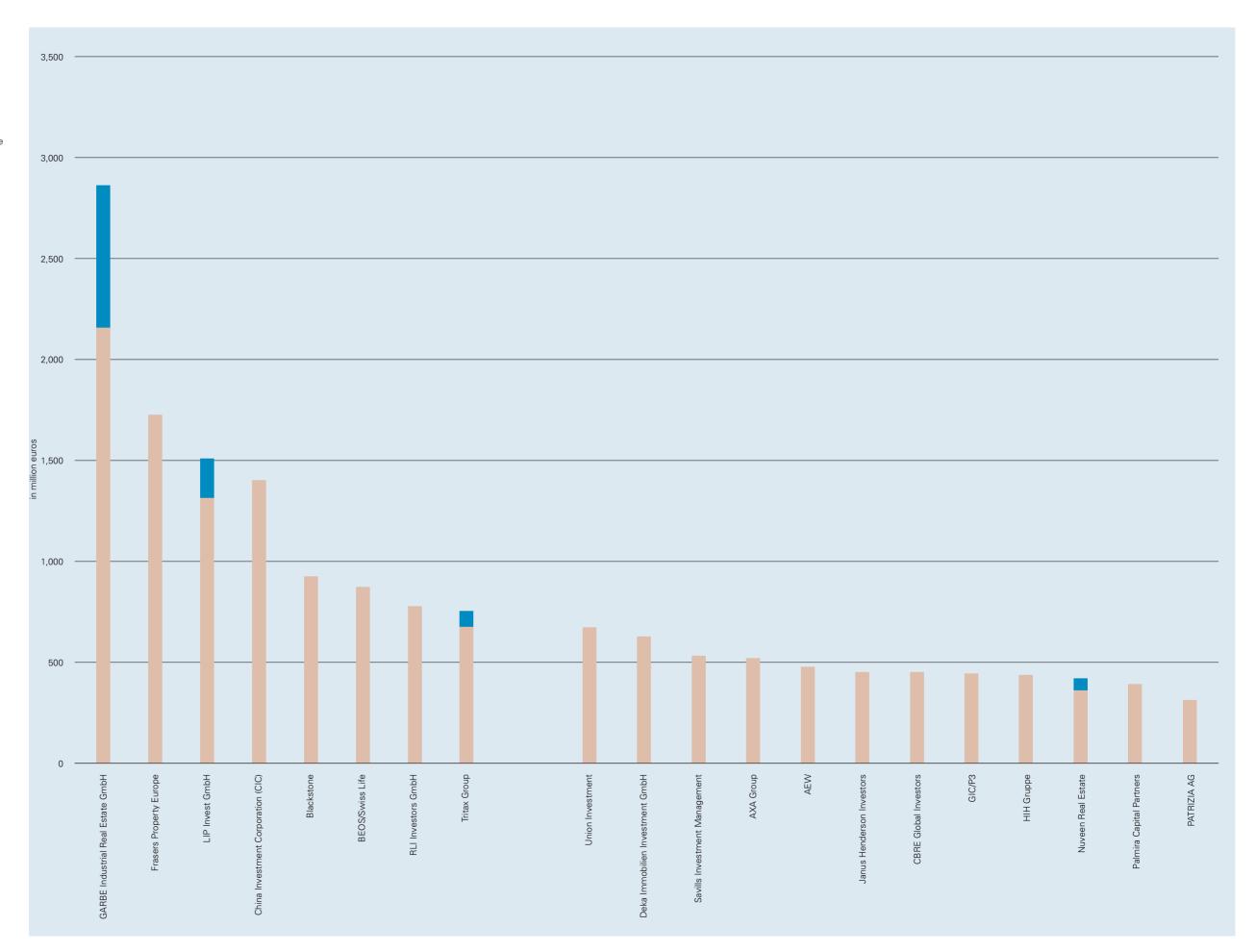
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Top-20 logistics real estate investors, 2017-2022*

2017–2021

2022

*The evaluation covers all transactions up to the key date of 30/06/2022.



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Garbe Industrial Real Estate Sustains its Strong Performance in H1 2022

Garbe Industrial successfully defended its lead in the investment ranking during the first half of 2022, mainly by closing several large-scale portfolio transactions. With a sum total of over 700 million euros, the logistics property stayed well ahead of runner-up GIC/P3, which spent 256 million euros on logistics real estate during the first six months. Another established player, LIP Invest, ranked third with a transaction volume of 195 million euros by mid-year 2022.

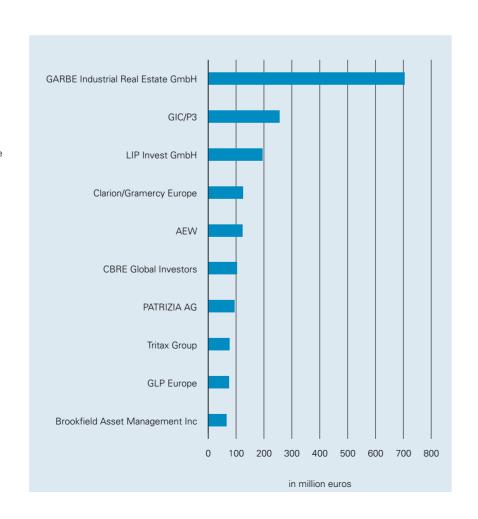
Majority of Investors Hail from Germany

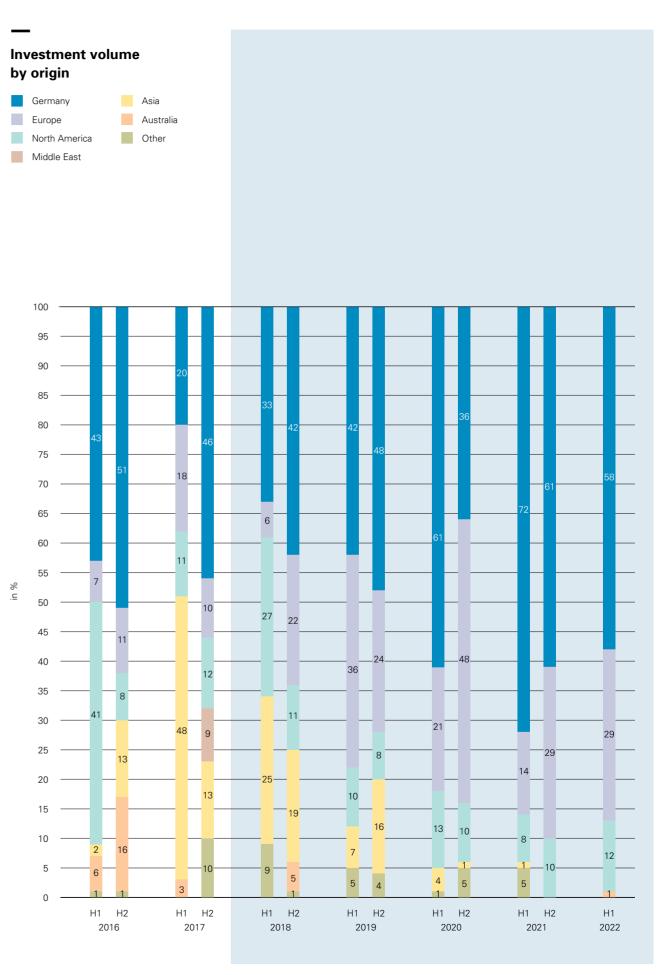
The German logistics real estate market continues to the dominated by domestic buyer groups which accounted for 60 % of the revenue total in 2021. Whether the reticence among foreign investment companies represents a lingering effect of the first pandemic shock is anybody's guess. But for what it is worth, the first half of 2022 registered a modestly increased share of foreign buyers at 42 %. Then again, Asian operators have scaled back their market presence from what it was as recently as three years ago. Here, it remains to be seen whether they will step up their activities on the German logistics real estate market in future.

Top 10 logistics real estate investors, 2022*

Investment volumes

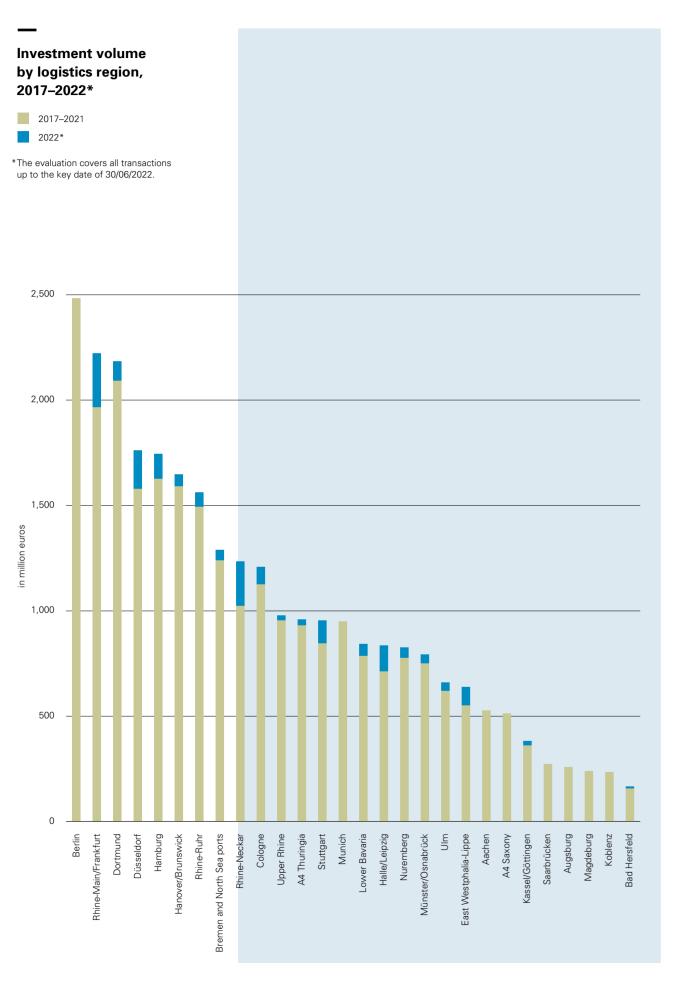
^{*}The evaluation covers all transactions up to the key date of 30/06/2022.





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Since the outbreak of the war in Ukraine in February 2022, at the latest, hopes for swift economic recovery have been dashed.

Investment Activity by Logistics Region

The outlook last year had included the promise of post-pandemic catch-up effects, yet hopes for swift economic recovery were dashed by the outbreak of the war in Ukraine in February 2022, at the latest. Last year, the logistics industry discussion concerning the warehousing of goods and raw materials had been dominated by the sudden disruption of supply chains. But this year, the debate has shifted its focus from supply chain disruptions to the intended restructuring of supply chains so as to keep from being dependent on certain (political) circumstances. The dilemma has prompted the drafting of political agendas that are supposed to strengthen alternative energy sources and with them Germany's economic autonomy, for instance, or to make Europe less dependent on computer chip deliveries from overseas, To stay with the example, the Magdeburg logistics region will seriously benefit from the latter effort if Intel moves ahead with its plan to set up its new chip production there. The entire region would be boosted by the creation of technology clusters after the production facility has been set up. Even now, the evidence points to an increase in investment activity in eastern Germany when compared to previous years.

In this latest period under review, Berlin actually took over the lead from the Rhine-Main/Frankfurt logistics region. The investment volume of 2.5 billion euros reported from the Berlin region for the past five years is primarily due to the banner year of 2021. In the ongoing year to date, the transaction volume in Berlin has been rather modest. The reason is not a decline in Berlin's appeal but the acute shortage of product on the market. Rhine-Main/Frankfurt, reporting c. 2.2 billion euros in investments, has retained its second place. Dortmund took third place from Hamburg with nearly 2.2 billion euros. Düsseldorf positioned itself

in fourth place of the ranking. The city benefited from big-ticket transactions in 2019 while also reporting lively investment action in the ongoing year of 2022. Hamburg and Hanover/Braunschweig are characterised by a steady performance over the years as well, ranking fifth with 1.7 billion euros and sixth with 1.6 billion euros, respectively.

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Rhine-Main/Frankfurt Remains Attractive

The logistics regions Rhine-Main/ Frankfurt and Rhine-Neckar generated strong demand during the first half of 2022. What distinguished them is that both are centrally located within the country, close to many manufacturing businesses, including those from the pharmaceuticals industry. They attracted investments worth 257 million euros and 210 million euros, respectively. Striking to note is that the majority of transactions during the first half-year focused on the western part of Germany. By contrast, the eastern regions with their short supply of product saw only a few small-scale deals.



The Persistently
Fast Dynamic of
Construction Costs
Growth







3.1

Material Shortages Keep Driving up Construction Costs

The previous edition of this survey already discussed the brisk growth in construction prices and lingering capacity issues. Existing material shortages have since been further exacerbated by Russia's war of aggression in Ukraine. Add to this the runaway energy prices—with import prices for natural gas having tripled within a year—in an unprecedented surge.





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cost increase for steel construction works

This means that the price spiral has gained further momentum. Between May 2021 and May 2022, the costs for concrete construction works have gone up by 22 % and those for steel construction works by an actual 28 %. However, the price analyses of certain trades are marked by a high degree of volatility. Market operators have lately (July 2022) reported a modest softening of steel prices, for instance, whereas the prices for cement and other energy-intensive products remain high.

"In addition to the costs of material, labour costs and the costs for technical building equipment have jumped up. For example, there is currently a huge demand for trades like utilities engineering or electrical specification, which results in corresponding price hikes. Assuming the demand pressure is here to stay, further increases are to be expected in the medium term."

(Michael Dufhues, Bremer AG)

Comparisons to the situation elsewhere in Europe are possible only on the basis of residential buildings, and even this only to a limited degree because of differing data statuses. Notwithstanding this caveat, the situation is the same across Europe: In 2021, construction cost prices surged in virtually all European countries,

Hungary standing out with a particularly brisk growth by 32 index points (Q1 2021-Q1 2022). The consequences of the war in Ukraine are not even factored in yet.

An analysis of the few countries for which comparables from the second quarter 2022 were already available at the time the survey was compiled point to a further upsurge. In Germany, for instance, the index rose by 9 points within a single quarter, and in Slovenia by 6 points.

It is safe to assume that the rest of Europe followed the same trend and will continue to do so. It is rarely ever possible to offset steep price hikes by raising selling prices (of logistics real estate, for instance) - for the shift on the interest rate market and the associable slowdown on the investment markets, please see the chapter on the market developments elsewhere in this survey. This means that the options open to property developers—seen as clients of the construction industry—to compensate for the strong price growth in economic terms are limited. The options for passing on unforeseen price increases in ongoing contracts is particularly limited or unrealistic. This was confirmed not least by a poll recently conducted by the Main Association of the German Construction Industry (HDB)1.

It revealed that only one in three of the companies surveyed managed

to come to terms on price alignments with their clients for ongoing projects. 29 % of the respondents stated they had ceased submitting quotes for the time being because the options for putting in safeguards against runaway prices are very limited for building contractors. Few clients will agree to price escalation provisions, and long-term supply contracts are also difficult to negotiate at the moment. The one option remaining is often to include adequate cost buffers in the pricing, which will in turn compromise the economic viability of such contracts.

"Principally, it is safe to say that there is no patent recipe for handling price hikes and for passing them on to the client. Instead, professional operators rely on one-off solutions between the contracting parties. Here, it often pays off to have built up client relationships over many years of trust-based collaboration."

(Michael Dufhues, Bremer AG)

The high cost risks are reflected in the latest business survey (early summer 2022) conducted by the Association of German Chambers of Commerce and Industry (DIHK). It suggests that 91 % of the polled companies in the construction industry consider the price surge in raw materials and energy as the greatest business risks.

Price trend for the construction of new operational buildings, by construction service

Shell and core

Earthworks

Drainage canal works

Brickworks

Concrete works

Carpentry and timber construction works

Steel construction works

Waterproofing work

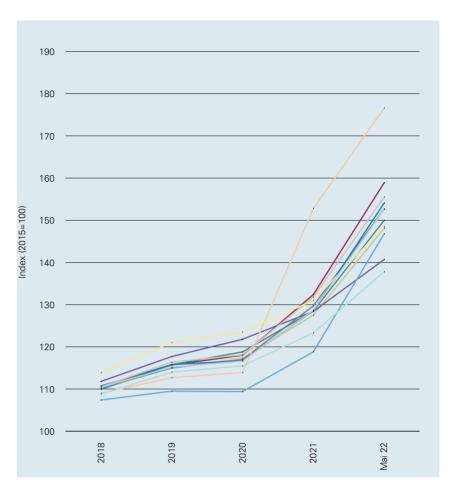
Roofing work

Sheet metal work

Scaffolding work

Fit-out work

Source: Destatis



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Construction cost prices As of Q1 2022*

Source: Eurostat *Residential buildings

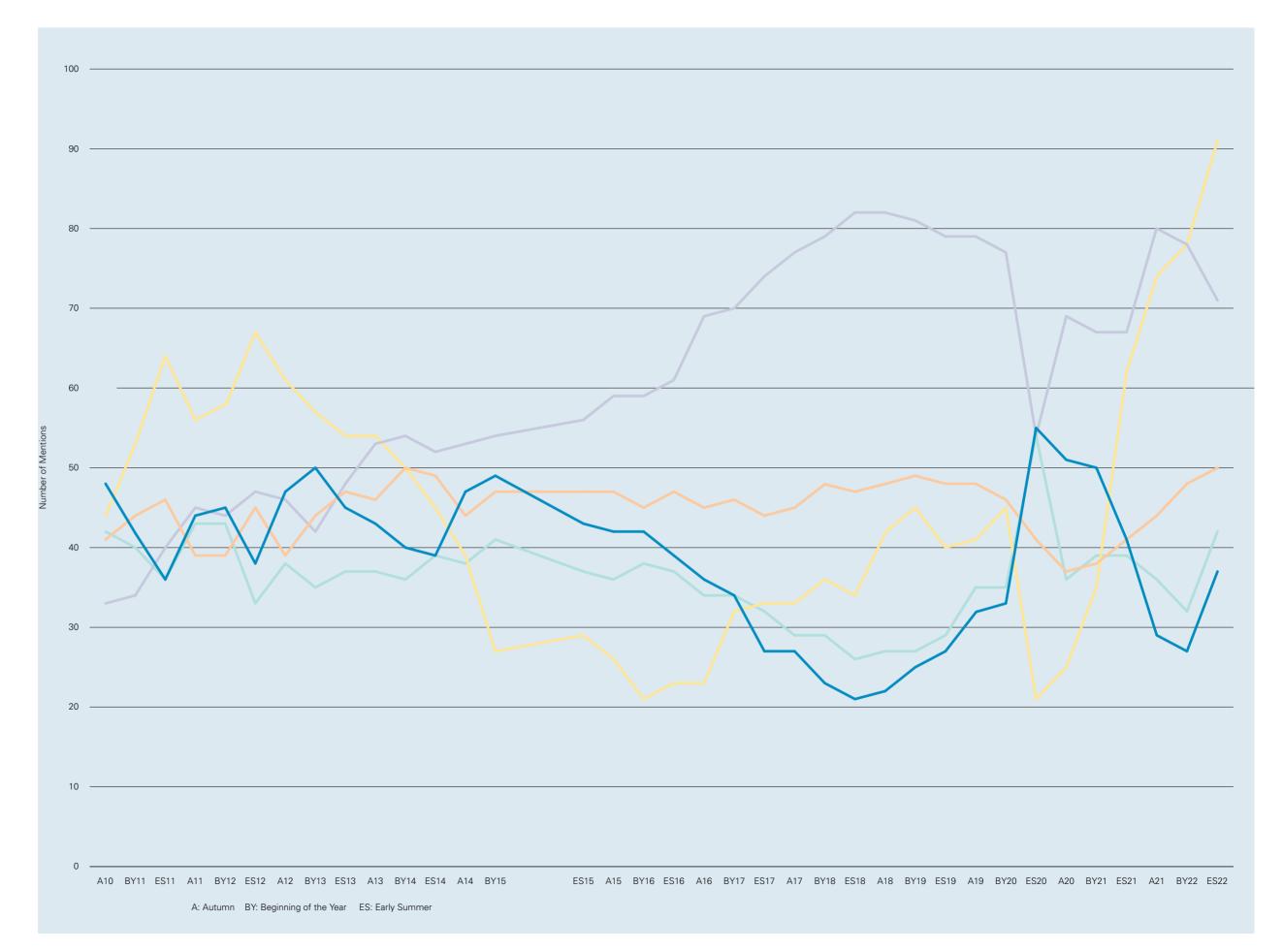


1 https://www.bauindustrie.de/zahlen-fakten/auf-den-punkt-gebrar steigerungen-bei-baumaterialien-seit-jahresbeginn-2021 46 Chapter 03: The Persistently Fast Dynamic of Construction Costs Growth

Current business risks in the construction industry

- Domestic demand
- Labour costs
- Shortage of skilled labour
- Energy and commodity prices
- Economic policy parameters

Source: DIHK Business Survey Early Summer 2022



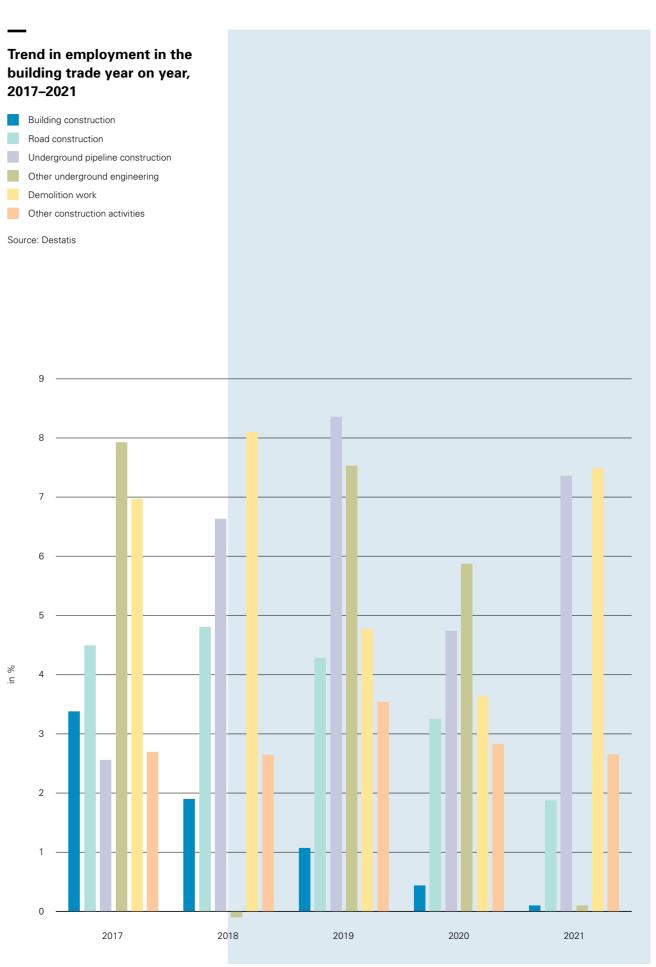
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As far as the shortage of skilled labour goes, there have been faint signs that the situation is easing. Having stood at 80 % last year, this figures has since dropped to 71 %, even though the figure still indicates a high risk level. Similarly, the recent rise in employment figures has prompted hopes that the supply situation in regard to human resources may have slightly improved. It should be noted that the employment growth was concentrated mainly in underground engineering/road construction in particular, whereas it came to barely 1.5 % p. a. in building construction over the past years.





of the poll respondents consider shortage of skilled labour a business risk



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3.2

Sustainability Remains a Defining Subject

That the real estate industry and specifically building construction play a key role in the effort to mitigate the climate change was already discussed in the previous edition of this survey. Around 30 % of Germany's CO₂ emissions are attributable to the buildings sector. Principal contractors are therefore urged to shift their focus to the environmental sustainability of their buildings. Especially for institutional investors, meeting the ESG criteria (see information box) plays an increasingly important role.

Compliance with the relevant environmental criteria is often verified through certifications - most commonly according to the DGNB, BREAM or LEED standard. Yet an analysis of completions revealed that only about 40 % of the new-build logistics building have been certified for sustainability; especially owner-occupiers rarely see a need to submit to a long-winded, often non-transparent process that incurs significant extra costs. In the same vein, the meaningfulness of the certificates is also regularly questioned. At issue is that green labels tend to focus solely on a building's operation. They often disregard the emissions caused by a building's construction or demolition.

3.3

Outlook for the Construction Sector

The challenges and crises facing the construction sector have rapidly intensified. In the wake of dynamic market action, the past decade may have been defined by capacity bottlenecks and cost increases, but as a rule, the upward growth of property prices in a favourable funding environment tended to compensate for these. However, with Russia's invasion of Ukraine at the latest, market determinants have undergone a fundamental shift.

"At present, the fast increase in material prices and in labour and financing costs can no longer be balanced by the market in every case. The challenges that contractors and property developers face to find bespoke and market-consistent solutions is therefore intensifying. At the same time, environmental sustainability requirements for buildings are growing. While new technical solutions for the energy supply, for instance, may initially be much more expensive than a standard model, exploding energy prices and unwanted supply dependencies now qualify the cost argument. All the more so since sustainable buildings merit price markups on the investment market. Unlike in many other real estate segments, a vibrant occupier market ensures that the demand for space remains as lively as it was. The significance of properties in use and of upgrades to standing buildings will keep increasing, even if the specific requirements a given logistics firm has

for a building may only be met up to a certain point."

The consequences of the outlined

(Michael Dufhues, Bremer AG)

overall market situation for the private construction sector remain to be seen. For one thing, visible drops in the number of orders on the books in April and May 2022 point to a drastic deterioration of the economic situation of construction companies. The onset of the coronavirus pandemic in April 2020 admittedly presented a similar picture before new orders went back up by leaps and bounds in May 2020. This time around, there has been no upturn so far. Then again, the public sector is increasingly picking up the slack on the demand side. Many political goals—from housing construction to infrastructure upgrades—presuppose an active construction agenda. And since the economic restrictions tend to be negligible factors in this case, there is reason to assume that the building industry will continue to operate at capacity.

"The private real estate industry will, however, have to get used to a shift in building activity – probably even in the recently prospering logistics real estate market."

(Michael Dufhues, Bremer AG)

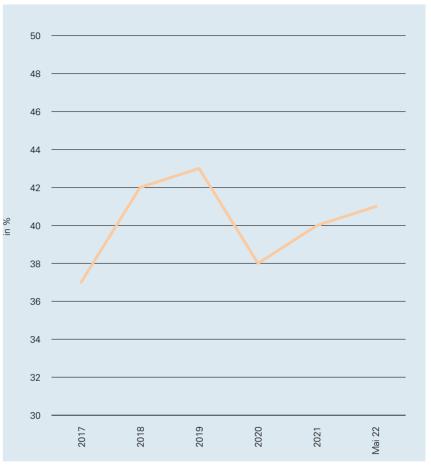
What Does ESG Actually Mean? – the 3-Pillar System of Sustainability

Taking a three-dimensional view is of the essence in the sustainability context. Insiders call this approach the 3-pillar system of sustainability. In addition to the environmental aspect, it considers the social and the economic or entrepreneurial aspects. The European Union defined the model in its 1997 Treaty of Amsterdam, identifying sustainability as an important achievement in environmental protection, economy, politics and society.

Share of certified logistics facilities in the completions volume

Share in the total floor space volume

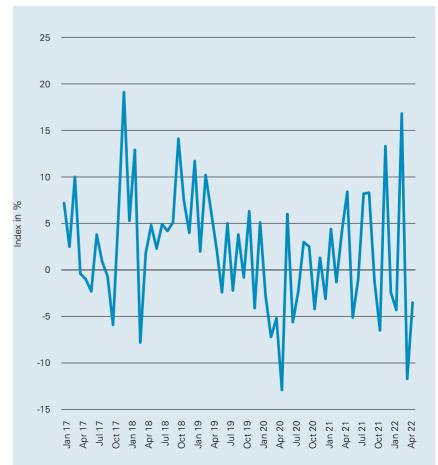
Source: bulwiengesa



Volume index, new orders in the construction industry

Year-on-year change

Source: bulwiengesa



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Paderborn

Property details:

- Location: Paderborn
- · Total useful area: 8,600 sqm
- · Scheduled completion: 2023
- Property developer: Bremer Projektentwicklung

Sustainability characteristics:

- · BEG EG 40 standard and DGNB Platinum certification
- · DGNB climate positive after first year of operation
- · Heating and temperature control via heat pumps
- · Madaster online registry for materials and products



Bitterfeld

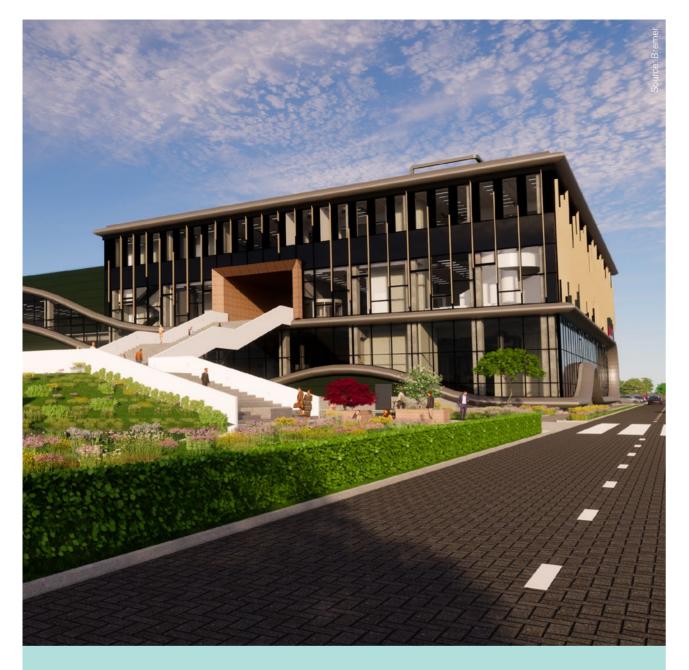
Property details:

- · Location: Bitterfeld
- · Total useful area: 110,000 sqm
- · Completion: 2023 or thereafter
- Property developer: Garbe Industrial Real Estate

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Sustainability characteristics:

- BEG EG 40 standard and DGNB certification
- · DGNB "climate positive" certificate after first year of operation
- · PV system with 5 Megawatts peak rated power
- · Heating and temperature control via heat pumps



Dorsten

Property details:

- · Location: Dorsten
- Total useful area: 76,200 sqm
- · Year of completion: 2024
- · Property developer: Bremer

Sustainability characteristics:

- · Revitalisation of an old colliery site
- · Extensive implementation of the cradle-to-cradle concept
- · WELL Platinum and LEED Platinum certification
- · BEG40 standard
- · Intense green roof for breaks and leisure
- · extensive green roof and PV system
- · Use of geothermal heating and rainwater harvesting



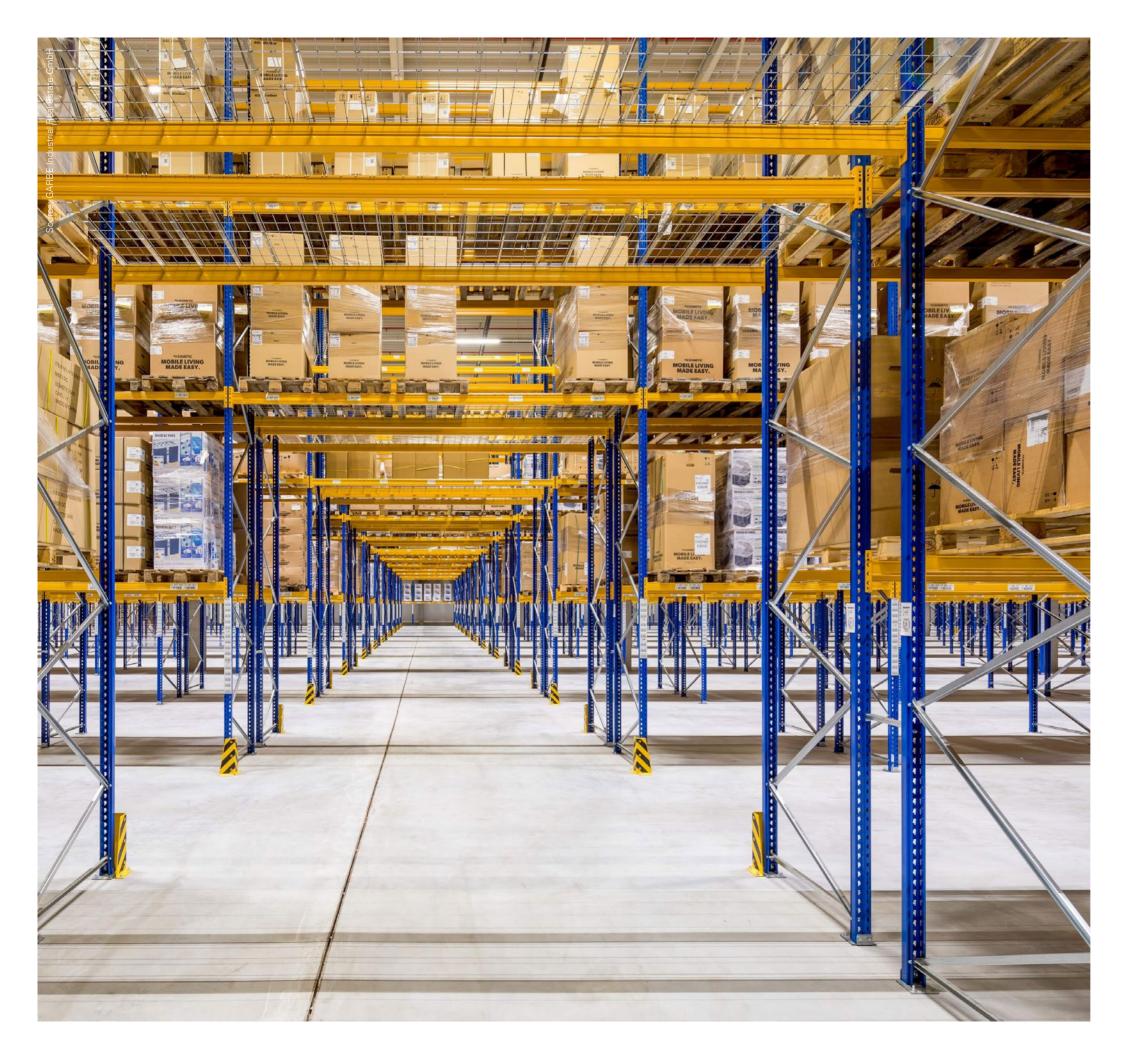


Change of Sign on the Financing Market









4.1

Inflation Trend Setting the Pace for Interest Rate Reversal

The outbreak of Russia's war of aggression in Ukraine made the dependence, particularly of Germany, on Russian oil and gas deliveries painfully apparent. Its downstream effects include soaring energy prices, with no end in sight. Another thing the situation revealed is the vulnerability of supply chains. The dilemma is exacerbated by the pandemic-related restrictions that China keeps in place, which further tighten the bottlenecks on the world's goods, labour and commodity markets. As a result, the price spiral keeps turning in virtual all areas. The inflation rate has been climbing steadily in recent months, reaching 8.9 % by July 2022 and thus exceeding the 2-percent target set by the ECB by far.

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At odds with the narrative of a temporary inflation spike, the significant price hikes follow an insistent trend, forcing central banks around the globe to attempt a tight-rope act. The resultant rise in interest rates is likely to have a dampening effect on the economy, which was deteriorating anyway in the wake of the war in Ukraine. In July, the European Central Bank moved ahead with its first increase in bank deposit rates in a long time. The prospect of further interest rate hikes are quite realistic. As is often mentioned, the trend in the US lending rates points the way in this context. Well before July 2022, the Fed raised its key lending rate in successive steps to a level of 2.25-2.5 %. There is every reason to assume that further interest rate moves will follow.

Refinancing Rate Back in the Positive Range at Long Last

Even before the step was announced, the anticipation of the key lending rate increase by the ECB had a marked effect on capital market rates. The Euribor (Euro Interbank Offered Rate) interest rate, which represents the reference interest rate for the funding of property developments, has been clearly on the rise for several months.

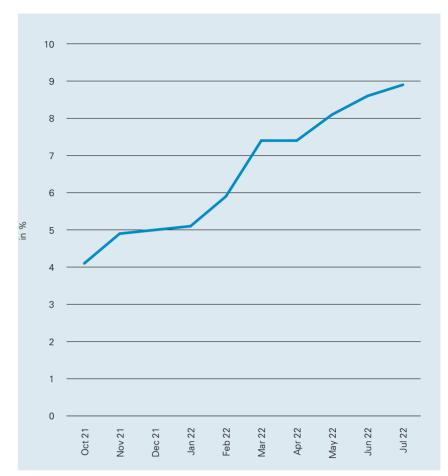
The increase in the market interest rate and reference interest rates, such as Euribor, influence the interest rate conditions that are quoted in the context of financing a property development or of acquiring an existing property.

basis points: the first increase of the deposit rate for banks by the European Central Bank in a long time

Annual rates of change of the consumer price index in the eurozone

Annual rate of change

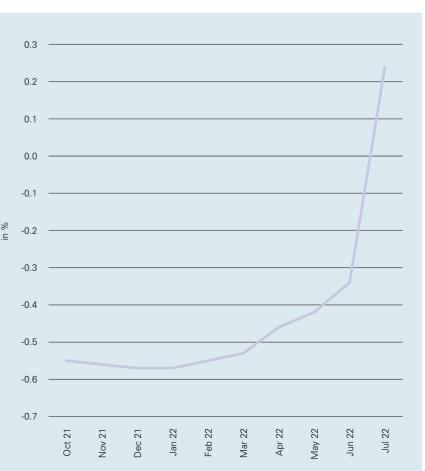
Source: Eurostat



Euribor trend Interest rate

Interest rate

Source: euribor-rates.eu



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4.2

Willingness to Finance Remaining Strong

Despite all uncertainties, the willingness to finance among banks remains high, especially when involving trusted clients.

It is reasonable to say that the increased sense of uncertainty is itself an essential driver of the current interest rate setting. At the same time, some investors are looking for investment opportunities with higher returns than those the (logistics) real estate market has to offer at present. Borrowing on current funding terms has ceased to be economically viable if the prices quoted remain at the peak level they showed at the start of this year.

"The elevated refinancing costs in the wake of the changed interest rate environment has lately prompted many investors to hold still and to revise their calculations. In the comparatively low number of cases where selling prices were quoted lately, investors revised them downward. The changed situation is reflected in the yield rates of logistics assets."

(Maria Teresa Dreo-Tempsch, Berlin Hyp)

However, another consequence of the growing uncertainty and the increased risk awareness is that banks insist on higher margins now, despite the persistent intensity of competition. While investors can be expected to be more reticent in future and investment volumes to decline as a result, banks are regaining their significance among their clients.

In spite of all uncertainties, the will-ingness to finance remains strong among banks, especially when clients are involved with whom they maintain good trust-based relationships and who have a sound track record.

"We changed nothing about the parameter data in financing, nor do we intend to do so. Berlin Hyp generally pursues a rather conservative business strategy. We keep an eye on the way markets are evolving, and examine each borrowing request and each property to be financed. The analysis includes, in addition to the classic criteria such as location, lettability or alternative use potential, a check of the capital servicing capacity, most notably because of the increased level of interest rates."

(Maria Teresa Dreo-Tempsch, Berlin Hyp)

Components of the client interest rate

Variable basic interest / market interest rate:

Serves as benchmark indicating at which terms banks are able to refinance on the capital market.

Liquidity costs:

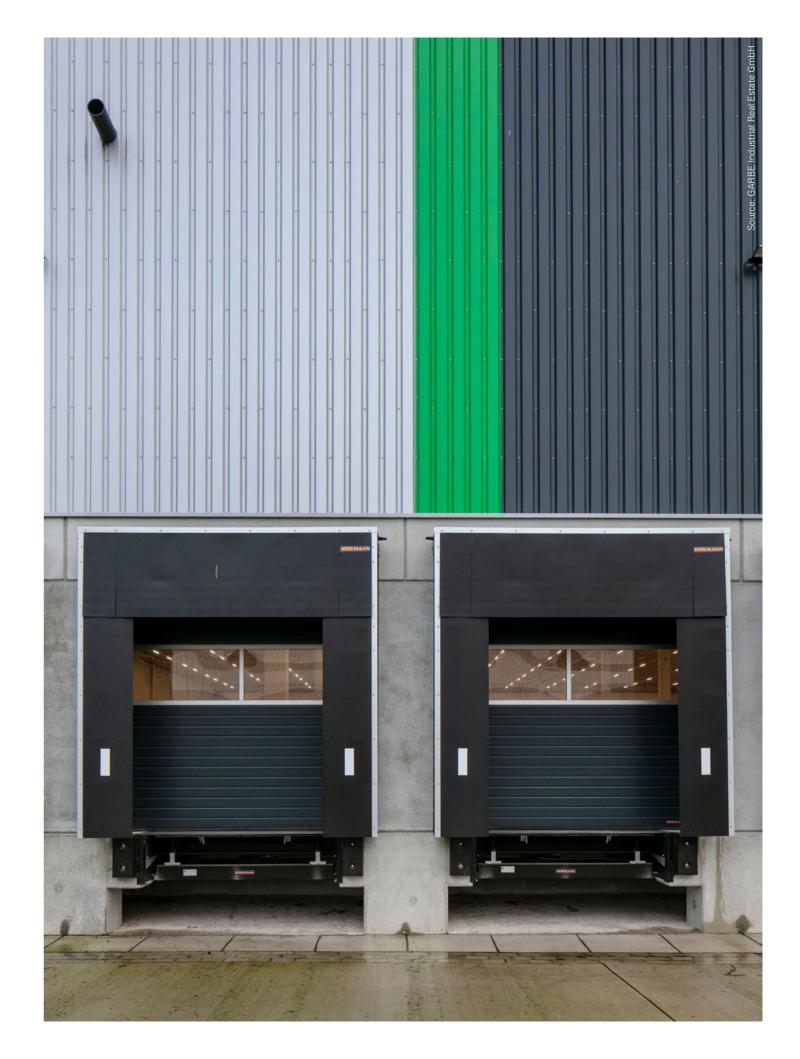
These depend on a given bank's refinancing costs and reflect the bank's risk on the capital market.

Bank's cost of funds:

Is defined by the market interest rate and the liquidity costs. It represents the interest the bank pay to other banks when borrowing.

Margin:

Reflects the bank's risk and management fee. The ratings of client and property have a definitive influence on the margin level.



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4.3

Dimming Sentiment on the Financing Market The adjustments to the terms of financing concern all stakeholders on the financing market. The expectations of market players concerning future trends influence even present interest rates, which is why the sentiment among market players is an important early indicator for the condition of the financing market.

One consequence of the increasingly restrictive conditions is that sentiment among German real estate lenders took a nosedive during the second quarter of 2022, according to the BF. Quartalsbarom-

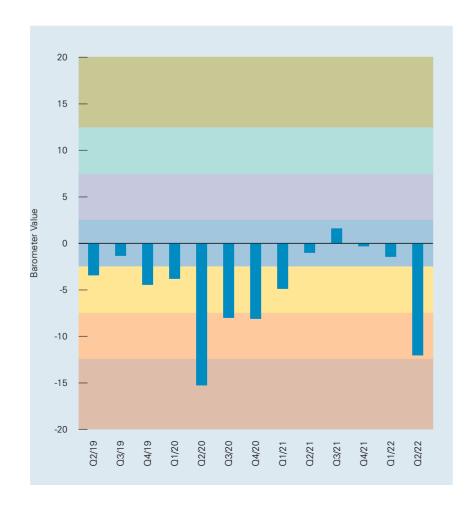
eter index. The majority of experts polled for the index are directly responsible for granting loans to real estate companies. The latest dip of the index represents its steepest decline since the time directly after the outbreak of the coronavirus crisis. Virtually all relevant parameters polled within the framework of the sentiment indicator showed reversals. Decisive for the deterioration are the latest rise in interest rates and the high inflation rate. Moreover, the slump of the sentiment indicator is also reflected in the assessments of current terms of financing. A large percentage of market players rate the financing conditions as increasingly restrictive.

>

Trend of the sentiment indicator over time

Very accommodative lending
Progressive lending
High willingness to finance
Balanced market
Limited willingness to finance
Restrictive lending
Credit crunch

Source: BF. Quartalsbarometer





Virtually all relevant parameters polled within the framework of the sentiment indicator showed reversals.

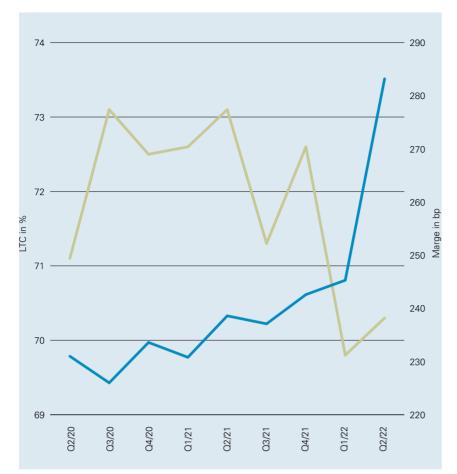


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LTC (avg.) and margins (avg.) for commercial property development financing

Avg. LTCAvg. margin

Source: BF.Quartalsbarometer



LTV (avg.) and margins (avg.) for commercial property development financing

Avg. LTV

Avg. margin

Source: BF.Quartalsbarometer





leverage ratio (LTV) in Q2 2022

Lower Leverage Rates Enhance the Appeal of Alternative Capital Providers.

It has become clear in the wake of the financing shift that margins in the financing business have adjusted as well. Average margins both for standing properties and for property developments have slowly gone back up lately. Growing risk awareness coincides with declining loanto-cost ratios, which in turn has led to an increased demand for alternative funding options, such as mezzanine capital. Since borrowers prefer long financing terms, especially in the core segment, inflation expectations and increased refinancing costs on the bank side have a significant impact on margins.

The increase in LTC ratios approximated 38 basis points and 25 basis points in portfolio financing. As a result, margins climbed to their highest level in eight years during the second quarter. Although this development would, in and of itself, be a good thing from a financier's perspective, it cannot make up for the muted sentiment, as a sense of uncertainty prevails among market players.

The loan-to-cost ratios and the loan-to-value ration, having bottomed out in recent months, are gradually going back up. During the second quarter of 2022, the leverage ratios equalled 70.3 % (LTC) and 67.5 % (LTV).

>

Funding Capital Remains Available in Adequate Amounts

While the financing market for logistics real estate is subject to shifted parameters, banks have not changed their business models. Yet the prospect of restructuring and reappraisal needs on the financing market are by all means realistic.

"Assets who fail to meet current requirements either due to their size, their design, their location or their infrastructure access will be facing difficulties. Moreover, lease terms and covenant strength play a bigger role. We can also say with a very high degree of certainty that non-sustainable assets will have a much harder time in future."

(Maria Teresa Dreo-Tempsch, Berlin Hyp)

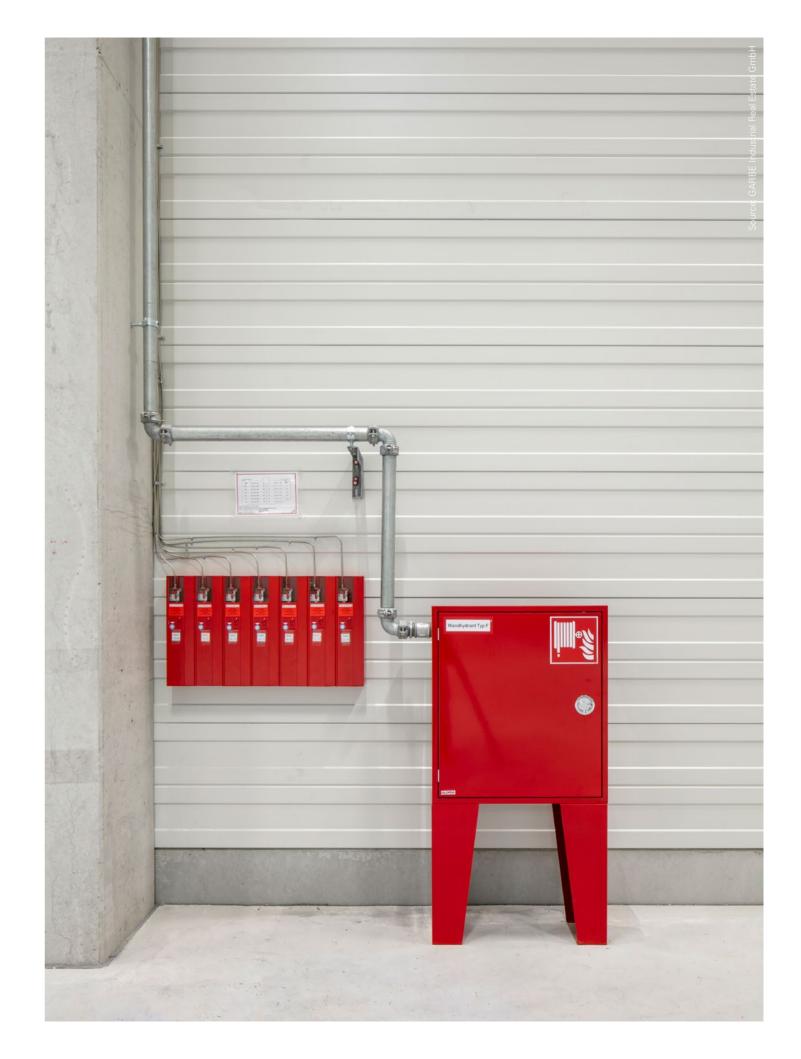
Economic jitters, a high inflation rate and a changed funding environment represent not the only challenges the industry has to confront. Another factor necessitating new solutions from the financial sector is climate change. With the EU Taxonomy for sustainable finance, the ESG philosophy has gained in prominence in the financial sector. Banks are responding to the new situation. Conducting a risk assessment to measure compliance with sustainability criteria is increasingly becoming a standard procedure in lending. The procurement of capital for assets that manifest shortcomings in this regard may be hampered by higher obstacles.

"Properties that no longer meet the steadily rising sustainability requirements will cease be marketable, regardless of their asset class. As far as CO₂ emissions go, the situation is already foreseeable with a high degree of certainty. This will necessitate close analyses of the assets concerned and the triggering of upgrade measures, if needed."

(Maria Teresa Dreo-Tempsch, Berlin Hvp)

Below, survey partner Berlin Hyp will present innovations and strategies that could permit the introduction of more sustainable funding options on the market and pave the industry's way toward a more sustainable real estate inventory.

Economic jitters, a high inflation rate and a changed funding environment represent not the only challenges the industry has to confront.



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4.4

Sustainability Strategy of Mortgage Lender Berlin Hyp

1.5°

Celsius global warming limit

55%

reduction of the CO₂ emissions by 2030, compared to 1990 (EU commitment)

Environmental Targets of Berlin Hyp

Against the background of the need to limit global warming to 1.5 degrees Celsius if possible and to meet the EU commitment to reduce CO₂ emissions by 55 % by 2030 compared to 1990, the Federal Republic of Germany has passed a climate protection law that mandates climate neutrality for the country by 2045. This has implications for every part of German society. Naturally, Berlin Hyp is aware of its own responsibility in this context. It will not only reduce its own ecological footprint but also contribute actively to the transformation into an environmentally, economically and socially sustainable economy.

In line with its sustainability strategy, Berlin Hyp has therefore defined environmental objectives that are based on four key dimensions:

- · Sustainability in the business operation
- Transparency and ESG capabilities
- · ESG risk management
- · A sustainable business portfolio

Especially the last of these objectives, the sustainable business portfolio, focuses on the financing of, and transformation into, more energy-efficient, sustainable buildings. In order to achieve this, the scope of financing EU-Taxonomy-compliant properties is to be stepped up significantly, while the portfolio should be verifiably carbon-neutral by 2050 at the latest. But this presupposes that full transparency is established for any portfolio of in-use properties that is to be financed. It is the only way for the bank to verify the reduction of the CO₂ load of a given collateral portfolio, to control new lendings and to achieve successive energy efficiency upgrades of the portfolio with the help of specific financing tools. This means that the sustainability strategy of Berlin Hyp covers everything from active business to refinancing because green loans also serve as the basis for green bonds.

The property-related plans and measures will, in addition, be complemented by a number of ESG aspects that also include the clients as part of the sustainability chain.

Sustainable Finance Framework and EU Taxonomy

With its Sustainable Finance Framework (SFF), Berlin Hyp created an overarching framework and assessment system. The qualification criteria are used to categorise assets to be financed. Together with the extensive criteria according to the EU Taxonomy Regulation, it can then be matched with a suitable green loan product.

The SFF is structured to ensure that our sustainability activities keep expanding continuously. For this reason, all of the SFF aspects and criteria are subjected to an annual or event-related review. As a result, they have direct influence on the strategic orientation of the bank.

In regard to logistics real estate, for instance, the SFF defines that the total energy need or consumption must not exceed the level of 65 kWh/sqm, and that thresholds of 30 kWh/sqm for heating and 35 kWh/sqm for electricity apply in this context. These values, rather than being chosen arbitrarily, are based on the requirements specified in the EnEV 2016 German Energy Saving Ordinance and in the Building Energy Act (GEG 2020).

In addition to pure energy ratings, properties must qualify for energy efficiency class "A" or have sustainability certificates at least of the "Gold" level or, in the case of the French HQE label, the "High" level, plus show supplementary or alternative aspects in order to meet the SFF criteria.

The EU Taxonomy comprises the fulfilment of three measurement categories: the significant contribution to an environmental objective, the avoidance of significant adverse effects in relation to the other environmental objectives and the compliance with the minimum protection requirements.

The main contribution to the climate change mitigation target focuses essentially on the primary energy need. Depending on the "economic activity" with distinctions to be made between new-build construction/development, refurbishment and the acquisition or ownership of new buildings and period buildings—the primary energy demand is assessed in relation to a lowest-energy building or to the energy efficiency class or to the classification as being among the top 15 % of Germany's greenest buildings. Refurbishments require an absolute improvement of the primary energy demand by at least 30 %. Further eligibility criteria are gathered in our Sustainability Finance Framework.

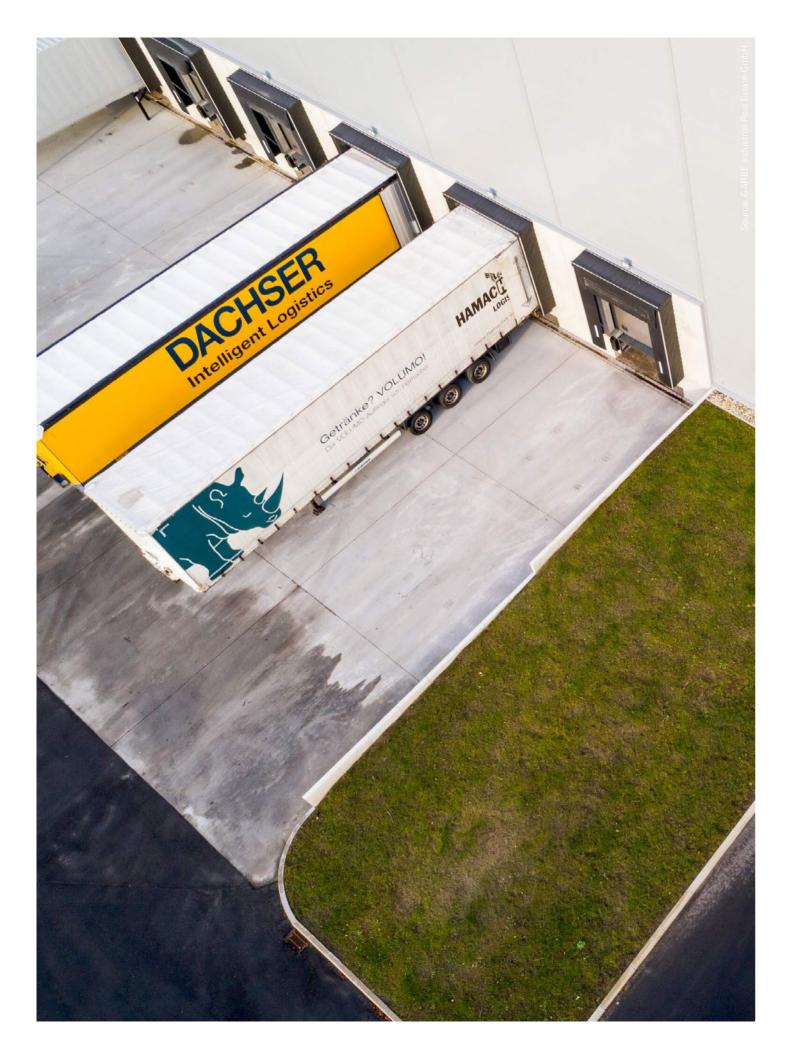
These aspects take account of the first of six environmental objectives defined in the Taxonomy. According to the DNSH (Do no significant harm) principle, a substantial contribution to an environmental objective must not have significant adverse effects on other objectives. In addition, minimum protection requirements, which include the minimum standards in regard to labour and human rights, should be observed. Compliance must be verified and documented.

In regard to real estate, plausible energy parameters play a decisive role here. Energy performance certificates are therefore included among the documents now mandatory for the loan process. Evaluating these essential bases of information is an integral part of the standard activities within the valuation process and the risk analysis.

EU Taxonomy Regulation Environmental objective

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- 1 Climate change mitigation
- 2 Climate change adaptation
- 3 Protection of water and marine resources
- 4 Transition to a circular economy
- 5 Prevention of pollution
- 6 Biodiversity and ecosystems



Green Products of Berlin Hyp

Depending on the result of the energy analysis, which is undertaken in the context of new lendings and with respect to the transparency ratio, Berlin Hyp offers various green credit products. All eligibility criteria for these are gathered in our Sustainability Finance Framework:

Energy efficiency loans ...

... comprise the funding of energy-efficient properties whose total energy consumption/demand remains within the limit defined in the Sustainable Finance Framework.

Taxonomy loans ...

... reflect the concentration on the first EU Taxonomy environmental objective, which is "climate change mitigation." To be eligible, properties must comply with the aforesaid parameters, which include the DNSH criteria and the social minimum standards.

Transformation loans ...

...are intended to enhance the sustainability of in-use buildings. The measures to be financed must reduce the energy demand of a given building by at least 30 %.

Green bond program

Assets that meet the requirements of the SFF are eligible for green bonds within the refinancing context. These include products like green covered bonds and green unsecured bonds, among others.

ESG on the Property Level, Using the Example of Logistics Real Estate

ESG Analysis Tool

Due to their sheer size, logistics properties face enormous challenges in terms of environmental risks – not least because the trend of recent years points to further increases in size combined with a grow-

ing relevance of multi-tenant properties. Not just among property developers but also among financial institutions, the Paris Climate Accord, the shrinking supply of available land and the ongoing energy crisis shift the focus increasingly to the need to downscale the keen demand for land and energy that characterises real estate of this type.

As of 30 June 2021, financial institutions under the direct supervision of the European Central Bank are obliged to gradually implement the "Guidelines for Lending and Supervision" issued by the European Banking Authority (EBA). For instance, financial institutions are under the obligation to examine and assess the environmental risks posed by any properties or portfolios to be financed. Accordingly, Berlin Hyp examines and assesses properties in terms of energy efficiency, the susceptibility to climate change, contaminants and building pollutants and the demographic risk. For banks like Berlin Hyp that only fund real estate and property holding companies while steering clear of the corporate client business, the ESG risk indicators on the property level therefore play a particularly important role.

Property Level of the ESG Scoring is Given a Two-Thirds Weighting

Since the property and the rental income it generates serve as collateral for the financing bank, it makes perfect sense for Berlin Hyp to give the ESG risk indicators a stronger weighting on the property level than the client/owner/borrower aspects. In the final ESG score—which takes the EBA guideline into account, among other things—the sustainability review of the property to be financed counts for two thirds while the review of the client's sustainability makes up the remaining one third.

Decisive for the ESG risk rating, in addition to the property's energy efficiency assessment and the possible presence of

building pollutants, is the property location. The demographic risk relates to the macro level and takes account of the fact that urban and rural districts may sustain significant population losses or gains in future depending on their demographic and economic structures. Examination of the micro level—meaning down to a given address—must include the contamination risk of the respective plot of land as well as its susceptibility to climate change.

Due to their sheer size, logistics properties face enormous challenges in terms of environmental risks (...).

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Energy performance certificates are part of the mandatory documents while their evaluation is one of the standard activities within the real estate financing process.

Climate Risk Data when Comparing Locations

Climate risk data are used to analyse natural hazards on location, and refer specifically to the address of the property to be financed. In the process, natural hazards such as river flooding, storm surges, storms, hail storms or heavy rains are directly linked to the geographic coordinates and the geographic conditions on location. Depending on a site's elevation above sea level, for instance, or its distance from the coast, extreme weather events may have a more or less dramatic effect on the property and its location. Since maritime logistics handles a major part of global trade, the numerous logistics assets dotting the seaboard are exposed to specific hazards caused by storm surges. Other natural hazards, such as severe hailstorms, by contrast, tend to occur near alpine or low-elevation mountain ranges – such as the Stuttgart and Munich metro regions.

Comparing the Climate Risk Data of Two Locations

A model comparison of a site in Germany with one in Poland uses the seven major natural hazards to illustrate the regional differences in hazard situations.

The sites chosen represent, on the one hand, a location near the Speicherstadt locality in downtown Hamburg and, on the other hand, a site in the greater Gdansk/Gdynia area.

Energy Analysis Tool

Energy performance certificates are included among the mandatory documents while their evaluation is one of the standard activities within the real estate financing process. The analysis is a highly complex procedure, given the large number of different, non-standardised energy certificates across Europe and the use of different frameworks and laws to verify the energy data, which are moreover subject to continuous revisions.

To facilitate the process, Berlin Hyp developed its own energy analysis tool (EnA-Tool) that permits the summarising aggregation and evaluation of various energy performance certificates that may have been issued for a given property. The tool has become an integral part of the standardised scope of activities within the framework of the initial valuation or during value reviews.

In addition to the aggregation, the energy analysis tool also checks the eligibility of a given property for certain green financing products of Berlin Hyp.

In the example shown, an energy efficiency traffic light indicated whether the respective property will enhance or compromise the energy footprint of the bank's collateral portfolio. Next, the property is checked for its eligibility for various financing products. In the case at hand, the model logistics property would be eligible for energy efficiency loans and for Taxonomy loans. The DNSH review also returned a favourable result. Nothing would stand in the way of refinancing it via a green bond, for instance.

Comparing the Climate Risk Data of Two Locations

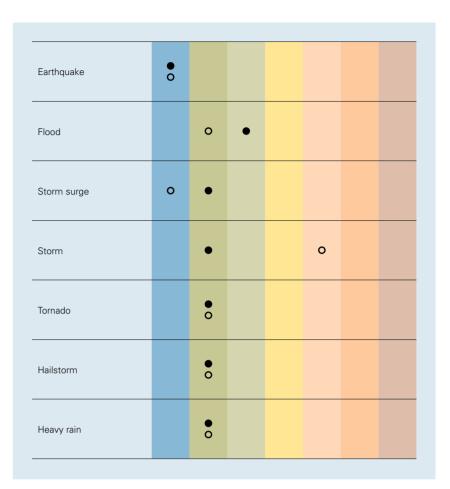
Downtown Hamburg / near Speicherstadt

O Greater Gdansk/Gdynia area

no hazards

very high hazards

Source: representation by Berlin Hyp based on on K.A.R.L $^{\tiny \circledcirc}$



EnA Tool (energy analysis tool)

<=

< 85

< 99

>= 110

Excellent – enhancing the portfolio

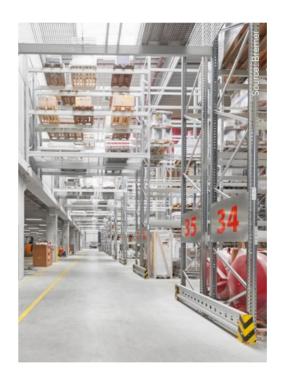
55

Energy performance cer	tificates are on record						
The analysis is based or	Total number: 1						
Energy performance certificate	Туре	Energy consumption certificat					
	valid as of (earliest date)	08/11/2019					
	valid until (earliest date)	07/11/2029					
Primary use	Primary use						
	Economic activity acc. to Taxonomy	Acquisition/ ownership period buildings					
	Energy source	Gas					
	Year built	2019					
	EPC-relevant area (in sqm)			15,000			
End energy	Heat	30					
	Heat request rate	30					
	Electricity	25					
	Electricity request rate	(kWh/sqm/year)	35				
Primary energy	at present	(kWh/sqm/year)	at least	65			
	after refurbishment	(kWh/sqm/year)					
	before refurbishment	(kWh/sqm/year) 50 %					
	Request rate	(kWh/sqm/year)		70			
CO ₂			Floor area per- centage	25			
Energy efficiency class	5						
Sustainability certifica	not available						
	not relevant						



Europe's Logistics Markets – Strengths, Weak Spots and Potential







Logistics and Real Estate 2022

5.1

Europe's Markets in Profile

The section below profiles the characteristics and orientations of European logistics
markets on the national level.
The synopsis will take stock of the specific logistics structures and comparative strengths of each country, and outline the potential that the current trends of the global economy open up for these markets.

Estate)

Estate)

Estate)

Europe is well known for its many densely clustered nation states. Close connections and interdependencies are occasionally paired with tensions and hidden economic imbalances. Although this does not impede the flow of cross-border investments in logistics real estate, it necessitates specific market know-how for each country.

The pandemic and the currently sputtering global economy affect all countries, if to a different degree. The situation has also highlighted the crisis resilience of the logistics business, and of the associated real estate asset class, on the entire European continent. "The economic output took a nosedive during the pandemic, but the supply chain issues simultaneously generated strong demand for logistics real estate. So far, the trend has not waned, but intensified, if anything. A recession might slightly dampen the development and slow the completion of new facilities. However, the demand pressure will not go away, but will build up and will have to be dealt with at a later time."

(Tobias Kassner, GARBE Industrial Real Estate)

The country profiles detailed below provide an overview of the most important economic metrics, and will be followed by a comparison of the national trade in goods with respect to the modal split, the freight volume transported, the key export goods, and the most important trading partners of each country. An outlook on the development perspective of the various markets will also be provided.





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.2

Germany

Germany has one of the largest national economies in the world. Even within the European Union, it outperforms the two other heavyweights, France and Italy, not least because it has the largest population among the EU member states. While the latter fact implies that Germany has a relatively large domestic market, what matters most for the German economy are exports, with

China one of the main trade destinations.

In the wake of recent crises and jitters, the close interconnectedness, which comes with certain downstream dependencies, is under growing scrutiny. The second major uncertainty factor is currently the energy supply, both in regard to the security of supply and with respect to the price trend.

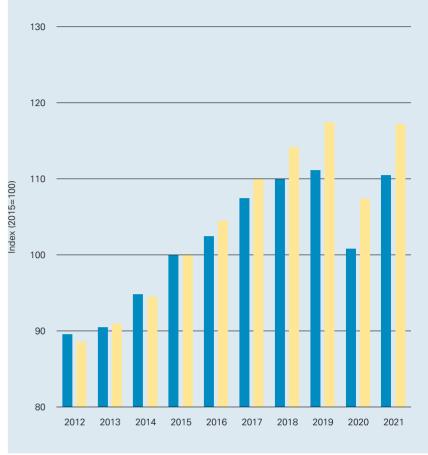
Having overcome the coronavirus pandemic without major upheavals, not least due to government aid measures, the latest prospects are far bleaker than they have been for many years. Because of the country's polycentral structure, Germany is home to several significant logistics regions. Demand for logistics facilities is strongest in the major conurbations, but cannot be fully met there because of visible supply side shortages.

Exports/imports

Exports

Imports

Source: Eurostat



Macroeconomy GDP / gross value added / consumer spending

GDP

GVA

Public consumer spending

Private household consumer spending



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National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.3

Spain

Spain's economy depends to a relatively high degree on the tourist business. The country was therefore hard hit by the pandemic-related restrictions, and the fact was reflected in a plummeting economic output in 2020. But its economy rebounded in 2021, registering positive growth again.

The level of sovereign debt is relatively high, which tends to limit public-sector

investments. Unsurprisingly, the country is one of the largest recipients of benefits from the European programme for mitigating the economic repercussions of the coronavirus pandemic. Due to its geographic and climatic conditions, Spain has a high potential for the production of renewable energies and for setting up of a hydrogen industry. Against the background of climate change and the current uncertainties concerning the supply of non-renewable energies, this potential in the energy production sector is enormous.

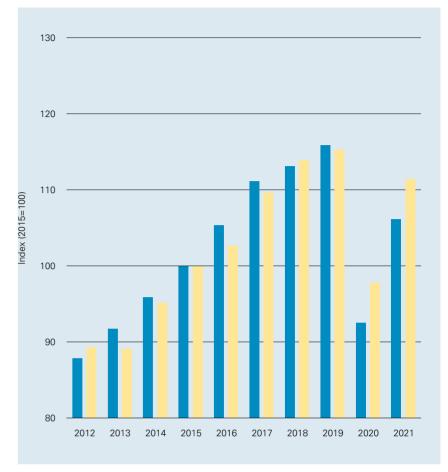
Moreover, the Spanish territory plays a key role in supplying Europe with lique-fied natural gas (LNG). Several European LNG terminals are located in Spain, the largest of them in Barcelona. The pipelines for hauling it to other European countries are running at capacity, so that the construction of additional pipelines is being discussed.

Exports/imports

Exports

Imports

Source: Eurostat



83

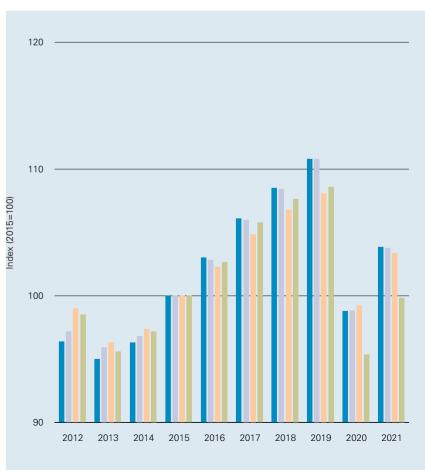
Macroeconomy GDP / gross value added / consumer spending

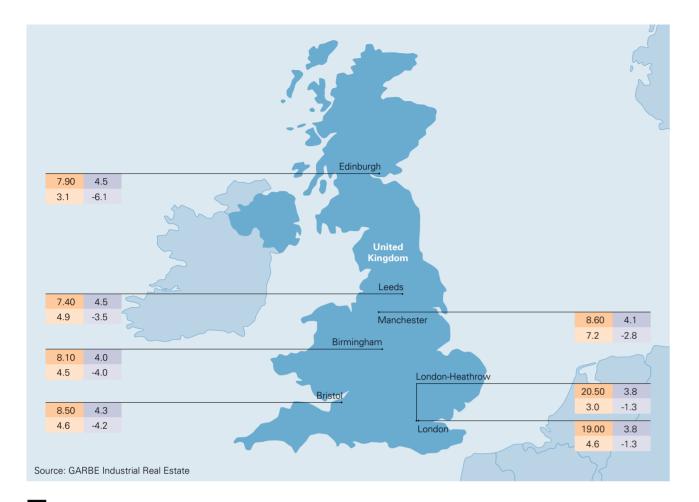
GDP

GVA

Public consumer spending

Private household consumer spending





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.4

United Kingdom

The United Kingdom is another one of Europe's major national economies. British exports to Continental Europe have declined since the UK withdrew from the European Union and left the single market.

In addition, the British economy was hard hit by the pandemic. Although the resurgent economic growth in 2021 ex-

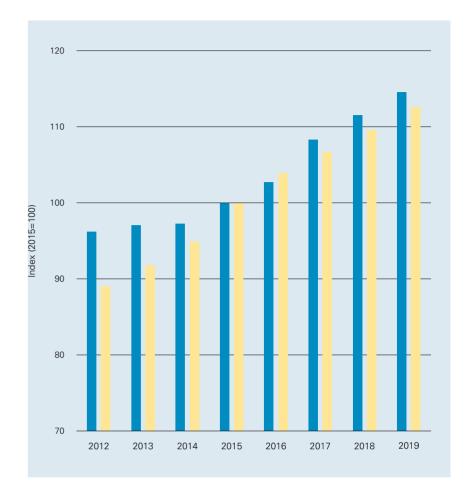
ceeded the average growth of the EU as a whole and Germany in particular, it failed to regain its pre-crisis level. The adverse factors of 2022—persistently disrupted supply chains, rising energy and commodity prices-make it unlikely that the situation will improve any time soon. But in the short and medium term, we are likely to see a further liberalisation of the economic conditions in the wake of Brexit policy measures. In the greater London area, including the area around Heathrow Airport, the tremendously strong demand in combination with scant supply has driven up logistics rents up to the highest level anywhere in Europe.

Exports/imports

Exports

Imports

Source: Eurostat



85

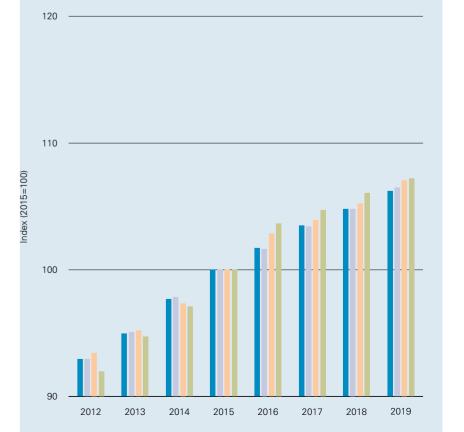
Macroeconomy GDP / gross value added / consumer spending

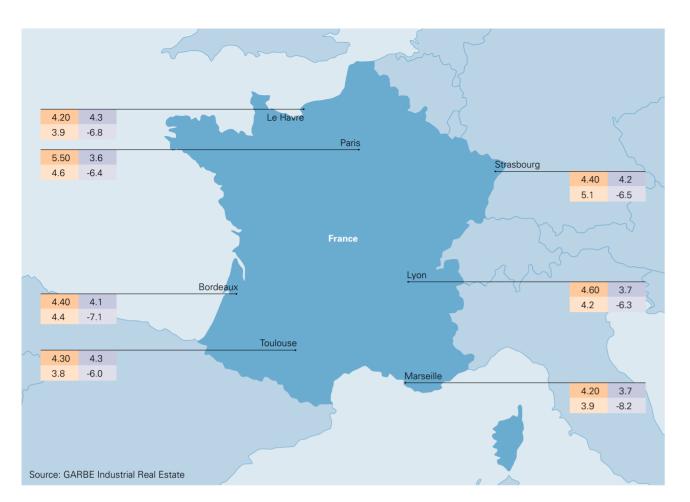
GDP

GVA

Public consumer spending

Private household consumer spending





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.5

France

As one of Europe's leading economies, France stands out due to the size of its markets, its internationally positioned large corporates, its high-skilled workforce and its well-developed infrastructure. Unlike its next-door neighbour, France is less heavily dependent on foreign trade with China.

The French economy used to thrive on low energy costs, but these are now a thing of the past. Many of the ageing reactors in the country, which has traditionally embraced nuclear energy use, are prone to faults and at risk of failure.

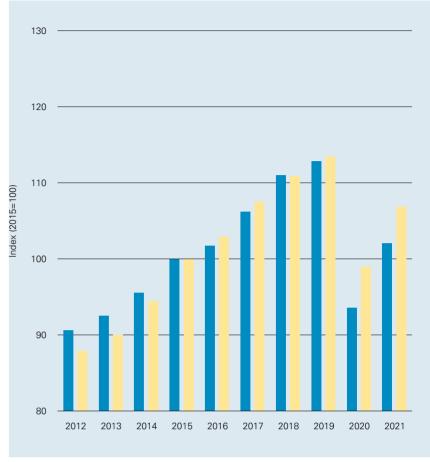
As a result, France is currently going through an energy crisis much like the one in Germany, marked by steep price hikes and a rising import quota. Worth noting moreover is that recently re-elected president Emmanuel Macron is not backed by a majority in the French parliament. This begs the question whether he will be able to resume his principally business-friendly reform policy agenda of the past years. The structure of the French economy is largely focused on the Paris metro region. The fact is also reflected in the high logistics rents in that region.

Exports/imports

Exports

Imports

Source: Eurostat



87

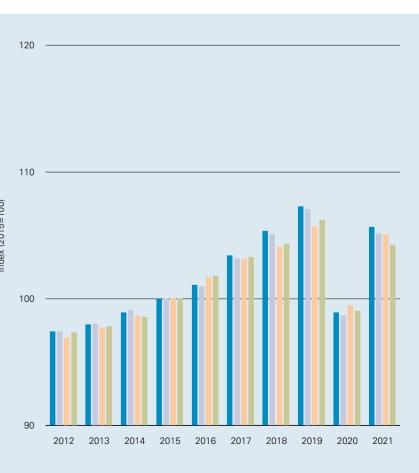
Macroeconomy GDP / gross value added / consumer spending

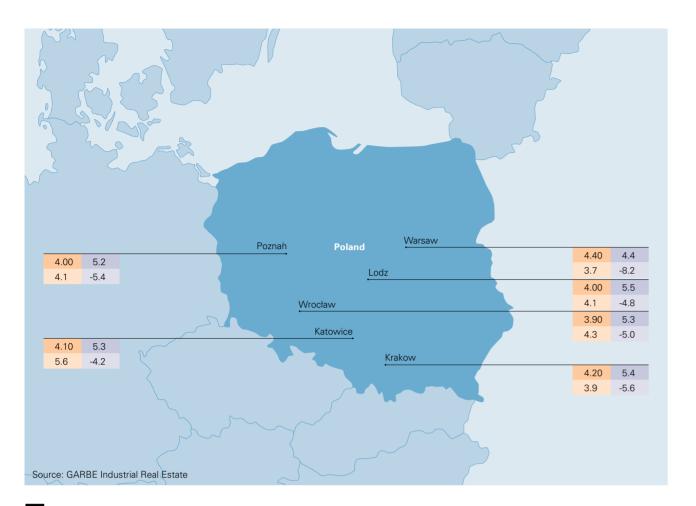
GDP

GVA

Public consumer spending

Private household consumer spending





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.6
Poland

Poland has the largest domestic market in central eastern Europe (CEE), and looks back on long years of steady economic growth.

Economically, the country benefits from its EU membership and from sharing a border with Germany, which prevented a dip in exports even during the coronavirus pandemic in 2020. The advantages of relatively low labour costs and tax rates were qualified lately by political and legal uncertainties. It remains

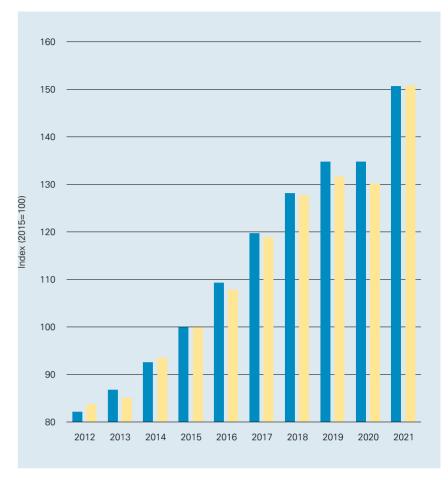
to be seen whether the decision to move away from the strategic alliance with the Hungarian governments in the wake of Russia's invasion of Ukraine will cause the situation to shift. While Poland's integration into the EU is invaluable, it means a lot for the country to have retained its own central bank, which is fighting inflation aggressively with an interest level of currently 6.5 %.

Exports/imports

Exports

Imports

Source: Eurostat



89

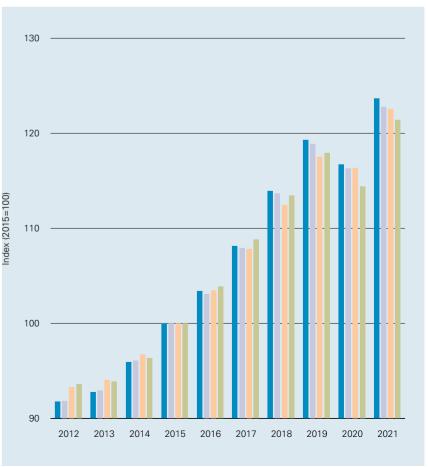
Macroeconomy GDP / gross value added / consumer spending

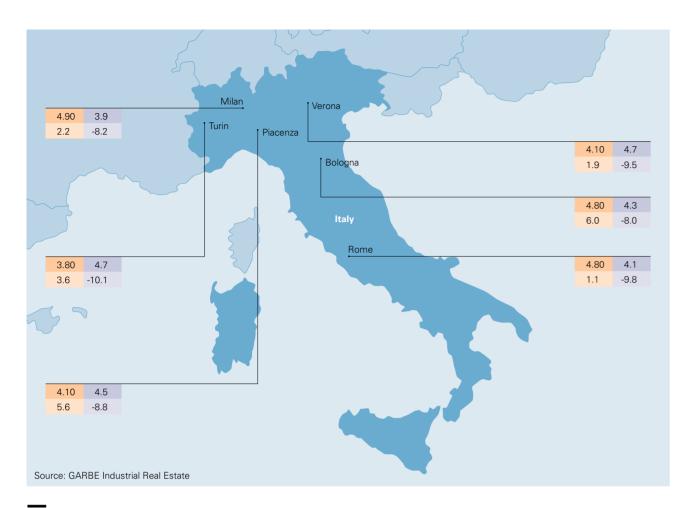
GDP

GVA

Public consumer spending

Private household consumer spending





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.7

Italy

Due to its relatively large size, Italy represents the 'problem child' within the EU, both politically and economically. However, the country is one of the world's top tourist destinations, and therefore has different economic priorities than its neighbours to the north.

The pandemic affected Italy early and severely, precipitating a drastic plunge in economic output. On top of that, the

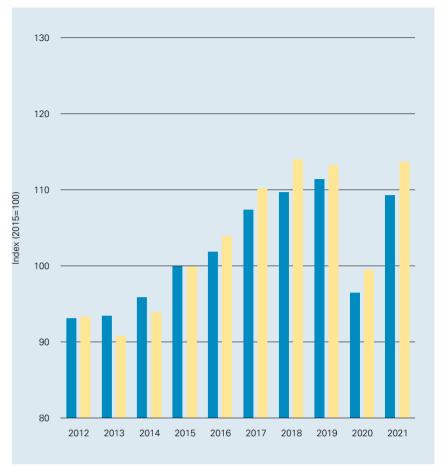
country has a very high sovereign debt level. Nonetheless, Italy recently reported brisk economic growth which helped the country, backed by the EU, to largely overcome the pandemic-induced crisis. The coalition government under Prime Minister Mario Draghi, prior to its collapse, managed to regain the trust of the international community and to stir hopes for the country's further economic development. But with the coalition having fallen apart, the outlook is once again fraught with uncertainty.

Exports/imports

Exports

Imports

Source: Eurostat



91

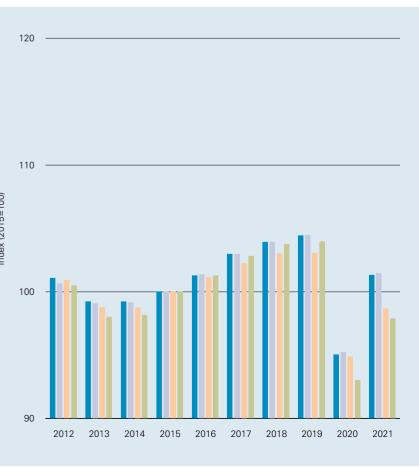
Macroeconomy GDP / gross value added / consumer spending

Private household consumer spending

GDP

GVA

Public consumer spending





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.8

Netherlands

The comparatively small country in central north-western Europe has a superbly developed multi-modal transportation infrastructure, a highly skilled labour force and a modern mix of high-tech industries and services.

In addition, the country is an attractive base for British companies that wish to set up a branch in Continental Europe after the UK's withdrawal from the single market. On the downside, the Nether-

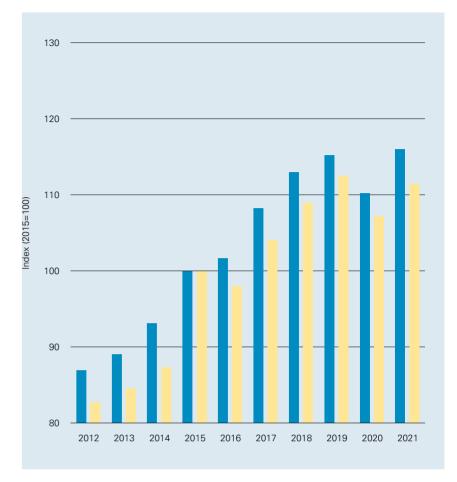
lands have a high wage level and—similar to Germany—a significant shortage of skilled labour. Moreover, the export-driven nature of the Dutch economy makes the country vulnerable to fluctuations of the global economy.

Exports/imports

Exports

Imports

Source: Eurostat



93

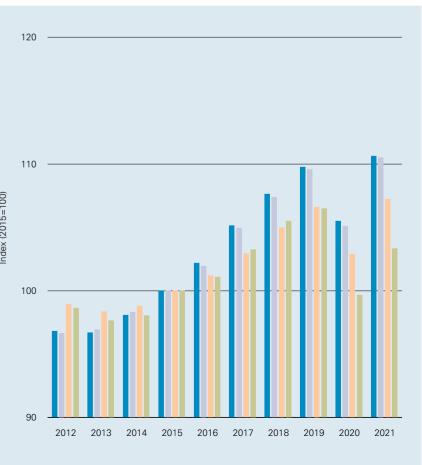
Macroeconomy GDP / gross value added / consumer spending

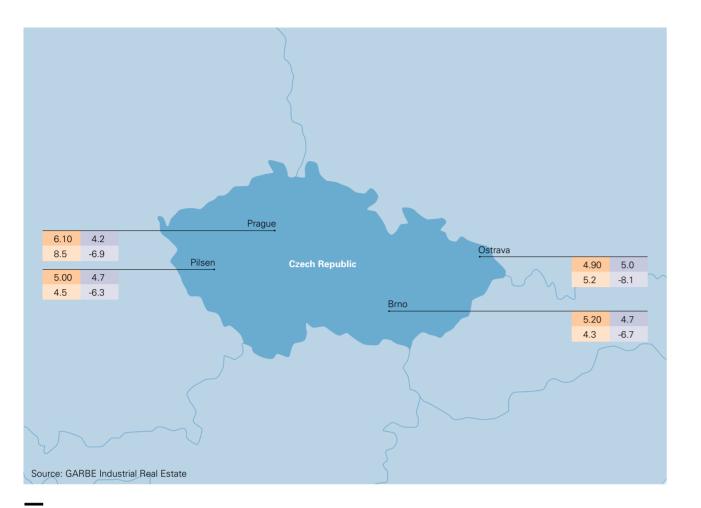
GDP

GVA

Public consumer spending

Private household consumer spending





National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.9

Czech Republic

The economy of the Czech Republic, centrally located within Europe, is strongly defined by the manufacturing industry despite its gradual transformation into a service-driven economy.

The supply chain disruptions prompted by the coronavirus pandemic thus had a rather adverse effect on the country's economy. Here as elsewhere, the combination of a small domestic market and an export-driven economy caused

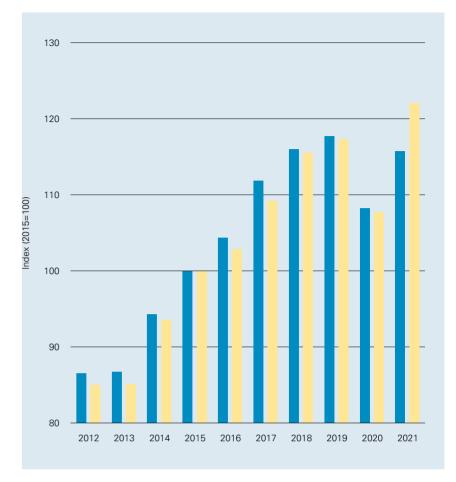
the changes in the global economy to be keenly felt here. Then again, the country relies on a tightly knit network of reliable suppliers and spends more than the other Visegrád countries on research and development relative to its GDP.

Exports/imports

Exports

Imports

Source: Eurostat



95

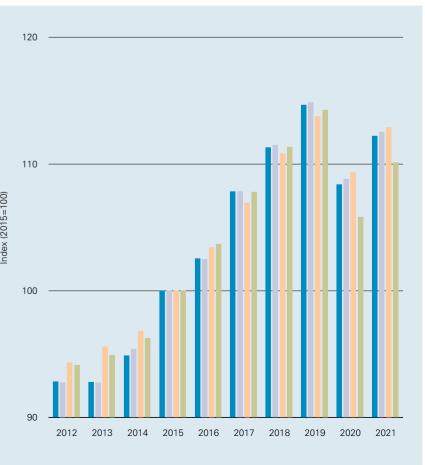
Macroeconomy GDP / gross value added / consumer spending

GDP

GVA

Public consumer spending

Private household consumer spending



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National logistics hot spots

Rents

Prime rent (H1 2022; euros/sqm)

Avg. growth in % (CAGR H1 2018–H1 2022)

Yields

Prime yields in % (NAR, H1 2022)

Avg. compression in % (CAGR H1 2018–H1 2022)

5.10

Austria

Although it is a relatively small country, Austria has traditionally served as bridging function connecting western, central and eastern Europe. Its economy includes a broadbased industrial sector that caters to a relatively small domestic market and therefore is also reliant on exports.

The bridging function extends to the logistics context as well, because Austria is essentially a transit country, its territory traversed by important east-west and

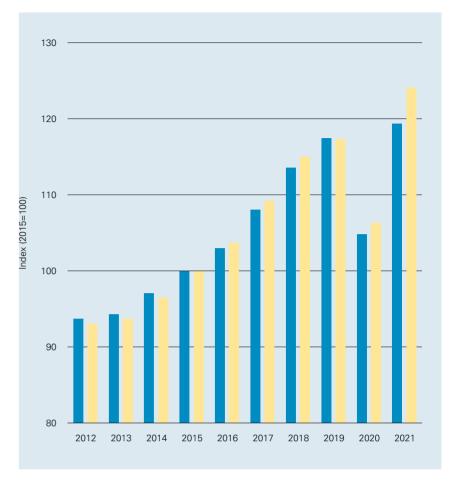
north-south corridors. Politically, the country made occasional headlines in recent years with its frequent and sometimes sensational shifts in leading political positions, but its political stability has suffered no adverse long-term effects overall. Cause for concern is currently Austria's high dependence on gas imported from Russia, even as the development of renewable energies is making progress.

Exports/imports

Exports

Imports

Source: Eurostat



97

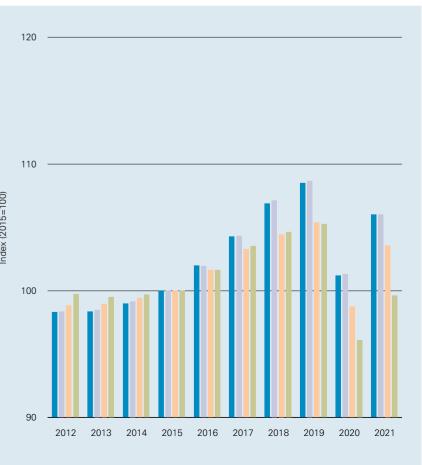
Macroeconomy GDP / gross value added / consumer spending

GDP

GVA

Public consumer spending

Private household consumer spending



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5.11

European Perspectives

As far as nearterm developments go, it is reasonable to expect a persistently strong demand for logistics facilities. Something that all of the countries compared above have in common is that most economies suffered dips in their gross value added in the wake of the pandemic in 2020. Although the economic output generally rebounded a year later, it failed to regain the pre-crisis level except in the cases of the Netherlands and Poland. Moreover, sovereign debt levels rose significantly in most countries due to government interventions to secure the national economy and to stabilise employment levels.

A closer look at the resurgence in imports and exports of the selected European counties suggests that the economic recovery will also benefit the internationally operating logistics companies. Yet the developments during the first half of 2022 cast a dim light on the likelihood of the upward economic growth trend continuing in the wake of the coronavirus pandemic. All that being said, the ongoing crises and uncertainties also imply opportunities and development potential for the logistics segment.

The subsequently quoted key ratios for freight transport and the movement of goods on the national level illustrate the importance of a busy exchange of goods among the European countries. It also shows that a large proportion of this exchange of goods involves road haulage. However, against the background of Europe's intended climate neutrality and the indefinitely compromised security of the energy supply, the situation also points to certain options for speeding up the decarbonisation of freight transport. The list is topped by the use of renewable energy for the climate-friendly production of hydrogen. Another option is the expansion of rail transportation, which has

been neglected in countries like Spain, the United Kingdom or France so far.

As far as near-term developments go, there is every reason to expect demand for logistics facilities to remain strong. The transition to resource-conserving and climate-friendly logistics involves the real estate as much as the haulage. The preconditions for accomplishing this transformation process are actually quite good in the countries of Europe. In addition, some countries, especially those in (central) eastern Europe, offer conditions that make them quite eligible locations for the near-shoring of manufacturing and logistics facilities.

However, this outlook is at odds with the already significant pent-up demand in conurbations and the often exhausted land development potential for new logistics facilities. Reducing the demand back-log will therefore be difficult, and it will require creative solution to keep structuring the logistics networks within Europe as efficiently as possible.

"If the near-shoring trend were to gather momentum, it could prompt disproportionately fast growth on the markets that stand to benefit most from it. That is, assuming their vacancy rates and development pipeline volumes remain low."

(Kevin Mofid, Savills)

The tabular overview below lists the relevant conditions for each country.

Chapter 05: Europe's Logistics Markets - Strengths, Weak Spots and Potential

National key ratios for the logistics market

Mechanical engineering products and vehicles

Chemical products

Food, beverages, tobacco

Other processed goods

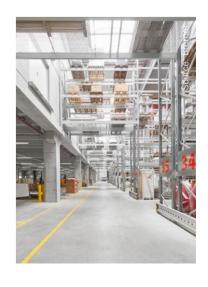
	Source: Eurostat										
	Modal split – Share of freight transport (2020)			Freight volume transported (million t.)		Key export goods (2021)	Most important trading partners (EU) (2019)		Outlook 2022/2023		
	Road	Rail	Inland water- way transport	Road	Rail	Transshipment in ports	Share Goods category	Country	Volume (billion euros)		
Germany	75.0 %	17.6 %	7.4 %	3108.0 (2021)	357.6 (2021)	275.7 (2020)	45.8 % 24.0 %	Netherlands France	155.7 147.9	The sometimes significant demand back-log keeps driving up prices. Growing energy prices have further increased the ap-	
Ğ ———			3108	357	275	18.5 %	Italy	116.6	peal of energy-efficient ESG-compliant real estate.		
ر	%	vo.		2021)	021)	021)	28.0 %	France	68.2	The economic recovery is strongly driven by tourism at present; in future, Spain could develop into an energy hub for Europe	
Spain	95.9	4.1 %	I	1626.4 (2021)	24.7 (2021)	477.0 (2021)	26.7 % 16.0 %	Germany Italy	65.4 41.5	and a hydrogen exporter because of its LNG import capacities and its potential for photovoltaic potential. It could thereby help to decarbonise freight transport in general.	
	(61	 6	6	 6	 6	 6	32.6 % (2021)	Germany	97.7	In the wake of Brexit, demand for storage capacity increased	
United King- dom	8 % (2019)	9.1 % (2019)	0.1 % (2019)	1470.5 (2019)	71.1 (2019)	486.1 (2019)	21.5 % (2021)	Netherlands	59.7	because the previously free movement of goods between the United Kingdom and mainland Europe became subject to severe restrictions. The uncertainty characterising global supply	
'n	9.06	9.1	0.1	147	71	486	15.4 % (2021)	France	44.5	chains could accelerate this trend and drive up demand even further.	
France	% 6:	%	%	1649.0 (2021)	2021)	(2020)	33.2 %	Germany	142.5	Paris remains the top market in France due to the country's centralised structure. But investments in the corridor regions have lately come under pressure. In addition, the energy sup-	
Fra	87.8	6.6	2.2	1649.0	94.6 (2021)	274.5 (2020)	23.9 %	Italy Spain	77.5 72.9	ply is precarious at the moment. In the longer term, however, France could become a transit country for liquefied gas and for hydrogen later on.	
_				121)	21)	50)	37.0 %	Germany	107.5	The positive long-term economic growth was barely muted	
Poland	77.4 %	22.6 %	ı	1580.5 (2021)	237.9 (2021)	88.5 (2020)	36.0 %	Italy	21.6	by the pandemic. Going forward, Poland could become one of the main destination countries for near-shoring moves, which would increase the space requirements in the logistics sector.	
				15	- 23	<u> </u>	12.4 %	Czech Republic	18.8	would increase the space requirements in the logistics sector.	
>	%	%	%	2020)	2021)	2020)	35.5 %	Germany	102.2	The economic recovery of recent years has turned Italy into a dynamic logistics market. However, the country remains	
Italy	88.0 %	11.9 %	0.1 %	933.6 (2020)	104.2 (2021)	469.6 (2020)	32.7 %	France	70.9	strongly dependent on Russian energy deliveries, similar to Germany. The fall of the Draghi government has created yet another the properties of the propert	
							14.2 %	Spain Germany	40.5	other uncertainty factor influencing the future development.	
Netherlands	% 5::	.1 %	% 9:	0 (2021)	(2021)	2 (2021)	31.9 % 20.3 %	Belgium	195.4 85.5	The Netherlands serve as a major European logistics hub. In the longer term, the country's infrastructure and the production of renewable energies are to be further expanded, while the na-	
Neth	52.	9	41	702.0	42.6	593.2	18.0 %	France	52.6	tional economy has followed a dynamic trend lately. However, the slump in global trade could jeopardise this development.	
ublic				(21)	21)		55.6 %	Germany	83.2	Like Poland, the Czech Republic has developed into a signif-	
och Rep	77.2 % 22.8 %	22.8 %	0. 1 1	500.3 (2021)	99.6 (2021)	0.02	26.9 %	Poland	19.0	icant manufacturing location. Nearshoring tendencies could further increase the demand for logistics facilities here, just like in other countries.	
Cze				2(7.4 %	Slovakia	18.9	in one countries.	
tria	% 0	% /	%	(2021)	(2021)		37.5 %	Germany	96.6	Its bridging role between western, central and eastern Europe makes Austria an important transit country for the logistics	
Austria	0.89	29.7	2.3	403.5 (2021)	102.2 (2021)	ı	32.0 % 15.0 %	Italy Switzerland	18.3	sector. The role could be further strengthened in future by the potential back-shoring of production capacities.	
				4 -	-		15.0 %	Switzellalid	13.2		



6
New Industrial Culture









Implications of the New (European) Industrial Culture for Logistics Real

Estate

What do the new industrial objectives and economic structures signify for the future of logistics?

The very first Logistics and Real Estate survey in 2015 already placed distribution and the logistics sector in a mutually dependent relationship with consumer habits and goods production.

Seven years on, a new environment for logistics has emerged with the shifting perspective on global multilateralism, which in Europe was developed particularly by Germany in its economic relations with China, as well as on the increasingly prioritised topics of climate change mitigation, smart cities or a new "Industry 5.0" propagated by the EU.The section below will outline the emergent environment, and discuss selected aspects of it. What do the new industrial objectives and economic structures signify for the future of logistics? What do you need to consider if you wish to generate opportunities from the dynamic transformation?

Key topics to be discussed with this objective in mind:

- higher safety premiums throughout the entire economic process
- the significance of cases of political subsidence for global economics
- · shortened supply chains as well as new manufacturing and transshipment sites
- · storage areas as catalysts of weakened distribution chains
- · EU industrial policy and its transformation fields
- reorganising metropolises into smart cities, energy and climate as political and economic core tasks

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Security of Supply Outranks Margin

One subject that has dominated the dialogue between the government and the corporate world lately is the security of supply in the context of energy and products of systemic relevance. What it has in common with other current issues such as financing (Chapter 3) and construction costs (Chapter 4) is the potential for cost increases for logistics services as well as the need for new, additional logistics resources in the form of warehouses and alternative near-shoring locations, meaning "repatriated" manufacturing sites. Both subjects—cost increases and resource needs-will be discussed below.

"A major proportion of the European industry is based on very cheap energy from Russia, very cheap labour in China, and highly subsidised semiconductors from Taiwan," as EU commissioner Margrethe Vestager explained in an interview with the Belgian business paper "De Tijd" this past summer. She called it risky to have entered into a dependency on Russia, regardless of the attractive price. "A lesson I learned: We will have to pay a security premium."

European and US economic policy of recent months has therefore been motivated by international law considerations while focusing on economic diversification. Apart from a few sideshows, the war in Ukraine and Chinese aggression against Taiwan, an important chip producer, are currently setting the pace for the emergence of a new era. Germany's industry has already mobilised its interest groups to voice opposition against excessive government regulation, so as to retain its access to profitable economic structures:

"We don't have to demonstrate once more that a centrally planned economy is bound to fail. What we need is a regulatory consensus that ownership, personal responsibility and entrepreneurial freedom have been, and must remain, key elements of the socialised market economy," said Siegfried Russwurm, President of the BDI Federal Association of the German Industry.

In industrial policy matters, Germany has been known to incline toward reforms that could seriously impact pan-European prosperity ever since Peter Altmaier, the former Minister for Economic Affairs and Energy, introduced a new industrial policy strategy. Russwurm reiterated the goals beyond the strategy's call for global champions as follows: "To be sure, the time to shift into investment overdrive is now: ensuring permanent support for innovation - in substantive, regulatory and financial terms. But basic things like improved write-off conditions are also important building blocks for urgently needed investments in climate change mitigation, health technology and digiti-

In addition to core technologies such as battery cells and microchips, the paradigm of Industry 5.0, which succeeds Industry 4.0 as programmatic blueprint, will serve as basis for economic change and thus for the transformation of the logistics sector, too. While taking Industry 4.0 with its emphasis on digitisation and artificial intelligence to the next level, Industry 5.0 uses it as stepping stone to put the relationship between man and machine centre stage.

The objective of tomorrow's logistics industry in this transformational context will be an even stronger focus on the sustainable and resilient fulfilment of basic consumer needs - and may necessitate a security premium at the expense of the profit margin.

Although it is yet too early for data and models on the subject, the present baseline conditions in addition to the structural transformation clearly reveal the key significance—due to its sheer volume—of

Germany's future industrial development for the trend in European logistics. Unlike most other European countries. Germany and Spain were able to increase their industrial employment figures. And an upward trend in employment has been, and will continue to be, a reliable driver of the logistics business.

In industrial policy matters, **Germany has** been known to incline toward reforms that could seriously impact pan-European prosperity ever since Peter Altmaier, the former Minister for Economic Affairs and **Energy, intro**duced a new industrial policy strategy.

Mutual influencing of production, distribution and consumption

- Outsourcing/insourcing
- Automation
- Digitalisation
- Rationalisation
- **Emission constraints**
- Resource conservation
- Lean management
- Individual goods

Additional services

- (order-picking, etc.)
- New logistics tasks
- · Just-in-time, just-in-sequence
- Same-day/same-hour delivery
- Demand-driven
- Increase in individual deliveries
- Supply and demand

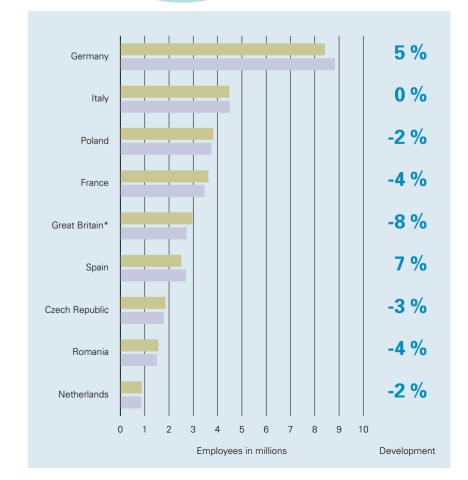
- E-commerce
- · Sharing economy
- Sustainability awareness
- Income gap
- Individual product requirements vs. low-priced mass-produced goods
- Changed supply
- Changed demand

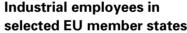
Industrial employees in

2016 2021

Development

Source: Eurostat, *Office for National Statistics







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Greater Independence from China and Other Authoritarian Systems.

To answer the currently acute question as to the dependencies on authoritarian states and the non-monetary price we are willing to pay for doing so, it is easy to overlook—from a business perspective that political systems are signs of their times. Under the political leadership of prime minister Wen Jiabao, which ended in 2013. China was a different partner than it is today with president Xi Jinping at the helm. A similar observation could be made even in regard to the United States (under Donald Trump), for India (under Narendra Modi), for the Gulf countries and for other economic partners within the multilateral system of global trade.

Trading partners like Vietnam, Thailand or the Philippines, which are touted as partial alternative to the trade with China because of their attractively low wages, might turn out to be as unacceptable ten years hence as Russia in its role as energy supplier and partner state is today. From an overall perspective, the global trend appears to lean toward authoritarian forms of government: For the first time since 2004, authoritarian states outnumber democratic ones, according to the so-called Bertelsmann Transformation Index (BTI). Among the 137 developing and transition countries surveyed, only 67 qualify as democracies anymore Conversely, the number of authoritarian regimes has gone up to 70.

For the long-term outlook of the logistics sector, the political implications are less relevant than the question of how willing the European economies are to tackle reforms and to embrace innovations – and this is true despite the currently acute supply chain issues and regardless of any call for systemic resilience.

The categorisation of the currently much-discussed near-shoring activities,

meaning the adjustment of production and supply chains to the global situation by increasing national self-sufficiency, is aptly qualified by the term "friend-shoring" that was coined by Yanet Yellen, the US Secretary of the Treasury. Just which countries are friendly trading partners at a given time is subject to change, and so is their strength as partners. Still, it is a topic worth discussing with a view to future logistics structures.

"Among the European countries, the markets that benefit from re- and near-shoring are those with comparatively low wage and energy costs or those with less regulated labour markets. These are the advantages originally found in Asia, and the idea is now to match these objectives as much as possible. Accordingly, southern and eastern Europe could benefit from the situation, as could Turkey or northern Africa. High-wage countries with tightly regulated labour markets and an existing shortage of skilled workers like Germany will benefit to a lesser extent.

As far as manufacturing goes, locations belonging to the highly industrialised regions of the Blue Banana will benefit

(Tobias Kassner, GARBE Industrial Real Estate)

Effects and Limits of Near-Shoring

The past decades were defined by the economic paradigm of globalisation. Under this paradigm, manufacturing processes were increasingly outsourced from Europe to other parts of the world for the sake of cost savings. Progressive digitisation eventually permitted even the outsourcing of certain services. Destinations were primarily Asian countries, but in some cases countries in South America, too. But no country benefited from the developments more than China, a country whose low energy costs, favourable wage level and large supply of

human resources offered, and continues to offer, a particularly competitive production environment. On top of that, China itself, being the world's most populous country, presents a consumer market of huge economic importance.

However, globalisation appears to have passed its zenith. It peaked prior to the onset of the global financial crisis in the late zero years, and has visibly lost momentum since. Reasons to explain this include arguably the trade barriers that have been set up between the United States and China, for instance, or supply chain disruptions.

The fragility of global supply chains began to become obvious in spring of 2020 with the outbreak of the coronavirus pandemic. The Russian war of aggression against Ukraine has further exacerbated the situation, and will fundamentally and permanently alter the economic and geopolitical order of things, according to the International Monetary Fund.

There are a variety of ways and means to make supply and production chains more resilient. One of the long-term measures is near-shoring, meaning the relocation of good manufacturing capacities back into a nearby country and thus closer to the relevant distribution centres. Other options include increased warehousing, particularly when it comes to critical commodities and materials or products. The latter approach also involves the phase-out of the just-in-time concept in manufacturing. Near-shoring obviously creates increased space requirements, which generates elevated costs, on the one hand, but also increases the urgently needed resilience of the macro-economy, on the other hand

"In response to the disrupted supply chains, a lot of space is leased at the moment in order to be prepared for short-term bottlenecks. This is not to be confused with a strategic restructuring of facilities. The restructuring will take place in conjunction with the diversification of supply chains, including deliberately built-in redundancies. But setting up this kind of thing takes time."

(Tobias Kassner, GARBE Industrial Real Estate)

Near-shoring presupposes a longer-term process. As far as China goes, it should be noted that, regardless of the acute problems with the world's ports—following the debates of recent months—no other country in the region has comparable production capacities to offer on short notice. The transformation process to create alternative manufacturing capacities in Asia will probably

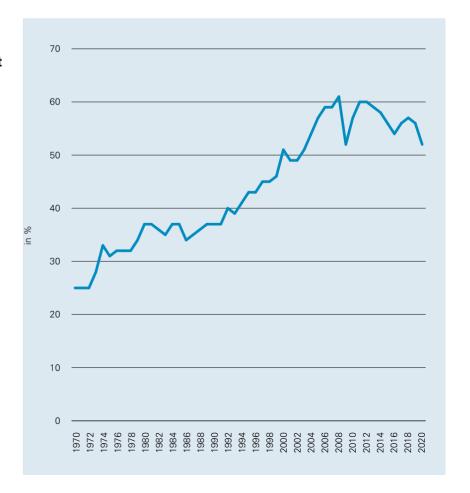
proceed gradually and on a product- or industry-specific basis. Different destination countries will probably emerge as best suited for specific products, depending on the comparative advantage and on local economic-policy subsidy programs or government funding. According to this argument, Malaysia and Vietnam could benefit from relocated electronics production capacities. Thailand appears to be a qualified destination country for the automotive and food sectors, and Indonesia for the mechanical engineering and petrochemicals sectors. The city state of Singapore with its enormous subsidy options could gain in significance for the manufacturing of semiconductors and pharmaceuticals

But globalisation appears to have passed its zenith already. It peaked prior to the onset of the global financial crisis in the late zero years.

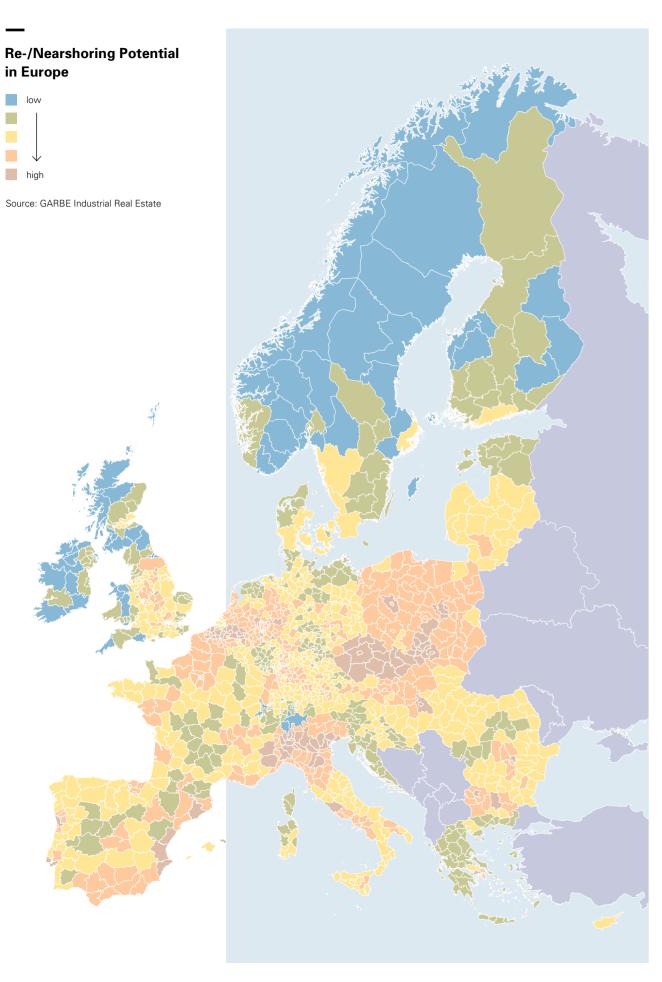
Global trade as share of the entire gross domestic product

Percentage share

Source: World Bank



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6.2

European Potential

All European logistics real estate markets registered increased demand for storage facilities in 2021 and 2022.

Near-shoring is not a phenomenon limited solely to Asia, as certain European regions stand to benefit from the trend as well. Within the framework of its potential index, GARBE calculated how high the respective potential is in each case. The following factors enter into the calculation:

- · infrastructure
- · labour cost level
- · supply of human resources
- · energy costs (each fully weighted)
- · logistics rent rates
- · drive time isochrones
- stock of light industrial facilities (each half weighted)

On the geographic level, the analysis uses the European NUTS-3 regions. The findings show that the near-shoring potential is particularly high in the Czech Republic, parts of Belgium and Poland, along Spain's Mediterranean seaboard and the region of the River Po valley in northern Italy, for instance.

For the logistics sector and its real estate, this is sure to cause changes that will intensify the regional spread. The question remains, however, whether processes of shifting trade relations are not actually well-known factors in the spectrum of influencing factors and will therefore only have limited consequences for market volumes and market values.

How Much Storage Space Is Truly Needed? Where and at what Extra Costs?

Unlike just-in-time chains, bigger storage capacities and warehousing stages in material planning will increase logistics costs and the prices of goods. The advantage being: They strengthen the resilience of manufacturing processes and deliveries. All European logistics real estate market registered increased demand for storage facilities in 2021 and 2022. Below, two German industry case studies illustrate the interrelationships at play here, and their dependence on different economic sectors and global supplier situations:

"The question is what European suppliers will actually be able to deliver."



Thomas Riege, authorised signatory, Trench Germany GmbH

Which industries and companies are the winners of the energy issue/crisis (increased prices, shortages, etc.), and which ones are its losers?

About 2 % of our total costs currently represent direct energy costs. We use petroleum, electric energy and gas to fuel the boilers for the manufacturing plants but also for heating systems and lighting. The expenditures are skyrocketing.

Still, we were lucky because we installed a wood chip plant and several roof-mounted photovoltaic systems over the past two years. These projects alone increased capital expenditures on site by about 25 %. But they will probably protect us from another cost explosion from direct energy consumption, especially now that energy costs keep going up steadily.

If you cannot afford to make such investments, you are clearly at a disadvantage. And because I believe that this is the case particularly for financially weak or smaller companies, they will probably suffer most from the energy crisis.

But to get back to logistics. Will you rely on suppliers in Croatia and Poland in the future, and order less from China?

Our market expects us to deliver our products within four to five months after a contract has been awarded. But we have already been waiting for some supplier parts for over three months. For many of our products, the processing time in the plant is normally four weeks, with the shipping time to the customer to be added.

The competition with Asian suppliers revolves mainly around delivery times in the international business (aside from pricing). We would therefore love to have our suppliers as close to us as possible in order to cut inbound delivery times.

But for many commodities (e. g. aluminium or steel), there are few large-scale suppliers in Europe. Even less so now that Russia is out of the equation as country of origin.

Accordingly, there is no alternative to the Far East when it comes to large-scale demand. But considering the always looming threat that poor quality is detected too late, which will then incur substantial extra costs, the normally low commodity prices do not always justify the risk.

Are there any signs for a change in strategy by shifting the focus back to Europe?

We have lately stepped up our efforts to implement a second-source strategy, even though alternative suppliers here in Europe are significantly more expensive – so, this is a paradigmatic shift right there. But the question is what the new suppliers are actually able to deliver. Fact is that we need special moulds that cannot be shipped around any number of times. So, near-shoring from China to Poland does not necessarily make sense.

Even investments in new moulds for the alternative suppliers can be more difficult than it may sound, for instance, in the context of the qualification process of an entirely new supplier.

What are your growth expectations? Have the flows of goods changed?

The energy market is defined by the shift to environmentally friendly solutions. This requires large investments in infrastructure worldwide for the transmission of energy. We expect demand to increase in the coming decade.

My company will benefit from it if we manage to keep aligning our product portfolio to make it fit for the future and if we keep a close eye on the logistics end.

On the inbound side, we will have to find fresh approaches: Air cargo has always been very costly, sea cargo can at times be unpredictable, with transport capacities becoming harder and harder to get from one crisis to the next. Certain alternatives (such as the Trans-Siberian Railway) are unavailable due to the war.

Inversely, outbound logistics face the same challenges. In short: Logistics is a huge topic, and it is undergoing a transformation of sorts while also trying to find its way back to more trustworthy solutions.

"Our new projects will intensify the integration of rail-bound transport."



Jan-Peer Skupin, Head of Commercial Real Estate, Volkswagen Immobilien

With respect to the automobile industry, Jan-Peer Skupin of VW Immobilien, the real estate arm of Volkswagen, suggests that the coming years will probably see a two-pronged strategy for the parallel production of electric vehicles and internal combustion vehicles. Considering the significance of the automotive sector for the logistics real estate market, it is definitely a relevant point.

In your opinion, which industries benefit from the latest energy issue?

The energy transition offers significant potential for a wide variety of industries. Both mid-market companies and large corporates stand to benefit from it, especially when they take an innovative approach. The energy transition brings the real estate industry face to face with major challenges. This is particularly true when it comes to retrofitting the building stock, which in turn offers considerable

business potential for a variety of other industries, of course.

When exactly did you feel the energy transition begin in the automobile industry?

The Volkswagen Group, and with it Volkswagen Immobilien, are committed to the targets of the Paris Climate Accord and to the Green Deal of the European Union. Volkswagen is on its "Way to ZERO" and pursues the long-term goal of becoming entirely carbon-neutral be 2050. Within the framework of its sustainability strategy, Volkwagen Immobilien has developed its own Blue Building standard, which combines the DGNB green label, energy efficiency and carbon CO_a prevention. Volkswagen is pushing hard for the transition to electric mobility. A case in point is the construction of a new production plant for the Trinity EV model in direct proximity of the parent plant in Wolfsburg. It is moreover planned to build six gigafactories of 240 GWh in Europe by 2030, with the Group's own battery cell factory already under development at the Salzgitter site.

Let us talk about suppliers: What sort of changes could present themselves here?

Volkswagen's business partners are definitive for the group's success, which is why Volkswagen relies on the close collaboration with its business partners. The same is true for Volkswagen Immobilien within the framework of developing, completing and operating properties. The transformation of the automobile industry along the lines of electric mobility is already effecting significant changes for suppliers. The challenges were further exacerbated by the consequences of the coronavirus pandemic and of the war in Ukraine, of course. In some cases, the resultant effects on the prices and availability of commodities and products have led to changed manufacturing processes and to extra demand for logistics facilities. Moreover, the logistics space requirements have temporarily increased due to the parallel production of electric and internal combustion vehicles.

On the topic of just-in-time logistics: Are you constructing your own warehouses?

For today's manufacturing processes, security of supply is naturally of key significance. Volkswagen Immobilien supports the Volkswagen Group as its real estate partner in the external leasing and the construction of logistics real estate. In conjunction with the construction of the new manufacturing site for the Trinity EV model in Wolfsburg, Volkswagen intends to develop a supplier park directly next door for the first time, and we will start letting units to business partners in 2026.

Which transport modes (road, rail, etc.) will play a stronger role in future and which will lose in significance?

In the context of achieving carbon neutrality, the Volkswagen Group focuses not least on sustainable logistics, no matter whether it involves lorries, trains or boats. At the same time, "green power" is gaining ground – including for rail transports of the Volkswagen Group in Germany. The Group's logistics uses green power by DB Cargo for its material and vehicle transports within the German rail network. And road-bound transport is supposed to become more sustainable as well. In a model experiment, Scania lorries are running on organic LNG produced from agricultural waste. In addition, Volkswagen is the first conglomerate in the automotive industry that uses mainly low-emission LNG vessels to transports its new vehicles on oversea routes. In addition to convenient accessibility, Volkswagen Immobilien prioritises multi-modal connectivity (road, rail) to the extent possible, both when leasing external and constructing its own logistics properties.

Chapter 06: New Industrial Culture

The GARBE Potential Index covers the growth in warehouse capacities for suppliers and retailers. It uses the following factors to determine the potential for increasing the stock holding capacity in the retail sector:

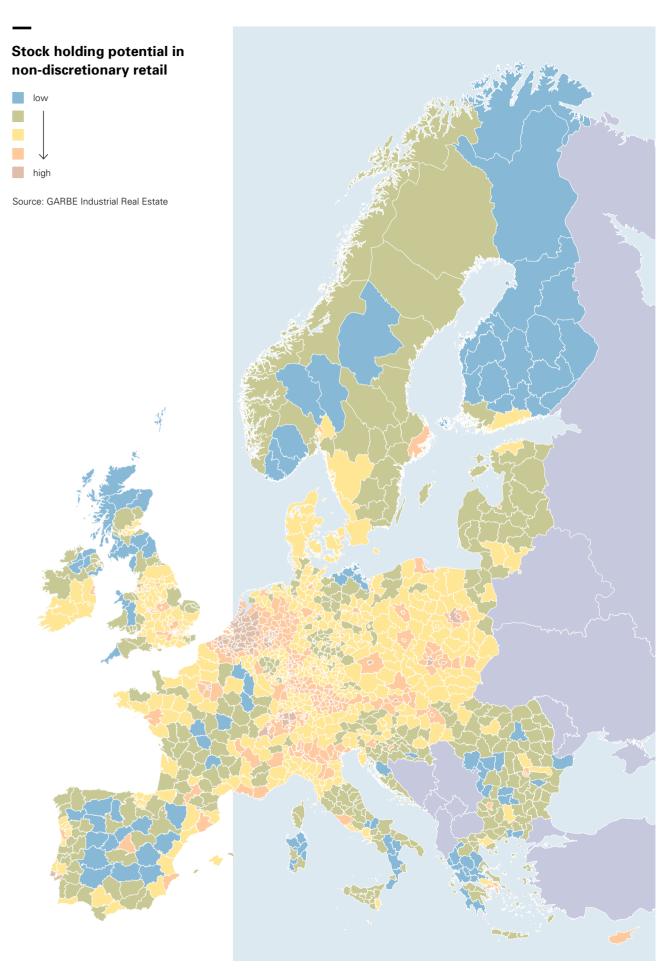
- · infrastructure
- · drive time isochrones
- · retail density
- · import ratio (each fully weighted)
- · logistics rent rates
- demographic forecast through 2100
- · purchasing power
- supply of human resources (each half weighted)

The background to this is that shortages emerged sooner for certain goods than for others during the pandemic, and that the war in Ukraine constricted the global supply with goods, sometimes creating serious bottlenecks. It appears to be particularly sensible to expand the warehousing of non-discretionary goods, or retail goods in general, in the territory of the Benelux countries.

"The main reason for relocating capacities from prime markets to secondary locations is the increasingly short supply of land in the core markets. When you compare a top region like Munich with Magdeburg, for instance, factors like the availability of human resources and wage levels also come into play. So, apart from re- and nearshoring trends, companies are gravitating toward new and sometimes peripheral regions. Re- and near-shoring trends merely add to the pressure. But land and personnel will only be available at reasonable costs in secondary locations." (Tobias Kassner, GARBE Industrial Real Fetate)

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The background to this is that shortages emerged sooner for certain goods than for others during the pandemic, and that the war in Ukraine constricted the global supply with goods, sometimes creating serious bottlenecks.



Logistics and Real Estate 2022

Special Topic: Semiconductors and European Chip Factories

Intel's stated intention to invest 17 billion euros to build two large semiconductor factories in Magdeburg by 2027 arguably represents a beacon project in the near-shoring context that should stimulate Germany's industrial policy debate. The political basis for this move is the European Chips Act (cf. the section on EU-Industry 5.0 below) which otherwise has been criticised for all the red tape it involves. Intel will invest another 12 billion euros in Leixlip, Ireland, to increase its local production capacity and up to 4.5 billion euros in Agrate Brianza, Italy, to set up a back-end production line. Plateau de Saclay near Paris, France, will become home to the European Intel head office for chip design in the areas of high performance computing (HPC) and artificial intelligence (AI).

The global market for semiconductors is worth more than 550 billion euros today, a figure that is likely to double by 2030. Europe accounts for 10 percent of the global production, down from 24 percent in the year 2000. Intel is one of the absolute top players in the global semiconductor industry, but its growth story recently suffered serious setbacks after Intel overlooked the trend towards mobile chips and lost ground to competitors such as ARM Holdings and Qualcomm. This raises the question whether Intel is the EU's best choice for a future partner.

The war in Ukraine currently plays an important role even for the semiconductor plans of the EU:

The prices of many raw materials are expected to go up (see the section on inflation in Chapter 1, above), and their procurement from sources other than Ukraine and Russia is subject to growing concerns. One such raw material whose supply has been impacted is neon gas, which is indispensable in the semicon-

ductor industry. Estimates suggest that 80 percent of all semiconductors currently produced require neon.

Semiconductor manufacturers are still reluctant to find new sources for their neon needs, because it would take an estimated six months to bring production back up to optimal levels after adjusting the manufacturing process. Although it is hard to estimate exactly how much of the neon used in semiconductor manufacturing is sourced from Ukraine and Russia, industry experts assume that the share could be a high as 70 percent.

In its scale and significance, the possibly dawning era of Europe's semiconductor industry will certainly be highly relevant for logistics real estate. Regional clusters are very likely to form around large-scale plants over the next decade.

Smart Cities – Transportation Infrastructure within the Metropolises

Everywhere around the globe, major industrial sectors are studying the rapid growth of urban life and the best ways to organise metropolises. "Smart city" is a key term for using digital management to organise the resources, transportation and even the climate of metropolises. It is yet another area of significant potential for the logistics sector in connection with the human-centred Industry 5.0 concept (see section below). Generally speaking, the modal split, meaning the share that each transport mode has in our economic processes, will remain a core topic for tomorrow's industries.

In sync with the increasing urbanisation and the growth of e-commerce, inner-city logistics play an ever more important role in the supply of urban and metropolitan residents with goods and services. The coronavirus pandemic and the concomitant contact restrictions fur-

ther accelerated these trends. In addition to CEP service providers, a number of retail companies and contract logistics operators now handle deliveries to urban households and businesses.

The problem is that there are virtually no logistics facilities in inner cities because of the high yield pressure to which urban real estate is exposed. Future developments are likely to add fresh challenges for inner city logistics. For one thing, cities report growing populations while the population in general is ageing. The trends will increase the need for additional services at a time when the human resources potentially available to serve these needs are not increasing at the same pace.

In logistics markets like the London metro region, where real estate market analysts most recently observed a growing excess supply in floor area and corresponding downward pressure, albeit for a short period only, the most likely developments include differentiation among large white-label centres that lend themselves to universal use and the growing specialisation of distribution centres to serve certain purposes within the metropolises.



"Inland waterways transportation is gradually reaching its limits."



Thomas Glatte, Global Real Estate, BASF

Talking about energy, the gas crisis, etc.: Which industries stand to benefit in this context, and which will be hard hit?

The chemical industry, being a major consumer of electricity and gas, and the core industries in general, such as the steel industry, etc., are currently losing out. However, the chemical industry can join the winning side whenever its has initiated the necessary transformation and restructuring process. Once it has adjusted, it can be a global large-scale supplier. BASF, for instance, is a major supplier of PV systems. This means: A company that appears to be losing out could in some ways emerge as a winner if it positions itself with a sufficiently broad basis.

As far as battery production (an industrial core objective in Germany) goes, are there any structural changes?

Yes, definitely so – in fact, the changes have been drastic. The entire industry has invested massively in battery chemistry and closely studied the situation in the Far East. Large sums were invested there. Lately, however, there has been

a growing tendency to return to "safe" countries. Some investments that were originally earmarked for other regions, are now redirected, for instance to southern Brandenburg. The logistics hub in Brandenburg could potentially play a key role in future. The combination of road and rail connections is a decisive advantage for the location. Better yet, the land is priced at 10 euros/sam.

On the topic of supplier relationships: What sort of changes does the current geopolitical situation imply? Perhaps new supplier relations?

Deliveries are getting more small-scale and more diversified above all. China continues to be very relevant for BASF. Ultimately, the entire DAX industry thrives on an advanced global division of labour. As a general trend, the "work bench" is slowly shifting toward South and East Asia. Activities in the Far East are seriously scrutinised at the moment - and this began even before the onset of COVID. Current aeopolitical aspects across the board are therefore subjected to a fresh threat analysis. The question is, can investments bypass politics? After all, banks and analysts keep a close eye on the environment as well. Investments in China are rated differently now, and their cost-efficiency assessment has changed accordingly.

Let us talk about transportation infrastructure: What has changed?

The question is, how quickly can rail connectivity actually be expanded? BASF is expanding on a massive scale, and prefers multi-modal connections. Concrete examples would be Ludwigshafen and southern Brandenburg. In southern Brandenburg, trains up to 900 metres long will soon be an option. Additional potential can probably be tapped there. However, this necessitates a close exchange with

Deutsche Bahn, the railway company responsible for the routes. Our own forecast: Rail-bound transport will gain in significance. Some chemicals (e. g. chlorine) are banned from road transport. Especially in the primary industry, road transportation is often not an option even today. An issue easily overlooked is the drought and the low river levels in the wake of climatic changes. Inland waterway transportation is gradually reaching its limits. The modal split at BASF in Ludwigshafen used to be roughly 40/30/30 (water/road/rail). The current trend inclines toward rail transport, because it offers the largest scope for expansion.

Back-shoring of industrial capacities: What trends and consequences have you noted?

Our industry definitely shows a trend toward near-shoring. Labour costs have soared even in China, another issue being occasional quality deficits. Near-shoring does not necessarily mean Germany, but could target other EU countries, too. It principally depends on the market. Back-shoring from China actually makes sense for the European markets, especially in the refinement segment, but less so in the case of basic products.

What about the expansion of warehouse capacities (as seen in the UK following Brexit)?

You need to differentiate between two basic systems: Manufacturing plants have always practised on-site stock-keeping. The associated transshipment and supplier properties, by contrast, are operated by logistics service providers, and used to be organised according to the just-in-time concept. The logistics industry is generally fraught with uncertainties at present. And the fundamental issue is not going away: There is barely any development land left. Perhaps in peripheral locations, but rarely in the cities. In the longer term, logistics properties will expand vertically.



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