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The analysis of the European and particularly the Southern

Executive summary

European market for logistics properties is divided into three parts:

- Part 1: European Logistics Real Estate Market from a niche to an institutional asset class
- Part 2: Logistics Real Estate Market Southern Europe – dynamic and catch-up effects
- Part 3: Trends in Logistics Transformation / Potential / Sustainability
- Part 1 of the logistics series analyses the logistics real estate market in Europe, which has shown dynamic development over the last few years from a niche product to an institutional asset class. Since 2017 it has become responsible for more than 10 % of commercial property transaction volume in Europe.
- Taking into account the historically unique economic and in particular monetary policy environment, the market is analysed with regard to its fundamental data.
- It shows how the main drivers globalisation, e-commerce and urbanisation – influence the logistics sector and the resulting demand for space, which is particularly relevant for real estate investors.
- There are structural changes within the industry, along with the parallel influence through the interaction of the drivers within the value and supply chains and their positive development within Europe. This enables theoretical considerations to be reconciled with the specific development of the logistics real estate market.
- It clearly highlights how the positive development of relevant factors has had a lasting positive impact on the market.
- The results also show that developments in the investment market are based on a correspondingly positive rental market, which underpins the price increases fundamentally.
- The theoretical considerations further illustrate the specific requirements of real estate, the fulfillment of which can satisfy elementary principles of the industry, thus creating a decisive advantage within competitive framework conditions.
- Taking into account heterogeneous countries within Europe, a detailed country-specific analysis of Southern Europe is carried out in Part 2, building on the findings from Part 1.
- Part 3 discusses the ongoing transformation of the logistics industry in order to forecast long-term sustainable requirements for the real estate market and to take advantage of potential opportunities.

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1. Economic framework

The logistics sector is of central importance to the processes of our modern economies. As an elementary component for further development, it is itself committed to technological, economic and social change and must, therefore, react dynamically to changing requirements. With a view to the real estate market, dynamic development processes must be reconciled with long-term investment horizons. The focus here is on creating complementary rather than competing framework conditions in order to create sustainable value in the long term in a changing, but growth-driven environment. In order to understand the economic requirements of the industry, it is essential not to view the real estate market in isolation but to consider a wide range of contributing factors.

If we look back 15 years, investments in logistics real estate played only a minor role. The market was dominated by the proven asset classes of residential, office and retail properties, while investments in logistics buildings were a niche product confined to a few specialised providers and investors, and were solely added to large portfolios due to their long-term attributes and attractive current income. Today, investments in logistics real estate account for 13–15 % of the European commercial real estate transaction market.

Figure 1 illustrates very clearly the trend towards a sustainable institutionalisation of logistics real estate. Compared to the historically high volumes from the pre-crisis year 2007, in which the "real estate boom" reached its zenith (and had possibly already exceeded it), an annual growth of 3.8% was recorded until 2018. This continuity is slightly distorted by the record sale (EUR 12.25 billion) of the Logicor logistics portfolio, which Blackstone sold to the Chinese CIC¹ fund in 2017. Based on the year 2012, which was marked by the lasting effects of the global financial crisis, the sovereign debt crisis in Europe and a resulting general loss of confidence in real estate investments, growth in the period up to 2018 registered an impressive 23 % annually.

The aim of this work is to analyse developments and their fundamental drivers in order to be able to make an isolated assessment of sustainability and economic sense. To achieve this we must take into account the investment pressure resulting from a global low-interest-rate environment paired with the most expansive monetary policy with persistently high uncertainties as well as extremely attractive hedging conditions for foreign investors in Europe. Sensitised by the past crisis and the enormous real estate bubble, at least an initial suspicion is not unfounded in view of such dynamics. Massive amounts of capital have sought and continue to seek alternative investment opportunities, as the bond market itself no longer offers a basic return. The proven asset classes of residential, office and retail real estate initially benefited from the sustained increase in property ratios. Since 2016, however, the growth rate of the logistics sector has exceeded all other real estate investments in Europe without exception. A comparison of the situation from 2007 to 2018 shows the strongest growth in the logistics segment (3.8% p.a.) followed by hotel investments (1.8 % p.a.). While the overall market has almost reached the same level again, office properties have declined slightly (-0.4 % p.a.) and retail investments have suffered significant losses (-2.3 % p.a.).³ Investments in the logistics and hotel segments both have in common a long-term nature and stability, with attractive current income, which makes them the closest to an investment in the bond market.

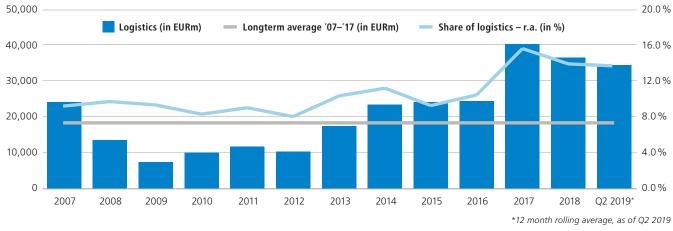


Figure 1: Annual logistics transaction volume in Europe and share of overall commercial transaction volume²

 ¹ China Investment Corporation (sovereign wealth fund of People's Republic of China)
 ² BNP (2019)
 ³ BNP (2019)

2. Fundamental drivers

While the investment market and the relevant players are clearly positive as described above, it remains to be clarified if the sector is developing in a similarly dynamic and positive manner. In this context an answer should be given to whether the sharp rise in prices due to investor demand offers sustained potential for growth. The fundamental factor for logistics real estate is the demand for space by logistics companies. For this reason, we consider how the sector is developing and which causal relationships can be derived from economic, technological and social developments. The literature⁴ shows the megatrends preselected in Table 1, which have a direct or indirect influence on the demand for space in the logistics sector, from which updated space requirements due to the constantly changing logistics services can be derived.

Table 1: Megatrends of logistics

		Demand for space	Transformation
Globalisation		++	++
E-Commerce		+++	+++
Urbanisation		++	++
Supply-chain		+++	+++
Ecology		-	+++
Industry 4.0		(+)	+++

At first, the demand for space in connection with the rental market is of the highest relevance. In this context, the main drivers of the demand for space – globalisation, e-commerce and urbanisation – as well as their interaction within the value-added and supply chains are examined in Part 1. Ecology and industry 4.0 are more impacting the transformation and are considered in detail in Part 3.



⁴ Zanker, Claus: Branchenanalyse Logistik (2018) / cf. meta-analysis Kersten, et. al. (2014)

2.1 Globalisation

Due to the core task of logistics – the transport of goods, raw materials and preliminary products to customers and industries – a high correlation between the demand for logistics services and economic development is undisputed. Globalisation is the most important factor for growth and efficiency within economic development and has a disproportionate impact on the importance of logistics due to the global division of labour as well as international trade interdependencies and their requirements and demand for efficient material flow and goods transport. Foreign trade generates direct demand for logistics services through the cross-border flow of goods. The European Union, the largest free trade zone and economy in the world,⁵ has particularly strong international production and trade links. However, while these developments have been having an effect for decades, it is worth taking a look at the dynamics and development over time.

The development illustrates the dynamization of foreign trade (here related to goods, as these directly require logistical service provision). An increase in growth in the period from 2016 onwards is particularly evident. Globalisation is no longer limited to cost-efficient outsourcing of production or to the use of comparative advantages according to Ricardo; the decisive factor is increasing intra-industrial trade (exchange of similar goods, e.g. cars, between similar, highly

developed economies) due to social prosperity. A current prime example is the largest bilateral free trade area in the world, which exists between the EU and Japan since January 2019.⁶ The driving force behind this development is social prosperity and the resulting preferences for a wide range of variants and increasing degrees of individualisation. The consequence is an increasing decentralisation of the operational organisation through increased inter-company and transnational networking of the value chains. Their common and elementarily important point of reference is the logistics sector. As a result, the demand for logistics services arising from globalisation processes is rising significantly and the increasing complexity is affecting the requirements.

BOX 1⁷

64% of the European Union's trade takes place between member states, underlining the importance of the single market and specialised production processes. Between 2001 and 2018, the so-called intra-EU trade grew by 90%, which corresponds to an annual growth of 3.8%. Trade with non-member states (e.g. Japan) even increased by 112% during this period (4.5% p.a.).

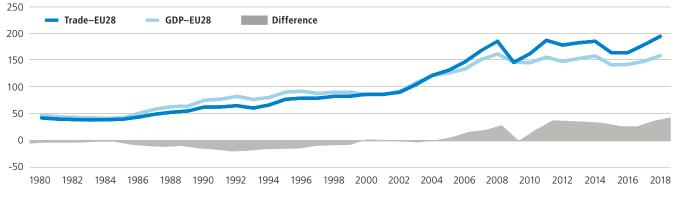


Figure 2: Index of development in merchandise trade and GDP of EU 28 (Ø2000-2005=100)⁸

⁵ OECD (2019) / China without Special Administrative Regions (SAR)

⁶ BMWi (2019)

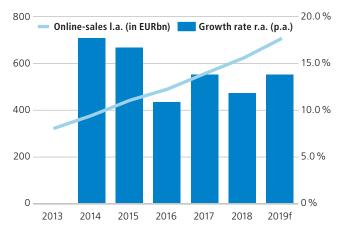
⁷ Eurostat (2019)

⁸ OECD (2019)

2.2 E-Commerce

In addition to industry, the retail sector is another very important consumer of logistics services. While retail sales are recording positive annual growth rates in line with the positive economic development and in particular due to the strengthening of the labour markets, stationary retail is nevertheless coming under increasing pressure. The decisive factor is the success of online retailing, whose sales are growing much more dynamically than those of the overall market.

Figure 3: Online sales and annual growth rate in Europe⁹



As can be seen above, online retail sales are growing at a rate of significantly more than 10 % per year. Within five years annual turnover has almost doubled and is forecast to rise to over 120 % by the end of 2019 compared to 2013. In line with this development, online retailing is increasingly gaining market share and this structural change is putting stationary retailing under severe pressure. The success of online retailing is increasing the demand for logistics services, but also the direct demand for corresponding properties. According to current calculations,¹⁰ an online retailer needs three times as much logistics space as a stationary retailer in terms of identical turnover. The cannibalisation effects (logistics space no longer needed by stationary retailers will be vacant) are negligible, as social and structural change requires the adaptation of all retailers. Virtually no retailer can do without multichannel distribution (stationary and online as well as various mixed forms) and accordingly develops a higher demand for logistics space.

BOX 2¹¹

The Spanish fashion retailer ZARA is expanding its online range to an additional 106 countries, many of them in Africa. The parent company Inditex added that, despite a 41 % growth in online sales in 2017, online sales account for only 10 % of total sales and that's well behind their competitors.

- ⁹ E-Commerce Foundation (2019)
- ¹⁰ BNP/DTZ (2019) ¹¹ Reuters.com (2018)
- 12 Statista (2019)
- ¹³ Savills (2019)
 ¹⁴ Savills (2019)
 ¹⁵ BNP (2019)

In addition to the expansion of multichannel sales, the example also illustrates the enormous potential that lies in the development of new sales markets, which in turn leads to cross-border flows of goods. Given the growth rates, online retailing is currently the most dynamic driver, changing not only retailer demand for logistics services but also the logistics itself, especially the supply chain requirements. The logisticians no longer focus exclusively on professional shops but interact directly with the end customer. The substitution of traditional trading space by logistics space has increased the political, social and, not least, investor's acceptance of the asset class.

2.3 Urbanisation

In 2018, urbanisation in the European Union was around 75%, i.e. 3 out of 4 EU citizens live in cities.¹² Defined as one of the megatrends of our time, urbanisation is expected to continue. This development has far-reaching implications for the logistics sector, especially with regard to location decisions and the complexity of logistics services. On the one hand, competitive advantages through prompt fulfillment are crucial and on the other hand, transport is the main cost driver. All in all, this requires certain proximity to the customer, initially independent of the delivery to the customer themselves, stationary retailers or the industry. In addition, factors that are not specific to real estate are also becoming increasingly important. These include requirements for the availability of labour, sufficient access to energy and land availability. To illustrate the dimensions, it should be noted that a logistics hall with an area of 100,000 m² requires an approximate average of 4,000 workers and, with a high degree of automation, has an energy consumption of around 10,000 private households.13

BOX 3¹⁴

As many cities in Europe have very low unemployment rates, logistics companies apply sophisticated demographic analysis approaches to their location decisions. As a result, Amazon in the UK, for example, has decided to relocate 500,000 m² of logistics space to the north-east of the country, which has the highest unemployment rate.

Since the above points are in some ways contradictory, the complexity of the decision-making processes facing the industry becomes apparent. If one also considers the decentralisation resulting from the direct supply to the end customer, in particular through the influence of online trade, the increasing complexity of logistical services becomes clear. The industry is responding with appropriate strategies. While three-quarters of all European logistics leases are made in the vicinity of conurbations with more than 1 million inhabitants,¹⁵ Figure 4 illustrates the differentiated approach.

Figure 4: Take-up by average size (in sqm) and distance to the center of Madrid¹⁶

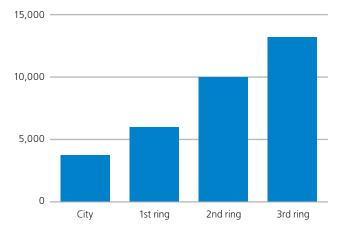


Figure 4 illustrates that logistics service providers react accordingly to increased complexity and use a complex network of different properties in order to meet the requirements. It is of great importance, especially for project developers, to understand these interrelationships to achieve a competitive advantage for potential tenants and thus for their own position with appropriate products.

2.4 Supply chain

In saturated mass product markets, in which product differentiation and individualisation continue to gain importance, the once clearly defined boundaries between company-internal and external fields are increasingly blurring. Rising networks of horizontal (external) and vertical (internal) value chains are the consequence. Flexible production systems, for the production of smaller batch sizes with high variance, are dependent on highly effective logistical solutions, which give logistics an even more central importance than before. While on the level of globalisation the horizontal differentiation of value chains is significantly influenced by multinational manufacturing processes, the enormous growth of online trade also results in shifts in supply chains. Just-in-time deliveries, which are an essential part of the vertical production process, are now also made directly to the customer (same-day-delivery). For logistics, this means an increasing expansion of the supply chain beyond B2B (business-to-business / e.g. from a warehouse to retail shops) to B2C (business-to-consumer / e.g. parcel delivery). This creates complex requirements, especially in growing urban regions, to generate time and competitive advantages. In addition, these developments are generating forces that in some sectors lead to a reshoring (relocation of outsourced processes) of certain business segments and production processes, since the focus on just-in-time deliveries requires proximity to the production location and/or customers.

BOX 4¹⁷

While in the textile sector outsourcing of production, particularly to Asia, is regarded as a given due to lower wage costs, the following example shows how time advantages (speed-tomarket) in some areas turn higher production costs into a worthwhile investment. When Kate Middleton first appeared after the royal wedding, her Zara dress was sold out within 24 hours. However, as the Spanish fashion retailer does 60 % of its value creation in Spain or nearby countries, it was possible to bring the product back to market within 4-6 weeks. This approach is becoming increasingly important, in particular among online retailers, with Boohoo.com producing 50 % of its products in the UK.

An efficient logistics system is essential for the functioning of these processes and the mastering of these challenges. New business fields are emerging for this system, which in turn requires the development of additional capacities in the logistics industry. The defined fundamental drivers, which independently develop positively in the sense of the logistics industry, converge here, reinforce each other and make clear that the expansion of logistics services is necessary and central to structural change. This development is also of particular importance within the government of the European Union. The decentralisation of operational organisation in conjunction with dynamic inter-company and transnational networking is an important pillar to support economic integration within Europe. To achieve this goal, billions are invested in improved transnational infrastructures. The investments flow into defined network corridors, which are discussed in more detail in Part 2.

3. Real estate market

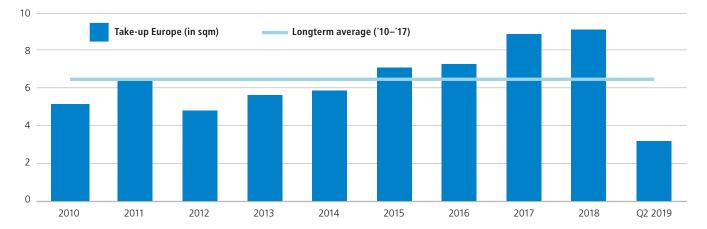
In view of the high demand in the investment market and the really favorable development of fundamental data, we need to analyse the European rental market in order to provide a holistic view.

Figure 5 illustrates the rental activity in the European market for logistics properties on the basis of take-up (take-up shows the lettings made in each year by square metre). In 2018, a historic letting record of over 9 million square metres was set. In the period from 2010 to 2018, annual space take-up rose by over 76%, corresponding to an annual growth rate of 7.4%. The long-term average (2010-2017) was thus exceeded by more than 42%. Over the same period, the vacancy rate halved from just under 8% to slightly over 4%.¹⁸ From this, it can be deduced that not only take-up but also net absorption has increased significantly. While take-up is an indicator of activity in the

Figure 5: Take-up of major European logistics locations²⁰

rental market, net absorption is a measure of actual expansion, i.e. the additional rentals made in one market.¹⁹ Accordingly, it is clear that the drivers considered above have actually led and continue to lead to an expansion of logistics capacities in Europe.

A significant rise in demand combined with historically low vacancy rates makes it increasingly difficult for logistics companies to find enough space to expand their business. After record levels in 2007/2008, new construction activity has collapsed dramatically. Furthermore, there is only a very small share of speculative construction activity in the market, which in turn means that logistics companies have to conclude pre-leases and then wait for the construction phase to move into larger premises. These developments naturally result in considerable competition for available space, which is reflected in rental growth.



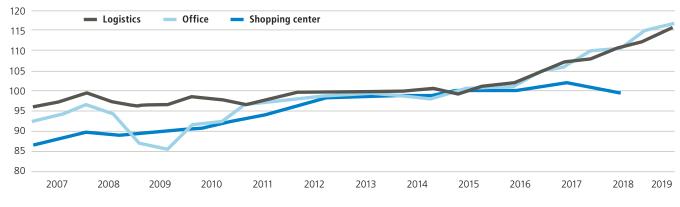


Figure 6: Index of rental development by asset class in European core markets (2015=100)²¹

18 JLL (2019)

¹⁹ Example: Assuming a market has 200,000 m² of logistics space available and there is only one company that uses 100,000 m² as a tenant. The other space is vacant (that means vacancy rate=50 %). If this company moves into the other space and rents 100,000 m², this corresponds to a take-up of 100,000 m² with the same vacancy rate. If, on the other hand, the company expands and concludes a new lease agreement for 150,000 m², this results in a take-up of 150,000 m² and a net absorption of 50,000 m², while the vacancy rate drops to 25 %.
20.000 m² concludes a new lease agreement for 150,000 m², this results in a take-up of 150,000 m² and a net absorption of 50,000 m², while the vacancy rate drops to 25 %.

²⁰ BNP (2019) / covered markets: Birmingham, Greater Paris, Madrid, London&SouthEast, Barcelona, Manchester, Lille, Lyon, Frankfurt, Hamburg, Rotterdam, Berlin, Marseille, Amsterdam, Düsseldorf, Cologne, Munich, Bristol

²¹ Colliers/Bloomberg (2019) / covered markets: Amsterdam, Berlin, Frankfurt, Hamburg, Munich, Paris, Stockholm

As the above illustrates over almost the entire period of time, the rent for logistics properties is characterised by extremely low volatility compared with other types of use. In comparison to the rent for office real estate, it is relatively crisis-resistant if one looks at the course during the global financial crisis. The stability is explained by the special characteristics of the logistics segment. These include long-term rental contracts, a low ability to duplicate the locations and, in some cases, extremely extensive and often tailor-made interiors, such as high-bay-storage and a sustained increase in automation. The increase in the degree of process-automation and the location advantages already described under e-commerce are likely to reinforce these effects in the long term. From 2015, however, a significant dynamic increase in rental growth can be seen, which is in line with letting activity (cf. Figure 5). The described competition for expansion space, driven by the dynamic reduction in vacancy rates and take-up that significantly exceeds the long-term average, is very clearly reflected in the growth rates of rents.

BOX 5²²

The potential for rent increases in logistics real estate is often underestimated, as the low margins within the industry define certain cost limits. However, the marginal, but overall essential importance of the property within the cost structure must be taken into account. In terms of the production process, supply chains account for around 10 % of costs, with rental costs accounting for only 0.75 % (main cost drivers are labour and transport). This means that, conversely, a rent increase of 20 % increases the costs of the supply chain by just 0.15 %. The dynamics of logistics rents roughly correspond to those of the office segment. By contrast, it is also evident that the steady growth in rents of shopping centers is coming to an end during this period and even shows a negative development since 2017. While the logistics market is affected by several mutually reinforcing drivers, the stationary retail sector is suffering significantly from the loss of market share to online retailers.

The investment market shows a similar trend to that of rents in a comparison of types of use.

Particularly in comparison to shopping centers, the substitution of retail space by logistics space is repeatedly evident, although there is still a time lag in comparison to the development of rents. This suggests the assumption that the acceptance of the asset class by traditional investors took some time, but that the presence of e-commerce brought a change in perception. In comparison to office properties, the current historically low yield spread indicates a characteristic that follows the fundamental data as well as the rental market. The reduction of the risk premium is a logical consequence in line with the positive development, in particular the rental growth. Over time, it can be seen that the yield spread, initially influenced by the extremely dynamic compression of yields in the office market, has fallen to historically low levels. Similar to the currently discernible lower momentum in the office market, the question arises as to whether the development of the logistics market will also lose momentum with prime yields below the 4 % threshold and whether an increased sideways movement can be expected in the future.

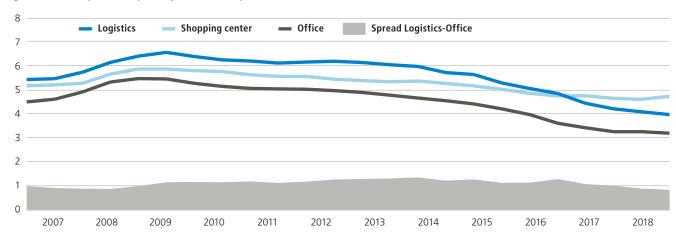


Figure 7: Development of prime yields in European core markets (in %)²³

22 Savills (2019)

²³ Colliers/Bloomberg (2019) / covered markets: Amsterdam, Berlin, Frankfurt, Hamburg, Munich, Paris, Stockholm

It should nevertheless be noted that Europe is developing at different speeds and that country-specific heterogeneous trends and current values must therefore be taken into account. In this context, Figure 8 illustrates the overall development of major European logistics locations in terms of capital values. Based on the respective peak values that were reached before the crisis, the course within the crisis and the subsequent recovery up to the first half of 2019 are presented, subdivided according to the influence of rental prices and yields.

The previously described correlation between the economy and the demand for logistics services is clearly reflected in the capital values in Figure 8. Following the consistently positive development of the relevant fundamental drivers, all the logistics markets under consideration show positive growth (as shown by the right bar). Without exception, Figure 8 shows relatively balanced rents and yield-driven increases in capital values. Nevertheless, the markets show striking differences with regard to the economic consequences of the global

financial crisis. These are clearly reflected in particular in the decline of capital values. While in Sweden and Germany the consequences were less pronounced and the economic recovery resumed relatively promptly, Southern Europe was much more involved. A slump in foreign trade and private consumption, resulting from high unemployment combined with high private debt, contrasts with the defined fundamental drivers of the industry. Correspondingly, the relevance and correlation are also reflected in the negative development through significantly stronger market corrections, among others in Spain and Portugal. In order to assess the potential of these countries, a country-specific analysis is required, taking into account the fundamental values as discussed in detail here.

This analysis is applied to Southern Europe in Part 2 and, in conjunction with the theoretical foundations from Part 1, it offers quite interesting insights, especially with regard to opportunities providing attractive potential.

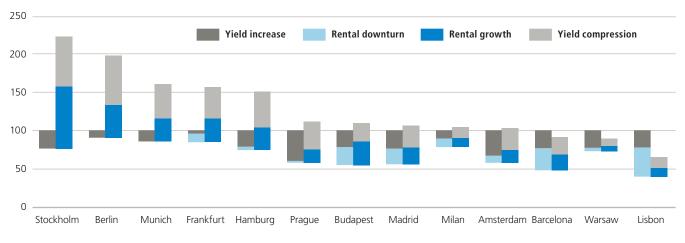


Figure 8: Decrease of capital values after pre-crisis peaks in 2007/2008 (=100) and recovery until Q2 2019(top of the right bars)²⁴ (Reading example Stockholm)²⁵

²⁴ Colliers/Bloomberg (2019); Aquila Research (2019)

²⁵ The peak of capital value in Stockholm from the pre-crisis period (2007-2008) is 100. Based on this value, the period 2007-Q2/2019 is depicted. The left bar describes the development to the minimum, i.e. the capital value fell by 23.7 points due to yield increases. After reaching the minimum, the right bar describes the development until Q2/2019, i.e. after the crisis the Stockholm market recovered and rose by 80 points due to the rent increase and 65.1 points due to the yield compression. Overall, Q2/2019 saw an increase of 121.4 % (-23.7+80+65.1) compared to the pre-crisis level.

4. Conclusion

In line with the risks arising from the current monetary policy situation, it is particularly important to act extremely selectively and with a return to fundamental analysis in the market environment. Analysis of the European logistics real estate market shows that the increased investor interest and the resulting significant increase in capital allocation are not attributable to evasive movements by investors suffering from investment pressure. It was shown that structural changes have a positive and mutually reinforcing effect on the fundamental drivers of demand for logistics services. The corresponding, necessary expansion can be clearly seen in the development of the letting market, which is in line with the investment market. Rising prices in the investment market, based on high demand, are justified by rising rents, which in turn result from the positive development of the industry. The heterogeneity within Europe, in which both risks and opportunities will open up, remains to be noted.

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