WHITEPAPER

Logistics: 'Last mile' or further to run?

By Vivienne Bolla

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For today's investor

AVIVA INVESTORS

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Key points

- The pressure of e-commerce companies to accelerate delivery times is transforming the logistics sector. There is strong demand among internet retailers and third-party logistics operators for distribution space especially in the so-called 'last mile delivery'.
- The structural shift in demand has also encouraged a re-evaluation of the industrial sector. Investment capital has risen significantly, yields have compressed, and sector returns have tended to outperform.
- However, slowing economic growth exacerbated by rising protectionism globally may present headwinds to the sector, particularly among bulk distribution centres.
- The rise of e-commerce hasn't fundamentally altered the supply-side characteristics of the sector. It remains supply-elastic, characterised by short construction cycles and limited barriers to entry in many locations.
- Markets with larger barriers to entry may offer the greatest potential, though yields may be under pressure due to higher demand.

The rise of e-commerce is transforming the logistics sector

The roll out of free next-day delivery to more than 100 million Amazon Prime members announced in 2019 underline its commitment to cementing its lead position as an online retail behemoth. The service will eventually cost about $800 million, the company estimated, but as Jeff Bezos says, "It's a big investment, and it's the right long-term decision for customers."[1]

Companies are pouring an enormous amount of resources on the technology and infrastructure to raise service levels, reduce delivery times and lower transport costs. As a result, they are prioritising the development of urban (or 'last mile delivery') logistics and omni-channel capabilities, which refers to customer experiences across different sales channels. Underscoring that trend is a surge in demand for space from internet retailers and third-party logistics operators (3PLs).

These structural changes have prompted many investors to re-evaluate the role of the industrial sector within their portfolio. Investment capital has risen significantly, while yields have compressed relative to historic norms. Relative to other real estate sectors, most notably retail, logistics has brought above-trend returns in most European markets. Despite the positive growth trajectory, however, investors should not become complacent. There are threats on the horizon that may hurt certain corners of the logistics sector more than others.

1. 'Amazon is spending billions on shipping as it makes Prime one-day delivery a reality', The Verge, 24 October 2019. https://www.theverge.com/2019/10/24/20931055/amazon-prime-one-day-delivery-shipping-q3-2019-earnings-spending
2. 'Walmart, Target shares tumble as Amazon announces one-day shipping for Prime members', CNBC, 26 April 2019. https://www.cnbc.com/2019/04/26/amazons-free-one-day-shipping-puts-the-pressure-on-walmart-target.html

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Industrial Evolution – the changing shape of the sector

Though many of the developments associated with the rise of e-commerce are novel, they can also be viewed as continuing the longer-run trend away from manufacturing/production functions towards distribution functions.

With offshoring and the rise of global supply chains, trends firmly in place since the 1980s, less industrial space in developed markets is dedicated to the production of goods and more focused on distribution. The rise of e-commerce has extended this trend and brought an ever-greater focus on reducing the time from manufacturing to delivering products to consumers.

Given these developments, it is worth taking stock of the shape of the sector. A useful way to categorise industrial assets is by their place in the distribution chain from producer to consumer (see Figures 1 and 2).

Figure 1. **Categories of demand for industrial properties**

Production-end

Along with manufacturing facilities, suppliers and order consolidation warehoouses feed into the production-end supply chain.

- Suppliers: These requirements bring together and distribute raw materials to manufacturing facilities.
- Order consolidation: These requirements consolidate outbound exports or domestic shipments or finished goods.

Import centre/ bulk distribution

- Facilities act as the initial stop for global supply chains within large geographies.
- Also act as receiving facilities from domestic manufacturing sites.
- Often located near chokepoints of global trade and can either distribute to surrounding populations or act as deconsolidation point serving other logistics facilities.

National/regional distribution

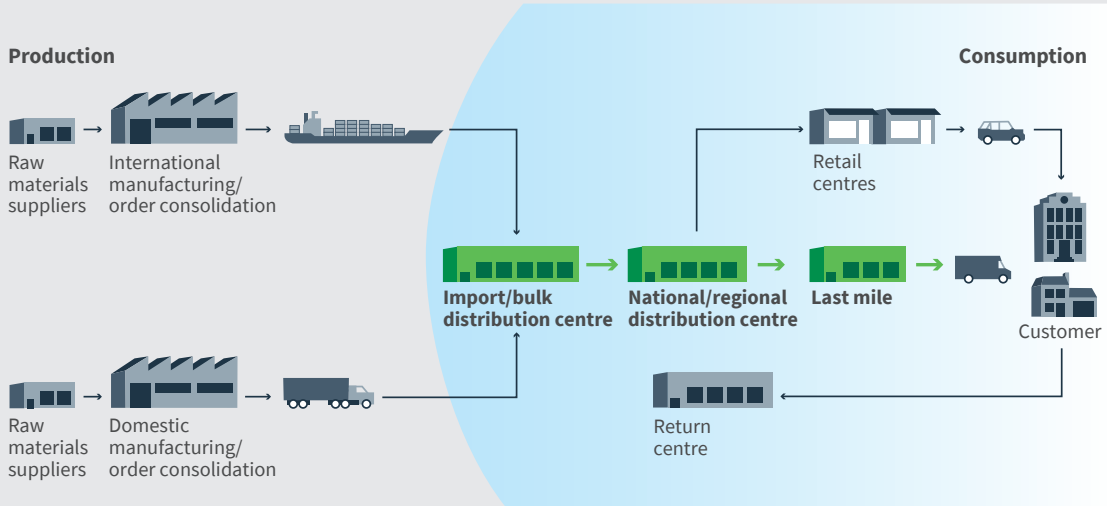
- Facilities in these locations are within and adjacent to major population centres and consumption markets.
- For traditional bricks-and-mortar. distribution, these facilities are often the last stop before they move to retail storefronts.
- For e-commerce distribution, these facilities generally place goods into the parcel and last mile network.

Last mile/ urban logistics

- Facilities in urban locations and support city distribution.
- An extension of established supply chains, urban logisitics offer two new benefits:
  - Advancement of service capabilities (same-day delivery and shorter delivery windows).
  - Management of transportation costs (by allowing the final transportation leg to be split into two).

Source: Prologis, Aviva Investors, 2020.

Figure 2. **E-commerce supply chains and logistics requirements**



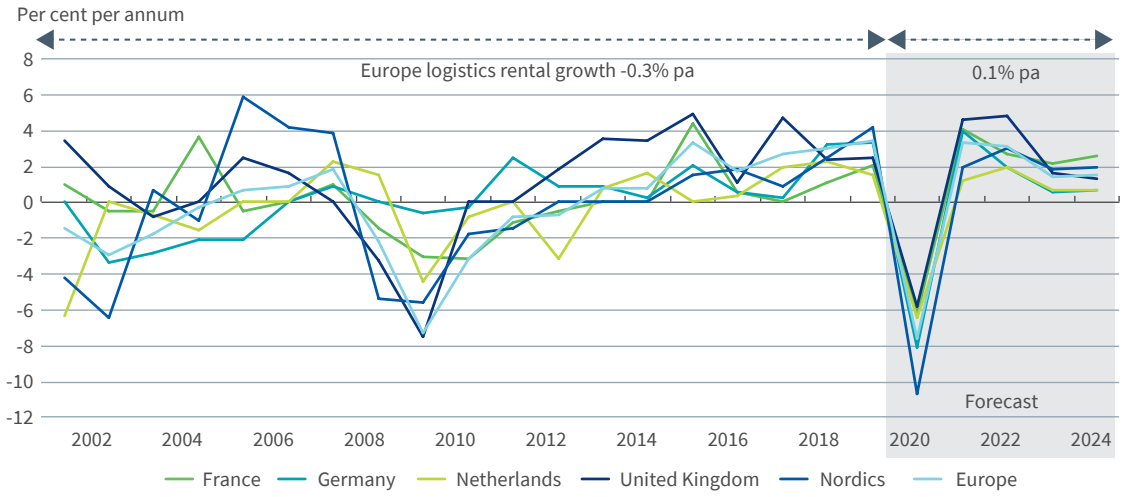
Source: Prologis.

The importance of supply constraints

While the rise of e-commerce has brought a structural shift in demand for logistics space, it hasn't fundamentally altered the supply-side characteristics of the sector. It remains a supply-elastic sector characterised by short construction cycles and limited barriers to entry in most locations.

In fact, the combination of strong occupier demand and rising investment values has been favourable for development in recent years and an upswing in building activity has tended to keep a lid on rental growth. This is especially true in continental European markets (see Figure 3), though less so in the UK.

Figure 3. **European logistics rental growth (pa), 2001-2024**



Source: PMA, Aviva Investors May 2020.

These developments demonstrate the importance of focusing on markets and asset types where there are some constraints to new supply. Markets with greater barriers to new supply should be most resilient and offer the greatest potential for long-term, rental-driven investment performance. Barriers to new supply depend especially on land availability, which is determined by geographic constraints and competing land uses, as well as local planning and public policy trends.

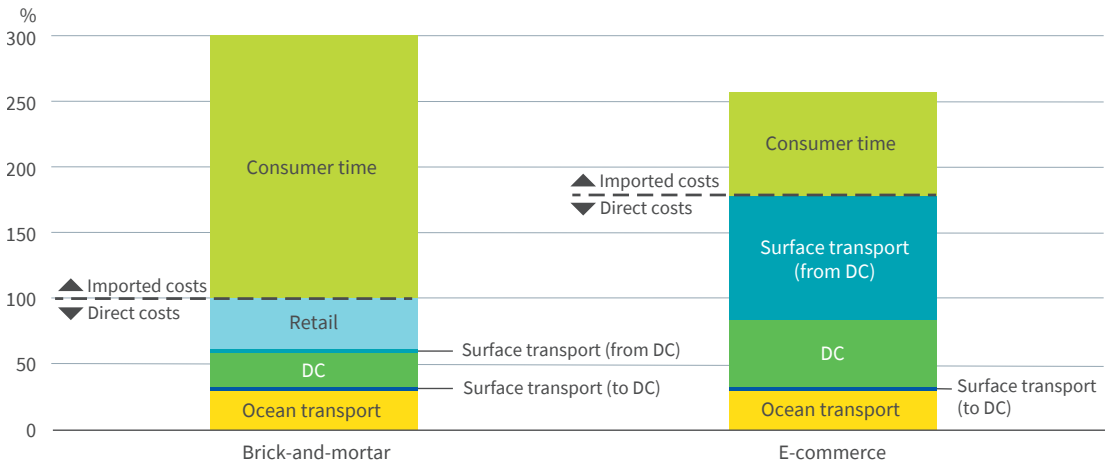
Demand and supply factors advantages of urban logistics

Supportive demand and supply factors are concentrated at the consumption end of supply chains, notably for the rapidly growing urban logistics ('last mile delivery') segment.

On the demand side, it is in urban areas where the structural changes associated with the rise of e-commerce are having the greatest impact on occupiers' decisions, especially on how they're spending along the supply chains (see Figure 4).

Consumer purchasing trends and technology are driving the e-commerce revolution. With consumers increasingly demanding instant gratification when they make online purchases, distribution requirements are expanding rapidly in infill sites within major population centres in urban locations. In many cases, these sites are being chosen over lower-cost options, such as those in more out-of-town locations, due to their perceived additional value.

Figure 4. **E-commerce supply chains changing overall economics and distribution of costs**



Source: The Sequoia Partnership, Prologis.

In addition, urban logistics locations are generally more constrained from a supply perspective. The land they occupy has the greatest potential for a change to higher use and planning policy is often restrictive. These demand and supply characteristics suggest the possibility of strong rental growth and capital appreciation over the longer term, leading to our strong preference for urban logistics.

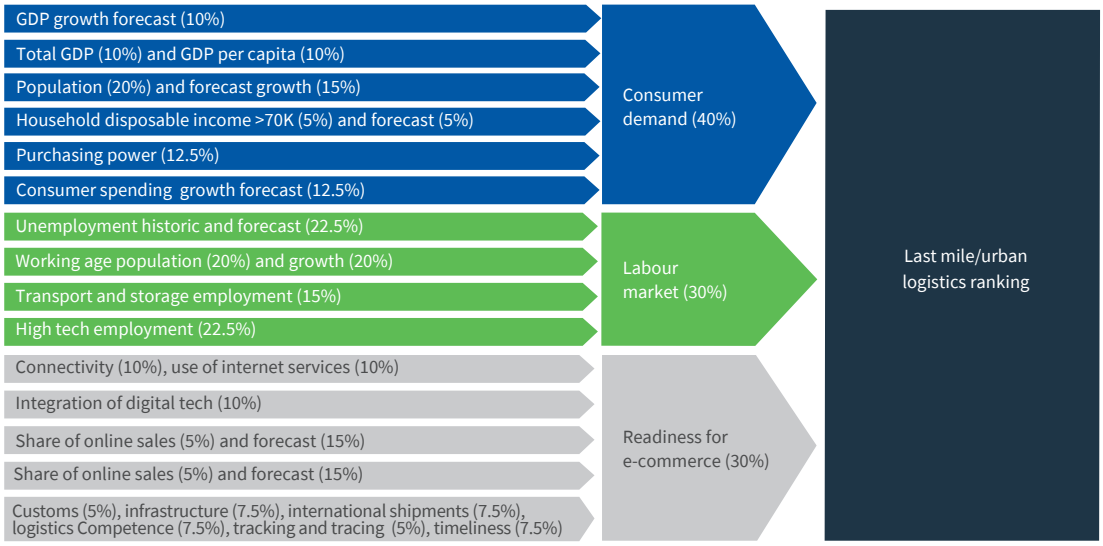
Though demand and supply factors generally favour urban logistics across Europe, it is nonetheless crucial to devise a framework to identify the most attractive investment targets.

On the demand side, the most important drivers for urban logistics are:

- Access to a growing and affluent consumer base
- Access to cost-efficient labour
- Readiness for e-commerce

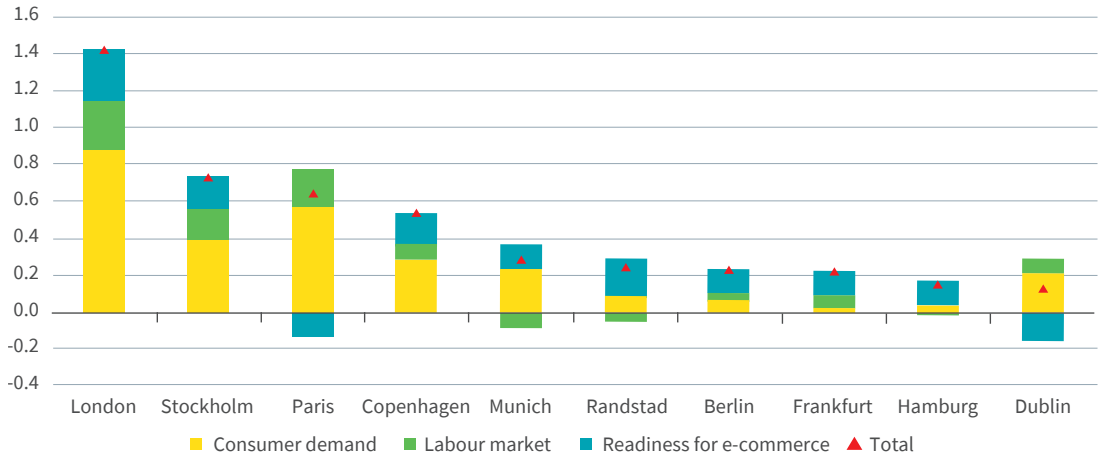
To assess the location attractiveness of European markets, we partly rely on a proprietary model based on approximately 30 different metrics (see Figure 5). Those urban logistics markets with higher scores on this basis should experience higher potential for consistent demand in the longer term. Where high-scoring markets also have favourable real estate fundamentals, particularly low supply-side risks, long-term rental growth may be more durable (see Figure 6).

Figure 5. **Assessing last mile/urban logistics attractiveness**



Source: Aviva Investors, 2020.

Figure 6. **Strategic targets for urban logistics**



Note: Regional UK cities excluded from analysis. Scores are standardised and reflect deviation from the mean.
Source: Aviva Investors, January 2020.

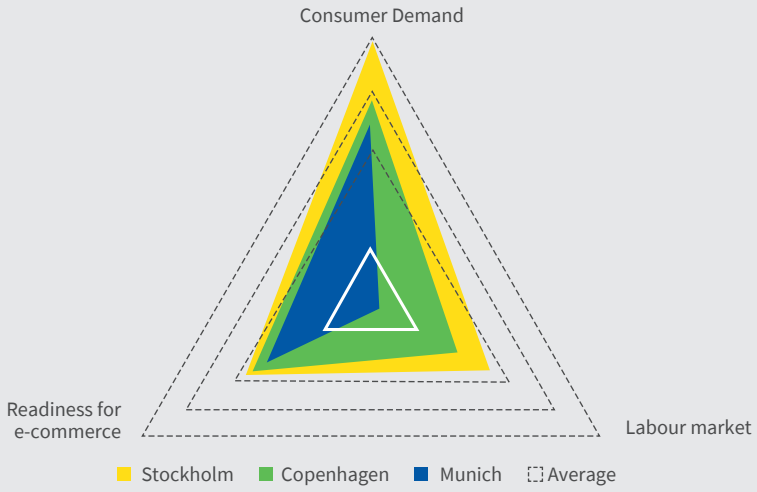
Urban Logistics: Spotlight on Stokholm, Copenhagen and Munich

Stockholm, Copenhagen and Munich are examples of especially promising cities for the growth of the urban logistics segments. In particular, they all have the following advantages:

- **Significant barriers to new supply offer pricing inelasticity.** In the case of Stockholm and Copenhagen, considerable natural geographic constraints are combined with restrictive planning policies. Additionally, development timeframes are much longer than for most other Continental European markets. Furthermore, in Munich competing land uses mean a severe shortage of land for logistics developments while local municipalities are becoming more selective.
- **Affluent catchments are expected to enjoy robust growth.** Stockholm is expected to see the greatest population percentage growth of major European markets in the next decade, driving a strong uplift in consumer spending. Though a relatively small catchment, Copenhagen is also expected to see robust population and consumer spending growth. Munich, meanwhile, encompasses Germany's most affluent catchment.

- **A high readiness for e-commerce can bolster growth potential in logistics.** Stockholm outperforms all other European centres in terms of business digitisation and e-commerce. The city also outpaces competitors in factors such as the number of SMEs selling online, online turnover and cross-border sales. Copenhagen is also attractive because of its e-commerce penetration rates, which are second only to the UK and are expected to increase considerably as e-commerce continues to expand. Like the rest of Germany, Munich has an advanced infrastructure network and outperforms on key metrics, such as customs, international shipments, logistics competence and parcel delivery.

Figure 7. **Comparison of urban logistics advantages in Stockholm, Copenhagen and Munich**



Source: Aviva Investors, 2020.

Demand and supply factors are less favourable further down the supply chain

The growth of e-commerce has much further to run, but e-commerce is not the only driver of occupier demand in the industrial sector. Cyclical economic growth, measured by indicators such as gross domestic product (GDP), industrial production, consumer spending and trade volumes, also exert significant influence over the short to medium term.

These demand drivers may increasingly become headwinds for the logistics sector. Slowing economic growth, driven in particular by a downswing in manufacturing and trade volumes, may reduce demand for warehouses and distribution centres. These cyclical trends have been worsened by the COVID-19 pandemic, which has exposed the vulnerability in global supply chains, and highlighted the need for greater resiliency.

In such an economic environment, logistics assets down the supply chain are generally more exposed. Meanwhile, supply-side fundamentals are also less favourable down the supply chain due to restrictions on land availability as a result of geographic constraints and less competition for land use.

National/regional and bulk distribution locations

When looking at assets in the national/regional and bulk distribution segments, it is important that markets tick all boxes on the demand and especially the supply side. From a national/regional assets perspective, for example, Rhein-Ruhr rates highly on all fronts. It is the industrial capital of western Germany and one of the world's ten largest economic regions. It is home to two major international airports, an extensive network of waterways and the densest concentration of road and rail infrastructure in Germany. It is an affluent region with a large and diverse labour pool. In addition, supply constraints in the form of a shortage of land for development suggest robust rental growth potential.

By contrast, while Prague is well connected with eastern and southern Germany and has access to a large consumer base, it also has a very tight labour market and low barriers to entry. Therefore, obsolescence risk increases.

For bulk distribution assets, Rotterdam is a prominent example of an established northern European location with extremely strong credentials. As Europe's largest port, the city is at the crossroads for trade within and into Europe. The port is augmented by multi-modal logistics infrastructure of road, railways and inland waterways. Its wider Randstad region presents a highly-skilled and flexible labour force. Availability of land is limited.

In comparison, Katowice in Poland is less attractive due to its relatively lower barriers to entry and high supply responsiveness. This limits its investment attractiveness despite being the most industrialised and urbanised of Poland's sixteen provinces, along with having extensive infrastructure and a large cost-efficient labour pool.

A structured approach for national/regional and bulk distribution centres

In contrast to the urban logistics segment, the analysis of national/regional and bulk distribution segments requires a different methodology. Here, a top-down approach may be less relevant than a framework that focuses on investments on a case-by-case basis. Assets in these segments fulfil distribution over a much wider geographic area. As such, city-level consumer demand is less operative as a driver of occupiers' location decisions.

It is important to understand the different functions of national/regional and bulk distribution assets in the supply chain. For both segments, there is significant overlap in terms of both demand and supply considerations, but also some pertinent differences.

On the demand side, the most important criteria for occupiers both for national/regional and bulk distribution units are:

- Access to deep, diverse and cost-efficient labour pools.
- Infrastructure adequate to support operational demand, notably power and fibre.
- Proximity to the transport network.

The latter is, of course, especially important but in different ways. For regional/national distribution units, a key issue is access to consumers. For traditional bricks-and-mortar retailing, these facilities are often the last stop before goods are moved to retail storefronts. For e-commerce distribution, these facilities generally place goods into the last mile network. As such, these facilities need to be adjacent to transport infrastructure with easy access to major population centres and consumer markets.

By contrast, bulk distribution centres tend to be the initial stop for global supply chains within large geographies and are often located near the hubs of global trade. They act as a deconsolidation point serving other logistics facilities. To a greater extent, these facilities represent commodity space, so occupiers tend to be more footloose and price sensitive.

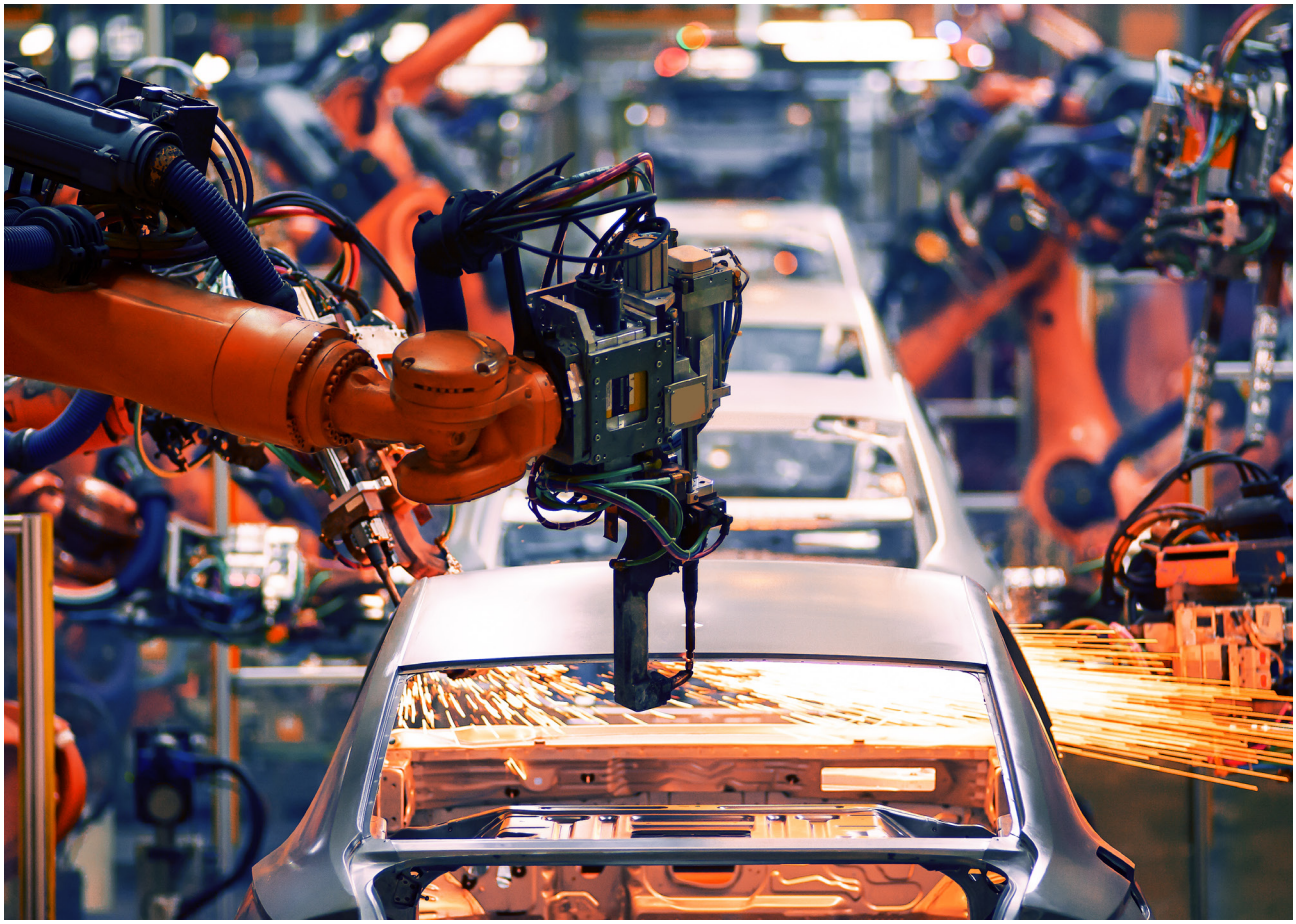
These differences affect the supply-side in these segments. For national/regional distribution units, the need to serve consumer demand places a constraint on where occupiers can locate, though less tight a constraint than in the urban logistics segment. As such, asset returns can be enhanced and protected by investing in land-constrained locations that are nearer to the end consumer.

Bulk distribution facilities, on the other hand, have wider location options. They are less likely to be restricted by barriers to entry. Lower land constraints will impact land values and hamper rental growth prospects. As occupiers tend to have relatively more location flexibility, investors should be wary of high degree of substitution.

For landlords, it is critical to discriminate in favour of markets with some form of barrier to entry (see Figure 8). We therefore tend to favour national/regional distribution assets over bulk distribution properties, though the latter may present opportunities if lease credentials are strong.

Figure 8. **Comparison of investment potential by logistics segments**

Source: Aviva Investors, 2020.



Meeting the investment demands of logistics

With the competition among e-commerce companies to provide faster delivery, investment strategies in logistics also must evolve. The structural changes wrought by the rise of e-commerce are real, have much further to run and present significant opportunities the logistics sector.

While we have a clear preference for urban logistics, supply constraints are also greatest here. Occupiers are looking to generate significant value from their investments in this segment, suggesting significant potential for rental growth from assets that best meet their needs. However, the urban logistics segment remains a relatively small part of the sector. Lot sizes are small, potentially limiting its share in investment portfolios.

Therefore, investors also should consider assets further down the supply chain. The risk-return characteristics in national/regional and bulk distribution segments require more scrutiny, though, and obsolescence risk can increase.

A key unknown across the logistics sector is the potential impact of technological changes. Rapidly evolving technologies such as the Internet of Things (IoT), 3D printing and robotics have the potential to bring major shifts in supply chain design. Though difficult to quantify, they have the potential to disrupt in three ways. First, more efficient use of logistics assets may result in less required floorspace per unit of economic growth. Second, the obsolescence risk may increase by more than expected. Third, the importance of proximity to labour may be lowered.

These risks, however, can be minimised by investing in modern, well-specified assets in good locations, and being within a short distance of consumers will continue to be key. For buy-and-hold investors, access to scarce, modern and build-to-suit assets may offer more stable returns over time. In the case of the fledgling urban logistics segment, where available stock is very limited, the potential to repurpose older buildings also offers an opportunity to add value.

Raising the bar for faster delivery won't come cheap for e-commerce companies. It will require a careful balance between the cost and benefit to maximise assets for the long term. Analysing logistics portfolios will therefore also require far-reaching analysis.

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