



SUPPLY CHAIN DISRUPTORS

Research & Forecast Report

EMEA | INDUSTRIAL AND LOGISTICS
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RESHAPING THE SUPPLY CHAIN

INTRODUCTION

Amazon's push into the logistics and shipping sector is the latest in a turn of events disrupting traditional supply chain operators. Other cyclical and structural factors are at play, such as the crisis in the container shipping industry and greater use of technology in manufacturing, retail and logistics industries.

In this report, we analyse how three distinct categories of operators working across the global supply chain (e-commerce companies, container shippers and freight forwarders) are increasingly competing (or collaborating) with each other as industry boundaries are redefined. The potential reshuffling could have significant ramifications for the global and European logistics landscape.

Our findings are also relevant for property, particularly industrial & logistics portfolios. It is hard to see how supply chain operators could compete in future without building their network and infrastructure. Property is a crucial element and recipient of this change. Our considered view on the impacts for property markets are discussed in the conclusions of this report.

GLOBAL LOGISTICS: A \$1 TRILLION BUSINESS

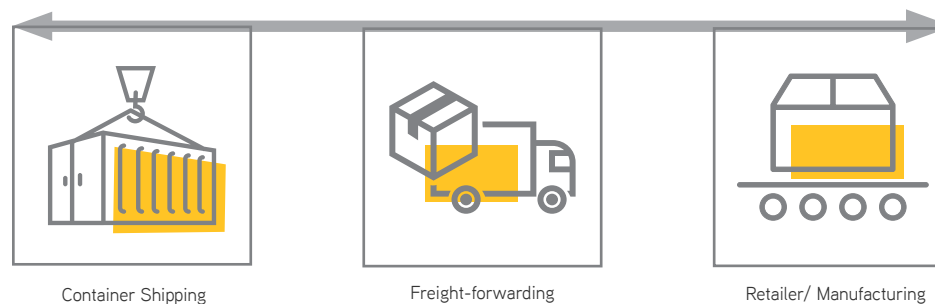
At present, the total value of the global logistics and transportation industry is believed to be worth approximately \$1 trillion annually. Parcel delivery – benefiting directly from e-commerce – is one of the fastest growing segments of this industry. Global B2C e-commerce sales have been growing by 20% annually over the last few years, reaching \$2.6 trillion in 2016, with Europe accounting for €600 billion.

If e-commerce keeps growing at the current rate, it could reach \$5.4 trillion globally by 2020, more than the UK and France's GDP combined. There are obvious positive growth impacts for the logistics industry as a result of the growth in e-commerce, and e-retailing in particular. In turn, this is driving the logistics real estate market, creating an ever growing need for warehousing space/logistics services for the increasing number of parcels.

To date, the task of parcel management has been mostly the prerogative of couriers/postal companies, but not anymore. Companies outside the logistics sector, including e-tailers, have set their sights on this business. Additionally, while e-commerce booms, the container shipping industry continues to grapple with overcapacity and is in a deep downturn, with game-changing implications. Although container shipping rates have improved, it appears this part of our industry faces challenging times.

Last but not least, technology is affecting the middlemen in the supply chain (freight forwarders) and they are also under pressure to adapt. In this report, we examine the activity of some key players within each of these three elements of the supply-chain, highlighting how the dynamics of the industry are changing.

THREE CORE ELEMENTS OF THE SUPPLY-CHAIN



WHO ARE THE MOVERS AND SHAKERS?

1) THE E-TAILERS: TAKING ON LOGISTICS

Global e-commerce players, such as Amazon and Alibaba, are increasingly involved in the logistics side of their business. They have invested extensively in logistics to drive their business; this is likely to continue going forward.

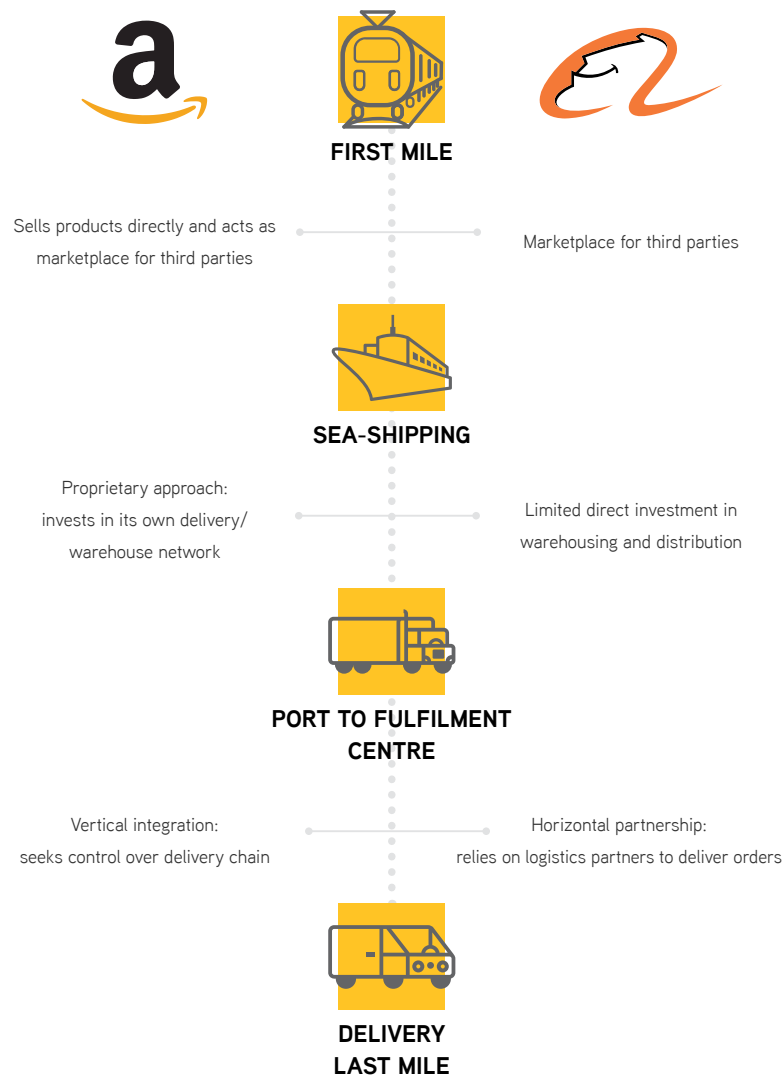
AMAZON

Through its “Fulfilment by Amazon” (FBA) service Amazon offers its marketplace sellers outsourced logistics and shipping. Amazon appears to be seeking greater control of its delivery network – officially to improve delivery times/customer satisfaction, unofficially to offer logistics services to third parties. If Amazon was successful in this, it could potentially take business from its logistics partners: Amazon accounts for an estimated 5% and 4% of UPS and DHL’s revenues, respectively.

Last year, Amazon leased 40 cargo planes for its “Prime Air” service and secured a licence to act as a wholesaler for ocean container shipping between China, the US and Europe. Amazon can now buy space on container ships for customers and charge them a wholesale rather than retail price.

DID YOU KNOW?

In 2015, Amazon spent \$11.5 billion on shipping costs, equating to over 10% of global sales. By delivering its own goods it could save an estimated \$3 per package – worth \$1.1 billion annually. Amazon would achieve these savings by applying its cutting-edge technology to streamlining deliveries.



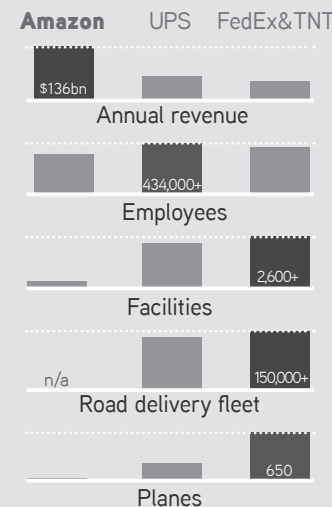
SOURCE: COLLIERS INTERNATIONAL

ALIBABA

Unlike Amazon, Alibaba does not invest in logistics and warehousing directly (or does so comparatively less) and relies mostly on logistics partners to deliver goods. In Europe, Alibaba has partnered with Hermes Group to ship branded European products sold on its Tmall marketplace to Chinese consumers. Alibaba has invested directly in postal courier outfits in Asia such as Singapore Post.

Although Alibaba does not pose a direct threat to delivery companies such as UPS, its use of technology is impacting on part of the supply chain. Alibaba’s “One Touch” platform offers small/medium merchants a series of export-related services including customs clearance and logistics, helping them participate in global trade.

CAN AMAZON TAKE ON GLOBAL COURIERS?



SOURCE: UPS, FEDEX, AMAZON, MWPVL, OTHERS

WHO ARE THE MOVERS AND SHAKERS?

2) THE CONTAINER SHIPPING COMPANIES: NEW HORIZONS?

The recent failure of South Korean shipping company Hanjin was a brutal reminder of overcapacity in global shipping (see chart). This is due to the delivery of the latest generation mega-container ships and weaker global trade – primarily due to the Chinese economic slowdown/reorientation.

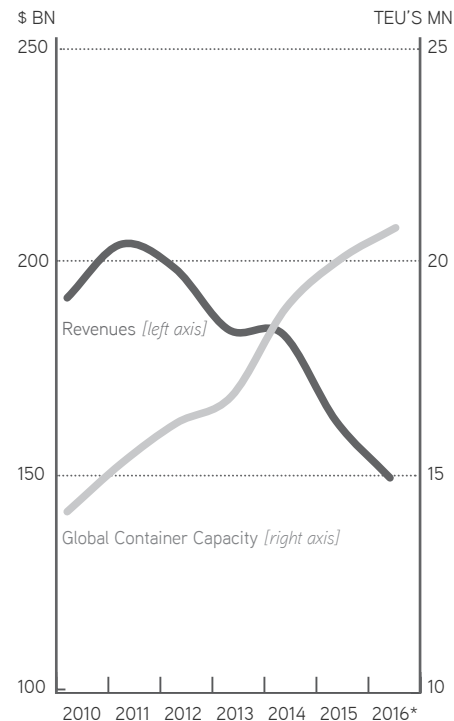
Container shipping companies have responded by forming alliances with competitors (2M, Ocean Alliance and THE Alliance) to share services and reduce overcapacity in order to prop-up shipping rates.

Mergers and Acquisitions (M&A) are another option. Maersk recently acquired carrier Hamburg Süd, adding a 'north-south' business line, and strengthening its position as the world's largest container fleet. Hapag-Lloyd (Germany) and UASC (U.A.E.) are also merging.

Another response has been to invest in technology and automation, an area where container shipping companies have lagged other industries. Last year, MSC and CMA CGM invested in Traxens, a French start-up providing real-time data on multi-modal container activity.

A third response is more strategic. Maersk plans to diversify away from container shipping toward logistics and inland transportation, where it sees long term potential, as confirmed in a statement by its CEO:

GLOBAL REVENUES AND CAPACITY OF CONTAINER SHIPPING INDUSTRY



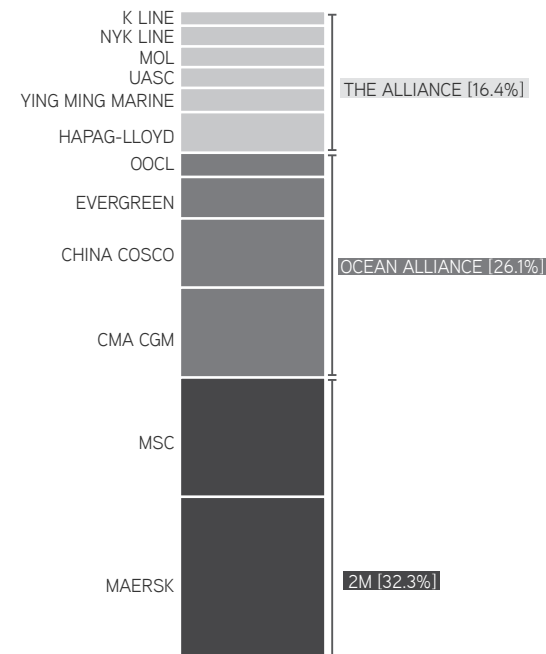
*last twelve months as of 30/09/2016

SOURCE: ALIX PARTNERS

“Currently, only about 10-12 per cent (of customers) buy that from us - If we can figure out a profitable model for providing inland transportation services at much bigger scale, that's an opportunity. There are other opportunities like that.”

Container shipping companies are looking to secure demand from smaller businesses. These typically account for a smaller share of turnover, but are growing fast. Maersk and CMA CGM have partnered with Alibaba to allow small merchants to book freight directly through Alibaba's "One Touch" portal - without having to go through third parties (the freight forwarders – see next section) to arrange shipment. This suits Alibaba as it can offer other logistics services in addition to sea shipping. CMA CGM will offer services for routes from China to the Mediterranean and Adriatic.

NEW SHIPPING ALLIANCES; % OF GLOBAL FLEET CAPACITY



SOURCE: FINANCIAL TIMES

WHO ARE THE MOVERS AND SHAKERS?



3) THE FREIGHT FORWARDERS: IF YOU CAN'T BEAT THEM, JOIN THEM

Freight forwarders represent the supply chain's middlemen. Their job is to organise shipments for clients using their own network or third-party providers. DHL, Kuehne & Nagel and DB Schenker are some of the big names in the global freight-forwarding industry.

This market segment is under severe competitive pressure for two main reasons:

(1) The impact of technology, making middleman redundant by matching supply and demand in real time.

(2) the challenges posed by a new breed of competitors, including e-commerce companies, but also logistics start-ups.

How traditional freight forwarders respond to these challenges will shape the industry. A common response so far has been to digitalise processes (such as freight booking and monitoring) to make them more efficient and transparent.

DB Schenker partnered with UShip, a logistics start-up, and launched Drive4Schenker, a portal matching cargo with shippers in real time.

Likewise, Kuehne Nagel implemented CargoSphere, a freight management system where clients have access to live freight rates.

DHL has partnered with Huawei, a Chinese technology company, to explore and develop new technology-enabled logistics solutions. According to DHL, the 'Internet of Things' could generate up to US\$1.9 trillion in additional value for the global logistics industry by 2025.

It should be noted, freight forwarding is only one of the services offered by logistics companies. Other services include road transport, parcel/postal courier services and contract logistics. Perhaps it is the parcel delivery business - which directly benefits from e-commerce - where logistics companies are putting more resources. DHL, in partnership with e-commerce players, launched an e-commerce portal in Germany "meinpaket.de", which guarantees DHL a dedicated stream of parcels. In 2015, DB Schenker launched Netlivery - a solution for e-commerce logistics. Many other examples exist.

IMPLICATIONS FOR PROPERTY

NO.1: THE NEED FOR SCALE

➤ We have seen how the logistics sector is attracting interest from industries as diverse as e-commerce and sea shipping. For these 'outsiders' to be able to compete effectively, the first step is to build scale and a comprehensive services/facilities network, to capture market share. This critical mass can be achieved organically or via M&A. Maersk, for example, is doing both. As an established shipping and port operator it acquired Hamburg Sud, expanding its trading capacity and market coverage. Damco - its internal logistics and forwarding arm - is comparatively smaller, but has seen a turnaround in performance since 2015, and this is an area where we expect growth and change.

➤ Also, new entrants – namely those with significant shipping capacity and scale – could damage existing operations. Any consolidation and rationalisation that ensues would filter through to bricks and mortar. Cosco, a Chinese shipping company and owner of the Greek port of Piraeus, has expressed an interest in investing in rail freight in South Eastern Europe as part of its plan to make the port a gateway and rail terminal for Chinese exports/imports. Last year, Cosco was reportedly under bidder in the sale of Greek train operator TRAINOSE.

NO.2: GLOBAL CROSS BORDER E-COMMERCE

➤ Alibaba and Amazon are facilitating global cross border e-commerce by providing a global sale/distribution channel for smaller merchants. The share of cross-border, online retail transactions is increasing rapidly. Shoppers are increasingly confident about buying on foreign websites, and retailers are willing to deliver items to almost every part of the globe. [By 2020, 45% of online shoppers are expected to buy goods from other countries.](#) This would represent a four-fold increase in the value of cross-border sales since 2014. This is new demand, in part, and will feed into demand for logistics capacity/space along the main trade routes between China and Europe and gateway locations.

➤ This demand could also give further impetus to alternative transport modes such as rail connections between China and Europe – a China-Germany service is already offered on Alibaba's portal. Alibaba is reported to have scouted Bulgaria as a location for its first European logistics platform to support its European expansion and expected growth in cross-border flows. 4PX, a Chinese logistics company specialising in cross-border e-commerce, recently leased a 9,300 sq m (100,100 sq ft) warehouse near Frankfurt's airport, a further 22,300 sq m (240,000 sq ft) in Dunstable, UK, and is considering expansion in the Czech Republic, where they currently operate a 11,250 sq m (121,000 sq ft) facility.

NO.3: TECHNOLOGY "CREATIVE DESTRUCTION"

➤ More generally, by improving flow and inventory management and removing inefficiencies, technology could potentially have a downsizing effect on big legacy industrial & logistic portfolios built when some technology applications were not yet available/mainstream. However, this impact is likely to be more than offset by growth opportunities created by better performing digital platforms.

➤ Future applications could be far more disruptive. In 2015, Amazon filed a patent for 3D printing delivery trucks: the declared intent was to get products to customers faster by 3D-printing them 'on the go' to save storage space (something we wrote about in 2015: [Getting closer to the customer](#)). This could have a big impact on the demand for logistics facilities near urban areas. While it will take time before this type of ground-breaking innovation becomes reality, the real estate industry should take note and prepare for it.

DOES AMAZON NEED AN AIRPORT?

Amazon has a comprehensive network of regional mega-fulfilment centres in Europe (totalling 3.4m sq m (37m sq ft) over 31 centres, including those under construction/planned) and is building its last-mile presence as it rolls out its two-hour delivery service more extensively across Europe (currently available in 15 cities). Going forward, Amazon will arguably need to beef up its presence upstream. For example, Amazon recently announced it will invest \$1.5b in a 3 million sq ft (280,000 sq m) facility at Cincinnati/Northern Kentucky International Airport in Ohio to make it its main US airport hub. A similar move is expected in Europe, where Amazon has chartered flights between the UK, Germany and Poland. It is also no coincidence that Amazon is building a new warehouse near Hamburg – the terminal of one of the shipping routes where Amazon can book freight on behalf of customers.

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\$2.6

billion in
annual revenue

2.0

billion square feet
under management

15,000

professionals
and staff

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