Investing in smart logistics

Logistics permeates every aspect of economic activity today, from shipping the fuel that manufacturers use to make products, to the courier companies that deliver the goods consumers purchase online. What has traditionally been seen as a cost is increasingly recognised as a source of competitive advantage in many industries.

We discuss how advances in logistics are increasingly critical to corporate progress. We focus on supply chain management and the logistics value chain; the rise of e-commerce; how technology is shaping the industry; warehouse logistics; and the logistics of energy trade. We also highlight some companies that excel in the logistics field.

INTRODUCTION: LOGISTICS IN THE 21ST CENTURY

Logistics – the management of the flow of goods between the point of origin and the point of consumption – has supported economic activity for as long as people have traded. While many of us take for granted that we can buy what we want in shops seven days a week or have instant access to multiple utilities, the increasingly sophisticated logistics machine that makes this possible is working harder and more intelligently than ever before. We are seeing innovative advances in energy, real estate, transport, e-commerce and technology to meet the increased demand in logistics supply chains. For this reason, we have coined the term ‘smart logistics’ to emphasise that far from being an old economy theme, logistics today is a vital driver of economic activity that is enabling further growth in developed and emerging markets.

THE LOGISTICS VALUE CHAIN

In our definition of the logistics value chain, operators are either asset-light or asset-intensive companies, and they generally operate on the back of global, intra-regional and domestic trade flows. Figure 1 shows a representative international customer structure with various logistics segments. Until five or six years ago, investors were mainly interested in global trade. However, post-financial crisis and given recession in Europe and the performance of some global stocks, investors have shifted investment emphasis from looking at global to intra-regional trade, and from looking at freight forwarders to integrators (which offer door-to-door services using various modes of transport).

*Worldbank

Figure 1. Source: Bain & Company.
This shift in focus has benefited companies like **Deutsche Post**, **Fedex** and **UPS**. Postal companies, which operate at a domestic level, have also benefited from the growing activity of e-commerce, turning around companies that were in structural decline due to fewer letter deliveries. As global trade declined because of the recession, this impacted the companies that operated on the main trade lines. The integrators have benefited from increased demand in intra-Asian and intra-American markets.

**ASSET-LIGHT VS ASSET-INTENSIVE?**

More and more logistics companies operate on an asset-light basis – this means they do not own the trucks, warehouses and other capital-intensive assets needed to fulfil delivery, or operate in the logistics industry. For example, many freight forwarders do not own transport assets – exceptions include DHL, TNT and UPS - instead, everything is leased, which supports their balance sheets, but international accounting changes could impact this approach in the future. These companies have tended to be the most successful over the last 10 years.

The asset-intensive logistics companies tend to be shipping companies, the integrators that still own airplanes on financial leases, and, to a certain extent, road haulage businesses. Asset-intensive companies tend to operate in areas where they have very little pricing power – they also tend to operate in cyclical areas in global trade. For example, shipping companies tend to have zero pricing power because there is an oversupply of ships, high fixed costs and market conditions are typified by intensive price competition which leads to the erosion of profit margins. There is a similar scenario of excess cargo capacity in the airline industry.

**SUPPLY CHAIN MANAGEMENT – A DRIVER OF HIGHER TRADE AND GDP**

Companies everywhere work hard to refine their supply chains by trimming timescales and introducing efficiencies to be competitive. Supply chain management (SCM) is a vital aspect of logistics because it helps businesses acquire physical materials and assemble them for delivery to customers on increasingly tighter timescales.

Effective SCM has the potential to improve world trade and growth, outcomes which underscore just how pivotal smart logistics is to the global economy. Reducing supply chain barriers could increase global GDP and world trade by up to six times more than just reducing all import tariffs would, according to the World Economic Forum. Chart 1 shows the positive impact on global GDP growth and trade given two supply chain scenarios and one of removing tariffs globally.

*The rise of intermodal transport, taking a cargo on multiple transport types rather than just being a rail carrier on rail, but rather being the end-to-end solution, is an important trend. XPO Logistics is a very fast-growing company increasingly geared to this trend via its acquisition of Pacer this year, which also positions it well for US-Mexico cross-border logistics, and thus reshoring from Asia. The company has an impressive technology angle too having modernised its routing, whereas some peers are still run as cottage industries.”*

Chris Moore
Portfolio Manager
Global Equities

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**The growth in global GDP and trade that could be achieved by reducing supply chain barriers – much higher than removing tariffs**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>GDP</th>
<th>Trade</th>
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<tbody>
<tr>
<td>A - ambitious</td>
<td>14.5%</td>
<td>4.7%</td>
</tr>
<tr>
<td>B - modest</td>
<td>9.4%</td>
<td>2.6%</td>
</tr>
<tr>
<td>C - Tariffs</td>
<td>0.7%</td>
<td>10.1%</td>
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</table>

SCM AUTOMATION AND TECHNOLOGY INNOVATIONS

The innovation and automation of SCM processes can reduce costs and improve productivity, while automation can also generate data that creates further opportunities to refine processes. For example, companies that are linking their SCM data to online analytics tools can understand more about the relationship between website traffic and real-world orders and shipments.

The cloud and in-memory computing markets are dominated by SAP, with its HANA product, and Oracle as they have been able to leverage their strength in back-end systems such as enterprise resource planning (ERP) – spanning financials/accounting, human resources/payroll and materials management – as the primary source which interfaces with SCM systems.4

According to Gartner, an IT research and advisory firm, by 2016, more than 40% of new logistics application purchases will be delivered through cloud-based software. There is considerable scope to penetrate small- and mid-sized organisations, particularly with lower-cost, cloud-based solutions. Technological change is impacting organisations widely; this is illustrated by the shift to e-commerce across multiple channels (online/mobile) and extended and virtual supply chains driven by outsourcing.5 Chart 2 below shows that shippers continue to outsource a range of services to third-party logistics (3PL) providers, with transport and warehousing topping this survey list.6

Data from sources like social media and analytics software can give companies insights into customer spending habits that can inform supply chain management. A benefit of big data technology is that it can analyse unstructured data to uncover sales-process information, such as quotes that never became orders, all the searches that never became quotes and different customer buying patterns. Understanding customer behaviour, price sensitivity and habits helps SCM managers to refine their sales and marketing strategies and build customer loyalty, and improve sales.

For large retailers, SCM has been streamlined by using technologies such as radio-frequency identification (RFID) tags and complex systems incorporating bar coding and GPS tracking. These can be used to track inventory and resources at various stages of the logistics supply chain in warehouses, during transit and on shop shelves. Deutsche Post has 70 delivery touch points when the barcode on an item is scanned so customers know where their parcel is at any point. Kuehne & Nagel, which uses technologies such as barcodes, RFID and GPS, has industry-leading logistics businesses serving sectors as diverse as automotive, drinks and forestry products.

Shippers create opportunities by outsourcing logistics services

COMPLEX GLOBAL SUPPLY CHAINS REMAIN IMPORTANT FEATURES

Technological advances and pressure for shorter delivery times are likely to combine to shorten global supply chains, particularly as the use of additive manufacturing (3D printing) and customisation becomes more widespread. With some assembly and production shifting back from South East Asia to Mexico (nearshoring) or the US (reshoring), the average distance of supply chains is being cut, yet this is unlikely to significantly lower supply-chain complexity. Parts will still be sourced across multiple, geographically disparate regions, consolidated, shipped, packed and tracked across multiple modes of transport. Supply chain complexity, however, is the main driver of logistics revenues, not geographic distance, especially in light of the commoditisation of traditional freight brokerage.7

21ST CENTURY LOGISTICS WAREHOUSING

There are two main structural growth drivers that underpin global logistics development in mature markets, benefiting the owners of latest-generation logistics warehouses:

1) **Challenged top-line retailer growth.** This is driven by the growing focus on supply chain efficiencies via consolidation of warehouse operations and/or relocation to capitalise on new transport infrastructure. This requires new developments, new locations and build-to-suit warehouses.

2) **The shift to online retailing.** There is a growing need to offer overnight delivery to consumers, which requires local distribution hubs and cost efficiencies. This leads to more outsourcing to third-party logistics companies (see Chart 2) that require build-to-suit logistics hubs and warehouses.

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<table>
<thead>
<tr>
<th>Year</th>
<th>B2C e-commerce sales (US$)</th>
<th>% change (annual)</th>
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<tr>
<td>2011</td>
<td>856.97</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>1042.98</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>1221.29</td>
<td></td>
</tr>
<tr>
<td>2014P</td>
<td>1444.97</td>
<td></td>
</tr>
<tr>
<td>2015P</td>
<td>1654.88</td>
<td></td>
</tr>
<tr>
<td>2016P</td>
<td>1859.75</td>
<td></td>
</tr>
<tr>
<td>2017P</td>
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“Goodman Group is the global leader in the industrial property sector. I prefer industrials over the office and retail property sectors due to strong demand for such properties coming mainly from the logistics and e-commerce industries. Higher demand for industrial properties is leading to a compression in capitalisation rates, which indicates the rise in the value of such assets.

“From a stock-specific perspective, I like Goodman Group for its management’s execution skills and its strong development pipeline. In fact, some of the major sovereign wealth funds around the world are working with Goodman due to its expertise in the sector. Overall, I believe the Goodman Group provides high and sustainable yield as well as growth in earnings, cash flow and asset value.”

Paul Taylor
Portfolio Manager
Asia Pacific Equities

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Chart 3. Source: Emarketer, June 2013

Note: includes travel, digital downloads and event tickets purchased via any digital channel. The data exclude gambling.

E-commerce logistics models in particular will continue to drive big changes in physical distribution networks, comparable to previous changes generated by the rise of global sourcing or the earlier centralisation of deliveries to retail stores via retailer-controlled distribution centres. These models are driven largely by the rapid worldwide increase in B2C ecommerce sales, as shown in Chart 3.

After price, anecdotal surveys indicate the cost and speed of shipping is the factor most important to consumers when considering online purchases.8 This is spurring investment in logistics and fulfilment so that retailers can differentiate themselves in the digital marketplace.

E-commerce sales as well as bricks-and-mortar retailing are giving rise to the latest class of logistics and distribution properties including mega e-fulfilment centres, parcel hubs and delivery centres, local urban logistics depots for rapid order fulfilment and returns processing centres.9
**CASE STUDY: M&S LOGISTICS FACILITY SETS THE BAR HIGH**

Tritax Big Box REIT owns one of the largest logistics warehouses in the UK. Tritax bought the 900,000 sq. ft. asset (the size of two football stadiums) in December 2013 for £82.6 million at an initial 5.1% yield, and has leased the facility to retailer Marks & Spencer for a 23-year term.

The retailer is continuing with a £250 million fit-out of the facility – this is 60 times the annual rent M&S pays to Tritax. This demonstrates how sticky the tenant is and how unlikely it is that large retailers would move sites within a sensible time frame.

The almost fully automated facility at Castle Donnington operates 24 hours a day with 1800 staff, up to two lorries arrive per minute at peak times, and there is good access to the nearby north-south M1 motorway. M&S fulfils its store and online sales as well as managing some returns. Tritax could add a rail terminal building to the site to increase income further. The warehouse is also located close to East Midlands Airport, offering further intermodal transport options.

**CASE STUDY: AMAZON – THE KING OF DISTRIBUTION CENTRES**

Amazon is responding to the growing demand for low-cost and speedy delivery by building new and efficient distribution centres. Chart 4 below shows how Amazon’s investments in fulfilment and technology have risen strongly, in conjunction with net sales over the last 10 years. Spending on fulfilment rose by 33.7% from 2012 to 2013 alone. Its new distribution centres have floor-to-ceiling shelves, fitting in twice as much stock as its old facilities. Also, its ‘cookie cutter’ approach to building new warehouses has halved construction times. Since 2006, total fulfilment capacity globally has increased from 11.8 million square feet to 66.4 million square feet.  

![Amazon’s increased spending on fulfilment & technology in relation to net sales](image)

Chart 4. Source: Amazon.

The company has responded to consumer demand for same-day delivery by opening local distribution centres. Amazon Logistics contracts out delivery to local courier services; this puts the goods into local distribution centres nearer to customers which enable faster delivery and lower shipping costs. This approach also helps to reduce the potential for capacity issues at busy delivery times like Christmas.

The expansion of Amazon lockers in locations across the UK is also creating greater flexibility; customers can now collect their orders from convenient locations like local train stations. A report by Bain & Company argues that Amazon is using innovations in logistics to generate long-term loyalty.  

Worldwide, Amazon is also using robotics to increase fulfilment productivity at fulfilment centres that now have robots which move the crates containing ordered goods to the human packers. Amazon acquired Kiva Systems for $775 million in 2012 and currently operates 1000 Kiva Systems robots, with plans to increase to 10,000 by the year-end. Automation is shortening Amazon’s supply chain and increasing efficiency; the company generates three times more revenue per employee than Walmart does.  

There is also revenue potential in the Fulfilment by Amazon service (FBA) which distributes goods on behalf of third-party vendors that sell through Amazon. Rolling out
FBA means that Amazon has the potential to capture growing e-commerce opportunities all over the world.

In summary, Amazon has shown a determination to treat logistics as a key source of competitive advantage, having invested heavily in fulfilment and technology over the past five years, capitalising on the industry-wide need to overhaul retail supply chains.

ENERGY SECTOR CASE STUDY: LIQUID NATURAL GAS (LNG)

The global natural gas industry is a good example of where value is created from investing in sophisticated trade-focused logistics. Exporting liquefied natural gas (LNG) requires turning the gas into an easier-to-transport liquid form before being exported using a specialist LNG vessel – the liquid form is then regasified at its destination port.

Norway-based Hoegh LNG is one of only three companies worldwide that operate floating storage and regasification units (FRSU). Our analysts believe the company has good prospects. It has deployed two of its vessels on leases to emerging market customers and has signed a letter of intent with an Egyptian lessee for the third; it should also lease the fourth vessel in its fleet, which is scheduled to deliver in 2015.

FRSUs typically have 40-year useful lives and are deployed on 10-15-year contracts. An FRSU’s operational costs are about one-third of the cost of a land-based regasification terminal. The floating vessel adds flexibility for developing nations that either: lack the funds to construct a fixed asset; want to avoid ending up with a redundant land-based asset; or do not want to rely on LNG imports over the long term.

Hoegh benefits from being one of three players today, but new entrants could put pressure on returns in the future. While the FRSU business is extremely capital-intensive – a Hoegh FRSU vessel costs approximately $330 million – the industry is seen as an infrastructure play and the cost of long-term financing is attractive.

Following the supply spike of shale gas in the US, which has supported the renaissance of the US economy, China’s demand for natural gas is expected to almost double by 2019, according to projections by the International Energy Agency (IEA), and LNG is expected to meet much of this demand. China’s appetite will help to maintain a global 2.2% annual increase in demand for natural gas, cementing a robust outlook.

SOME OF OUR FAVOURED LOGISTICS STOCKS

DX principally operates in the B2B parcel delivery space serving the UK retail sector. It also delivers passports for the Home Office and high-value event tickets over its highly secure network – its staff are vetted, there are 100% track-and-trace capabilities, and also GPS delivery confirmation. Its other arm, DX Freight, delivers outsize goods and has a specialist two-man delivery-service contract with UK retailer John Lewis.

Panalpina WeltTransport Holding is a Switzerland-based group that provides freight forwarding and logistics services. The company is restructuring by turning around its loss-making units, increasing the productivity of the workforce and by taking advantage of the set-up of global back office operations in low-cost counties. Our analysts believe the market is underestimating the scope for margin expansion in coming years.

SITC International Holdings combines a proven Chinese inland logistics business, which is experiencing rapid growth as third- and fourth-tier cities grow in importance, with intra-Asia container shipping, which is more profitable than clogged global routes.

UK Mail aims to put the customer at the heart of the logistics process. The company sends customers an SMS to let them know a delivery is on the way, but also gives customers full flexibility to tailor their delivery options and times. In this way, the company can control the flow of goods and avoid time wasted on package deliveries.

UPS is a well-known logistics brand that has benefited specifically from its forward-looking, technology-driven efficiency improvements. During the tech boom, UPS had an e-commerce multiple, but was damaged by the crash and aftermath. Now that e-commerce is growing strongly again, UPS is benefiting from a rerating in its multiple. It is also well-placed to benefit from domestic and global growth of online retail, both of which are forecast to grow (CAGR) by four times the rate of US and global GDP respectively, over the period 2013-2018. UPS should also be a beneficiary of reshoring.
REFERENCES

1 Freight integrators are transport service providers that arrange full-load, door-to-door transport by selecting and combining the most sustainable and efficient mode(s) of transport.


5 Ibid.


8 Ibid.


11 Retail Holiday Newsletter 2013-2014, issue 4, Bain & Company.


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