# Global Logistics Markets

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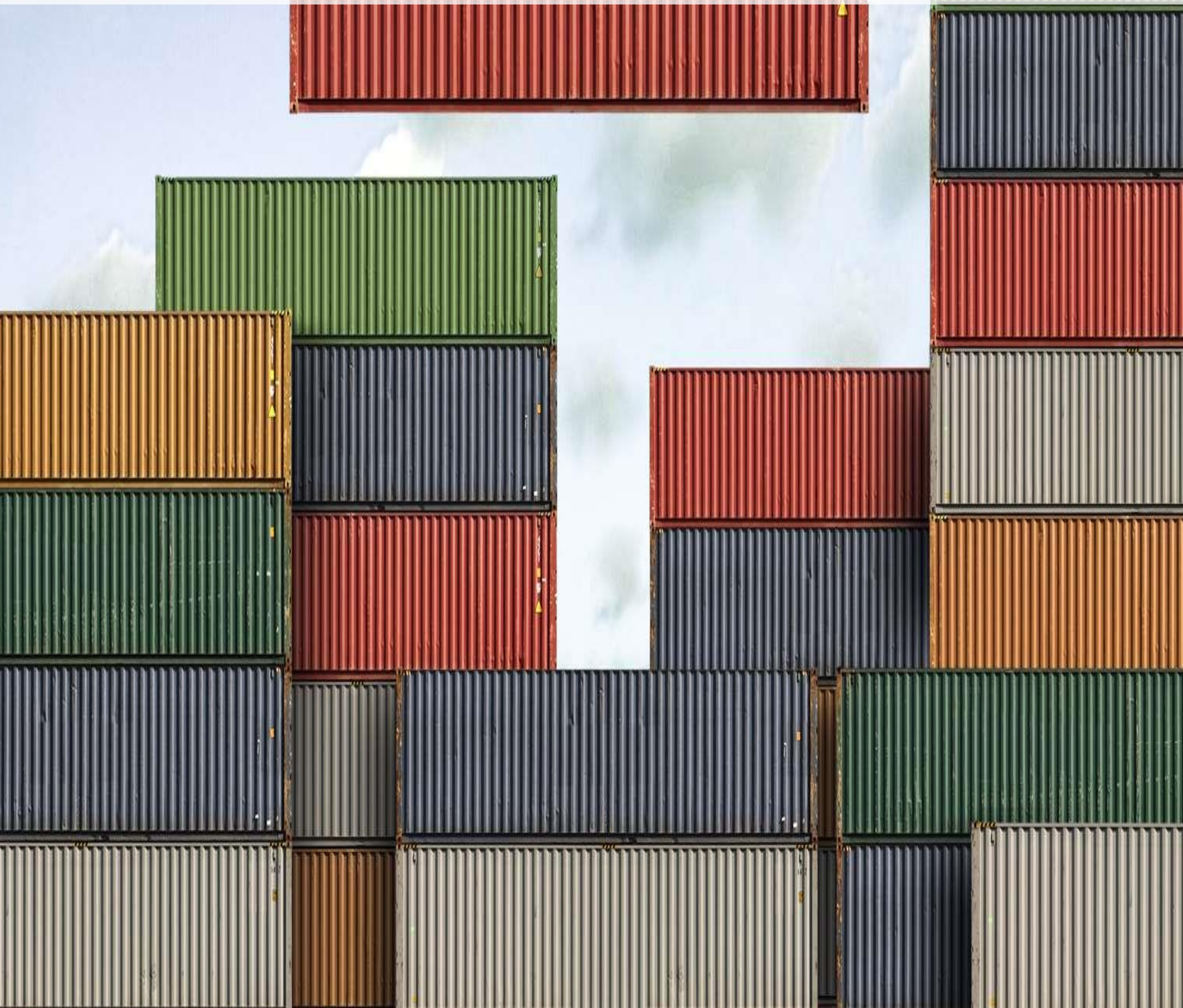

## Executive summary

Given that the logistics sector is dependent on the global economic environment and international trade flows, the market is still suffering the lingering effects of the global economic crisis and recovery has been slow. Nevertheless, sector players should be able to tap substantial potential for growth going forward. North America and Southeast Asia appear to be the most interesting markets for logistics in general and contract logistics in particular.

Emerging markets are expected to offer above-average growth rates for the industry. Intraregional trade is becoming increasingly important in Asia in particular, and this, combined with high GDP growth rates, may transform the region into the most significant regional cluster in the world.

The key trend currently visible in mature markets is a move away from commodity services toward a growing focus on specific verticals/industries that offer additional value-adding possibilities and enhanced margin potential. Another key area of potential lies in addressing the change in demand and capturing growth available from the online retail-driven B2C increase in volumes.

The industry's M&A approach has become increasingly focused over recent years. Smaller deal sizes are now expected to prevail, with deal volumes likely to remain flat in the coming years. Sector players may continue to try to acquire smaller sized competitors to fill particular strategic or regional gaps and thereby greatly improve the client offering.

Financing very much depends on the transportation sector and particularly the underlying asset intensity. More specifically to the logistics sector, a few observations can be summarized as follows: Asset-light freight forwarders have very limited financial liabilities and do not really need balance sheet support for growth financing from banks. Continuing bank clients are mostly large global players with a substantial asset base and considerable financing requirements. Event-driven financing definitely plays a key role, particularly in large-scale transactions, but the scope for large deals in the logistics sector is likely to remain limited in the near future. Ship finance is operated as a specific discipline and few banks have specialized desks to address the respective clients. Rail infrastructure financing will continue to be concentrated in DCM (debt capital market) as players benefit from broad capital market access.

In summary, global logistics providers face the challenge of making the right strategic decisions. They need to develop their current customer/region portfolio to secure access to growth markets and high-margin business activities in an increasingly commoditized environment. Applying an interdisciplinary approach combining corporate strategy and corporate finance remains the key to success.

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# 1 Market demarcation

From an industrial trend perspective, this report focuses on contract logistics as a sample sector to depict current trends in global trade flows and the impact on the related service providers. To provide a more comprehensive view of the general transportation and logistics industry we aim to briefly introduce the relevant subsectors of the broader transportation/logistics industry.

### Contract logistics

Contract logistics focuses on medium to long-term contractual relationships between customer and logistics service provider – typically ranging between 3 and 5 years. Contract logistics typically includes a variety of supply chain services such as warehousing, packaging, labeling, transportation, quality controls and much more. By increasing their engagement with clients, contract logistics providers were able to increase barriers to entry and exit as well as deliver integrated logistics solutions to their clients. Switching costs for a customer in a contract logistics relationship are significantly higher than for the more transparent and standardized forwarding services. Contract logistics providers offer customized full-service packages for their customers, leveraging their IT platforms and their human capital. Offering such complex services also entails longer lead time for developing and implementing solutions as well as higher capital commitments for individual solutions, sites and systems.

### Transportation – Ground

Ground-based transportation usually refers to asset-based business models providing transportation of unit load or bulk goods by road or rail. Services are offered by truck or train, as part load or full load. Road and rail transportation are typically asset-intensive businesses with the highly commoditized road transportation being particularly fragmented and competitive.

### CEP (Courier Express Parcel)

Courier services transport shipments that are typically valuable – permanent personal supervision as well as seamless transportation documentation of the shipment are typical features of courier services.

Express services offer quick and reliable transportation – usually with fixed delivery times. Unlike courier services, express services do not need exclusive personal supervision of the transportation value chain. However, express transportation is usually performed within the service provider's own network.

Parcel services concentrate on transportation of widely standardized lightweight packages, usually limited to 31.5 kg, from door to door. The weight limit ensures that a single person can pick up and deliver the parcel.

Service specifications in this segment mean that full control of the transportation network is widely regarded as a prerequisite for providing top service quality and realizing full scale effects.

## GLOBAL LOGISTICS MARKETS

### Freight forwarding

Freight forwarding in its purest form is an asset-light business model whereby forwarders buy capacity from carriers (airlines, trucking companies, ocean carriers) and offer this capacity to their customers as part of organizing their transportation requirements. Due to the mainly transactional relationship between freight forwarder and customer, freight forwarding volumes typically develop in line with trade flows, resulting in a certain volatility of volumes and revenues. Global presence, comprehensive access to handling capabilities at airports/seaports, longstanding carrier relationships and sophisticated IT systems are key differentiating criteria for international forwarding players. Services such as tracking & tracing, warehousing, customs brokerage and document handling typically complement the offering of freight forwarders.

### 4PL – Fourth-party logistics

The original concept of 4PL focuses on an asset-free business model, providing comprehensive solutions for customers' transportation and logistics needs. The 4PL provider works with a range of third party providers. In its purest form the concept has not been able to gain major importance, though in some cases hybrid forms can be observed.

### Distribution

Distribution companies use their own networks for specific types of goods servicing specific B2B or even B2C points of sale. It is a very fragmented and regional market. It can be divided into subsectors for chemical, electrical, food and non-food and tobacco distribution. Value-added services are also part of the service offering, e.g. chemical distribution includes services such as blending, filling and quality controls. The market segment has high barriers to entry due to the specific means of transportation and storage applied owing to the different features and requirements of specific goods, access to own warehouses and distribution networks, including transportation vehicles and especially client reputation and scale. The key differentiating item is the fact that distributors are also considered to own the underlying goods being distributed, which leads to higher inventory exposure and risk, but also higher margin levels.

# 2 Global logistics trends

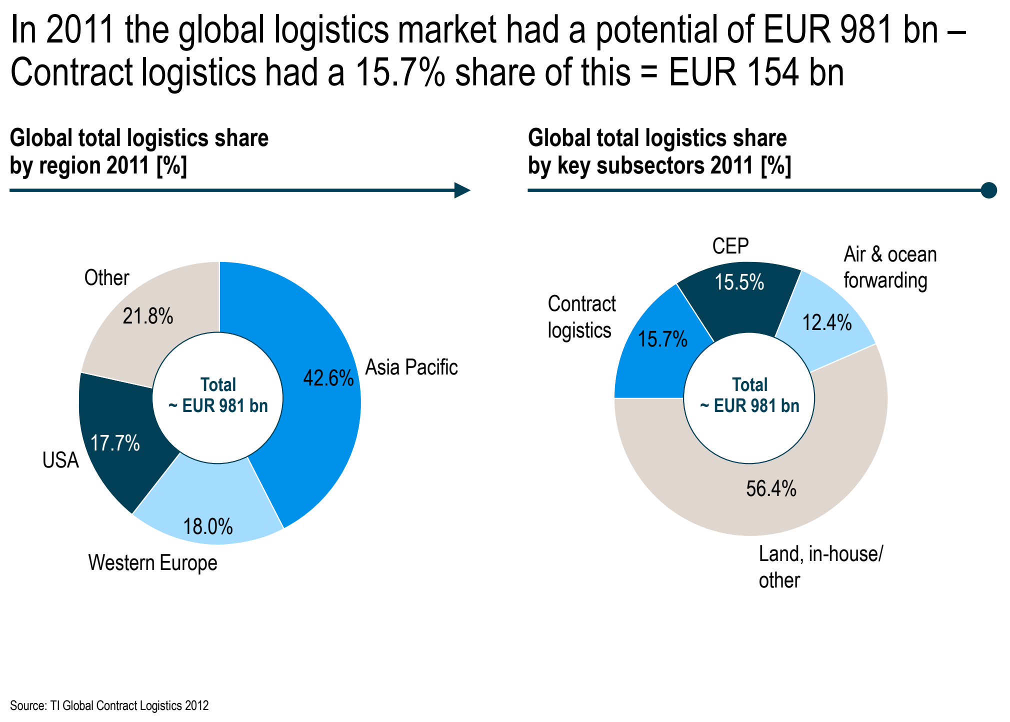
## 2.1 Overview of the global logistics market

In 2011, the overall global logistics market represented a total volume of approx. EUR 981 billion. The overall global logistics market is expected to grow at an average annual growth rate of 2.4-3.0% for the next 5 years, driven by regional and global trade volumes and a growing share of outsourced logistics.

Over the past ten years, global logistics markets have grown substantially – typically by 2.0-2.5 times the global GPD. In the economic crisis of 2008/09, however, this correlation also worked in the opposite direction. Current annual performance indicates a reduction in the multiple since logistics market performance stagnated, particularly in 2012 and 2013 while the economic situation was picking up, i.e. a certain decoupling from the economic cycle is visible due to factors like less centralization of inventory and reduced manufacturing in developed countries.

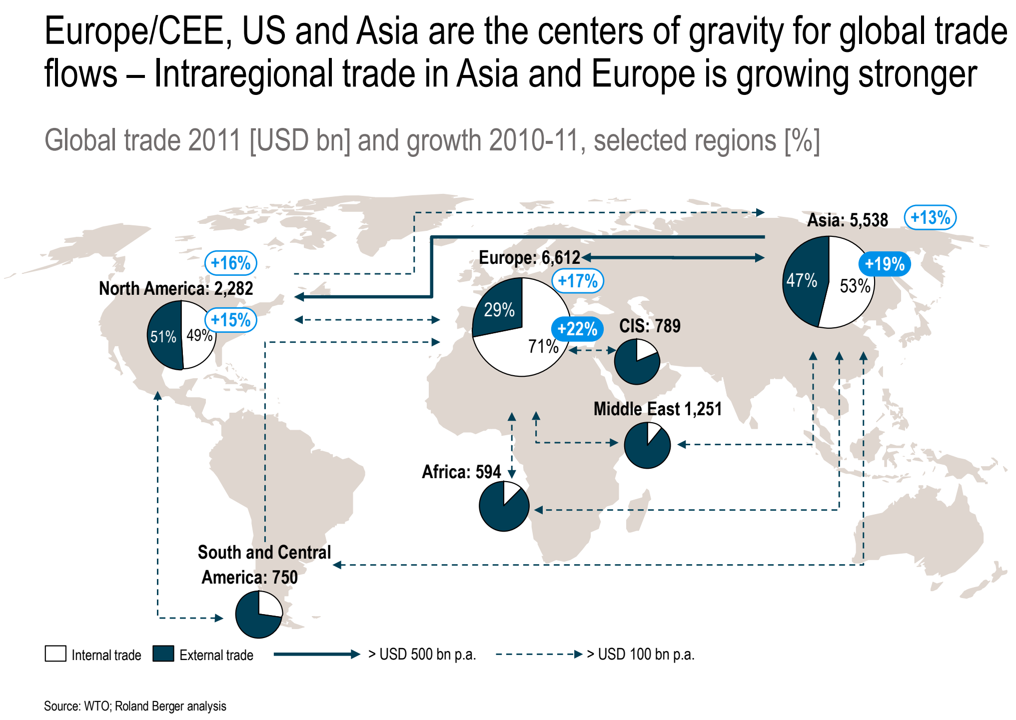
Closely correlated to the development of trade flows, logistics markets are quite complex in respect of their regional structures, their different segments and the universe of key market participants.

Figure 1: Global logistics share by region and market 2011




In the past we have seen significant growth of specific trade lanes and the development of global trade. The main enabler of the development/increase in free global trade in recent decades has been the World Trade Organization (WTO), an intergovernmental organization born out of the reconciliation talks at the end of the Second World War. The WTO's mission is to prevent arguments over issues such as quotas and "dumping" escalating into full-scale trade wars – and they have been very successful in doing so.

Figure 2: Global trade 2011 and growth 2010-11




One possible consequence of the WTO's activities was China becoming a main driver in the global industry. By acceding to the WTO, the Chinese government committed to a root and branch reform of its economy, which has subsequently allowed it to grow to a position of global importance. China's reforms and those of other economies in the Asia Pacific region have led to economic integration, which has in turn transformed the supply chains of sectors such as:

> Consumer electronics
> Clothing
> Food
> Furniture

As a result, the demands on freight forwarding (new trade lanes of sea and air freight), routes and warehousing and contract logistics have grown. Large, integrated logistics providers, capable of supporting such complex, international supply chains were afforded the opportunity of entering these markets.

## 2.2 Global contract logistics market

In terms of the aforementioned changes in volumes on trade lanes and globalization, new geographies and new services became relevant for contract logistics providers. Over time, these services have developed into the following categories:

> Supply logistics
> Distribution
> Reverse logistics
> Service parts logistics

In general, contract logistics providers differ from each other based on these services as well as on their geographical/global footprint.

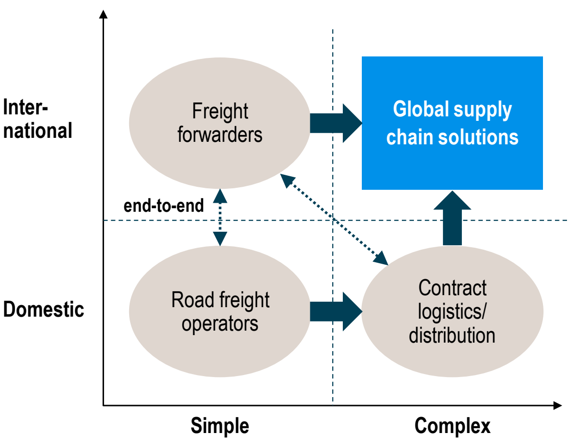
Logistics networks have adapted to changing needs. Looking to the US, logistics "centers of gravity" are moving further inland as land along the coasts becomes more and more expensive. The logistics service providers have adapted their offerings to this change by:

> Further centralizing inventories
> Cross-docking for others

Figure 3: Development of contract logistics players

Many contract logistics players have developed from road freight or air/sea freight operations into contract logistics

**Value positioning** – Schematic




> Many of the world's largest logistics companies have sought to increase their margins by enhancing the value of the services they offer as well as increasing barriers to market entry by leveraging their global scale, technology capabilities, brand and intellectual capital
> The matrix plots the industry segments by geographic scope of services offered and the complexity of the functions they provide
> Many companies started out as road freight operators providing commoditized, simple point-to-point delivery services on a local or national basis. They then developed more value-adding and sophisticated contract logistics/distribution services. These are still largely domestic in nature
> Freight forwarders provide international services, but as with road operators, these are simple and commoditized. However, by combining their international scope with contract logistics players' high-end services, they have been able to move into the 'global supply chain solutions' quadrant

Source: TI Global Contract Logistics 2013

In parallel to the adaptation of service requirements and logistics networks, the positioning of contract logistics providers has also changed. The starting points for the providers were:

> Road freight operators (e.g. DACHSER) or
> Freight forwarders (sea freight and/or air freight) (e.g. Panalpina)

By means of organic growth or M&A they managed to include additional value-added services such as contract logistics and distribution services to their portfolio of offerings.

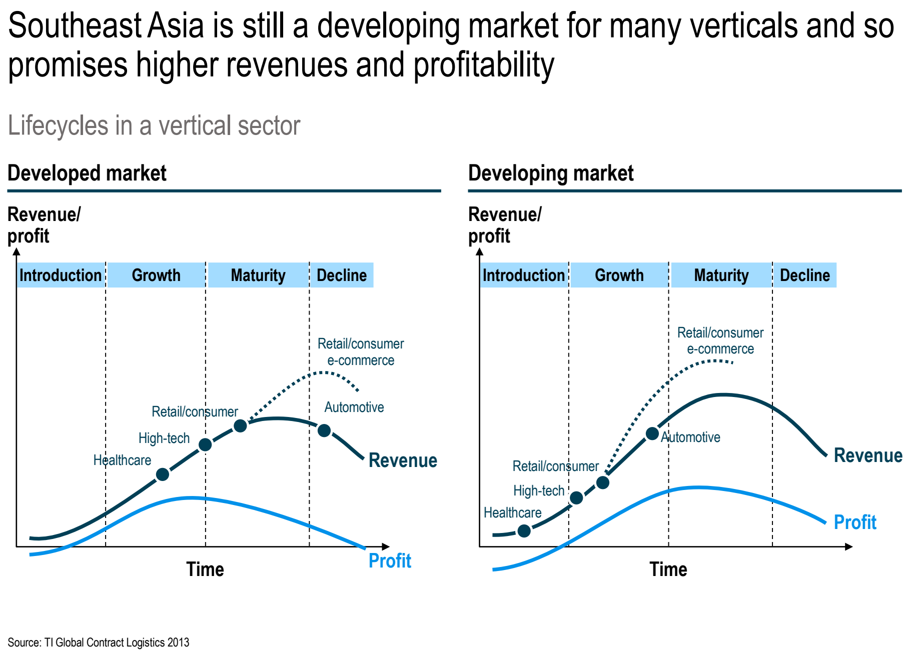
Frequent and large acquisitions were made in the years before 2009. In some cases the acquisitions were very well integrated – for example: Exel Inc. catapulting DHL Supply Chain into the market leading position, BAX significantly improving SCHENKER's footprint in North America and ABX substantially expanding DSV's land transportation and freight forwarding network.

Market development has been somewhat disappointing in comparison to 2011, but there are still lots of opportunities:

> In emerging markets
> For specific verticals/industries
> In mature markets

Therefore, contract logistics providers should closely monitor their business portfolio (geographies and verticals served) to learn more about the specific maturities of their businesses in order to develop a strategy (sales and operations) more focused on growth opportunities. In the past we saw a couple of players with a strong focus on the automotive business in North America and Europe get seriously hit by the crisis in the automotive industry. Other companies with more of a focus on the consumer goods and/or pharmaceutical business in Southeast Asia enjoyed continuous growth of their operations.

Figure 4: Comparison of a developed and a developing market in a vertical sector




Looking at the current verticals served by the leading contract logistics players, we see a significant degree of dependency on automotive, consumer goods and industrial products – some strategic redirection appears inevitable.

Figure 5: Industry coverage by contract logistics providers

## Which industries/verticals are covered by which CL provider

### Cl providers – Industry coverage[1)]

| LOGISTICS COMPANY | Automotive | Retail/ consumer | Pharma/ healthcare | High tech | Fashion | Oil & gas | Defense | Industrial | Chemicals | Aerospace |
|---|---|---|---|---|---|---|---|---|---|---|
| Agility | ◔ | ◑ | ◕ | ◑ | ◔ | ◕ | ◕ | ◕ | ◕ | ○ |
| APL Logistics | ◕ | ◕ | ○ | ◑ | ◕ | ○ | ◑ | ◑ | ○ | ○ |
| CEVA | ● | ● | ◕ | ● | ◔ | ◕ | ◔ | ◑ | ◔ | ◔ |
| Damco | ◑ | ◑ | ◔ | ◑ | ◕ | ◑ | ○ | ◑ | ◑ | ○ |
| DB Schenker | ● | ◑ | ◑ | ◕ | ◔ | ◔ | ◑ | ◕ | ◕ | ◔ |
| DP DHL SC | ● | ● | ◕ | ● | ● | ◕ | ◑ | ◕ | ◕ | ◑ |
| DSV | ◑ | ◔ | ◑ | ◔ | ○ | ○ | ○ | ◔ | ◔ | ○ |
| Fiege | ◑ | ◕ | ◕ | ◔ | ◕ | ○ | ○ | ◕ | ◕ | ○ |
| Kühne + Nagel | ◑ | ◕ | ◕ | ◕ | ◑ | ◑ | ○ | ◕ | ◑ | ◕ |
| Menlo Worldwide | ◕ | ◕ | ◑ | ◑ | ◑ | ○ | ◕ | ◔ | ◔ | ◔ |
| Norbert Dentressangle | ◑ | ◕ | ◑ | ◔ | ◑ | ○ | ○ | ◕ | ◕ | ○ |
| Panalpina | ◑ | ◑ | ◑ | ◕ | ◑ | ◕ | ○ | ◑ | ◔ | ◔ |
| Penske | ● | ◑ | ◑ | ◔ | ◔ | ○ | ○ | ◑ | ○ | ○ |
| Rhenus | ◕ | ◑ | ◕ | ◕ | ◔ | ○ | ○ | ◔ | ◔ | ○ |
| Ryder | ● | ◕ | ○ | ◑ | ◔ | ○ | ○ | ◑ | ○ | ○ |
| Schneider | ◑ | ◕ | ◔ | ◑ | ○ | ◑ | ○ | ◕ | ◕ | ○ |
| SNCF Geodis | ◕ | ◕ | ◕ | ◕ | ◑ | ◔ | ◑ | ◑ | ◑ | ◔ |
| Toll | ◑ | ◕ | ◔ | ◔ | ◔ | ◑ | ◑ | ◕ | ◔ | ○ |
| UPS | ◑ | ◔ | ◕ | ◕ | ◔ | ○ | ◑ | ◔ | ○ | ◔ |
| Yusen logistics | ◕ | ◑ | ◕ | ◑ | ◔ | ○ | ○ | ◑ | ◔ | ○ |

**Further information needed:** Name of customers? Revenue? Which services? Which locations?

● Market leader, very strong, key strategic focus, large proportion of company business
◕ Strong presence, important business sector, strategic focus
◑ Reasonable market presence
◔ Few contracts and little strategic focus
○ No/very little presence

1) Rating based on review of company strategies; business segmental revenues breakdown; announced contracts; company marketing materials; TI analysts' opinion

Source: TI Global Contract Logistics 2013, Roland Berger

For ongoing success, contract logistics providers should remain nimble and flexible to adapt to change, which has a significant impact on investments and the calculation of their respective ROI.

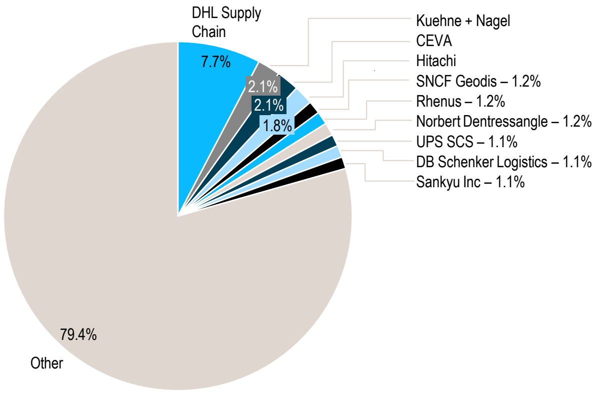
Figure 6: Largest contract logistics providers and global contract logistics market share 2013

## The global Contract Logistics market is very fragmented - DHL Supply Chain has the largest market share of 7.7%

**WORLD'S LARGEST CONTRACT LOGISTICS PROVIDERS 2013**

| Company name | [EUR m] |
|---|---|
| DHL Supply Chain | 12,939 |
| Kuehne + Nagel – Contract Logistics | 3,596 |
| CEVA – Contract Logistics | 3,593 |
| Hitachi Transport | 2,993 |
| SNCF Geodis | 2,015 |
| Rhenus AG | 2,000 |
| Norbert Dentressangle | 1,950 |
| UPS SCS | 1,885 |
| DB Schenker Logistics | 1,841 |
| Sankyu Inc | 1,804 |

**GLOBAL CONTRACT LOGISTICS MARKET SHARE 2013 [%]**




Source: TI Global Contract Logistics 2013

DHL Supply Chain, a subsidiary of the German Deutsche Post AG, is the undisputed global market leader. DHL Supply Chain took over Exel Inc. in 2006, which was formed out of a merger between NFC/Ocean Group/MSAS and Tibbett & Britten in the years before.

The global number 2 in contract logistics is Swiss Kuehne + Nagel, followed by CEVA, with Dutch origins and having been created by financial sponsor Apollo Management through a merger of two businesses (TNT Logistics & EGL Eagle Global Logistics).

DHL Supply Chain has a global market share of 7.7% (far ahead of its competitors). Together with the rest of the top 10 players, they collectively account for just 20.6% of the total contract logistics market, clearly indicating the high levels of fragmentation that exist in the industry.

There is true potential for further consolidation through mergers and acquisitions in contract logistics leading to a generally full portfolio of service offerings among the major players.

Figure 7: Service profile of contract logistics providers

## Basic information about providers' service portfolios is available – Further details need to be researched

CL providers – Service profile

| | SERVICES | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2 PL | | | Supply logistics | | Distribution | | | | | | | Service parts logistics | | | | | 4 LP/ LLP |
| LOGISTICS COMPANY | Land trans-port | Air freight | Sea freight | VMI | Origin conso-lidation | Distri-bution centers | Merge in transit | Trans-portation mgmt. | LTL/FTL network | Value added logistics | Express parcels | Freight forwar-ding | Parts distrib. centers | Field stocking locations | Own transp. network | Returns | Repair | ... |
| Agility | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| APL Logistics | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ |
| CEVA | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ |
| Damco | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✗ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | (✓) |
| DB Schenker | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | (✓) |
| DP DHL SC | ✓ | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| DSV | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Fiege | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Kühne + Nagel | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ |
| Menlo Worldwide | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Norbert Dentressangle | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Panalpina | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✗ | ✓ | ✓ | ✓ |
| Penske | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ | ✗ | (✓) |
| Rhenus | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✗ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | (✓) |
| Ryder | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | ✓ | ✓ | ✓ | (✓) |
| Schneider | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ |
| SNCF Geodis | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ |
| Toll | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | (✓) |
| UPS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Yusen logistics | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | (✓) |

**Further information needed:** Which IT systems? Which 2 LPs in system? Level of neutrality? Quality of services?

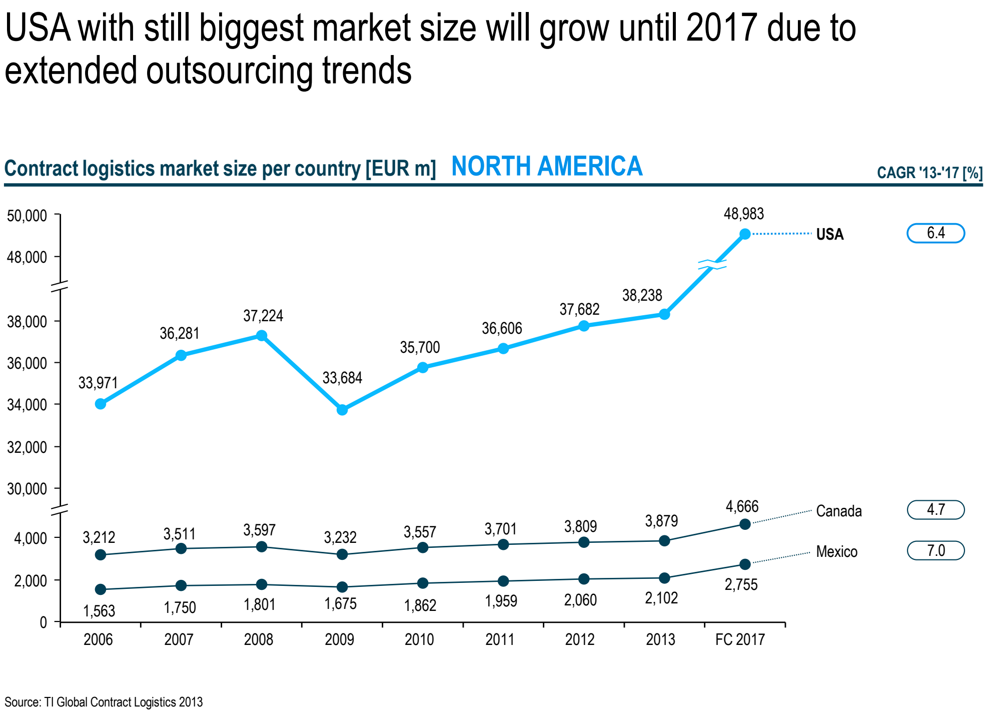
Source: TI Global Contract Logistics 2013, Roland Berger

Let's focus on the 3 most important regions (in terms of volume and growth) of North America, Europe and Southeast Asia and take a closer look at contract logistics business development and related opportunities.

## 2.3 Regional logistics markets trends

### North America

Figure 8: Contract logistics market size per country (North America)




The US and Canada's contract logistics markets each grew just under 2.0% in 2013.

In North America, the contract logistics market grew 1.5% in 2013. For the second time after 2012, the total size of the market exceeded the pre-crisis level of 2008 prior to economic downturn. This was mainly driven by the increased manufacturing production in Mexico, resulting in a 5.2% increase in contract logistics in 2012 as well as 2.0% in 2013.

There is a general assumption that the growth in Mexican manufacturing is a consequence of the trend in "nearshoring". For some North American manufacturers, high transportation costs to/from and rising labor costs in China/Southeast Asia led to a shift back to the Americas/Mexico to take advantage of NAFTA incentives as well as the proximity to the US market.

The gas and oil industry was an enabler of contract logistics in Canada and the US, with both countries able to take advantage of NAFTA. Canada benefited from an increase in trade with Asia via its western ports of Prince Rupert and Vancouver.

Besides the oil and gas industry, which has played a major role in the expansion of US contract logistics, the increase in e-commerce and the ongoing outsourcing trend in the US manufacturing industry had a significant influence on growth.

The 2013-2017 growth forecast for North America is 6.3%. Much of this will likely come from continued growth in Mexico and Canada as well as industry-specific needs and requirements.

The main driver will be the increasing level of outsourcing in North America up to the level of penetration in Europe (especially the UK).

Aside from market leader DHL Supply Chain, the remaining top 10 are mostly US-owned companies such as Ryder, Schneider, UPS and Con-way (Menlo). The US companies tend to be domestically focused, with none achieving market dominance elsewhere in the world, except on a niche basis. The fact that the top 10 contract logistics providers account for only 25.9% of the total market shows the very high level of fragmentation in the North American market and leaves room for the top 10 players to grow their market share.

**Europe**

Being in a recession since 2011, developments in the contract logistics business in Europe were far below expectations. By the middle of 2013, most of the region was in a recession; manufacturing activity had contracted and unemployment had risen.

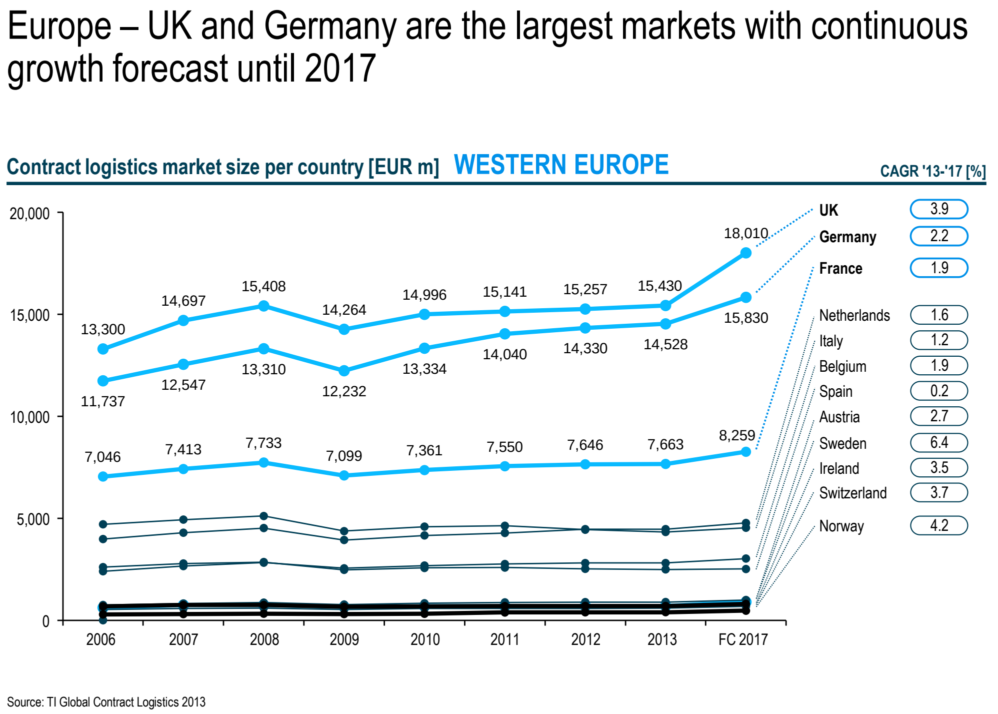
Germany was the strongest of the individual economies, showing signs of strain toward the end of 2012 but recovering slightly in 2013.

The effects of the economic environment were therefore felt in the European contract logistics market. Weighted growth for the region reached only 1.1% in 2012, 5.8% for the CEE and 0.9% in mature Western European countries. In 2013 growth was even slower with an overall growth rate in Contract Logistics of only 0.5%.

The downturn in Southern Europe's economies resulted in a significant drop in contract logistics business in this region – for example, CEVA suffered financially due to its exposure to this part of Europe and the automotive industry in particular.

Taking the region's continued economic downturn as an opportunity, selected mergers and acquisitions presented themselves for those companies looking to expand or enter the European domestic market. Contract logistics had become a commodity service and competition as well as margins came under pressure – specialization and focus on specific sectors offer a way out of commoditization and lead to a price premium.

Figure 9: Contract logistics market size per country (Western Europe)

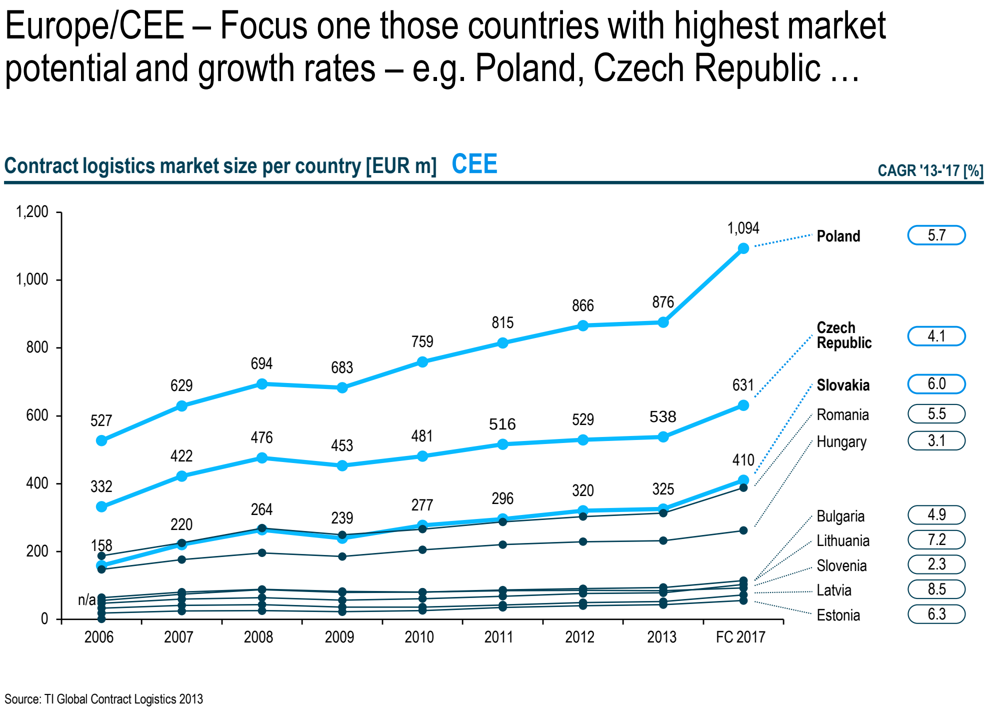



Assuming an improving European economy, the forecast indicates a CAGR growth rate of only 2.5% and 5.1% from 2013 to 2017 for Western and Central and Eastern Europe, respectively.

Together, Germany and the UK, two of the region's largest economies, account for c. 50% of Europe's contract logistics market.

We forecast an increase in contract logistics activities such as demand for warehousing and growing intra-European trade, which will very likely result in Germany and the UK maintaining their leadership roles through 2017. While "classic" retail logistics will see only very moderate growth, e-commerce (B2B and B2C) will grow by approx. 7-8% per year, opening up additional growth opportunities for contract logistics service providers in fulfillment (not only in Europe).

Figure 10: Contract logistics market size per country (CEE)




Eastern and Central Europe are set to increase their market share as infrastructure projects link to Western Europe on one side and Asia, Russia and the Middle East on the other. As a forecast for 2017, the Eastern and Central European countries will likely expand their share to 16% of Europe's total contract logistics market.

## Asia Pacific

In the past decades we have seen some major shifts in trade patterns:

> Traditional trade lanes connecting China with the US and Europe are losing some of their importance
> The "rising star" is Africa, being among the fastest growing markets for China, as investors target mining and infrastructure opportunities
> According to the Chinese government, trade with Africa was up over 25% for 2012
> According to China's Ministry of Commerce, Africa is likely to surpass the US and Europe as China's largest trade partner in the next three to five years (mainly with commodities and crude materials)
> China is also already one of the most important trade partners for Argentina, Chile and Colombia
> The "Modern Silk Road" between Asia and the Middle East is also resulting in increasing trade. From 2001 to 2010, trade increased over 700% and now more than half of the Middle East's trade is with Asia

Big freight forwarders, such as DHL Global Forwarding, Panalpina, Kuehne+Nagel and Damco, as well as mid-size service providers like RHENUS, DACHSER, Hellmann, Fiege and others, are in the process of developing this trade lane by expanding multimodal products that combine ocean freight and air freight services to new destinations. Beside Asia's increase in external trade, there is a clear trend toward intraregional trade.

Figure 11: Major components of the LPI score

With the exception of Singapore and Hong Kong, the logistics setup in Asia is not as good as in Europe or the US

**Six major components of the LPI score**

1. The efficiency of the clearance process (speed, simplicity and predictability of formalities) by border control agencies, including customs
2. The quality of trade and transportation related infrastructure (ports, railroads, roads, information technology)
3. The ease of arranging competitively priced shipments
4. The competency and quality of logistics services (transportation operators, customs brokers)
5. The ability to track and trace consignments
6. The frequency with which shipments reach the consignee within the scheduled or expected delivery time

| Economy | Rank | Score | % of highest performer |
|---|---|---|---|
| Singapore | 1 | 4.13 | 100.0 |
| Hong Kong SAR, China | 2 | 4.12 | 99.9 |
| Finland | 3 | 4.05 | 97.6 |
| Germany | 4 | 4.03 | 97.0 |
| Netherlands | 5 | 4.02 | 96.7 |
| Denmark | 6 | 4.02 | 96.6 |
| Belgium | 7 | 3.98 | 95.3 |
| Japan | 8 | 3.93 | 93.8 |
| United States | 9 | 3.93 | 93.7 |
| United Kingdom | 10 | 3.90 | 92.7 |
| Austria | 11 | 3.89 | 92.5 |
| France | 12 | 3.85 | 91.2 |
| Sweden | 13 | 3.85 | 91.2 |
| Luxembourg | 15 | 3.82 | 90.3 |
| Switzerland | 16 | 3.80 | 89.7 |
| Spain | 20 | 3.70 | 86.4 |

Source: 'Trade Logistics in the Global Economy' 2012 The International Bank for Reconstruction and Development/The World Bank

Except for Singapore and Hong Kong the logistics setup in Asia is not as developed as it is in Europe or the US, resulting in quite a low LPI score (logistics performance indicator, according "Trade Logistics in the Global Economy", 2012 by The International Bank for Reconstruction and Development/The World Bank).

Therefore, in order for intra-Asian trade to really take off, infrastructure improvements are needed across the region. China, the dominant player in the region, is taking the lead as it assists with infrastructure projects in neighboring countries. Along with internal projects, the linking of countries to one another and, more importantly, to China is producing a complex intra-Asian supply chain.

Figure 12: Development of intraregional trade in developing Asia 2030

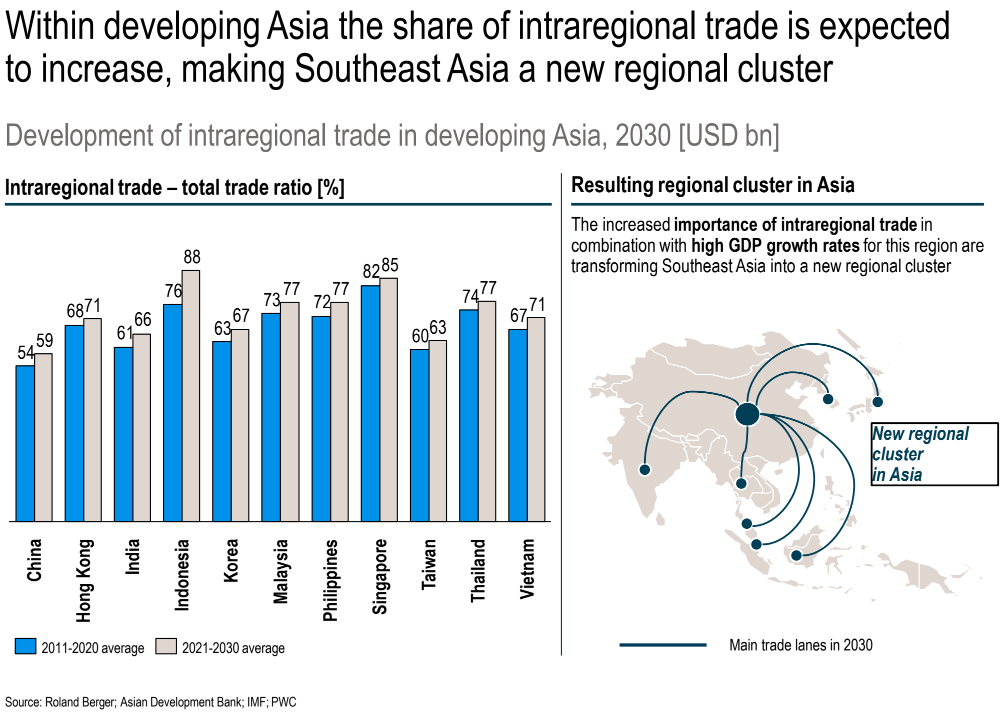
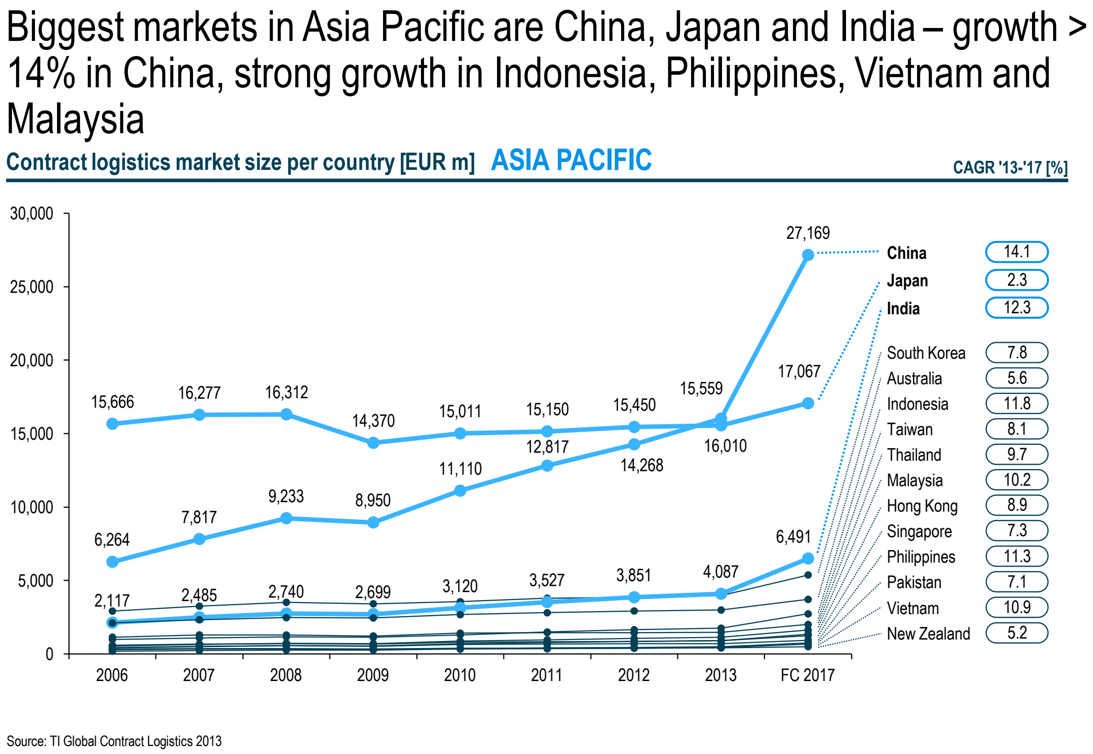


Figure 13: Contract logistics market size per country (Asia Pacific)

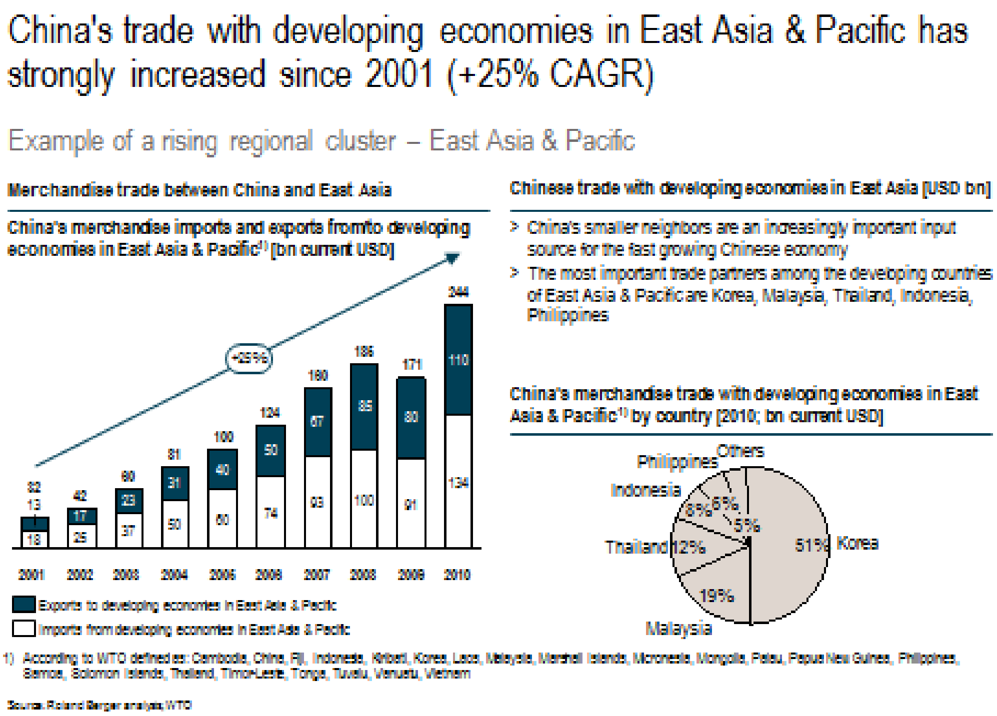



Forecasts indicate that by 2030, Asia's economy will be larger than that of the United States and the European Union combined, with the region's share of world GDP increasing from about 30% to more than 40%. The increased importance of intraregional trade in combination with high GDP growth rates may transform the region into the most important regional cluster in the world.

A major weakness of Asia's economy is its dependency on export trade.

Asia Pacific's two largest export customers, Europe and the US, faced economic downturn, so the demand for Asian exports declined further in 2012. This resulted in stagnation and in some cases in declines in manufacturing activity throughout the region.

Figure 14: Example of a rising regional cluster – East Asia and Pacific




Nevertheless, Asia is still leading the recovery of the world economy. This global crisis has highlighted issues the region must address. The best solution for Asia Pacific is to support domestic demand in order to sustain growth within the region. Investments in improving the infrastructure, government incentives to increase domestic consumption and imports, financial reforms and greater flexibility in exchange rates are steps already taken by the Chinese and other Asian governments. This, combined with the shifting of low-wage manufacturing to Southeast Asia and China, has resulted in increasing intra-Asian trade.

Logistics providers have taken note and are increasingly investing and positioning their service offerings in this market – examples:

> DHL Supply Chain, Kuehne+Nagel, DB Schenker and others are investing heavily in contract logistics and distribution centers
> CEVA and Geodis are among a growing number of providers to offer cross-border trucking solutions (with over 500 trips per month)
> Within the highly fragmented contract logistics and road logistics market structure, several global logistics players have successfully entered the market, mostly by piggy-packing with customers expanding production, etc.

Although Asia Pacific's contract logistics growth rate in 2013 was "only" 5.8%, the Asia Pacific contract logistics market is still growing at a faster rate than other regions and, thanks mostly to the growth of intra-Asian trade, is expected to grow with a CAGR of 8.9% through 2017. China and India are expected to be the primary drivers of growth with CAGRs of 14.1% and 12.3% respectively from 2013 to 2017.

In 2013, China surpassed Japan and became the region's largest contract logistics market. China's growth was due to intra-Asian trade as well as increasing domestic movements.

Investments in warehousing and distribution facilities are on the rise as well as road and rail infrastructure connecting tier 1 to tier 2 and 3 cities.

For the rest of Asia Pacific, dependency on exports hampered growth as did ongoing infrastructure issues.

Contract logistics is expected to grow in the high single digits through 2017, not only for China but also for Southeast Asia. This is because this region has not only become a recipient of manufacturing shifting from China, but is also in the midst of building and integrating its infrastructure in preparation for when the region becomes a single economic community in 2015.

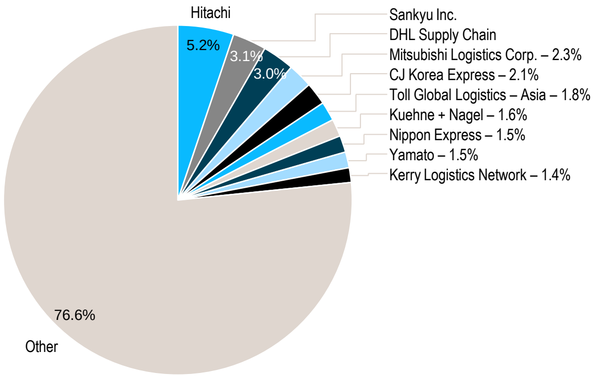
Figure 15: Hitachi Transport is the market leader in Asia Pacific

Example Asia - Hitachi Transport is market leader in a very fragmented market

ASIA PACIFIC LARGEST CONTRACT LOGISTICS PROVIDERS 2013

| Company name | [EUR m] |
|---|---|
| Hitachi Transport | 2,694 |
| Sankyu | 1,624 |
| DHL Supply Chain | 1,536 |
| Mitsubishi Logistics | 1,180 |
| CJ Korea Express | 1,084 |
| Toll Group Logistics - Asia | 923 |
| Kuehne + Nagel | 838 |
| Nippon Express | 804 |
| Yamato | 757 |
| Kerry Logistics | 708 |

ASIA PACIFIC CONTRACT LOGISTICS MARKET SHARE 2013 [%]




Source: TI Global Contract Logistics 2013

The largest provider in the Asia Pacific region is Japanese Hitachi Transport. Second is another Japanese domestic specialist – Sankyu. Both of these companies, and several others in the top 10, are based in Japan and operate almost exclusively in the domestic market, which traditionally has been very difficult for Western companies to penetrate.

The one exception to this has been DHL Supply Chain, which entered the market by way of an acquisition. Furthermore, much of its revenues are generated from across the region, giving it the greatest scope of all the providers in the ranking. Outside of Japan, the market is highly fragmented, especially in China.

## 2.4 Trade lane development

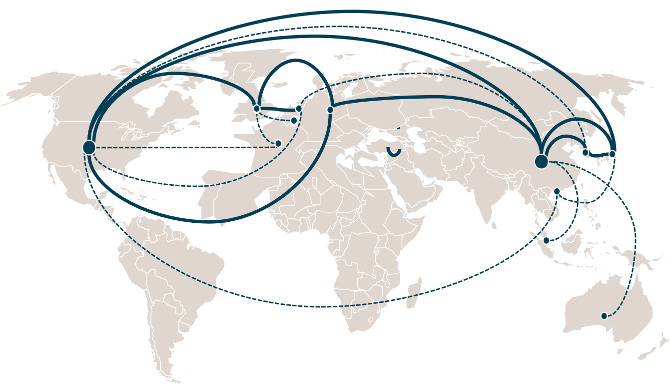
Today, Southeast Asia is the most relevant region for logistics services. However, China will become significantly more important in global trade and thus also in international and domestic trade. Although this represents more the forwarding business, it is definitely a significant indicator of the development of trade and industrial production in regions/countries of origin.

Along those corridors, the entire logistics industry is expected to strive to capture volume growth. We assume most of the players in contract logistics will increasingly develop strategies to also build domestic presences in warehousing and overland transportation (e.g. CEVA launched a cross-border trucking solution connecting China with Southeast Asia with over 500 trips per month, DP-DHL consolidated road freight services and offers specific cross-border trucking solutions including overnight LTL services within Southeast Asia).

Figure 16: Main trade routes 2009

Talking about trade – Main trade routes are located along the US-EU-China axis – South America, Africa, Middle East of lesser importance

Busiest routes [2009; USD bn][1)]



| Rank | | Bilateral trade pair | Volume |
|---|---|---|---|
| 1. | | China - United States | 290 |
| 2. | ● | China - Japan | 210 |
| 3. | | Japan - United States | 150 |
| 4. | ● | China - Korea | 140 |
| 5. | | Germany - United States | 120 |
| 6. | ▲ | Germany - United Kingdom | 110 |
| 7. | | China - Germany | 100 |
| 8. | | United Kingdom - United States | 100 |
| 9. | | Japan - Korea | 70 |
| 10. | ▲ | United Kingdom - Netherlands | 70 |
| 11. | | Korea - United States | 70 |
| 12. | ▲ | United Kingdom - France | 60 |
| 13. | | Hong Kong - United States | 60 |
| 14. | ● | China - Singapore | 60 |
| 15. | | France - United States | 50 |
| 16. | | China - Australia | 50 |
| 17. | | Netherlands - United States | 50 |
| 18. | ● | Japan - Hong Kong | 50 |
| 19. | | China - Netherlands | 40 |
| 20. | ▲ | United Kingdom - Belgium | 40 |

Top 10
Top 20

▲ Trade within Europe
● Trade within Asia

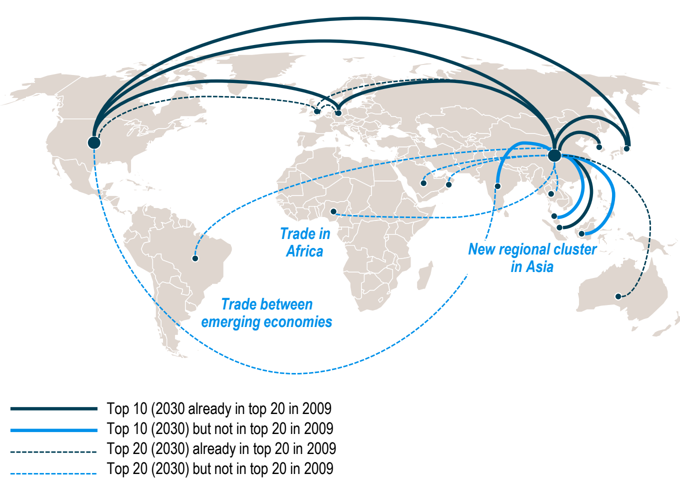
1) Top air and sea freight bilateral trade pairs

Source: Roland Berger; IMF; PWC

Figure 17: Forecast main trade routes 2030

In 2030, China is expected to be the center of global trade, having important routes within Asia as well as to all other continents

Busiest routes [2030; USD bn][1)]




| Rank | | Bilateral trade pair | Volume |
|---|---|---|---|
| 1. | | China - United States | 590 |
| 2. | ● | China - Japan | 340 |
| 3. | ● | China - Korea | 280 |
| 4. | ● | China - India | 260 |
| 5. | | China - Germany | 200 |
| 6. | | Japan - United States | 190 |
| 7. | ● | China - Singapore | 180 |
| 8. | ● | China - Indonesia | 170 |
| 9. | | Germany - United States | 170 |
| 10. | ● | China - Malaysia | 160 |
| 11. | | China - Nigeria | 150 |
| 12. | ▲ | Germany - United Kingdom | 140 |
| 13. | | United Kingdom - United States | 140 |
| 14. | ● | China - Thailand | 140 |
| 15. | | China - Saudi Arabia | 140 |
| 16. | | China - Brazil | 140 |
| 17. | | United States - India | 130 |
| 18. | | China - United Kingdom | 120 |
| 19. | | China - United Arab Emirates | 120 |
| 20. | | China - Australia | 120 |

▲ Trade within Europe
● Trade within Asia

1) Top air and sea freight bilateral trade pairs

Source: Roland Berger; IMF; PWC

## 2.5 Trends in transportation/logistics

The transportation and logistics industry has undergone significant changes – due to its cross-functional role it is a critical link between other industries and thus also reflects changes in those industries.

Globalization has led to geographical and service expansion on the part of many logistics providers with supply chains becoming more complex and comprehensive. Trade lanes have shifted away from Europe and the US toward Asia, BRIC and other emerging markets – following the shifting of production facilities. Also, logistics providers predominantly follow their customers when setting up new hubs/facilities globally. For contract logistics this is more relevant than ever since thin margins make it necessary to secure revenues growth and attractive margin profiles in new markets and geographies.

The following is a summary of key trends facing the logistics industry that are likely to impact the business models and setup of logistics service providers.

Figure 18: *Key trends in the logistics service provider industry (1/2)*

## Selected key trends in the logistics service provider industry that may challenge current operating models …

10 key trends affecting business models of logistics services providers (1/2)

1. **VERTICAL INTEGRATION** when carriers and shippers increase profit pools by "conquering" additional parts of the value chain
2. **YIELD DECLINE** as shippers and carriers seek to exploit volatile freight rates to protect their own profit margins
3. **MODAL SPLIT** as demand shifts from air freight to predominately ocean and, increasingly, rail to reduce costs of supply chains
4. **VOLATILITY OF FREIGHT RATES** is increasing and demands greater sophistication in steering hedged capacities
5. **SPECIALIZATION & VALUE ADDED SERVICE** become key USPs as complex supply chains will call for specialized logistics service providers

Source: Roland Berger

Figure 19: Key trends in the logistics service provider industry (2/2)

## … and could thus impact the strategic positioning and setup of players in the industry

10 key trends affecting business models of logistics services providers (2/2)

6. **INDUSTRY SPECIFIC SOLUTIONS** increasingly key, both in terms of IT and know-how, to meet complex customer demands
7. **SHIFT IN THE TRADE LANDSCAPE** with legacy trade lanes losing importance – emerging markets are new major trading nations
8. **HINTERLAND CONNECTIONS EFFICIENCY** is of increasing importance – and even an entry condition for business with Chinese shippers
9. **CONTRACT LOGISTICS – CHALLENGES** from the tendency toward shorter contract lifecycles will increase hurdles to achieve an appropriate ROI
10. **GLOBALIZATION VS. REGIONALIZATION:** demand will either grow for "global total solutions" or revert back to regionalization

Source: Roland Berger

Roland Berger Strategy Consultants has recently published the study entitled "Switch points for the future of logistics" together with the University of St. Gallen (HSG). Below are 3 examples of switch points that are of key relevance for the logistics industry.

Figure 20: *Customers demand shorter product lifecycles*

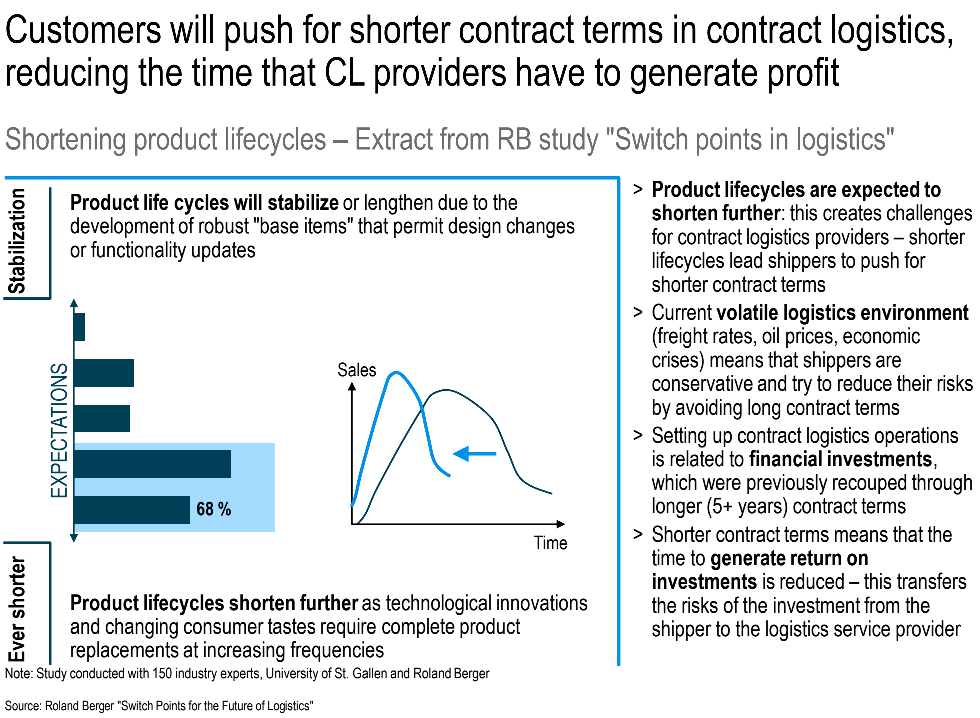
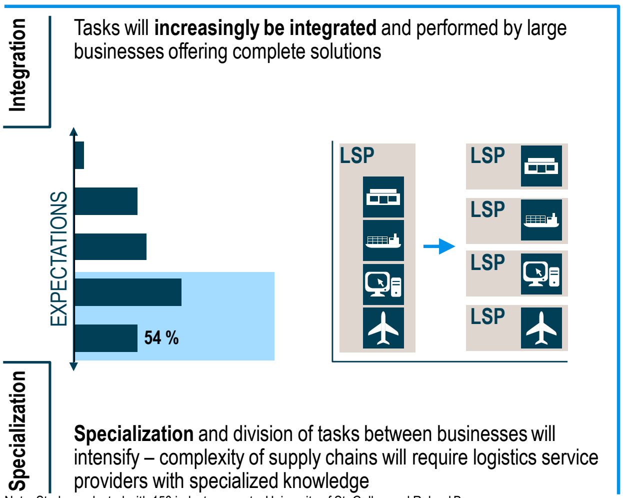


Figure 21: Customers want specialized logistics providers

## Customers will increasingly request logistics specialists instead of providers offering integrated "one-stop shopping"

Specialized logistics providers – Extract from RB study "Switch points in logistics"




- **Increasingly complex supply chains** and intense product specialization in shipper industries will call for increasingly specialized logistics service providers
- **Industry knowledge and industry-specific logistics solutions** have already become a key requirement to gain customers in specialized industries such as pharmaceuticals, aviation, consumer goods
- Shippers have an incentive to chose **several logistics service providers** for their supply chains, both for reasons of contingency/security and to ensure that the supply chain is not dependent on a single provider
- Trend contradicts **last decade's integration of contract logistics** with other logistics segments, in particular freight forwarding was integrated with contract logistics

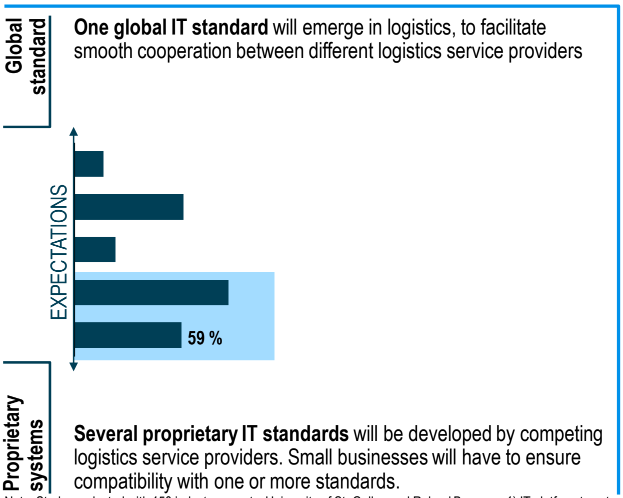
Note: Study conducted with 150 industry experts, University of St. Gallen and Roland Berger

Source: Roland Berger "Switch Points for the Future of Logistics"

Figure 22: Need for proprietary IT systems

## IT systems are key to achieving process efficiency, meeting customer requirements and differentiating core product offering

Proprietary IT systems – Extract from RB study "Switch points in logistics"



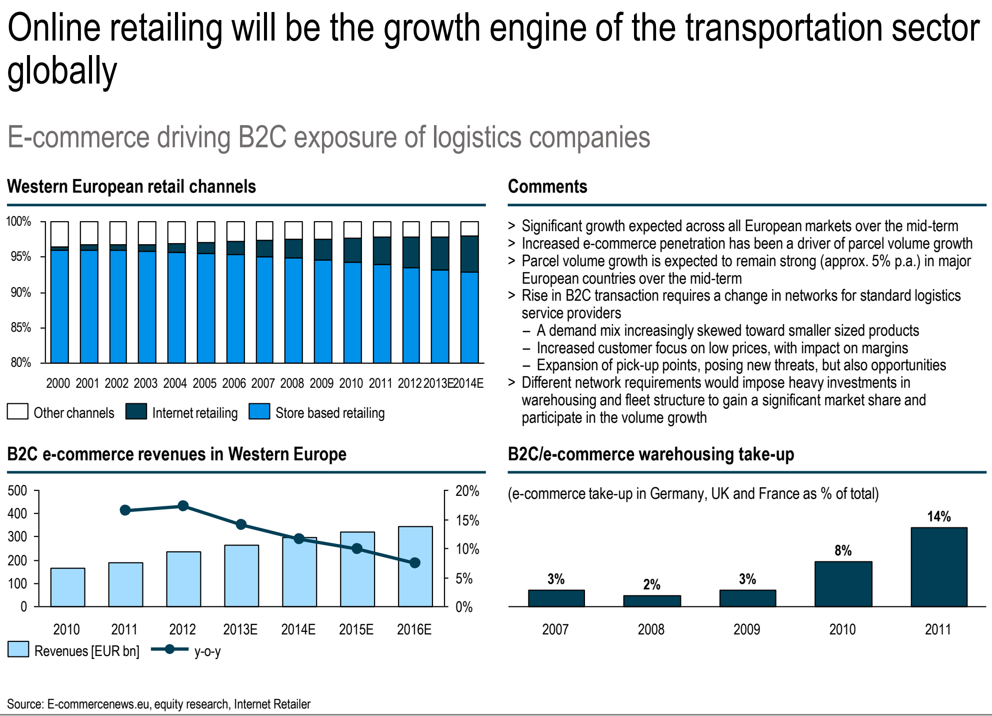

- **Proprietary IT systems** are expected to emerge after 2015 – critical to achieve process efficiency, service innovation and product differentiation & customization
- Recent **service innovation/differentiation** examples include capacity platforms[1] and dedicated shipper interaction platforms
- Proprietary IT systems will be a **challenge for smaller logistics service providers**, due to the resources required to develop the systems
- **IT service providers** will compete to provide platform solutions for the logistics industry, e.g. Oracle and SAP
- **Opportunities exist for logistics service providers** to differentiate their service offering via current IT interfaces – and in parallel join/drive an **emerging global standard** early in its development

Note: Study conducted with 150 industry experts, University of St. Gallen and Roland Berger 1) IT platform to automatically calculate prices, similar to online booking of flight tickets

Source: Roland Berger "Switch Points for the Future of Logistics"

Another fundamental game changer in the logistics industry over recent years and a key focus area for major players is the access to B2C delivery. As online retailing has emerged, the addressable market specifically for time-definite parcel/express delivery has increased. Growth expectations over the coming years are substantially higher than in traditional transportation markets. For this reason some of the largest European transportation groups have established their own B2C product offerings, partly using their own infrastructure or alternatively subcontracting forwarding volumes out to leading parcel providers such as DP-DHL or UPS.

Figure 23: *E-commerce is the growth engine of the transportation sector*




The last trend to mention in the context of current demand trends in the logistics industry is most likely the least publicly recognized trend yet – the insourcing trend among retailers. The key motivation for both online retailers (e.g. Amazon) and traditional retailers (e.g. WalMart) investing heavily in warehousing is to gain more control over cost-intensive, value-adding outsourced services close to their retailing part of the value chain and focus on outsourcing only the commodity service transportation (e.g. Amazon launched seven 5,000 sqm distribution depots in the UK in 2013).

## GLOBAL LOGISTICS MARKETS

### Conclusion

Market development over the past two years has still been suffering from the effects of the global economic crisis and recovery has been slow. We believe that over the coming years substantial opportunities for the sector players will arise and should be seized:

> Emerging markets focus offering above-average growth rates for the industry
> Focus on specific verticals/industries with additional value-adding possibilities and enhanced margin potential away from commodity services
> Addressing the change in demand and capturing growth from the online retail driven B2C increase in volumes

The overall global logistics market is expected to grow at an annual average rate of 2.4-3.0% over the next five years, driven by regional and global trade volumes and a rising share of outsourced logistics (esp. in the UK, North America and Germany).

We identified North America and Southeast Asia as the most attractive markets for logistics in general and contract logistics in particular.

Besides Asia's increase in external trade, there is a clear trend toward intraregional trade.

Forecasts indicate that by 2030, Asia's economy will be larger than that of the United States and the European Union combined, with the region's share of world GDP increasing from about 30% to more than 40%. The increased importance of intraregional trade in combination with high GDP growth rates could transform the region into the most important regional cluster in the world.

Big freight forwarders, such as DHL Global Forwarding, Panalpina, Kuehne+Nagel and Damco, as well as mid-size service providers like RHENUS, DACHSER, Hellmann, Fiege and others, are in the process of developing this trade lane by expanding multimodal products that combine ocean freight and air freight services to new destinations. Contract logistics will follow subsequently some time later.

# 3 Developments in the transportation and logistics sector related to the capital markets

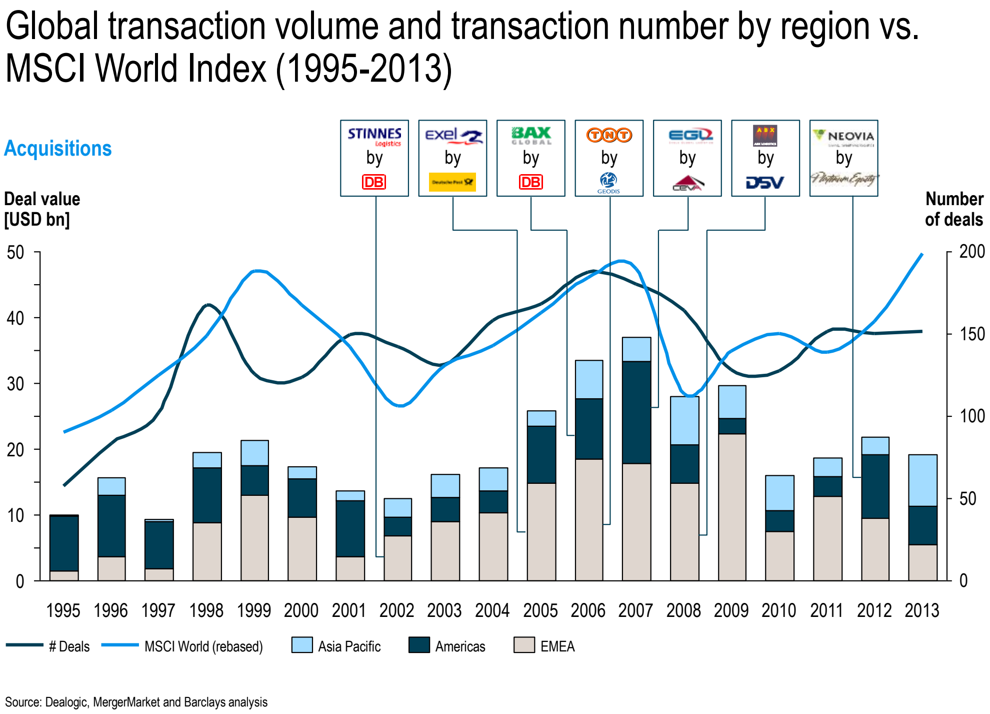
After analyzing current trends in the logistics sector as well as key vertical and regional developments, the next section looks at historical transaction volumes (subsequently referred to as the logistics sector, which is based on a combination of SIC and NAIC classification for transportation-related industries). Given data quality and availability, achieving fully aligned transaction segmentation according to the market segment definition shared in the first part of the report is very difficult. Hence, the sectors under review are defined as follows for the second part of this report: "Air Freight/Postal Services", "General Logistics/Warehousing", "Transportation – Rail", "Transportation – Services", "Transportation – Ship", "Transportation – Road". The following observations are particularly interesting:

> There is a strong correlation between the global transaction volume in the observed transportation sectors and the general macroeconomic development and sector growth rates
> Regional differences can generally be explained by specific local economic factors and the development in regional expansion strategies by the relevant market participants
> Mega deals are the crucial drivers of the annual worldwide transaction volumes
> The APAC region was historically characterized by smaller transactions, whereas particularly in EMEA and the US several large transactions in the context of sector consolidations occurred as markets matured over the last 20 years
> The APAC region has gained significantly in importance in the area of M&A, specifically during 2013, and is one of the core growth regions globally, also for expansion capital allocation
> In line with the expectations of regional market growth, the regions focused on by the transportation players will remain APAC and Southeast Asia in particular. Also, the US and South America have been identified as future growth regions. North America, particularly the US, is expected to benefit from economic recovery while APAC and South America are, generally speaking, the emerging markets with the highest growth expectations
> Large-scale deals worth over EUR 1 billion were very rare after 2009, but a number of similarly sized deals can be expected within the next 2 to 3 years

## 3.1 M&A activity in the transportation and logistics sector

The analysis of M&A activity in the logistics sector between 1995 and 2013 considers both geographical and sectoral data points. Due to the classifications used (SIC and NAICS), contract logistics, freight forwarding and road-related transportation is often classified under "Transportation Services". The data clearly indicates that the European share in global M&A volumes – especially between 1998 and 2011 – was substantial. The most recognized transactions during this time were the acquisitions of Exel, Hapag-Lloyd and TNT as well as the privatization of Deutsche Post (more specifically, the transfer of the German government's stake in the state-owned bank KfW). The global economic development of emerging markets has induced a noticeable rise in the share of global M&A volumes by the "Asia Pacific" (APAC) region. This trend was especially apparent in 2013, when the APAC region accounted for more than 40% of the global transaction volume in the logistics sector.

Figure 24: Global transaction volume and no. of transactions by region vs. MSCI World Index (1995-2013)




An analysis of the sectoral deal volume split shows a generally stable distribution of M&A volumes between the industry sectors, with the sectors "Transportation – Ship" and "Transportation – Services" accounting for the largest share of total transaction volume. The sector "Transportation – Services" encompasses, for instance, the purchase of Exel by Deutsche Post in 2005 and the privatization of Post Danmark in 2009. It also needs to be noted that – in terms of the standard industry classification – there has not been a transaction with a deal value above USD 1 billion within the freight forwarding, contract logistics or road-related sectors since 2009. Berkshire Hathaway's takeover of Burlington Northern Santa Fe in 2010 represents a one-off item of USD 36 billion, which needs to be adjusted for. Nevertheless, the deal volume split between the industry sectors remains static after excluding this transaction (see also figure 25). Besides, from a historical perspective, the industry sectors "Transportation – Road" and "Transportation – Rail" are, measured by transaction volume share, of significant importance. "Transportation – Rail" has been subject to remarkably high volumes for the past several years. In 2011, the deal volume in the sector "Air Freight/Postal Services" accounted for around USD 5 billion due to the demerger of TNT Express and the allocation to the existing shareholders (this was the only transaction considered in this industry sector in 2011). Another sector that has gained a significant share in 2012 and 2013 is "General Logistics/Warehousing". This sector has been mainly driven by the APAC region with, for example, the sale of warehouse facilities by ProLogis.

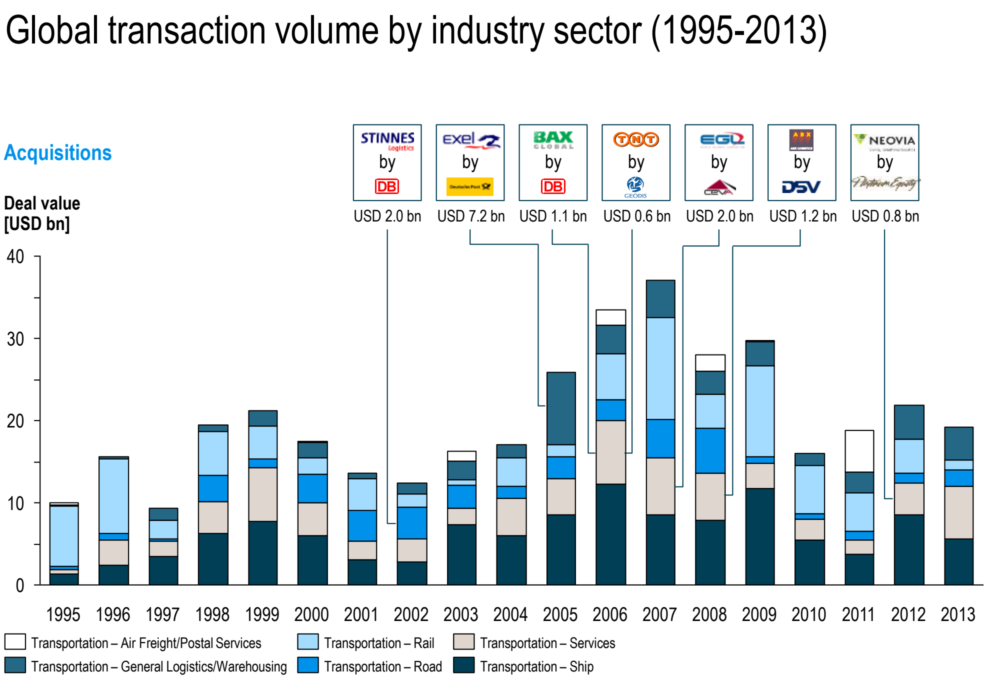
Few periodical trends can be identified overall in the standard logistics sectors of freight forwarding, contract logistics and road transportation, which are included in the "Transportation – Services" bucket.

In the period between 1990 and the mid-2000s, very large transactions in the contract logistics sector (e.g. the USD 7.2 billion acquisition of Exel by Deutsche Post or the USD 2.0 billion acquisition of Stinnes by Deutsche Bahn) could be observed, which created some of the largest integrated logistics companies operating today. In the subsequent period up until 2010, however, the main emphasis was on a focused M&A strategy that closes strategic regional or service gaps, mostly centering on asset-light models and freight forwarding. Large scale examples of this are the acquisition of BAX by Deutsche Bahn and the acquisition of EGL by CEVA.

One result of this change in strategy is a significant decline in transaction size (no transactions here were greater than USD 2 billion). This more focused approach has also continued beyond 2010. With the emergence of online retailing, a new key growth area has begun to be increasingly addressed by M&A – business-to-consumer services (B2C services). The subsegment alongside increasing e-commerce/online retailing offers the greatest growth opportunities for the logistics market overall while it also puts forward new requirements for logistics companies. Generally, online retailing is expected to grow strongly, for instance at 10% in Western Europe. Further online penetration in retail has constituted and will constitute the main driver of parcel volume growth within this sector. As the overall European market is expected to grow at low rates of 2.4-3.0% over the coming years, transportation players are increasingly looking into B2C and online related service providers to get access to the depicted higher growth rate. Another trend impacting the M&A strategies of transportation companies is the above-mentioned focus on specialization. Specific sectors/niches offer higher and more stable growth profiles and – owing to their higher service requirements – also higher margin potential.

We anticipate that future deals will be smaller and more focused on specific regions (e.g. APAC), transportation segments (e.g. B2C or emergency transportation) and verticals (e.g. pharmaceutical and fast moving consumer goods).

Figure 25: Global transaction volume by industry sector (1995-2013)




Source: Dealogic, MergerMarket and Barclays analysis

Figure 26: Top 10 M&A transactions per year since 2008 - 1/6

## Data sheet: M&A since 2008 – Year 2008

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| Korea Express Co Ltd (60%) | Asiana Airlines Inc | Mar 10, '08 | Asia Pacific | Transportation-Road | USD 4,422 m |
| Dakota Minnesota & Eastern Railroad Corp | Canadian Pacific Railway Ltd | Oct 30, '08 | Americas | Transportation-Rail | USD 2,480 m |
| Quintana Maritime Ltd | Excel Maritime Carriers Ltd | Apr 14, '08 | EMEA | Transportation-Ship | USD 1,983 m |
| Geodis SA (58%) | SNCF | Aug 13, '08 | EMEA | Transportation-Air Freight/Postal Services | USD 1,714 m |
| ABX Logistics Worldwide SA/NV | DSV A/S | Oct 02, '08 | EMEA | Transportation-Services | USD 1,169 m |
| Global Ship Lease Inc (66%) | Marathon Acquisition Corp | Aug 11, '08 | EMEA | Transportation-Ship | USD 1,019 m |
| Minoan Lines SA (51%) | Grimaldi Compagnia di Navigazione SpA | Nov 26, '08 | EMEA | Transportation-Ship | USD 754 m |
| Compagnie Europeenne de Prestations Logistiques | Arcapita Ventures | Sep 16, '08 | EMEA | Transportation-Services | USD 734 m |
| Mobile Storage Group Inc | Mobile Mini Inc | Jun 27, '08 | Americas | Transportation-General Logistics/Warehousing | USD 716 m |
| Freightliner Group Ltd | Arcapita Ventures | Jun 13, '08 | EMEA | Transportation-Rail | USD 684 m |

Source: Dealogic, MergerMarket and Barclays analysis

Figure 27: Top 10 M&A transactions per year since 2008 - 2/6

## Data sheet: M&A since 2008 – Year 2009

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| London & Continental Railways Ltd | United Kingdom | Jun 08, '09 | EMEA | Transportation-Rail | USD 8,260 m |
| Hapag-Lloyd AG | Consortium, incl. a.o. TUI, Kuehne & Nagel | Mar 23, '09 | EMEA | Transportation-Ship | USD 5,900 m |
| BW Gas Ltd (68%) | World Nordic ApS | Mar 25, '09 | EMEA | Transportation-Ship | USD 2,254 m |
| Post Danmark AS | Posten AB | Jun 24, '09 | EMEA | Transportation-Services | USD 2,068 m |
| Hanjin Shipping Co Ltd | Existing Shareholders | Dec 29, '09 | Asia Pacific | Transportation-Ship | USD 1,349 m |
| YRC Worldwide Inc (Majority %) | Creditors | Dec 31, '09 | Americas | Transportation-General Logistics/Warehousing | USD 1,331 m |
| Brostrom AB | AP Moller - Maersk A/S | Jan 27, '09 | EMEA | Transportation-General Logistics/Warehousing | USD 1,138 m |
| Incheon International Airport Railroad Co Ltd (89%) | Korea Railroad Corp | Nov 27, '09 | Asia Pacific | Transportation-Rail | USD 982 m |
| Bergesen LNG Ltd | BW Gas Ltd | Mar 27, '09 | EMEA | Transportation-Ship | USD 826 m |
| PCC Logistics | Deutsche Bahn AG | Jan 30, '09 | EMEA | Transportation-Rail | USD 589 m |

Source: Dealogic, MergerMarket and Barclays analysis

Figure 28: Top 10 M&A transactions per year since 2008 - 3/6

## Data sheet: M&A since 2008 – Year 2010

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| HS1 Ltd | Borealis Infrastructure Corp; Ontario Teachers Pension Plan | Nov 19, '10 | EMEA | Transportation-Rail | USD 3,398 m |
| Prosafe Production Public Ltd (70%) | BW Offshore ASA | Nov 25, '10 | EMEA | Transportation-Ship | USD 1,468 m |
| Bangkok Mass Transit System pcl (95%) | Tanayong pcl | May 07, '10 | Asia Pacific | Transportation-Rail | USD 1,239 m |
| Qatar Shipping Co QSC (85%) | Qatar Navigation QSC | Apr 15, '10 | EMEA | Transportation-Ship | USD 1,008 m |
| National Container Co (50%) | Private Investor | Jul 26, '10 | EMEA | Transportation-Services | USD 900 m |
| American Commercial Lines LLC | Platinum Equity LLC | Dec 21, '10 | Americas | Transportation-Ship | USD 772 m |
| Integrated Distribution Services Group Ltd (56%) | Li & Fung Ltd | Oct 29, '10 | Asia Pacific | Transportation-Ship | USD 597 m |
| Liquid Container LP | Graham Packaging Co Inc | Sep 23, '10 | Americas | Transportation-Services | USD 568 m |
| American Railcar Industries Inc (53%) | Icahn Enterprises LP | Jan 20, '10 | Americas | Transportation-Rail | USD 375 m |
| DeCrane Holdings Co (Cabin Management assets) | Goodrich Corp | Sep 22, '10 | Americas | Transportation-Services | USD 280 m |

Source: Dealogic, MergerMarket and Barclays analysis

Figure 29: Top 10 M&A transactions per year since 2008 - 4/6

## Data sheet: M&A since 2008 – Year 2011

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| TNT Express NV (70%) | Existing Shareholders | May 26, '11 | EMEA | Transportation-Air Freight/Postal Services | USD 5,052 m |
| First Freight Company OAO - Freight One (75%) | Universal Cargo Logistics Holding BV - UCL Holding | Dec 23, '11 | EMEA | Transportation-Rail | USD 4,145 m |
| Korea Line Corp (78%) | Creditors | Nov 23, '11 | Asia Pacific | Transportation-Ship | USD 886 m |
| Istanbul Deniz Otobusleri AS | Souter Investments LLP | Jun 16, '11 | EMEA | Transportation-Ship | USD 861 m |
| Vantec Corp | Hitachi Ltd | Apr 20, '11 | Asia Pacific | Transportation-Road | USD 737 m |
| K-Sea Transportation Partners LP | Kirby Corp | Jul 01, '11 | Americas | Transportation-Ship | USD 579 m |
| ASCO Group Ltd | Doughty Hanson & Co Ltd; Existing Management | Dec 31, '11 | EMEA | Transportation-General Logistics/Warehousing | USD 386 m |
| LEHNKERING Holding GmbH | Imperial Holdings Ltd | Dec 23, '11 | EMEA | Transportation-General Logistics/Warehousing | USD 367 m |
| South Bay Expressway LP | San Diego County Association of Governments | Dec 21, '11 | Americas | Transportation-Services | USD 342 m |
| TDG Ltd | Groupe Norbert Dentressangle SA | Mar 29, '11 | EMEA | Transportation-General Logistics/Warehousing | USD 325 m |

Source: Dealogic, MergerMarket and Barclays analysis

Figure 30: Top 10 M&A transactions per year since 2008 - 5/6

## Data sheet: M&A since 2008 – Year 2012

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| Torm AS (90%) | Creditors | Nov 05, '12 | EMEA | Transportation-Ship | USD 1,995 m |
| RailAmerica Inc | Genesee & Wyoming Inc | Oct 01, '12 | Americas | Transportation-Rail | USD 1,968 m |
| Property Portfolio (Warehouses in Brazil) | Consortium incl. a.o. Global Logistic Properties Ltd | Nov 30, '12 | Americas | Transportation-General Logistics/Warehousing | USD 1,410 m |
| Maersk LNG | Teekay Corp; Marubeni Corp | Feb 28, '12 | EMEA | Transportation-Ship | USD 1,402 m |
| Matson Inc | Existing Shareholders | Jul 02, '12 | Americas | Transportation-Ship | USD 1,174 m |
| Oil & Gas Assets | Enbridge Income Fund Holdings Inc | Dec 10, '12 | Americas | Transportation-General Logistics/Warehousing | USD 1,164 m |
| GEFCO SA (75%) | Russian Railways OAO | Dec 20, '12 | EMEA | Transportation-Services | USD 1,044 m |
| Far Eastern Shipping Co OAO - FESCO (56%) | Summa Group; Garber Hannam Partners Group - GHP Group | Dec 14, '12 | EMEA | Transportation-Ship | USD 834 m |
| SG-Trans OAO | Sistema Financial Corp OAO - AFK Sistema | Nov 29, '12 | EMEA | Transportation-Rail | USD 729 m |
| Ultrapetrol (Bahamas) Ltd (78%) | Southern Cross Group | Dec 12, '12 | Americas | Transportation-Ship | USD 724 m |

Source: Dealogic, MergerMarket and Barclays analysis

Figure 31: Top 10 M&A transactions per year since 2008 – 6/6

## Data sheet: M&A since 2008 – Year 2013

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| Property Portfolio (12 warehouse buildings) | Nippon Prologis REIT Inc | Feb 15, '13 | APAC | Transportation-General Logistics/Warehousing | USD 1,854 m |
| NCC Group Ltd | Global Ports Investments plc | Dec 27, '13 | EMEA | Transportation-Ship | USD 1,619 m |
| LLX Logistica SA (60.952%) | EIG Global Energy Partners | Oct 10, '13 | Americas | Transportation-Services | USD 1,422 m |
| Daiichi Chuo Kisen Kaisha (Class A preferred shares) | Mitsui OSK Lines Ltd | Feb 06, '13 | APAC | Transportation-Ship | USD 1,106 m |
| Grupo Avanza SA | Autobuses de Oriente ADO SA de CV | Aug 21, '13 | EMEA | Transportation-Services | USD 1,070 m |
| CJ GLS Corp | CJ Korea Express Corp | Apr 04, '13 | APAC | Transportation-Road | USD 1,062 m |
| Korea Line Corp (86.63%) | Creditors | Apr 18, '13 | APAC | Transportation-Ship | USD 870 m |
| Omnitracs Inc | Vista Equity Partners LLC | Nov 25, '13 | Americas | Transportation-Services | USD 800 m |
| Seoul Metro Line 9 Corp | Shinhan BNP Paribas Asset Mgt.; Hanwha Asset Mgt. | Oct 24, '13 | APAC | Transportation-Rail | USD 644 m |
| Target Logistics Services Inc | Algeco Scotsman | Feb 20, '13 | Americas | Transportation-Services | USD 625 m |

Source: Dealogic, MergerMarket and Barclays analysis

A detailed analysis of the annual transaction volumes makes it possible to analyze annual transaction volume by transaction size in the various regions under review (as shown in figure 32).

Figure 32: Transaction volume by deal size (EMEA, 1995-2013)

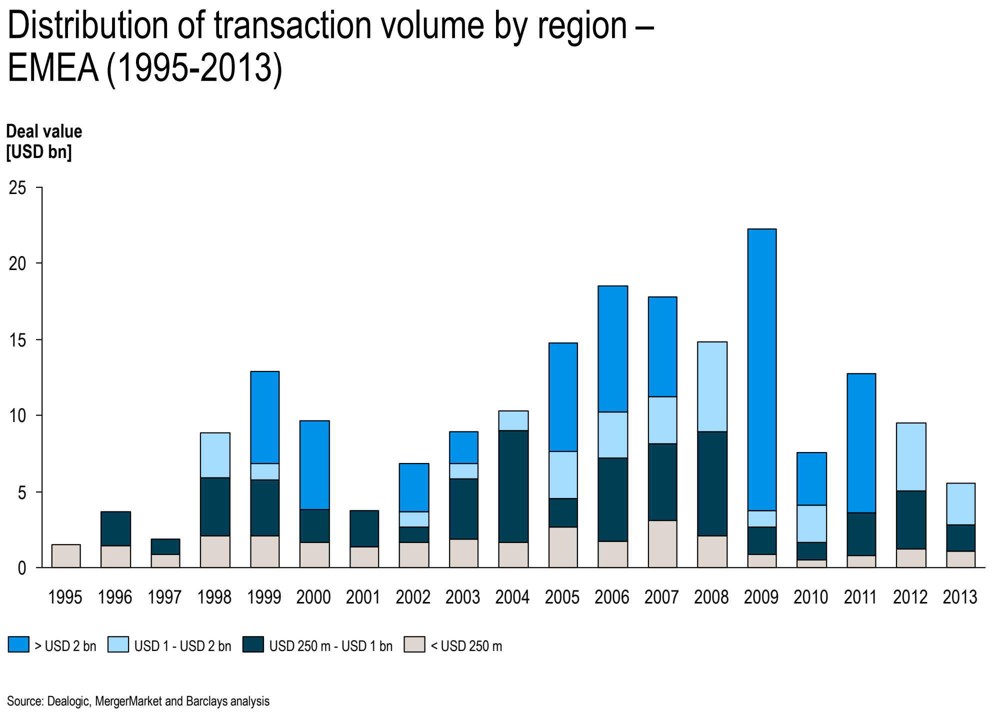
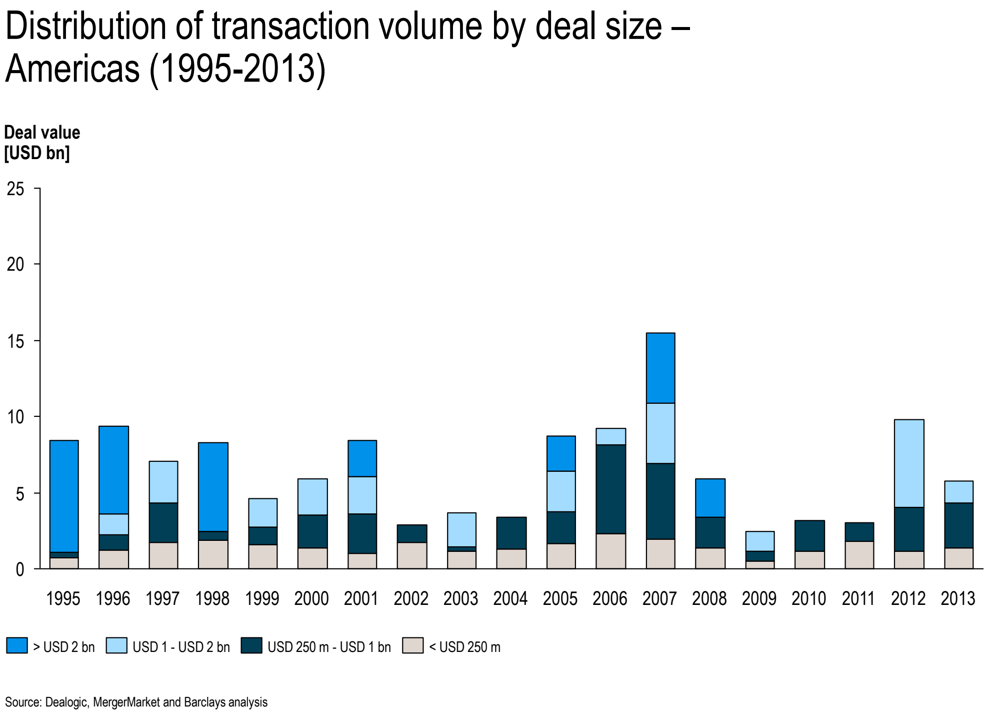


Figure 33: Transaction volume by deal size (Americas, 1995-2013)




As depicted in figure 32, the EMEA region has historically been the strongest region by deal volume. At this point it is worth noting the major importance of the APAC region in terms of recent developments in transaction volumes.

Figures 32 and 33 also show that transactions with a smaller volume of up to USD 250 million play only a minor role in the Americas and EMEA, while they account for a broader basis in APAC. Medium-size transactions (between USD 250 million and USD 1 billion) follow a similar course but tend to react with much more volatility with respect to the general market environment. Large-size transactions (between USD 1 and USD 2 billion), on the other hand, also follow a relatively static course, even though one could expect a generally higher level of volatility. Very large transactions naturally take the most volatile course but remain the main drivers of annual deal volumes. The development in the various regions is especially striking among very large transactions: the Americas generally experienced less such transactions than EMEA where large transactions were regularly conducted between 2005 to 2011 (except 2008) to form some of the biggest logistics players globally. Notable examples here include Deutsche Post's acquisition of Exel and the sale of Hapag-Lloyd by TUI. In APAC, on the other hand, very large transactions were visible especially in economically difficult times, such as the acquisition of Cosco Bulk Carrier Co Ltd in 2007 (USD 1.0 billion) or the acquisition of a 60% holding in Korea Express Co. in 2008 (USD 4.4 billion). In 2013 no very large transactions were carried out but more than 70% of transactions above USD 1 billion came from the APAC region, such as the sale of distribution facilities by ProLogis or the acquisition of Daiichi Chuo Kisen Kaisha by Mitsui OSK Lines.

Figure 34: Top 30 M&A deals

# Top 30 M&A deals

| Target | Acquirer | Date | Region | Sector | Deal value |
|---|---|---|---|---|---|
| London & Continental Railways Ltd | United Kingdom | Jun 08, '09 | EMEA | Transportation-Rail | USD 8,260 m |
| Peninsular & Oriental Steam Navigation Co | Ports Customs & Free Zone Corp - Dubai Ports | Mar 07, '06 | EMEA | Transportation-Ship | USD 8,217 m |
| Exel plc | Deutsche Post AG | Dec 13, '05 | EMEA | Transportation-Services | USD 7,155 m |
| Eurotunnel plc/SA (87%) | Groupe Eurotunnel SA - GET SA (Creditors) | Jun 29, '07 | EMEA | Transportation-Rail | USD 6,563 m |
| Hapag-Lloyd AG | Consortium, incl. a.o. TUI, Kuehne & Nagel | Mar 23, '09 | EMEA | Transportation-Ship | USD 5,900 m |
| Southern Pacific Rail Corporation | Union Pacific Corporation | Sep 11, '96 | Americas | Transportation-Rail | USD 5,745 m |
| Santa Fe Pacific Corp | Burlington Northern Inc | Sep 22, '95 | Americas | Transportation-Rail | USD 5,095 m |
| TNT Express NV (70%) | Existing Shareholders | May 26, '11 | EMEA | Transportation-Air Freight/Postal Services | USD 5,052 m |
| Korea Express Co Ltd (60%) | Asiana Airlines Inc | Mar 10, '08 | Asia Pacific | Transportation-Road | USD 4,422 m |
| First Freight Company OAO - Freight One (75%) | Universal Cargo Logistics Holding BV - UCL Holding | Dec 23, '11 | EMEA | Transportation-Rail | USD 4,145 m |
| Hanshin Electric Railway Co Ltd (65%) | Hankyu Holdings Inc | Jun 20, '06 | Asia Pacific | Transportation-Rail | USD 3,617 m |
| Deutsche Post AG (50%) | Kreditanstalt fuer Wiederaufbau - KfW | Dec 24, '99 | EMEA | Transportation-Services | USD 3,613 m |
| Illinois Central Corp | Canadian National Railway Co | Jun 04, '98 | Americas | Transportation-Rail | USD 3,516 m |
| HS1 Ltd | Borealis Infrastructure & Ontario Teachers | Nov 19, '10 | EMEA | Transportation-Rail | USD 3,398 m |
| P&O Princess Cruises plc | Existing Shareholders | Oct 23, '00 | EMEA | Transportation-Ship | USD 3,385 m |
| Stinnes AG (96%) | Deutsche Bahn AG | Oct 24, '02 | EMEA | Transportation-Road | USD 3,106 m |
| Navix Line Ltd | Mitsui OSK Lines Ltd | May 07, '99 | Asia Pacific | Transportation-Ship | USD 2,914 m |
| Florida East Coast Industries Inc | Fortress Investment Group LLC | Jul 26, '07 | Americas | Transportation-Rail | USD 2,585 m |
| NFC plc | Ocean Group plc | May 04, '00 | EMEA | Transportation-Road | USD 2,490 m |
| Dakota Minnesota & Eastern Railroad Corp | Canadian Pacific Railway Ltd | Oct 30, '08 | Americas | Transportation-Rail | USD 2,480 m |
| Channel Tunnel Rail Link (Section One) | Railtrack Group plc | Feb 19, '99 | EMEA | Transportation-Rail | USD 2,453 m |
| Canadian Pacific Railway Co | Existing Shareholders | Oct 01, '01 | Americas | Transportation-Rail | USD 2,398 m |
| CALIBER SYSTEM INC | FEDERAL EXPRESS CORP | Jan 27, '98 | Americas | Transportation-Road | USD 2,289 m |
| CP Ships Ltd | TUI AG | Dec 20, '05 | Americas | Transportation-Ship | USD 2,261 m |
| BW Gas Ltd (68%) | World Nordic ApS | Mar 25, '09 | EMEA | Transportation-Ship | USD 2,254 m |
| Chicago & Northwestern Transportation Co | Union Pacific Corporation | Jun 23, '95 | Americas | Transportation-Rail | USD 2,194 m |
| Bergesen dy ASA | World Wide Shipping Group Ltd | Jun 20, '03 | EMEA | Transportation-Ship | USD 2,078 m |
| Post Danmark AS | Posten AB | Jun 24, '09 | EMEA | Transportation-Services | USD 2,068 m |
| TNT Ltd | Koninklijke PTT Nederland NV | Dec 16, '96 | Asia Pacific | Transportation-Services | USD 2,054 m |
| Swift Transportation Co Inc (61%) | Private Investor (Jerry Moyes) | May 10, '07 | Americas | Transportation-Road | USD 2,007 m |

Source: Dealogic, MergerMarket and Barclays analysis

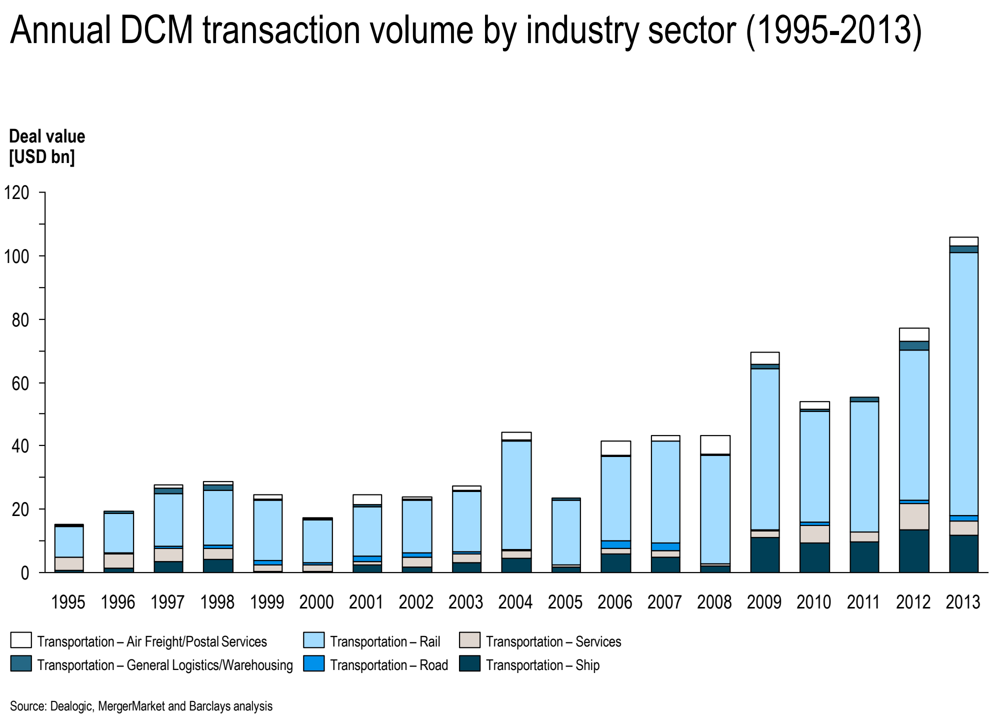
## 3.2 Financing activity in the logistics sector

### Debt capital markets

Debt capital market transaction volumes (DCM) are clearly driven by the "Transportation – Rail" subsector followed by "Transportation – Services" and "Transportation – Ship". The share of "Transportation – Rail" accounts on average for approx. 70% of the annual deal volume (see figure 35).

The debt capital market is generally characterized by "frequent borrowers" that regularly collect funds on the capital market, mostly capital-intensive companies, such as rail operators. In this respect, Deutsche Bahn as well as French and Russian rail freight operations should specifically be mentioned as they have been highly active over the last few years closely related to infrastructure financing. During the period 1995 through 2013, Deutsche Bahn alone accounted for 78 transactions with a total volume of around USD 30 billion (SNCF had 113 transactions with a total volume of USD 28 billion, RZD completed 38 transactions with a total volume of USD 22 billion).

Figure 35: Annual DCM transaction volume by industry sector (1995-2013)




The situation described above is also reflected in the largest DCM transactions during the timeframe under review (see figure 36). Nine of the ten largest transactions are attributable to the industry sector "Transportation – Rail" (this already combines 6 issuances of China Railway Corp totaling USD 28 billion in 2013, which would have otherwise been ranked #6-12 and #16-17). Logistics companies that use bonds as a means of financing are Deutsche Post AG on the investment grade side and Ceva Logistics issuing high-yield bonds (Deutsche Post with investment grade issuance of USD 1.6 billion and USD 1.3 billion, respectively, in 2012 and Ceva Logistics with USD 0.8 billion in 2012).

Figure 36: Top 10 DCM transactions

Top 10 DCM transactions

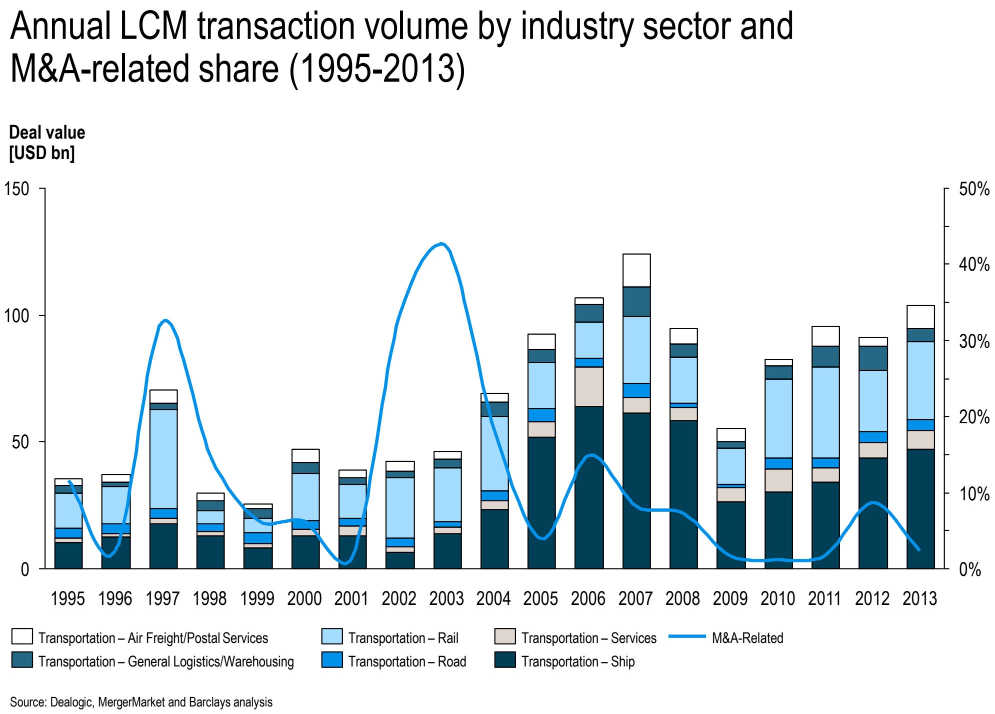
| Issuer | Date | Region | Sector | Deal value |
|---|---|---|---|---|
| Channel Link Enterprises Finance plc | Aug 16, '07 | EMEA | Transportation-Rail | USD 5,612 m |
| Norfolk Southern Corp | May 14, '97 | Americas | Transportation-Rail | USD 4,300 m |
| Network Rail Infrastructure Finance plc | Nov 17, '04 | EMEA | Transportation-Rail | USD 4,182 m |
| Network Rail MTN Finance plc | Mar 16, '04 | EMEA | Transportation-Rail | USD 4,076 m |
| United Parcel Service Inc | Jan 10, '08 | Americas | Transportation-Air Freight/Postal Services | USD 4,000 m |
| China Railway Corp | several in 2013 | APAC | Transportation-Rail | total USD 27,600 m |
| Network Rail MTN Finance plc | Mar 19, '04 | EMEA | Transportation-Rail | USD 3,069 m |
| LCR Finance plc | Feb 10, '99 | EMEA | Transportation-Rail | USD 2,692 m |
| CSX Corp | May 01, '97 | Americas | Transportation-Rail | USD 2,500 m |
| Network Rail Infrastructure Finance plc | Jan 04, '12 | EMEA | Transportation-Rail | USD 2,337 m |
| … | | | | … |
| Deutsche Bahn AG | Mar 03, '09 | EMEA | Transportation-Rail | USD 1,267 m |

Source: Dealogic, MergerMarket and Barclays analysis

## Loan capital markets

In comparison to debt capital markets, loan capital markets (LCM) have historically been dominated by the "Transportation – Ship" industry sector. This dominance can primarily be explained by the fact of the relatively simple loan collateral process (for example in the sense of a ship mortgage). Furthermore, the LCM market is less dependent than the DCM market on external ratings. As many major shipping companies have comparably weak ratings, access to the DCM market remains relatively limited, whereas access to the LCM market is quite stable. In addition to the volume time series, figure 37 shows the share of volume that was recorded for acquisitions and/or future acquisitions. Of particular interest is the fluctuation of this share over time; while the M&A-related share was above 40% in 2003, it plummeted to below 5% in 2009 through 2011, indicating that M&A activity shortly after the crisis was substantially reduced. In 2012, a significant increase was recorded; however, this trend was not sustainable in 2013. Over recent years, many shipping companies and ship owners have suffered from high fuel prices, a highly competitive market environment and a tense global economic situation. This was ultimately also a consequence of the strong capacity expansion between 2007 and 2009. The continuing shipping crisis in 2013 also means that M&A transactions have not been a specific focus within this subsector.

Figure 37: Annual LCM transaction volume by industry sector and M&A-related share (1995-2013)




Despite the relatively strong dominance of the "Transportation – Ship" sector, one can see a familiar trend (as with DCM) when looking at the ten largest transactions for the LCM sector (as depicted in figure 38). "Transportation – Rail" ranks first, with a loan from Network Rail of about USD 15 billion in 2003 and a further loan from Network Rail of about USD 13 billion in 2002.

Figure 38: Top 10 LCM transactions

## Top 10 LCM transactions

| Issuer | Date | Region | Sector | Deal value |
|---|---|---|---|---|
| Network Rail | Jun 17, '03 | EMEA | Transportation-Rail | USD 15,091 m |
| Network Rail | Jun 20, '02 | EMEA | Transportation-Rail | USD 13,419 m |
| Norfolk Southern Corp | Feb 10, '97 | Americas | Transportation-Rail | USD 13,000 m |
| Taiwan High Speed Rail Corp | Jan 08, '10 | APAC | Transportation-Rail | USD 11,842 m |
| Taiwan High Speed Rail Corp | Feb 02, '00 | APAC | Transportation-Rail | USD 10,562 m |
| Network Rail | May 28, '04 | EMEA | Transportation-Rail | USD 8,495 m |
| PSA International | Jan 26, '06 | APAC | Transportation-Services | USD 7,500 m |
| Norfolk Southern Corp | May 21, '97 | Americas | Transportation-Rail | USD 7,000 m |
| United Parcel Service Inc | Oct 19, '07 | Americas | Transportation-Air Freight/Postal Services | USD 7,000 m |
| AP Moller - Maersk A/S | Sep 23, '10 | EMEA | Transportation-Ship | USD 6,750 m |

Source: Dealogic, MergerMarket and Barclays analysis

### Equity capital markets

We now look at equity capital markets (ECM) activity (IPOs, capital increases and conversions of convertible bonds) in the sector (see figure 39). The "Transportation – Ship" industry sector is also strong in the ECM market, as are the "Transportation – Services" and "Transportation – Rail" industry sectors in some minor cases. Especially in the more distant past (before 2006), these two sectors were more strongly represented. Generally, it should be noted that the years since 2007 have also been characterized by the fact that only the three industry sectors mentioned, with "General Logistics/Warehousing" and "Transportation – Road" constituting a very minor share, were represented, while in previous years more sectors were active. In 2013, activity was evident also in the "Air Freight/Postal Services" sector, mainly driven by the Royal Mail transaction (IPO with a deal value of approx. USD 3 billion in October 2013) and bPost's transactions with a combined value of USD 2 billion in 2013.

Figure 39: Annual ECM transaction volume by industry sector (1995-2013)

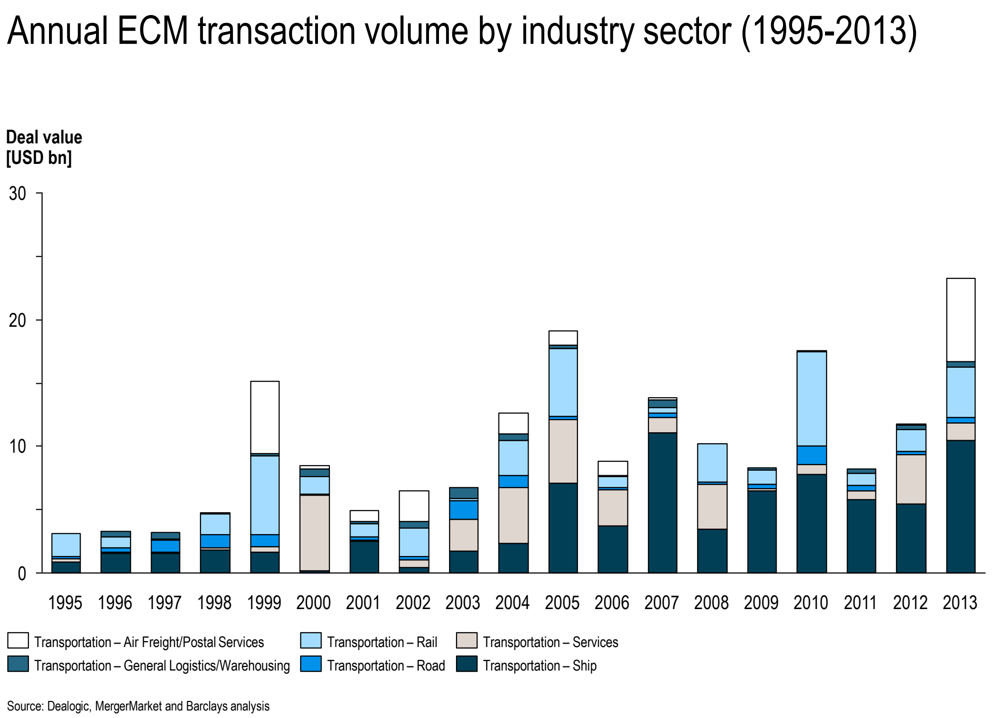



Figure 39 shows the ten largest ECM transactions. The Deutsche Post privatization transaction in 2000 ranks first. The majority of these large ECM transactions dates back several years, which is also partly apparent from their respective transaction volumes (see figure 38).

Figure 40: Top 10 ECM transactions

## Top 10 ECM transactions

| Issuer | Date | Region | Sector | Deal value |
|---|---|---|---|---|
| Deutsche Post AG | Nov 17, '00 | EMEA | Transportation-Services | USD 5,729 m |
| East Japan Railway Co | Jul 26, '99 | APAC | Transportation-Rail | USD 5,602 m |
| United Parcel Service Inc | Nov 09, '99 | Americas | Transportation-Air Freight/Postal Services | USD 5,470 m |
| Central Japan Railway Co | Jul 25, '05 | APAC | Transportation-Rail | USD 4,302 m |
| QR National Ltd | Nov 22, '10 | APAC | Transportation-Rail | USD 3,988 m |
| Royal Mail plc | Oct 10, '13 | EMEA | Transportation-Air Freight/Postal Services | USD 3,170 m |
| Deutsche Post AG | Jun 13, '05 | EMEA | Transportation-Services | USD 2,934 m |
| China Railway Construction Corp Ltd | Mar 06, '08 | APAC | Transportation-Rail | USD 2,594 m |
| Daqin Railway Co Ltd | Oct 27, '10 | APAC | Transportation-Rail | USD 2,478 m |
| West Japan Railway Co | Mar 08, '04 | APAC | Transportation-Rail | USD 2,347 m |

Source: Dealogic, MergerMarket and Barclays analysis

# 4 Conclusion

### Conclusion: sector trends

Given the sector's dependency on the global economic environment and international trade flows, players are subject to volatile market conditions that are constantly challenging operational management as well as strategic growth strategies. Regional differences, both in terms of growth rates and in terms of the different depth of the required service offering, represent an additional layer of complexity.

As we have seen, mature market growth has been somewhat sluggish in recent years in light of the economic crisis. Key growth regions and areas of focus will be emerging markets, especially in Southeast Asian and LATAM-related trade lanes. The highest overall growth is expected in the intra-Asian markets, driven by an increase in transported volumes as logistics infrastructure is being built up and the overall addressable market for trade is forecast to increase.

The key trend currently evident in mature markets is that players are shifting their focus from an integrated and broad product offering to more specialization in terms of verticals and regions. The key driver behind this is that companies are seeking to move away from low-margin, commoditized services and focus more on value-added, specialized services that justify higher pricing and guarantee higher profitability.

Overall, we expect mid-to-large-scale industry participants to focus their growth strategy in line with those trends and to increasingly invest in emerging markets to participate in high market growth. In the home markets in Europe, available funds will most likely flow into niches such as pharmaceutical, temperature-controlled logistics services as well as value-added services and specialization.

One of the overarching megatrends affecting the sector is online retailing and the increase in B2C volumes. This megatrend is affecting all regions around the globe with some established network players able to capture a bigger share of the growth, while others need to invest significantly in building an adequate network structure for the different transportation requirements of smaller and lighter lot sizes.

### Conclusion: M&A

We believe that the increasingly focused M&A approach will persist with smaller deal sizes prevailing. Deal volumes are expected to remain flat over the coming years. We anticipate that the sector will clearly have learned from previous consolidation and will stick to their current ambition to only acquire smaller sized competitors to fill particular strategic or regional gaps and thereby greatly improve the client offering. Specifically in contract logistics, regional expansion is driven by expanding manufacturers and following logistics service providers that acquire domestic platforms to accelerate market entry. Specific examples for pharmaceutical-focused acquisition strategies are UPS' acquisition of Cemelog for an undisclosed amount in 2013 and Pieffe Group as well as UPS and Deutsche Post DHL both looking into healthcare logistics company Movianto, which was sold by pharmaceutical wholesaler Celesio in 2012 for approx. USD 160 million.

We see the potential for only a handful of larger deals in contract logistics, freight forwarding or regional road transportation with timing being uncertain. Such deals could involve shipping players exiting their logistics arms or separations of failed mergers. A further field of M&A could be large corporates exiting their logistics division to focus on their core competencies.

## Conclusion: financing

Financing, as shown in the previous sections, depends heavily on the transportation sector and particularly the underlying asset intensity. General trends cannot be formulated due to the fact that access to capital markets or bank financing depends exclusively on company-specific factors such as rating, listed versus non-listed status, existing leverage ratios, cash conversion or debt service capacity and the underlying business model as well as company-specific risks that banks or bond investors might perceive. More specifically to the logistics sector, a few observations can be summarized to provide guidance on the topic of financing.

> Asset-light freight forwarders literally have no or very limited financial liabilities – due to their business model – and do not really need balance sheet support for growth financing from banks, e.g. Kuehne+Nagel, Panalpina or Expeditors (also because they have not been very active in large-scale acquisitions)
> General transportation and warehousing players in Europe exhibit debt multiples of roughly 2.0x EBITDA and typically aim to keep target leverage ratios conservative at up to 2.5-3.0x EBITDA
> Continuing bank clients are mostly large global players and frequent borrowers such as Deutsche Bahn, Deutsche Post DHL, UPS, etc. with a substantial asset base and considerable and recurring re-/financing requirements
> Event-driven financing definitely plays a key role, particularly in large-scale transactions, but as outlined in this paper, the scope for large deals in the logistics sector has been and will most likely remain limited in the near future
> Ship finance is operated as a specific discipline and banks have specialized desks to address the respective clients
> Rail infrastructure financing will continue to be focused around DCM due to the large corporates and state-owned entity structure with easy and broad capital market access

Operationally, global logistics providers face the challenge of making the right strategic decisions. They need to develop their current customer/region portfolio to secure access to growth markets and high-margin business activities in an increasingly commoditized environment. This is specifically relevant for the global leaders that are mostly domiciled in mature economies such as Deutsche Post DHL or Kuehne & Nagel.

After a strategic portfolio analysis, applying an interdisciplinary approach that combines corporate strategy and corporate finance remains the key to success. This is an area in which Roland Berger and Barclays can offer significant transaction support and expertise:

| | |
|---|---|
| Roland Berger | Analyze market trends/developments per vertical service offering and region/country |
| Roland Berger | Match with current setup of service/industry/region portfolio |
| Roland Berger | Identify and evaluate individual growth and profit potential |
| Roland Berger | Scale these options from "grow with existing customers" to "build up from scratch" |
| BARCLAYS | Calculate the need for investments for e.g. building own assets or M&A |
| BARCLAYS | Find the optimal financing option/instrument tailored to the client's specific requirements and execute the financing process |
| BARCLAYS Roland Berger | Use scenario techniques in order to assess potential competitor reaction and sensitivity analysis to calculate potential risk regarding deviations in market development |
| BARCLAYS Roland Berger | Score all options, prioritize them and select the best option(s) |
| BARCLAYS Roland Berger | Prepare a detailed and reliable CF, CAPEX and implementation plan |
| BARCLAYS | Ensure a professional M&A and transaction process |
| BARCLAYS | Set up a project management structure and execute the transaction |

By adopting this approach, market participants should be able to make the move from "dogs" (e.g. the automotive business in North America) to "stars" (e.g. the pharmaceutical business in specific Southeast Asian countries). And this may well lead to reduced competition in the "dog" markets and stabilize price levels as well as increase profitability in these segments.

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We welcome your questions, comments and suggestions.

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