EPRA
EUROPEAN PUBLIC
REAL ESTATE ASSOCIATION

INDUSTRY REPORT

Global Logistics

Growth in the Listed Real Estate Industry

FTSE EPRA/NAREIT
Global Real Estate Index Series

December
2017

Content table

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FTSE EPRA/NAREIT
Developed Industrial Index

Launch Date: 11/Dec/2006

Constituents: 25

FF Market Cap: EUR 92,667.95 M

Bloomberg Ticker: TENGIE Index

EIKON Index: .FTENGL

5y - Total Return: 15.25% a.a

FTSE EPRA/NAREIT Developed
Industrial/Office Index

Launch Date: 11/Dec/2006

Constituents: 12

FF Market Cap: EUR 21,367.4 M

Bloomberg Ticker: TENGME Index

EIKON Index: .FTENGML

5y - Total Return 15.34% a.a

I. Introduction

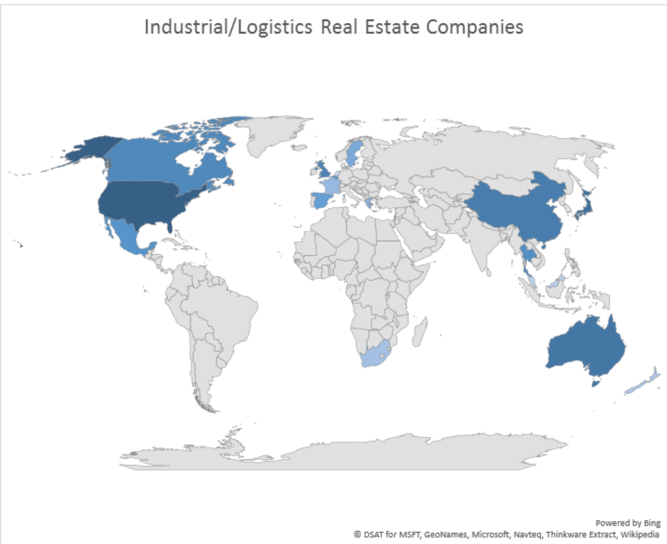
The global logistics industry is central to the shifts of new consumption trends and dynamics of the new supply chain driven by e-commerce. Consumption patterns across the world, together with a more efficient and integrated model of distribution, have created demand for specialised logistic properties, that are well adapted to facilitate a shorter supply chain as well as multi-channel distribution. Logistics, categorised as Industrial is one of the core sectors for the FTSE EPRA/NAREIT index with some of the leading names in the space. Industrial sector index has delivered a remarkable performance compared to other sector, especially in developed markets. In the last 5 years, the FTSE EPRA/NAREIT Developed Industrial Index showed an annualised total return of 15.25% compared to 9.36% and 9.60% exhibited by the Global Index and the Developed Index respectively. Although there are significant differences between regions, all of them show an interesting potential for the coming years as the growing e-commerce industry seems to keep supporting those changes. This report shows a brief characterization of the Global Logistics Listed Real Estate industry (GLLRE) in terms of market size and performance, it also presents a short analysis of the main drivers: consumption trends, supply chain reconfiguration and global trade, together with some industry-experts' views.

II. Logistics Real Estate in numbers

A. GLOBAL AND REGIONAL SIZE

Listed real estate companies specialized in logistics properties are mainly labelled as industrial companies by most of the classification systems. The initial universe of Industrial/Office companies in the ICB classification (ICB 8671) has a total of 260 companies representing a Total FF Market Capitalization of EUR 348 billion. As per GICS classification, 62 real estate companies are categorised as industrials, representing a total FF market cap of EUR 108.3 billion. In addition, SNL tracks 58 listed companies with industrial/logistics properties, which represent EUR 134.3 billion. By combining the three databases and excluding those with FF market cap below EUR 100 million, we have identified a total of 104 industrial real estate companies incorporated in 20 different countries with a total FF market cap of EUR 160.18 billion (GLLRE Industry)[1]. With a longer history of expansion and specialization, North America (USA, Canada and Mexico) is the biggest region, representing 53.3% of the world's market cap (EUR 85.3 billion). Some countries in the Asia Pacific region, such as Australia, Japan, and Singapore, also show a significant level of specialization in industrial and logistics properties, allowing the region to represent 34.1% of the global industry (EUR 54.7 billion).

Industrial/Logistics Listed RE companies around the world (ICB, GICS,SNL)



Country	Market Cap (M)
USA	€73,653.52
SINGAPORE	€13,079.26
JAPAN	€12,570.20
AUSTRALIA	€11,797.64
CHINA	€10,959.26
UK	€10,220.87
CANADA	€6,760.64
THAILAND	€5,152.56
MEXICO	€4,902.07
BELGIUM	€4,344.40
SPAIN	€1,561.93
SWEDEN	€1,266.88
GREECE	€1,228.93
FRANCE	€757.38
SOUTH AFRICA	€468.61
NEW ZEALAND	€467.26
MALAYSIA	€414.49
HONG KONG	€220.11
NETHERLANDS	€179.07
MAURITIUS	€173.25
TOTAL	**€160,178.3**

Source: EPRA. Data: Bloomberg and SNL as August 2017.

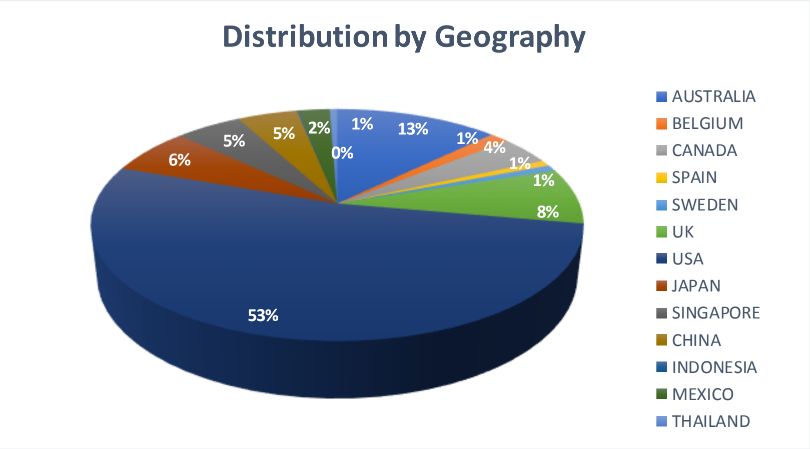
[1] GLLRE Industry: Global Listed Logistics Real Estate Industry, 104 companies (EUR 160.18 B in FF Mkt Cap).

At the same time, logistics properties in Europe are in expansion mode. The UK has the lead in this by representing 52% (EUR 10.2 billion) of the region, while Belgium, Greece, France, the Netherlands, Spain, and Sweden represent a combined market cap of EUR 9.4 billion. Finally, the Middle East and Africa only represent 0.4% of the GLLRE industry (EUR 0.64 billion), and there are no companies from Central or South America exclusively focused on this property class. Furthermore, developed countries sum up to EUR 136.9 billion (85.5% of the industry) and emerging ones to EUR 23.3 billion (14.5%). However, out of the 104 previously identified companies, 12 of them have exposure through investment properties in either the Middle East & Africa (Turkey & South Africa) or Latin America (Argentina, Brazil, Colombia, Chile and Peru).

B. LOGISTICS IN THE FTSE EPRA/NAREIT GLOBAL RE SERIES

Within the FTSE EPRA/NAREIT Global Real Estate Series, companies with at least 75% of their gross book assets invested in industrial warehouses and distribution facilities are classified as *Industrial*. However, companies that invest at least a combined 75% of their gross book assets in industrial warehouses, distribution facilities and office properties are classified as *Industrial/Office*. Office space available on an industrial property is typically utilised by the tenant that is the occupier of the industrial asset. As a result, companies with a significant share of logistics properties in their property portfolios can be classified in any of the last two groups. When considering both categories, the number of constituents rises to 45 with a total FF market cap of EUR 125.9 billion (78.6% of the GLLRE industry). In terms of Developed and Emerging countries, companies in developed countries represent EUR 122.72 billion in FF market cap (84.7% of the GLLRE Developed Industry) and EUR 9.92 billion in FF market cap in emerging countries (42.6% of the GLLRE Emerging Industry).

FTSE EPRA/NAREIT Global RE Index: Industrial Constituents



FTSE EPRA/NAREIT Series Constituents	Total FF Mkt Cap (M)
USA	€66,244.74
AUSTRALIA	€16,102.85
UK	€9,841.67
JAPAN	€8,214.35
SINGAPORE	€6,535.79
CHINA	€5,932.74
CANADA	€5,005.32
MEXICO	€3,091.61
BELGIUM	€1,922.12
SWEDEN	€1,093.32
SPAIN	€1,007.39
THAILAND	€738.55
INDONESIA	€153.97
TOTAL	**€125,884.40**

Industrial Constituents (Top 5)	Country	Mkt Cap (EUR M)
Prologis	USA	27,462.3
Goodman Group	AU	9,784.2
Global Logistic Properties	CHN	9,515.7
Segro	UK	5,930.0
Liberty Property Trust	USA	5,180.1

Industrial/Office Constituents (Top 5)	Country	Mkt Cap (EUR M)
Duke Realty Corp	USA	8,707.3
Dexus Property Group	AU	6,505.5
Gramercy Property Trust	USA	3,796.5
Lexington Realty Trust	USA	2,025.7
Artis REIT	CAN	1,327.1

Source: EPRA. Data as August 2017.

In the same way as the global figures, the composition of the FTSE EPRA/NAREIT Industrial[2] constituents' FF market cap shows a high relevance of the Americas region (EUR 74 billion or 59.1% of the market cap of all the constituents). Asia Pacific is again the second biggest region with EUR 37.7 billion and 29.9% of the global series, followed by Europe with EUR 13.9 billion (11.0%). Nowadays, there are no companies classified as Industrial from the Middle East and Africa region. Once again, companies from the UK, Australia, Japan, and Singapore are

[2] Industrial and Industrial/Office Mixed.

the most significant ones in their respective regions. Companies from developed countries represent 92.1% of the total FF market cap, while companies from emerging countries comprise the 7.9%.

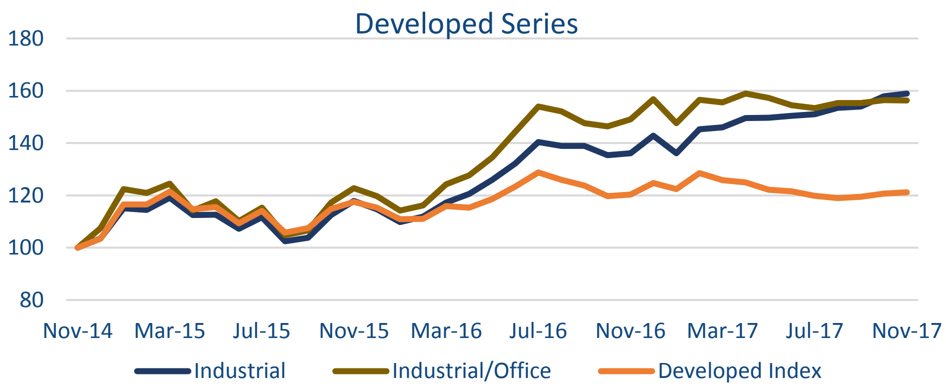
C. PERFORMANCE AND EVOLUTION

In recent years, industrial real estate has been among the best performing sectors within the listed real estate industry. The exhibits below show a sector comparison of gross total returns for one-, three-, and five-year holding periods, ending in November 30, 2017.

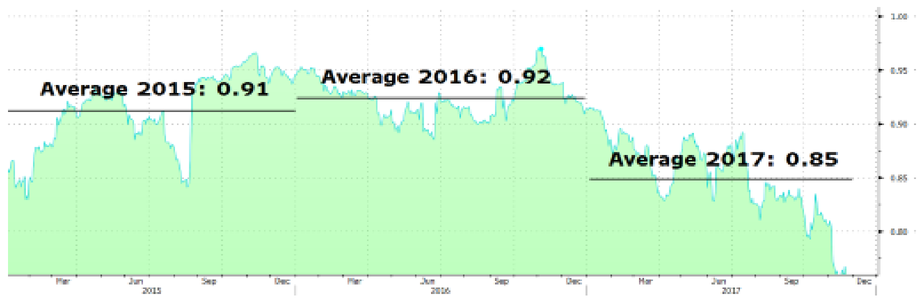
i) Developed vs Emerging Indices

As the first graph below shows, over the past 3 years the "logistics" sectors have outperformed the Developed index. The indices moved closely together until the first quarter of 2016, which marked a tipping point from where the industrial indices moved farther apart the Developed index. Furthermore, since the beginning of 2017 the correlation between both has faded, as shown below.

FTSE EPRA/NAREIT Index Series: Developed vs Industrial



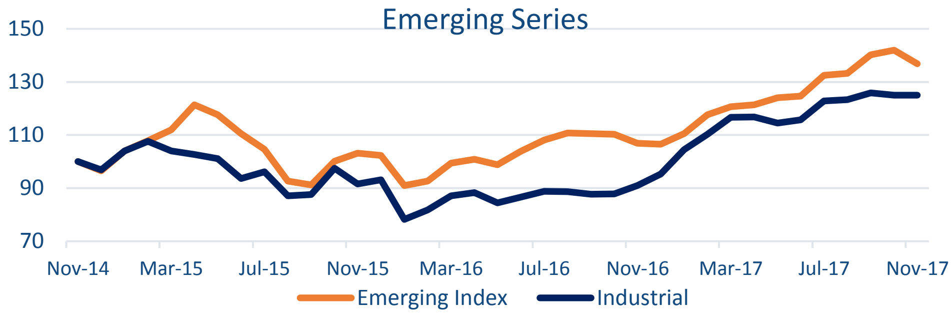
FTSE EPRA/NAREIT Developed vs Developed Industrial: Rolling 60-days correlation



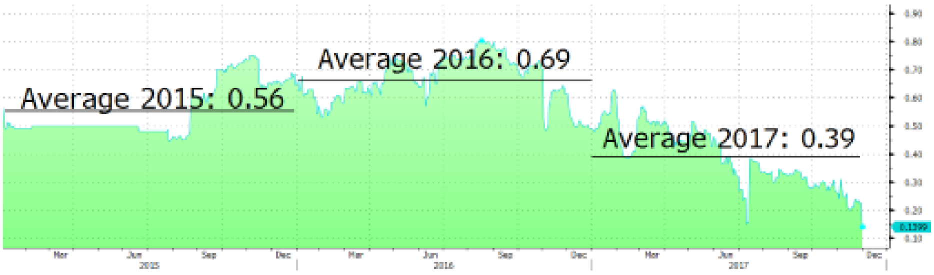
Source: EPRA.

The next graph shows the evolution of the Emerging Industrial index against the evolution of the Emerging index in contrast to the developed series, the Emerging Industrial index underperformed the aggregate of emerging constituents. Therefore, the upward trend in value that started during the last quarter of 2016 explains the outperformance observed over the last year.

FTSE EPRA/NAREIT Index Series: Emerging vs Emerging Industrial



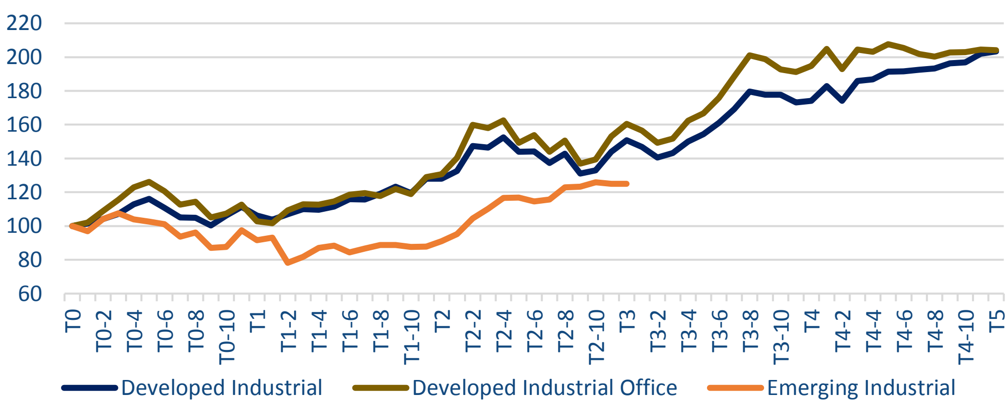
FTSE EPRA/NAREIT Emerging vs Emerging Industrial: Rolling 60 days correlation



Source: EPRA.

Moreover, as emerging regions are expected to lag the trends of developed markets, we provide a comparison of the evolution of both the Developed industrial indices for the five-year period to the evolution of the Emerging Industrial index for an interval of 3 years. The graph provides data for a period ranging from November 2012 (T0) until November 2017 (T5) for the developed industrial index, and from November 2014 (T0) to November 2017 (T3) in the case of emerging industrial index. Although the evolution of the emerging industrial stocks appeared to be more stable when comparing the same periods, the lagged data show that the difference of both series is smaller, since the more substantial upward trend of the developed indices started about two years ago, suggesting that emerging markets are in earlier-performance stage than developed markets.

FTSE EPRA/NAREIT Developed Industrial 5y vs Emerging Industrial 3y (2y lagged)



Source: EPRA.

ii) Logistics vs other Sectors

Overall, the Industrial and Industrial/Office indices show not only a positive return, but they also outperformed the other sectors, with either one being the top performer over the three selected holding periods. The sector has also experienced an active dynamic of mergers and acquisitions (M&A) during the last three years showing investors' appetite for logistic properties. Some examples of the biggest deals in 2015 and 2016 are the acquisition of IndCor Properties by Global Logistic Properties (GLP) and the Singapore sovereign fund (GIC) (USD 8.1 billion, 2015), the acquisition of KTR Capital by a joint venture owned by Norges Bank and Prologis (USD 5.9 billion, 2015) and the sale of a logistic portfolio by Morris Realty Associates to Prologis (USD 820 million, 2016). In 2017 GLP decided to expand its presence in Europe through the acquisition of Gazeley (USD 2.8 billion) and is currently in the process of being acquired by Nesta Investment (estimated of USD 11.6 billion).

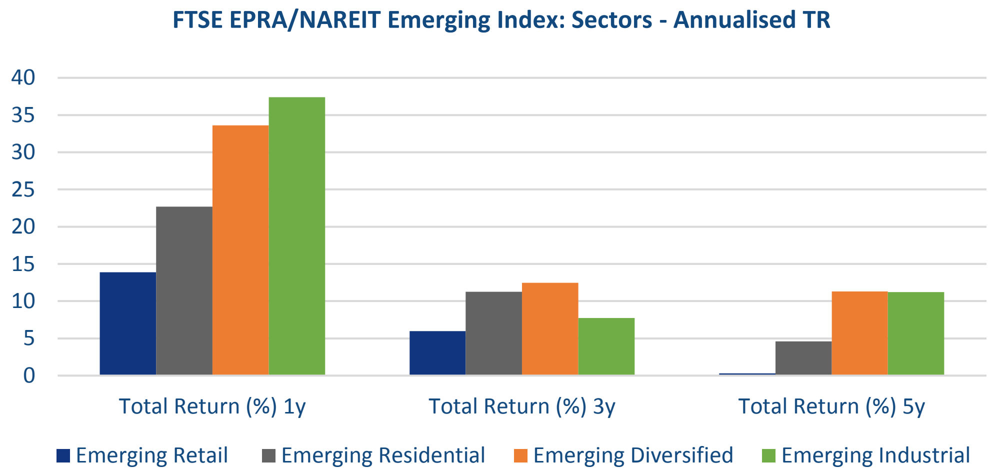
Regarding the performance on developed markets, three- and five-year gross total returns have been higher-than-average for logistics sectors, i.e. Industrial and Industrial/Office sectors. The former has been the best performer among all sector indices over the last three years and the last twelve months, for which it registered annual gross total returns of 16.7% and 16.81%, respectively.

FTSE EPRA/NAREIT Developed Index: Sectors - Annualised TR

Holding-period Gross Annualized Total Return by sector (Nov 30, 2017)		
1 year TR	**3 years TR**	**5 years TR**
Industrial, 16.81%	Industrial, 16.70%	Self Storage, 17.14%
Residential, 8.96%	Industrial/Office, 16.04%	Industrial/Office, 15.34%
Industrial/Office, 4.85%	Residential, 13.69%	Industrial, 15.25%
Diversified, 3.81%	Self Storage, 11.76%	Residential, 15.06%
Lodging/Resorts, 2.83%	Office, 7.01%	Lodging/Resorts, 14.61%
Self Storage, 0.76%	Diversified, 5.01%	Office, 9.91%
Office, -0.65%	Lodging/Resorts, 2.82%	Diversified, 7.28%
Healthcare, -3.02%	Healthcare, 2.81%	Healthcare, 7.12%
Retail, -10.32%	Retail, 2.46%	Retail, 6.60%

Source: EPRA.

For the emerging series, the Emerging Industrial index has been the best performer over the past year (37.41% gross total return). When considering a longer horizon, holding returns are clearly positive, although relative outperformance over the other sector indices is less significant.



Source: EPRA.

III. Main drivers

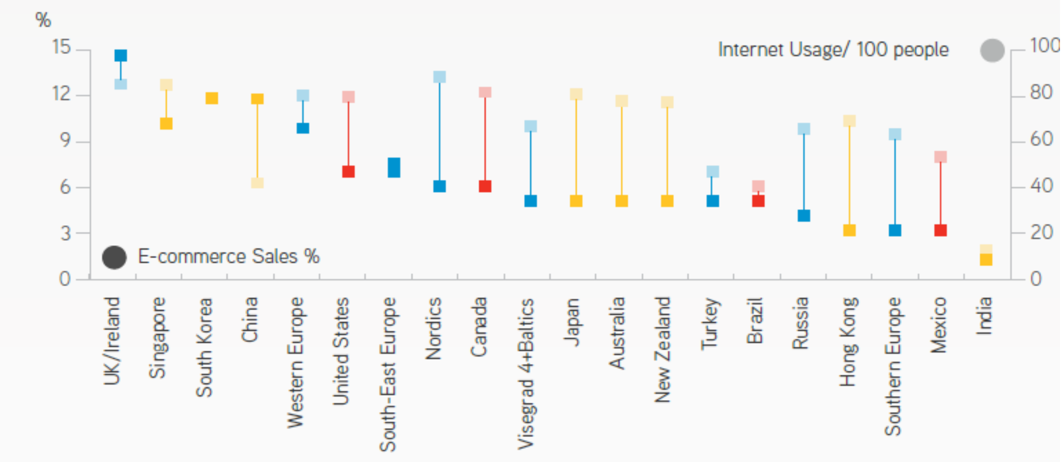
As mentioned before, the outperformance of those listed companies with exposure to logistic properties has been supported by shifts in spending patterns and supply chain dynamics. E-Commerce is changing the world and real estate is adjusting with it. Retailers and manufacturers are altering the way of reaching new clients and in turn causing real estate companies to adapt their properties to this new environment. Some of the biggest e-retailers like Amazon, Tesco, and JD.com are gradually becoming more relevant among the top-5 tenants group of many industrial real estate companies around the world. Big multimodal distribution centres with highly sophisticated data-processing technologies are gaining importance. Simultaneously, global trade has been continuously growing, as international customers are now able to choose from a wide range of products from many countries, just at one-click distance. At the same time, some regions, like Europe, are making strong efforts for increasing the interconnection of their logistic continental industry, while others, like Asia, are starting the process of renovation of their heavy materials-oriented logistics systems. North America is clearly leading the changes, but still showing big opportunities for new and old participants. Finally, emerging countries are just starting the process and still have a long road to go.

A. CONSUMPTION: THE RISE OF E-COMMERCE.

Consumption is a key indicator for economic activity across countries and regions. Its expansion reached 15% in real terms from 2010 to 2015, according to the IMF. E-commerce growth is one of the most relevant trends supporting this expansion, clearly moving together with the increase of the digital communications and some substantial changes in the global population. In many countries, e-commerce sales rose from below 1% of the total retail sales 10 years ago to more than 6% in most developed countries and 3% in emerging ones in 2015, according to Colliers International and the World Bank. Easier internet access through smartphones and on-line shopping apps are accelerating this trend.

Two main sources of potential expansion for industrial real estate can be identified from the e-commerce rise. First, countries in developed regions with high purchasing power, large populations and substantial internet usage like the US, Japan, Western Europe and Australia already have a proper economic environment for a further expansion both in the short and medium term of the e-retail distribution network, including new logistic centres and reconfiguration of the existing properties.

E-commerce sales vs Internet Usage (Colliers, 2015)



Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

On the other hand, in the medium and long term emerging markets represent an outstanding potential as both access to digital technologies and purchasing power is forecasted to grow rapidly. Internet usage in countries like China (50.3%), Turkey (53.7%) and Brazil (59.1%) has substantially increased in the last ten years, coming from levels below 25%, but is still far below the developed countries average (OECD 76.9%)[3]. India represents a special case where internet usage is even below the low and middle-income countries average (26% vs 37%) and both e-commerce and the real estate industry are still in an early growing stage.

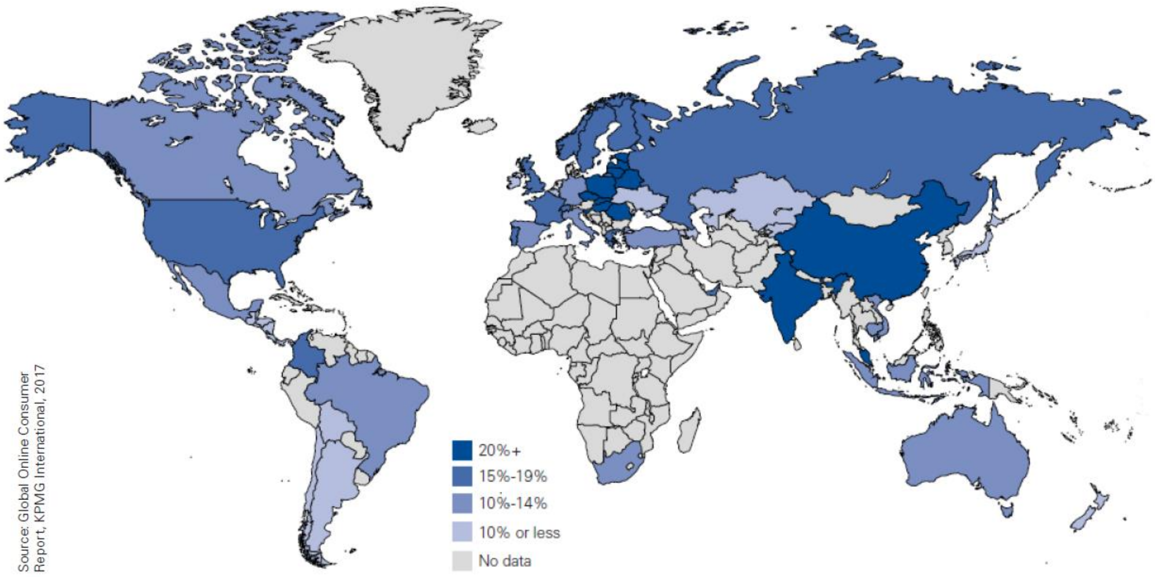
India: E-commerce Composition, USD Billion. (Colliers, 2015)

Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

Nowadays, a big percentage of consumers around the world are adapting to e-commerce purchases for several reasons, although one of the most interesting ones is related with the fact that people in countries with big populations or limited retail space prefer to shop on-line to avoid crowds, as shown by KPMG in one of its latest consumer reports. Then, typical large retail space is being re-oriented, mainly towards high quality consumption/entertainment combination, and distribution centres are central for this re-orientation.

[3] The World Bank global data base, 2015.

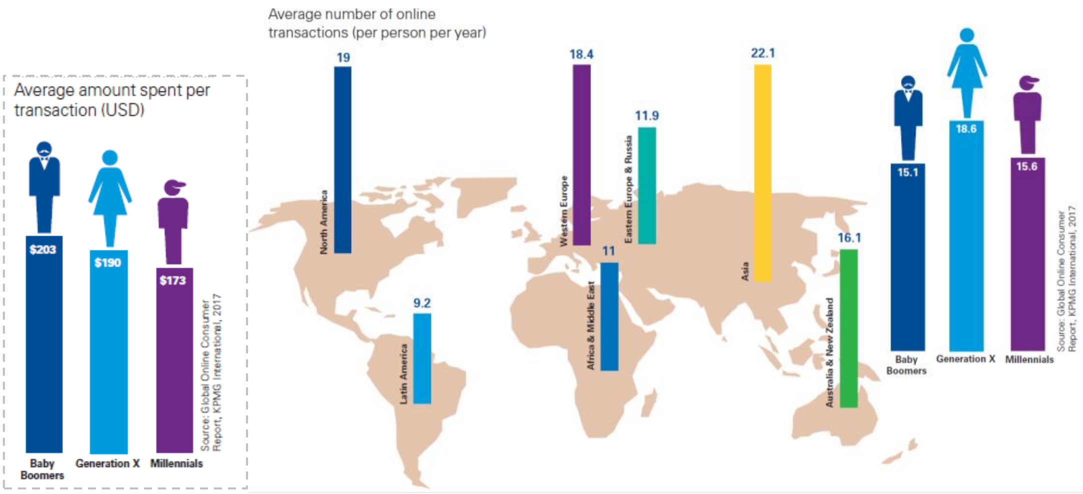
Percentage of consumers who shop online to avoid crowds (KPMG, 2017)



Source: *2017 Global Online Consumer Report*. KPMG. July, 2017.

Simultaneously, demographic shifts are also highly relevant when looking at spending channels methods. Baby boomers are ageing and making space for generation-x and millennials, that are typically more familiar with digital technologies and participants in the e-commerce evolution, as evidenced in the average number of transactions per year. At the same time the baby boomers remain relevant due to the spending power and critical mass, evidenced by highest average amount per transaction.

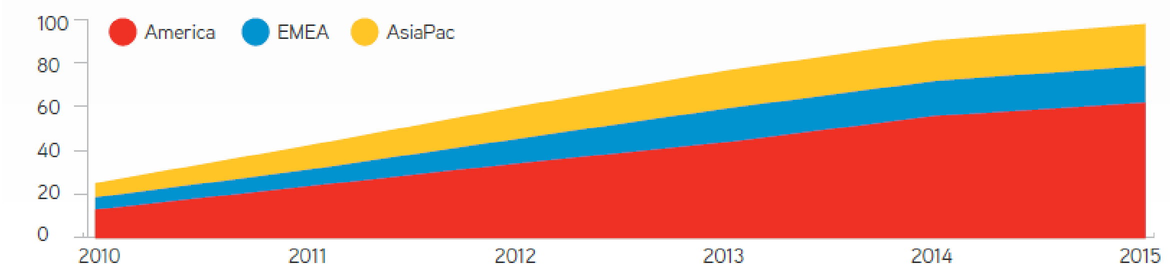
E-Commerce: Comparison across generations (KPMG, 2017)



Source: *2017 Global Online Consumer Report*. KPMG. July, 2017.

E-commerce is not often considered as space-intensive, while its growth has strongly supported demand for logistic properties during the last 10 years and driving returns on the industrial listed real estate. For example, when checking the leasing accounts composition of the biggest listed industrial real estate company in the world, Prologis, it is easy to see the increasing importance of e-retailers who represented almost 25% of the total leases in 2016 compared to less than 5% five years before. In fact, Prologis estimates than online retailers require almost 3 times more space in distribution centres than typical retailers[4]. In the same way, in fewer than five years Amazon has increased 5 times its use of warehouses all over around the world.

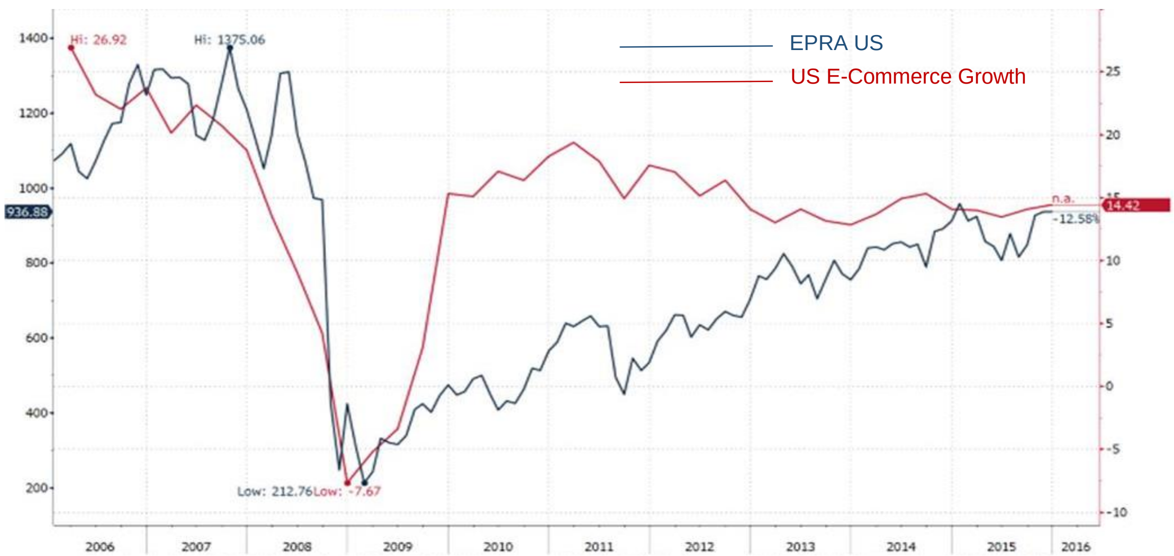
Amazon: Warehouse space, Million of sqft (Colliers, 2015)



Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

In the US where the on-line retail has the longest histories, e-commerce annual growth shows a significant correlation (53%) with the FTSE EPRA/NAREIT US TR Index during the last ten years, even besides the gap observed between 2009 and 2013 as e-commerce changes took place over a relatively small base and much faster than the reactivation of the global real estate industry.

FTSE EPRA/NAREIT Industrial US TR vs US E-Commerce Growth (% y/y)

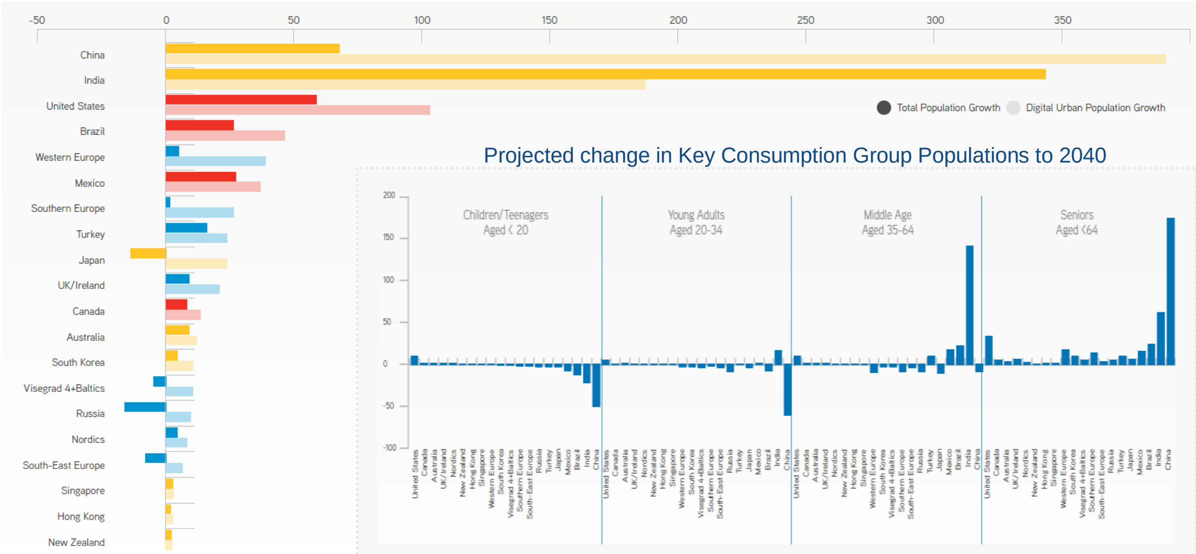


Source: EPRA.

A common concern related to consumption growth forecasts is related with the small-family composition, particularly in developed countries where families have two or less children, since it might represent a very low or even negative population growth. However, in the case of digital technologies this pattern seems to be less relevant since it is the digital population rather than the total population that drives the growth. China, western Europe and the US are some regions that show a big potential for a strong e-commerce demand based on digital population growth. Then, e-commerce seems to remain as a strong fundamental driver for logistic properties both in the short and long term.

[4] Source: *Understanding the Strength of the Logistics Real Estate Expansion*. Prologis. December, 2015.

Total Population vs Digital Urban Population Growth, Millions (Colliers, 2015)

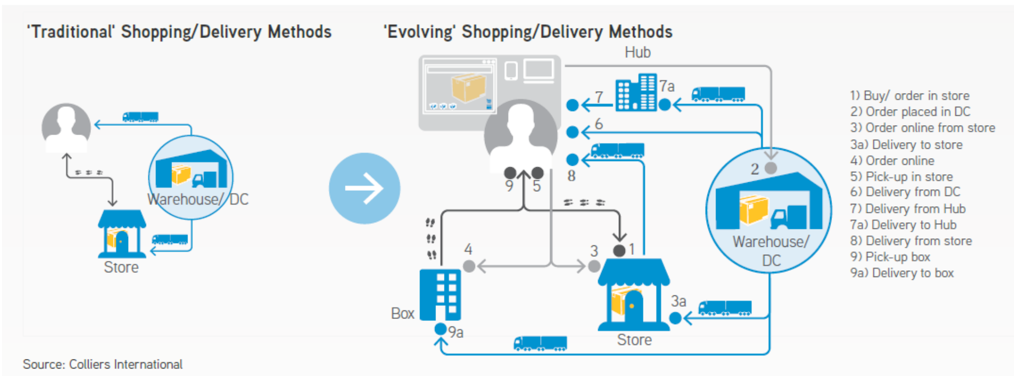


Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

B. SUPPLY CHAIN RECONFIGURATION: THE NEW APPROACH.

Distribution chains have been continuously evolving during the last decade. The standard delivery channels, mainly focused in the store or the warehouse that used to offer limited diversity to the consumer and weak feedback to the producer, is now becoming a complex network of interconnected locations and systems with different characteristics allowing consumers to choose from a diversified offer, shorter delivery time and strong feedback to the producer. Small warehouses, hubs and delivery boxes are now more visible in the urban areas while big multimodal distribution centres in strategic locations out of the cities using advanced data processing technologies are changing the nature of the logistic properties.

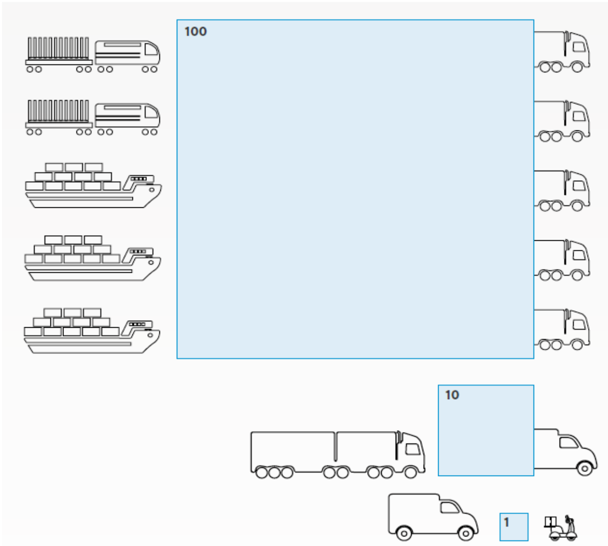
Evolution of Logistics Needs (Colliers, 2015)



Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

Colliers international considers the ratio 100:10:1 as a good approximation of the size scale on which most of the logistic properties are evolving into because of the e-commerce expansion. The first mile line is dominated by Mega Distribution Centres (MDC), mainly considered in a regional-national perspective of trade and large freight transportation and usually offering available space of around 1 million square feet in strategic locations (ports, airports, railroads) that allow fast transfer of products to smaller transportation methods. As an intermediate step, the cross-docked warehouses are mid-size properties typically located close to urban areas easily accessible by cargo-trucks, often sized on a range of 100 thousand square feet. Finally, in the last mile line, urban hubs and warehouses are small facilities up to 10 thousand square feet with a fast-final delivery approach.

Evolution of Warehouse Space 100:10:1 (Colliers, 2015)

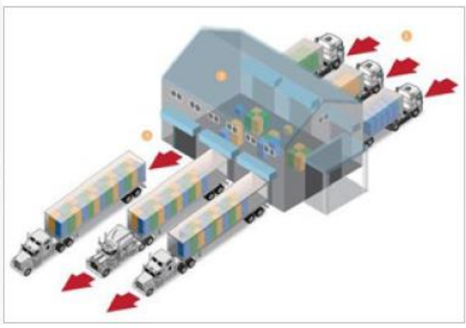


Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

The First Mile approach: Mega Distribution Centres

Sophistication and efficiency are the main drivers in this approach. Multimodal freight and large size distribution, storage, pick and pack order and reverse logistics are the most common activities in these properties. Many of them located in a port-entry area and allow to connect different lines of transportation like cargo ships, trains, planes and trucks, showing a high level of automatization with technologies like robotization, radio frequency Identification and inventory-data analytics. These distribution centres are highly capital-intensive and are typically owned by joint ventures and big real estate companies specialized in logistics. The distribution is often managed by a third-party logistics provider (3PL), parcel delivery companies and e-retailers.

Mega Warehouse and Cross-Docked Centres (Colliers, 2015)

Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

In addition, the cross-docked, medium-size centres are aimed to allow fast transfer of goods, storage, order fulfilment and distribution, then located around highways and arterial routes connecting different urban areas and showing a high level of sophistication. Commonly leased by 3PL and parcel delivery companies.

The Last Mile Evolution: Urban Logistics

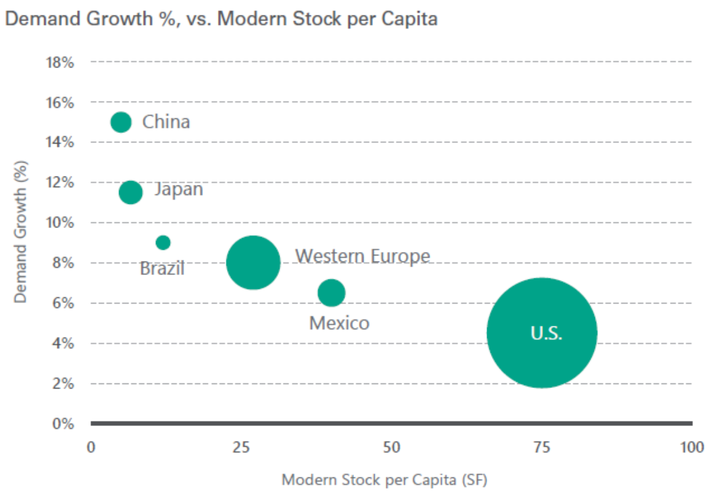
Finally, the last mile line is highly influenced by innovation, flexibility and efficiency. Typically located in urban areas, these are medium and small properties hosting facilities for hand-picked operations who receive products from trucks and hold them for short periods waiting for delivery to the final consumer. This is one of the most dynamic and changing areas in the distribution network as many small companies are implementing new delivery methods in addition to the common local post and parcel delivery services. Hubs and boxes located in strategic high-traffic places in the cities are also included in this scheme. Wide variety of leasers of different categories, including 3PL, parcel delivery, e-retailers and start-ups.

Smart City with Urban Warehouses (Colliers, 2015)

Source: *From First Mile to Last Mile*. Colliers International. October, 2015.

Although many of these changes in the new approach look familiar, the renovation and reconfiguration of the existing and new logistics and distribution properties linked to the e-commerce distribution network is just taking place in a massive way. Prologis estimates than only 20% of the logistics stock in Europe is modern, less than 5% in Japan and even lower in emerging markets. In fact, even in those markets where the e-commerce activity is already in advanced stage, innovation is continuously improving efficiency in the distribution process and logistics real estate companies have value-add opportunities.

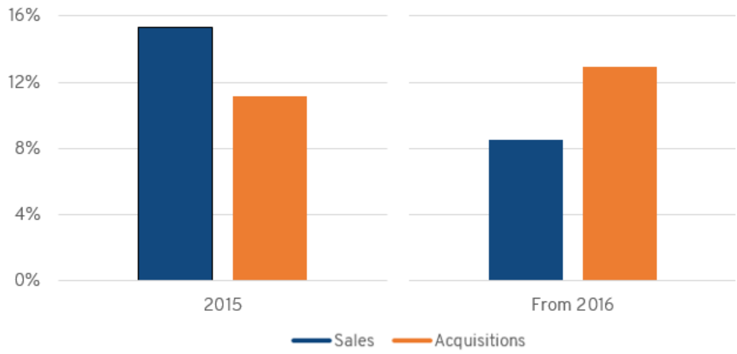
Supply Chain Reconfiguration (Prologis, 2016)



Source: *Understanding the Strength of the Logistics Real Estate Expansion*. Prologis. December, 2016.

Finally, the graph below shows logistics properties' share of total acquisitions and total divestments from the universe of all real estate companies provided by SNL, excluding the 58 companies classified as industrial. The relative amount of acquisitions shows a very different pattern in 2015 than from 2016 onwards (from the start of 2016 until the end of August of the current year). A higher net investment in logistics properties by nonlogistic companies was recorded in the latter period, which is in line with the relatively higher optimism towards industrials and the better performance of the sector.

Investments in logistics properties



Source: EPRA.

European Companies' approach[5]:

European listed companies have been very active in positioning the assets to suit the change in trends operationally as well as geographically.

Segro – UK

The company has a portfolio including both first mile and last mile distribution centres. Their first mile facilities (big box warehouses), which comprise 40% of their portfolio by value, are large warehouses built for inventory storage and regional, national and international distribution to the tenants' major markets. These big boxes are in major logistics corridors and hubs. Last mile warehouses are smaller and close to urban areas, built to offer retailers a location from which to send goods to store networks, homes and offices. The urban distribution centres comprise 54% of the portfolio by value (with 6% being used as data centres).

Segro's urban warehousing units (Park Royal Origin, London)

Source: SEGRO.

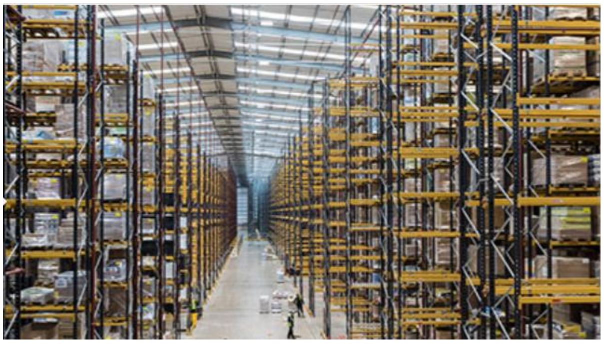
[5] Analysis and recompilation from companies' Annual Reports.

SEGRO recognizes the change of customers' behaviour towards e-commerce retailing, expecting stronger demand for their urban warehouses close to the main European cities, and suited for last mile delivery. The company will focus on new developments while following the same strategy, offering a combination of big box warehouses and urban distribution centres, suited to the demand trends influenced by e-commerce. Its projects focus on pre-let developments. For example, developed warehouses with pre-let agreements with Amazon.

Tritax – UK

Tritax focuses on first mile facilities. They have a pure exposure to big box logistics assets. These are strategically located *"distribution centres and logistics hubs that hold finished goods for distribution to other parts of the supply chain or directly to consumers*." Tritax's big boxes are sizeable buildings, ranging from 28k to 93k square meters. The company's view is optimistic as it expects online retail to keep pushing demand for logistics properties, especially for big boxes (they believe the retail market developments benefit the Big boxes model and Tritax is a pure player). Therefore, they plan to grow the business without changing strategy, offering big boxes that are better suited to deal with e-commerce demand and requests for large, efficient distribution facilities, or even for needs to house data centres in the same site as distribution centres. Further, big boxes allow for easier adjustments for retailers between online/physical store selling models.

Inside views of Tritax's Big boxes



Source: Tritax.

Axiare – Spain

Most of their logistics facilities are big buildings located near transport infrastructure (ports, airport, main highways), mainly focused on first mile and intermediary points in the supply chain. Part of their portfolio includes distribution centres situated close to urban areas, located to be a point of urban distribution. The logistics properties in progress might be considered to focus the same strategy: big properties either to serve as first mile or as cross docks for urban distribution.

Axiare's logistics properties near Madrid

Source: Axiare.

WDP – Belgium

The company is focused on first-mile distribution centres (properties in logistics hubs, close to transport infrastructure) and intermediary ones (close to urban areas) as well, big properties (>12 thousand square meters) with space for trucks. They also own smaller properties. “WDP strategically locates its warehouses where a connection between road, ship, rail and air transportation can be established. (These) modes can compete or complement one another in terms of cost, speed, accessibility, frequency, safety and comfort”.

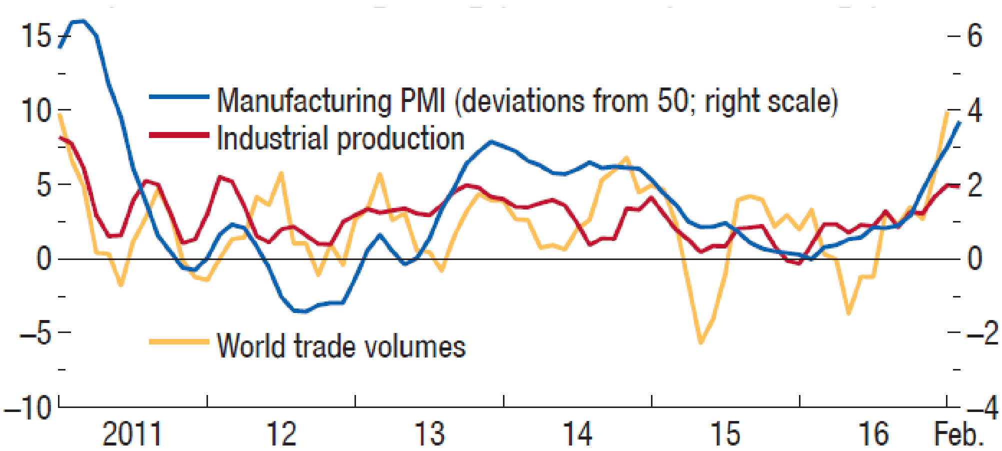
WDP warehouse in Dourges (Seine-Nord Canal)

Source: WDP.

C. GLOBALIZATION: TRADE STILL MATTERS.

International trade has been one of the most important and consistent drivers of industrial real estate in the last decade. As evidenced in the graph below, industrial indicators are closely related to world trade volumes. Global flow of goods and services has been outperforming world economic growth besides some slow performance in the post-crisis period. According to the IMF, during the last ten years, economic real growth averaged 3.68% y/y while global total trade volume averaged 4.05% y/y.

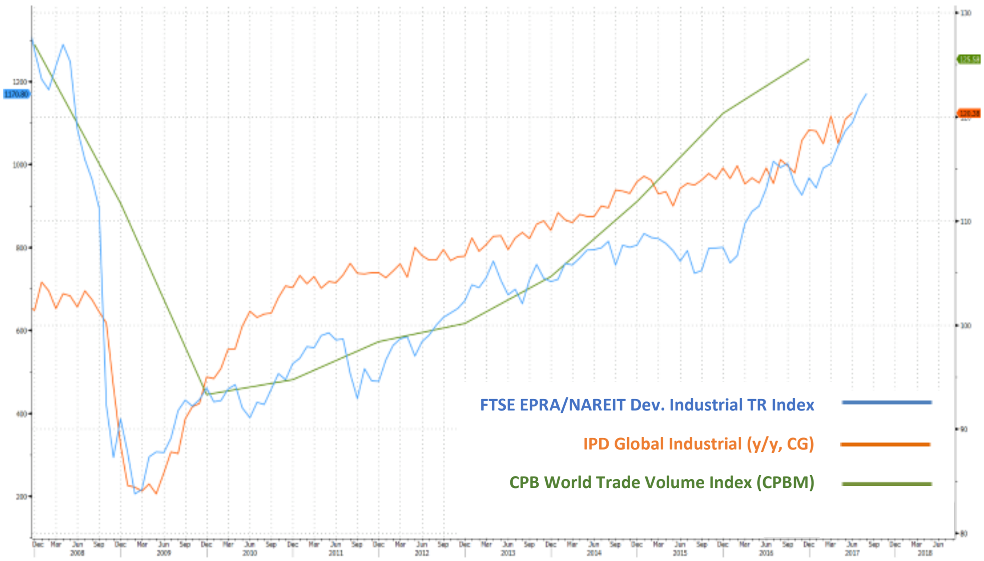
Global Activity Indicators (IMF, 2017)



Source: *World Economic Outlook*, IMF. April 2017.

Merchandise trade has shown a permanent growth in the most recent years and this dynamic has been recognized by both industrial properties and industrial listed real estate companies around the world. When checking the global trade balance, the CPB World Trade Index rose 4.48% between December 2014 and December 2016 (2.22% y/y), simultaneously the IPD Global Industrial CG Index gained 12.26% (5.95% y/y) and the FTSE EPRA/NAREIT Developed Industrial Index showed a total return of 20.19% (9.63% y/y). In fact, from 2005 to 2016, the annual correlation between the IPD Global Industrial Index and the CPP World Trade Index reached 0.68, while the IPD Global Industrial Index also showed an annual correlation of 0.80 with the FTSE EPRA/NAREIT Developed Industrial Index during the same period.

Industrial Listed RE, Property Market and International Trade



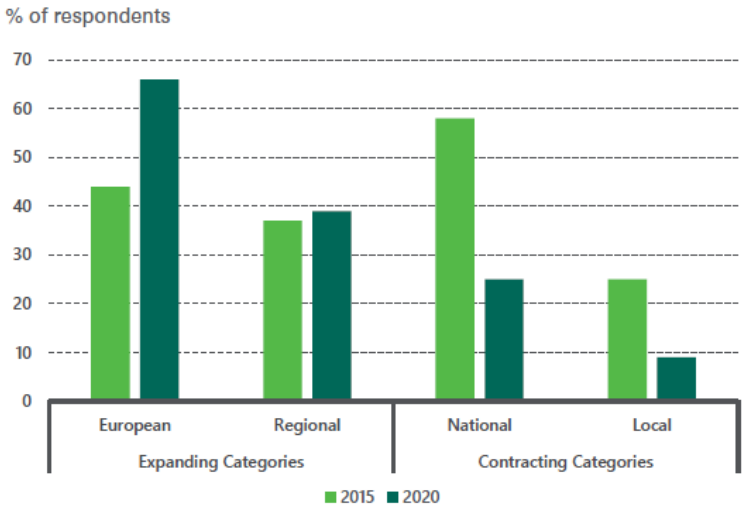
Source: *EPRA*, Bloomberg.

In the most recent years, many companies have adopted a four-corners strategy trying to reduce the dependency on one specific distribution centre and simultaneously reacting to the new trends in terms of trade, freight and delivery. The expansion and posterior re-opening of the Panama's channel in 2015 has created a new enlargement of non-traditional ports while the supply chain reconfiguration has changed the traditional logistic interconnection. Besides North America, where logistic centres are highly connected and the competition is mainly focused on the implementation of new technologies and adding new components to the network, Europe still shows a fragmented-national network and is driving its efforts towards the implementation of a continental system while transforming properties into a multimodal scheme.

The European case:

As evidenced by the survey implemented by Prologis through its European customers in 2016, most of the logistic properties tenants consider the network is evolving towards a continental and regional system while national and local are in contracting stage, and this trend is going to be reinforced by 2020. In 2015, the European Commission launched a remarkable infrastructure programme, the Trans-European Transport Network (TEN-T), which aims to improve the efficiency of the transport systems by developing more than 2,500 projects across the continent, its final goal: by 2050, the great majority of Europe's citizens and businesses will be no more than 30 minutes' travel time from this comprehensive network.

Customers Survey: Network Evolution Type in Europe (Prologis, 2016)



Source: *Understanding the Strength of the Logistics Real Estate Expansion*. Prologis. December, 2016.

In its September, 2017 report on European Logistics, M&G Real Estate identifies Nordic, Central and Eastern and Southern Europe, as the regions with the biggest potential for attractive returns in the coming years, in particular, Poland is recognized as one of the most outstanding countries with "52 infrastructure projects amounting to EUR 27.6 billion, the highest of any EU state to be invested over the medium term" which represents an expected change of more than 50% on freight transport activity for the period 2020-2050, only behind Luxembourg and Ireland. This also coincides with the change of country-status for Poland under the FTSE EPRA/NAREIT Real Estate Index series, moving from Emerging to Developed in September 2018.

Trans-European Transport Network (TEN-T): Core Network (M&G Real Estate, 2017)

Source: *The opportunity in European logistics.* M&G Real Estate. September, 2017.

European consumers are adapting to e-commerce sites from different countries in the continent while distribution centres now must be able to store merchandise to be sent to several cities in their own countries but also in their neighbours, either by traditional trucks and railway systems but also by plane, boat, and non-traditional delivery methods. Good examples of how the continent is moving towards multimodal distribution centres are the Daventry International Rail Freight Terminal (Prologis, UK) and the WDPort of Ghent (WDP, Belgium). Many countries are supporting new projects to face the new vision of an integrated scheme. In Northern and Western Europe, the Seine-Nord Canal (considered as a Multi-modal corridor by the European Union) aims to improve the connectivity between France, Belgium, Germany and Netherlands through a well-developed network of in-land waters, and listed real estate companies like WDP and Intervest are locating some of their properties close this system, which represents a remarkable potential for the medium term.

Multimodal WDP Port of Ghent, Belgium

Source: WDP.

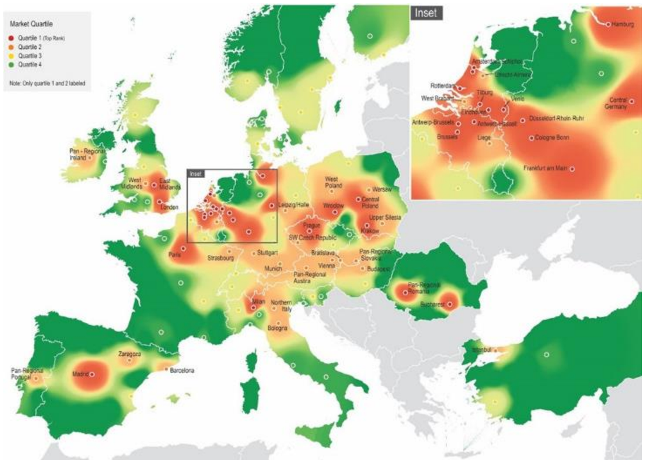
The new continental network is also adding many ports, distribution centres and warehouses out of the traditional "Blue Banana", as identified by Colliers International in 2015.[6] New logistics areas, mainly located in South and Eastern Europe (Greece, Italy, Poland, Spain and Turkey), are getting a more relevant role in the continental logistics scheme as a part of the four-corners strategy of many tenors with presence in both developed and emerging markets.

A similar vision was presented in October 2017 by a survey conducted by Prologis, where logistic operators identified Central Poland-Lodz as the best performing market outside Western Europe mainly as a result of an extensive transportation infrastructure, strong value position and proximity to Western Europe. In addition, the respondents also considered Venlo (Netherlands) as the most desirable location in Europe thanks to its accessibility to major consumption centres, infrastructure and support of the municipalities. Finally, Düsseldorf Rhein-Ruhr was recognized as the location with strongest improvement thanks to its proximity to the Northern European ports and distribution onward to locations elsewhere in Germany and its neighbours.

[6] *Global Industrial & Logistics Trends*. Colliers International. October, 2015.

A) Map EMEA key clusters (Colliers, 2015)

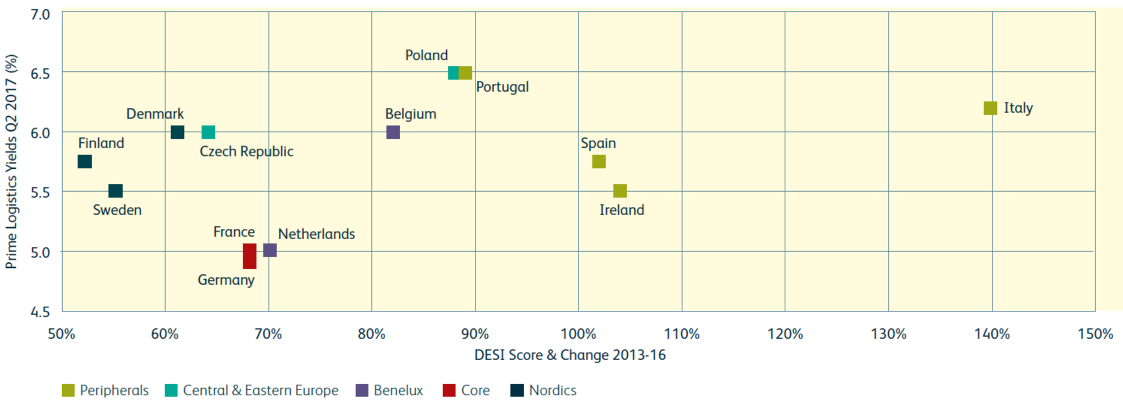
B) Europe's most desirable locations (Prologis, 2017)



Source: A) *From First Mile to Last Mile*. Colliers International. October 2015. B) Customer Growth Strategies: Europe's Most Desirable Logistics Locations. Prologis. October 2017.

Regarding the influence of e-commerce and digital technologies, M&G Real Estate developed a comprehensive analysis of the European logistics real estate by using the Digital Economy & Society Index (DESI) scoreboard, an indicator developed by Eurostat aiming to measure the impact of all the initiatives addressed towards the creation of a Digital Single Market (DMS). By combining the countries' DESI score change for the period 2013-2016 and the prime logistics properties yields up to Q2-2017, M&G identified Southern Europe countries and Poland as those markets with the most significant change in e-commerce and greatest potential for future development, offering and interesting perspective on expected future performance.

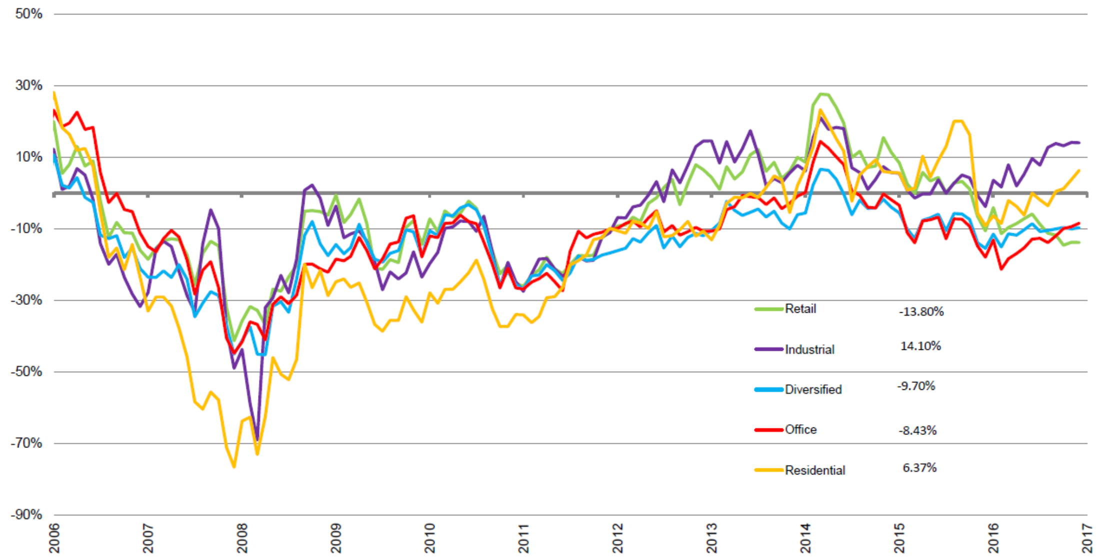
DESI % Change 2013-2016 scores vs country prime logistics yields (M&G Real Estate, 2017)



Source: *The opportunity in European logistics.* M&G Real Estate. September, 2017.

The prospect of European industrial sector has gained recognition from the investors. When analysing the Price Discount/Premium to NAV by sectors in Developed Europe, the industrial sector trades with distinction to the rest since Q-3 2016, reaching a Premium of 14.1% in November 2017, above all the other sectors (Europe: -5.8%). This performance has been supported by solid results in terms of companies' profits and anticipated performance in the near term.

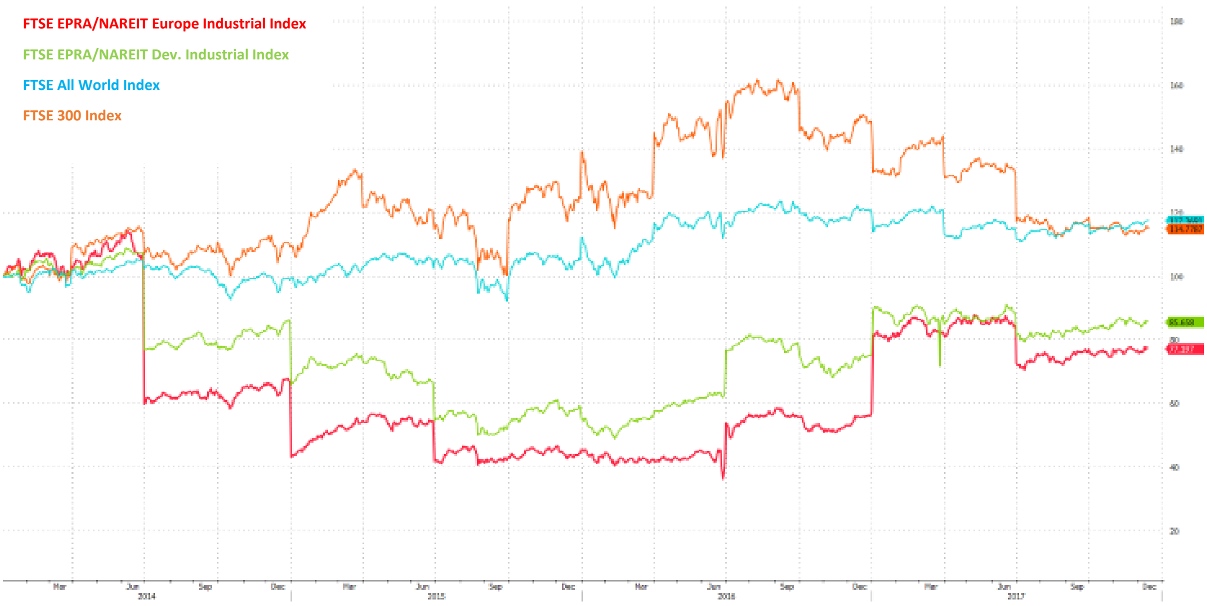
FTSE EPRA/NAREIT Developed Europe Sector Indices - Discount to Published NAV



Source: *EPRA.*

From a P/E perspective, the Industrial listed real estate sector is still trading below other sectors and significantly lower than general equity markets. By normalizing the P/E ratio back to 2014 for both the FTSE EPRA/NAREIT Europe Industrial Index and FTSE EPRA/NAREIT Developed Industrial Index together with the European equity Benchmark (FTSE300 Index) and a global equity benchmark (FTSE All World Index), it can be observed that industrial real estate companies show lower earnings-adjusted prices than those observed in Jan/2014, European Industrial 77.2% and Developed Industrial 85.6%, and lower than those evidence in the general equity markets (FTSE300 114.8% and FTSE All World 117.4%), suggesting a significant potential for future performance.

P/E Ratio: Listed RE (Developed and European Industrial) vs European and Global Equity



Source: *EPRA*, Bloomberg. Normalized as 01/Jan/2014.

IV. Conclusions

- Under the fact that most of the listed real estate companies specialing in logistics are classified as *Industrial* by data vendors and index series, EPRA identified 104 industrial real estate companies from the 5 continents with a total FF market cap of EUR 160.18 billion, the Global Logistics Listed Real Estate (GLLRE Industry), up to 31/Aug/2017. In the same way, under the FTSE EPRA/NAREIT Real Estate Index Series, 45 constituents were classified as *Industrial* with a total FF market cap of EUR 125.9 billion, representing 78.6% of the GLLRE industry.

- The logistics sector has significantly outperformed other sectors of the listed real estate industry. During the last five years, the FTSE EPRA/NAREIT Developed Industrial Index showed an annualised total return of 15.25% compared to 9.36% and 9.60% exhibited by the Global Index and the Developed Index. Three factors can be considered as the main drivers of this performance: the rise of e-commerce, a reconfiguration on the global supply chain and international trade.

- E-commerce is considered highly space-intensive, its expansion has been boosting demand for logistic properties all around the world and will probably remain as the main driver in the near future. Changes in consumption patterns, digital population growth and access to new technologies are at different stages in developed and emerging countries, however all of them still show a significant potential for future expansion with different perspectives and challenges.

- Changes in consumption patterns are also guiding changes in the supply chain. The new first-mile and last-mile approaches are creating a complex network of interconnected locations, sizes and systems. Small warehouses, hubs and delivery boxes are now well connected to big multimodal distribution centres located in strategic locations, many of them with an international scope. This reconfiguration is still in an early stage as many regions still show low percentages of modern logistics properties.

- International trade still matters, especially in a world where customers have a diversified international offer just a one-click distance and one-business day delivery. There is a significant historical correlation of trade activities, logistics properties and industrial listed real estate returns. Europe shows interesting patterns with new players and locations being part of the new interconnected scheme, significant potential to keep expanding and a dynamic renovation of its logistics network. Many industry's active players consider Southern and Central & Eastern Europe are the regions showing the biggest potential.

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