MARKET
RESEARCH

Global Listed Real Estate

Emerging Markets

H2 - 2020

FTSE EPRA Nareit Global Real Estate Index Series

March 2021

I. Executive Summary

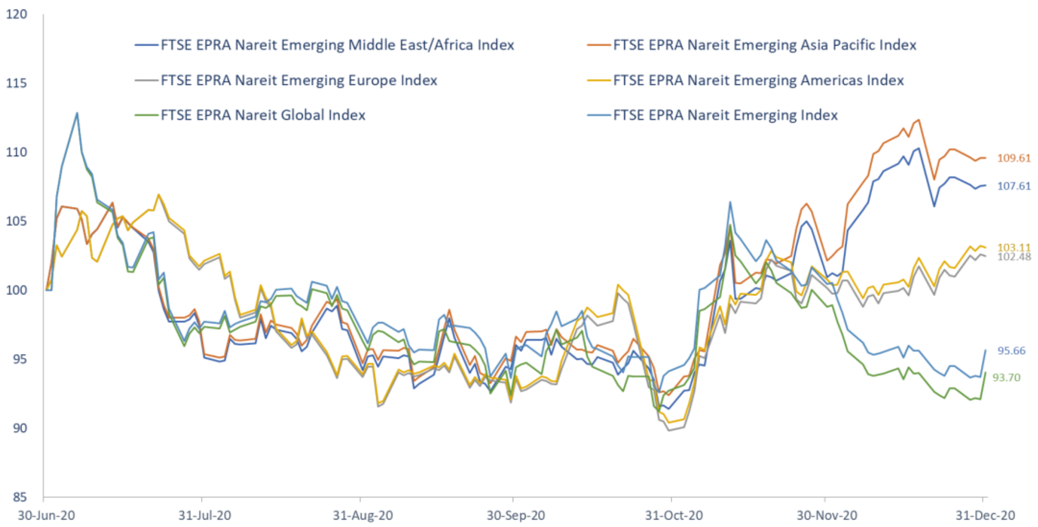
2020, an unforgettable year. After a dramatic H1 2020 spurred by the COVID-19 where global trade contracted sharply, the promise of vaccine deployment and a continued economic recovery buoyed investors sentiment during the second half of 2020 boosting global markets, including emerging markets. During the first six months of the year, the *FTSE EPRA Nareit Emerging Market Index* (*FEN EM Index*) recorded a painful performance of -22.2% total return *(TR)* determined by the pronounced drop occurred in March, however, it was able to improve to just -1.9% TR during the last semester of the year reaching its peak in July with a daily TR of +3.3%. Nevertheless, and despite the *caos* created by the virus, the long term performance of the *FEN EM Index* demonstrated the resilient of the listed real estate sector, posting a +5.2% 5Y TR.

In this report we will examine the size and performance of the main emerging listed real estate markets, the key drivers and the changes observed during the last 6 month of 2020. At the end of the report we will also explain the impact the growth in ecommerce that some emerging countries faced during the COVID-19, its impact at country level and how such surge is driving demand for real estate assets such as logistics, warehouses or data centres, opening room to new investment possibilities to consider.

***FTSE EPRA Nareit Emerging Markets Index* – 12 Months**

Source: EPRA

***FTSE EPRA Nareit Emerging Markets Index* Breakdown – 6 Months**



Source: EPRA

Nowadays, the Asia Pacific region accounts for 79% of the *FEN EM Index*, and being more precise, just China represents 59% of the *FEN EM Index*. Therefore the politic and economic situation of the PRC have a strong impact on the rest of the emerging markets economies. During the second half of 2020, the geopolitical tension between China and the United States and the anti-trust moves remained headwinds shaping the country's economy. Now, with a new administration under the new President Joe Biden, the same situation is likely to persist. Nevertheless, China appears to be the only major economy with gross GDP in 2020 , supported by a diversified domestic economy driven by. In addition, during the H2 2020, Chinese equities were among the leading outperformers (+28% 6M TR) but on the listed real estate market the country only achieved a 6M TR of -8.4%. A part from China and in overall, the rest of countries within the Asia Pacific region have done it relatively better than previous semester. Specially India, where mobility has continued to normalise alongside a rebound in economic activity and where the listed real estate reached a 6M TR of +23.0%. Also Philippines, with the re-opening of previously-committed spaces it managed to showed a +16.0% TR during the last H2 2020. Following the Asia Pacific Index, the *FEN Emerging EMEA Index* has gained significant weight on the *FEN EM Index* during the H2 2020, representing now 10.2% of the *FEN EM Index* as a consequence of the incorporation new countries such as Qatar or Greece during the last 2 Index Reviews of the year. Besides that, the outstanding performance on the listed real estate market of the UAE (+22.0% 6M TR) and South Africa (+12.2% 6M TR) both showing surprising resilience and Russia (+11.9% 6M TR) on the back of solid household consumption and private investment dynamics, positioned the *FEN Emerging EMEA Index* as the second best performer of H2 2020. Lastly, the *FEN Emerging Americas Index* was also able to show a positive performance thanks to Mexico. The country outperformed substantially other countries in terms of health outcomes, equity markets (+20.1% 6M TR) and listed real estate markets (+29.5% 6M TR) during the last semester of 2020. The vaccine developments, the increase in International trade and the USD 900 Billion stimulus package announced in late December in the US contributed to those positive results.

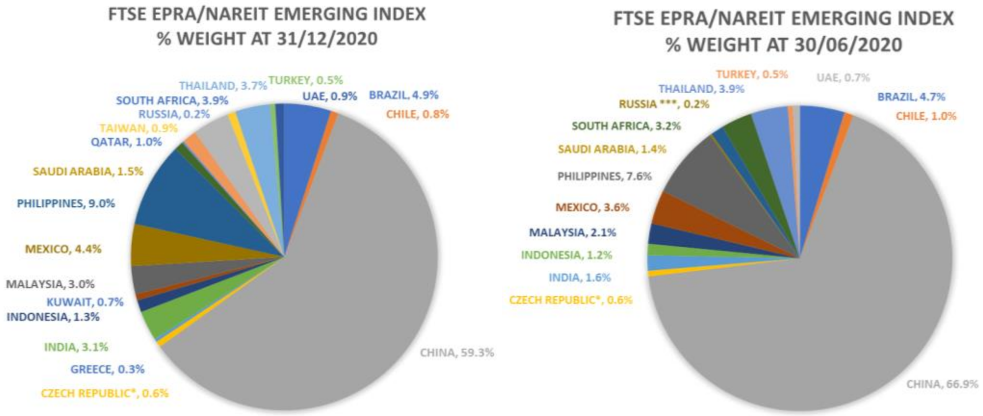
II. FEN Emerging Markets Index size and composition

During the last semester of the year, the size of the Emerging Markets has seen two different trends. On the one hand, the Free Float Market Cap of the *FEN EM Index* has been relatively stable, experiencing its peak in July with EUR 165.7 Billion and its lowest value in October with EUR 136.5 Billion. Being *"China Resources Land"* from China the largest company on the *FEN EM Index* with a Free Float Market Cap of EUR 9.2 Billion at the end of December 2020. However, these numbers are below the size showed by the Index 1 year ago (H2 2019), representing a drop of 11.3%. On the other hand, and in terms of number of constituents, the *FEN EM Index* has reached its highest number this semester with 151 constituents, compared to the 139 constituents that existed during the first half of the year. This change in the number of constituents derives from the last two Index Reviews, that took place in the third and fourth quarter of 2020, where 13 companies were added to the *FEN EM Index* and 4 companies were deleted. Seven of the new additions belong to the *FEN Emerging EMEA Index*, being the largest company *"Lamda Development"* from Greece and six of the new additions belong to the *FEN Emerging Asia Index*, being the largest constituent added *"Highwealth Construction"* from Taiwan. It is worth mentioning that since September 2020 the *FEN EM Index* counts for the first time with a company from Qatar *"Barwa Real Estate Co".*

With the intention of contextualising the size the *FEN EM Index*, it is useful to compare the value of the commercial real estate in the global markets covered by the *FEN Global Real Estate Index*, estimated at USD 31.6 Trillion[1] at the end of 2020 with the total listed real estate sector being valued at USD 3.6 Trillion (11.4% of CRE). The Full Index Market Cap is USD 2.3 Trillion, representing 63.1% of the Total Market Cap of the listed real estate sector across the globe. Finally, the emerging markets today count with 24 countries, 19 of which are covered by the *FEN EM Index*, and they have a total estimated commercial real estate value of USD 8.7 Trillion and from which the total listed real estate sector is USD 993 Billion.

[1] EPRA TMT table Q4 2020: https://prodapp.epra.com/media/EPRA_Total_Markets_Table_-_Q4-2020_1611762538108.pdf

***FTSE EPRA NAREIT Emerging Markets Index*: Weights by country**



Source: EPRA

The *FEN EM Index* country representation by market capitalization did not face significant changes during the last six months of the year, as the ranking is still headed by China (59.3%), followed by Philippines (9.0%) and Brazil (4.9%). In other words, the weights are quite constant. Nevertheless, the *FEN EM Index* country representation evolved from just 16 countries in the first half of the year to 19 countries at the end of 2020. This rise is also derived from the last two Index Reviews, where 3 companies from 3 new countries where added to the FEN EM Index: *"Barwa Real Estate Co"* from Qatar, *"Highwealth Construction"* from Taiwan and *"Lamda Development"* from Greece. Here it is important to point out that in the past the *FEN EM Index* already counted with a company from Taiwan and another from Greece, however these companies were deleted some time ago, meaning that the *FEN Emerging Taiwan Index* and the *FEN Emerging Greece Index* already existed in the past and are not completely new in the *FEN EM Index*. As opposed to the *FEN Emerging Qatar Index* that has just been created in September 2020.

III. Comparative performance

In terms of the comparative performance of the *FEN EM Index* constituents, it is important to bear in mind that the calculation currency for the whole *FEN Global Real Estate Index series* is the EUR. This means that fluctuations of local currencies play a crucial role in the Index performance, especially in the *FEN EM Index*, where volatility could be stronger than in developed markets *(DM)* due to less diversified economies and restrictive regulations.

During the second half of 2020, the currency effect followed the trend that we already saw during the first half of the year and continued to display sharp swings derived from the COVID-19 crisis and steep oil price declines. The US has been the most negatively impacted region by the trade uncertainty, increasing volatility in currency markets and strengthening the euro. In average, the 20 currencies included in the emerging Index showed a depreciation of -4.5% against the euro during the last semester. Hence, most currencies, except the Chilean Peso, Mexican Peso and South African Rand depreciated against the EUR. However, while in H1 2020 the strongest currency effect on the Index came from the Brazilian Real through a depreciation of -36.6% vs EUR -mainly due to the lack of policy response against the epidemic that led the country to be considered one of the global epicentres of the COVID-19 and by the political tensions unleashed that heavily impacted the tourisms and imports from Brazil-, during the last semester of the year this currency recovered and showed a depreciation of just -3.0% vs EUR. On the other hand, this time the strongest currency effect came from Turkey, where the Turkish Lira experienced a depreciation of -18.1% against the EUR mainly due to investors worry about the country's dwindling foreign exchange reserves, the growing foreign-denominated debt and the potential sanctions from the EU[2]. The country-level Indexes in EUR were also significantly affected by the local currency performance, and as a result of the weighting structure of the global Index (based on Free Float Market Cap) the final currency effect in the total return result was -6.0%.

[2] EU officials have discussed sanctions on Turkey for its proposed plans to drill for oil & gas in the eastern Mediterranean, in waters contested with Greece.

Focusing on the table presented below, it is worth recalling that the Chinese constituents have exposure to 3 different currencies: the Hong Kong Dollar, the Singapore Dollar and the Chinese Renminbi. In total, the weight of these 3 currencies on the *FEN EM Index* amounts to 55.9% which can be decomposed in the following way: 55.5% from the HKD, 0.1% from the SGD and 0.4% from the CNY. In consequence, the changes of the Hong Kong Dollar have a significant impact on the *FEN EM Index*.

Emerging Markets: Equity Markets vs Listed RE and Currency Effects (6 Months)

Country *	(1) 6M RETURN FROM DIVIDENDS	(2) PRICE RETURN EPRA EMERGING INDEX	(1) + (2) TOTAL RETURN EPRA EMERGING INDEX (EUR)	% WEIGHT EPRA EMERGING INDEX	DIV. YIELD (y/y) at 31/12/2020	CURRENCY PERFORMANCE VS EUR *	CURRENCY EFFECT ON THE INDEX	TOTAL RETURN Equity Market ** (Local Currency)
BRAZIL	1.9%	4.2%	6.1%	4.9%	5.0%	-3.05%	-0.2%	27.0%
CHILE	0.0%	-16.6%	-16.6%	0.8%	1.5%	5.68%	0.0%	5.8%
CHINA	1.8%	-10.2%	-8.4%	59.3%	5.4%	-8.92%	-5.0%	28.6%
CZECH REPUBLIC	0.0%	7.9%	7.9%	0.6%	2.6%	0.00%	0.0%	23.5%
GREECE	0.0%	1.4%	1.4%	0.3%	0.0%	0.00%	0.0%	20.6%
INDIA	2.1%	21.3%	23.4%	3.1%	3.5%	-5.42%	-0.2%	37.8%
INDONESIA	0.4%	9.2%	9.7%	1.3%	3.0%	-7.15%	-0.1%	25.2%
KUWAIT	0.0%	-9.2%	-9.2%	0.7%	2.7%	-7.72%	-0.1%	8.3%
MALAYSIA	1.5%	2.1%	3.7%	3.0%	5.1%	-2.27%	-0.1%	12.0%
MEXICO	3.8%	25.7%	29.5%	4.4%	8.5%	6.06%	0.3%	20.1%
PHILIPPINES	0.3%	15.7%	16.0%	9.0%	1.3%	-5.00%	-0.4%	18.2%
QATAR	0.0%	-6.9%	-6.9%	1.0%	5.7%	-8.94%	-0.1%	14.0%
RUSSIA	2.6%	9.3%	11.9%	0.2%	4.3%	-13.08%	0.0%	20.0%
SAUDI ARABIA	2.7%	5.1%	7.8%	1.5%	5.6%	-8.96%	-0.1%	22.5%
SOUTH AFRICA	3.9%	8.3%	12.2%	3.9%	18.5%	7.90%	0.3%	9.6%
TAIWAN	0.0%	1.9%	1.9%	0.9%	13.2%	-3.75%	0.0%	26.2%
THAILAND	0.8%	-4.0%	-3.2%	3.7%	3.7%	-5.60%	-0.2%	9.2%
TURKEY	0.5%	-4.3%	-3.8%	0.5%	2.1%	-18.12%	-0.1%	26.2%
UAE	0.0%	22.0%	22.0%	0.9%	9.2%	-8.94%	-0.1%	18.6%
FTSE EPRA/NAREIT Emerging Index	**1.73%**	**-3.63%**	**-1.90%**	**100.0%**	**5.43%**		**-6.02%**	
Emerging: Weighted Average								**24.79%**

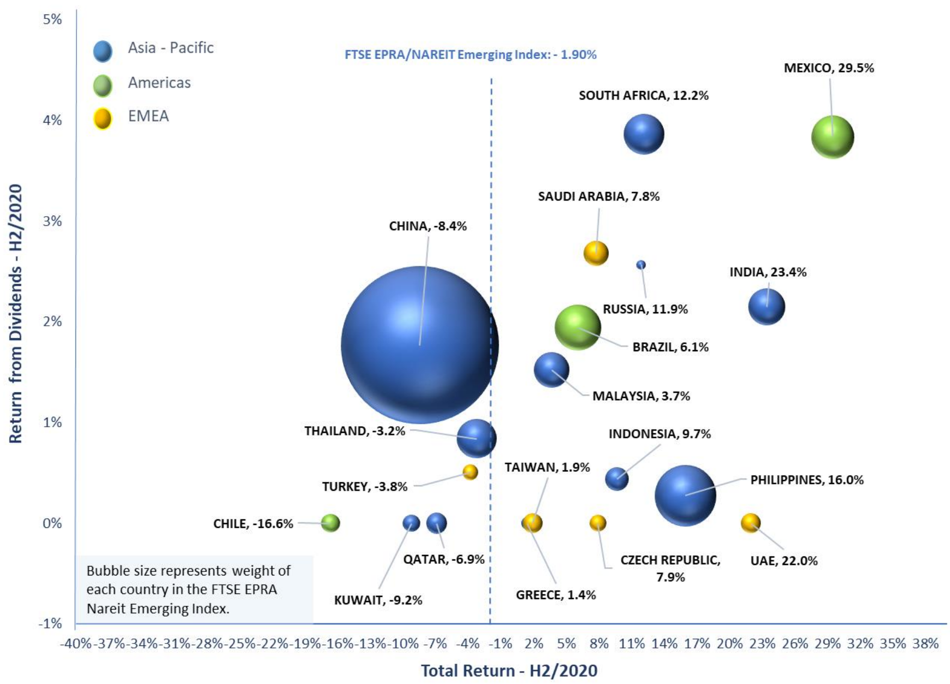
*Currency performance for China combines HKD, SGD and CHN. For India, it combines SGD and INR. For Indonesia, it combines SGD and IDR.
**Equity markets are represented by the Thomson-Reuters TR Index for each country.
***During the H2 2020 the FEN EM Index 3 constituents from 3 new countries (Qatar, Taiwan and Greece) were added.

Source: EPRA (Data as of 31st December 2020)

From the table above we can also observe that the Total return of the *FEN EM Index* (*4th column*) can be split into dividends returns (*2nd column*) and price returns (*3rd column*). This is an interesting disclosure as this breakdown could lead to useful insights when it comes to the real estate sector since "dividends" usually play a key role for investors. Therefore, it is important to remember that dividend distribution is compulsory for REITs and a common practise for most of the rental real estate companies, but not necessarily shared by all the companies, and also that a big proportion of the *FEN EM Index* constituents are developers. Therefore, although the total return breakdown could disclose certain patterns in the EM, it will always have some limitations.

Regarding the dividend distribution figures of the *FEN EM Index* during the H2 2020, and aligned with what we said before, countries with a majority of REITs such as South Africa (3.9%), Mexico (3.8%) or Saudi Arabia (2.7%) recorded the highest levels of dividends distribution, followed by India (2.1%) and Brazil (1.9%). Considering the overall scenario and the impact of the COVID-19 crisis worldwide, the 6M-total return of the *FEN EM Index* languished to -1.90% (vs. -22.22% achieved last semester) in contrast to 6M-dividend return that reached +1.73%.

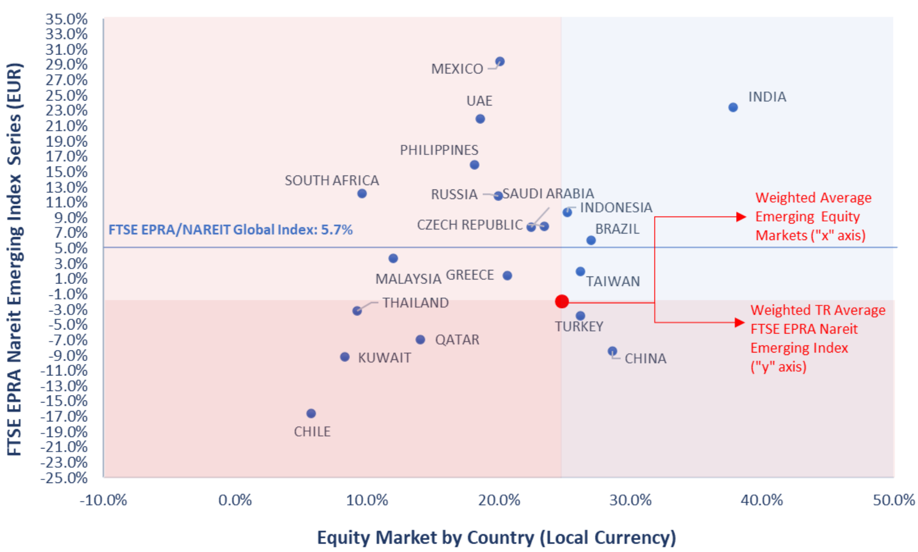
FTSE EPRA Nareit Emerging Markets Index



Source: EPRA

Focusing on the graph presented below we can observe that several trends took place during the second semester of the year. One interesting point is that the total return achieved by the *FEN Global Index* (6M TR +5.7%) outperformed by +7.6% the returns of the *FEN EM Index*. We can also observe that the listed real estate market ("y" axis) suffered more than the equity market ("x" axis) as all the countries achieved a positive weighted average total return above the one achieved on the listed real estate market, except South Africa. On the last semester of the year, the southernmost country in Africa showed a +12.2% TR on the listed real estate market, versus the +9.6% TR achieved by the equity market on the same period.

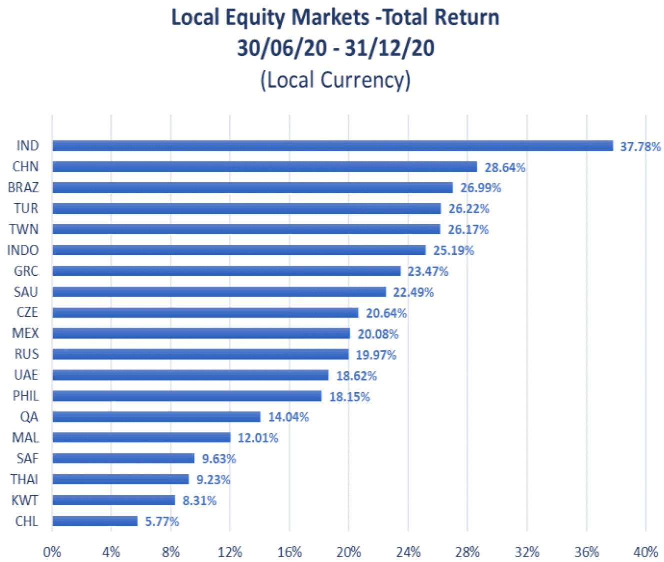
TOTAL RETURN - H2/2020
Equity Markets vs EPRA Emerging Country Index



Source: EPRA

As mentioned before, and opposed to last semester, during the second half of 2020 the EM equity markets faced an incredibly recovery that very few would have predicted during a global pandemic, reaching a *simple average* of +19.7% vs. -12.64% achieved in H1 2020. Furthermore, the country *weighted average* performance showed even better results of +24.79%, outperforming the figures reported during pre – pandemic period (+23.05% in H1 2019). Such results have been favoured by the low-inflation and low-interest rate that the pandemic brought globally.

At country level, on the one hand, the top performer in the EM equity markets had been India, followed by China and Brazil. On the other hand, the bottom performer had been Chile (also in the listed real estate sector), followed by Kuwait and Thailand.



Source: EPRA

Here below we present a short summary of the key facts affecting the performance of the countries and sectors included in the *FEN EM Index*:

Mexico

Mexico, the second largest economy in Latin America, suffered the deepest annual contraction since the Great Depression (9% in GDP). However, during the last months of the year, a surprising increase in International trade allowed the country exports to achieved activity levels of pre COVID-19 period showing a resilient domestic and foreign demand and financial system. The enforcement of the new free-trade agreement USMCA[3] in July and the central bank measures taken in November such as the eleven consecutive rate cuts during the past fifteen months in order to contain the impact of pandemic and plunging oil prices, also contributed to this recovery.

Regarding the real estate activity and more specific into the leader sector in 2020, Industrial saw a moderate expanding amount of activity, driven mainly by logistics demand, supported by large retailers and the continued ascent of ecommerce. This resulted in a 3.4% vacancy rate, still one of the lowest levels ever recorded. This positive recovery was also remarkable from n a point of view as the *FEN EM Mexico Index* was the best performer during the las semester as it counts with more than half of the Index in industrial constituents.

Performance of the largest constituents in local currency: *Fibra Uno Administracion S.A. de C.V.* (Diversified, +26%), *PLA Administradora Industrial S. de R.L. de C.V.* (Industrial, +19%) and *Is Corporacion Inmobiliaria Vesta* (Industrial, +16%).

[3] https://en.wikipedia.org/wiki/United_States%E2%80%93Mexico%E2%80%93Canada_Agreement

India

India, one of the Southern Asia country that suffered the most during las semester faced an incredible recovery during the last H2 2020, although it still faced a 7.7% contraction in GDP. Since mid-September, barring localised surges, infections have slanted downward every week, and the recovery rate is near 95%. Then, stimulus-fuelled investment flows from the US and Europe have brought back risk appetite. Also, during the Q4 2020, the equity market saw a strong rebound in IPO activity[4].

With regards to the real estate sector and according to a research report from Knight Frank[5] with gradual unlocking of cities in Q3 2020, office occupiers and homebuyers alike reactivated their property consumption plans. Further, in Q4 2020, as demand returned conclusively, the period recorded performance that far exceeded those achieved in the previous quarters of the year. Resumption of business activities and improvement in sentiments with news of potential vaccines, ensured that office transaction volume for the top 8 cities grew by a massive 271% in Q4 2020 and reached an impressive 115% of the pre-COVID-19 level. The Indian office market also benefitted by the resilience of its key occupier group – the Information Technology sector. Encouraged by the flexibility offered by landlords, occupiers conclusively made a comeback. Besides, large occupiers, confident about their long-term plans, have made forward commitment for office spaces still under construction. This positive behaviour of the office was reflected in the *FEN Emerging India Index* as it counts with one of the best office companies within the country and also with the first pure Indian REIT since last September “Embassy Office REIT”.

Performance of the largest constituents in local currency: *DLF* (Diversified, +57%), *Embassy Office Parks REIT* (Office, +3%) and *Ascendas India Trust* (Office, +8%).

China

China, the first country to report cases of the coronavirus in December 2019, grew in 2020 at the slowest pace in more than four decades last year, however it still managed to be the only major economy to have expanded in 2020. The economy grew 2.3% last year, despite COVID-19 shutdowns causing output to slump in early 2020. The People’s Bank of China supplied liquidity to support the economy, the several cuts in interest rates, strong exports and a steady recovery in retail sales have helped China to extend its growth recovery into the final three months of 2020. The resurgence of COVID-19 cases outside of China has been further bolstering China’s exports, especially of personal protective equipment and work-from-home electronics products.

Looking at the real estate market, the retail sector in China saw a rapid recovery in H2 2020, with the Consumer Confidence Index resuming growth and shopping mall foot traffic in July returning to a level slightly above that in the same month a year previously. Total retail sales registered year on year growth in August, with food and beverage sales returning to expansionary territory in October. Although the pandemic significantly hit the retail sector, it also facilitated the upgrading and transformation of this sector by emphasizing omni-channel and new retail offerings. According to the National Bureau of Statistics, online retail sales increased 16% year on year in January-October 2020 period, accounting for 24% of total consumer goods retail sales. The growth of online consumption has prompted the expansion of the Industrial sector. It is also worth mentioning that despite the shift to home working in 2020, the average sentiment of investors remains confident in the office space meaning that it would remain considered as an attractive asset class. Regarding the residential sector, in December, the prices of new homes across the main cities of China grew in aggregate by 0.3%, a slightly faster pace than the 0.2% month to month increase in November, according to data from the National Bureau of Statistics (NBS). As a result, the largest Chinese companies on the Index showed all very positive results during the last 6months of the year, however, the *FEN Emerging China Index* still end up the year with a 6M TR of -8.4%, still better than the -15.2% achieves during H1 2020.

[4] As regards to SME markets, there were nine IPOs in Q4 2020 versus six and four IPOs in Q4 2019 and Q3 2020, respectively, representing an increase of 50% as compared to Q4 2019 and increase of 125% as compared to Q3 2020.
[5] https://content.knightfrank.com/research/2146/documents/en/india-real-estate-h2-2020-indian-real-estate-residential-office-7705.pdf

Performance of the largest constituents in local currency: *China Resources Land* (Diversified, +9%)*, Longfor Group Holdings (P Chip)* (Diversified, +24%) and Country Garden Holdings (P Chip) (Residential, +15%).

UAE

In the Emirates, the virus had just a limited health impact due to its relatively young population and measures which have mitigated the spread of the virus and the number of deaths. In addition, and according to the Institute International Finance, the UAE economy poised for a fast recovery from the impact of COVID-19 and an overall transformation. In fact, the country already started to see some signs of recovery during the last quarter of 2020 as the *Purchasing Managers Index* showed having been above the 50% threshold and the employment rate that increased by 1.7% on a month to month basis. Also, the consumer confidence among the main cities in the UAE improved significantly. As an example, Dubai's Consumer Confidence Index during Q4 2020 reached the highest level (142 points) since Q3 2017. Nevertheless, the country still faced a contraction of 5.7% in 2020.

On the real estate market, the retail and hospitality sectors saw an upturn during the last quarter of the year. Actually, the retail sector was one of the first beneficiaries of the surge in consumer spend during the final weeks of 2020. Looking into the residential sector, sales prices, which were at a standstill for a while, showed an increase on month to month basis, specifically in terms of valuations and rental yields. The country attractive property prices, lower mortgage rates, and higher loan to value ratio called investors and normal lessors' interest and they started to buy the properties becoming the owners instead of the lessors. Also, sales of completed property reached AED 21.67 Billion, a 35.5% increase from AED 15.99 Billion seen in H2 2019. Moreover, the changes to Federal law number 2 of 2015 of the Commercial Companies Law - allowing full foreign ownership of commercial companies without the need for an Emirati shareholder or agent - will play a vital role in attracting more investments and liberalising business activities in the UAE. All these positive outcomes are reflected by the *FEN Emerging UAE Index* as it was one of the best performers during the last semester of the year with a 6M TR of +22%.

Performance of the largest constituents in local currency: *Emaar Malls Group* (Retail, +33%), *Emaar Development PJSC* (Residential, +31%) and *Manazel Real Estate PJSC* (Diversified, -12%).

Chile

Chile, one of the fastest growing economies in Latin America over the last decade is now in a difficult situation. The COVID-19 outbreak, austerity measures and the drop in commodity prices (according to data from the INE, copper production - the country's economic motor - had plunged 8.7% in December) pushed the economy into its deepest recession since 1982. As a result, the country faced a 6% contraction in GDP during 2020. Nevertheless, during the last quarter of the year, it is remarkable the growth of trade (+10.8%) that was able to compensate the drop suffered in services (-2.1%), mining (-9.2%) and good production. Also, the proposed re-write of Chile's constitution, agreed in October, will make a very positive impact to the country, specially into the healthcare sector.

Within the real estate market, house prices grew 1.7 % year on year basis in December, following an increase of 3.1 % year on year basis in the previous month. On the construction side, due to the new economic recovery plan announced by Chile's government in August, the public spending on construction projects increased. Within the industrial sector, thanks to the growth in ecommerce, benefit the most, specially the logistic companies. On the other hand, the retail sector, where retail sales are operated at 50-60% of their capacities, suffered the most. This is reflected in the reflected in *the FEN Emerging Chile Index*, with a 6M TR of -16.6% as of December 2020, as the regional Index is composed of two big retailers on the country, but in any case it showed a slight recovery from previous semester (-23.4% 6M TR).

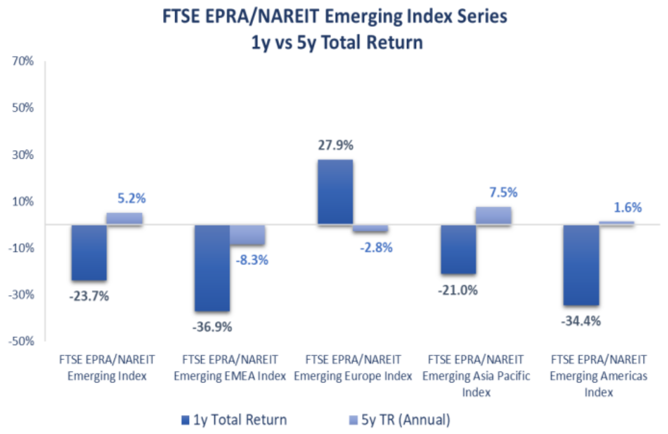
Performance of the largest constituents in local currency: *Parque Arauco SA* (Retail, -21%) and *PLAZA SA* (Retail, -20%).

Annual performance of the largest constituents by country (EUR, Local Currency)

Constituent	Country	Sector	REIT/Non-REIT	Total Return in EUR	Total Return in Local Currency
Emlak Konut	Turkey	Residential	REIT	-10%	5%
Is Gayrimenkul Yatirim Ortak	Turkey	Diversified	REIT	11%	30%
Halk GYO (A) REIT	Turkey	Diversified	REIT	25%	47%
Cyrela Brazil Realty S/A Empreendimentose e Partic	Brazil	Residential	Non-REIT	32%	37%
BR MALLS Participacoes S.A.	Brazil	Retail	Non-REIT	-5%	-2%
Multiplan Empreendimentos Imobiliaros	Brazil	Retail	Non-REIT	13%	17%
China Resources Land	China	Diversified	Non-REIT	1%	10%
Longfor Group Holdings (P Chip)	China	Diversified	Non-REIT	14%	24%
Country Garden Holdings	China	Residential	Non-REIT	6%	15%
Growthpoint Management Services	South Africa	Diversified	REIT	6%	-3%
Redefine Properties	South Africa	Diversified	REIT	10%	1%
Equites Property Fund Ltd	South Africa	Industrial	REIT	18%	8%
SM Prime Holdings	Philippines	Diversified	Non-REIT	15%	21%
Ayala Land	Philippines	Diversified	Non-REIT	15%	21%
Megaworld Corporation	Philippines	Diversified	Non-REIT	28%	35%

Source: EPRA and Bloomberg

FEN Emerging Markets Index: Long term perspective

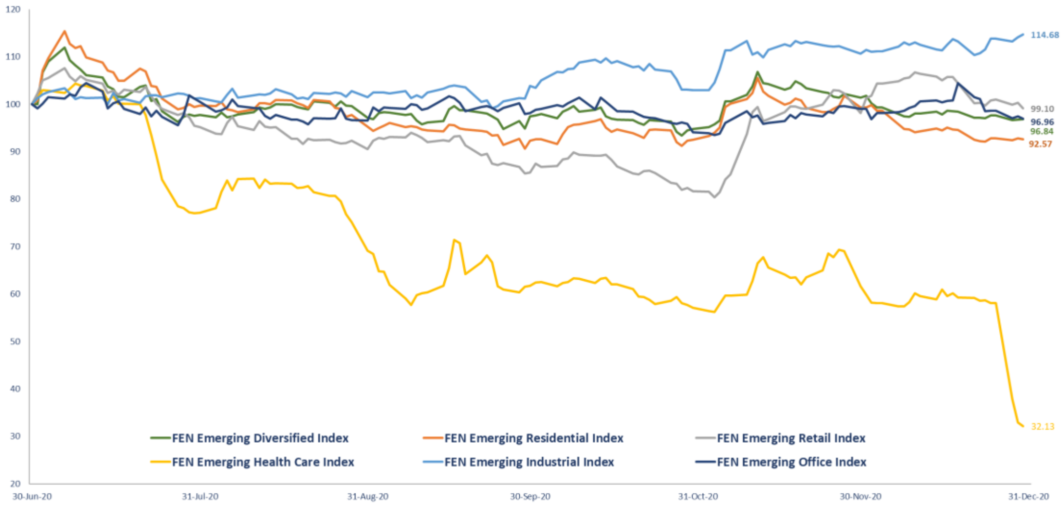


Source: EPRA

Despite the pandemic, the *FEN EM Index* reached a positive long term performance of +5.2% on a 5 year basis, 30% higher than the total return achieved during the first semester of the year. Then, at a regional level, the *FEN Emerging Asia Index* was the best performer with a +7.5% total return on the same period, followed by *the FEN Emerging Americas Index* with +1.6% total return.

In the short term, just as the previous half of the year, it is noteworthy the outstanding performance achieved by the *FEN EM Europe Index* that amounted to +27.9% as opposed to the one achieved by the *FEN EM EMEA Index* that declined to -36.9%.

***FTSE EPRA NAREIT Emerging Markets Index Series*: Sectors**



Source: EPRA

The performance evolution of the different property sectors reveals that the economic sentiment began to recover in H2 2020. Almost all sectors within the *FEN EM Index*, have seen an average improvement of c.40% in terms of total return during the last 6 months of the year, nearly reaching pre COVID-19 levels in some of the cases. Just as last semester, Industrial outperformed the rest of the sectors due to the growth in ecommerce, food logistics and infrastructure investment derived from the new COVID-19 life style. Following the leader, Retail, as opposed to last H1 2020 where it was the worst performer, ended up the year with very positive results as the sector saw a great recovery as from November supported by the strong and resilient retailers companies within the *FEN EM Index* such as *"Emaar Malls Group"* (UAE) or *"CapitaLand Retail China Trust Management"* (China) that were able to quickly adapt and introduce changes that allowed them to grow and succeed even during this pandemic. On the other hand, Healthcare has seen a noticeable drop since last H1 2020, however the exposure to this sector is very limited as it is currently only represented by one company, an Indonesian company that faced really difficult moments together with a very week Indonesian Rupiah. Other than that, Residential and Office sectors continued to grow during the last H2 2020, being the latter above the Residential Index this time as office leasing picked up momentum.

IV. Ecommerce growth: new opportunities for the Real Estate sector

COVID-19 brought important changes to most of the real estate sectors, where industrials, logistics and data centres have been some of the clear winners. .

As many of us have experienced, the COVID-19 has changed our lifestyle in one way or another: some read more, others do more sport and others became more spiritual. However, this pandemic has forced almost every family to shop online. Firstly, the shutdown of stores and the health implications of being around other people, and then the large selection of products and more attractive prices available online, made the ecommerce the new way of shopping around the globe. As a result, in 2020, the number of digital buyers globally increased by 7% from last year.

Ecommerce has been the leading demand driver for industrial real estate since the Global Financial Crisis as warehouses and logistics played a crucial role in the supply chain. But now with the COVID-19, the trend became stronger. Before, companies used to focus on just in time deliveries trying to optimize their overall inventory in order to reduce costs, now companies are more focused on their supply chain resiliency and redundancy, which means that companies would like to keep additional inventory to be able to face unexpected shocks.

In this section we will disclose the growth in ecommerce that some emerging countries faced during the COVID-19, its impact at country level and how such surge is driving demand for real estate assets such as logistics, warehouses or data centres, opening room to new investment possibilities to consider.

Europe:

In Europe, the case of Greece is interesting. The Hellenic Republic, despite the price conscious spirit of its citizens, has also seen a flourishing ecommerce as a result of the new habits imposed by the COVID-19. According to the *"European Ecommerce Overview: Greece"* article posted by Ecommerce Germany, in 2020 revenue from ecommerce reached around USD 2,802 Million and now there are 5 Million online users, so penetration in the ecommerce market hit 50% and is forecasted to reach 59.3% in 2025. This growth requires more logistics and infrastructure assets to supply all the growing demand and Greece has a highly attractive position. It stands on the crossroad of three continents (Europe, Asia, Africa) converting the country on a strategic node for transportation connecting people, goods and cultures. This plus its extensive infrastructure makes the country very attractive for investors and it is already attracting important investors such as Chinese COSCO. Then, another intriguing case is Czech Republic. In 2020, the country achieved USD 3,812 Billion of revenue from ecommerce and there are nearly 6 Million citizens who are doing shopping online. This can be translated to an ecommerce user penetration of 54% and it is predicted to reach 65.1% by 2025, as disclosed by Ecommerce Germany in their article *"European Ecommerce Overview: the Czech Republic"*. Despite the price conscious of its citizens, the ecommerce is growing rapidly, drive by an explosion in online shops and a strong affinity for mobile commerce. Thus, the logistic sector started to gain more relevance in the country. Its essential connections with the EU and very modern infrastructure made it an important warehousing and logistical location. Also, its steadily growing economy attracted companies and investors from all around the world, which motivated strong attention to warehousing and distribution provisions converting the Czech Republic as one of the key logistical and warehousing centres of Europe. According to Cushman Wakefield, the industrial real estate supply in Czech Republic was going through a more modest Q4 2020, the total new supply reached 664,000 sqm in 2020, which is 2% more than in the previous year. On the other hand, the demand was the highest in the eight-year monitoring history. In total, over 540,000 sqm were leased, of which only about a third were renegotiations. The volume of short-term (up to 12 months) leases increased significantly too. Despite the declining vacancy rate, prime rents remained stable in most regions.

Here below an example of new developments carried out by "VGP N.V" a current constituent of the *FEN Emerging Czech Republic Index*, during this year:

Record Delivery of new developments in 2020

Source: VGP NV

Latin America:

As commented before, the new COVID-19 lifestyle has emerged globally the use of internet to buy and sell goods and services, pushing the Latin American ecommerce to become one of the fastest growing markets worldwide as confirmed by America's Market Intelligence (AMI) and Euromonitor among others. As a consequence, and according to *"Beyond Borders 2020"*, a study carried out by EBANX, ecommerce in the region increased more than 8% from last year. The same report also disclosed that, during 2020, the number of new ecommerce users reached 52 Million people, representing a growth of more than 30% in online users from 2019, and the ecommerce market size amounted to USD 200,000 Million. On a country level: Brazil is the country with the largest ecommerce market counting with USD 103,700 Million and had an increased in number of users from 25% in January to 61% users in December. As a consequence and according to Cushman Wakefield, on their *"Q4 2020 Brazil Industrial"* report, the country delivered 1.1 Million sqm of new logistics parks which is almost two times higher than what was registered in 2019, with 308,000 sqm in the fourth quarter. The Southeast was the region with the highest deliveries, with 974,000 sqm, or 87% of the total sqm delivered. Most of these modern logistic buildings were occupied by retail and wholesale companies that saw demand grow, especially after the big increase of online shopping, as people had to adapt to the ecommerce business and consumer expectations. Thus, the net absorption this year was the highest ever recorded, with a positive 1.5 Million sqm, doubling last years. Following Brazil, the second largest ecommerce market is Mexico, with a market of USD 28,100 Million, it saw an increased from 31% users to 60% users in December 2020. According to Cushman Wakefield, on their *"Q4 2020 Mexico Industrial"* report, despite the recovery of international trade, many chains of value only had a moderate real estate activity. In addition and due to the stagnation of investment, new demand for industrial buildings had little change. Within Mexico City's industrial real estate submarkets there was a moderately expanding amount of activity, driven mainly by logistics demand, supported by large retailers and the continued ascent of ecommerce. This resulted in a 3.4% vacancy rate, still one of the lowest levels ever recorded. Tepotzotlán submarket sustained its role as the most dynamic area today for industrial real estate in Mexico City; this region has catched up with Cuautitlán, the submarket with the largest inventory, in terms of lease activity. The third Latin America country with the largest ecommerce market is Colombia. The country ecommerce reached a size of USD 13,300 Million during 2020 and it saw an increased in the number of users from 43% in January to 55% in December driven mainly by streaming services that surprisingly grew to 80%. Lastly we will speak about Chile. One of the smallest Latin American countries with an ecommerce market size of only USD 8,700 Million. It jumped from the 57% users in January to 61% users in December. Nevertheless, Chile is the leader in the online bank system and credit cards represent more than 80% of online payments so it looks like a very promising county. In Chile, just in Santiago, the Sur submarket registered a 86% decrease of vacancy compared to the previous semester, becoming attractive for last-mile logistics companies as well as for investors who desire to build new projects. The submarket that showed the biggest absorption is Norponiente, with 59% of the total sqm due to the fast occupation registered in new projects that were already leased when they were being built.

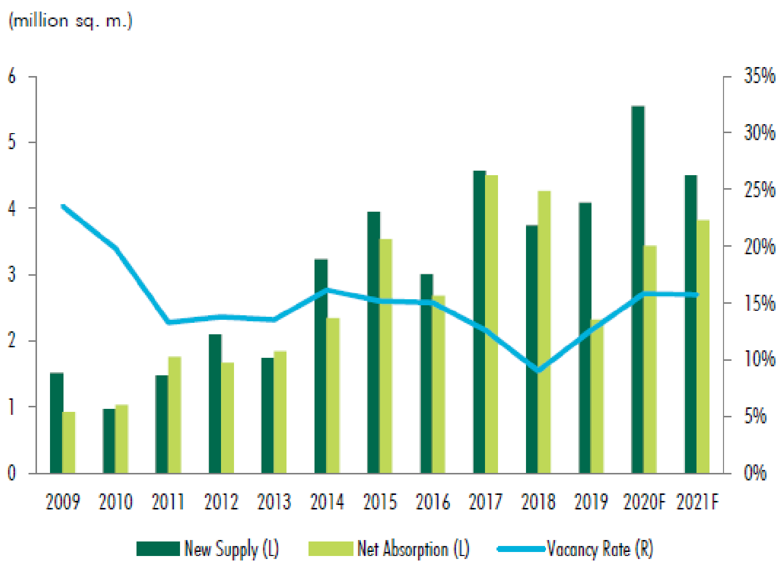
All these figures evidence the increased demand that industrial real assets such as logistics and warehouses faced during 2020 and will continue to raise in the coming years, to be able to supply all the new ecommerce users. According to the *"Latin America Logistics Market by Type, End Use and Mode of Transport: Opportunity Analysis and Industry Forecast, 2020–2027"* report published by Allied Market Research, the Latin America logistics market was valued at USD 542.40 Billion in 2019, and is projected to reach USD 784.60 Billion by 2027, registering a CAGR of 6.2% from 2020 to 2027. It takes around 32 days to import the goods into Latin America, out of which, around 28 days are required for sorting of materials through in country customs and customs brokers. As a result, customs costs and inventory build ups can become excessively high, leaving the consumer frustrated as the package takes too long to deliver. Companies operating in the logistics industry are adopting various technologies to efficiently carry out the logistics operations. Also the fact that some countries such as Brazil or Colombia are part of the World Logistics Passport (WLP), a major policy initiative established by Dubai to increase trading opportunities between emerging markets, will open opportunities and facilitate operation within the industrial real estate sector among others.

Source: Internet Retailer, company filings, Prologis Research, Fibra Prologis report.
Note: SF is defined as square feet; KSF is defined as thousands of square feet and SKUs is defined as stock keeping unit which is tracked by a bar code usually printed on product label.

Asia:

In Southeast Asia, the emerging middle class has led to a surge in online spend which is expected to grow 3.2 times between 2018 and 2025 as explained by Marissa Trew in her report *"Riding the Digital Wave, Southeast Asia's digital consumer in the Discovery Generation"*. On a country level: China takes the lead. The Chinese ecommerce is the most important market for Asia and also for the rest the world, because of its size, capital investment, and innovation mostly determined by the influence of *Pinduoduo*, *JD.com* and *Alibaba Group*. According to the National Bureau of Statistics of China, in 2020 the online retail sales reached CNY 11,760.1 Billion, growing by 10.9% from 2019, and accounting for 24.9% of total retail sales nationwide. As a consequence, and according to the *"China Market View 2020 Q4"* report published by CBRE, in the last quarter of 2020, China saw a full year net absorption of 1.97 Million sqm, representing an increase of 127% on a year on year basis, the highest total since 2017. Just ecommerce platforms accounted for 39% of new leases signed in Q4 2020, followed by Third Party Logistics firms with 36%. Full year new supply reached 5.6 Million sqm, an increase of 29% on a year on year basis. The cities with the largest new supply are: Chongqing, Tianjin and Wuham. Regarding specific new opportunities in the real estate sector, according to another report published by CBRE, *"China 14th Five-Year Plan_Key Highlights Real Estate Implications"*, there is a growing demand for cold chain logistics and faster ecommerce penetration in lower tier markets driven by the high demand for high-standard storage facilities in regional logistics hubs and lower-level logistics nodes. There is also a surge in data centres. The International Data Corporation's predicted that data generated by China will increase from 7.6ZB to 48.6ZB in 2018-2025 , making it the world's largest data circle. In addition, upgrading opportunities for industrial parks Policy support for advanced manufacturing and strategic emerging industries will be enhanced under the 14th FYP, with authorities publishing preferential tax policies for related industries since H2 2022.

Logistics supply and Demand in China



Source: CBRE Research, Feb 2020

Also, and according to the Global Economic Prospects from The World Bank, bonded warehouses (which enable dutiable goods to be stored or manipulated without payment of duty) are increasingly popular amid rising consumer demand for imported products. Total cross-border ecommerce sales in Asia Pacific are expected to grow from USD 181.4 Billion in 2018 to USD 389.5 Billion in 2023. Bonded warehouses will benefit from this trend as they facilitate faster delivery compared to direct shipping from the country of origin. Following China we have Indonesia, the country has the largest population in Southeast Asia but the ecommerce penetration is not very high yet. Nevertheless the digital spend is growing rapidly in the last years, attracting global and local companies' interests and making it one of the hottest ecommerce markets in the world. Moreover, both Indonesia and India joined the World Logistics Passport (WLP)6, a major policy initiative established by Dubai to increase trading opportunities between emerging markets that will benefit industrial real estate companies among others. Within the industrial real estate market, Indonesia, is currently behind its neighbours countries, however it is expected to witness a CAGR of 10.27% during the forecast period 2020 – 2025. COVID-19 helped to increase demand for better logistics space, which triggered more new developments. As a consequence, an important number of local and foreign companies as well as foreign and international investors and developers compete to take the first mover advantages. Over the past few years, big institutional investors like GIC and regional logistics developers such as LOGOS and ESR have expanded to Indonesia. Another important market in Asia is India. According to Statista, it has an ecommerce market size of only USD 64 Billion and its online sales make up just 7% of total retail sales, however the country is ranked 9th in cross-border growth (registered a CAGR of over 35% in 2020) in the world as it has been on an upward growth trajectory and is expected to surpass the US to become the second largest ecommerce market in the world by 2034. Also, large investments from global players such as Facebook are being recorded in the Indian ecommerce market helping to such growth. The industrial real estate is very much in the foreground as the government initiatives demonstrated, drafting national logistics and industrial policies and setting up industrial corridors. Data centres are also gaining importance due to the increasing need for data storage, therefore, sustained policy impetus and nationwide digital initiatives are flourishing these days. Cold storage assets are also increasing demand due to the online food delivery services and pharma and formulation centres. Moreover, India would also be a key shared services destination for US / EMEA based pharma companies, especially the cities of Mumbai, Bangalore and Hyderabad, over the next 12-24 months. After India, we have Indonesia. The country is seen as the next big thing in Asia's ecommerce market, and the logistics sector should thrive from it. Vietnam and Thailand will also see one of the strongest expansion over the next few years. As of 2020, according to an article on the *"Vietnam Briefing"* produced by Dezan Shira & Associates, Vietnam ecommerce has been on the rise increasing from about 28% in 2017 to nearly half of the population amounting to USD 6 Billion.

[6] https://worldlogisticspassport.com/

The favourable regulatory ecommerce environment, the success of several Vietnamese origin ecommerce platforms, rising internet access, wider adoption of smartphones is increasing confidence in online shopping and booming the sector. As a result, and according to CBRE in their report *"Vietnam's industrial real estate market",* the country could be in a moment of transformation, with the greatest opportunity to become a new global production centre. The fast development of manufacturing has impulse industrial property market thanks to increasing foreign direct investment. In the first three quarters 2020, manufacturing topped Vietnam's sectors in drawing foreign direct investment, accounting for 46.47% of the country's total foreign direct investment commitments in the period, according to the Ministry of Planning and Investment. In addition, logistics assets are expected to be the future of the industrial market. In recent years, increasing demand from both traditional retails and continuous growth from ecommerce sectors has put great pressure on existing supply chains, facilities and warehouses. JLL predicts that the growth of retail will contribute to investment activities for the current shortfalls of the industry. Thailand's ecommerce amounts to THB 220 Billion, accounting for 5% of total retail with only 23% of the population having ever shopped online as disclosed by the Bangkok Post in of its businesses articles. Within the industrial real estate, warehouse assets are the key leaders right now. In 2H 2020, some larger companies were able to lease over 100,000 sqm of warehouses, and many more are still on the pending contracts from businesses such as ecommerce business, food business and logistics business. International demand for factories and warehouses for rent in 2H 2020 remained buoyant, including Chinese customers, who been looking to diversify supply chains since the trade war of US and China. The demand was focused on new production and distribution bases in Thailand. According to Colliers, in their *"Thailand Warehouse and Factory"* report, it is expected that in 2021, there will be more than 500,000 sqm of new factories and warehouses for rent. At the end of 2H 2020, 6,092 Million sqm of total factory and warehouse space in Thailand were occupied out of 6,963 Million sqm, accounting for 87.5%, an increase of 0.2% from 1H 2020. Most developers focussed on retaining existing customers. The use of new areas in 2020 arose from the expansion of the leased area of existing customers.

Middle East:

In 2020, Middle East registered 188 Million internet users according to the *"Internet Usage in the Middle East"* report published by Internet World Stats. Online sales represent 2% of total retail revenue, as opposed to 15% in more developed countries, however the growing population of the country, the new trends of shopping online imposed by the COVID-19 and the increasing import and export volumes evidence that it is just the beginning of ecommerce expansion, and implying the need for investment in logistics and warehousing services. Therefore, the industrial real estate is benefiting from this regional ecommerce boom underpinned by the launch of Noon and Amazon.ae. A wave of innovative new real estate solutions in the logistics sector are creating alternative investment opportunities and as a global leader in both retail and logistics, Dubai is well placed to leverage the rapidly changing dynamics including rising ecommerce, new disruptive technologies and evolving consumer tastes. In terms of cities the United Arab Emirates and Saudi Arabia are the main players, being considered the largest and fastest growing ecommerce markets in the region. Dubai is known by its transportation and logistics industry constantly investing in the development of its infrastructure and technology. However, with the outbreak of the COVID-19, several companies have faced challenges in this sector, such as supply chain capacity constraints, governmental restrictions. Nevertheless, the government already started to increase the supply of new warehousing facilities, expanding their capacity and trying to give space in warehousing and warehousing related value-added services for local and international investors. In addition, the fact that the UAE was the first country in the world to officially approve COVID-19 vaccines developed in China and that several leading UAE institutions recently joined the World Logistics Passport initiative (WLP)6, a major policy initiative established to increase trading opportunities between emerging markets, have opened a big window to boost south-south trade and the warehouses and distribution services demand.

South Africa:

In South Africa, the third biggest economy in Africa, with an estimated population of 59.2 Million and an estimated GDP of USD 282.59 Billion in 2020, the ecommerce represents just 2% of the country's total retail spend, according to Euromonitor. There has been a the big growth in online retail as it is shown on survey conducted by Visa which found that 64% of consumers in South Africa bought groceries online for the first time because of the coronavirus outbreak and that 53% made their first online purchase from a pharmacy. However, the country is also behind the global curve. South Africans purchase mostly from South African websites or online market places, but 27% purchase from the United States, and 14% from Europe. The US version of Amazon.com is the third most visited ecommerce website in South Africa. The country has very restrained domestic conditions and the COVID-19 strained the capacity of even the largest retailers, leaving some customers complaining of long wait times and poor service evidencing the need of companies to increase their capacity in order to improve their services. As an example, The Foschini Group, one of the foremost independent chain-store groups, raised ZAR 3.95 Billion partly to boost its ecommerce business. South Africa also joined the World Logistics Passport (WLP) 6 recently, a major policy initiative established to increase trading opportunities between emerging markets, identifying synergies between governmental entities and logistical hubs. All these movements are opening space for new opportunities for the industrial real estate sector. The increasing demand in ecommerce will require three times the logistics space of traditional storefronts, so it is reasonable to assume that the country will see a much greater investment in warehouse space to support local ecommerce. According to Estelle Meiring, director of the architectural firm Paragon Group, to date improvements in racking, logistics and building technology have resulted in an increase in warehouse heights, often as high as 15m, as well as an increase in yard depths, which at times exceed 45m. Another emerging trend is on-demand warehousing, commonly known as the *"Uberisation"* or *"WeWork"* of warehousing, which entails acquiring services and space on a *"pay-per-use"* basis and that has served as a response to the increasing number of supply chain challenges that businesses are up against.

As a conclusion, COVID-19 has boosted online shopping which has clearly benefit some sectors within the real estate market, fueling the demand for logistics, warehouses or data centres, even converting them in essential assets in our daily life. Such impact is much greater in some emerging countries than in developed countries, where new technologies and local manufacturing processes are just being implemented. In other words, most of the emerging countries quite far from being developed, faced the need to quickly adapt to the new way of living imposed by the COVID-19 (ecommerce). Thus, opening a huge range of possibilities for the development of industrial, logistics and data centres that became an urgent and important necessity.

Like some other industries, industrial real estate growth is currently fluid within the emerging countries. If trends stay on their current track, however, the industrial real estate sector should post steady and reliable growth for the foreseeable future.

[6] https://worldlogisticspassport.com/

V. Bibliography

1. Beyond Borders 2020, EBANX (*https://img.lalr.co/cms/2020/12/16091007/EBANX-Beyond-Borders-2020.pdf*)

2. Latam en 2020: saldo positivo para el ecommerce, Financiero *(https://financierolatam.com/destacado-home/latam-en-2020-saldo-positivo-para-el-ecommerce/*)

3. Riding the Digital Wave, Southeast Asia's digital consumer in the Discovery Generation, Marissa (*https://www.facebook.com/business/m/riding-the-digital-wave*)

4. China Internet Watch, CIW *(https://www.chinainternetwatch.com/30910/retail-sales/*)

5. Market size of ecommerce industry across India from 2014 to 2018, with forecasts until 2027, Statista (*https://www.statista.com/statistics/792047/india-ecommerce-market-size/*)

6. Vietnam Briefing, Dezan Shira & Associates *(https://www.vietnam-briefing.com/news/why-you-should-invest-vietnams-ecommerce industry.html/#:~:text=E%2Dcommerce%20has%20been%20on,of%20the%20population%20in%202020.&text=As%20per%20Statista%2C%20the%20country's,US%249%20billion%20by%202025*)

7. Pandemic speeds up digital drive, Bangok Post (*https://www.bangkokpost.com/business/2044455/pandemic-speeds-up-digital-drive*)

8. Internet Usage in the Middle East, Internet World Stats (*https://www.internetworldstats.com/stats5.htm*)

9. Ecommerce in South Africa, Euromonitor (*https://www.euromonitor.com/ecommerce-in-south-africa/report*)

10. European Ecommerce Overview: Greece, Ecommerce Germany (*https://ecommercegermany.com/blog/european-ecommerce-overview-greece*)

11. China Market View 2020 Q4, CBRE (*http://cbre.vo.llnwd.net/grgservices/secure/China%20MarketView%20Q4%202020_EN_FINAL.pdf?e=1616773015&h=061f67baa815460fddc03d979ee99aca*)

12. China 14th Five Year Plan Key Highlights Real Estate Implications, CBRE (*http://cbre.vo.llnwd.net/grgservices/secure/China%2014th%20Five-Year%20Plan_Key%20Highlights%20%20Real%20Estate%20Implications_ENG%20FINAL%20v2.pdf?e=1616773829&h=1992e9e6083de873be419a4d37e25ab6)*

13. India Real Estate Market Outlook 2021, CBRE (*http://cbre.vo.llnwd.net/grgservices/secure/India%20Real%20Estate%20Market%20Outlook%202021.pdf?e=1616947437&h=4d9a8f04027dc43d3969361fc4e4b53f*)

14. Industrial property continues dominating Vietnam's 2020 real estate sector, Linh Pham (*http://hanoitimes.vn/industrial-property-continues-dominating-vietnams-2020-real-estate-sector-314928.html*)

15. Ecommerce boost the logistics sector in Indonesia, Anton Sitorus, Miranda Gulton and Vania Andini (*https://www.thejakartapost.com/academia/2021/01/03/ecommerce-boosts-the-logistics-sector-in-indonesia.html*)

16. Q4 2020 Brazil Industrial report, Cushman Wakefield (*https://www.cushmanwakefield.com/en/brazil/insights/brazil-marketbeats*)

17. Q4 2020 Mexico Industrial report, Cushman Wakefield (https://www.cushmanwakefield.com/en/mexico/insights/mexico-marketbeats)

18. Q4 2020 Chile Industrial report, Cushman Wakefield (*https://www.cushmanwakefield.com/en/chile/insights/chile-marketbeats*)

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