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Industrial Real Estate Investment Trusts (REITs)

February 15, 2021

Real Estate

Industry Rating **Overweight**

Investment Thesis

Even though Real Estate Investment Trusts (REITs) have suffered in general during the past year due to the pandemic, Industrial REITs have performed well generating a total return of 12.17% in 2020.[8] This growth was mainly driven by the shift to online shopping caused by the pandemic and the global lockdown. Given our expectation that this shift is permanent, and that online spending will continue to grow, we recommend an OVERWEIGHT industry rating.

Drivers of Thesis

- Growth of 45% [11] in online sales, one of the main drivers for Industrial REITs demand.
- COVID-19 started a shift to online spending that will likely be long-lasting.
- With demand for Next-Day Delivery growing, demand for strategically located warehouses is also growing with the limited supply providing room for increasing rents.
- With tenants having limited options, and rental costs contributing to a small percentage of their total costs, they tend to be insensitive to price increases, increasing pricing power for REITs.

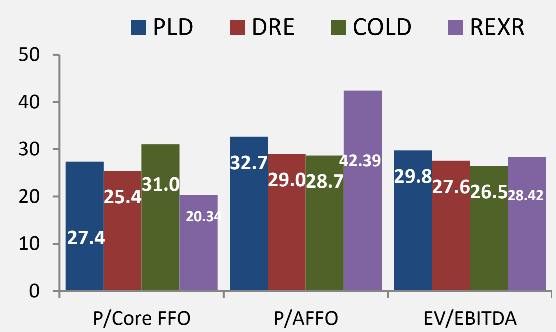
Risks to Thesis

- Continued decrease in consumer spending may push retailers to postpone warehouse and logistic expansions
- Supply catching up to demand would limit the REITs' pricing power.
- Finding qualified labor to operate logistics machinery is becoming harder, and labor costs are rising for construction and operating facilities.[3]
- With president Biden's election, the 1031 Exchange could be terminated. Which would lead to a reduction in transactions and hence liquidity, to avoid capital gain taxes.

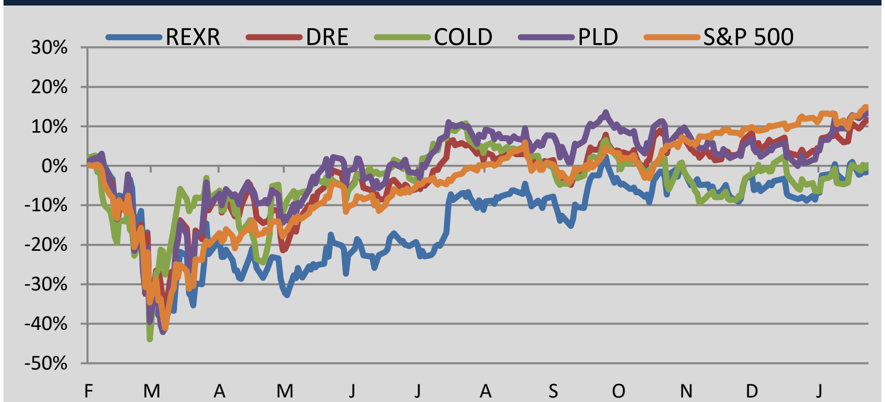
Key Industry Players

Market Value in Millions	
Prologis, Inc.	$82,358.3
Duke Realty Corporation	$15,778.2
Americold Realty Trust	$9,250.4
Rexford Industrial Realty	$7,052.7
P/Core FFO	
Prologis, Inc.	35.64x
Duke Realty Corporation	25.43x
Americold Realty Trust	31.01x
Rexford Industrial Realty	20.34x
P/AFFO	
Prologis, Inc.	32.7x
Duke Realty Corporation	29.0x
Americold Realty Trust	28.69x
Rexford Industrial Realty	42.39x
EV/EBITDA	
Prologis, Inc.	29.8x
Duke Realty Corporation	27.6x
Americold Realty Trust	26.5x
Rexford Industrial Realty	28.42x

[Source: Factset]



12 Month Performance



Industry Description

Real Estate Investment Trusts (REITs) are entities that own or fund income-producing real estate spanning a range of different property sectors. Industrial REITs focus on industrial properties such as warehouses, manufacturing buildings, and distribution centers. REITs are required to disrepute a minimum of 90% of their net income as dividends to maintain their status. In return, they are, to a large extent, tax-exempt.

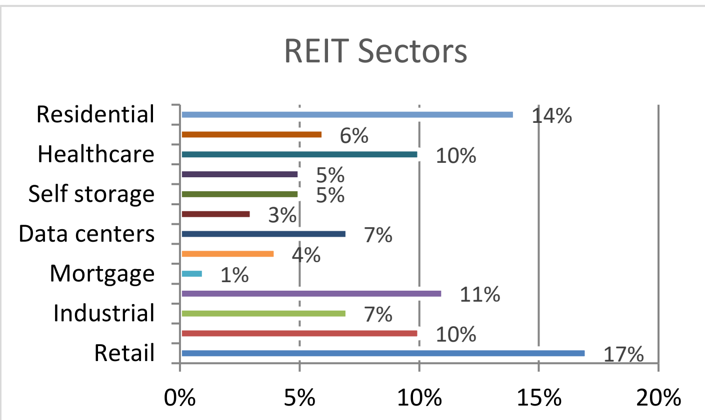
INDUSTRY DESCRIPTION

In the US, a REIT is structured as a company that owns and usually operates, income-producing real estate, and sometimes provides tenants services. REITs can be categorized according to the type of investment, either directly or indirectly, the segment of real estate they serve, or their ownership structure.

TYPE OF INVESTMENT

DIRECT (EQUITY)	Invest by owning, developing, and operating real estate and providing services to tenants
INDIRECT (MORTGAGE)	Invest by loaning to real estate owners and operators or buying loans and mortgage-backed securities.

The different types of REITs based on property type available in the market are office, multi-family, retail, health care, lodging, self-storage, and industrial.



[Source: NARIET[2]]

TYPE OF OWNERSHIP

TRADITIONAL	Own their assets directly
UMBRELLA PARTNERSHIP (UPREIT)	Operate through a partnership between a limited real estate partnership and a newly formed REIT.
DOWNREIT	A mix of the other two types, where they own some of the properties directly and others through a partnership

The industry owns a total property value of $2.0 trillion and over 516,000 properties as of year-end 2019. The percentage of American households investing in REIT stocks has almost doubled to 44% through the last two decades. And REIT exposure in Equity funds has increased nearly 30% since 2001. [1]

REITs are attractive to investors as they provide liquidity, as their shares can be sold and bought easily in the stock market. Diversification, as REITs have low correlations with stocks and bonds. Steady income, as their revenues come from rental payments on leases that are legally binding, along with the requirement that they distribute a minimum of 90% of their taxable income as dividends. As well as historically outperforming S&P 500 over the past quarter of a century on a total return basis.[2]

Due to REITs' obligation to distribute at least 90% of their income, they find a hard time accumulating funds for their acquisitions and development activities, and so the industry tends to be highly leveraged. However, these debts are used to finance income-generating properties, which means that high debt ratios are not necessarily an indicator of a REIT being risky.

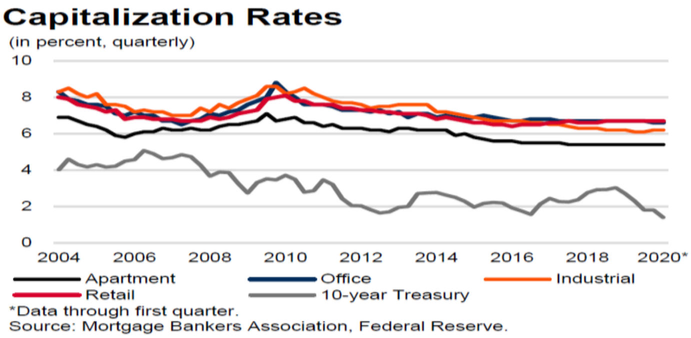
Industrial REITs specialize in properties such as warehouses and distribution centers. They mainly generate revenue by then leasing these properties. The main customers for these types of properties are e-commerce companies, such as Amazon, or huge retail traders like Walmart. And with the growth of the e-commerce business and the recent trend towards same/next-day shipping, the need for strategically located storage and logistic facilities has been on the rise.

KEY INDUSTRY DRIVERS

Capitalization Rate

Capitalization rates (Cap rate) are simply how the properties are valued. It is similar to the discount rate for stocks, the lower the cap rate the higher the value of the building. It is calculated as the Net Operating Income (NOI) divided by the cost of the building.

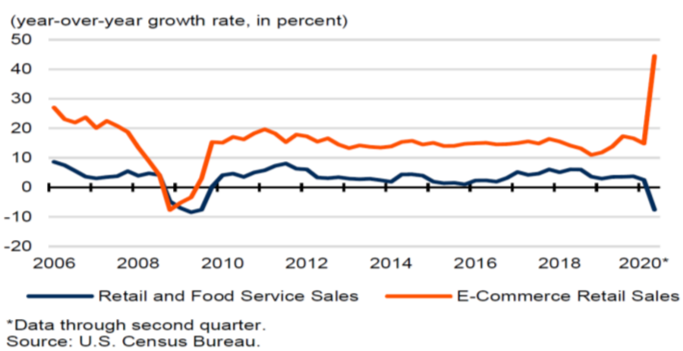
Cap rates for most property types have been trending downward with treasury and closed 2019 near the lowest they have been in a decade. [3]



This indicates that property valuations are relatively high, raising concerns on how the prices would react when interest rates rise. However, this is rather unlikely given the Fed's stance and the current economic conditions.

E-commerce growth

E-commerce sales have been a major driver of industrial property demand. Online sales as a percentage of total sales have been trending upwards from 0.6% to year-end 1999 to 16.1% by the second quarter of 2020.[4] And while the pandemic and the economic contraction it caused led to a decrease in overall consumer spending, online spending has surged to new highs. With a growth of 44.5% in the second quarter of 2020 from a year before. And since it's low in April 2020, consumer spending has been recovering to increase 2.9% YoY by the end of 2020.[4]



We believe that this shift to online shopping is going to continue as people become more accustomed to it, as they adapt to the restrictions forced upon them by the pandemic.

A note worth mentioning is that e-commerce and online retailers require more storage space than the regular brick-and-mortar stores as they need to maintain higher levels of inventory and product variety, shipping out individual products instead of bulk, and have space for product returns.

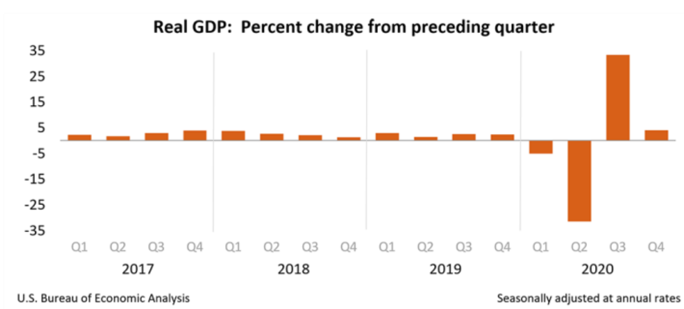
The 2020 holiday season witnessed a huge surge in online shopping, with expected returns amounting to a total of $70.5 billion. E-commerce returns put pressure on logistics and distribution networks, adding significant costs for retailers. However, this increased cost and need for space works to increase the demand for industrial REITs and their assets.[5] The following chart shows the breakdown of retail and online sales, as well as online sales growth and the portion of returns compared to sales.

[Source: National Retail Federation, CBRE Research, Q4 2020]

GDP Growth

As demand for REITs and their properties are strongly affected by the macroeconomic environment, their performance is partially determined by the level of economic activity in the country.

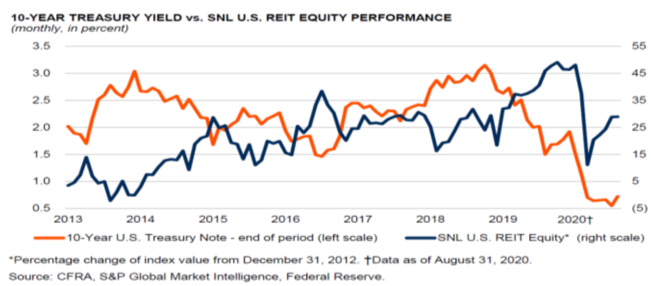
US GDP had been growing steadily until it was hit by the sudden spread of COVID-19 and the restrictive measures needed to maintain and stop its spread. The global lockdown and the rise in unemployment that followed led to a decrease in real GDP of 3.5% in 2020. *[6]*



However, the economy has started to recover and is expected to return to the pre-pandemic level in late 2021 - early 2022. *[3]* Real GDP grew by 33.4% in Q3 of 2020 followed by 4% for Q4 and is expected to continue to expand rapidly throughout 2021. Based on Congressional Budget Office (CBO) estimates, real GDP will reach its previous peak by mid-year and beat its potential by 2025.[10]. This will give way to increased consumer spending and a flourishing environment for REITs. We expect real GDP growth to be around 4.4% for the next six months and 3% for the next two years.[18]

Interest Rates

Return on REITs has historically had a negative correlation with the 10-year treasury however, by looking at the figure below, this seems to have reversed in these unprecedented times. With interest rates falling 120 bps March-April through August 2020, and the major volatility witnessed by the market, REIT shares fell 10.1%. In contrast, when 10- year TB rates fell nearly 80 bps in 2019, SNL US. REIT[i] witnessed an increase of about 24%. [3]

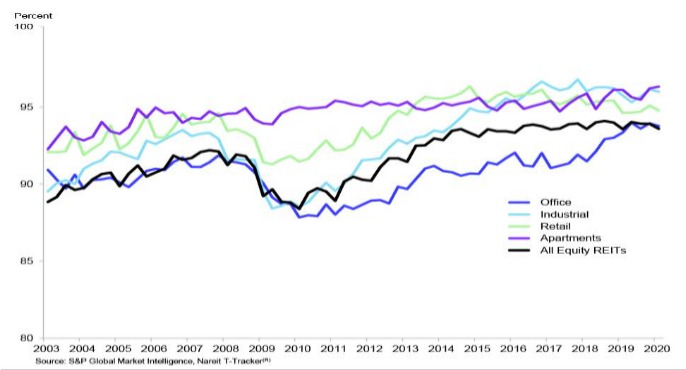


However, we believe that this reversal in the relationship between the REITs' performance and the treasury yield is only temporary and is a result of the general market sell-off. We are expecting long-term interest rates to increase as the economy recovers and unemployment decreases which would lead to higher spending and increase the possibility of inflation. We expect the 10-year T-bond rate to be around 2.34% in the next two years.[18]

Occupancy and Vacancy Rates

These two statistics offer insight into the demand and supply in the industry and the strength of a specific real estate market segment. The higher the occupancy rate/ lower vacancy rate, the more power the owners have over pricing. The lower the occupancy rate, however, the more the owners are pressured into reducing rents or offering incentives to attract tenants.

The following chart shows the historical occupancy rates for the different REIT categories.



RECENT DEVELOPMENTS

With Joe Biden elected as the 46th president of the United States, and Democratic majorities in both chambers of Congress, the Biden administration is well situated to rapidly change policies that are expected to have a vital impact on real estate transactions.

1031 Exchange program

The 1031 Exchange program is a regulation of like-kind exchange, has been embedded in the tax code for many years. It entitles a property investor to escape paying taxes on capital gains on sales under specific requirements. If an investor rolls the proceeds of a real estate sale into a future property purchase of at least equal value, the profits are tax exempt.

Congress's Joint Committee on Taxation estimates that the exemption is to save property investors $51 billion between 2019 and 2023.

"The Biden Plan for Mobilizing American Talent and Heart to Create a 21st Century Caregiving and Education workforce" policy proposal states that it will be funded by the rolling back of "unproductive and unequal tax breaks for real estate investors with incomes over $400,000".

Furthermore, campaign officials have mentioned that they will be stabbing at the "like-kind exchange" part of the program as well.

The elimination of this program would lead to investors holding properties for longer and a reduction in the number of transactions. Which in turn can lead to adverse effects on the supply and demand.[3][7]

Environmental Regulation

The Biden administration is going in a very different direction from the Trump administration concerning environmental policies. While the latter disannulled 84 environmental policies over the last 4 years, the Biden administration has pledged to create a contemporary sustainable infrastructure and equitable clean energy.

One of the promises made by President Biden is to reduce the carbon footprint of US buildings by 50% by 2035. This will add costs to the real estate investors to make sure they are adhering to the new national building energy standards to be set by the Department of Commerce.

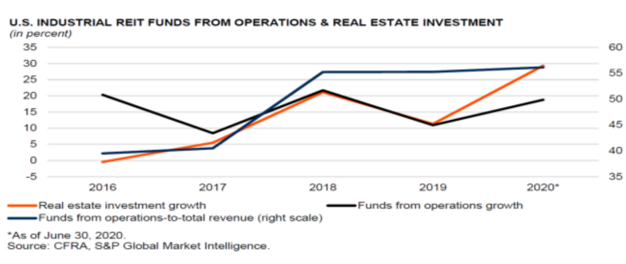
However, these increased costs can be largely offset by using programs such as the Property Assessed Clean Energy (PACE) loans, renewable energy purchasing incentives, and other programs and tax benefits expected to be rolled out to support the administration's goals.[7]

COVID-19 Impact

REITs, industrial in particular, are generally tied to consumer spending, and hence at risk given the overall decline in the economic activity and consumer spending with the global lockdown, the stay-at-home mandates, and the rise in unemployment. According to the National Bureau of Economic Research, consumer spending decreased by around 50% by Q3 of 2020 compared to the mean level of spending before the pandemic. [3]

Consumer spending is likely to stay stifled even after the economy reopens, due to the high rate of unemployment and companies getting used to reducing their workforce and work from home arrangements. Which can have lasting effects on demand for REITs, especially office and retail.

However, not all consumer spending has been affected the same way. Online spending has increased dramatically, which provided a catalyst for industrial REITs' demand and performance.

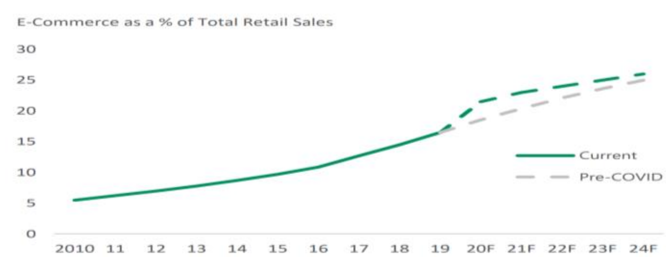


SECTOR	YTD PERFORMANCE	COMPOUND ANNUAL RETURNS 1-YEAR	COMPOUND ANNUAL RETURNS 3-YEAR
INDUSTRIAL	6.11%	10.88%	23.12%
OFFICE	1.09%	-20.52%	1.30%
RETAIL	13.21%	-15.34%	0.67%
RESIDENTIAL	8.02%	-9.11%	13.29%
LODGING	4.67%	-14.31%	-5.86%
HEALTHCARE	3.93%	-10.76%	11.53%
SELF-STORAGE	2.38%	9.36%	14.53%

[Source: FTSE Nareit U.S. Real Estate Index][8]

Even though most REIT sectors experienced negative returns, industrial and self-storage not only persevered through the economic downturn but also managed to generate returns throughout the year. This does not directly tie to the changes in consumer spending, but it shows that these types of REITs benefited from COVID and its consequences on consumer behavior and the economy more than others. As consumer spending patterns are one of the main factors impacting these sectors, and it has been affected by the spread of COVID, we believe that it was the main driver for the strong performance.

We project this growth to continue in the future, even after the world goes back to pre-pandemic normal, as consumers will have adapted to online shopping and got accustomed to the comfort and flexibility it provides.



[Source: NAREIT's REITWorld Virtual Investor-Analyst Meeting[17]*]*

MARKETS AND COMPETITION

Threat of Entry

As previously discussed, Amazon and other big e-commerce companies are promoting next-day or two-day delivery, along with the catalyst added to the growth of online spending due to the pandemic and the restriction imposed because of it. There was a shift in the type and location demanded for industrial properties.

Compared to previous trends, the focus now is on locations near logistics hubs and metropolitan areas instead of outside the cities, where lands are abundant, and facilities could quickly be built.

With the scarcity of, and the higher costs of acquiring properties in, such locations we believe the threat of new entry to be medium to low.

Power of Supplier

Labor costs for both construction and operating industrial facilities have been increasing. And with it the difficulty of finding qualified labor to operate logistics machinery. This combined with the spur in demand for industrial real estate due to COVID-19 and the growth of e-commerce, the demand for such labor is increasing. Giving the supply available higher bargaining power. *[3]*

However, as noted earlier, there are not many players in the industry, and with the increase in unemployment and lay-offs due to the pandemic. This offset the factors increasing the suppliers' power somewhat.

In conclusion, we rate the power of suppliers as a medium to high.

Power of Buyers

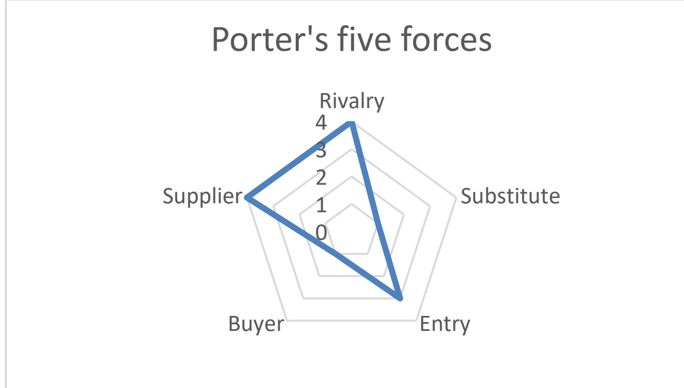
We rate the power of buyers low. With logistics and storage rental costs occupying a small percentage of the total costs of most tenants, usually around 5% plus, the higher importance of renting a key location more important than lowering costs. This made buyers insensitive to price movement and have been absorbing increases of 10% in rents. *[3]*

Threat of Substitute

Tenants have a limited set of options to satisfy their storage and logistics needs. The types of land and properties in demand nowadays are scarce due to their favorable locations and quality. And while a huge retailer could integrate warehousing into their value-chain, they will still face the same supply issues.

And so, we rate the threat of substitutes low.

The chart below is a visual representation of the analysis for the competitive environment utilizing Porter's five forces. The scale is on a 1-5 basis, with 1-2 representing weak to medium force, 3-4 representing medium to high force, and 5 representing a high or strong force.

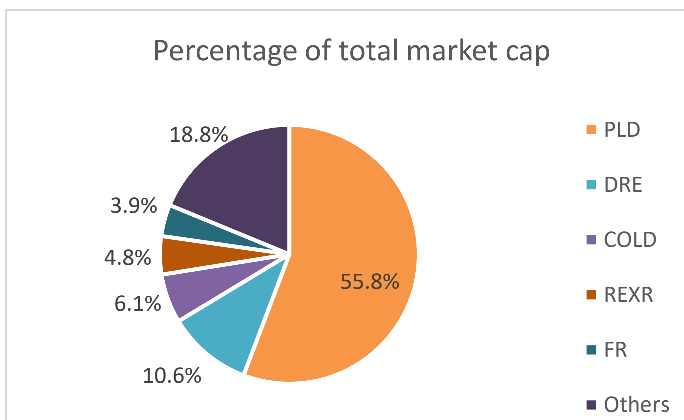


[Source: Henry Fund Analysis]

Industry Concentration and Rivalry

Real estate ownership is highly fragmented, and so REITs face competition from each other and private owners and real estate developers.

The big players in the industry include Prologis, Inc. (PLD) with a market cap of $85.36B, Duke Realty Corp. (DRE) at $15.77B, followed by several smaller but strong competitors including Amricold (COLD), Rexford Realty (REXR), and First Industrial (FR). The competition is increasing with the shift in demand for facilities in cities and metropolitan areas instead of the outskirts, to accommodate fast shipping and increased demand requirements. Leading to a more constrained supply of lands and properties to develop. And fewer alternatives for tenants. [9]



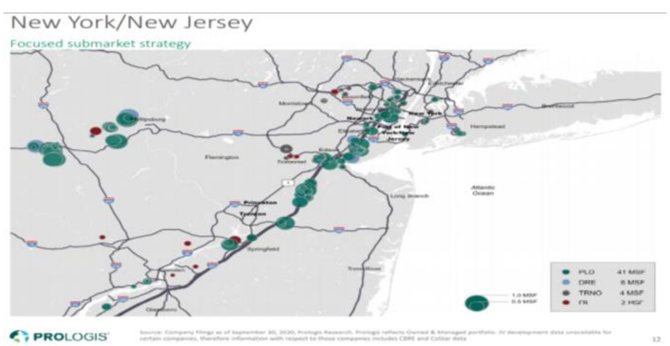
[Source: Factset]

As can be seen in the figure above the industry has one big company with over 50% of the total market cap, PLD, followed by DRE with only 10%. Both REITs focus on owning and managing bulk warehouses and distribution centers across the different states. The small number of competitors, along with the scarcity of high quality, strategically located properties, but on the other hand, a growing market led us to a medium to high rivalry rating in the industry. We expect to see more consolidation going forward as the big players in the market acquire the smaller companies to grow and increase market share.

Peer Comparisons

Industrial REITs, as aforementioned, are competing for properties in strategic locations near big cities and ports to remain attractive to their customer base.

And therefore, they are highly concentrated on the coasts. Below is a map showing the concentration of the big names in the industry, with Prologis, Inc. being the most dominant presence. This dominance gives PLD an advantage over its competitors.



[Source: Prologis - NAREIT's REITWorld Virtual Investor-Analyst Meeting]

When analyzing an industrial REIT, one of the most important and commonly accepted metrics is the Funds from Operations (FFO). It measures the operating performance of the REIT on an actual cash basis. Adjusted FFO removes normalized recurring expenditures and rents averaged over the life of the leases.

Another important metric is dividends yield, as the high dividends yield usually paid by REITs since they are obligated to distribute at least 90% of the earning, is one of the most attractive features of REITs.

Below is a table summarizing the most commonly used financial metrics for evaluating REITs for a few big players in the industry. Followed by a table with industry-specific metrics to further illustrate the power dynamic and strengths of the different competitors in the industry

Company Name	Div Yield	Imp Cap rate	P/NAV	P/CFFO	P/AFFO
Prologis Inc	2.15%	3.89%	1.13x	27.33x	32.63x
Duke	2.45%	4.40%	1.09x	25.20x	28.75x
Rexford	1.86%	-	1.29x	35.64x	42.39x
EastGroup Properties	1.81%	4.22%	1.13x	25.98x	32.75x
First Industrial	2.47%	4.93%	1.01x	23.37x	28.01x
Terreno Realty	1.90%	3.47%	1.18x	37.50x	46.30x
Median	2.03%	4.22%	1.13%	26.65%	32.69%
Mean	2.11%	4.18%	1.14	29.17	35.14

[Source: Factset]

Company	Rev M	No.of Building	Rev/Building	Sq.feet M	Rev/sq foot
Prologis	3,330	1876	$1.78	359	$9.28
Duke	993	517	$1.92	152	$6.53
Rexford	89	213	$0.42	28	$3.17
First Industrial	111	420	$0.26	63	$1.77
Terreno	147	222	$0.66	13	$11.14

[Source: Companies' SEC filings [12-16]]

Terreno Realty, which specializes in city distribution and last-mile delivery, is generating the highest revenue per square footage, followed by the biggest company in the market, Prologis. Which along with Duke Realty and First Industrial, have the most diverse facility types.

This further highlights the high need for in-city locations to fulfill the rising demand for same-day and next-day delivery advertised by the growing e-commerce business.

The following table provides an overview of three 2020 return metrics to give further insight into the competitive positioning of the different companies in the market.

Company	ROIC	ROE	ROA
Prologis	3.51%	6.54%	2.64%
Duke	3.60%	5.90%	3.40%
Rexford	1.90%	2.60%	1.80%
First Industrial	6.00%	10.70%	5.40%
EastGroup Realty	4.50%	8.80%	4.10%
Terreno Realty	3.90%	5.10%	3.70%

[Source: Prologis 10-k 2020 and Factset]

Through the year, the companies had fairly close occupancy rates ranging between 95-98%. Terreno had the highest average occupancy rate with 97.8%, they also have the highest ROIC. Followed by Duke, EastGroup, Prologis, Rexford, and First Industrial at 97.4%, 97.3%, 96.6%, 95.7%, and 95.2% respectively.

ECONOMIC OUTLOOK

The COVID-19 pandemic has caused huge disruptions to the world's economy as governments issued stay-at-home directives.

And as US businesses and households took voluntary and mandated measures to limit the spread of COVID, the economy suffered a huge recession. However, the outlook for the future is positive, with vaccine roll-out starting late 2020, and the global lockdown being lifted gradually.

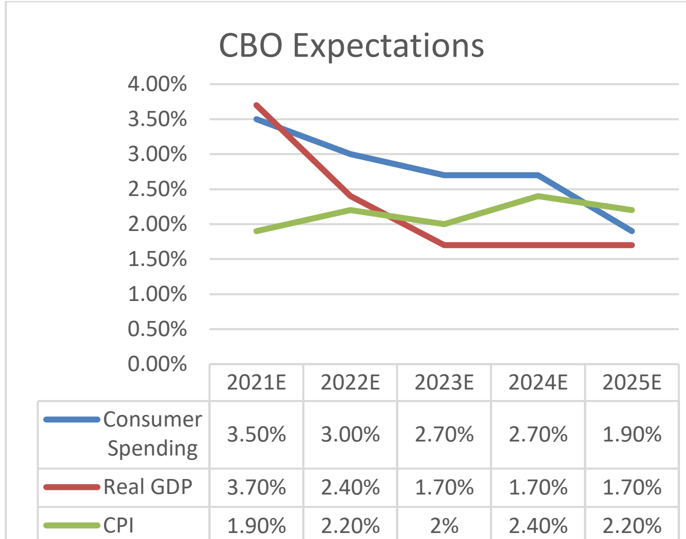
Interest Rates

The current Fed rate is at the near-zero level of 0.25% and is promised to remain around this level for the coming two years. However, this will depend on how the pandemic affects the economy as we go forward.

However, as the economy comes out of its recession, the fed is expected to raise rates to mitigate any inflation effects that may follow as the economy goes back to normal. The CBO is expecting the Fed to increase rates by 2023.[10]

Consumer Spending (Online)

Demand for industrial REITs is highly correlated with consumer spending, especially the online portion. Consumer spending, in general, witnessed a major drop due to the economy contracting and unemployment rising. However, as previously discussed, online sales spiked up and consumer spending is starting to recover.



[Source: CBO Economic Outlook 2021]

INVESTMENT POSITIVES

- The first and biggest driver of growth we see for industrial REITs is growth in e-commerce. As the portion of online consumer spending continues to grow and the population becoming more accustomed to the flexibility of online shopping.
- Another driver is the shift in demand for properties in a more prime and strategic location, which is in limited supply, giving landlords more pricing power.
- REITs are an attractive investment because of the steady cash flow they provide and their low correlation with other assets in the market.
- We believe that the upward trend in online consumer spending is going to continue in the future and this will lead to increased demand on warehouses and logistic properties, setting the stage for industrial REITs to grow.
- The low bargaining power of the tenants allows for increases in the rental payments and the profitability of the REITs.

INVESTMENT NEGATIVES

- If the economy does not recover as quickly as hoped, consumer spending will not recover, and this might cause retailers to cancel or postpone plans to expand.

- The continued growth of the industry and the relatively low costs of developing industrial properties could lead to supply catching up with demand and landlords having to lower their rents or offering extra benefits to attract tenants.
- The new legislation that the new President's administration is planning to enact will add to the costs of managing the REITs and could lead to a reduction in the number of transactions and ultimately adversely affect supply and demand.

INDUSTRY POSITIONING

- Overall, we believe that industrial REITs have room to grow, and the economic environment right now is providing a good foundation to support that growth. This is based on the growth in e-commerce, the reshoring of supply chains away from China to the Americas, and the need to carry higher inventory levels in several end markets accompanying the increase in online shopping.
- We believe that Prologis, Inc. and Rexford Industrial Realty have the best prospect for growth. The first by being the biggest player in the market with a geographically diversified portfolio of 900m square feet both locally and globally. PLD also has data insights into market rent given its dominance in the market, their products are in high barrier markets due to the scarcity of in-demand properties, their quality customer relationships, and their strong balance sheet. The latter because it specializes in last-mile delivery, a segment that is set to see high growth due to the growing e-commerce business and trend for faster delivery.

REFERENCES

1. NAREIT - LINK
2. REIT Basics – NARIET Article
3. CFRA Industry Survey – September 2020
4. Census Bureau
5. CBRE Research 2020
6. Bureau of Economic Analysis
7. JD Supra – Article
8. FTSE Nareit U.S. Real Estate Index - LINK
9. Factset
10. Congressional Budget Office – 2021 Outlook
11. US Department of Commerce
12. Prologis, Inc 2020 – SEC Filings
13. Duke Realty 2020 – SEC Filings
14. First Industrial 2020 – SEC Filings
15. Terreno Realty 2020 – SEC Filings
16. Rexford Industrial 2020 – SEC Filings
17. REITWorld 2020: NAREIT's Virtual Investor Conference
18. Henry Fund Consensus

i. SNL US Equity REITs Index is a proxy for the REITs market put together by SNL Financial, a part of S&P Global Intelligence.

DISCLAIMER