

April 10, 2019

## Prologis, Inc. (PLD)

Real Estate Investment Trust (REIT) – Industrial REIT

Stock Rating

Buy

### Investment Thesis

We have a BUY rating on Prologis, Inc. Demand for industrial warehouses will continue to increase as e-commerce business grows. This will allow the company to increase rent rates and improve returns. Our target price is \$78-82 which gives an upside of 8-13% from the current price.

### Drivers of Thesis

- E-commerce growth: By 2020 e-commerce sales are forecasted to surpass 3 trillion dollars and be greater than 16% of total retail sales, the current rate is 12% Prologis is a low risk company while participating in the e-commerce growth.
- Relatively low multiple: Prologis is currently trading near the industry average for forward Price/FFO even though they are the dominant player in the industry and are the best company set up to succeed in the future.
- Geographic Locations: Prologis dominates the net leasable area in the major coastal cities. Those cities also saw the highest rent price increases in 2018.

### Risks to Thesis

- Economic slowdown: The industrial REIT industry is heavily dependent on the economy, a slowdown could decrease demand for warehouses.
- Industrial REIT valuations: Since 2016 industrial REITs have outperformed the broader REIT index by 45%, and trades at premium valuations to the REIT sector averages. [6] Even with strong future growth the industrial stocks may not increase in price due to the high valuations.

### Target Price

\$78-82

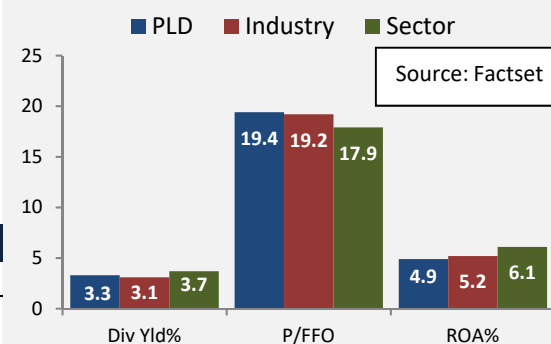
Henry Fund DCF	\$80.66
Henry Fund DDM	\$59.49
Relative Multiple	\$72.24
<b>Price Data</b>	
Current Price	\$72.38
52wk Range	\$55.21 – \$73.43
Consensus 1yr Target	\$73.69

### Key Statistics

Market Cap (B)	\$46.79
Shares Outstanding (M)	630.70
Institutional Ownership	97.49%
Five Year Beta	0.74
Dividend Yield	3.10%
Est. 5yr Growth	43.8%
Price/Earnings (TTM)	25.41
Price/Earnings (FY1)	46.13
Price/Sales (TTM)	15.08
Price/Book (mrq)	2.06

### Profitability

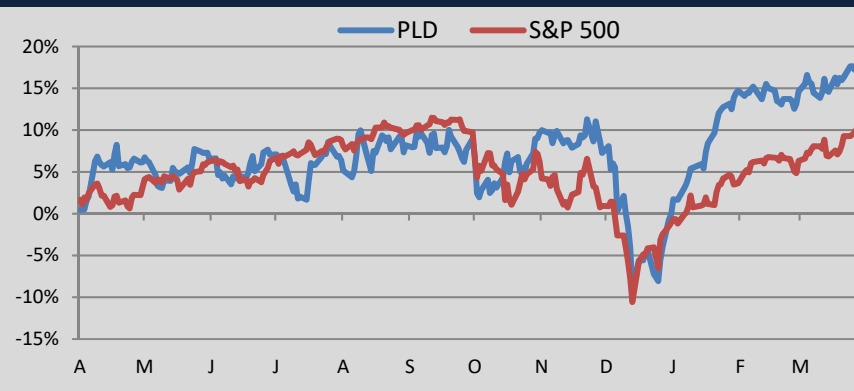
Operating Margin	36.91%
Profit Margin	53.16%
Return on Assets (TTM)	2.11%
Return on Equity (TTM)	8.19%



### Earnings Estimates

Year	2016	2017	2018	2019E	2020E	2021E
EPS	\$2.29	\$3.10	\$2.90	\$2.99	\$3.32	\$3.52
growth	38.0%	35.4%	-6.5%	3.0%	11.2%	5.8%

### 12 Month Performance



### Company Description

Prologis, Inc. is an industrial REIT company based out of San Francisco, California. Prologis owns, manages, and leases industrial warehouses to clients. Prologis has 1,840 facilities worldwide, with the majority of those located in the United States. 80% of Prologis' total revenue is domestic and 90% of real estate operations revenue is domestic.

## EXECUTIVE SUMMARY

We recommend a BUY rating for Prologis due to the rapid growth of e-commerce and how they are better positioned compared to their competitors moving forward.

Prologis has set themselves apart from their competitors by having over 50% of the net rentable area (NRA) market share in the United States, and about 50% of their United States portfolio is in major coastal cities. These cities also saw the highest percentage in rent increase in 2018, thus that increase had a greater impact on Prologis than their competitors. Also in these markets which are in high demand, the size of land required to build a warehouse is scarce and expensive which will detour competitors from trying to steal market share.

Rent revenue in 2018 grew 8% for industrial REITs and we are predicting an 8.5% rent increase for Prologis' United States portfolio. Prologis management has made this a point where currently their rent is below the market average.

E-commerce grew 15% in 2018 and has grown around that percentage each of the last 5 years. E-commerce requires 3x the amount of warehouse space than a traditional brick-and-mortar store.

In 2018 Prologis had a 97.5% occupancy rate which was close to an all-time high. This high occupancy rate gives the company leverage when leases expire and a new contract is required. Management is estimating a 96.5% occupancy rate as they increase the rent and extend the contracts for a longer duration.

## COMPANY DESCRIPTION

Prologis is one of the largest REITs on the NYSE and focuses on industrial warehouses. Below is a chart of the largest REITs by market cap.

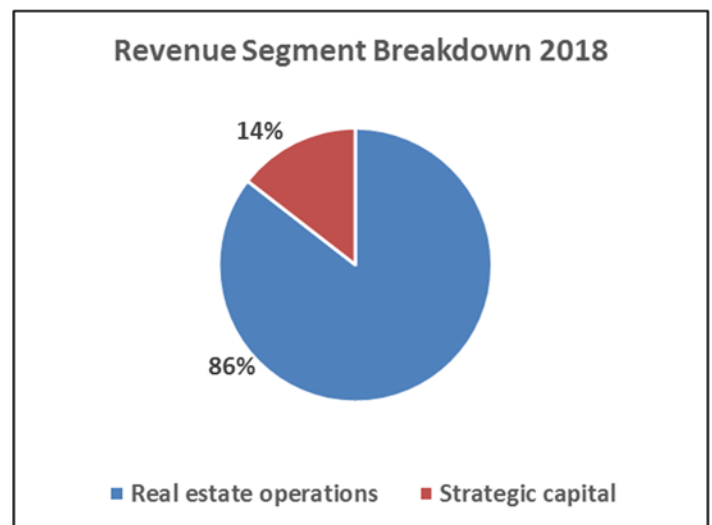
Rank	Company	Market Cap (Bil)
1	American Tower	\$61.8
2	Simeon Property Group	\$51.7
3	Crown Castle	\$42.5
4	Public Storage	\$38.0
<b>5</b>	<b>Prologis</b>	<b>\$34.1</b>
6	Equinix	\$32.8
7	Weyerhaeuser	\$27.9
8	Equity Residential	\$23.7

Source: Motley Fool, LLC

Prologis owns 768 million square feet of industrial property and has 5,100 customers in 19 countries. [1] Prologis owns, manages, and develops high-quality logistics facilities and is the largest owner of industrial properties in the world. \$1.3 trillion is the economic value of goods that are transported through Prologis' facilities each year, this makes up 1.7% of the world's GDP. [4]

Prologis is known for paying a steady dividend, high rental revenue growth, and having consistent funds from operation (FFO). Prologis has been pushing their environmental, social and governance (ESG) activities, they are the 3<sup>rd</sup> highest corporate solar producer, which leads to lower operating costs to their customers and higher retention rates. [4]

Prologis has two business segments, real estate operations and strategic capital. The chart below is Prologis' revenue by segment in 2018.



Source: Prologis 2018 10-K

Revenue is earned through collecting rent from customers through long-term operating leases.

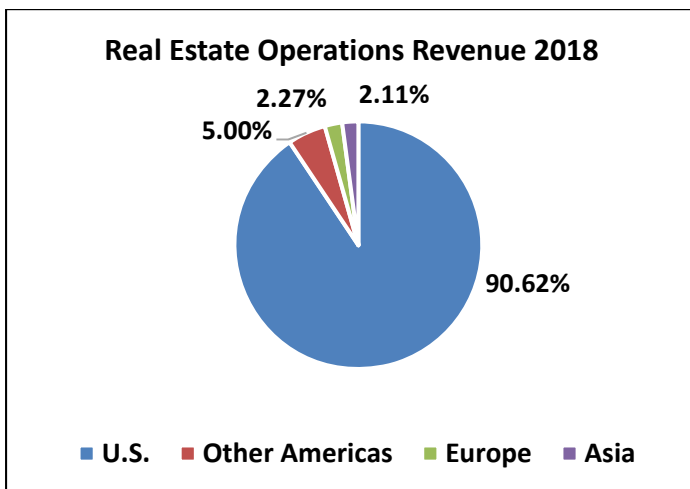
The strategic capital segment gives Prologis access to third-party capital through public and private sources. This capital gives Prologis a wide range of options to fund the company's growth, while reducing their exchange rate risk.

## Real Estate Operations

Growth in this segment will depend on increasing rent, maintaining high occupancy rates, and controlling expenses. We are very bullish for the growth of segment revenues due to high occupancy rates, ecommerce growth, and that the supply of industrial warehouses will not be able to keep up with demand. Prologis had an occupancy rate of 97.5% in 2018, the expiring leases can be resigned at a higher rent per square foot. We estimate rent per building will increase by 8.5% next year due to those factors. Prologis had a record average lease for the 2018 4<sup>th</sup> quarter of 83 months. We estimate that for 2019 the average lease will be around 85 months.

Occupancy rates are estimated to decrease slightly to 96.5% in 2019 as management pushes for leases with longer terms and higher rent prices. [3] The industry had an average occupancy rate of 97% in 2018. [4] The estimated decrease in occupancy rates for Prologis does not concern us because the new leases will bring in more revenue than the lower occupancy rate will lose the company.

Below is a geographical chart of where the revenue is earned. The U.S. is the majority of the portfolio. We estimate that the percentage of total revenue that comes from the U.S. will increase to 92% in the next 5 years as the rent per building grows and the number of buildings increases at 4% a year.



Source: PLD 2018 10-K

Below is a chart that maps Prologis' 2018 geographical breakdown.

Region	Buildings	Sq. Ft. (Mil)	Avg rent/sq. ft
U.S.	2,486	455	\$ 4.78
Other Americas	266	60	\$ 2.00
Europe	739	175	\$ 0.31
Asia	199	78	\$ 0.65
<b>Total</b>	<b>3,690</b>	<b>768</b>	<b>\$ 3.12</b>

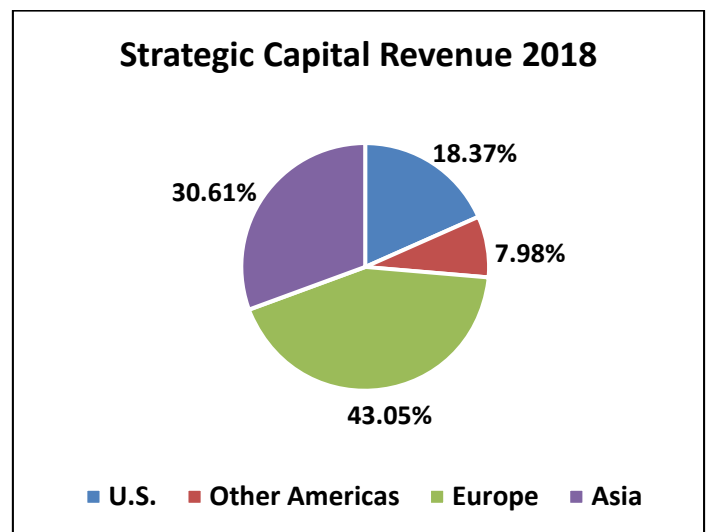
Source: Prologis 2018 10-K

It is easy to see from the average rent per square foot why Prologis in 2018 had negative growth rates in number of buildings in Europe and Asia and positive growth rates in the U.S. and Other Americas. In 2018 the U.S. and Other Americas had a 23.53% and 13.04% number of buildings increase.

Through Prologis developments we estimate that the buildings growth rate of the U.S. and Other Americas will be 5% and 12% in the next few years. Couple that with revenue per building growth we estimate revenue growth rates for the U.S. and other Americas of 13.93% and 23.30% in 2019.

## Strategic Capital

The strategic capital gives Prologis access to a broad range of capital options, which reduces their exposure to currency risk. Partnerships are formed with the largest institutional investors to grow their portfolio, through long-term and open-ended ventures. Revenue is earned through fees.



Source: PLD 2018 10-K

We were not surprised to discover that outside the U.S. makes up the majority of the strategic capital revenue for Prologis, as they try to reduce their interest rate risk and get access to cheaper capital.

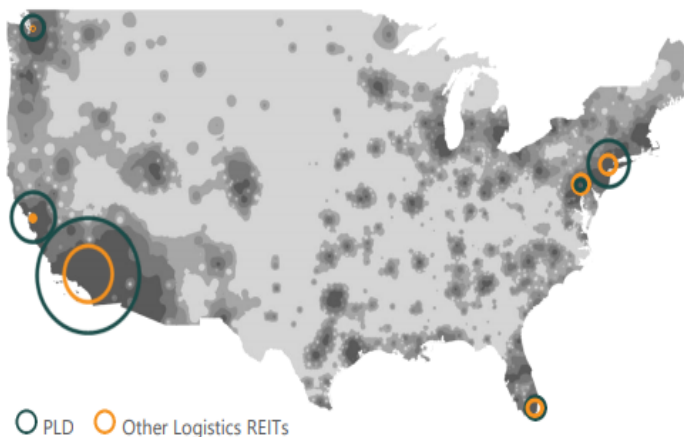
Receiving capital from outside the U.S. will help them offset the exchange rates when they fund their operations outside the U.S.

## Geographic Locations

All of the buildings in U.S. they own, where the properties outside the U.S. are usually co-investment ventures (to lower currency risks).

The graph below shows the net rentable area (NRA) of Prologis vs all of the other logistic REITs. This graph is a good insight of Prologis' business model, of wanting to be near large populations. Prologis has really focused on the major coastal markets, almost 50% of their portfolio is located in major coastal markets, where as the other logistics REITs have less than 25% of their portfolio. [5]

PORTFOLIO SIZE BY NRA, PROLOGIS VS SUM OF LOGISTICS REITS  
Major Coastal Markets



Source: UBS Global Real Estate Conference 2018

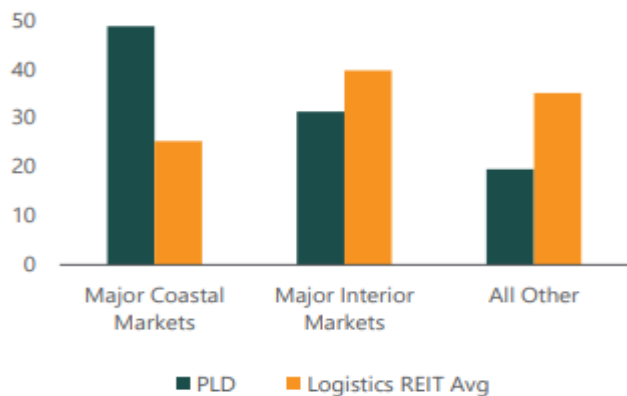
In 2018 the top 4 cities in the U.S. that had the highest market rental growth were: San Francisco Bay Area, Seattle, Southern California, New Jersey-New York City. As shown in the graph above. Prologis is the dominant player in each of those markets.

We see this as a competitive advantage because Prologis gives their customers access to larger populations. As well since land in those high population areas is very hard to find, it will be a difficult challenge for their customers to

expand in the major coastal markets. Having a large presence in the major coastal markets gives Prologis and advantage over their competitors for foreign business. Specifically goods from Asia. Prologis is dominating the west coast in NRA, specifically in the L.A., San Francisco, and Seattle markets.

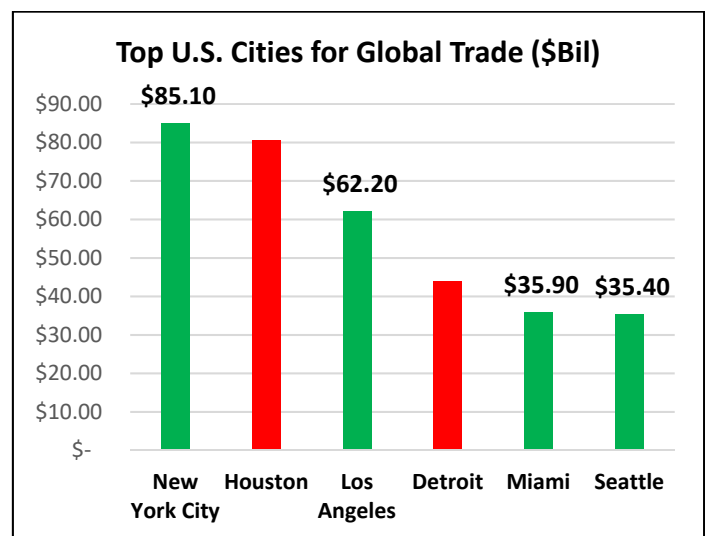
The chart below also shows how Prologis decides to spend its capital vs. its competitors. Prologis is still competitive in the major interior markets, but gives market share away in the smaller interior markets. We agree with Prologis' business model as the coasts will have a higher demand due to population and foreign supply chains.

MARKET SHARE OF U.S. OPERATING PORTFOLIO  
% of NRA



Source: UBS Global Real Estate Conference 2018

Below is a chart of the six largest U.S. cities for global trade. The green lines are the cities that Prologis has a greater NRA then the rest of the logistic REITs combined.



Source: UBS Global Real Estate Conference 2018

## Company Analysis

Prologis management estimates that the average rent on their existing portfolio is 10%-12% below current market rents. [2] This is due to their long term contracts, as Prologis renews current contracts this trend should reverse. Even with their rent price being below the current markets rent Prologis has still out performed other logistic REIT's by more than 150 basis points over the last 5 years. [5]

Prologis manages its balance sheet to have high liquidity, low leverage, and low near-term maturities. In 2018 Prologis had a debt / adjusted-EBITDA of 4.4x, a fixed charge coverage ratio of 7.2x, and liquidity of \$3.5 billion.

As shown before Prologis has had a strong 5 years, where they are near the top of FFO per share CAGR. This chart from 2013 to 2017 further explains why Prologis is the dominant industrial REIT.

Core FFO* per share CAGR	1-YEAR	3-YEAR	5-YEAR
PLD (excluding promotes)	10%	13%	9%
Other Logistics REITs <sup>1</sup>	7%	4%	4%
Blue Chips <sup>2</sup>	5%	7%	7%
REIT Average <sup>3</sup>	4%	6%	7%
S&P 500 Average <sup>4</sup>	11%	4%	5%

Source: Seeking Alpha

Prologis has a very diverse customer base, thus Prologis' facilities hold many different type of products. Their main types of goods they hold are: food & beverage, consumer products, electronics, apparel, and general goods. This diversity protects them from any one sector recession. Some of their top customers are Amazon, BMW, Walmart UPS, FedEx, and the U.S. Government.

Not only is Prologis diverse in the goods that they store, but also have a large customer base. Prologis' top 25 customers represent only 19% of their net effective rent. [4] Thus if a top customer or two leaves that will not materially affect Prologis. We do not estimate that will happen though because 75% of Prologis' customers lease facilities on multiple continents, which makes their leases very sticky.

Below is a chart of Prologis' top 10 customers as of 2018.

Rank	Customer	% of NER	Total Sq. Ft.
1	Amazon	5.3%	16
2	Fedex	1.9%	4
3	Home Depot	1.8%	6
4	UPS	1.4%	4
5	Wal-Mart	0.9%	3
6	Geodis	0.9%	3
7	XPO	0.8%	3
8	NFI	0.8%	2
9	DHL	0.7%	2
10	U.S. Government	0.6%	1
<b>Total</b>	<b>Top 10</b>	<b>15.1%</b>	<b>44</b>

Source: Prologis 2018 10-K

Net effective rent (NER) is calculated using the estimated total cash to be received over the term of the lease divided by the lease term to determine the amount of rent and expense reimbursements received per year. [1]

As shown Amazon is their largest client by a wide margin, this is no surprise as Amazon is roughly half of all e-commerce. [9]

A potential risk to Prologis is if Amazon decides to build and operate their own warehouses. However, there has not been any indication from Amazon that is in the near future. The combination of the amount of land needed to build an industrial warehouse and a location near cities and transportation infrastructure is scarce. Thus we do not see Amazon building their own warehouses as a threat in the near future.

Prologis is the dominant company in the industrial REIT industry due to their NRA market share and therefore should trade at a higher multiple than their peers. The 2019 Price/FFO relative comparison has Prologis trading at the average of their four closest competitors at 22.3. We see this as opportunity for Prologis, and believe we can exploit this mispricing.



Below is a peer comparison chart for Prologis.

Company	Stock Price	FFO 2019E	FFO 2020E	P/FFO 19	P/FFO 20
Prologis, Inc.	\$72.21	3.22	3.59	22.43	20.11
First Industrial Realty Trust, Inc.	\$35.50	1.70	1.79	20.88	19.83
EastGroup Properties, Inc.	\$111.78	4.85	5.11	23.05	21.87
PS Business Parks, Inc.	\$157.50	6.61	6.81	23.83	23.13
Duke Realty Corporation	\$30.78	1.40	1.47	21.99	20.94
			Average	22.43	21.2

Source: Factset

## RECENT DEVELOPMENTS

### DCT Industrial Acquisition

Prologis acquired DCT Industrial Trust Inc. on August 22, 2018 for \$8.5 billion. [1] Prologis liked DCT's portfolio because it was highly complementary to theirs in terms of location, facility quality, and growth potential. The deal was valued at \$67.91 per DCT share which was 16% above their final closing price before the acquisition. Even though that is a high premium we still feel that is was a necessary move to be the dominant player in the coastal cities.

The DCT Industrial Trust acquisition is the reason that Prologis has such a dominant market share on the west coast, as DCT's presence was mostly in Southern California, San Francisco Bay Area, and Seattle. DCT's portfolio included 71 million square feet owned in their operating portfolio, as well as 7.5 million square feet of development. [1] Prologis U.S. portfolio before the acquisition had 384 million square feet, so the acquisition increased the portfolio square feet by 15.6%.

The acquisition came with DCT's debt which was \$1.8 billion, however \$850 million has been paid off and the rest was refinanced at 2.5%. [12] Management estimates that the refinancing of the remaining debt will result in \$38 million in annual interest savings.

DCT's former chief executive officer Philip Hawkins has joined the Prologis board of directors. We see this as a positive sign and should make the transition run smoothly.

### 4<sup>th</sup> Quarter Earnings Report

In 2018 Prologis beat earnings estimates, for the 4<sup>th</sup> quarter estimated EPS was \$0.42. Prologis had an actual EPS of \$0.94 for the 4<sup>th</sup> quarter and \$2.84 for the year. FFO

per share estimates were \$0.79 for the quarter Prologis beat that with \$0.80. Prologis finished 2018 with \$3.03 FFO per share. [3]

4<sup>th</sup> quarter same-store NOI growth was 4.5% which management attributed to longer lease trends. However, they also pointed out that pre-rents as a percentage of lease value decreased by 0.2% to 3.7%. [2] Pre-rents is a deposit to hold a location. We attribute this to managements attempt to raise lease prices and term.

Prologis leased 35 million square feet in the 4<sup>th</sup> quarter with an average term of 83 months which is a record high. [2] 2018 occupancy rates finished at 97.5% a 5 year high, however U.S. occupancy dropped 0.20% as Prologis continues to increase rent price and term of the leases.

Management was quick to mention the volatility in capital markets at the end of 2018 and how that would affect consumer and business confidence. Management lowered their expectations slightly, FFO per share dropped to \$3.12 from \$3.20. We feel that management overreacted and the economy is still strong. We estimate that FFO per share will be \$3.22 in 2019.

2019 started off well as Prologis signed 17 million in square feet leases in January, which management sighted as historically slow month.

## INDUSTRY TRENDS

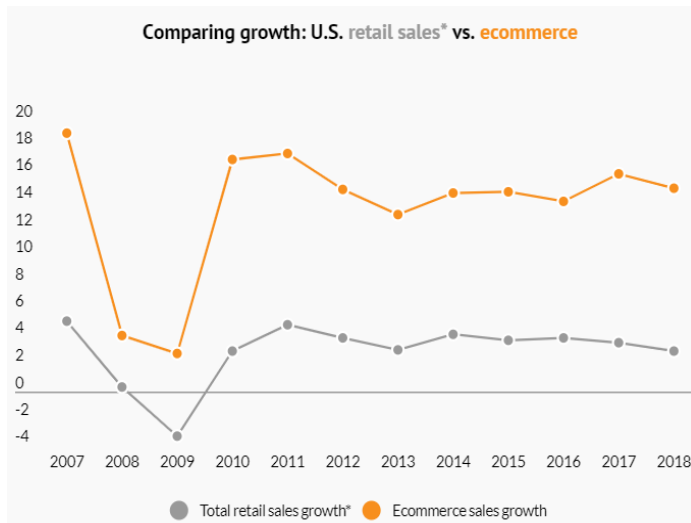
The industrial REIT industry is made up of warehouse properties that support supply chains by offering storage and access to shipment of goods. Since 2016 Industrial REITs have outperformed the broad REIT index by 45%.

Logistic rent has room to grow, it currently rent accounts for less than 5% of total supply chain costs. [6] We estimate this composition will change due to transportation costs decreasing from technological advances, and demand for quality locations will increase as companies will want to deliver their products to consumers as fast as possible.

### E-commerce Growth

In 2018 the e-commerce industry saw sales grow 15.0% and accounted for 14.3% of total retail sales. Comparably in 2016 and 2017 e-commerce accounted for 11.6% and 12.9% of the total retail market. [9]

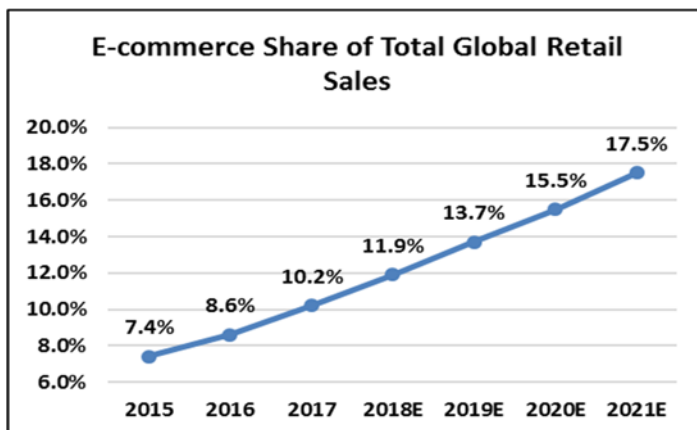
Below is a chart comparing U.S. retail sales growth vs e-commerce growth. As shown e-commerce growth has been around 15% for each of the last 5 years, while during that time frame retail growth has dropped from 4.2% to 3.0%. These growth rates are still dependent on the economy, but as technology advances and more people have access to the internet. We see that growth rate staying greater than 13% for the next 5 years.



Source: Digital Commerce 360

Online shopping business require three times more warehouse space than the traditional brick-and-mortar stores. This is due to high inventory levels, broader product varieties, and reverse logistics. Thus as e-commerce continues to grow the demand for industrial warehouse space will grow at a faster rate.

Below is a chart of historical and estimated global e-commerce to total retail sales ratio. As shown in 2016 is when the growth started growing at a faster rate and is estimated to keep growing in the future.

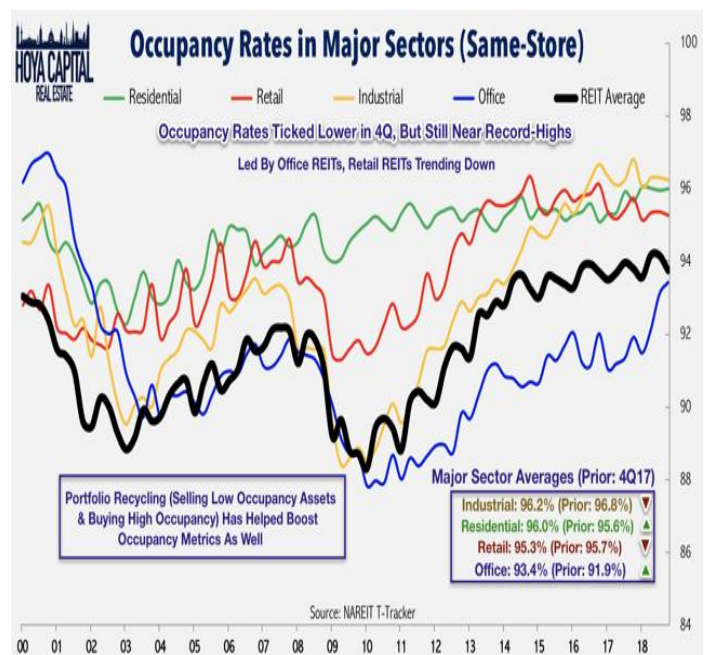


Source: Statistica

## Occupancy Rates

Driven from the e-commerce growth the demand for industrial warehouses has surged in the past five years. Occupancy rates are the highest among REIT property types at 96.9% in 2018. To compare that number in 2013 occupancy rates were 93%. The supply of high quality, well positioned industrial warehouses is struggling to keeping up with demand due to the amount of land that is required to build these warehouses near large populations.

Due from the high occupancy rates rent growth for the industrial REIT sector has remained above 6% for each of the past four years. We see this being sustainable in the near future of 5 years as the growth of e-commerce needs is growing at a faster rate than industrial warehouses are being built.

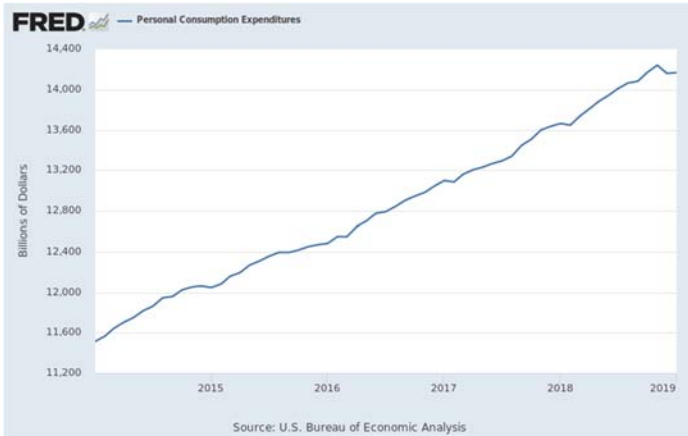


Source: NAREIT T-Tracker

The graph above shows that the industrial sector has led all other REIT sectors in occupancy rates since 2016. We estimate that occupancy rates for the industry will stay stable around 96%.

## Consumption Growth

Consumption growth plays a large factor in the industrial REIT industry. The graph below shows consumption levels in the U.S. in the past 5 years.



As shown above consumption levels were at a steady growth rate until December 2018 where the capital markets went into a free fall. January had a slight growth rate. We expect the February month to have a high growth rate as the capital markets began to earn back the value that was lost in December.

This graph also shows why Prologis management lowered their forecast for 2019, as consumption levels dropped rapidly over a short period in time in December of 2018. We feel that consumption growth will return to a growth rate seen before December for the upcoming months.

## MARKETS AND COMPETITION

The industrial warehouse industry is driven from supply chain demand from companies in most sectors that need a facility that can store, ship, and receive goods. The industry is in a growth stage as demand for industrial warehouses has been greater than supply for the past five years.

The barrier to entry in this field is high. This is due from the upfront capital that is required to purchase and develop the land then build a large warehouse on top of it. The most coveted land is near large population areas, which is often sold at a premium.

Depending on the occupancy rate power of the supplier can be very high. Currently high occupancy rates gives industrial REIT companies leverage when negotiating a new contract with a client.

Prologis has two main public competitors and that is First Industrial Realty Trust, and Duke Realty Corporation. These companies are pretty similar, where they differ is on market cap and quality of tenants. Prologis has a significant advantage over their competitors because they

have more than 50% of the market share. The reason they are so dominant in the market is because their capital allows them to be in all the major cities in the world where their competitors cannot afford to do so due to lower amounts of capital. We do not estimate that Prologis will lose market share in the near-term.

### First Industrial Realty Trust, Inc. (FR)

First Industrial Realty Trust specializes in industrial assets, with a focus on distribution facilities similar to Prologis. However, FR only has properties in the United States. Thus they are not diverse as Prologis, but do not have any exchange rate risk.

FR has a market cap of \$4.54 billion and their primary markets are the Midwest and the Sunbelt. Due to their low market cap and limited locations they cannot bring in high quality tenants. This has not affected them in the past 5 years as the economy and demand for industrial warehouses has been high. However, if the economy slowed down FR would be one of the first industrial REITs affected due to the quality of their tenants.

### Duke Realty Corporation (DRE)

Duke Realty Corporation is an owner, developer, and manager of industrial properties. Just like FR they only have properties in the United States.

DRE has a market cap of \$10.30 billion and their primary markets are also the Midwest and the Sunbelt. Since DRE has more than double the market cap that FR has they are able to bring in higher quality tenants, however still not the quality tenant that PLD can acquire.

	Fixed-charge Coverage ratio	Debt/Capital	Dividend Yield
Duke (DRE)	1.99	36.33%	3.15
First Industrial (FR)	2.67	44.09%	3.01
Prologis (PLD)	2.82	33.22%	3.27

Source: Factset

The chart above shows a coverage ratio, leverage ratio, and a valuation ratio. Prologis had the best ratios in every category. This all stems from that Prologis' balance sheet has low leverage, and high liquidity.



Company	Occupancy Rates	Same Store NOI			
		2016	2017	2018	2019E
Duke (DRE)	98.5%	6.0%	4.0%	4.3%	4.0%
First Industrial (FR)	98.5%	6.1%	4.4%	5.8%	2.3%
Prologis (PLD)	97.5%	5.6%	6.0%	6.3%	4.3%
<b>Industry weighted AVG.</b>	<b>97.4%</b>	<b>5.1%</b>	<b>5.0%</b>	<b>5.0%</b>	<b>4.1%</b>

Source: UBS Global Real Estate Conference 2018

The chart above shows current occupancy rates with historical and estimated same store net operating income (NOI). As shown Prologis has the highest same store growth rate the past two years and the highest estimated in 2019. We attribute this to the dominant market share in the major coastal cities that have had the highest market rent growth rate.

	Price	FFO	FFO	Price/FFO	Price/FFO
		2019E	2020E	2019E	2020E
Duke (DRE)	30.78	1.40	1.47	21.99	20.94
First Industrial (FR)	35.50	1.70	1.79	20.88	19.83
Prologis (PLD)	72.21	3.16	3.38	22.85	21.36

Source: Factset

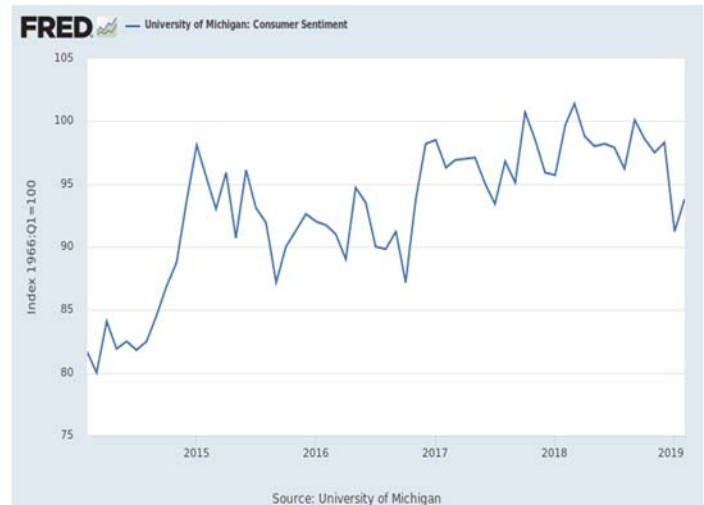
The chart above shows the relative valuations between the three companies. As shown FR is trading at the best value of the three, however the when expanded to include more industrial REITs the average for P/FFO 2019 is 22.24x. Thus Prologis is only trading at a slight premium compared to the market, and for having greater than 50% of the market share in the United States we see that as great value.

The FFO estimates in the chart above are from Factset. When we enter in our 2019 and 2020 Prologis estimated FFO, Prologis trades at the industry average of 22.4x.

In summary Prologis is best positioned to succeed in the future because of amount of major markets they are in as well as having an international presence. Prologis also has industry leading metrics, especially coverage and leverage ratios. We feel that Prologis is not trading at the multiple that it should be.

## ECONOMIC OUTLOOK

“Confidence is the cheapest and strongest form of stimulus.” – Prologis CEO Hamid Moghadam



Above is a chart showing consumer confidence for the last five years. Consumer confidence is important to the industrial REIT sector because it affects demand for the clients of the industrial REITs.

We believe that consumer confidence will increase to near the five year high in 2018. We believe that because unemployment has stayed near record lows and the most recent job report exceeded analyst’s estimates.

This increase in consumer sentiment should maintain the demand for industrial warehouses.

## CATALYSTS FOR GROWTH

The core value drivers for Prologis are e-commerce growth and same store revenue growth. These will go hand-in-hand as e-commerce grows the greater the demand is for industrial warehouses, thus when leases expire Prologis has more leverage and can charge a higher rent and lock the tenant in for a longer time period.

## INVESTMENT POSITIVES

- E-commerce growth has been steady around 15% a year for the past 5 years and that trend is estimated to continue. E-Commerce requires 3x the amount of warehouse space as traditional brick-and-mortar stores.
- Prologis has a dominant market share in major U.S. coastal cities. Those cities also showed the highest rent increase in 2018.

## INVESTMENT NEGATIVES

- The industrial REIT sector is heavily dependent on the state of the economy. If a recession occurs the demand for industrial warehouses will decrease sharply.
- The industrial REIT sector has historically not outperformed the other REIT sectors, however in the past 5 years it has been the leading REIT sector. There is a risk that the industrial REITs growth has already been realized.

## VALUATION

The three models that were created to estimate the value of Prologis are a discounted cash flow (DCF) model, dividend discount model (DDM), and a relative price to funds from operation (P/FFO).

The relative P/FFO returned the lowest value of \$72.24 a share. This was not surprising because Prologis is currently trading near the industrial REIT average. We did not feel that this model showed the true value of the company, because we believe that Prologis is the best positioned company in the market and should be trading near the highest multiple in the industry.

The DDM returned a value of \$79.35 which gave us a return that was in-line with our revenue and profit margin growth. However, we felt that not including Prologis' balance sheet in the model was a mistake because Prologis has a strong balance sheet that has liquidity if the company needed to use any of it.

The DCF model returned a price of \$81.24, we felt strong that this was the model to base our target price range due to the fact that it incorporates the balance sheet and income statement into its price calculation.

The reason we set the target price range from \$78-\$82 is that we are still concerned with the already high valuations from the industrial REIT sector. The lower target price range reflects our concern that the company's growth has already been realized in the current price.

- Revenue growth in the near term is expected to grow around 9% that is due to the increase in rent that management has been preaching, as well as the developments of new facilities. In the long term we are estimating that growth will be 5%. There will still

be strong demand as the percentage of e-commerce to total retail business grows.

- Profit margin forecasts are estimated to increase from 58% in 2018 to 61% in 2020. Our assumptions in this estimation are that from the acquisition of DCT Industrial will consolidate operations while gaining market share in major coastal markets. As well as the increased in rent per building moving forward.
- Our earnings estimates relative to the consensus are a bit higher. Consensus FFO is 3.16 for 2019, our estimate is 3.22. Consensus revenue is \$2,762 million and our model shows \$2,778 million.
- We do not have concerns on PLD's ability to repay their debt due to the liquidity PLD has.

## KEYS TO MONITOR

The biggest keys to monitor are economic data such as unemployment and consumption in the United States. These economic factors will have a large impact on the demand for industrial warehouses. Along with those are the trade deals between the United States China, as well as, the trade deal between the United States and Europe.

If no trade deal is made specifically between the United States and China that could lower economic growth which would decrease the demand for industrial warehouses.

We are more concerned with the state of the economy rather than Prologis' competitors due to Prologis being the dominant company in the industrial REIT sector. As well as demand is greater than supply for industrial warehouses, as it has been for the last 4 years.

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**Prologis, Inc.**

*Revenue Decomposition*

*Millions*

*Fiscal Years Ending Dec. 31*

	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
<b>Real estate operations</b>	12.22%	0.66%	6.86%	14.10%	8.82%	6.89%	5.43%	4.97%
U.S.	\$ 2,040	\$ 2,025	\$ 2,173	\$ 2,476	\$ 2,678	\$ 2,841	\$ 2,970	\$ 3,105
Other Americas	59	85	120	148	179	212	248	272
Europe	76	74	54	55	56	58	60	63
Asia	55	61	51	58	66	72	77	82
<b>Total real estate operations</b>	<b>2,230</b>	<b>2,244</b>	<b>2,398</b>	<b>2,736</b>	<b>2,978</b>	<b>3,183</b>	<b>3,356</b>	<b>3,522</b>
<b>Strategic capital</b>	44.30%	23.17%	8.67%	6.00%	5.00%	5.00%	4.50%	4.00%
U.S.	\$ 39	\$ 177	\$ 75	\$ 79	\$ 84	\$ 89	\$ 94	\$ 100
Other Americas	23	28	32	34	36	39	41	43
Europe	187	107	175	185	197	208	221	234
Asia	55	62	124	132	140	148	157	166
<b>Total strategic capital</b>	<b>304</b>	<b>374</b>	<b>406</b>	<b>431</b>	<b>457</b>	<b>484</b>	<b>513</b>	<b>544</b>
	<b>0.880</b>	<b>0.857</b>	<b>0.855</b>	<b>0.864</b>	<b>0.867</b>	<b>0.868</b>	<b>0.867</b>	<b>0.866</b>
<b>U.S. Segment</b>								
No. of Bldgs.	1,699	1,441	1,780	1,869	1,925	1,983	2,022	2,063
Bldgs. growth rate	-5.56%	-15.19%	23.53%	5.00%	3.00%	3.00%	2.00%	2.00%
Revenue per building (thousands)	1,201	1,405	1,221	1,325	1,391	1,433	1,469	1,505
Revenue per building growth rate	19.90%	17.03%	-13.12%	8.50%	5.00%	3.00%	2.50%	2.50%
<b>Revenue</b>	<b>\$ 2,040</b>	<b>\$ 2,025</b>	<b>\$ 2,173</b>	<b>2,476</b>	<b>2,678</b>	<b>2,841</b>	<b>2,970</b>	<b>3,105</b>
Revenue growth rate	13.23%	-0.74%	7.31%	13.93%	8.15%	6.09%	4.55%	4.55%
<b>Other Americas</b>								
No. of Bldgs.	27	46	52	58	65	72	79	83
Bldgs. growth rate	12.50%	70.37%	13.04%	12.00%	12.00%	10.00%	10.00%	5.00%
Revenue per building (thousands)	2,167	1,843	2,307	2,537	2,740	2,960	3,137	3,278
Revenue per building growth rate	-9.59%	-14.96%	25.15%	10.00%	8.00%	8.00%	6.00%	4.50%
<b>Revenue</b>	<b>\$ 59</b>	<b>\$ 85</b>	<b>\$ 120</b>	<b>148</b>	<b>179</b>	<b>212</b>	<b>248</b>	<b>272</b>
Revenue growth rate	1.71%	44.89%	41.47%	23.20%	20.96%	18.80%	16.60%	9.72%
<b>Europe</b>								
No. of Bldgs.	35	21	18	17	17	17	17	17
Bldgs. growth rate	9.38%	-40.00%	-14.29%	-5.00%	-2.50%	0.50%	1.50%	2.00%
Revenue per building (thousands)	2,160	3,510	3,023	3,204	3,332	3,465	3,552	3,641
Revenue per building growth rate	-0.58%	62.49%	-13.89%	6.00%	4.00%	4.00%	2.50%	2.50%
<b>Revenue</b>	<b>\$ 76</b>	<b>\$ 74</b>	<b>\$ 54</b>	<b>55</b>	<b>56</b>	<b>58</b>	<b>60</b>	<b>63</b>
Revenue growth rate	8.74%	-2.51%	-26.19%	0.70%	1.40%	4.52%	4.04%	4.55%
<b>Asia</b>								
No. of Bldgs.	15	17	8	8	9	9	10	10
Bldgs. growth rate	-11.76%	13.33%	-52.94%	6.00%	6.00%	4.00%	4.00%	2.50%
Revenue per building (thousands)	3,676	3,563	6,314	6,819	7,296	7,661	7,968	8,246
Revenue per building growth rate	8.14%	-3.09%	77.23%	8.00%	7.00%	5.00%	4.00%	3.50%
<b>Revenue</b>	<b>\$ 55</b>	<b>\$ 61</b>	<b>\$ 51</b>	<b>58</b>	<b>66</b>	<b>72</b>	<b>77</b>	<b>82</b>
Revenue growth rate	-4.58%	9.83%	-16.60%	14.48%	13.42%	9.20%	8.16%	6.09%

**Prologis, Inc.**

*Income Statement*

*Millions*

*Fiscal Years Ending Dec. 31*

	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
<b>Revenues</b>								
Rental	2,230	2,244	2,398	2,736	2,978	3,183	3,356	3,522
Strategic capital	304	374	406	431	457	484	513	544
<b>Total revenues</b>	<b>\$ 2,533</b>	<b>\$ 2,618</b>	<b>\$ 2,804</b>	<b>\$ 3,167</b>	<b>\$ 3,434</b>	<b>\$ 3,667</b>	<b>\$ 3,868</b>	<b>\$ 4,066</b>
<b>Expenses</b>								
Rental	598	594	628	718	782	835	881	925
Strategic capital	129	155	157	172	183	194	205	217
General and administrative	222	231	239	277	300	321	338	356
Depreciation and amortization	931	879	947	1,141	1,231	1,377	1,516	1,620
<b>Total expenses</b>	<b>1,879</b>	<b>1,859</b>	<b>1,971</b>	<b>2,308</b>	<b>2,496</b>	<b>2,727</b>	<b>2,941</b>	<b>3,118</b>
<b>Operating income</b>	<b>654</b>	<b>759</b>	<b>833</b>	<b>859</b>	<b>938</b>	<b>940</b>	<b>928</b>	<b>948</b>
<b>Other income (expense)</b>								
Earnings from unconsolidated entities, net	206	249	298	319	341	365	391	418
Interest expense	(303)	(274)	(229)	(340)	(413)	(470)	(524)	(573)
Interest and other income, net	8	14	15	15	15	16	16	17
Gains on dispositions of investments in real estate	757	1,183	841	875	910	946	984	1,023
Foreign currency and derivative gains (losses), net	8	(58)	117	117	117	117	117	117
Gains (losses) on early extinguishment of debt, net	2	(68)	(3)	(3)	(3)	(3)	(3)	(3)
<b>Total other income</b>	<b>679</b>	<b>1,045</b>	<b>1,039</b>	<b>983</b>	<b>968</b>	<b>972</b>	<b>981</b>	<b>1,000</b>
<b>Earnings before income taxes</b>	<b>1,333</b>	<b>1,803</b>	<b>1,873</b>	<b>1,842</b>	<b>1,907</b>	<b>1,912</b>	<b>1,909</b>	<b>1,948</b>
Total income tax expense	55	55	63	64	67	67	67	68
<b>Consolidated net earnings</b>	<b>1,278</b>	<b>1,749</b>	<b>1,809</b>	<b>1,777</b>	<b>1,840</b>	<b>1,845</b>	<b>1,842</b>	<b>1,879</b>
Less net earnings attributable to noncontrolling interests	83	109	174	124	129	129	129	132
<b>Net earnings attributable to controlling interests</b>	<b>1,196</b>	<b>1,640</b>	<b>1,636</b>	<b>1,653</b>	<b>1,711</b>	<b>1,716</b>	<b>1,713</b>	<b>1,748</b>
Less preferred stock dividends	7	6	6	6	6	6	6	6
Loss on preferred stock repurchase	-	4	-	-	-	-	-	-
<b>Net earnings attributable to common stockholders</b>	<b>\$ 1,189</b>	<b>\$ 1,630</b>	<b>\$ 1,630</b>	<b>\$ 1,647</b>	<b>\$ 1,705</b>	<b>\$ 1,710</b>	<b>\$ 1,707</b>	<b>\$ 1,742</b>
Weighted average common shares outstanding – Basic	526	530	567	570	573	576	579	582
<b>Net earnings per share to common stockholders – Basic</b>	<b>\$ 2.29</b>	<b>\$ 3.10</b>	<b>\$ 2.90</b>	<b>\$ 2.89</b>	<b>\$ 2.98</b>	<b>\$ 2.97</b>	<b>\$ 2.95</b>	<b>\$ 2.99</b>
<b>Dividends per common share</b>	<b>\$ 1.68</b>	<b>\$ 1.76</b>	<b>\$ 1.92</b>	<b>\$ 2.12</b>	<b>\$ 2.08</b>	<b>\$ 2.08</b>	<b>\$ 2.06</b>	<b>\$ 2.10</b>



**Prologis, Inc.***Balance Sheet**Millions*

<i>Fiscal Years Ending Dec. 31</i>	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
<b>Assets</b>								
Investments in real estate properties	\$ 27,119	\$ 25,839	\$ 34,587	\$ 39,904	\$ 42,926	\$ 47,667	\$ 52,224	\$ 55,703
Less accumulated depreciation	3,758	4,059	4,657	4,808	5,048	5,301	5,566	5,844
Net investments in real estate properties	23,361	21,779	29,930	35,096	37,878	42,367	46,658	49,859
Investments in and advances to unconsolidated entities	4,230	5,496	5,745	5,599	6,462	6,683	7,037	7,282
Assets held for sale or contribution	322	342	622	423	481	537	587	633
Notes receivable backed by real estate	32	34	-	-	-	-	-	-
Net investments in real estate	27,946	27,652	36,298	41,117	44,822	49,587	54,282	57,773
Cash and cash equivalents	807	447	344	808	2,012	1,610	1,502	2,436
Other assets	1,497	1,382	1,776	1,837	1,992	2,127	1,744	1,658
<b>Total assets</b>	<b>\$ 30,250</b>	<b>\$ 29,481</b>	<b>\$ 38,418</b>	<b>\$ 43,762</b>	<b>\$ 48,825</b>	<b>\$ 53,324</b>	<b>\$ 57,527</b>	<b>\$ 61,868</b>
<b>Liabilities</b>								
Debt	10,608	9,413	11,090	13,446	15,317	17,089	18,663	20,135
Accounts payable and accrued expenses	556	703	761	808	876	935	1,031	1,132
Other liabilities	627	660	766	823	893	953	1,006	1,057
<b>Total liabilities</b>	<b>11,792</b>	<b>10,775</b>	<b>12,617</b>	<b>15,077</b>	<b>17,085</b>	<b>18,977</b>	<b>20,701</b>	<b>22,324</b>
<b>Equity</b>								
Series Q preferred stock	78	69	69	71	72	74	76	78
Common stock & Additional paid-in capital	19,460	19,368	25,692	27,826	30,702	32,731	34,688	37,384
Accumulated other comprehensive loss	(937)	(902)	(1,085)	(827)	(850)	(840)	(785)	(1,085)
Distributions in excess of net earnings	(3,610)	(2,904)	(2,378)	(2,644)	(2,884)	(2,953)	(2,838)	(2,866)
Total Prologis, Inc. stockholders' equity	14,991	15,631	22,298	24,426	27,040	29,013	31,141	33,512
Noncontrolling interests	3,467	3,075	3,503	4,259	4,700	5,333	5,686	6,032
<b>Total stockholders' equity</b>	<b>18,458</b>	<b>18,706</b>	<b>25,801</b>	<b>28,684</b>	<b>31,740</b>	<b>34,347</b>	<b>36,827</b>	<b>39,544</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 30,250</b>	<b>\$ 29,481</b>	<b>\$ 38,418</b>	<b>\$ 43,762</b>	<b>\$ 48,825</b>	<b>\$ 53,324</b>	<b>\$ 57,527</b>	<b>\$ 61,868</b>

**Prologis, Inc.**

*Cash Flow Statement*

Millions

*Fiscal Years Ending Dec. 31*

	2016	2017	2018
<b>Operating activities:</b>	<b>1,417</b>	<b>1,687</b>	<b>1,804</b>
Consolidated net earnings	1,293	1,761	1,823
Adjustments to reconcile net earnings / loss to net cash provided by / used in operating activities	204	(147)	23
Straight-lined rents and amortization of above and below market leases	(94)	(81)	(67)
Equity-based compensation awards	60	77	76
Depreciation and amortization	931	879	947
Earnings from unconsolidated entities, net	(206)	(249)	(298)
Distributions and net changes in operating receivables from unconsolidated entities	301	276	310
Distributions from unconsolidated entities	287	307	350
Net changes in operating receivables from unconsolidated entities	15	(31)	(40)
Amortization of debt premiums, net of deferred financing costs	(15)	1	13
Gains on dispositions of investments in real estate and revaluation of equity investments upon acquisition of a controlling interest, net	(757)	(1,183)	(841)
Net gains / losses on dispositions, net of related impairment charges, in discontinued operations	-	-	-
Gains on acquisitions and dispositions of investments in real estate, net	-	-	-
Unrealized foreign currency and derivative losses / gains and related amortization, net	(8)	69	(120)
Losses / gains on early extinguishment of debt, net	(2)	68	3
Deferred income tax expense / benefit	(6)	(5)	1
Increase / decrease in accounts receivable and other assets	(106)	37	(73)
Increase / decrease in accounts payable and accrued expenses and other liabilities	27	36	30
<b>Investing activities:</b>	<b>1,252</b>	<b>543</b>	<b>(664)</b>
Real estate investments	(2,020)	(2,046)	(2,935)
Real estate development activity	(1,562)	(1,604)	(1,935)
Real estate development activity excluding proceeds from the settlement of net investment hedges	(1,642)	(1,606)	(1,953)
Proceeds from the settlement of net investment hedges	80	8	29
Payments on the settlement of net investment hedges	-	(5)	(12)
Real estate acquisitions	(459)	(443)	(999)
KTR acquisition, net of cash received	-	-	(46)
Tenant improvements and lease commissions on previously leased space	(166)	(153)	(135)
Nondevelopment capital expenditures	(102)	(111)	(93)
Proceeds from dispositions and contributions of real estate properties	2,826	3,237	2,310
Investments in and advances to unconsolidated entities	(266)	(250)	(160)
Acquisition of a controlling interest in unconsolidated co-investment ventures, net of cash received	-	(375)	-
Return of investment from unconsolidated entities	777	209	360
Proceeds from repayment of notes receivable backed by real estate	203	32	34
<b>Financing activities:</b>	<b>(2,125)</b>	<b>(2,607)</b>	<b>(1,232)</b>
Proceeds from issuance of common stock	39	33	7
Distributions paid on common and preferred stock	(893)	(943)	(1,123)
Dividends paid on common stock	-	-	-
Dividends paid on preferred stock	-	-	-
Repurchase and redemption of preferred stock	-	(13)	-
Noncontrolling interests contributions	2	241	170
Noncontrolling interests distributions	(344)	(208)	(225)
Purchase of noncontrolling interests	(3)	(814)	(76)
Tax paid for shares withheld	(9)	(20)	(27)
Debt and equity issuance costs paid	(20)	(7)	(17)
Net proceeds from / payments on credit facilities	33	283	(675)
Repurchase and payments of debt	(2,302)	(3,579)	(4,166)
Repurchase and early extinguishment of debt	-	-	-
Payments on debt excluding repurchase and early extinguishment of debt	-	-	-
Proceeds from issuance of debt	1,370	2,420	4,900
Effect of foreign currency exchange rate changes on cash	(0)	16	(11)
Net increase / decrease in cash and cash equivalents	543	(360)	(103)
Cash and cash equivalents, beginning of period	264	807	447
Cash and cash equivalents, end of period	807	447	344

**Prologis, Inc.***Forecasted Cash Flow Statement*

millions

<i>Fiscal Years Ending Dec. 31</i>	2019E	2020E	2021E	2022E	2023E
<b>Cash Flows from operating activities:</b>					
Net income (loss)	1,647	1,705	1,710	1,707	1,742
Net investments in real estate properties	(5,166)	(2,782)	(4,489)	(4,292)	(3,201)
Investments in and advances to unconsolidated entities	147	(864)	(221)	(353)	(245)
Assets held for sale or contribution	200	(59)	(56)	(49)	(46)
Notes receivable backed by real estate	-	-	-	-	-
Other assets	(61)	(155)	(135)	383	85
Accounts payable and accrued expenses	47	68	59	96	100
Other liabilities	57	69	60	52	51
<b>Net cash provided by Operating activities</b>	<b>(3,129)</b>	<b>(2,017)</b>	<b>(3,071)</b>	<b>(2,456)</b>	<b>(1,513)</b>
<b>Cash flows from financing activities:</b>					
Debt	2,356	1,871	1,772	1,575	1,471
Common Stock	2,133	2,876	2,030	1,957	2,696
Dividends paid	(1,203)	(1,188)	(1,191)	(1,189)	(1,213)
Distributions in excess of net earnings	266	240	69	(114)	27
<b>Net cash provided by Financing activities</b>	<b>3,552</b>	<b>3,799</b>	<b>2,680</b>	<b>2,228</b>	<b>2,982</b>
BoP cash	344	767	2,549	2,158	1,930
Increase in cash	423	1,782	(391)	(228)	1,469
Eop cash	767	2,549	2,158	1,930	3,399

Prologis, Inc.

Common Size Income Statement

<i>Fiscal Years Ending Dec. 31</i>	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
<b>Revenues</b>								
Rental	87.51%	90.09%	88.02%	85.72%	85.51%	86.40%	86.71%	86.80%
Strategic capital	12.49%	9.91%	11.98%	14.28%	14.49%	13.60%	13.29%	13.20%
<b>Total revenues</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>Expenses</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Rental	27.15%	30.84%	23.59%	22.69%	22.38%	22.68%	22.76%	22.79%
Strategic capital	5.48%	4.93%	5.07%	5.93%	5.60%	5.44%	5.32%	5.28%
General and administrative	14.07%	9.89%	8.77%	8.83%	8.52%	8.75%	8.75%	8.75%
Depreciation and amortization	36.49%	40.07%	36.75%	33.58%	33.78%	36.02%	35.85%	37.55%
<b>Total expenses</b>	<b>83.19%</b>	<b>85.73%</b>	<b>74.18%</b>	<b>71.02%</b>	<b>70.28%</b>	<b>72.89%</b>	<b>72.68%</b>	<b>74.37%</b>
<b>Operating income</b>	<b>16.81%</b>	<b>14.27%</b>	<b>25.82%</b>	<b>28.98%</b>	<b>29.72%</b>	<b>27.11%</b>	<b>27.32%</b>	<b>25.63%</b>
<b>Other income (expense)</b>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Earnings from unconsolidated entities, net	7.63%	7.25%	8.14%	9.49%	10.64%	10.08%	9.94%	9.96%
Interest expense	-17.54%	-13.72%	-11.97%	-10.48%	-8.17%	-10.75%	-12.02%	-12.82%
Interest and other income, net	1.46%	1.16%	0.32%	0.52%	0.52%	0.47%	0.45%	0.43%
Gains on dispositions of investments in real estate	41.22%	34.54%	29.90%	45.18%	29.99%	27.62%	26.49%	25.80%
Foreign currency and derivative gains (losses), net	-1.01%	0.57%	0.30%	-2.21%	4.18%	3.70%	3.41%	3.19%
Gains (losses) on early extinguishment of debt, net	-9.39%	-3.93%	0.10%	-2.61%	-0.09%	-0.08%	-0.08%	-0.07%
<b>Total other income</b>	<b>22.37%</b>	<b>25.87%</b>	<b>26.79%</b>	<b>39.89%</b>	<b>37.06%</b>	<b>31.04%</b>	<b>28.20%</b>	<b>26.50%</b>
<b>Earnings before income taxes</b>	<b>39.18%</b>	<b>40.14%</b>	<b>52.61%</b>	<b>68.88%</b>	<b>66.78%</b>	<b>58.15%</b>	<b>55.52%</b>	<b>52.13%</b>
Total income tax expense	-1.46%	1.05%	2.15%	2.09%	2.26%	2.04%	1.94%	1.82%
<b>Consolidated net earnings</b>	<b>40.63%</b>	<b>39.09%</b>	<b>50.46%</b>	<b>66.79%</b>	<b>64.52%</b>	<b>56.12%</b>	<b>53.58%</b>	<b>50.31%</b>
Less net earnings attributable to noncontrolling interests	5.86%	2.55%	3.26%	4.15%	6.19%	3.93%	3.75%	3.52%
<b>Net earnings attributable to controlling interests</b>	<b>34.78%</b>	<b>36.54%</b>	<b>47.20%</b>	<b>62.64%</b>	<b>58.33%</b>	<b>52.19%</b>	<b>49.83%</b>	<b>46.79%</b>
Less preferred stock dividends	0.42%	0.30%	0.27%	0.25%	0.21%	0.19%	0.17%	0.16%
Loss on preferred stock repurchase	0.37%	0.00%	0.00%	0.15%	0.00%	0.00%	0.00%	0.00%
<b>Net earnings attributable to common stockholders</b>	<b>33.99%</b>	<b>36.23%</b>	<b>46.93%</b>	<b>62.25%</b>	<b>58.12%</b>	<b>52.00%</b>	<b>49.66%</b>	<b>46.63%</b>





**Prologis, Inc.**

*Value Driver Estimation*

*Millions*

<i>Fiscal Years Ending Dec. 31</i>	2015	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
Revenue	2,197	2,533	2,618	2,804	3,167	3,434	3,667	3,868	4,066
Rental	678	598	594	628	718	782	835	881	925
Strategic capital	108	129	155	157	172	183	194	205	217
General and administrative	217	222	231	239	277	300	321	338	356
Depreciation and amortization	880	931	879	947	1,141	1,231	1,377	1,516	1,620
EBITA	313	654	759	833	859	938	940	928	948
Marginal tax rate	2.62%	4.09%	3.03%	3.38%	3.50%	3.50%	3.50%	3.50%	3.50%
Adjusted taxes									
Income tax provision	23	55	55	63	64	67	67	67	68
Tax shield on interest income	1	0	0	0	1	1	1	1	1
Tax shield on operating lease interest	14	15	23	2	2	3	3	3	4
Tax shield on interest expense	(8)	(12)	(8)	(8)	(12)	(14)	(16)	(18)	(20)
Less: adjusted taxes	29	57	69	57	54	54	53	51	52
<b>NOPLAT</b>	<b>285</b>	<b>597</b>	<b>690</b>	<b>776</b>	<b>804</b>	<b>884</b>	<b>887</b>	<b>876</b>	<b>896</b>
Operating current assets									
Normal cash	22	25	26	28	32	34	37	39	41
Other assets	1,515	1,497	1,382	1,776	1,837	1,992	2,127	1,744	1,658
Operating current liabilities									
Accounts payable	713	556	703	761	808	876	935	1,031	1,132
Other liabilities	634	627	660	766	823	893	953	1,006	1,057
Net operating working capital	189	339	45	277	238	258	275	(255)	(490)
Net PPE	24,247	23,361	21,779	29,930	35,096	37,878	42,367	46,658	49,859
Other long term assets	4,756	4,230	5,496	5,745	5,599	6,462	6,683	7,037	7,282
Other long term liabilities	11,627	10,608	9,413	11,090	13,446	15,317	17,089	18,663	20,135
<b>Invested Capital</b>	<b>17,565</b>	<b>17,322</b>	<b>17,909</b>	<b>24,863</b>	<b>27,486</b>	<b>29,281</b>	<b>32,236</b>	<b>34,777</b>	<b>36,516</b>
FCF		841	103	(6,178)	1,819	911	2,068	1,665	843
ROIC		3.40%	3.98%	4.34%	3.24%	3.22%	3.03%	2.72%	2.58%
EP		(279)	(174)	(117)	436	487	573	732	838

**Prologis, Inc.***Weighted Average Cost of Capital (WACC)*

Risk free	2.47%
Equity risk premium	4.95%
Beta	0.74
<b>Cost of equity (Re)</b>	<b>5.49%</b>
Cost of debt	3.18%
Marginal tax rate	3.50%
<b>Adjusted cost of debt</b>	<b>3.07%</b>
# of shares outstanding (millions)	567
Current share price	\$72.21
Equity MV	\$40,969,571,070
Debt MV	\$10,816,800,000
EV total	\$51,786,371,070
Equity %	79%
Debt %	21%
<b>WACC</b>	<b>4.99%</b>

**Prologis, Inc.***Discounted Cash Flow (DCF) and Economic Profit (EP) Valuation Models*

## Key Inputs:

CV Growth	4.25%
CV ROIC	2.58%
Cost of Equity	5.49%
WACC	4.99%

<i>Fiscal Years Ending Dec. 31</i>	2019E	2020E	2021E	2022E	2023E
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**DCF Model**

Period	1	2	3	4	5
FCFE	1,819	911	2,068	1,665	1,563
CV				67,866	
Present value of FCFE	1,724	819	1,762	1,344	
Present value of CV				54,796	
Present value of equity	60,444				
Less:					
ESOP	16				
Debt	11,090				
Non-controlling interests	3,503				
Preferred stock	69				
Adjusted present value of equity	45,766				
Shares outstanding	567				
<b>Intrinsic value per share</b>	<b>\$ 80.66</b>				
<b>Partial year adjustment</b>	<b>\$ 81.34</b>				

**EP Model**

Economic profit (EP)	436	487	573	732	838
Net Income					1,742
CV				40,517	
Present value of EP	413	437	488	591	
Present value of CV				32,714	
Total present value of EP	34,643				
Beginning TSE	25,801				
Less:	-				
ESOP	16				
Debt	11,090				
Non-controlling interests	3,503				
Preferred stock	69				
Present value of equity	45,766				
Shares outstanding	567				
<b>Intrinsic value per share</b>	<b>\$ 80.66</b>				
<b>Partial year adjustment</b>	<b>\$ 81.34</b>				

**Prologis, Inc.***Dividend Discount Model (DDM) or Fundamental P/E Valuation Model*

<i>Fiscal Years Ending Dec. 31</i>	2019E	2020E	2021E	2022E	2023E
Period	1	2	3	4	5
EPS	\$ 2.89	\$ 2.98	\$ 2.97	\$ 2.95	\$ 2.99

**Key Assumptions**

CV EPS growth	2.25%
CV ROE	2.58%
Cost of Equity	5.49%

**Future Cash Flows**

Dividends Per Share	\$ 2.12	\$ 2.08	\$ 2.08	\$ 2.06
			\$ 64.62	
Discounted Cash Flows	\$ 2.01	\$ 1.87	\$ 1.77	\$ 1.67
			\$ 52.18	
<b>Intrinsic Value</b>	<b>\$ 59.49</b>			
<b>Partial Year Adjustment</b>	<b>\$ 59.83</b>			

**Prologis, Inc.***Relative Valuation Models*

Ticker	Company	Price	EPS		P/E 19	P/E 20	FFO		P/FFO 19	P/FFO 20
			2019E	2020E			2019E	2020E		
FR	First Industrial Realty Trust, Inc.	\$35.50	\$0.73	\$0.89	48.6	39.9	1.70	1.79	20.88	19.83
EGP	EastGroup Properties, Inc.	\$111.78	\$2.16	\$2.60	51.8	43.0	4.85	5.11	23.05	21.87
PSB	PS Business Parks, Inc.	\$157.50	\$2.66	\$2.86	59.2	55.1	6.61	6.81	23.83	23.13
DRE	Duke Realty Corporation	\$30.78	\$0.45	\$0.51	68.4	60.4	1.40	1.47	21.99	20.94
Average					<b>57.0</b>	<b>49.6</b>			<b>22.44</b>	<b>21.4</b>

PLD	Prologis, Inc.	\$72.21	\$	2.89	\$	2.98	25.0	24.3	3.22	3.59	22.4	20.1
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**Implied Value:**

<b>Relative P/E (EPS19)</b>	<b>\$</b>	<b>164.62</b>
<b>Relative P/E (EPS20)</b>	<b>\$</b>	<b>147.53</b>
<b>P/FFO 19</b>	<b>\$</b>	<b>72.24</b>
<b>P/FFO 20</b>	<b>\$</b>	<b>76.98</b>



**Prologis, Inc.***Key Management Ratios*

<i>Fiscal Years Ending Dec. 31</i>	2016	2017	2018	2019E	2020E	2021E	2022E	2023E
<b>Financial Leverage Ratios</b>								
Leverage ratio (asset / equity)	1.64	1.58	1.49	1.53	1.54	1.55	1.56	1.56
Debt to capital (debt / assets)	0.35	0.32	0.29	0.31	0.31	0.32	0.32	0.33
Debt to equity (debt / equity)	0.64	0.58	0.49	0.53	0.54	0.55	0.56	0.56
Equity to Total Assets	0.61	0.63	0.67	0.66	0.65	0.64	0.64	0.64
<b>Profitability Ratios</b>								
Net margin (NI / TR)	46.93%	62.25%	58.12%	52.00%	49.66%	46.63%	44.13%	42.84%
Return on equity (NI / avg. total equity)	6.45%	8.83%	8.71%	6.38%	5.95%	5.39%	4.97%	4.73%
Return on assets (NI/ avg. total assets)	3.93%	5.53%	4.24%	3.76%	3.49%	3.21%	2.97%	2.82%
Operating margin (operating income/ total rev)	25.82%	28.98%	29.72%	27.11%	27.32%	25.63%	23.98%	23.31%
<b>Payout Policy Ratios</b>								
Dividend cover (NI/ dividends paid)	\$ 1.35	\$ 1.75	\$ 1.50	\$ 1.36	\$ 1.43	\$ 1.43	\$ 1.43	\$ 1.43
Dividend yield (dividends paid/ share price)	2.33%	2.44%	2.66%	2.94%	2.88%	2.88%	2.86%	2.90%