ALY 6130: Risk Management for Analytics

Risk Management Analysis: Prologis – Duke Realty's Acquisition

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Background and Company Introduction

A real estate investment trust with its main office in San Francisco, California, Prologis, Inc. invests in storage facilities. In June 2011, Prologis, the largest industrial real estate company in the world, and AMB Property Corporation merged to form the new company. The industry leader in logistics real estate with a concentration on high-barrier, high-growth markets has held or had investments in properties and development projects planned to total about 1.0 billion square feet (93 million square meters) in 19 countries as of March 31, 2022, either on a completely owned basis or through co-investment ventures. Prologis rents out cutting-edge logistics facilities to a wide base of about 5,800 clients, primarily in the business-to-business and retail/online fulfillment sectors.

Duke Realty Corporation owns and operates industrial real estate totaling over 164.9 million rentable square feet in 19 important logistical locations. Duke Realty Corporation, which is traded on the NYSE under the ticker code DRE, is a component of the S&P 500 Index.

According to a legally binding merger agreement between the two businesses, Prologis will buy Duke Realty for almost $26 billion in all-stock compensation, including the assumption of debt. The deal has been approved by both the boards of directors for Prologis and Duke Realty.

The purchase is owned and managed and consists of:

- operating assets totaling 153 million square feet in 19 important U.S. logistics regions.
- 11 million square feet of construction are under way, with a projected investment of $1.6 billion overall.

- Owned and under option on 1,228 acres of property with a potential buildout of about 21 million square feet.

Prologis is adding high-quality properties to its portfolio through this acquisition in important locations like Southern California, New Jersey, South Florida, Chicago, Dallas, and Atlanta.

Business Description of Prologis:

Prologis held ownership or investment positions in both completely owned and joint ventures. Real Estate Operations and Strategic Capital are the company's two operating segments. 90% of the revenues, which are primarily generated in the United States, are contributed by Real Estate Operations, while 10% of the revenues, which are primarily produced outside of the United States, are contributed by Strategic Capital.

Financial thesis of Prologis:

Prologis will offer long-term sustainable growth through three different strategies: the "built-tosuit" model, international development, and competitor acquisition. Currently, 448 properties owned by Prologis were constructed utilizing this technique, which helps to control rent costs and keep tenants in their buildings. Prologis now owns properties or is a partner in joint ventures in 19 different nations.

SWOT Analysis

Name: Prologis – Duke Realty’s Acquisition

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Strengths

- **Increase in premium Industrial Property.**
- **Savings in corporate general and administrative costs, and operating leverage.**
- **Increase in Revenue.**
- **Boost in core funds for operations.**
- **$300 million increased Development Value creation and new talents join Prologis.**

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Weaknesses

- **Lack of Internal expertise and Key Personnel.**
- **Uncertainty of Dividends,**
- **Shareholder Litigation could lead to delay and higher expenses. Decrease in the market value**
- **Increased Development costs Higher Developmental Costs from more stringent environmental.**

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Opportunities

- **Potential to build a strong portfolio of investments and diversify Prologis Balance sheet.**
- **Potential to generate long-term growth using innovation.**
- **Potential to provide more services and increase credibility. Potential to enhance external growth through Essentials Platform.**
- **Potential to enhance their logistic solutions and services.**

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Threats

- **Increased competition from rival.**
- **Increased Debt Loads.**
- **Changes in Interest Rates in global financial markets.**
- **Chances of holding new joint ventures.**
- **Dangers associated with the Coronavirus Pandemic. Increase in technical and information security vulnerabilities due to contractual obligations**

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Explanation of SWOT Analysis

STRENGTHS:

- **Increase in premium Industrial Property -** With this acquisition Prologis has access to the premium industrial property inventory offered by Duke Realty.
- **Savings in corporate general and administrative costs, and operating leverage** - Mark-to-Market adjustments on leases, and debt repayment are all expected to result in an immediate accretion of between $310 and 370 million from the purchase.
- **Increase in Revenue** - Future synergies could result in annual earnings and value creation of $375-400 million, including $70-90 million from increased property cash flow and Essentials income.
- **Boost in core funds for operations** – The deal will likely result in a $0.20 – $0.25 yearly boost in core funds from operations, excluding promotions, in year one.
- **$300 million increased Development Value creation** -$5-10 million from cost of capital savings, and $300 million from increased development value creation.

Additionally, new talents join to the Prologis Inc.

WEAKNESSES:

- **Lack of Internal expertise and Key Personnel -** the impact of the proposed transaction's announcement on Prologis and Duke Realty's capacity to run their respective businesses, retain and hire key personnel, and uphold fruitful commercial ties.
- **Uncertainty of Dividends, Shareholder Litigation could lead to delay and higher expenses -** Integration may be more difficult, time-consuming, or expensive than anticipated, there are risks related to future opportunities and plans for the combined company, including the uncertainty of ex-dividend dates. Additionally, shareholder litigation in connection with the proposed transaction, including resulting expense or delay risk.
- **Decrease in the Market Value -** Risks associated with the market value of the Prologis common stock that would be issued as part of the proposed transaction and other risks associated with the completion of the proposed transaction and actions associated therewith.
- **Increased Development Costs -** Risks related to property acquisitions, dispositions, and development, including increased development costs as a result of additional regulatory requirements related to the properties owned by Prologis or Duke Realty.
- **Higher Developmental Costs from more stringent environmental regulations -** Hazards relating to property purchases, sales, and development, such as higher development costs brought on by more stringent environmental regulations.

OPPORTUNITIES:

- **Potential to build a strong portfolio of investments and diversify Prologis Balance sheet -** With this deal, Prologis's balance sheet gets stronger, bigger, and more diverse**.**
- **Potential to generate long-term growth using innovation –** Diversified investments in Industrial Properties in different regions gives more chances to use innovation to generate long-term growth.
- **Potential to provide more services and increase credibility of Prologis -** More services to both of their clients and promote ongoing long-term revenue development.
- **Potential to enhance external growth** - The Essentials platform provides capabilities for customers inside and outside the Prologis business in the areas of operations, energy, workforce, transportation, and digital. Superior growth will continue to be fueled by the Essentials platform.
- **Potential to enhance their logistic solutions and services** – With the added clients from Duke Realty along with their human resources, Prologis can provide more services for industrial properties and better logistic solutions and get more deals from its biggest clients like Amazon, Home Depot, Fed Ex.

THREATS:

- **Increased competition from rival** - Increased or unexpected competition from rival companies for Prologis' or Duke Realty's properties.
- **Increased Debt Loads -** the capital and financing options, increase in the debt loads that Prologis and Duke Realty keep, and their credit standings. Additionally**,** preservation of the Real Estate Investment Trust designation, tax planning, and modifications to the income tax rules and rates could lead to more complications.
- **Changes in Interest Rates in global financial markets**– Changes in local, regional, national, and international economic and political environments could lead to changes in interest rates, foreign currency exchange rates, and global financial markets.
- **Chances of holding new joint ventures -** Dangers associated with Prologis' and Duke Realty's involvement in joint ventures, including their capacity to form new joint ventures.
- **Dangers associated with the Coronavirus Pandemic -** COVID-19's dangers to economic growth would also have an impact on real estate, while the extent of these effects is still unknown and the growing concern of recession.
- **Increase in technical and information security vulnerabilities due to contractual obligations**: The risk of growing information and technical security vulnerabilities exists. Contractual obligations could be made, and confidential trade information could be disclosed.

Key Risks Identified:

Positive Risks	Negative Risks
1. Increase in fierce competition in the commercial real estate investment management, logistic solutions, and services to its top competitors.	1. Increase in technical and information security vulnerabilities due to contractual obligations along with trade and tariff disagreements.
2. Time consuming process of adaptation and understanding more about Duke Realty's business operations, financials, and then building products for innovative logistics solutions.	2. Differences in organization culture leading to roadblocks in operation and an excess capacity might result from a faster-thanexpected increase in the supply of distribution infrastructure.

EXPLANATION OF KEY RISKS IDENTIFIED

POSITIVE RISKS:

1. Increase in fierce competition in the commercial real estate investment management, logistic solutions, and services to its top competitors: Prologis majorly competes for its biggest clients with Monmouth for distribution and for logistic solutions with other competitors like The Macerich Company, SL Green Realty and Simon Property Group Amazon Distribution, FedEx, Home Depot compete. If this acquisition is successful, Prologis along with access to

Duke Realty's Premium industrial property will have a very strong and diverse portfolio which will help it to take over competition from other businesses. This is a positive competitive risk because increase in competition will force the companies to innovate and produce better products to stay on top of the game.

2. Time consuming process of adaptation and understanding more about Duke Realty's business operations, financials, and the building products for innovative logistics solutions: Integration may be more difficult, time-consuming, or expensive than anticipated, there are risks related to future opportunities and plans for the combined company, including the uncertainty of ex-dividend dates. Additionally, shareholder litigation in connection with the proposed transaction, including resulting expense or delay risk. Although it's a time-consuming process to adapt and understand Duke Realty's operation and then train the new talents for Prologis work culture but it is a Positive risk, ultimately future synergy could result in annual earnings and value creation of $375-400 million, including $70-90 million from increased property cash flow and Essentials income. Additionally, the deal will likely result in a $0.20 – $0.25 yearly boost in core funds from operations, excluding promotions, in year one. Further, $5–10 million in cost of capital savings, and $300 million in increased development value creation.

NEGATIVE RISKS:

1. Increase in technical and information security vulnerabilities due to contractual obligations along with trade and tariff disagreements: This poses a negative competitive risk due to the possibility of growing technological and information security vulnerabilities. Contractual responsibilities might be put in place, trade secrets could be disclosed, and rival companies could exploit these weaknesses to enhance their own goods.

2.Differences in organization culture leading to roadblocks in operation and an excess capacity might result from a faster-than-expected increase in the supply of distribution infrastructure: This is a negative competitive risk because if there is a lack of motivation among new employees joining after the acquisition, the overall purpose of integrating new technology will not be realized productively, which could result in losing the market to rivals that have talented and motivated staff. Additionally, there could be excess capacity of because of faster-than- expected increase in the supply of distribution facilities.

QUALITATIVE RISK ASSESSMENT

Risk Calculation Sheet:

Probability of Occurrence		Financial: Possibility of a significant monetary loss or gain	Operational	Competitive Risks: Some competitors in the industry might hurt the company's business. Pick hospitals that are closed to competitors' health center, count the total admissions change rates in these hospitals.	Reputational: May impact the company brand or standing associated with a positive or negative incident/issue	Technical	Legal/Compliance
Very Unlikely	1	5	7	9	5	7	3
Somewhat unlikely	3						
50-50 possibility	5						
Somewhat likely	7						
Very likely	9						

Impact of Risk : defined as the impact to the firm before the controls. (Inherent risk)		Financial: Possibility of a significant monetary loss or gain	Operational	Competitive Risks: Some competitors in the industry might hurt the company's business. Pick hospitals that are closed to competitors' health center, count the total admissions change rates in these hospitals.	Reputational: May impact the company brand or standing associated with a positive or negative incident/issue	Technical	Legal/Compliance
Very Low	1	8	6	9	6	4	2
Somewhat Low	2						
Moderate	4						
Somewhat High	6						
High	8						
Extremely High	9						

Risk Log:

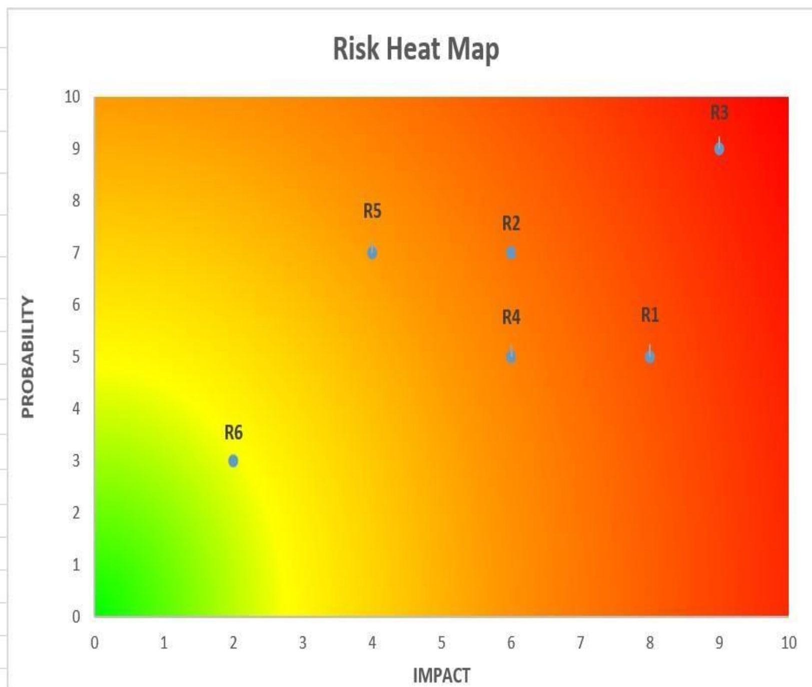
Risk #	Date	The Risk of/That	Caused by	Resulting In	Consequence/Impact	Likelihood Score	Impact Score	Risk Score	Priority (H, M, L)	Mitigation	Risk Owner	Open/Closed
R1	6/1/2022	Financial Loss	Acqusistion of Duke Realty and further inability to derive profits	Huge financial losses	Leading to closure of the deal	5	8	40	H	Proper utiliztion of new technology to	CFO	Open
R2	6/5/2022	Operations	Integration of Duke Realty's logistic solutions with Prologis's existing technology	Delay in product integration	Financial loss and loss of customers	7	6	42	M	Timely integration	COO	Open
R3	6/7/2022	Competition	High competition in the market with existing real-estate leaders	improved products and fierce battle for market share	Loss of market share	9	9	81	H	Better product releases or loss of market share	CTO	Open
R4	6/10/2022	Reputation	Due to acquisition of Duke Realty	If integration fails	Loss of customers	5	6	30	H	Better and timely integration	COO	Open
R5	6/12/2022	Technical	Failure in integration of new logistic solutions and technology	Loss of trust and reputation	Loss of potential and existing customer base	7	4	28	M	Better and timely integration	CTO	Open
R6	6/13/2022	Legal	Error in paper works	Delayed acquisition	Delay in building new acquired company	3	2	6	L	Diligent Paper work	Lawyers	closed

Note: As the purchase agreement has just recently been signed, the risk calculation sheet has been completed based on assumptions and have been updated. We must wait a few more months to observe how the organizations function following the completion of the acquisition. Apart from 4 type of risks i.e., Financial, Operational, Competitive, Reputational. Technical and Legal/Compliance risk have also been identified based on research about the company's real estate business and logistic solutions platform provided to the customer.

RISK HEAT MAP

Risk ID	Description	Likelihood/Probability	Impact
R1	Financial Loss	5	8
R2	Operations	7	6
R3	Competition	9	9
R4	Reputation	5	6
R5	Technical	7	4
R6	Legal	3	2

Priority	Color	Action
Low		Make Do
Medium		Monitor/Manage
High		Mitigate



QUANTITATIVE RISK ASSESSMENT

For the quantitative risk analysis of the three competitive risks identified I will be using the Competitive Positioning Analysis technique. Competitive positioning analysis is quantitative risk analysis technique that assesses market share, client perception of products and service, current marketing strategies, prices, and costs. It also provides knowledge on a company's competitors' relative market positioning, as well as their strengths and weaknesses. For this quantitative analysis I will be mainly looking at Prologis's competitors in the Real Estate Investment Trust domain and try to draw parallels between the data available and the risks identified.

The following data, compiled by CSImarket for Q1 2022, shows market share percentages of Prologis and its rivals:

COMPANY NAME	TICKER	REVENUES 12 Months Ending Q1 2022	MARKET SHARE 12 Months Q1 2022	REVENUES MRQ Q1 2022	MARKET SHARE MRQ Q1 2022
Prologis Inc	PLD	4,830.25	24.82%	1,219.13	24.16 %
Pinnacle West Capital Corporation	PNW	3,952.31	20.31%	1,061.67	21.04%
Simon Property Group inc.	SPG	5,198.46	26.71%	1,279.84	25.36%
Vornado Realty Trust	VNO	1,654.54	8.50%	453.49	8.99%
Public Storage	PSA	3,824.74	19.65%	1,032.05	20.45%
	SUBTOTAL	19,460.30	100%	5,046.18	100%

KEY RISK INDICATORS – RISK REGISTER:

The Risk of/That	Caused by	Resulting In	Consequence/Impact	Likelihood Score	Impact Score	Risk Score	Priority (H, M, L)	Mitigation	Risk Owner	Open/Closed
Increased competition in the Real Estate Investment Management,	Prologis acquisition of Duke Realty for it's premium industrial properties and logistics solutions.	Fierce competition with other companies operating in the similar space	This may lead to development of better products and technology or being wiped out of market	85%	90%	90%	H	Keep innovating and building technically sound products for avoiding losing	Product Manager	Open
Time consuming process of integration	Difficulty in integrating Prologis Logistics solutions with Duke Realty's existing technology	Increase in cost and extension of project timelines	delayed delivery of projects	65%	87%	85%	M	Early detection of bugs and refining existing products to match up with the new technology	Senior Software Engineer	Closed
Increase in technical and information security vulnerabilities	Legal and contractual obligations	Leakage of secret information - trade, tarriff rates etc.	Losing trade secrets	40%	90%	95%	H	Hire the best legal team to sail through the acquisition smoothly.	CTO and Head of Legal Team	Open

Note: As the purchase agreement has just recently been signed, the risk calculation sheet has been completed based on assumptions and have been updated. We must wait a few more months to observe how the organizations function following the completion of the acquisition.

RISK RESPONSE STRATEGY:

Increase is fierce competition is one of the three risks identified. This can turn out to be a positive risk as acquisition of Duke Realty would mean Prologis's competitors will try to improve products which further will motivate Prologis to build their own dominant products in providing logistic solutions. Prologis competes with Pinnacle West Capital Corporation, Vornado Realty Trust, SL Green Realty, Simon Property Group, Public Storage for its biggest clients Amazon Distribution, FedEx, and Home Depot in the areas of distribution and logistical solutions. Monmouth is another rival. Prologis will have a very strong and broad portfolio if this acquisition is successful, giving it access to Duke Realty's Premium Industrial Property and enabling it to compete against other companies. This is an advantageous competitive risk since increased competition will compel businesses to innovate and create superior products to stay ahead of the competition. Therefore, in coming days Prologis is set to get ahead of the competition in the Real Estate Investment Trust Market and providing innovative logistics solutions to its clients.

Additionally, there are risks associated with future possibilities and plans for the merged firm, including the ambiguity of ex-dividend dates, and integration may be more challenging, time-consuming, or expensive than planned. In addition, shareholder litigation involving the proposed acquisition, including the cost or delay risk that could follow. Future synergy could lead to annual earnings and value creation of $375-400 million, including $70-90 million from improved property cash flow and essential income, even though it takes time to adapt to and comprehend Duke Realty's operation and train the new hires for the Prologis work culture.

Risk Monitoring and Controlling

Implementing backup plans, tracking, and monitoring known threats, identifying, and responding to emerging risks, and enhancing risk management procedures are all examples of risk monitoring and controls. Additionally, this process considers the following:

- Strategies for mitigating risk that are put into action in response to risk incidents are assessed.
- Risk initiators can be kept an eye on as the process progresses.
- Analyzing existing threats to see whether they have changed or if they should be eliminated.
- Risks that remain are being watched. The reliability of the project's presumptions is being reviewed.
- Ensure that procedures and standards are followed.
- Ensuring that the risk response and emergency plans are properly implemented, and effectively.

Including a backup plan. The project manager is informed by the risk response owner of any changes to the plan's efficacy. unintended repercussions and any mid-course adjustments necessary to regularly address the risk in a proper manner. Risk monitoring and management for future initiatives sometimes requires updating operational process materials, like databases of project lessons learned and risk assessment models.

CONCLUSION

I have completed SWOT analysis for the organization and the product, considering the risks and key risk indicators for each of the Organizations. Then evaluated some of the Key risks in more detail using the qualitative and quantitative analyses. The solution approach Prologis should take after that is predicted using my findings, and I also explained where each of these risks might occur. I've now covered how to keep an eye on and manage these risks. After giving it some thought, I would advise Prologis to purchase Duke Realty. Risk variables of the kind that can have an impact on the acquisition can be closely monitored and tightly controlled. Prologis will benefit from Duke Realty, given that both companies have a strong track record of maintaining its statistics and high levels of client satisfaction.

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