Growth in R&D/Flex Facilities

WHAT ARE R&D/FLEX FACILITIES?

R&D/Flex properties are industrial properties that are typically designed to serve multiple purposes and are often considered a bridge between industrial and office real estate. We believe that the minimum office build-out in R&D/flex facilities is typically 25% of the facility's total space with the remainder of the space often consisting of a combination of light manufacturing, specialized lab, and/or warehouse/ distribution space. With that said, the interior design and build-out of flex facilities often varies as they are typically constructed to specifically suit a tenant's unique needs.

In terms of the tenant base, many pharmaceutical, industrial and technology companies utilize R&D/flex facilities to develop, test and improve new and existing products and services. Corporations in these sectors prefer R&D/flex facilities as they offer the ability to house multiple space types (i.e. office, lab and manufacturing space) within one facility, which can offer these corporations efficiency and cost savings relative to these corporations occupying multiple, separate facilities. Additionally, due to their unique design and use, tenants often invest a significant amount of their own capital into the specialized equipment utilized in flex facilities. Because of the combination of efficiency, cost savings, and significant tenant investment in R&D/flex facilities, tenants often regard these facilities as highly mission critical to the tenant's business.

R&D/flex facilities currently represent the third largest primary category of industrial real estate with approximately 12.5% of total U.S. industrial square footage as of Q1 2020.[A] Over the past ten years, the industrial flex asset class has experienced significant growth due to increased tenant demand from a variety of industries. This growth is evidenced by the total square footage of R&D/flex space increasing from 44 million SF in Q1 2010 to 171 million SF in Q1 2020. Additionally, over the same period, flex transaction volume increased from $3.4 billion to $24.6 billion.[B]

A) Real Capital Analytics.

B) Real Capital Analytics

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DEMAND DRIVERS

Over a mid-term horizon, we believe growth in tenant demand for R&D/flex space is expected to accelerate due to two primary factors.

RESHORING OF US SUPPLY CHAINS

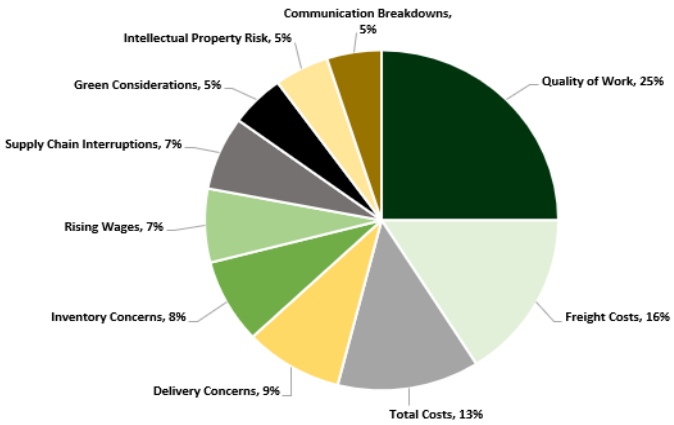
Companies are expected to onshore more manufacturing operations following the recent COVID-19 pandemic because supply chain disruption associated with the pandemic has elevated the issue of supply chain risk mitigation. As a result, we believe corporations will likely choose to relocate more manufacturing operations to domestic locations to maintain greater control over their supply chains moving forward.

While the decision to offshore manufacturing operations has historically been made with a focus on labor costs, tax benefits, and foreign-government incentives, we believe preservation of companies' supply chains will outweigh these considerations moving forward.

Following the COIVD-19 outbreak and related supply chain failures, a growing number of companies have rethought their global manufacturing strategies. To illustrate, a recent survey released in April 2020 with 878 North American manufacturing and industrial sector professionals, 64% of companies reported that "[they] are likely to bring manufacturing production and sourcing back to North America" and 28% of respondents reported that they were "extremely likely" to bring more production back to North America following the pandemic.[(A)]

This report builds on the reshoring trend that was evident prior to the COIVD-19 outbreak. According to a 2018 study with 1,389 companies that have shifted production or sourcing from offshore to the U.S., quality of work was cited as the number one reason for onshoring.[(B)]

Influencing Factors of Onshoring



Source: Reshoring Initiative. *2018 Data Report*

We believe this trend highlights the impact of the technological revolution on the sector. As manufacturing operations have become increasingly more sophisticated due to technological innovation, new facilities must be able to house more complex engineering and R&D operations. These facilities must be located in areas that offer the top engineering talent needed to operate complex facilities. As a result, we believe domestic R&D/flex facilities that offer a combination of office/R&D/lab space required to house engineers and the manufacturing/warehouse space to produce and distribute products will benefit significantly from the onshoring of supply chain operations. We believe the U.S. is well positioned for this trend given the strong pool of domestic engineering talent.

A) Supply Chain Dive. "64% of manufactures say reshoring is likely following pandemic: survey". May 2020.

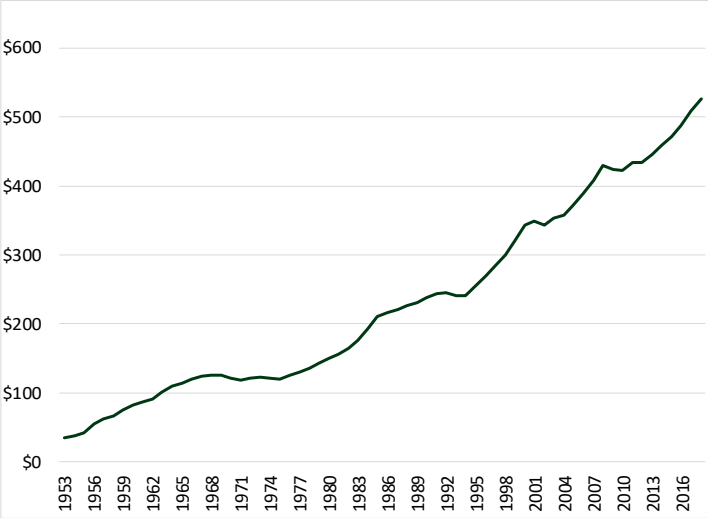
B) Reshoring Initiative. "Reshoring Initiative 2018 Data Report: A Record 1389 Companies Announce The Return of 145,000 Jobs". May

DEMAND DRIVERS CONT.

GROWTH IN R&D SPENDING

The second primary factor driving growth in R&D/flex space is the secular trend of corporations increasing their investment in R&D initiatives. Since 1953, R&D expenditure in the US has grown at an average annual rate of 4.3%, and the total investment surpassed $500 billion in 2018.

Total US R&D Spending (USD Billions)



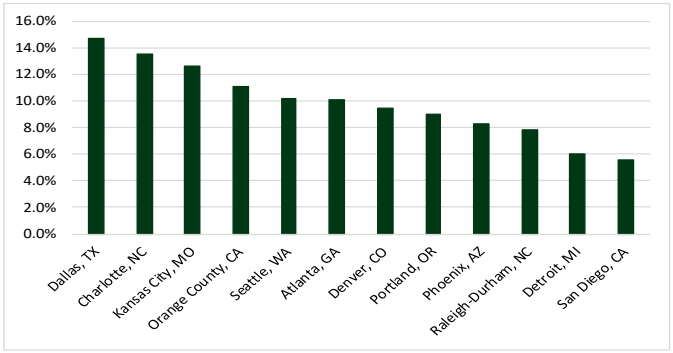
Source: National Science Foundation. *U.S. gross domestic product, R&D, and ratio of R&D to gross domestic product (and*

Furthermore, R&D spending is projected to continue to grow as companies in the life sciences sector lead the way with unprecedented levels of investment. Last year, venture capital funding in the life sciences sector grew 40% year-over-year, reaching approximately $17.7 billion.[A] This increased investment coincides with companies bolstering their research and product pipelines. This expansion requires significant investment in the R&D/flex facilities needed to facilitate the R&D process. We believe other sectors will mirror the life sciences sector and will invest significant capital in R&D initiatives and R&D/flex facilities.

LOCATION DRIVERS

R&D/flex facilities have historically been concentrated in core markets such as New York, Washington DC, San Francisco, Boston, and San Diego. These markets have served as primary locations for R&D/flex facilities due to their access to a skilled labor pool. However, in recent years, secondary markets have seen an influx of demand for R&D/flex space as educated millennials continue to choose to live outside of core markets to benefit from a lower a cost of living as highlighted within the chart below.

Labor Pool Growth Ages 20-30 (2013-2017)



Source: CBRE. *2019 Scoring Tech Talent*

The geographic shift in talented labor for R&D/flex users offers companies the ability to invest in new build-to-suit R&D/flex facilities located in areas that feature a lower cost, yet still talented labor pool relative to traditional, core markets.

Real estate fundamentals also contribute in influencing R&D/flex tenants to choosing to locate outside of core markets. Generally, core markets feature vacancy for lab space ranging from 4% to 6% with rents often ranging from $30 to $60 per square foot while secondary markets like Raleigh offer significantly lower rent (~$20 per square foot), with a strong, growing labor pool of young college graduates.[B] As a result, we believe flex properties in secondary markets often offer an attractive combination of both labor cost and occupancy cost savings.

A) JLL. "2019 Life Sciences Outlook" 2019.

B) JLL. "2019 Life Sciences Outlook" 2019.

RECENT DEVELOPMENTS

Below are a select group of flex property developments that we believe illustrate the trends previously described.[1]

VIRACOR EUROFINS (KANSAS CITY, KS)

In May 2020, Viracor Eurofins, a biopharmaceutical and laboratory testing company, announced the development of a new 110,000 square foot headquarters lab facility in Lenexa, Kansas. The new facility will replace the company's current 70,000 square foot headquarters in Lee's Summit, Missouri. The facility will feature office, lab, and warehouse space, located on a 14.9-acre site. Viracor is expanding its flex industrial footprint to address the company's increased need for laboratory space as a result of the company's COVID-19 testing products. Viracor expects to occupy the facility in Q4 2021.(A) Lenexa is a growing submarket for flex space due to its talented labor pool and relatively low occupancy cost (flex space in Kansas City averages a cost of $8.80 per square foot).(B)

PFIZER (ST. LOUIS, MO)

In May 2019, Pfizer announced the opening of their 295,000 square foot, $236 million flex/R&D facility in St. Louis, MO.(C) The facility was built to house 600 Pfizer associates in the company's Biotherapeutics Pharmaceutical Sciences group. The facility features manufacturing, office, and lab space with a goal to facilitate the development of new medicines and vaccines. St. Louis, a secondary flex market, is ranked sixth among growing life sciences markets due to its low cost of living and proximity to Washington University, which received $484 million in NIH funding in 2018.(D)

MICROSOFT (WASHINGTON D.C.)

In May, Microsoft announced that they will invest approximately $64 million to develop a new 400,000 square foot R&D facility in Reston, Virginia. The Washington DC MSA is a top 10 market for flex space, with flex comprising approximately 30% of total industrial inventory in the market.(E) The driver behind DC's strong flex market is the depth of skilled labor in the surrounding area. According to CBRE, there are 253,660 tech professionals in Washington DC, representing 8.1% of the metro's labor force, ranking only behind San Francisco in terms of tech talent concentration.(F)

PROCTOR & GAMBLE (CINCINNATI, OH)

In 2019, P&G unveiled its plans to expand its largest R&D center in the world in Cincinnati, Ohio. Now home to 2,800 P&G employees, the company spent an estimated $400 million to expand the facility to 2 million square feet. Construction was completed in 2019 and marked the completion of P&G's consolidation of its former Sharon Woods innovation center into the expanded Mason Site. The facility houses product testing and prototype development. P&G sees value in Cincinnati, with 10,000 of the company's global 92,000 employees located in the city.(G)

A) CoStar "Clinical Testing Lab to Relocate Headquarters, Lab Space to Lenexa" May 2020

B) CoStar "Kansas City Industrial Market Report" June 2020

C) STL Partnership "Pfizer Opens New R&D Facility in Chesterfield" June 2019

D) CBRE "Life Sciences Clusters 2019" February 2019

E) CoStar "Washington–DC Industrial Market Report" June 2020

F) CBRE "2019 Scoring Tech Talent" July 2019

G) USA Today "P&G unveils new $400 million R&D Center, the Company's Largest in the World." May 2019

1) Please note that these properties are not investments of ElmTree Funds, LLC. They are presented for informational purposes only.

CONCLUSION

We believe the combination of continued growth in corporate investment in R&D initiatives and the increase in onshoring of manufacturing operations in the U.S. will cooperatively drive attractive demand fundamentals for the R&D/flex asset class over a mid-term horizon (5+ years).

Furthermore, the elevated level of investment in R&D initiatives will force companies to increase their occupancy levels in newly constructed R&D/flex facilities that can house complex R&D and manufacturing operations as well as attract and retain the top engineering talent needed to operate them. We believe the increasing level of sophistication in manufacturing operations will drive tenants to consider taking occupancy in more R&D/flex facilities to either replace or support manufacturing operations given R&D/flex facilities better house the complex engineering and R&D operations now incorporated into modern manufacturing.

In terms of market selection, we believe tenants will primarily choose to locate new, build-to-suit R&D/flex facilities in primary and secondary markets that offer access to top millennial engineering talent at a lower cost than traditional, core R&D/flex markets. Additionally, we believe real estate fundamentals will also drive tenants to choose to locate new R&D/flex facilities in primary and secondary markets due to tight vacancy rates and higher occupancy costs in core markets.

Pfizer (St. Louis, MO) R&D Campus

About ElmTree Funds

ElmTree Funds, LLC, headquartered in St. Louis, Missouri, is a real estate private equity firm that manages capital on behalf of institutional and private investors. ElmTree's investment philosophy focuses on creating attractive risk-adjusted returns for its investors in the commercial real estate net lease and build-to-suit sectors with a focus on industrial and office properties. Since its founding in 2011, ElmTree Funds has acquired, developed, or financed an extensive portfolio of commercial real estate. ElmTree Funds targets commercial real estate investments in primary and secondary markets across the United States that are net-leased to investment grade tenants on a long-term basis.