# INDUSTRIAL MARKET OUTLOOK

Q3 2016



# U.S. Industrial Fundamentals Defy the Usual Q3 Slowdown

James Breeze, National Director of Industrial Research | USA

Between the record-breaking activity in the second quarter and the lull that summer months often bring, many expected more normal growth patterns for industrial real estate in Q3 2016. But industrial sector fundamentals powered forward in the third quarter to reach new heights—net absorption crushed the previous record, construction reached all-time highs and asking rental rates rose for the 13th consecutive quarter.

Demand continues to be driven by strong e-commerce sales and steady economic fundamentals. Activity is robust in core industrial markets and expanding rapidly in secondary markets near inland ports and large population centers. Retailers, wholesalers and third-party logistics companies are all scrambling to find space near these locations to gain competitive advantage and get products to consumers faster.

Industrial rents remain a relatively small portion of overall supply chain expenses and as such, we expect to see warehouses absorbed at an elevated rate for the foreseeable future. Only an unexpected disruption to the overall economy will slow the flow of industrial demand in the coming year.

## Key Takeaways

- > E-commerce sales grew 16 percent in Q2 2016 (most recent data available) compared with Q2 2015—a rate that dwarfs the 2 percent overall retail growth for the same time period. While e-commerce sales generate more demand for industrial space than brick-and-mortar sales, the length of the seven-year expansion in the retail sector as a whole remains a key factor in driving positive absorption over that timeframe.
- At the end of the third quarter, only 5.7 percent of the nation's industrial space was vacant, the lowest rate on record. Vacancies dropped in 82 percent of the markets we track compared to the same time last year, despite 62 million square feet (MSF) of new supply completing in Q3. Product under construction also increased by 11 million square feet since Q2 2016 to reach 216 million square feet—the most product under construction on record.
- > Tightening markets and new, more expensive class A space drove up asking rents in Q3 2016 to \$5.75 per square foot per year (PSF/YR), an all-time record for the country (not adjusted for inflation). Asking rents for distribution space increased year-over-year in 89 percent of the markets we track.
- > After a slow first half of 2016, an uptick in large portfolio sales helped increase transaction volume to \$14 billion in Q3 2016, a 3 percent increase over Q3 2015. Single-building investors continue to push into secondary and tertiary markets, with sales increasing 11 percent compared with the same time last year.

Market Indicators Relative to Prior Period	Q3 2016	Q3 2017*	
VACANCY		_	
NET ABSORPTION	+	+	
CONSTRUCTION	+	=	
RENTAL RATE**	+	+	

\* Projected

\*\* Warehouse rents

### Summary Statistics, Q3 2016

U.S. Industrial Market

Vacancy Rate	5.7%
Change From Q2 2016	-0.2%
Markets with Lower Vacancies Compared with Q4 2015	82.1%
YTD Absorption (MSF)	233.2
Markets with Positive Absorption in 2016	97.0%
YTD New Supply (MSF)	182.1
YTD New Supply to Inventory	1.2%
Under Construction (MSF)	203.5
ASKING RENTS PER SQUARE FOOT PER YEAR	
Average Warehouse/Distribution	\$5.75
Change from Q2 2016	1.8%







#### U.S. Economy Picks Up Positive Momentum

The U.S. economy improved in Q3 2016 with GDP rising 2.9 percent annualized, the fastest pace in two years and more than double the rate of growth in the previous quarter. Job growth remains robust with six consecutive years of monthly gains, though growth has been moderating as the economy reaches full employment.

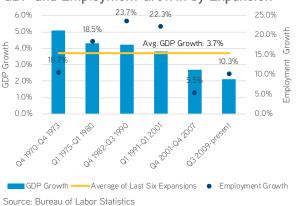
Average job growth for 2016 is down to 180,000 per month from 219,000 per month a year ago. However, nonfarm payroll employment rose by 161,000 in October and the labor-force participation rate increased to 62.9 percent in September from 62.4 percent a year ago. The unemployment rate ticked down to 4.9 percent in October despite more people entering the labor force, which is a positive sign.

Despite continued job growth, consumer spending grew by a tepid annual rate of 2.1 percent in Q3 2016, much lower than the 4.2 percent rate of growth in the previous quarter. Nonetheless, spending picked up in September by 0.5 percent, led by a 1.3 percent increase in automobile and durable goods spending. After August's 0.1 percent decline, this uptick perhaps portends a rebound in the final months of 2016. Another positive sign for the overall economy and industrial real estate demand is continued positive momentum for consumer confidence, which surged to 104.1 in September, the highest rating in more than a year.

The housing market recovery remains a major contributor to robust growth in industrial real estate, given its tie to increased consumer spending and confidence. Existing home sales performed strongly in September, as sales from first-time buyers reached 34 percent—the highest level in more than four years, according to the National Association of Realtors. All major regions saw an increase in closings in September and distressed sales fell to a new low of 4 percent. Existing home sales have also been a boon to the retail industry, generating an upsurge in demand for home improvement items, furniture and appliances.

In another positive sign for the industrial market, the ISM Manufacturing Index (PMI) has been trending up for two consecutive months. The index finished October at 51.9, a 0.4 percentage point increase compared with the previous month. The most notable subindex reading was the new orders component, which remained strong at 52.1 after a robust 55.1 showing in September, sending a clear signal that we can expect business spending to improve in the fourth quarter.

#### GDP and Employment Growth by Expansion



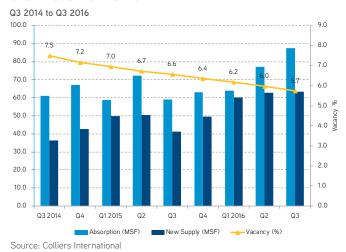
U.S. Economic Indicators				
GDP				
Q3 2016	+2.9%			
Q2 2016	+1.4% (adjusted)			
ISM				
Oct. 2016 PMI®	51.9, up 3.9 pctg. pts from Dec. 2015			
RAIL TIME INDICATORS: AAR.ORG				
Total Railcar Traffic	tal Railcar Traffic -9.6% from Nov. 2015			
Intermodal Traffic	-2.9% from Nov. 2015			

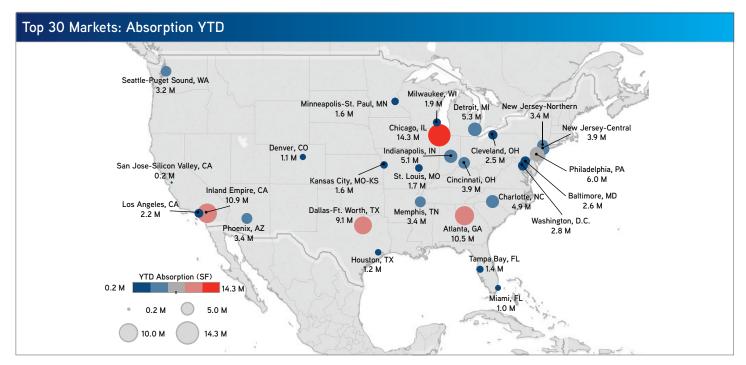
Sources: BEA, ISM, AAR

U.S. Indu	U.S. Industrial Indicators - October 2016								
INDEX	SERIES INDEX (OCT. 2016)	SERIES INDEX (SEPT. 2016)	PERCENTAGE- POINT CHANGE	DIRECTION	RATE OF CHANGE	TREND* (MONTHS)			
PMI®	51.9	51.5	0.4	Growing	Faster	2			
New Orders	52.1	55.1	-3	Growing	Slower	2			
Production	54.6	52.8	1.8	Growing	Faster	2			
Employment	52.9	49.7	3.2	Growing	From Contracting	1			
Supplier Deliveries	52.2	50.3	1.9	Slowing	Faster	6			
Inventories	47.5	49.5	-2.0	Contracting	Faster	16			
Customers' Inventories	49.5	53.0	-3.5	Too Low	From Too High	1			
Prices	54.5	53	1.5	Increasing	Faster	8			
Backlog of Orders	45.5	49.5	-4	Contracting	Faster	4			
Exports	52.5	52.0	0.5	Growing	Faster	8			
Imports	52.0	49.0	3.0	Growing	From Contracting	1			
	Overall	Economy	Growing	Faster	89				
	Manufacturing Sector				Faster	2			

<sup>\*</sup>Number of months moving in current direction Source: ISM  $\,$ 

#### U.S. Industrial Market





# E-commerce Continues to Drive Industrial to New Heights

E-commerce sales rose an impressive 16 percent in the second quarter compared with the same time last year. The continued surge in e-commerce sales and the need to get products to consumers more quickly while minimizing supply chain costs is forcing retailers and wholesalers into modern facilities and expanding their presences in secondary markets near inland and sea ports and large population centers. The need for these types of facilities is rapidly improving fundamentals in many non-core locations.

One such market is Kansas City, whose central location allows goods to be delivered to 85 percent of the nation's population in two days. This makes Kansas City a prime target for industrial occupiers and developers, with more than 7 million square feet currently under construction.

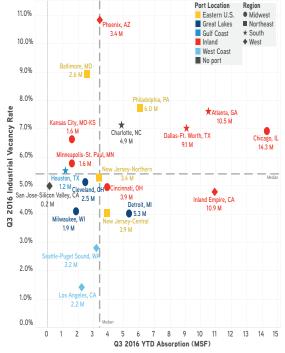
Many other markets are also seeing a pick-up in new construction. At the end of third quarter, 63 percent of the markets we track had more product under construction than at this time last year. Overall, 216 million square feet is under construction in the U.S.—the most on record and 19 percent higher than this time last year.

This new supply is being driven by record demand. In Q3 2016, 87 million square feet were absorbed, toppling the record of 77 million square feet set just last quarter. Core markets continue to post the bulk of this activity but secondary markets near large population centers are also rapidly gaining. For example, Indianapolis benefits from having more than 43 million people living within a 250-mile radius, plus asking rents 39 percent lower than the national average. This combination is fueling robust demand, with 8 million square feet absorbed in 2016—the sixth-highest level of absorption in the country overall and the most for a non-core market.

This level of absorption lowered vacancies in the U.S. to 5.7 percent in the third quarter—the lowest vacancy rate since the 1980s and 84 basis points lower than this time last year. The record-low vacancies are all the more impressive considering the robust amount of new supply hitting the market in 2016. In Q3, 62 million square feet completed construction, only 1 million square feet less than the record amount completed in the second quarter. Core markets continue to dominate, such as the Inland Empire leading the country at 19 million square feet completed in 2016.

#### Vacancy vs. YTD Absorption (Largest 20 Markets)

By Port Location and YTD Speculative New Supply



Source: Colliers Q3 2016 Industrial Survey

#### Portfolio Sales Revive Investment Activity

After a slow first half of 2016, investment transaction volume increased in the third quarter thanks to a 15 percent year-over-year increase in portfolio transactions, according to Real Capital Analytics. The early 2016 decline in portfolio transactions contributed to the total year-to-date investment volume being 20 percent lower than last year. But third quarter portfolio sales represented 27 percent of all investment transactions, which is more in line with historic norms.

Single-asset sales were flat in Q3 2016 but remain popular in secondary and tertiary markets where more inventory is available for purchase. Sales are 6 percent lower year-to-date in the six major core markets, due primarily to the lack of supply as institutional owners have been unwilling to part with core assets.

With demand remaining robust for industrial real estate, sales prices hit a new record high in Q3 at \$81 per square foot for all product types. Higher sale prices reduced cap rates to 6.5 percent for all product types, 30 basis points lower than the previous quarter.

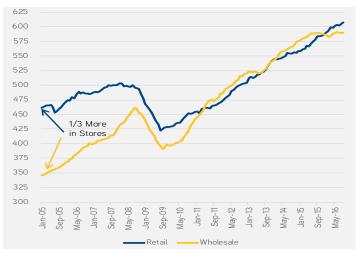
The third quarter saw a return to historic norms in terms of the composition of investors purchasing industrial properties. In 2015, large purchases by Singapore-based Global Logistics Properties contributed to the 35 percent share of sales represented by cross-border investors—the highest percentage of any buyer type. In 2016, U.S. private capital investors have retaken the top spot, acquiring \$19.2 billion or 47 percent of the year-to-date investment sales activity, followed by institutional/fund investors that account for 27 percent of year-to-date activity. This proportion is in line with the stronger single-building sales for the year, especially in secondary and tertiary markets, as well as the lower annual portfolio sales compared with 2015.

# Top 5 MSAs\* in YTD Transaction Volume 1. Los Angeles \$3.073 billion 2. Chicago \$2.038 billion 3. San Jose \$1.733 billion 4. NYC Boroughs \$1.692 billion 5. Dallas-Ft. Worth \$1.667 billion

Source: Real Capital Analytics

#### U.S. Wholesale vs. Retail Inventories

Inventories in Billions of Dollars



Sources: U.S. Census Bureau and Colliers International. Data as of Sept. 2016

Top U.S. Industrial Leases in Q3 2016								
TENANT	ADDRESS	MARKET	SF	TENANT INDUSTRY				
Variety Wholesalers	60 Herring Road	South Atlanta, GA	1,405,420	Wholesaler				
TTI	100 Ryobi Drive	Greenville, SC	1,300,000	Wholesaler				
Verizon	8620 Congdon Hill Drive	Alburtis, PA	1,200,000	Retailer				
Floor & Décor	24101 Iris Avenue	Moreno Valley, CA	1,103,000	Retailer				
Georgia Pacific	23534 S. Central Avenue	University Park, IL	1,000,560	Wholesaler				

Source: Colliers International

Top 5 MSAs* in YTD Net Absorption					
1. Chicago	19.6 MSF				
2. Dallas-Ft. Worth	18.8 MSF				
3. Inland Empire	15.3 MSF				
4. Philadelphia	13.9 MSF				
5. Atlanta	12.7 MSF				

\*Metropolitan Statistical Area Source: Colliers International

Top U.S. Industrial Sales in YTD 2016								
ADDRESS	MARKET	SF	PRICE	BUYER				
Nonconnah Corporate Park	Memphis, TN	1,150,000	\$57,000,000	Hudson Companies of Brooklyn				
24101 Iris Avenue	Moreno Valley, CA	1,103,000	\$92,100,000	Principal Financial				
6835 W Buckeye Road	Buckeye, AZ	1,009,351	\$74,800,000	Koll Company and Seera Investment Bank (joint venture)				
9998 All Points Parkway	Plainfield, IN	936,510	\$209,200,000	Kohl's				
4945 Lima Street	Denver, CO	856,013	\$57,700,000	Stockbridge				

\*Partial Interest Sale

<sup>\*</sup>Metropolitan Statistical Area Source: Colliers International

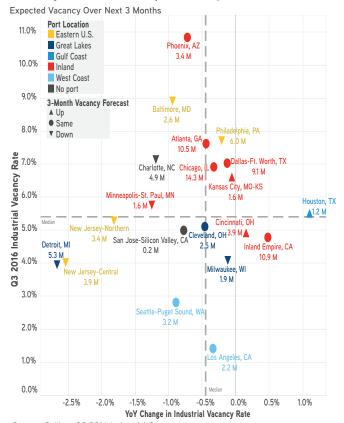
#### What's Ahead for Industrial Real Estate?

With industrial fundamentals continuing to break records and absorption outpacing development, we expect that asking rental rates will ascend at a rapid pace in the coming quarters.

Historically, an increase in asking rents would slow leasing. But with freight and transportation costs making up about 50 percent of the e-commerce supply chain costs, distributors are willing to pay higher rents to locate near population centers to reduce transportation costs and improve efficiencies. The need for more warehouse space as a cost-savings measure, combined with the need to carry larger inventories in a competitive online sales environment, will keep demand for industrial real estate robust for the foreseeable future. This demand will maintain strong industrial fundamentals in core U.S. markets and improve fundamentals in secondary markets near inland and sea ports and large population centers.

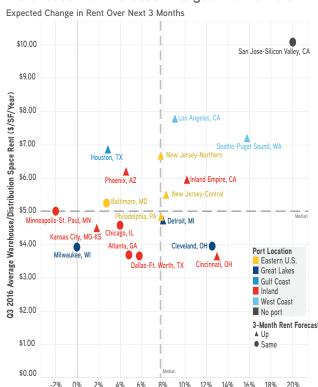
External factors that bear watching in the coming months include post-election market reactions, the slow rate of economic growth compared with previous cycles and an increasing anti-free-trade sentiment in parts of the world. Despite these factors, only an unexpected disruption to the overall economy will slow the flow of industrial demand in the coming quarters.

#### Vacancy vs. YTD Absorption (Largest 20 Markets)



Source: Colliers Q3 2016 Industrial Survey

#### Warehouse Rent Forecast (Largest 20 Markets)

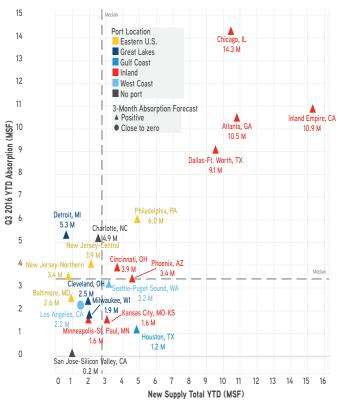


Source: Colliers Q3 2016 Industrial survey

#### Absorption Forecast by Port Location (Largest 20 Markets)

YoY Change in Warehouse/Distribution Rent

Expected Absorption Over Next 3 Months



Source: Colliers Q3 2016 Industrial Survey

MARKET	INVENTORY	SPECULATIVE NEW SUPPLY	TOTAL NEW SUPPLY	SPEC UNDER	TOTAL UNDER
MARKEI	SEPT. 30, 2016 (SF)	Q3 2016 (SF)	Q3 2016 (SF)	CONSTRUCTION (SF)	CONSTRUCTION (SF
NORTHEAST					
Baltimore, MD	239,689,732	0	322,800	2,019,060	2,546,076
Hartford, CT	95,613,351	0	0	0	0
Long Island, NY	157,351,715	44,000	44,000	308,052	308,052
New Hampshire	61,640,526	0	0	0	0
New Jersey-Central	315,387,141	564,320	564,320	4,362,501	5,624,438
New Jersey-Northern	362,225,234	495,000	495,000	2,071,670	2,981,925
Philadelphia, PA	433,428,591	1,836,720	3,442,453	5,807,605	9,206,413
Pittsburgh, PA	180,496,630	568,374	691,479	180,000	473,497
Shenandoah Valley, MD-VA-WV	102,145,590	330,050	330,050	20,000	1,494,673
Washington, D.C.	229,091,035	300,880	404,351	757,654	2,414,648
Northeast Total	2,348,399,244	4,139,344	6,680,453	15,526,542	26,111,577
SOUTH	·				<u>'</u>
Atlanta, GA	652,448,215	1,013,450	3,105,350	13,896,873	17,951,052
Austin, TX	70,179,336	180,800	1,126,400	351,135	1,151,840
Birmingham, AL	107,254,000	0	152,000	0	1,803,000
Charleston, SC	35,454,505	60,000	60,000	672,000	772,000
Charlotte, NC	352,028,350	0	1,372,849	0	3,668,619
Columbia, SC	82,886,305	0	0	0	1,313,000
Dallas-Ft. Worth, TX	781,700,933	5,214,713	5,725,213	18,924,043	22,381,375
Ft. Lauderdale-Broward, FL	112,454,545	29,952	29,952	1,217,500	1,217,500
Greenville-Spartanburg, SC	196,717,378	1,231,000	2,709,000	482,338	2,017,956
Houston, TX	530,292,590	867,566	6,436,041	3,372,684	7,366,726
Huntsville, AL	54,890,549	0	0	0	805,000
Jacksonville, FL	124,962,263	2,850	52,850	0	23,201
Little Rock, AR*	45,275,910	0	0	0	0
_ouisville, KY	195,848,862	0	1,146,140	0	4,933,577
Memphis, TN	234,027,264	0	27,500	2,828,352	5,044,432
Miami, FL	217,443,382	241,212	241,212	4,343,286	4,343,286
Nashville, TN	192,464,237	184,875	184,875	3,900,000	5,400,000
Norfolk, VA	101,921,660	18,000	18,000	71,979	534,045
Orlando, FL	136,677,310	0	289,592	0	1,387,166
Raleigh, NC	115,386,557	0	211,787	0	1,007,424
Richmond, VA	114,687,134	0	0	216,000	216,000
Savannah, GA	48,605,450	649,500	649,500	1,951,000	4,444,400
Tampa Bay, FL	206,383,851	0	2,112,580	0	1,679,689
West Palm Beach, FL	51,721,950	229,661	229,661	751,931	751,931
South Total	4,761,712,536	9,923,579	25,880,502	52,979,121	90,213,219

MARKET	INVENTORY	SPECULATIVE NEW SUPPLY	TOTAL NEW SUPPLY	SPEC UNDER	TOTAL UNDER
WARRET	SEPT. 30, 2016 (SF)	Q3 2016 (SF)	Q3 2016 (SF)	CONSTRUCTION (SF)	CONSTRUCTION (SF
MIDWEST					
Chicago, IL	1,348,841,172	2,774,491	4,641,683	8,669,496	19,395,926
Cincinnati, OH	253,109,488	2,110,817	2,532,317	1,732,334	2,631,394
Cleveland, OH	395,779,105	0	65,000	437,240	1,172,445
Columbus, OH	229,908,276	0	1,871,116	1,350,064	4,471,933
Dayton, OH	104,527,094	60,000	60,000	524,160	2,282,326
Detroit, MI	536,850,889	0	466,466	0	2,555,792
Indianapolis, IN	236,342,248	771,712	1,193,797	1,613,977	2,417,398
Kansas City, MO-KS	247,654,310	4,101,826	4,101,826	3,787,936	7,067,132
Milwaukee, WI	251,438,704	127,700	342,233	1,008,222	1,227,208
Minneapolis-St. Paul, MN	248,043,223	496,319	1,778,323	817,000	2,035,769
Omaha, NE	68,634,237	134,784	266,205	50,000	100,000
St. Louis, MO	229,791,241	0	1,482,000	2,527,033	3,757,033
Midwest Total	4,265,154,062	10,577,649	18,995,086	22,592,462	49,460,356
WEST					
Bakersfield, CA	38,085,877	129,914	149,914	19,920	214,520
Boise, ID	46,512,140	0	139,128	0	45,000
Denver, CO	223,204,356	656,137	926,137	2,299,435	2,679,298
Fairfield, CA	49,720,767	0	0	1,520,651	1,520,651
Fresno, CA	69,114,356	0	0	7,500	7,500
Honolulu, HI	39,938,633	46,000	46,000	0	0
Las Vegas, NV	122,731,165	640,336	640,336	3,810,338	3,868,338
Los Angeles-Inland Empire, CA	481,469,800	1,191,900	3,374,900	11,140,300	13,640,300
Los Angeles, CA	897,383,400	409,200	560,200	2,993,000	4,811,000
Oakland, CA	143,409,822	0	0	637,938	637,938
Orange County, CA	182,795,900	0	0	329,800	329,800
Phoenix, AZ	291,274,494	1,012,760	1,436,332	2,411,547	2,437,247
Pleasanton-Tri-Valley, CA	18,668,998	0	0	0	720,266
Portland, OR	199,354,348	691,038	691,038	1,695,264	2,620,017
Reno, NV	92,498,794	0	3,212,854	0	7,334,278
Sacramento, CA	164,344,807	0	0	0	318,054
San Diego, CA	188,661,614	0	91,974	1,262,271	1,773,039
San Francisco Peninsula, CA	39,527,298	0	0	0	0
San Jose-Silicon Valley, CA	256,471,062	0	150,000	784,067	909,067
Seattle-Puget Sound, WA	267,919,476	450,731	450,731	2,850,291	2,850,291
Stockton-San Joaquin County, CA	102,017,749	0	0	3,332,993	3,332,993
Walnut Creek, CA	17,703,948	0	0	15,240	15,240
West Total	3,970,195,744	5,228,016	11,869,544	35,110,555	50,064,837
U.S. TOTALS	15,345,461,586	29,868,588	63,425,585	126,208,680	215,849,989

United States   Industrial Survey   Absorption, Vacancy						
MARKET	ABSORPTION Q3 2016 (SF)	YTD ABSORPTION	VACANCY RATE SEPT. 30, 2015	VACANCY RATE SEPT. 30, 2016	CHANGE IN VACANCY	
NORTHEAST						
Baltimore, MD	451,471	3,179,259	8.9%	8.7%	-0.1%	
Hartford, CT	-1,433,450	-351,114	6.1%	7.6%	1.5%	
Long Island, NY	122,138	456,654	3.2%	3.2%	-0.1%	
New Hampshire	-122,794	586,784	7.0%	7.2%	0.2%	
New Jersey-Central	1,269,227	3,892,436	4.5%	4.0%	-0.5%	
New Jersey-Northern	2,808	3,385,871	5.5%	5.3%	-0.2%	
Philadelphia, PA	6,881,669	13,920,134	7.3%	6.5%	-0.9%	
Pittsburgh, PA	9,128	2,002,955	5.4%	5.8%	0.4%	
Shenandoah Valley, MD-VA-WV	987,105	1,168,299	8.7%	7.7%	-1.0%	
Washington D.C.	2,004,946	4,644,394	9.0%	8.3%	-0.7%	
Northeast Total	8,840,994	32,885,672	7.3%	7.1%	-0.2%	
SOUTH						
Atlanta, GA	2,907,641	12,671,273	7.8%	7.8%	0.0%	
Austin, TX	1,669,248	1,883,946	5.4%	4.6%	-0.9%	
Birmingham, AL	1,370,202	1,595,033	9.1%	8.0%	-1.1%	
Charleston, SC	1,145,848	2,274,222	7.0%	3.9%	-3.1%	
Charlotte, NC	3,564,120	4,853,667	7.8%	7.1%	-0.7%	
Columbia, SC	720,664	1,222,128	8.4%	7.5%	-0.9%	
Dallas-Ft. Worth, TX	9,781,680	18,840,148	7.0%	6.4%	-0.6%	
Ft. Lauderdale-Broward, FL	726,306	1,652,506	5.8%	5.1%	-0.7%	
Greenville-Spartanburg, SC	2,342,876	7,262,185	7.0%	7.1%	0.1%	
Houston, TX	6,314,911	7,320,197	5.5%	5.5%	0.0%	
Huntsville, AL	38,627	424,114	6.0%	5.9%	-0.1%	
Jacksonville, FL	84,199	2,882,418	5.4%	5.3%	0.0%	
Little Rock, AR*	393,161	393,161	11.8%	10.8%	-0.9%	
_ouisville, KY	538,317	2,707,006	5.0%	5.2%	0.3%	
Memphis, TN	767,109	3,584,572	8.4%	7.7%	-0.7%	
Miami, FL	895,723	2,133,134	4.4%	4.0%	-0.3%	
Nashville, TN	289,930	4,668,649	3.6%	3.5%	-0.1%	
Norfolk, VA	-20,609	73,301	6.7%	6.7%	0.0%	
Orlando, FL	639,680	2,680,907	6.3%	6.0%	-0.3%	
Raleigh, NC	-131,122	681,757	5.5%	5.8%	0.3%	
Richmond, VA	316,653	1,037,368	7.5%	7.2%	-0.3%	
Savannah, GA	378,450	2,108,330	1.9%	2.5%	0.5%	
Tampa Bay, FL	2,854,466	4,925,088	7.1%	6.7%	-0.4%	
West Palm Beach, FL	423,556	939,411	4.8%	4.5%	-0.4%	
South Total	38,011,636	88,814,521	6.6%	6.3%	-0.3%	

United States   Industrial Sur	vey   Absorption, Vac	cancy (continued)	(continued)		
MARKET	ABSORPTION Q3 2016 (SF)	YTD Absorption	VACANCY RATE SEPT. 30, 2015	VACANCY RATE SEPT. 30, 2016	CHANGE IN VACANCY
MIDWEST					
Chicago, IL	5,249,366	19,572,494	6.9%	6.8%	-0.2%
Cincinnati, OH	634,809	3,916,307	4.2%	4.9%	0.7%
Cleveland, OH	797,906	2,490,347	5.3%	5.1%	-0.2%
Columbus, OH	2,941,805	4,828,194	6.1%	5.7%	-0.4%
Dayton, OH	659,562	1,339,029	6.9%	6.3%	-0.6%
Detroit, MI	1,619,997	6,969,745	3.9%	3.6%	-0.2%
Indianapolis, IN	3,036,785	8,103,139	6.7%	5.7%	-1.0%
Kansas City, MO-KS	2,911,824	4,535,096	6.6%	7.0%	0.4%
Milwaukee, WI	320,763	2,040,614	4.5%	4.5%	0.0%
Minneapolis-St. Paul, MN	2,863,358	4,487,288	5.8%	5.3%	-0.5%
Omaha, NE	87,731	119,814	2.9%	3.2%	0.2%
St. Louis, MO	2,440,895	3,935,894	6.9%	6.5%	-0.4%
Midwest Total	23,674,839	62,337,961	5.9%	5.7%	-0.2%
WEST					
Bakersfield, CA	132,383	362,810	4.6%	4.8%	0.3%
Boise, ID	673,594	534,466	3.8%	2.6%	-1.2%
Denver, CO	1,197,914	2,478,238	4.3%	4.2%	-0.1%
Fairfield, CA	98,747	367,497	6.2%	6.0%	-0.2%
Fresno, CA	-112,496	549,952	4.2%	4.3%	0.2%
Honolulu, HI	-130,245	-1,152	1.3%	1.8%	0.4%
_as Vegas, NV	1,162,636	2,415,565	6.0%	5.5%	-0.5%
Los Angeles-Inland Empire, CA	4,344,600	15,250,900	4.8%	4.5%	-0.3%
Los Angeles, CA	810,200	3,047,700	1.4%	1.3%	-0.1%
Dakland, CA	-296,103	531,268	1.8%	2.0%	0.2%
Orange County, CA	366,400	874,300	3.0%	2.6%	-0.3%
Phoenix, AZ	1,091,094	3,434,591	10.8%	10.8%	0.1%
Pleasanton-Tri-Valley, CA	391,855	1,737,871	3.7%	1.6%	-2.1%
Portland, OR	802,799	2,197,293	4.4%	4.4%	-0.1%
Reno, NV	2,981,285	2,977,063	11.4%	11.2%	-0.1%
Sacramento, CA	962,705	2,450,361	9.7%	9.1%	-0.6%
San Diego, CA	988,226	1,134,615	4.8%	4.4%	-0.5%
San Francisco Peninsula, CA	-421,566	-148,584	1.3%	2.0%	0.7%
San Jose-Silicon Valley, CA	-115,732	34,276	4.9%	4.9%	0.1%
Seattle-Puget Sound, WA	975,080	3,203,293	3.2%	2.8%	-0.4%
Stockton-San Joaquin County, CA	864,674	5,484,580	6.2%	5.2%	-1.0%
Walnut Creek, CA	153,621	234,679	7.3%	6.4%	-0.9%
West Total	17,017,007	49,151,582	4.5%	4.3%	-0.2%
U.S. TOTALS	87,544,476	233,189,736	6.0%	5.7%	-0.2%

MADVET	VACANCY FORECAST	RENT FORECAST	ABSORPTION FORECAST	AVERAGE SALES PRICE	
MARKET	(3 MONTHS)**	(3 MONTHS)**	(3 MONTHS)**	(USD/SF)	AVERAGE CAP RATE
NORTHEAST					
Baltimore, MD	Same	Up	Positive	\$57	8.3%
Hartford, CT	Same	Same	Positive	\$38	8.5%
Long Island, NY	Same	Up	Positive	\$101	8.0%
New Hampshire	Down	Same	Positive		
New Jersey-Central	Down	Up	Positive	\$58	5.8%
New Jersey-Northern	Down	Up	Positive	\$51	8.0%
Philadelphia, PA	Down	Up	Positive	\$79	6.5%
Pittsburgh, PA	Same	Up	Positive	\$56	7.8%
Shenandoah Valley, MD-VA-WV	Down	Same	Positive	\$74	7.7%
Washington, D.C.	Down	Same	Positive	\$107	7.7%
Northeast Average*				\$69	7.6%
SOUTH					
Atlanta, GA	Same	Up	Positive	\$57	7.5%
Austin, TX	Down	Up	Positive	\$105	6.2%
Birmingham, AL	Down	Same	Positive		
Charleston, SC	Down	Same	Positive	\$49	
Charlotte, NC	Down	N/A	Positive		
Columbia, SC	Down	Up	Positive	\$33	
Dallas-Ft. Worth, TX	Same	Same	Positive	\$61	7.2%
Ft. Lauderdale-Broward, FL	Down	Up	Positive	\$87	8.3%
Greenville-Spartanburg, SC	Down	Up	Positive	\$32	
Houston, TX	Up	Same	Positive	\$70	7.4%
Huntsville, AL	Down	Same	Positive		
Jacksonville, FL	Down	Up	Positive	\$42	8.0%
Louisville, KY	Same	N/A	Positive		
Memphis, TN	Down	Up	Positive	\$38	6.5%
Miami, FL	Up	Up	Negative	\$73	6.6%
Nashville, TN	Same	Up	Positive	\$50	7.0%
Norfolk, VA	Down	Up	Positive	\$54	
Orlando, FL	Down	Up	Positive	\$70	7.0%
Raleigh, NC	Down	N/A	Positive		
Richmond, VA	Down	Up	Positive	\$53	8.0%
Savannah, GA	Same	Up	Positive	\$45	7.0%
Tampa Bay, FL	Down	Up	Positive	\$112	8.4%
West Palm Beach, FL	Down	Up	Positive	\$62	5.0%
South Average*				\$61	7.2%

Note: The detail for markets with older data has been removed, but the numbers they contribute remain in the totals. 
\* Straight averages used
\*\* Forecasts for warehouse space

MARKET	VACANCY FORECAST (3 MONTHS)**	RENT FORECAST (3 MONTHS)**	ABSORPTION FORECAST (3 MONTHS)**	AVERAGE SALES PRICE (USD/SF)	AVERAGE CAP RATE
MIDWEGT	(3 MONTHS)	(3 MORTHS)	(3 MONTHS)	(035) 31 7	
MIDWEST			5	4/5	F 00/
Chicago, IL	Same	Up	Positive	\$65	5.2%
Cincinnati, OH	Up	Up	Positive	\$40	7.5%
Cleveland, OH	Same	Same	Positive	\$49	
Columbus, OH	Same	Up	Positive	\$36	6.8%
Dayton, OH	Same	Up	Positive	\$44	
Detroit, MI	Down	Same	Positive	\$34	8.6%
Indianapolis, IN	Same	Up	Positive		
Kansas City, MO-KS	Down	Up	Positive	\$75	7.6%
Milwaukee, WI	Down	Same	Positive	\$60	7.5%
Minneapolis-St. Paul, MN	Down	Same	Positive	\$55	
Omaha, NE	Down	Same	Positive		
St. Louis, MO	Same	Same	Positive	\$45	7.0%
Midwest Average*				\$50	7.2%
WEST			'		
Bakersfield, CA	Same	Same	Positive	\$42	10.0%
Boise, ID	Down	Up	Positive	\$52	7.7%
Denver, CO	Same	Down	Positive	\$105	6.5%
Fairfield, CA	Up	Same	Negative	\$97	6.3%
Fresno, CA	Down	Up	Positive	\$40	8.0%
Honolulu, HI	Down	Up	Positive		
Las Vegas, NV	Down	Same	Positive	\$88	6.8%
Los Angeles-Inland Empire, CA	Same	Up	Positive	\$89	5.3%
Los Angeles, CA	Same	Up	Close to zero	\$125	5.4%
Oakland, CA	Down	Up	Close to zero	\$110	4.8%
Orange County, CA	Same	Same	Close to zero	\$123	5.2%
Phoenix, AZ	Same	Up	Positive	\$71	7.5%
Pleasanton-Tri-Valley, CA	Down	Up	Close to zero	\$179	6.0%
Portland, OR	Same	Up	Positive	\$100	5.5%
Reno, NV	Down	N/A	Positive	Ψ100	3.3 70
Sacramento, CA	Down		Positive	\$88	6.9%
·		Up			
San Diego, CA	Down	Up	Positive	\$113	6.4%
San Francisco Peninsula, CA	Same	Up	Close to zero	\$363	
San Jose-Silicon Valley, CA	Down	Up	Positive		
Seattle-Puget Sound, WA	Same	Up	Positive	\$100	6.3%
Stockton-San Joaquin County, CA	Down	Up	Positive		
Walnut Creek, CA	Same	Down	Close to zero		
West Average*				\$111	6.5%

Note: The detail for markets with older data has been removed, but the numbers they contribute remain in the totals. \* Straight averages used \*\* Forecasts for warehouse space

MARKET	WAREHOUSE / DISTRIBUTION SPACE (USD/SF/YR)	BULK SPACE (USD/SF/YR)	FLEX / SERVICE SPACE (USD/SF/YR)	TECH / R&D SPACE (USD/SF/YR)
NORTHEAST	(USD/SF/TR)			
Baltimore, MD	\$5.28	\$4.59	\$10.36	\$16.66
Hartford, CT	\$4.12	\$5.89	\$8.01	\$6.50
Long Island, NY	\$9.96	\$9.96	\$9.38	
New Hampshire	\$5.72		\$6.52	\$10.10
New Jersey-Central	\$5.51	\$5.18	\$11.17	
New Jersey-Northern	\$6.68	\$6.97	\$10.04	
Philadelphia, PA	\$4.85	\$4.95	\$7.75	\$11.25
Pittsburgh, PA	\$5.03	\$5.50	\$11.59	\$11.59
Shenandoah Valley, MD-VA-WV	\$3.72	\$3.13	\$5.14	
Washington, D.C.	\$8.10	\$7.45	\$12.32	\$13.25
Northeast Average*	\$5.94	\$5.96	\$9.06	\$12.24
SOUTH				
Atlanta, GA	\$3.71	\$3.55	\$8.31	\$11.65
Austin, TX	\$10.30	\$7.20	\$11.10	\$37.42
Birmingham, AL	\$3.58	\$3.60	\$8.33	
Charleston, SC	\$4.83	\$4.87	\$13.55	
Charlotte, NC	\$4.02	\$4.08	\$8.32	
Columbia, SC	\$3.08	\$3.32	\$7.25	
Dallas-Ft. Worth, TX	\$3.70	\$3.55	\$8.10	\$11.15
Ft. Lauderdale-Broward, FL	\$8.01	\$7.46	\$11.14	\$8.09
Greenville-Spartanburg, SC	\$3.37	\$3.56	\$7.73	
Houston, TX	\$6.59	\$5.46	\$11.37	\$11.79
Huntsville, AL	\$6.79	\$4.59	\$7.40	
Jacksonville, FL	\$4.27	\$3.94	\$9.81	
_ittle Rock, AR*	\$3.71	\$3.12	\$6.41	
_ouisville, KY	\$3.71	\$3.79	\$7.11	
Memphis, TN	\$2.69	\$2.82	\$5.60	\$9.75
Miami, FL	\$10.48	\$8.50	\$12.16	\$9.54
Nashville, TN	\$5.37	\$4.78	\$7.31	\$8.08
Norfolk, VA	\$4.87	\$4.53	\$8.60	\$11.27
Orlando, FL	\$5.42	\$5.04	\$9.30	\$13.82
Raleigh, NC	\$4.73	\$4.42	\$12.53	
Richmond, VA	\$4.02	\$4.28	\$8.35	\$10.62
Savannah, GA	\$4.00	\$3.85	\$7.25	\$10.50
Tampa Bay, FL	\$4.71	\$4.33	\$8.50	\$5.02
West Palm Beach, FL	\$8.29	\$7.40	\$12.30	\$8.29
South Average*	\$5.18	\$4.67	\$9.08	\$11.93

MARKET	WAREHOUSE / DISTRIBUTION SPACE	BULK SPACE (USD/SF/YR)	FLEX / SERVICE SPACE (USD/SF/YR)	TECH / R&D SPACE (USD/SF/YR)
MIDWEST	(USD/SF/YR)			
Chicago, IL	\$4.73	\$4.39	\$9.60	
Cincinnati, OH	\$3.66	\$3.56	\$6.23	\$6.23
Cleveland, OH	\$3.95	\$3.95	\$7.36	\$7.36
Columbus, OH	\$2.97	\$2.97	\$6.26	\$6.26
Dayton, OH	\$2.89	\$2.82	\$4.64	\$4.64
Detroit, MI	\$4.72	\$4.18	\$8.99	\$8.99
Indianapolis, IN	\$3.57	\$3.54	\$6.38	
Kansas City, MO-KS	\$4.55	\$4.12	\$8.37	\$7.60
Milwaukee, WI	\$4.10	\$3.85	\$5.45	
Minneapolis-St. Paul, MN	\$5.08	\$4.98	\$7.08	\$7.47
Omaha, NE	\$5.10	\$5.03	\$6.20	\$5.40
St. Louis, MO	\$3.98	\$3.51	\$9.04	\$14.64
Midwest Average*	\$4.01	\$3.83	\$6.94	\$7.33
WEST				
Bakersfield, CA	\$4.00	\$3.40	\$8.40	
Boise, ID	\$6.60	\$5.76	\$8.40	\$9.00
Denver, CO	\$7.13	\$5.44	\$10.06	\$11.68
Fairfield, CA	\$5.87	\$5.67	\$7.35	\$7.44
Fresno, CA	\$4.33	\$3.93	\$8.28	\$8.28
Honolulu, HI	\$14.28			
Las Vegas, NV	\$6.60	\$6.15	\$8.04	\$9.96
Los Angeles-Inland Empire, CA	\$6.48	\$5.48	\$7.55	\$8.15
Los Angeles, CA	\$8.04	\$6.35	\$10.55	\$13.75
Oakland, CA	\$8.04	\$8.52	\$11.64	\$20.88
Orange County, CA	\$9.12	\$8.18	\$14.95	\$11.43
Phoenix, AZ	\$6.21	\$5.06	\$12.45	\$12.65
Pleasanton-Tri-Valley, CA	\$6.72	\$6.60		
Portland, OR	\$7.32	\$6.56	\$12.13	\$10.84
Reno, NV	\$4.36	\$3.90	\$8.41	
Sacramento, CA	\$5.16	\$3.48	\$8.88	\$8.52
San Diego, CA	\$9.96	\$9.00	\$12.12	\$18.72
San Francisco Peninsula, CA	\$13.44	\$13.08	\$34.80	\$34.80
San Jose-Silicon Valley, CA	\$10.68	\$9.48	\$13.08	\$23.16
Seattle-Puget Sound, WA	\$7.20	\$5.63	\$16.04	\$16.52
Stockton-San Joaquin County, CA	\$4.68	\$4.68	\$6.60	\$7.92
Walnut Creek, CA	\$5.04		\$10.92	\$13.32
West Average*	\$7.23	\$6.22	\$11.42	\$13.49
U.S. Average*	\$5.75	\$5.18	\$9.39	\$11.64

## U.S. | Vacancy Rankings

MARKET	VACANCY RATE SEPT. 30, 2016
Los Angeles, CA	1.3%
Pleasanton-Tri-Valley, CA	1.6%
Honolulu, HI	1.8%
San Francisco Peninsula, CA	2.0%
Oakland, CA	2.0%
Savannah, GA	2.5%
Boise, ID	2.6%
Orange County, CA	2.6%
Seattle-Puget Sound, WA	2.8%
Long Island, NY	3.2%
Omaha, NE	3.2%
Nashville, TN	3.5%
Detroit, MI	3.6%
Charleston, SC	3.9%
New Jersey-Central	4.0%
Miami, FL	4.0%
Denver, CO	4.2%
Fresno, CA	4.3%
San Diego, CA	4.4%
Portland, OR	4.4%
West Palm Beach, FL	4.5%
Los Angeles-Inland Empire, CA	4.5%
Milwaukee, WI	4.5%

MARKET	VACANCY RATE SEPT. 30, 2016
Austin, TX	4.6%
Bakersfield, CA	4.8%
Cincinnati, OH	4.9%
San Jose-Silicon Valley, CA	4.9%
Ft. Lauderdale-Broward, FL	5.1%
Cleveland, OH	5.1%
Stockton-San Joaquin County, CA	5.2%
Louisville, KY	5.2%
New Jersey-Northern	5.3%
Minneapolis-St. Paul, MN	5.3%
Jacksonville, FL	5.3%
Houston, TX	5.5%
Las Vegas, NV	5.5%
Columbus, OH	5.7%
Indianapolis, IN	5.7%
U.S. AVERAGE	5.7%
Raleigh, NC	5.8%
Pittsburgh, PA	5.8%
Huntsville, AL	5.9%
Fairfield, CA	6.0%
Orlando, FL	6.0%
Dayton, OH	6.3%
Walnut Creek, CA	6.4%

MARKET	VACANCY RATE SEPT. 30, 2016
Dallas-Ft. Worth, TX	6.4%
Philadelphia, PA	6.5%
St. Louis, MO	6.5%
Tampa Bay, FL	6.7%
Norfolk, VA	6.7%
Chicago, IL	6.8%
Kansas City, MO-KS	7.0%
Greenville-Spartanburg, SC	7.1%
Charlotte, NC	7.1%
Richmond, VA	7.2%
New Hampshire	7.2%
Columbia, SC	7.5%
Hartford, CT	7.6%
Shenandoah Valley, MD-VA-WV	7.7%
Memphis, TN	7.7%
Atlanta, GA	7.8%
Birmingham, AL	8.0%
Washington D.C.	8.3%
Baltimore, MD	8.7%
Sacramento, CA	9.1%
Phoenix, AZ	10.8%
Reno, NV	11.2%



#### INDUSTRIAL SERVICES CONTACT

**Dwight Hotchkiss** 

President, Brokerage Services | USA National Director, Industrial | USA +1 213 532 3229

dwight.hotchkiss@colliers.com

#### RESEARCH CONTACTS

James Breeze

National Director of Industrial Research | USA +1 909 937 6365 james.breeze@colliers.com

Pete Cullinev

Director of Research | Global +1 212 716 3689 pete.culliney@colliers.com

#### **CONTRIBUTORS**

Jeff Simonson U.S. Senior Research Analyst | USA

> AJ Paniagua U.S. Research Analyst | USA

> > Andrew Nelson Chief Economist | USA

# Glossary

Bulk Space - Warehouse space 100,000 square feet or more with minimum ceiling heights of 24 feet. All loading is dock-height.

Flex Space - Single-story buildings having 10- to 18-foot ceilings with both floor-height and dock-height loading. Includes wide variation in office space utilization, ranging from retail and personal service, to distribution, light industrial and occasional heavy industrial use.

**Service Space** – Single-story (or mezzanine) with 10- to 16-foot ceilings with frontage treatment on one side and dock-height loading or grade-level roll-up doors on the other. Less than 15% office space.

Tech/R&D - One and two-story, 10- to 15-foot ceiling heights with up to 50% office/dry lab space (remainder in wet lab, workshop, storage and other support), with dock-height and floor-height loading.

*Warehouse* – 50,000 square feet or more with up to 15 % office space, the balance being general warehouse space with 18- to 30-foot ceiling heights. All loading is dock-height.

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Colliers International 865 S. Figueroa Street, Suite 3500 Los Angeles, CA 90017 +1 213 627 1214 colliers.com





