



CBRE RESEARCH

U.S. INDUSTRIAL
OUTLOOK
2015

CBRE





EXECUTIVE SUMMARY

THE U.S. INDUSTRIAL MARKET WILL KEEP FIRING ON ALL CYLINDERS

Despite four years of continuous growth, the U.S. industrial real estate market has not yet fully recovered from the depths of the recession. With demand again projected to outpace supply, the market is poised for yet another strong year in 2015, marked by declining availability and rising rents.

NEW SUPPLY LEVELS WILL RISE, BUT RISING CONSTRUCTION COSTS COULD DAMPEN DEVELOPMENT

Construction was virtually non-existent in the aftermath of the recession and has only gradually recovered in recent years. With strong demand for modern distribution space fueling development activity over the past 12-18 months, total new completions should finally reach long-term averages in 2015. However, rapidly rising construction costs could temper construction growth in the mid to long term.

TECHNOLOGY, AUTOMATION (NOT RESHORING) WILL SPUR DEMAND FOR MANUFACTURING SPACE

U.S. manufacturing is on the rise, with production outputs now at all-time highs. However, these gains are due largely to increases in technology and automation and are not a result of elevated employment or reshoring (manufacturing that was brought back to the U.S. from overseas). The increase in outputs has a stimulative effect on industrial demand in key manufacturing and supply chain markets.

LIGHT INDUSTRIAL POISED FOR STRONG GROWTH IN 2015

Light industrial facilities (properties smaller than 200,000 sq. ft.) may be the best bet for growth in 2015. These facilities have historically outperformed larger distribution centers in terms of rental growth, but have lagged behind in the current cycle. With demand rising for facilities in smaller infill locations in land- and supply-constrained urban areas, light industrial fundamentals will see a boost in 2015.

THE U.S. INDUSTRIAL MARKET IS FIRING ON ALL CYLINDERS, BUT HOW MUCH LONGER CAN THIS LAST?

2014 marked another strong year of recovery in the U.S. industrial market, with all of the key performance indicators continuing to improve. Spurred by 19 consecutive quarters of positive net absorption through Q4 2014, the national availability rate fell, to 10.3%, a 90-basis-point (bps) decline year-over-year, and the average U.S. rent grew 4.7% during 2014, to \$6.01 per sq. ft.

With these fundamentals all showing sustained long-term growth, it is worth considering how much room, if any, the market has to grow and if we are fully recovered or even back to peak metrics. Before we answer that question, it is instructive to look back at the previous two recession and recovery cycles and compare them to this current cycle.

**FIGURE 1
RECESSION COMPARISONS**

	1990s	2001	2007
Availability Rate Increase from Trough (Level)	460 bps(10.9%)	520 bps(11.9%)	470 bps(14.5%)
Peak to Trough Rent Decrease	-7.6%	-8.1%	-17.7%
Lowest Construction Level (rate)	18.3 MSF(Q2 1993)	26.5 MSF(Q1 2003)	3.6 MSF(Q3 2010)

Source: CBRE Econometric Advisors, Q4 2014.

As seen in Figure 1, though availability hit an unprecedented high of 14.5% in 2010, the rate at which it rose—470 bps between Q3 2007 and Q1 2010—was unremarkable and in line with previous cycles.

The two data points of this cycle that really stand out when compared to the 1990 and 2001 cycles are the drop in rental rates and the scarcity of

construction. When the global financial crisis took hold in 2008, the U.S. industrial market was at the tail end of a significant expansion of new supply, adding over 712 million sq. ft. from Q3 2005 to Q4 2008.

This glut of new supply, much of it coming on line just as the recession began and demand ground to a halt, contributed to the sharpest and swiftest decline in rents in memory. Over the first seven quarters of the recession, the national average asking rent fell 16%. Ultimately, the national average rent bottomed out 17.7% below its pre-recession level in Q4 2011, where it essentially stayed for two more years.

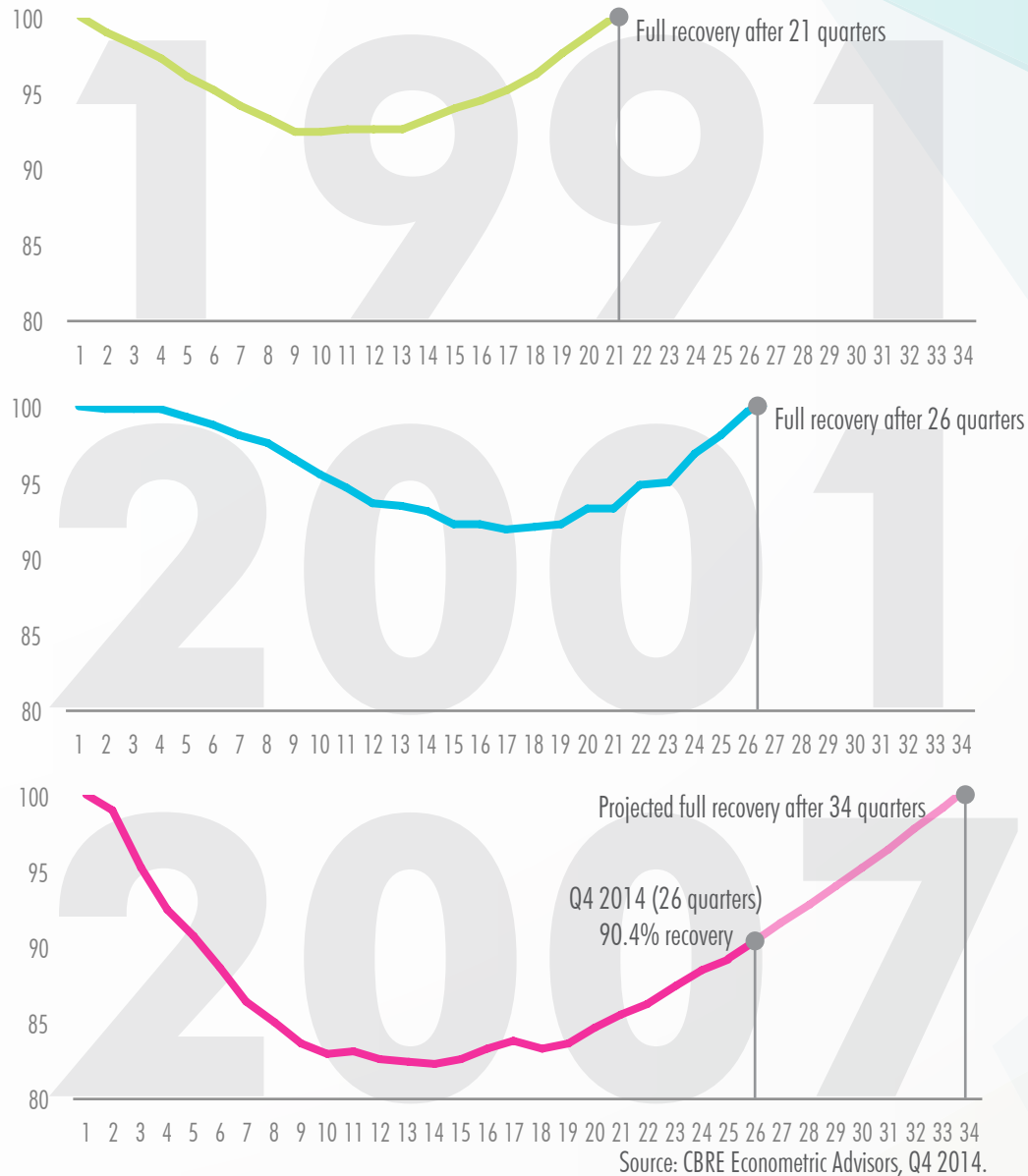
The recovery of the industrial market began in 2011, when availability rates began to decline, and really took hold in 2012, when rents started to inch up. Since then, the recovery has been steady but unspectacular.

In fact, despite the long period of growth—18 consecutive quarters of availability decreases and rent increases in 12 of the last 14 quarters—neither metric has fully recovered to pre-recession levels. Nationally, availability is 40 bps points from a full recovery and, as seen in Figure 2, rents are 11% from a full recovery.

To put this into context, the previous two recession cycles saw a full rental recovery after an average of 23 quarters, while this cycle has spanned 26 quarters and is still in rebound mode.

This is also true of most local markets. Of the 60 markets tracked by CBRE Econometric Advisors, as of Q4 2014, only nine have seen rents reach or exceed the prior peak and only 14 have seen availability recover past the prior low.

FIGURE 2
RENT RECOVERY VS PREVIOUS RECESSIONS
 100% = Pre-recession Peak



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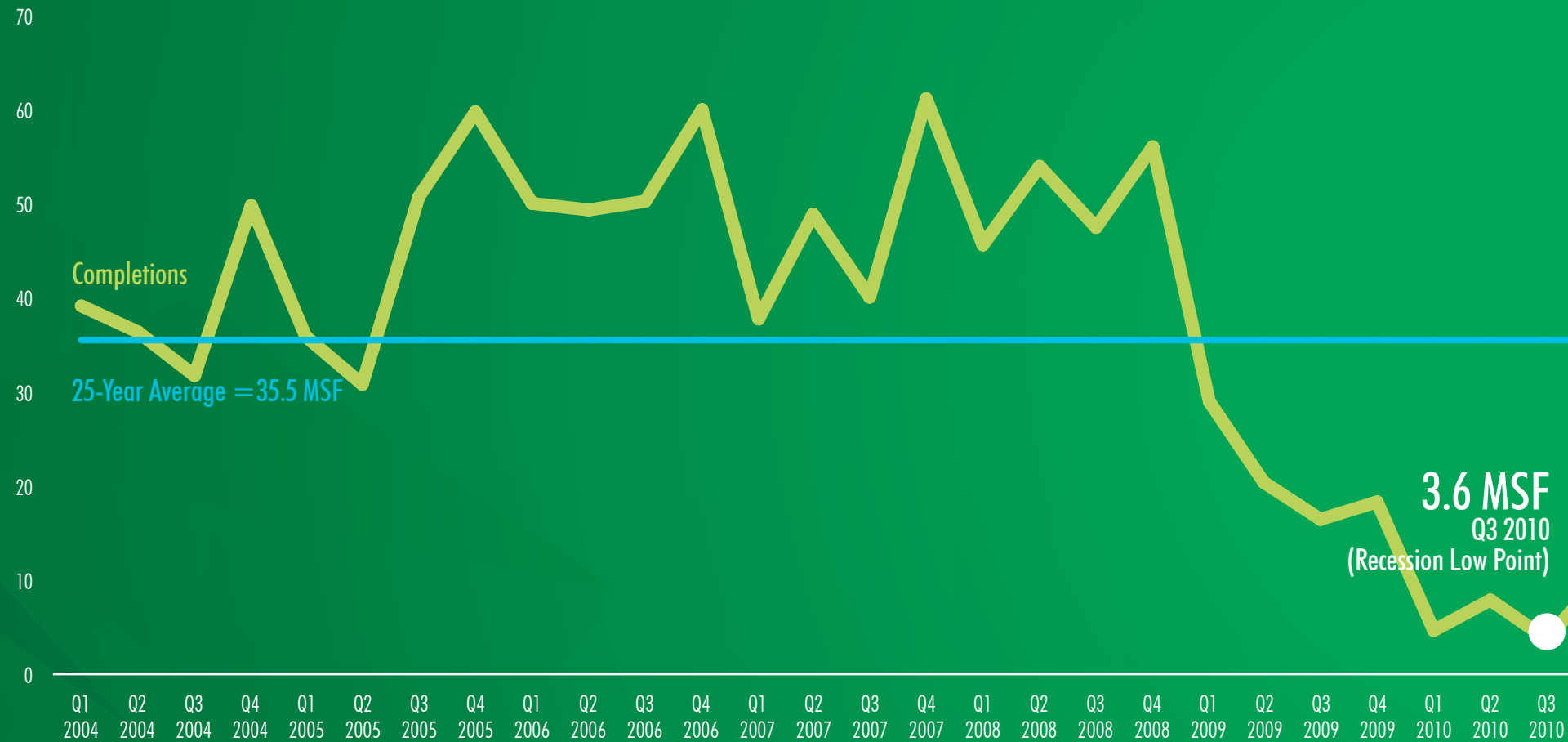
Despite the four-year-long period of improvement in market fundamentals, there is still plenty of upside, particularly for rental growth and new supply. Both cyclical demand drivers—GDP growth, expanding manufacturing sector—and structural demand drivers—e-commerce, supply chain evolution—will promote strong user demand across geographies and product types.

This sustained demand will result in positive net absorption at a rate above the long-term average, which, in turn, will push rents up 4%-5% over the course of 2015. However, rents, while growing quickly, won't fully recover until the latter part of 2016.

Availability will continue to fall, but the rate of decrease will slow as the pace of new deliveries is expected to reach or exceed long-term averages. By the end of 2015, supply and demand will be closer to equilibrium and availability will begin to find its natural spot, settling near 10%.

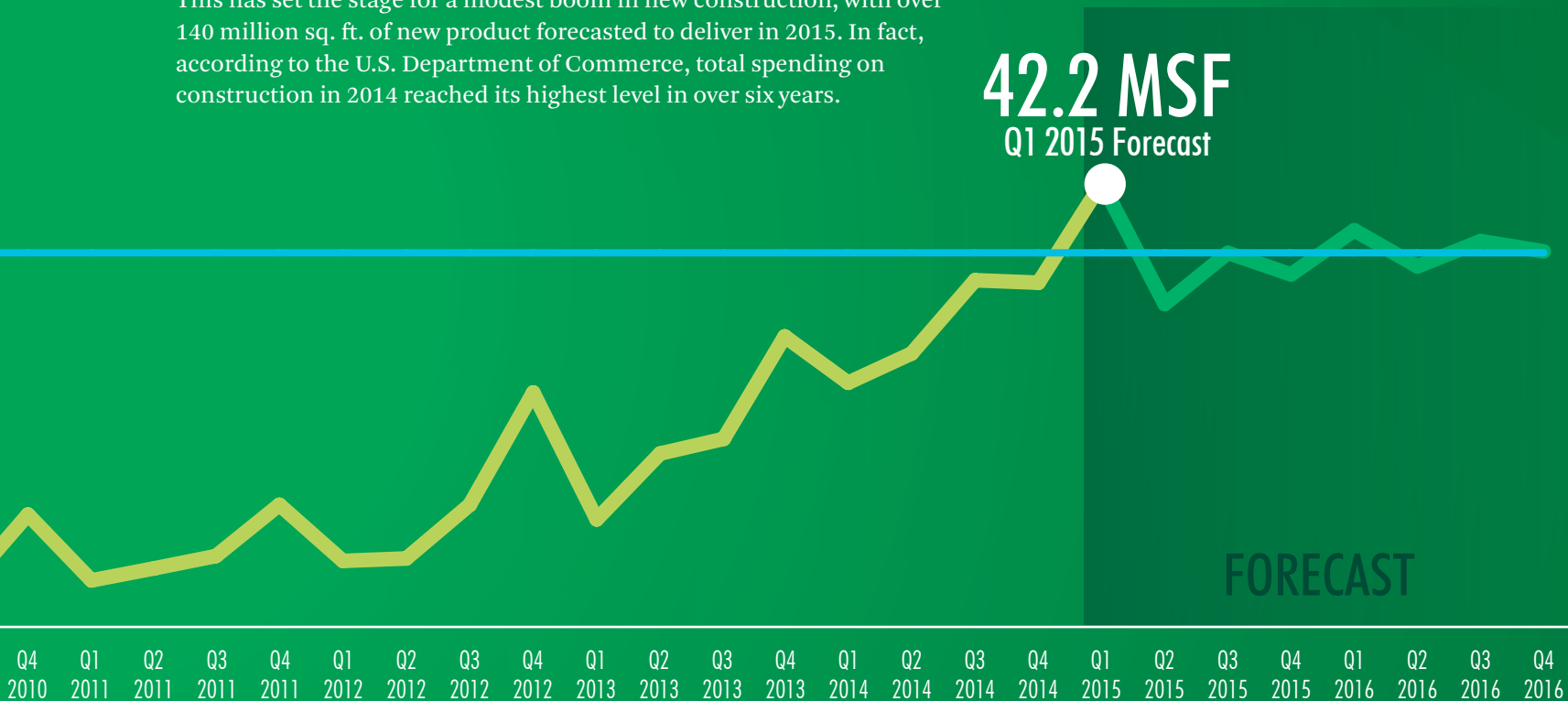
CONSTRUCTION IS ON THE RISE—BUT COSTS ARE, TOO. WILL RISING CONSTRUCTION COSTS PUT A DAMPER ON THE DEVELOPMENT MARKET?

FIGURE 3
INDUSTRIAL CONSTRUCTION AND FORECAST



While the U.S. industrial market is well into its recovery, new construction has lagged and deliveries have been running well below long-term averages. However, over four years of continuous positive net absorption has tightened supply and pushed rents higher, especially in core port and distribution markets.

This has set the stage for a modest boom in new construction, with over 140 million sq. ft. of new product forecasted to deliver in 2015. In fact, according to the U.S. Department of Commerce, total spending on construction in 2014 reached its highest level in over six years.



Source: CBRE Econometric Advisors, Q4 2014.

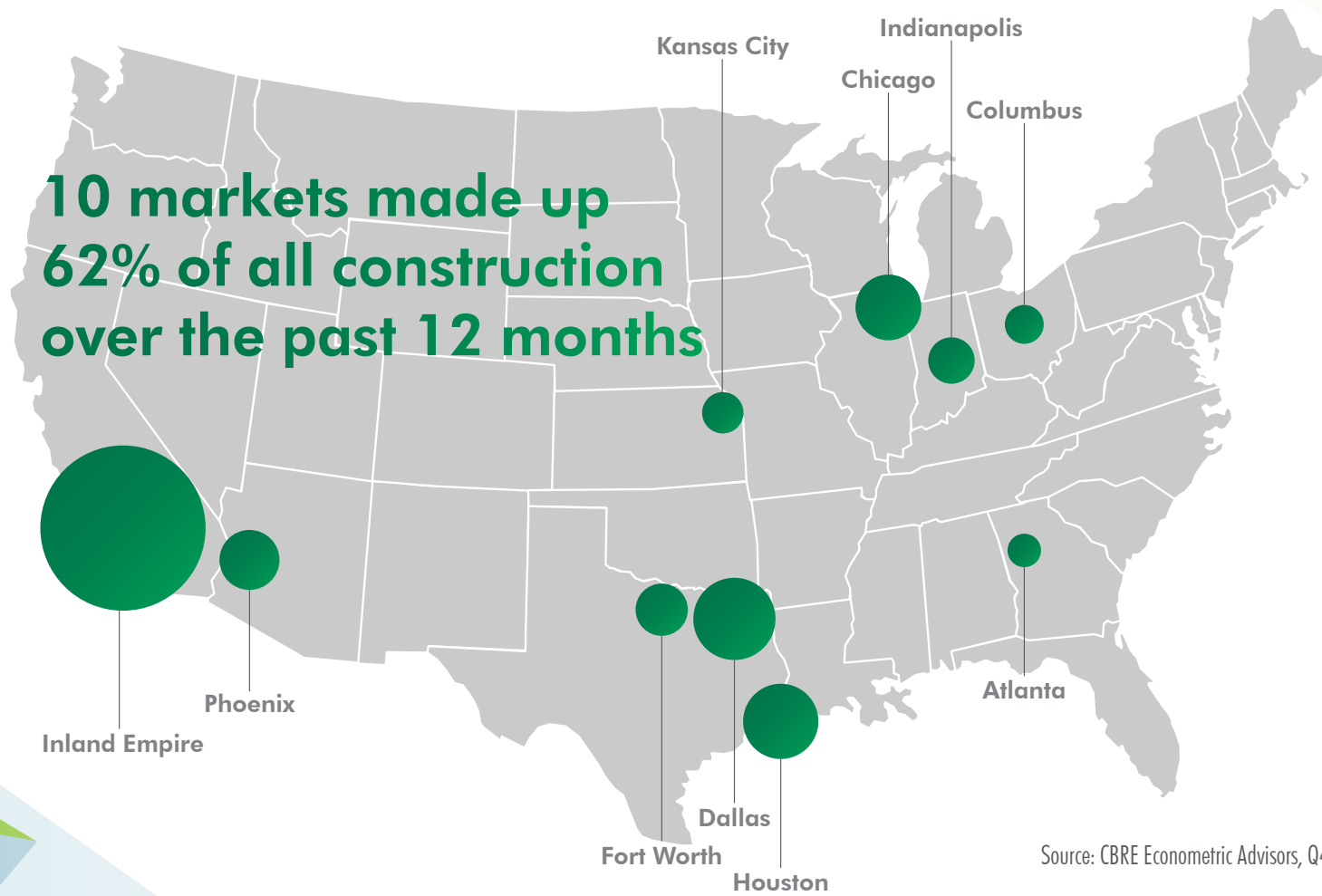
2015 will be the strongest year for the development market since the recession. However, new supply will still lag projected demand by over 20 million sq. ft., further constricting an already tightening supply of available space. This dynamic will be especially felt in the core distribution markets such as Chicago and the Inland Empire, where availability rates are near all-time lows.

While construction on the whole is on the rise and is mainly concentrated in core markets (see Figure 4), some secondary markets, such as Kansas City and Indianapolis, which are situated along key rail and transportation corridors, are seeing material increases in new development activity.

"Discipline in the development market has helped sustain the recovery to date. But, tight supply of modern distribution space and growing demand from logistics and supply chain users will help construction take off in 2015."

— Scott Marshall, Executive Managing Director Industrial Services, Americas

FIGURE 4
CONSTRUCTION REMAINS CONCENTRATED



Source: CBRE Econometric Advisors, Q4 2014.

FIGURE 5
NATIONAL CONSTRUCTION COST INDEX

165

The National Construction Cost Index shows the changing cost of construction between July 2009 and July 2014, relative to a base of 100 at April 2001. Index recalibrated as of April 2011.

160

155

150

141.80
 January 2010

145

140

Jul-09 Oct-09 Jan-10 Apr-10 Jul-10 Oct-10 Jan-11 Apr-11 Jul-11 Oct-11 Jan-12 Apr-12 Jul-12 Oct-12

It is in this seemingly favorable environment that developers are planning their new projects for the next 24 months. However, construction costs, as measured by the National Construction Cost Index, rose 3.5% through the first half of 2014, and are projected to grow as much as 5.5% on the year.¹ This is in addition to the 12.7% increase in construction costs since the recession low in April 2011, of which 70% occurred since 2013.

While component costs—steel, concrete, etc.—have been on the rise, much of the recent uptick can be attributed to the lack of skilled construction workers available to support elevated demand. This does not bode well for the future and suggests that further significant upticks in costs may be on the horizon, as the U.S. labor pool is projected to tighten further as unemployment falls.

161.65
October 2014

Month	Value
Jan-13	~145
Apr-13	~150
Jul-13	~155
Oct-13	~160
Jan-14	~165
Apr-14	~170
Jul-14	~175
Oct-14	161.65
Jan-15	~170

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With favorable supply and demand dynamics and steadily rising rents, the development market will be strong in 2015, with over 140 million sq. ft. projected to deliver in 2015 and another 144 million sq. ft. forecasted to fill the pipeline for completion in 2016. However, rising construction costs are reason for some mid- to long-term concern. These concerns may be mitigated to some degree by the collapse of oil prices which could soften the demand for oil field workers and bolster the construction labor pool.

Construction will remain concentrated in a few markets, mainly the primary distribution hubs, but some secondary markets, such as Kansas City and Indianapolis, will see significant growth due to tightening market fundamentals.

Jan-13 Apr-13 Jul-13 Oct-13 Jan-14 Apr-14 Jul-14 Oct-14 Jan-15

Source: RLB USA Quarterly Construction Report, October 2014.

Despite this cost uncertainty, developers are still bullish on the prospects of the market in the near term. In Q3 2014, the McGraw-Hill Construction/ENR Industry Confidence Index hit a record high of 77 out of 100, with over 90% of those surveyed expressing optimism that the construction market would expand over the next 18 months. Sentiments for the longer term are less optimistic, as concerns over costs and labor shortages are likely to lead to a slowdown in new development despite favorable real estate fundamentals, particularly if oil prices rebound from their current six year low point.

¹RLB USA Quarterly Construction Report, September 2014.

U.S. MANUFACTURING IS RESURGENT AND TALK OF RESHORING ABOUNDS. WHAT ARE THE IMPLICATIONS FOR THE INDUSTRIAL MARKET?

Over the past several decades, the U.S. manufacturing sector has shrunk, with factories across the country closing as production and jobs were moved to cheaper countries abroad. Manufacturing employment was especially hard hit, with its share of total U.S. employment falling from 25% in 1970 to just 8% today.²

However, despite the erosion of the manufacturing labor base, the story for the overall U.S. manufacturing sector is, on balance, quite good. While manufacturing jobs are relatively scarce, total production output has grown, with the U.S. Industrial Production Index reaching all-time highs in 2014. As of Q4 2014, the U.S. was the world's second-largest manufacturing country, responsible for 21% of global output.³

The gains in productivity can be traced to efficiency improvements brought about by automation and technology. Strikingly, U.S. factories are today over five times more efficient, requiring 189 workers to produce the same output that 1,000 workers could in 1960.⁴ And, despite these record outputs, U.S. factories are running well below full capacity utilization, implying significant room to grow output.

While China took the mantle as the world's largest manufacturer in 2010, a title it is unlikely to relinquish anytime soon, one of the key advantages that makes China an attractive manufacturing location, cost of labor, is beginning to shrink. According to JP Morgan, average wages in China rose 11% in 2014 and are projected to rise another 10%-15% in 2015.

Rising wages in China has encouraged some Western companies to look elsewhere to fill its manufacturing needs. According to the MIT Center for Transportation and Logistics, over the past five years, more than 50 U.S.-based companies, including GE, Apple, Whirlpool and CAT, reportedly reshored some of their manufacturing capabilities from the Far East.

These moves have spurred optimism for a renaissance of domestic manufacturing. But, a closer look at the facts calls into question the reshoring trend. While these 50 companies have publicized plans to bring manufacturing back to the U.S., the majority of them have not yet executed, and the announced plans only include domesticating a small portion of their overall manufacturing capabilities.

In most cases, especially in the consumer electronics and heavy manufacturing sectors, the majority of core production will remain overseas for the foreseeable future. Reshoring has had an impact on the machine and plastics sectors and, to some degree, the chemicals sector. But, on the whole, reshoring is less of an impactful trend and more of a hope for the future.

Although reshoring is not driving the rebound in U.S. manufacturing, it is undeniable that production of goods is on the rise. As mentioned above, the increase in productivity can be traced to efficiency gains achieved through technology and automation.

The rise in production has a stimulative effect on the industrial sector in a variety of ways. In general, the flow of goods, both raw materials and finished, impact warehouse demand along the supply chain, especially in port and rail-served markets. However, this increase in production has the most direct impact in manufacturing-heavy markets such as Detroit (automotive), Houston (energy) and Seattle (aerospace), all of which have seen their availability rates recover significantly from their post-recession peak.

²U.S. Department of Labor, Q1 2014.

³Chicago Federal Reserve, November 2014.

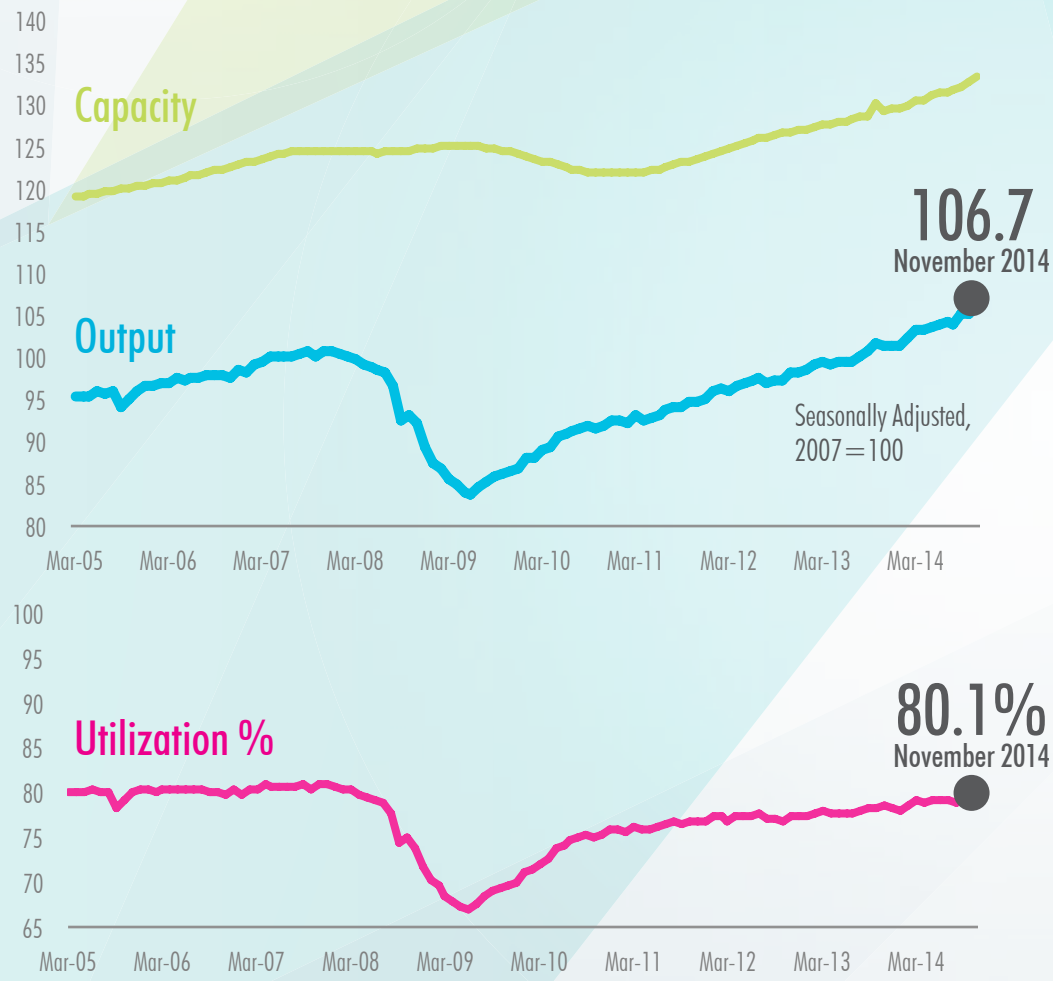
⁴Chicago Federal Reserve, November 2014.

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Reshoring of manufacturing will not be a major trend in 2015. U.S.-based companies may move some portion of their production back home, but it will only be small, specialized services and will not have a significant impact on manufacturing output or employment over the year.

However, efficiencies gained via technology and automation will continue to spur more manufacturing in the U.S., and overall output will continue to rise. Markets with exposure to this output will benefit, especially those with high-tech manufacturing, like Seattle and the San Francisco Bay Area.

FIGURE 6
U.S. INDUSTRIAL CAPACITY, OUTPUT AND UTILIZATION

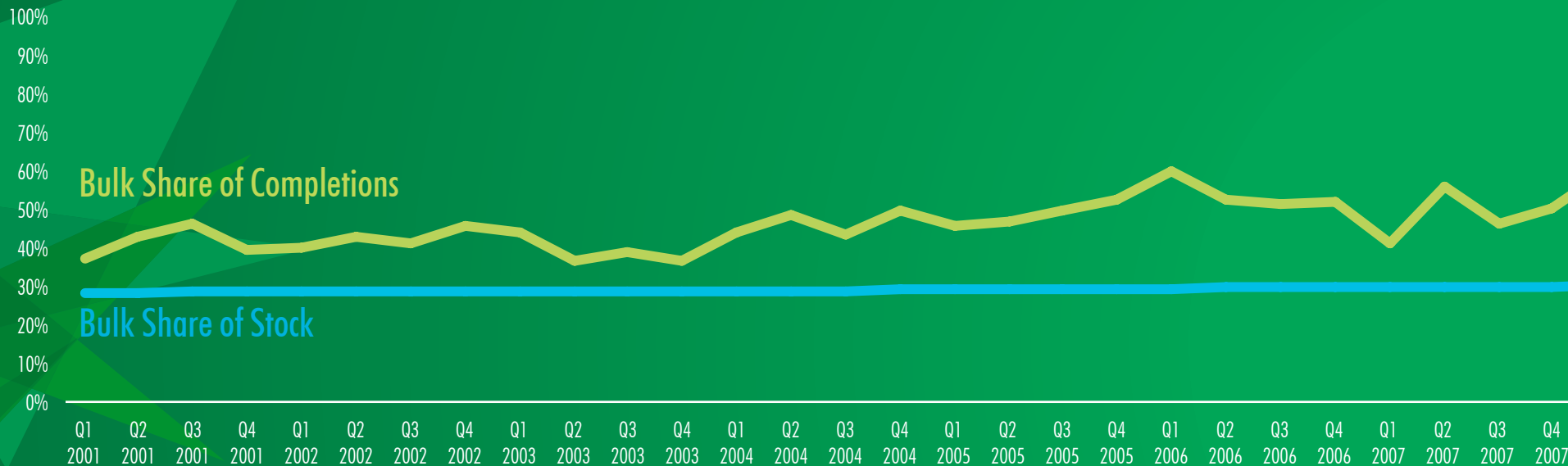


Seasonally Adjusted,
2007=100

Source: Federal Reserve, November 2014.

WHERE WILL DEMAND FOR INDUSTRIAL SPACE AND THE BIG RETURNS COME FROM IN 2015?

FIGURE 7
BULK INDUSTRIAL SHARE OF COMPLETIONS VS. STOCK (BIG-BOX BUILDINGS)



The dominant theme during the current cycle has been “bigger is better”—and for good reason: the big markets and the big buildings have been the foundation of the recovery of the industrial market.

A major reason for this has been the continued robust growth of e-tailing. The rise of e-commerce and omni-channel has added complexity to the distribution supply chain and forced users to rethink

the way they use industrial real estate. In many cases, the first step users have taken in reshaping their supply chain has been at the main hub locations and in their major distribution centers.

These locations tend to be at the ports and on the fringes of the major metropolitan population centers. The facilities are often modern big-box buildings over 200,000 sq. ft., with ceiling heights of 32 feet or



Source: CBRE Econometric Advisors, Q4 2014.

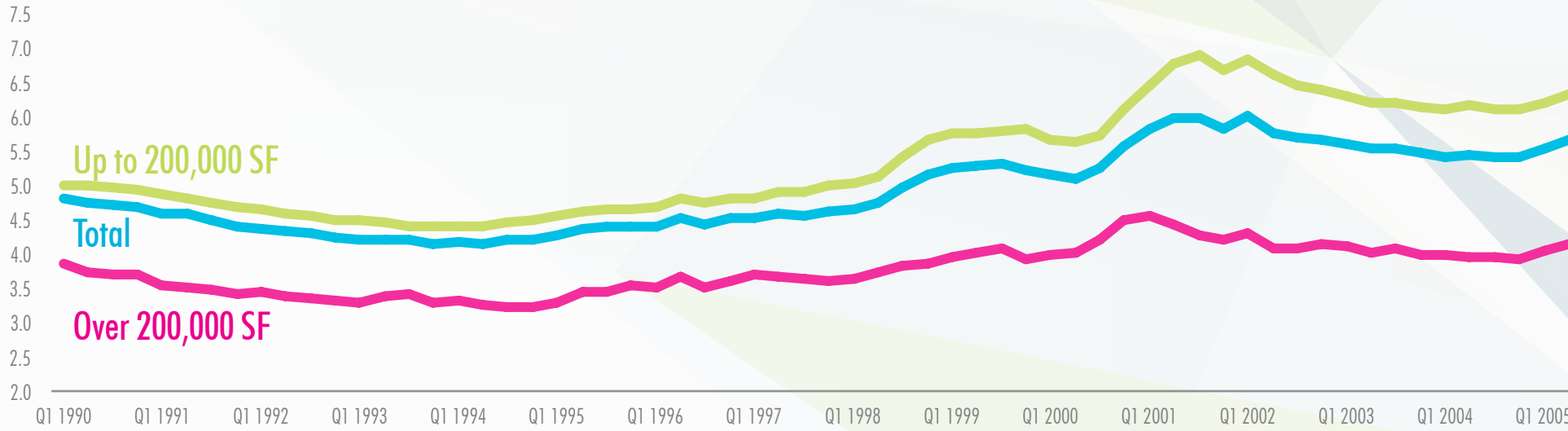
above, cross docking and plenty of land to accommodate more trailer and employee parking.

Big-box facilities have represented an average of approximately 50% of new supply since 2001 and, in recent years, have reached 80% of new supply despite consistently representing 30% of total stock, a clear sign of the outsized demand for these buildings.

As a result of this trend, bulk distribution facilities and the major transportation hubs in the U.S. have garnered much of the attention of users, investors and developers during the current recovery.

FIGURE 8 LIGHT INDUSTRIAL RENTS OUTPERFORM

Net Asking Rent (\$ per Sq. Ft.)



However, most of the industrial market is concentrated in the light industrial segment—buildings that are less than 200,000 sq. ft. These facilities are key to the next step in supply chain evolution and are where investors and users are likely to find their best opportunities in 2015.

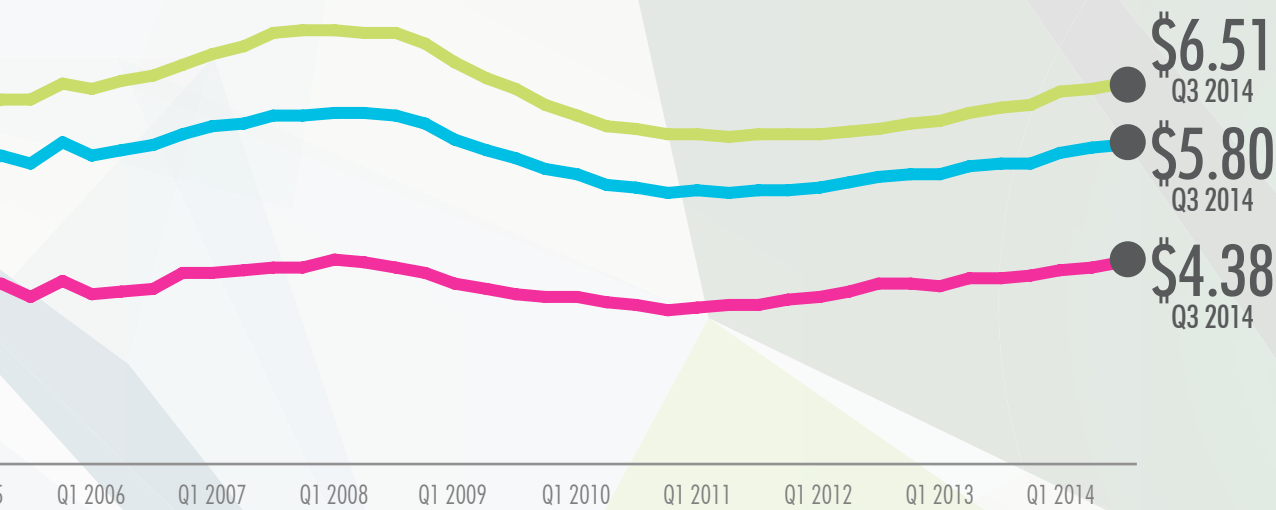
The modern supply chain has evolved and is now a complex web of distribution facilities, anchored by a series of regional big-box hubs and supported by a network of light industrial properties that serve as a crucial middle point in delivering goods to the end user—be it a retail location, manufacturing plant or the front door of an online customer.

As the market demands increasingly shorter delivery times or inventory turns, these light industrial facilities need to be located as close as

possible to the end of the chain. As such, smaller industrial assets tend to be located near the urban core and in more infill locations.

These assets are designed to satisfy tenants that do business in a five- to 50-mile radius from their customers. While the land may be cheaper at the fringes of a metro area, these users need to be closer to the final point of consumption and are willing to pay a premium for these infill locations.

Given the infill nature of many of the light industrial warehouse assets, over time these assets have tended to exhibit stronger rates of rent growth. As shown in Figure 8, looking at trends in net asking rent for various size ranges in the industrial market since 1990, smaller assets are the clear winner.



Source: CBRE Econometric Advisors, Q3 2014.

Tracing back to the early 1990s, net asking rents for assets up to 200,000 sq. ft. in size were around \$5.00 per sq. ft. Despite some cyclic highs and lows, by Q3 2014 this figure was at \$6.51 per sq. ft., a compound annual growth rate of just over 1%. By comparison, rents for assets over 200,000 sq. ft. were just under \$4.00 per sq. ft. in 1990 and are only approaching \$4.40 today, representing a 0.5% compound annual growth rate.

This is consistent with the idea that the smaller warehouses have generally benefited from lower long-run levels of new supply, as infill areas tend to face more barriers to construction because of higher land and replacement costs. The segment of the market under 200,000 sq. ft. represents 69% of total stock but only 17% of new completions. However, demand in the segment is forecasted to be strong going forward, leading to a supply constraint and an inevitable increase in rents.

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Demand for infill locations will continue to rise as retailers and e-commerce users develop omni-channel and same-day delivery strategies. A lack of new supply due to land and cost constraints will place a premium on the best light industrial facilities and will apply upward pressure on rents, which should see significant growth over 2015.

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