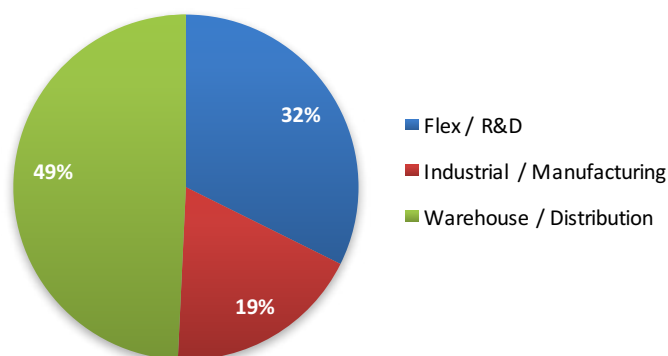




Thanks to Ecommerce, Industrial Demand Keeps Growing and Property Performance Strengthens

According to the U.S. Department of Commerce, ecommerce sales reached about \$395 billion in 2016, which is a 15.6% year-over-year increase from 2015. This acute growth in ecommerce has caused retailers to place more emphasis on improving services for last-mile delivery, which is the transportation of goods from a distribution hub to their final destination. Last mile fulfillment, for services such as Amazon Prime's two-hour delivery, is driving demand for smaller buildings and infill sites that are closer to consumers. The industrial sector benefits greatly from increased demand for last mile properties, as ecommerce firms simply need a building in the heart of an urban area, with little regard given to a building's physical features and quality. VTS observes that last mile buildings can be "technically obsolete or 30 years old or older, but if it's close to the population, that's more important to the e-commerce occupiers." Retailers such as Walmart and Target are working to upgrade their hyperlocal presence in order to compete with Amazon.

GRAPH 1: INDUSTRIAL CMBS LOAN ALLOCATION



Source: Trepp

Demand for industrial space has skyrocketed in recent years due to the rise of ecommerce and its reliance on warehouses and distribution centers. Industrial

properties secure about \$20.8 billion in private-label CMBS debt, which represents just 4.2% of all non-agency CMBS. Almost 50% of the industrial loan volume is allocated to warehouse and distribution centers, while 32% backs flex/research & development property loans. Manufacturing centers represent 19% of the remaining industrial balance. As more and more companies join the race for delivery and ecommerce dominance, demand for industrial assets can be expected to remain sky high.

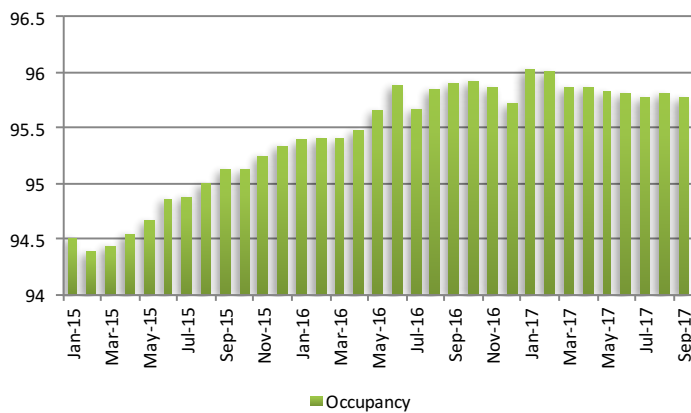
Rising New Supply Levels Catch Up to Net Absorption

Positive industrial loan performance can also be attributed to favorable supply and demand conditions, as demand growth has considerably outpaced supply growth over the past few years. However, construction spending on warehouse assets increased substantially starting in 2014, and the largest volume of completions seen since the early 2000s came last year. Industrial vacancy rates are still at historic lows, but investors will be monitoring market fundamentals closely as supply growth continues to climb.

According to research from JLL, Q2 2017 marks the first time in seven years that new industrial supply outpaced net absorption. However, new supply still lagged net absorption in the first half of 2017 overall by a slim margin. Industrial net absorption has increased annually since 2010, peaking at more than 250 million square feet in 2016. New supply has also increased consistently over the last seven years, reaching about 225 million square feet last year. The gap between new industrial supply and net absorption appears to be closing, and this can largely be attributed to the lack of quality industrial space left in the market. Additionally, the average size of industrial lease transactions has declined, while preleasing rates have increased by more than 40%.

Industrial occupancy rates are on an upward trend, and are expected to continue rising through the end of 2017, albeit at a decelerated pace due to new supply. Ecommerce, logistics, and distribution needs are the leading motives for leasing activity in new completions. This has driven the vacancy rate to a historic low of 5.2%. Within CMBS, industrial loans posted an even lower average vacancy rate of 4.2% in September.

GRAPH 2: INDUSTRIAL CMBS - AVERAGE LOAN OCCUPANCY



Source: Trepp

Despite High Investment Activity, Industrial CMBS Issuance Dwindles

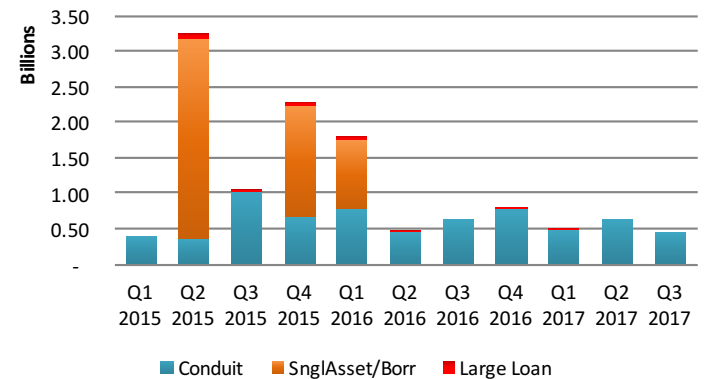
Investment volume for US industrial properties came in at well over \$23 billion in the first half of 2017, a robust tally for the sector. Industrial investment is up more than 20% year over year, which is outpacing overall CRE investment. While it appears investors are continuing to expand their industrial property holdings, the trend is not reflected in private-label CMBS securitizations. Third quarter issuance for 2017 clocked in at \$461.4 million, which is -28% year over year. Quarterly issuance hasn't hit the \$1 billion-mark since Q1 2016. Through September 2017, total industrial securitizations are just shy of \$2.3 billion for the year, which is the sixth-highest total by property type.

The peak issuance levels seen in 2015 and 2016 were mainly driven by large single-asset/single-borrower

(SASB) transactions, whereas conduit deals have made up the majority of securitizations over the past six quarters. According to JLL, more than \$12 billion in large-scale industrial portfolio activity is set to close through the end of the year, which may result in some large SASB securitizations hitting the market before 2018 begins.

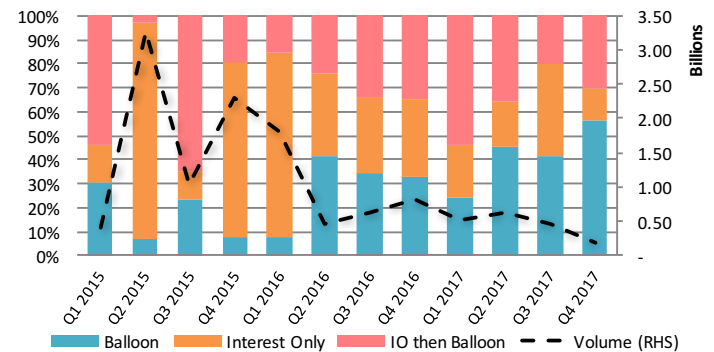
The volume of balloon loans issued has increased consistently over the past two years, which may be a reflection of tightening credit standards. Balloon loans made up 11.0% of industrial securitizations in 2015, but that figure jumped to 21.8% in 2016. For 2017 YTD, balloon loans have comprised 39.4% of all new industrial issuance.

GRAPH 3: INDUSTRIAL CMBS ISSUANCE BY DEAL TYPE



Source: Trepp

GRAPH 4: INDUSTRIAL CMBS ISSUANCE BY AMORTIZATION TYPE

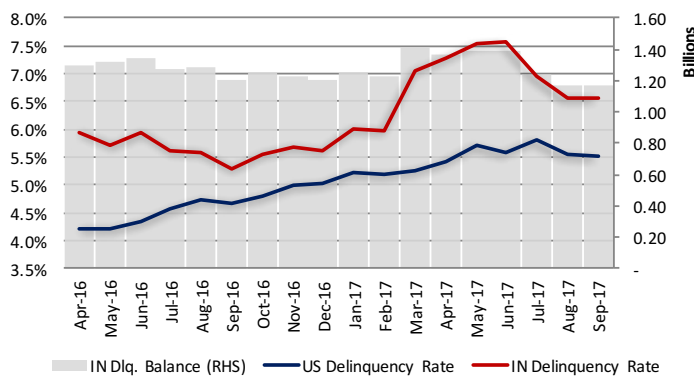


Source: Trepp

Delinquency Rates Begin to Wane

The industrial CMBS delinquency rate came in at 6.55% in September, compared to the delinquency rate of 5.40% for all private-label US CMBS. While it still outpaces the overall reading, the industrial delinquency rate has dropped nearly 100 basis points from 7.57% in June. Like the broader CMBS reading, the industrial delinquency rate has declined in the past three periods. A total of \$1.16 billion in industrial CMBS debt was recorded as 30 or more days delinquent last month.

GRAPH 5: INDUSTRIAL CMBS DELINQUENCY RATES



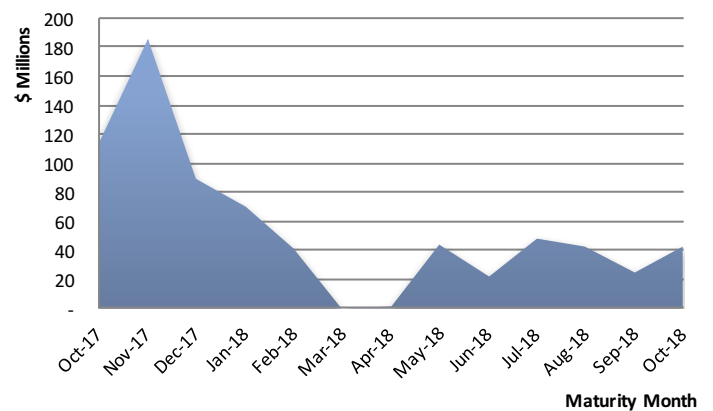
Source: Trepp

The volume of industrial loans that defaulted in September was a relatively low \$39.5 million. The largest industrial loan to become newly delinquent was the \$24.6 million Mercedes-Benz Central Parts Warehouse note. The 2007 loan is collateralized by a warehouse located in Vance, Alabama. The 514,800 square-foot asset was built in 2005 and is fully leased to Mercedes Benz. The note originally defaulted at

its underwritten maturity date in January 2017, and has once again been marked as non-performing. The borrower and special servicer have agreed to a 12-month forbearance, but it expires in January 2018.

Only a Few Bricks Remain in the Wall of Maturities

GRAPH 6: MATURING INDUSTRIAL CMBS LOANS



Source: Trepp

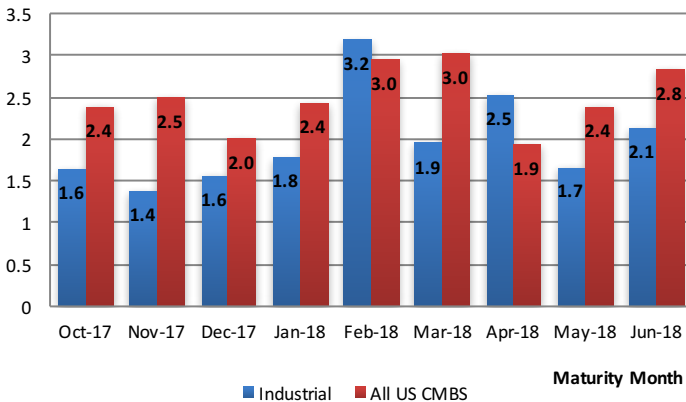
Roughly \$388 million of industrial CMBS debt is coming due in the fourth quarter of 2017, marking the close of the 'wall of maturities' for a large volume of loans underwritten between 2005 and 2007. The maturing volume then drops off to a figure less than one-third of that in Q1 2018. When compared to the rest of the US CMBS universe, industrial loans maturing through the end of the year have posted below-average DSCR (NCF) figures, as the weighted-average DSCR is 1.49x. Stronger DSCRs are seen in industrial loans that mature in early 2018, as loans coming due in the first quarter boast a weighted-

CHART 1: LARGEST NEWLY DELINQUENT INDUSTRIAL CMBS LOANS – SEPTEMBER 2017

BLOOMBERG NAME	PROPERTY NAME	BALANCE	CITY	STATE	DELINQUENCY STATUS
WBCMT 2007-C30	Mercedes-Benz Central Parts Warehouse	\$24.6 M	Vance	AL	Non-Performing Beyond Maturity
BSCMS 2007-T28	3979 North Freeway Boulevard	\$6.4 M	Sacramento	CA	Non-Performing Beyond Maturity
MSC 2007-IQ16	48 Spruce Street	\$3.1 M	Oakland	NJ	Non-Performing Beyond Maturity
BSCMS 2007-PW18	7401 Sunnyview	\$3.0 M	Visalia	CA	Non-Performing Beyond Maturity
BSCMS 2006-T24	Parkside Cintas	\$2.3 M	Phoenix	AZ	Foreclosure

average DSCR of 2.30x. The default rate, as well as the overall delinquency rate, is expected to retreat in 2018 as a result of the stronger credit quality.

GRAPH 7: INDUSTRIAL CMBS - WEIGHTED AVERAGE DSCR



Source: Trepp

Looking ahead, robust demand growth in the industrial sector can be expected to continue as more and more retailers are implementing ecommerce platforms and faster delivery services. The segment will benefit from this demand for large distribution centers and warehouses, as well as smaller infill sites to facilitate package delivery. While supply growth spiked in 2016, the amount of completions fell this year, as the collective footprint of those properties coming online totaled about 100 million square feet. This is likely due to a tighter financing environment, higher construction costs, and longer processes for permitting. Should these factors continue to keep supply growth in check, industrial market fundamentals—as well as industrial loan performance—are expected to remain strong.

For more information about Trepp’s commercial real estate data, contact info@trepp.com. For inquiries about the data analysis conducted in this research, contact press@trepp.com or 212-754-1010.

About Trepp

Trepp, LLC, founded in 1979, is the leading provider of information, analytics and technology to the CMBS, commercial real estate and banking markets. Trepp provides primary and secondary market participants with the web-based tools and insight they need to increase their operational efficiencies, information transparency and investment performance. From its offices in New York, San Francisco and London, Trepp serves its clients with products and services to support trading, research, risk management, surveillance and portfolio management. Trepp is wholly-owned by dmgi, the information publishing division of the Daily Mail and General Trust (DMGT).