

EMID-YEAR



2016

CRE MARKET ON THE HIGH WIRE

WHERE ARE WE IN THE CYCLE? PROPERTY SALES FELL SHARPLY IN 1Q MARKET VOLATILITY WREAKS HAVOC

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LETTER FROM THE EDITOR



Orest Mandzy Managing Editor

It's no secret that conditions aren't rosy in the commercial real estate sector. But they are nowhere near disaster level.

Property values, which escalated to levels well above those reached before the recession, have stagnated in recent months, as sales volume has declined. The culprit: mayhem in the capital markets, which has had a profound effect on CMBS, leading to increasing loan rates and a widening gap between property seller and buyer expectations.

In the following pages, we have examined the headwinds the industry faces and how the market participants are trying to cope with them. Chief among the challenges are heavier regulations, all of which are designed to reduce systemic risk. While this objective is noble, the mounting rules could have a dampening effect on the industry. After all, if CMBS lenders have to jack up their rates and bank lending gets hobbled, most property owners will face increased costs. So, if we say we're in the seventh inning, the rules could create a rainout.

For the first time, we surveyed our subscribers to gauge their expectations and concerns. And they're not too optimistic. In fact, they're generally pessimistic. Many of the respondents point the finger at regulatory overreach and continued economic uncertainty.

Few expect the industry to grow materially from where we are today, so they don't foresee an increase in propertysales volumes or CMBS issuance volumes when compared with last year. Most anticipate that benchmark CMBS spreads will stay in the 121 to 140 basis points over swaps range by the end of the year. That's roughly where those spreads are today. But their predictions for BBB- spreads are outright hopeful. Most expect a spread of between 401 and 550 bps—much tighter than today's roughly 650-bp spread.

As in previous editions of our twice yearly magazine, we're including insight from a number of industry leaders. EDR shows us that, based on the volume of environmental site assessments being completed, small markets with healthy growth profiles remain in favor among investors; BuildFax highlights how redevelopment or remodeling is far outpacing new construction—by a factor of 18; and Real Capital Analytics advises that the slowdown in property sales activity was felt globally, not just in the United States, and the large portfolio deals of the past so far this year have been few and far between.

Despite negative signals, the market can still recover from its rocky start. Property-level fundamentals remain relatively healthy, as rents and occupancies continue to improve, nearly across the board. Time will tell.

I hope you find this edition of our Mid-Year—our fifth magazine edition— a useful analysis. As always, we look forward to your feedback.

Best Regards,

Orest Mandzy

Venture-Capital Investment

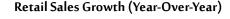
Real Estate Markets Healthy, But Warning Signals Are Flashing

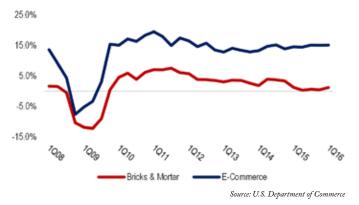
By Susan Persin

hese are the best of times for commercial real estate, or are they?

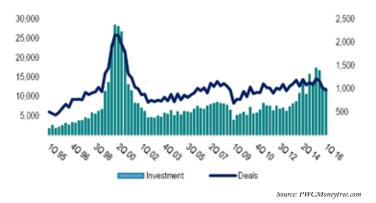
Buoyed by strong job growth and a healthy economy, property market fundamentals have strengthened steadily for a number of years. Healthy fundamentals and low interest rates have supported high valuations. Meanwhile, disciplined lenders and developers have helped keep new supply in check.

But interest rate uncertainty overshadows real estate markets, oil markets are suffering and venture capitalists are pulling back. At the same time, e-commerce and other technologies are disrupting markets. Pockets of softness are emerging for some product types in selected markets, creating challenges for investors. Many wonder how much longer markets can continue to climb and whether this real estate cycle will be different from those in the past.





The Federal Reserve's decision to leave interest rates unchanged following its first interest rate increase in December was good news for real estate investors. It indicated that the U.S. economy was strong enough to withstand the higher rates. Meanwhile, the rate hike was not large enough to materially affect borrowers. However, a



June or September rate increase remains on the table and is unsettling to investors.

At the same time, lending market conditions are a significant source of worry. A wall of CMBS loans are maturing this year and next. New CMBS originations were down about 40 percent during the first five months of 2016 from year-ago levels as fixed-income markets became unglued. Commercial banks are picking up some of the slack, but availability of financing is affecting markets.

Market disruptors are challenging the traditional notion of how real estate functions and have prolonged recovery during the current real estate cycle. Where and how people live, work and play is changing rapidly. The swift pace of technology development is causing buildings to become functionally obsolete more quickly. Technology has also enabled the sharing economy, making concepts like AirBNB and WeWork possible. Driverless cars are on the horizon and have significant implications for what our built environment will look like in the future.

The impact of energy company cutbacks is also beginning to affect office markets. Energy companies have cut thousands of jobs, and many are moving or downsizing.

E-commerce and same-day order delivery have changed the retail and industrial markets. First quarter 2016 e-commerce sales were up 15.2 percent from year-ago levels, while total retail sales increased 2.2 percent during the same period. Although e-commerce sales in the first quarter accounted for only 7.8 percent of total retail sales, many traditional retailers are facing difficulties dealing with online competition.

Consistently falling vacancies indicate that the retail sector has not yet succumbed to online pressure. New construction has been limited in recent years, and vacated spaces are being repurposed. Retail vacancy fell to 7.9 percent in the first quarter of 2016 from 8.3 percent a year earlier, while asking rents climbed 6.5 percent, according to Cushman and Wakefield. Limited new construction has helped the sector, but the list of retailers closing stores this year is long and

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includes names like the Sports Authority, Gap, Aeropostale, Sears/Kmart, Office Depot, Barnes and Noble, Walgreens, Children's Place, Wal-Mart, and Wet Seal.

On the other hand, the industrial sector is benefiting from the expansion of e-commerce, which is overtaking manufacturing as the driving force behind new demand for warehouses. Manufacturing has been affected by the volatile global economy and a strong dollar that has hurt exports, but increased online sales and the drive toward faster delivery are generating strong demand for both regional fulfillment centers and smaller, more urban facilities for local deliveries. Overall industrial vacancy stood at 6.1 percent in the first quarter, down from 6.8 percent a year ago, and weighted asking rents climbed 3.8 percent during

the 12-month period, according to Cushman.

But sublease space is becoming a growing issue among tech and energy companies, whose expansion drove demand for office space in recent years. Venture capital investment, which supports the tech sector, has pulled back in the past two quarters compared to year-ago levels. For instance, in the San Francisco Bay area, tech companies like Dropbox, Twitter, Yahoo and Zenefits are subleasing space.

Whether that signals a bursting bubble or provides breathing room in a hot market remains to be seen. Office net absorption slowed nationwide in the first quarter, but market statistics did not indicate that fundamentals deteriorated.

The national overall vacancy rate stayed flat at 13.5 percent in the first quarter compared to the fourth quarter. But it was down 70 basis points from year-ago levels. Overall asking rents climbed 4.3 percent over the past year.

The impact of energy company cutbacks is also beginning to affect office markets. Energy companies have cut thousands of jobs, and many are moving or downsizing. In addition to markets like Houston and Denver, the energy sector downturn has implications for firms that financed drilling and other projects in energy markets. Wells Fargo Bank and JPMorgan Chase Bank have already increased their reserves for energy sector losses, and other financial

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Source: U.S. Bureau of Labor Statistics

Premier asset management software for commercial loans and real estate

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Q1 2016 Global Property Downturn: Three Different Declines, Not One

By Jim Costello

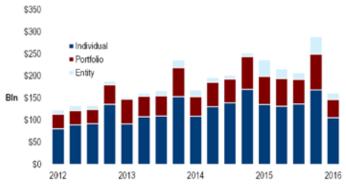
G lobal real estate investment activity was on a downswing during the first quarter, with sales of income-producing properties falling 32 percent to \$161 billion. Of more concern than the overall pullback is the fact that activity was down in each major region of the world.

This global pullback is not a sign that investors should be battening down the hatches in anticipation of a coming storm in the commercial real estate market. The drivers of the declines and the scale of each varied by region, suggesting that there is not exactly a coordinated global shock at play.

A Dearth of Megadeals

In some respects, measuring global deal volume in the first quarter, relative to the same period a year earlier, is simply using too high of a yardstick. Portfolio and entitylevel transactions were seen at an exceptionally heavy pace during the first three months of 2015, with total volume of these megadeals at \$100 billion. Only \$56 billion of such transactions were seen during this year's first quarter,





^{*}Office, industrial, retail, apartments and hotels; deals \$10 million or more. Source: Real Capital Analytics

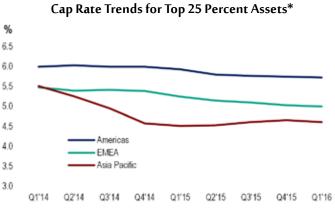
marking a 45 percent year-over-year decline.

Transaction trends for single-asset deals were down 22 percent from a year ago to \$105 billion. This decline, while smaller on a percentage basis than the market overall, is still a decline. Investment in single-asset deals represents the bedrock of the market, where investors are underwriting purchases on an asset-by-asset basis, and the declining volume suggests a change in perception in the market place. But this trend is not a sign of a coming calamity. Investors should not be waiting for the next shoe to drop.

There are some common stories behind these volume declines worldwide, but also unique forces in different regions and markets. Additionally, while volume is down globally, generally speaking pricing is unchanged.

A Low Yield Environment Worldwide

Normally one might expect that with volume falling off at sharp rates, pricing would begin to adjust as well. For all global regions, however, capitalization rates are largely unchanged from a year earlier. The combination of mostly flat cap rates and falling volume suggests a bit of a hung market.



^{*}Average office and retail cap rates (12-month rolling) Source: Real Capital Analytics

For the top 25 percent of assets in terms of quality, this trend towards flat cap rates has been underway since the middle of 2015. Focusing on the cream of the crop is important as these assets are typically the most expensive and require the biggest bets from investors.

There is a change in risk perception on the part of investors, with less willingness to complete large deals at record low cap rates. Unless sellers are motivated to transact, whether through a distress or default situation, transaction cap rates have no reason to move.

The risk aversion that was keeping buyers from pushing cap rates even lower had been in place for a few quarters before deal volume tumbled. The important feature of the first quarter was that the aversion to pushing cap rates lower finally had a globally coordinated impact on deal volume.

Regional Drivers

By regions, Europe, the Middle East and Africa (EMEA) and Asia Pacific (APAC) posted the sharpest year-over-year

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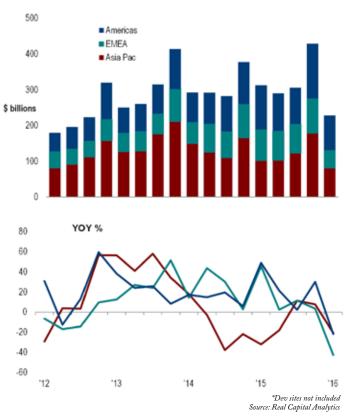
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declines in deal volume of income properties—43 percent and 40 percent, respectively. The Americas was down only 22 percent when compared with the same period a year ago. Some of this variation can be explained by unique property sector exposures in each region.

Apartment deal volume globally was down only 5 percent on sales of \$44.8 billion and represented 38 percent of all deal activity in the Americas. This asset class is simply less investible in the EMEA and APAC regions, constituting only 14 percent and 12 percent of total deal volume in each respective region. With investors showing more caution about large bets in commercial real estate, the comparatively safe, stable yield characteristics of the apartment sector have been relatively attractive to investors.

In EMEA, heightened external risks have dented activity. Primary among these threats is the forthcoming U.K. 'Brexit' vote on June 23. Volatility in financial and commodities markets, low global trade volumes and deflationary pressures

Quarterly Volume Change by Region*



Q1 2016 vs. Q1 2015 Transactions by Property Type

	Q1'16			Q1'15		
	Vol (\$B)		YOY Chg	Vol (\$B)		YOY Chg
Office	\$	61.0	-25%	\$	81.7	22%
Industrial	\$	17.8	-36%	\$	27.6	72%
Retail	\$	27.9	-48%	\$	53.3	25%
Apartment	\$	44.8	-5%	\$	47.4	79%
Hotel	\$	9.6	-64%	\$	26.6	73%
Income Properties	\$	161.0	-32%	\$	236.6	41%
Dev Site	\$	67.2	-12%	\$	76.6	-39%
Total	\$	228.2	-27%	\$	313.2	7%

Source: Real Capital Analytics

have also contributed to the risk perception for the region.

Across APAC, growing risk aversion is also a factor. But again, the drivers vary. The focus of this article has been on income-producing properties, but a decline in the sale of development sites in APAC is a telling indicator of future expectations. Activity for this speculative investment has been on the decline since 2013. APAC development site sales declined in the first quarter by 11 percent from a year ago.

Financing challenges unique to the U.S. help to explain some of the pullback in the Americas. Uncertainty in CMBS financing had been growing through the fourth and first quarters as bond yields ballooned. That, in turn, pushed up the coupons loan originators could offer and dented investor appetite for new investments.

Stronger declines in volume and lower cap rates in the six major metropolitan areas suggest some price resistance on the part of buyers.

Local Results May Vary

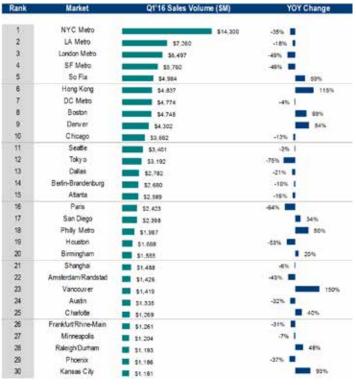
While investment activity was down in all regions of the world in the first quarter, local results have been starkly different. Generally speaking, there were positive stories at the market level across regions, but there were simply fewer positive stories than negative ones.

The London Metro had been the #2 location for capital globally in 2015 but in the first quarter had slipped to the #3 location behind the Los Angeles Metro. With deal volume at \$7.3 billion, activity in the Los Angeles Metro pushed this market to the #2 slot from its #3 position in 2015 and #4 position in 2014.

Standouts with positive volume in the Americas include such disparate markets as South Florida, Boston and

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Q1 Top 30 Global Markets



*Included property types: Office, Industrial, Retail, Apartment and Hotel. Source: Real Capital Analytics

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institutions will soon be dealing with losses.

Following a weak first quarter, U.S. hotel occupancy, room rates and revenue per available room improved during April, as reported by STR. RevPAR growth of 5 percent was the best since last fall, but likely does not represent a reversal of trends, especially since the sector still faces headwinds from an influx of new supply, the strong U.S. dollar and competition from companies like Airbnb.

For apartments, overbuilding is a significant concern, especially in the high-end sector. Multifamily permit activity in 2015 topped its last peak, reached in 2005. The number of permits issued was down year-to-date through April, but the decrease was only a modest 12.4 percent from year-ago levels. Vacancy moved slightly during the first quarter to 4.5 percent from 4.4 percent at year-end 2015 and 4.2 percent a year earlier, according to Reis Inc.

Apartment rents continue to increase in many areas, but at a slower pace, and rental concessions are increasing, especially for new projects that are leasing up. The New York City market already is seeing concessions—necessary to lure tenants. Other markets, like the San Francisco Bay area, with significant new supply so far have maintained their growth, but could be next to offer concessions. Slower anticipated growth in the tech sector could also affect demand and rents, which people would be willing to pay.

Meanwhile, REITs can be seen as an arbiter of broader real estate markets because investors make decisions based on anticipated future returns. Healthy underlying market fundamentals and strong dividend yields are attractive to investors, but the sector has experienced volatility, reflecting companies' dependence on borrowing and the current interest



Source: U.S. Bureau of Labor Statistics

rate uncertainty.

Since last year, many REITs have traded at a discount to their asset values. Their stock values have pulled back or grown more slowly than that of their assets, indicating that investors anticipate slower growth or a pullback in the future. That's prompted a number of REITs to sell assets; and rather than reinvesting proceeds into new acquisitions, they're buying their shares or paying down debt.

Real estate is a cyclical business, and we are far into the current cycle. Market conditions are currently strong, but growth in some sectors is slowing. The slowdown may be a temporary blip, but it could be a sign of more significant slowing ahead. It is time to look ahead and take action to be well positioned for the future.

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Vancouver, among others. In EMEA and APAC, only Birmingham, England, and Hong Kong posted positive growth in deal volume.

These figures are measured in U.S. dollars, and the pace of investment changes a bit when looking at growth in local currencies. With such a calculation, Shanghai had volume up 16 percent from a year earlier, while Berlin-Brandenburg was up 22 percent, but still very close to the U.S. dollardenominated levels a year earlier. The fact that there is some variation by city and by region may, in and of itself, be the strongest indicator that the commercial property markets are not on the verge of a coordinated global downturn.

Looking back, the commercial property market was on the verge of a coordinated global downturn during the first quarter of 2008, when 20 of the top 30 markets for deal volume posted declines in sales activity. In terms of the number of markets on a downswing, this year's first quarter was similar to that period, but the scale of the declines are very different.

There was a significant skew in the distribution of transaction growth in the precursor to the last coordinated global downturn. Almost half of the top 30 markets posted drops of more than 40 percent in volume. In contrast, only six markets during the first quarter posted declines of that magnitude. Compared with the same time period in 2008, one would have a difficult time saying that all markets today were headed off the cliff.

Conclusion

While deal volume in the first quarter is down, investors should be watchful, but not alarmed. There is some correlation between elements in all regions that drove declines. Risk aversion in the face of global uncertainty, and hesitancy over the record low cap rates are two common features.

There were other drivers of the declines in each region, however, and the scale of each varied, suggesting that there is not exactly a coordinated global shock at play. What the market experienced was three different downturns, not one. The implication here is that as shocks unique to each region fade, deal volume may reverse from the first quarter trends.

Jim Costello, CRE, is senior vice president of Real Capital Analytics, a New York data and analytics company.

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Risk Management in the 'Long Top' of Recovery

By Dianne Crocker

The good news is that 2015 was the best year for commercial real estate since the downturn. But the first half of this year was not so good. Disparate forces are pulling the market in different directions, and that has important implications for how property risk is managed.

Transactions Trend Downward, Fewer Portfolios

Commercial real estate deal volumes have been trending downward in recent quarters, in stark contrast to the double-digit growth rates of the past few years. April sales of large commercial properties totaled \$22 billion, down a significant 34 percent from a year earlier. The slowdown is largely attributable to a pronounced decline in large portfolio deals, which peaked in February 2015.

In addition, the low interest rate environment that the market enjoyed for the past several years is slowly changing. Property prices that skyrocketed 93 percent from their 2010 low point are now plateauing—and even falling in certain areas. Much of the distress that characterized the first few years after the recession has now been addressed. So property "bargains" are now few and far between.

With so much capital looking for a home in commercial real estate, investors are

broadening their targets to include more options, such as smaller properties, those valued at between \$10 million to \$25 million, smaller metros where there's less competition, and less desirable properties.

For example, developers are targeting older assets for renovation, redevelopment or conversion projects. Out of a necessity to place capital, coupled with limited options, the market is embracing older space with a fervor it hasn't seen in a long time. Particularly in urban areas, clean properties are in short supply, so developers are leveraging opportunities for infill development and conversion projects, using underutilized land or historic buildings for redevelopment.

Banks Tighten Reins on Borrowed Capital

Just as the environment for choice commercial properties is competitive, there is also strong competition among lending sources to originate new loans. Bank balance sheets swelled with commercial real estate debt in recent years, and regulators took notice, vowing more scrutiny on underwriting practices by banks, particularly those that increased their commercial real estate exposure.

This warning came in response to climbing loan levels as

Top 10 High-Growth Metros (1st 4 Months of 2016 Year-Over-Year)

Nashville, Tenn.	28%
Raleigh, N.C.	22%
San Antonio	21%
Baltimore	15%
Hartford, Conn.	12%
Portland, Ore.	11%
Boston	10%
Milwaukee	10%
Northern New Jersey	9%
San Diego	8%

Source: EDR Insight

well as reports that banks were easing underwriting. Also impacting lending for commercial properties are the riskretention requirements in the CMBS sector, and more regulatory pressure related to Basel III requirements aimed at "high volatility" loans like those that fund construction projects.

Due to more intense regulatory scrutiny and market forces, lending was off to a wobbly start this year, and banks exhibited tighter underwriting as the market adjusted to new regulatory pressures. The riskiest deals, such as new construction, are having a harder time finding financing. Lenders in 2016 are also more cautious in gateway markets with elevated supply, and energy-centric markets like Houston, Dallas, North Dakota and southern Ohio.

New Lens of Risk Management

Recent market trends are contributing to the tonal shift to a less sanguine forecast, placing risk management in a new light. Property prices are no longer on a guaranteed upward trajectory and for investors, this is probably the most important change of late. If prices are no longer increasing as quickly, and there is no guarantee of higher prices down the road, does the property's condition support the asking price? Are there environmental issues that could complicate development plans? At this later stage in the real estate cycle, when forecasters are starting to predict the next recession, investors are even more selective in view of an expectation of lower returns in the future.

And as developers turn their interest to older properties or sites in urban areas, property due diligence professionals are seeing more demand for their services to consider environmental

risks. Finding good deals takes much more due diligence in a market where buyers and lenders are modeling the downside of every transaction as prices plateau and higher interest rates threaten to erode property value.

As property loans approach their maturities, old environmental reports are surfacing and being subjected to new scrutiny through today's risk management lens. Environmental issues that would not have raised an eyebrow 10 years ago are today's red flags. Issues like vapor intrusion risk are now standard practice in environmental due diligence, but were not typically addressed in due diligence before the recession.

EDR Insight's ScoreKeeper model tracks environmental due diligence activity (measured in terms of the volume of Phase I environmental site assessments) for the U.S. market, regions, states and metros. Since due diligence is performed prior to a property transaction, Phase I ESA hot spots are a leading indicator of growing commercial real estate investment markets—much like the Architectural Billings Index is an economic indicator of future commercial real estate construction. As shown in the accompanying table, smaller secondary markets with strong growth profiles are seeing investor interest.

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Capital Markets Volatility Continues to Plague Property Dealmaking

By Josh Mrozinski

olatility in the capital markets and lingering macroeconomic issues that emerged at the end of last year have continued to hamper commercial real estate investment sales activity in certain market segments.

While conditions have stabilized in recent weeks, there's still a disconnect between property buyers' and sellers' expectations on pricing. Investors remain cautious, concerned that the market might have gotten ahead of itself, while sellers are valuing their properties based on last year's conditions.

The game, for some, has moved beyond the seventh-inning stretch.

That disconnect has resulted in a leveling off in pricing and property sales transaction activity. Indeed, the Moody's/ RCA Commercial Property Price Index' main barometer, the national all-property index, has basically flatlined since November. Prices, however, are well more than they were during their last peak in October 2007.

Meanwhile, sales activity, as measured by Real Capital Analytics, was down by 71 percent this year through April, with comparable drops in both major and secondary/tertiary markets.

As buyers and sellers can't come to terms on pricing, deals aren't getting done.

The market turmoil emerged at the end of last year, when oil prices cratered and concerns about the Chinese economy grew. Prices for fixed-income securities, including CMBS, plunged. Unable to profitably price loans with any degree of certainty, some lenders that rely on CMBS as a funding source pulled back entirely, while others re-traded, or re-repriced, loans. In other words, lenders would change terms before closing their loans. Borrowers, as a result, sat on the fence.

Market conditions since have improved, but the effect has been lasting. "There is no certainty," explained one mortgage broker.

Life insurance companies and regional banks have become

more active, making up for some of the pullback from CMBS lenders, which have traditionally been the grease that keeps the wheels of middle-market property transactions turning. But they're generally more selective and sponsor driven. In addition, they often are more stringent than CMBS lenders in terms of underwriting.

The net effect is a restrictive lending environment in which less well-capitalized properties have a more difficult time finding financing.

Because of the turmoil, buyers have become more selective. In some cases, brokers say the number of bidders has thinned for properties in secondary markets, particularly those that present greater risk because of their leases, age or location.

"People don't want to make a mistake," remarked a broker. "There is a feeling that we are further along in the cycle."

Indeed, Weingarten Realty Investors, which during the first quarter had sold \$112 million of real estate, noted fewer prospective buyers were trolling for deals. "There is not the feeding frenzy that there was a year ago," said Andrew Alexander, the Houston REIT's president and chief executive.

Prospective buyers simply are being more conservative, leery that the market is at or near its peak. In South Florida, for instance, they're assuming rental growth of 3.5 percent to 5 percent over the coming five years. That's a sharp contrast to as recently as last year, when they were underwriting prospective investments with projections of 6 to 8 percent rental growth over five years.

Property sellers, meanwhile, have been slow to adjust their expectations, hence the disconnect.

Piedmont Office Realty Trust, for instance, earlier this year pulled the plug on an effort to sell the 527,338-square-foot office building at 800 North Brand Blvd. in Glendale, Calif., after it received offers that fell short of what it had sought.

However, there are indications that the gap between buyer and seller expectations might be narrowing. In other words, brokers are doing their jobs. They're convincing sellers that buyers have become more cautious and won't change their outlook anytime soon.

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All Roads Point to Efficiency, Technology Solutions

Ask environmental due diligence consultants what their top challenges are in today's market and chances are you'll hear about the intense pressure for faster delivery of Phase I environmental site assessment reports.

According to EDR Insight's Benchmarking Survey of Environmental Professionals, nearly one-third (or 29 percent) indicated that speed is more important than price in winning projects. The squeeze on efficiency is due in part to pressures to complete commercial real estate deals quickly, and in part to technological advances that are improving the efficiency of all types of business processes.

Industry insiders are largely optimistic over the near term, pointing to solid property fundamentals, cautious underwriting and a relatively stable economy. Deal volume is expected to increase, albeit moderately, for another 18 months and then level off after 2017.

On the debt side, there continues to be strong liquidity and competition among capital sources, but also strong capital flows with commercial lending expected to see modest three percent growth this year with notable shifts by lender type. Amid a contracting market and intense pressures on efficiency, technology is poised to disrupt commercial real estate underwriting. Using technology and data in new ways to close property deals more quickly will surely be an important part of tomorrow's market solutions.

Dianne Crocker is principal analyst at EDR Insight, the analytical arm of EDR, a national provider of data, riskmanagement and technology tools and insight for property due diligence and compliance.

Implications of the 'Debt Overhang' Combined with the Regulatory Infrastructure

Between capital, liquidity and other rulemaking, regulatory agencies are haunting the majority of capital available to commercial real estate borrowers.

By Martin Schuh and Christina Zausner

R egulatory agencies have made it clear that past sins must still be dealt with. Several principals and committees have cited the "debt overhang" that

remains in the system since the exuberance of the noughties. They have indicated a desire to address this excess leverage in the global system, despite knowing that it has implications for growth.

While the commercial real estate market continues to grow, new regulatory and supervisory interventions will make it difficult to keep pace in the future. Between capital, liquidity and other rulemaking, the agencies are haunting the majority of capital available to commercial real estate borrowers. Where rules are too blunt, there are numerous supervisory tools that can be deployed to fine-tune debt levels and risktaking in the financial system, such as stress tests and bank examinations.

What it Means for the Market

The most visible of those headwinds became noticeable in the CMBS market at the beginning of this year. At the Commercial Real Estate Finance Council's January Conference, attendees predicted a banner year for CMBS, but research desks quickly revised their issuance numbers in February and March. It's now thought that issuance will total perhaps \$50 billion to \$60 billion—less than half the \$125 billion in issuance discussed late last year. Industry participants point to risk retention, the Volcker rule and capital and liquidity requirements as the main factors squeezing the CMBS pipeline.

On the portfolio lending side, CREFC banking members are reporting that they are viewing construction lending as more of a relationship business, offered only to good customers. Banks also are tightening their permanent lending programs.

The April Senior Loan Officers Opinion Survey indicated that loan-underwriting standards are getting tougher. Coupled with the pullback in CMBS volume, the industry should anticipate a contraction in overall capital availability in the near-term.

Risk Retention, Top Issue for the Industry

With the implementation of risk retention in sight (Dec. 24), the industry is actively addressing those challenges. In an attempt to rationalize some of the aspects of the retention specifications, Representative French Hill (R-Ark.) introduced and sponsored the "Preserving Access to CRE Capital of 2016," which is currently making its way through Congress. The bill, H.R. 4620, would not eliminate the key elements of risk-retention-the obligation to hold 5 percent of a transaction by market value for five years or more-but would revise some of the technical aspects. It focuses on three main recommendations: providing an exemption for singleasset/single-borrower transactions, expanding the definition of a Qualifying Commercial Real Estate Loan to a realistic expectation and allowing investors to split the retained 5 percent slice according to risk preference, horizontally and in line with the structure of the bonds, or pari passu, as currently required by the final rule.

CREFC is leading a working group that is identifying and working through interpretative questions regarding risk retention.

Most recently, Drew Fung, managing partner of Clarion Partners, testified on behalf of CREFC in the Senate Banking Subcommittee on Securities, Insurance and Investment regarding the state of the market, and in a rare occasion was allowed to testify about a House bill lacking a formal Senate introduction.

In March 2016, H.R. 4620 passed the House Financial Services Committee in a bi-partisan vote. The CREFC government relations team is hopeful that a floor vote will be scheduled in the coming weeks. Helping that prospect is that John Carney (D-Del.) has signed on as a co-sponsor. CREFC is now lobbying to introduce a companion bill in the Senate, and we're optimistic for a vote on the full house floor before Congress adjourns for summer recess.

In addition, CREFC is leading a working group that is identifying and working through interpretive questions regarding risk retention. CREFC is working with other trade associations—the Mortgage Bankers Association and Real Estate Roundtable—as well.

Continued on next page

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...A Little Later Next Year

We know that regulators are increasing risk-based capital requirements for large banks, and depending on the amount of risk, a bank might have to hold as much as 18 percent capital. While no U.S. bank is being held to the most stringent capital ratio as of yet, the message reinforced by several measures coming through the pipeline is that larger institutions will have to increase their capital and long-term debt cushions going forward.

Knowing this, we can then assume that either through stress tests or new requirements coming from the Basel Committee on Banking Supervision next year, capital requirements for the commercial real estate sector will increase, impacting both CMBS and portfolio lenders.

Based on the latest information, the industry has been advised that new rules that interject capital floors and/ or require more rigid capital calculation models for many CRE-related portfolios will be proposed in the U.S. next year. While it is generally difficult to understand the exact impact, it is assumed that capital held against CMBS portfolios will increase, possibly by roughly two times on average, and the new requirements may even exceed market values in certain instances. On the portfolio-lending side, the costs are not yet known, but the retrenchment from internal modeling will mean reduced freedom in capital allocation decisions by bankers. Media sources have already started to report reductions in bank capital modelers in response to the pending rules.

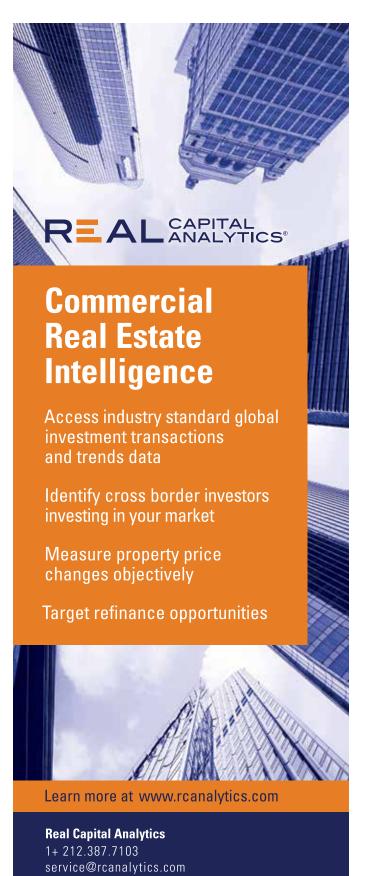
In Sum

The regulatory agenda that was articulated in 2009 by the G20 is rounding its last several hurdles, but the impact is only just starting to be felt.

The timing isn't great for the additional regulatory measures targeting CMBS and most types of bank CRE lending. Global growth and geopolitics present a seemingly intractable set of headwinds at the same time the industry is dealing with a wave of refinancings.

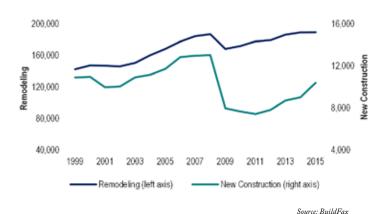
The prevailing belief may be that the industry will find a way around these new requirements. But the intent of the regulators is to reduce the debt overhang that remains since the last market peak. With a much greater infrastructure in place now than ever before, it will be pretty easy for the agencies to target firms and portfolios, even without new rulemaking. As much as the industry may want to prevail, the regulators will make it tough to do so.

Martin Schuh is vice president, legislative and regulatory policy, and Christina Zausner is vice president, industry and policy analysis of the Commercial Real Estate Finance Council.



Mid-Year 2016

Is Commercial Remodeling Taking the Place of New Construction?



By Holly Tachovsky

ommercial remodeling is booming in the United States, and last year, it outpaced new construction activity by a large margin. Remodel rates have increased steadily since 2008. Commercial new construction, meanwhile, sits below pre-recession levels. This relationship makes you wonder: Is commercial remodeling taking the place of new construction?

Both commercial remodeling and new construction took a nose-dive in 2008 as a result of the recession, but commercial remodeling began its upswing in 2010, two years before commercial new construction followed suit. While both are on the upswing, as of 2015, new construction was still 20 percent below its pre-recession peak, whereas commercial remodeling had surpassed its previous peak.

Commercial remodeling is picking up the slack created by the relative dearth of new construction and continued job growth.

The civilian labor force is expected to grow at an annual rate of 0.5 percent between 2014 and 2024. Service-providing positions are projected to comprise 94.6 percent of all jobs added within that timeframe. So the demand for commercial spaces, such as restaurants, healthcare facilities and retail, will increase as well.

As demand for space increases, so will construction activity. But that might take the form of remodeling existing space.

Is this part of the Millennial Effect?

Millennials now make up the largest generation in the workforce—and guess where young people like to live? They

flock to cities because active hubs around the country offer the kinds of jobs they're interested in—like tech. Companies looking for fresh talent tend to be in cities, where they'll find a larger employment pool.

In the spirit of lean startup development, these nimble companies are open to setting up shop in spaces that aren't necessarily custom-designed for them. In large urban areas, usable land can be hard to find for new construction. There are land-use regulations and zoning ordinances to account for, which are typically a non-issue for an existing structure. So it's only natural to use what's already there. Plus, there's a certain "hipness factor" to working in a renovated office with a history, like an old warehouse where you can get to meetings on an old freight elevator.

To keep up with the increased demand for commercial space, property owners are choosing to renovate at levels never seen before.

Remodeling Perks

Newer, smaller companies also might be more willing to move into existing space. In offices, tech infrastructure may already exist, which is a huge bonus. And for entertainment and food companies, utilizing existing structures can be a boon to their business because of the unique qualities and character of old spaces. Think of the pizza place in the old auto service station that makes great use of big garage doors, or the old hotel turned into a fine dining restaurant.

Remodeling is also better for the environment. When you opt to use existing materials rather than demolish, less waste is sent to the landfill. And you have the added benefit of preserving historic buildings, which can have a tremendous impact on neighborhood vibrancy and quality of life.

There's proof that the economy is recovering post-recession and the labor force is growing. To keep up with the increased demand for commercial space, property owners are choosing to renovate at levels never seen before.

It's only been eight years since the economic downturn, and nothing is for certain. We do see commercial new construction on the rise as well, but it does seem like remodeling as an option is coming out on top.

If historical trends are a predictor of the future, commercial remodeling is here to stay and is going to be bigger than ever in the years to come.

Holly Tachovsky is co-founder and chief executive officer of BuildFax, which maintains a national database of construction permits.

CRE FINANCE COUNCIL

EDUCATION SERIES

CMBS 101: An Introduction to Commercial Mortgage Backed Securities

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Finance Council

The Good, the Bad, and the Ugly: 1H 2016

By Joe McBride

he first month or so of 2016 fell squarely into the ugly category as investors became anxious about the prospects for China's continued economic growth, falling oil prices and the first Fed rate hike, which continued to push fixed-income spreads wider.

CMBS conduit shops all but shut down in January in the face of widening bond spreads.

Spreads on last cash-flow AAA bonds, which started the year at 162 basis points more than swaps, had ballooned to the low-170s in early March, before starting to grind tighter as the market stabilized.

Most of the CMBS spread widening was attributed to topdown factors pulling all fixed income securities wider as well as the decline in the 10-year Treasury yield to the 1.8 percent range from 2.2 percent. The result was that total yields on new-issue AAA bonds remained relatively flat.

The slowdown put a dent in the initial high expectations for 2016 CMBS issuance. As of Memorial Day weekend, new issuance is nearly 40 percent below last year's pace.

On a positive note, the trend line makes 2016 look a lot like

More Bad and Ugly Headlines from 1H 2016

• Jan. 2016: Macy's announces store closing—11 touch CMBS loans.

• Jan. 2016: Flint, Mich., water crisis becomes national news.

- Feb. 2016: Major tenant behind \$100 million.
- 2015 loan poised for bankruptcy (Energy XXI Ltd.).
- March 2016: Sports Authority files for bankruptcy.
- April 2016: Sears announces it will close 78
- unprofitable Sears and K-Mart stores.
- May 2016: Staples/Office Depot merger falls apart.

Monthly Loss Severity, Liquidation and New ARA Volume



2014, whose second half CMBS volume skyrocketed by 50 percent over its first half, resulting in total issuance of \$93 billion. Most experts would happily sign up for \$90 billion this year after such a rocky start. Another \$75 billion-plus in non-delinquent loans are due to mature this year, so issuance will need to end up at about the \$90 billion mark or non-CMBS lenders will need to continue picking up the slack created by the dearth of CMBS lending earlier this year.

It is not without some fear of repetition that we point out another round of big-box retail store closures, including Macy's, Sears, Sports Authority, Kohl's and Aeropostale, to name a few so far this year.

Some of the largest losses so far this year came from retail loans. Those included 100 percent loss severities for the \$136 million loan (CD 2007-CD4) against Citadel Mall in Colorado Springs, Colo., the \$77.5 million loan (MSC 2007-IQ13) against the St. Louis Mills shopping center in Hazelwood, Mo., and the \$51.8 million loan (GSMS 2006-GG8) against the Ariel Preferred Retail Portfolio.

On the whole, CMBS loss severity so far this year has been elevated, mostly due to the lower liquidation volumes Continued on next page

Major Milestones in CMBS History

2007-2009

2000-2005

Jan. 2000: Delinquency rate starts the decade well below 1 percent (0.51 percent).

March 2002: Hotel delinquencies climb above 6 percent after 9/11.

Oct. 2003: Post 9/11 impact hits peak; Delinquency rate tops off at 1.8 percent.

March 2004: 10-Yr BBB spreads hit 112 bps over Treasurys.

Winter 2005: 10-Yr AAA spreads hit all-time lows: 21 bps over swaps, 60 bps over Treasurys. **Feb. 2007**: 10-Yr BBB spreads hit all-time low of 70 bps over swaps.

July 2007: Calm before the storm: Delinquencies hit decade low of 0.29 percent.

Dec. 2007: MBS Co., a Texas multifamily owner, hits the rocks; MF only property type with delinquencies above 1 percent.

June 2008: U.S. CMBS "Ice Age" begins -Last Non-GSE deal done for 18 months.

Aug. 2008: NYC's Riverton Apartment reserve depleted, default imminent; Spreads would jump more than 700 bps over next 4 months. **Nov. 2008**: AAA spreads blow past 1,000-bp spread barrier; Some AAA bonds trading above 1,500-bp level.

March 2009: Government initiatives ignite major CMBS rally.

Nov. 2009: Delinquency rate cracks 5 percent level for the first time (5.6 percent).

Dec. 2009: Delinquency rate cracks 6 percent level for the first time (6.1 percent).

Dec. 2009: CMBS Ice Age ends (Holocene Age begins?); First non-Gov't supported CMBS deal done in 18 months.

2010

Feb. 2010: \$3Bln Stuyvesant Town Apartment loan moves to foreclosure after debt-service reserve is exhausted.

March 2010: Last legacy CMBS TALF auction held; CMBS spreads continue to plunge despite Gov't support ending.

March 2010: Delinquencies crack 7 percent for the first time.

April 2010: First multiborrower CMBS deal issued in 21 months as RBS brings new conduit CMBS deal .

July 2010: Modifications, liquidations accelerate as property firms, servicers start moving properties.

Continued from previous page

as the distressed pipeline dwindles. A few of the largest-ever delinquent loans were finally resolved this year, including the \$3 billion elephant in the room, also known as Manhattan's Stuyvesant Town/Peter Cooper Village. Although the loan was resolved without losses, some other smaller elephants were finally liquidated in January with hefty losses. Those included the \$363 million loan (JPMCC 2006-CB17) against Bank of America Plaza in Atlanta, resolved with a 56 percent loss, the \$225 million loan (CD 2007-CD4) against the Riverton Apartments in Manhattan, which suffered a 50 percent loss, and the \$125.6 million loan (CD 2007-CD4) against the Northwest Arkansas Mall, which suffered a 77 percent loss.

Luckily, most of the bad and ugly occurred early in the year and, as evidenced by the new issue spread chart on the right, CMBS pricing has worked its way back to the levels reached last fall. They're not quite back at their post-recession lows, but they're tight enough to make CMBS lending profitable again. So lenders are back in business.

Delinquency rates also got a big boost thanks to the removal of the StuyTown loan. The rate bottomed out just above 4 percent and has been bumping along with an upward tilt through the first five months of the year.

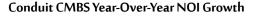
Now that most of the full-year financials for last year have filtered through remittance data, we see that property-level net operating income continued to grow for all major property types. Lodging and multifamily properties posted the strongest

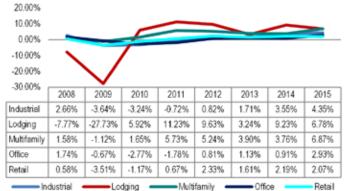
More Good Headlines from 1H 2016

- Feb. 2016: Vonage extends big N.J. lease.
- Feb. 2016: Denver Broncos defeat Carolina
- Panthers in Santa Clara, Calif., in Peyton Manning's final game.

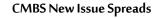
• Feb. 2016: U.S. CMBS Delinquency Report: Delinquency rate plunges on StuyTown resolution; multifamily goes from worst to first growth at just less than 7 percent, while retail saw the weakest growth in NOI, at 2.07 percent.

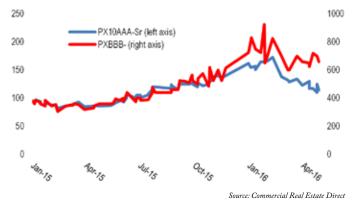
With oil prices back above \$50/barrel and housing data looking steady, the outlook for the rest of the year has turned slightly positive. Another Fed rate hike or two is on the table. Some days the markets react negatively to the implications of economic strength the hikes imply, while others not so much. In other words, the tenuous calm we see in the market could fly out the window come the next hike.





Source: Trepp LLC





Major Milestones in CMBS History

2010-2011

July 2010: Innkeepers hotel REIT files for bankruptcy.

July 2010: Investors irked after Memphis, Tenn., apartment loan sees loss of more than 100 percent of balance.

Aug. 2010: CMBS spreads continue to fall despite concerns over U.S. economy.

Aug. 2010: Mezzanine triple-A bonds crack par after beginning the year trading in the \$70 range.

Sept. 2010: \$131Mln Macon and Burlington loan liquidated with 97 percent loss.

Oct. 2010: Super senior spreads hit lowest levels since August 2008.

Oct. 2010: Extended Stay saga ends as \$4.1Bln loan liquidated.

Nov. 2010: Trophy property values continue to rebound; Google buys Manhattan office; 245 Park Ave. refinanced.

Nov. 2010: Junior-AAA prices surge as investors chase yield.

Dec. 2010: \$2.6Bln Beacon Seattle and D.C. portfolio loan restructured; Borrowers granted long extension.

Dec. 2010: Resorts casino loan liquidated - loss exceeds 100 percent.

Feb. 2011: Foreclosure proceedings commenced on Manhattan's 575 Lexington Ave. office tower. March 2011: Unwinding of \$2.6Bln Beacon Seattle and D.C. Portfolio loan begins as Market Square Property sold.

May 2011: Biscayne Landing saga ends with 100 percent loss on Miami land loan.

May 2011: Cracks in CMBS market appear - Greek woes send spreads wider; 2006/2007 vintages punished.

June 2011: StuyTown Redux? \$375Mln Belnord Multifamily Pro-Forma NYC Ioan becomes 30-days delinquent.

July 2011: Borders announces it will liquidate rather than restructure.

July 2011: GSMS 2011-GC4 pulled as S&P pulls ratings, delivering yet another hit to already weak CMBS market.

Aug. 2011: Last furniture showroom loan gets modified - Loan forgiveness tops \$200Mln across four loans.

Sept. 2011: Bellwether GG10 bonds briefly hit 400 bps over swaps.

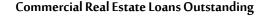
Oct. 2011: 575 Lexington Ave. loan gets modified, impacting two 2007 deals.

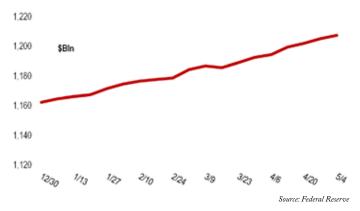
Nov. 2011: "Boscov'd" added to CMBS vernacular as losses on loans to retail exceed 100 percent of collateral balance... by a lot!

Banks Keep Playing Dominant Role in CRE Lending

By Susan Persin

B anks are propelling growth in the commercial real estate debt markets, as strong real estate market fundamentals and high property valuations have led to an active real estate acquisitions market. Commercial and multifamily mortgage debt outstanding grew by 7.2 percent to \$3.6 trillion at year-end 2015, according to data from the Federal Reserve. Clean balance sheets, low interest rates and borrower demand have fueled bank lending, which grew by 10.1 percent last year. Banks are already the dominant players in CRE lending, and boosted their market share during 2015 by outpacing other lender segments. As new investment activity has slowed in the first half of 2016, competition among lenders has intensified.



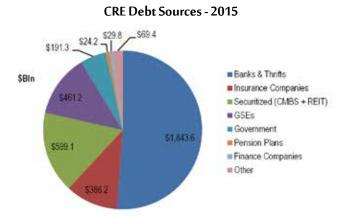


Funding to support new CRE investment and refinancing activity in 2015 came from a variety of sources. When one source pulls back, others fill the gap. This year, CMBS activity slowed sharply. Which lenders filled the void?

Many expected CMBS lending to spike this year, as the wall of maturing loans came due and in advance of the year-end implementation of restrictive risk-retention rules. But volatile bond spreads caused CMBS originations to slow early in the year. New issuance was down 39 percent during the first four months of 2016 compared to year-ago levels. While issuance has picked up recently, totals for the year are expected to be well below last year's levels and well below the levels needed to refinance more than \$200 billion of CMBS loans that will mature before the end of 2017.

Life insurance companies, which accounted for 11 percent of lending in 2015, have become more active in the market. They are competing for large loans against high-quality properties and generally require relatively low leverage levels.

Banks are the largest and fastest growing source of CRE mortgage financing, and they appear to be picking up some of the slack from the CMBS market. For them, real estate lending is attractive because property rents and values are growing. Some banks will finance larger transactions and provide terms of up to 10 years, but generally require recourse.



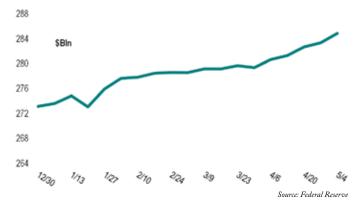
Source: Federal Reserve

Bank lending has increased this year in each of the three main lending categories. Through mid-May, the annualized growth rate for construction and land development lending increased to an annualized rate of 14.9 percent, just ahead of the 14.8 percent pace in the second half of 2015. For multifamily, it was 12.8 percent, and for other commercial mortgages, it was 10.6 percent. Commercial mortgage growth has been relatively steady this year, while multifamily lending paused in February and March, but has taken off since then.

Despite the recent growth in market fundamentals, regulators are clearly eying the maturing real estate cycle and urging more caution on the part of banks. Federal bank regulators re-issued guidance related to CRE lending in December 2015, and expressed concern about risky lending practices. They encouraged banks to review existing policies and practices related to CRE lending and to adhere to prudent risk-management processes. They also noted that banks could be asked to raise more capital or take other actions to address risks. During their earnings calls, banks generally said they were increasing their geographic and propertytype diversification. In addition, the Federal Reserve's April 2016 survey of bank loan officers showed tightening lending standards for CRE loans of all types during the first quarter, especially for construction and multifamily property loans.

Demand for capital to fund new transactions and refinance maturing CMBS loans remains robust, even as CRE sales activity has slowed this year. CMBS lenders are playing a smaller role in meeting these financing needs, with the void they've created being filled by life insurance companies and banks.







Fitch Ratings currently has 611 **U.S. CMBS** transactions under surveillance—that's \$479 billion of commercial mortgage-backed debt.

Our work doesn't stop after the initial rating. We continuously monitor our outstanding transactions and offer timely feedback on the CMBS ratings currently under surveillance. Our in-depth research and commentary, coupled with our objective ratings, provide investors with the insight and context necessary to make informed business decisions.

Have a look for yourself at fitchratings.com/cmbs

FitchRatings

CMBS Conduit Spreads Continued Gyrating in 1H

By Orest Mandzy

MBS spreads, which started blowing out last July, continued their widening early this year, reaching levels not seen since 2011.

Last year's widening was driven in large part by plunging oil prices, which put pressure on the entire fixed-income sector. This year, that widening was exacerbated by concerns over the U.S. and Chinese economies. Spreads for benchmark bonds started the year at 162 basis points more than swaps, up from 140 bps in mid December. They bounced around the 150- and 165-bp range until spiking at 173 bps in March, the widest level in five years.

Spreads for BBB- bonds, which tend to be more sensitive to deals' underlying collateral quality, gyrated even more widely. The nine conduit deals that priced in January and February saw spreads that ranged from a low of 650 bps to a high of 925 bps more than swaps. Even though the 10-year Treasury bond yield remained below 2 percent, yields from BBB- CMBS had ballooned to nearly 11 percent.

The volatility hammered conduit lenders, which reacted by sharply slowing down lending. While conduit shops weren't exactly flush with mortgages, their inventories dwindled even further. That's evidenced by the declining average size of conduit transactions: \$776.9 million in March versus \$922.4 million in January and February.

By mid-March, investors figured there would be fewer bonds to buy and started bidding up whatever came to market. Bond spreads naturally tightened. The seven conduit deals that priced in May, which totaled only \$5.6 billion, or an average of \$798 million per transaction, saw spreads for their benchmark bonds of 110 to 130 bps more than swaps. Spreads on BBB- bonds tightened as well, to a range of 625 to 720 bps more than swaps.

Investors continue to expect subdued issuance, simply because conduit lenders can't immediately crank up their origination volumes to full capacity. For that to happen, borrowers have to cooperate and some evidence indicates that a few might have soured on conduit lenders. Meanwhile, issuers continue to grapple with how to best deal with the pending risk-retention rules, which are widely expected to result in greater lending and borrowing costs.

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18-Feb WFCM 2016-NXS5 875.13 48.10 24.30 8.40 1.65 28.40 165 19-Feb MSC 2016-UBS9 666.61 68.90 22.90 7.30 2.01 26.00 165 23-Feb JPMBB 2016-C1 1,021.91 58.90 24.30 8.40 1.65 36.90 166 3-Mar COMM 2016-DC2 806.20 58.10 23.80 8.30 1.59 14.90 173	190	750
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3-Mar COMM 2016-DC2 806.20 58.10 23.80 8.30 1.59 14.90 173	195	650
	205	
	220	825
18-Mar WFCM 2016-C33 712.22 45.50 22.50 7.60 2.18 27.90 138	170	700
29-Mar CGCMT 2016-P3 770.97 61.30 24.80 8.50 1.82 47.40 132	157	600
31-Mar DBJPM 2016-C1 818.03 56.80 22.10 6.90 2.03 38.60 129	155	600
13-Apr CGCMT 2016-GC37 694.73 56.10 24.30 9.10 1.46 26.50 134	160	700
22-Apr MSBAM 2016-C29 809.46 41.40 23.30 8.40 1.81 23.60 123	152	660
4-May CFCRE 2016-C4 839.97 47.80 22.50 8.10 1.66 30.20 130	170	
4-May JPMDB 2016-C2 892.80 59.50 21.50 7.50 2.01 36.80 117	150	625
10-May WFCM 2016-C34 702.79 50.20 25.00 8.80 1.48 8.90 117	155	720
17-May GSMS 2016-GS2 750.64 62.70 24.00 8.00 2.10 6.30 110	134	
17-May CSAIL 2016-C6 767.47 61.60 22.50 8.10 2.08 29.40 113	138	
17-May CGCMT 2016-C1 755.71 55.10 24.90 9.30 1.48 16.60 125	155	700
20-May BACM 2016-UBS10 876.26 51.50 25.00 8.80 1.65 16.60 114	135	660

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Source: Commercial Real Estate Direct

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Amidst Market Volatility Traders Explore Total Return Swap

By Shahzeb Rao and Christopher Fenske

The subtle widening of CMBS spreads in May 2015 was one of the earliest indicators of distress in the global credit markets that dominated the second half of 2015.

Several years of historically low new-issue volumes and resilient collateral performance during and after the financial crisis had driven spreads steadily tighter since 2013. More recently, weakness in China and concerns over global economic growth catalyzed the rapid widening in CMBS spreads that followed through the remainder of the year and into early 2016. The speed and magnitude of the selloff in CMBS led originators and investors to start assessing the most liquid options to hedge commercial real estate exposure.

Many market participants were already familiar with the standardized Total Return Swaps (TRS) on the Markit iBoxx corporate debt indices, as trading volumes have grown

significantly since the first trade in 2012. The market structure has evolved and matured since, with liquidity steadily increasing and monthly trading volumes generally exceeding \$8 billion during the quarterly roll months and \$3 billion during the non-roll months.

TRS contracts give participants the ability to pay or receive the total return of a specific underlying index in return for a funding fee over a three- to 12-month period.

A majority of the trades are dealer-toclient, with the clients having the ability to go long or short the index returns. Dealers, originators and investors began exploring the use of TRS on the Markit iBoxx Trepp CMBS index, as both a hedge and a less capital-intensive alternative to investing in the sector, given the dwindling new-issue supply and declining dealer inventories. Markit developed the underlying index in partnership with Trepp and it is administered in compliance with the IOSCO Principles for Financial Benchmarks.

Why TRS?

Interest is growing among large institutional investors in standardized TRS on the Markit iBoxx indices.

Volumes have risen to a level where TRS have become an important tool for large institutional investors, alongside Markit's credit indices (Markit CDX and iTraxx) and ETFs. TRS allow investors to express a macro view on the performance of specific segments of fixed income markets alongside traditional instrument selection.

Markit introduced TRS for corporate debt indices in 2012. TRS contracts give participants the ability to pay or receive the total return of a specific underlying index in exchange for a funding fee over a three- to 12-month period. The contracts are standardized, with trades having fungible terms and being electronically confirmed. Besides the latest TRS on CMBS, Markit iBoxx TRS also include USD and

Continued on next page

	iBoxx CMBS - TRS	CMBX		
ISDA Definitions	2006 Rates	2003 PAUG		
Instrument	TRS	CDS		
Underlying asset	U.S. Conduit CMBS bonds	ABCDS on CMBS		
Underlying characteristics	1 index - AAA last cash flows issued within the previous rolling 12 months	6 Sub-indices - AAA, AS, AA, A, BBB- and BB		
Number of Constituents	Variable (based on underlying cash bond market issuance and eligibility – 56 bonds as of April 30 2016)	25 U.S. Conduit CMBS		
Rebalancing of underlying portfolio	Monthly	New index series launched annually		
Weighting	Market cap	Equal weight		
Tenor	Four maturities: March, June, September, December	Maturity of underlying reference instruments		
Pricing	Trepp cash bond pricing	Index level submissions		
Quoting convention	Total return	Price for legacy series, Spread for on-the run series		
Cash Flows	Upfront Seller pays accrued LIBOR leg at settlement Buyer pays LIBOR funding	Upfront: (par - traded price * factor) Monthly payment:		
	quarterly Payment at maturity:	Floating rate payer (long position in collateral) receives premium and any collateral reimbursement and pays shortfall (interest, principal) and writedown		
	Index buyer pays quarterly LIBOR and receives:			
	(Final Index Level – Initial Index Level) + Initial Index Level			
	moar molex bever			
Straight Through Processing	MarkitSERV	MarkitSERV		

Continued from previous page

EUR high-yield and investment grade corporates, GBP investment-grade corporates and USD leveraged loans.

How it works - TRS mechanics

Participants wishing to gain exposure to a certain portion of the market can buy the relevant index, while hedgers can sell the index. Index buyers pay the funding fee and receive or pay the return of the index over a specific period of time, as the index increases or decreases, respectively. Index sellers receive the fee and pay or receive the return of the index, if the index returns are positive or negative, respectively. If an index seller is hedging an underlying cash position, the value of the hedge increases as the value of the portfolio decreases.

There is an upfront fee paid at inception of the trade and cash flows are settled on the trade maturity date. These occur in March, June, September or December. To settle the trade, the index buyer pays LIBOR and receives the total return of the index, based on the return between the agreed trade price and the final price as defined by the index administrator.

iBoxx TRS for the CMBS market

The Markit iBoxx Trepp CMBS Original AAA Rolling Index (OAR), part of the Markit iBoxx Trepp CMBS family of indices, will be used for the TRS contracts. The membership of the index will consist of bonds that meet the following criteria:

- Fixed rate and WAC/pass-through U.S. conduit deals denominated in U.S. dollars
- Original deal size of \$500 million or more
- Original tranche size of \$100 million or more, with a current factor greater or equal to 0.5

- An original rating of no lower than AAA from any rating agency

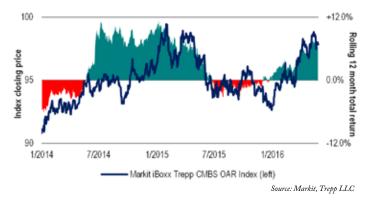
- Weighted-Average Life, or WAL, greater than or equal to eight-years as of rebalancing
- Last cash flow AAA bond
- Uninsured
- WAL greater than eight years using 0% CPY
- Public or 144A bonds
- Maximum underlying geographical concentration of 40%

- Issued within the rolling 12-month period prior to the rebalancing date

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Comparison between Markit CMBX and TRS on the OAR index

The Markit CMBX index has been actively used for years by participants in the CMBS space. CMBX is a liquid synthetic tradable index that offers long or short exposure to ABCDS, or asset-backed credit default swaps, on CMBS for different tranches and vintages of the market. The launch of TRS on the OAR index provides investors a different type of exposure to the asset class, namely exposure to the cash bonds themselves. CMBX and CMBS TRS together offer a complete ecosystem for tradable CMBS indices. The key differences between the two are summarized in the table on the previous page.

Shahzeb Rao is director and Chris Fenske is director and cohead of fixed income pricing research at Markit, a provider of financial information services.



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The Survey Says: Commercial Real Estate Cycle Well Past Expansion Stage

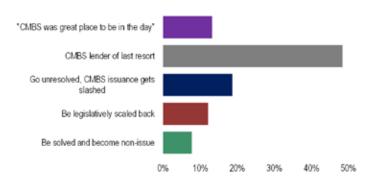
By Orest Mandzy

The commercial real estate cycle is now well past its expansion stage and market players are treading carefully. That's the consensus of those responding to a recent survey by *Commercial Real Estate Direct*.

Respondents are generally cautious, and in some cases very concerned, about overall economic and property market conditions and expect both CMBS spreads and loan spreads to remain elevated.

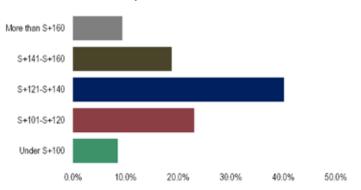
They also expect the pending risk-retention rules will have a significant impact on the CMBS industry, with more than 90 percent of the respondents saying the rules would cause lending costs to climb and would relegate CMBS to be the lender of last resort for most properties. Another 19 percent said CMBS conduit issuance next year would decline sharply as issuers fail to solve the risk-retention puzzle.

Repercussions of Risk Retention



Perhaps because of those rules and continued economic uneasiness, most respondents expect super-senior AAA CMBS spreads to end the year in the range of 121 to 140 basis points more than swaps. Nearly a quarter expect those spreads to end the year between 101 and 120 bps more than swaps, while fewer than 10 percent expect a spread of less than 100 bps more than swaps.

Spreads for newly issued deals, which had ballooned in late February to early March, have since retreated handsomely and most recently have hovered in the range of 110 to 125 bps more than swaps. The survey was sent out in early May,



well after spreads had started retreating.

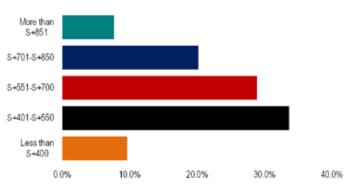
Most respondents were surprisingly more optimistic about the prospects for BBB- spreads, with one-third saying they'd end the year in the range of 401 to 550 bps more than swaps. Investors have been picking and choosing among deals, bidding up bonds backed by loans they view as being conservatively underwritten and punishing others. So spreads have been in the broad range of 600 to 720 bps more than swaps.

At least one-third of the survey respondents expressed concern about weakness in the U.S. economy, when it comes to the future prospects for retail, office and hotel properties.

In the retail sector specifically, more than half of the respondents said the biggest risk was the steady drip of modest-sized retailers filing for bankruptcy. In the office sector, one-third of the respondents were most concerned about obsolescence, where existing properties no longer fit the needs of new-age tenants. And in the hotel sector, nearly one-third said they were most concerned about oversupply in certain markets. Roughly 43 percent of respondents also said oversupply in certain markets was their biggest concern in the multifamily sector, while nearly half cited the heavy volume of high-end properties that are being developed.

Most respondents said their biggest concern was the general lack of growth in the economy and wages. Other top concerns included the growing volume of regulations that could impact liquidity, too much available investment capital that's distorting asset values and the large volume of loans that are coming due in the coming months.

At Year End, Spreads on BBB- CMBS Will Be:



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Solar Investors Learn Lessons from Commercial Real Estate

By Haresh Patel

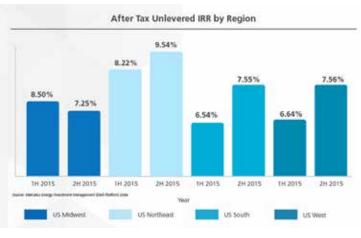
A chieving the lowest cost of capital has proved advantageous for a number of major industries—from the home-mortgage sector to commercial lending and now solar. While any industry has its standard fixed costs, such as material and construction costs, energy producers today, like real estate investors and developers, live in a capital-intensive business. So, securing capital at the lowest cost possible provides a significant competitive advantage when bidding on, and winning, development projects.

Each industry has had its own major mishap in maintaining access to capital. Commercial real estate was cut off from capital following the collapse of the mortgage securitization markets during the Great Recession in 2007 and 2008. The solar finance industry recently has been impacted by the "yieldco" meltdown of 2016. (Yieldcos are renewable power producers that were spun off from publicly traded power developers, with the objective of reducing the cost of capital for stable, income producing power projects.) One outcome of these major disruptions is that the viability of these financing vehicles has been called into serious question.

The vehicle types themselves matter less. In just the last three years, solar went through a period of exponential growth and reached a point that other industries took decades to reach: low-cost capital became a major key to success. U.S. solar players got caught up in this exponential growth and, in the process, missed out on the key practices required to maintain the trust of institutional investors. Let's look at what happened.

A number of mishaps contributed to the yieldco meltdown. Poor project pipelines with lack of visibility, failure to maintain compliance, an inability to identify and mitigate risks, inaccurate reporting and lack of data are items that led to the yieldco downfall. The most infamous example is solar giant Sun Edison. The former Wall Street darling recently filed for bankruptcy, with its yieldco, Terraform Power, falling out of favor.

Whether this was due to a lack of due diligence or lack of industry experience, the same requirements still apply



Project data from Mercatus' platform indicate that average IRR increased in the second half of 2015 from the first half of that year in the U.S. Northeast and West, reflecting more conservative overall pipeline growth and higher hurdle rates.

when financing any asset class— regardless of whether an industry is four or 40 years old. While investors have reason to be cautious toward solar yieldcos and other investment vehicles, faith can and will be restored. This is because the inherent structure of these vehicles is not at fault, but rather their operations are to blame. Better data management, transparency of risk and solid adherence to compliance and reporting are needed to help solar once again regain its footing. These are practices where CMBS and commercial real estate have been leaders.

Just as commercial mortgages are more complex than residential mortgages, solar adds another layer of complexity and faces more challenges, including more intricate documentation, financial engineering and operational risk that causes variability in power output and revenue. Regardless of this increased complexity, to attract the same investor type, the solar industry has to act by the same principles of data, transparency, compliance and reporting. In order for solar financing vehicles to regain investor trust, there are critical lessons that they must put into action.

Mitigating risks through accurate measurement, good compliance and transparent documentation begins at the conception of a project plan and needs to be maintained throughout the end of its life, which could span more than 30 years. Solar developers and asset owners will need to stay organized throughout the full life cycle of the asset in order to provide a clear view of the outcome requirements.

As the solar industry works toward becoming more responsible in creating standardized methods of data collection and management, investor faith will be restored, and even strengthened. Without this confidence, it is difficult to recognize that solar has all the components of being a successful capital-markets product, with solid, long-term contracted cash flows.

Once solar capital markets products regain investor confidence and become more prevalent, they will be instrumental in meeting the massive demand for solar financing. So, with the return of data integrity, investors will be able to fully realize solar's potential for high returns.

Haresh Patel is chief executive of Mercatus, which provides cloud-based software energy investment management solutions for the largest energy producers in the world.

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MARKET FEEDBACK

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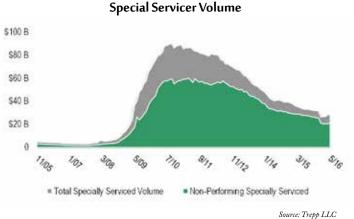
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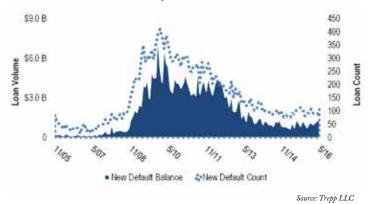
The Data Digest



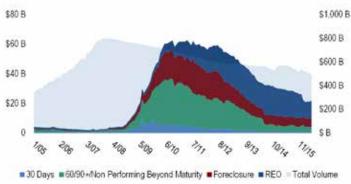
servicing totaled \$28.87 billion last month. That's down 14.1 percent from last May and a staggering 67.9 percent from September 2010, when a record-setting \$89.88 billion of loans were in the hands of special servicers.

The volume of CMBS loans in special

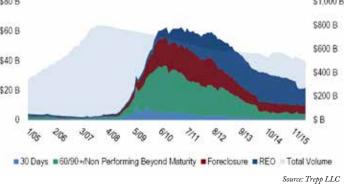




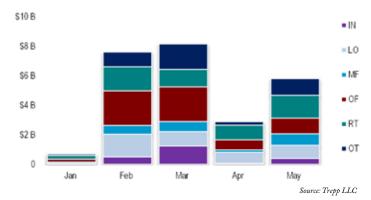
Last month saw 107 loans with a balance of \$1.56 billion go into default. That brought the total volume of defaulted loans to \$21.8 billion, or 4.35 percent. But that's nothing compared to December 2009, when a whopping \$7.91 billion of loans defaulted. At the time, the delinquency rate was 6.06 percent, and was on a sharp upward trajectory.



Delinquency Breakdown







Real-estate owned, or REO, comprised the largest cohort among the \$21.8 billion of CMBS loans that are at least 30-days late with their payments. When combined with loans in foreclosure, the total is \$17.4 billion. Meanwhile, \$1.3 billion of loans are more than 60-days late and another \$546.8 million are more than 30-days late. Loans that have matured and are now classified as being nonperforming total \$2.5 billion.

The CMBS deals that have been issued so far this year have had a 26.3 percent concentration of office loans. Retail loans, meanwhile, have accounted for 22.4 percent of their collateral and hotels have accounted for 16.5 percent. In contrast, for all of last year, office loans accounted for 23.4 percent of deals' collateral, followed by retail at 22.9 percent and hotels at 21.3 percent.

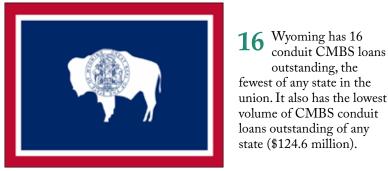
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MID-YEAR 2016

Did You Know? Inside the Numbers

outstanding, the

30 A total of 30 states have no office loans with balances more than \$100 million (non-defeased loans only). Those states are Michigan, Indiana, Tennessee, Nevada, South Carolina, Louisiana, Minnesota, Alabama, Oregon, Kentucky, Oklahoma, New Mexico, Mississippi, Kansas, Arkansas, Delaware, Idaho, Iowa, New Hampshire, West Virgina, Nebraska, North Dakota, Hawaii, Maine, Arkansas, Rhode Island, South Dakota, Montana, Vermont and Wyoming.



Wyoming State Flag Credit: Clay Moss/Crwflags.com

\$1.08Bln

There are \$1.08 billion of non-defeased loans still outstanding from deals issued before 2000.

298 bps

Despite all of the worries in 2005 over Hurricane Katrina, aggregate losses on conduit CMBS loans from the New Orleans MSA have totaled only 298 bps over the last decade.



Hurricane Katrina Credit: USCG Mil



\$808Mln

There are five office loans totaling \$808 million in the Houston MSA with balances above \$100 million (non-defeased loans only).

> Two Allen Center Credit: Wikipedia.com

\$14.1Mln

The asset whose debt has been with a special servicer the longest is the Diamond Point Plaza retail center in Baltimore. The property's \$14.1 million of debt, securitized through SBM7 2000-C2, has been in special servicing since June 2002.

1996

Less than a week after the 1996 presidential election, the CMBS industry hosted an event in which the keynote speaker was Vice Presidential candidate Jack Kemp, who once played quarterback in the



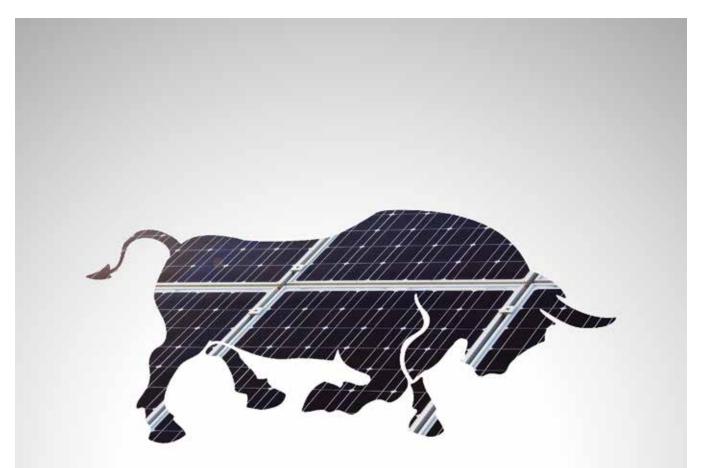
now-defunct American Football League.

But wait, there's more...

In addition to the 50 U.S. states, there are CMBS loans outstanding in U.S. deals from Guam, Puerto Rico, Virgin Islands, Ontario, Quebec, Nova Scotia, Saskatchewan, British Columbia, Northwest Territories, Manitoba and Newfoundland.

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Trepp is pleased to announce its acquisition of Codean, a U.K.-based firm delivering data and cash flow analytics for collateralized loan obligations (CLO).

The move unites two industry-leading analytics firms and offers their respective clients broader capabilities to measure and manage risk in the structured finance market.

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