

Where from Here?

Trends in Commercial/Multifamily Real Estate Finance Markets

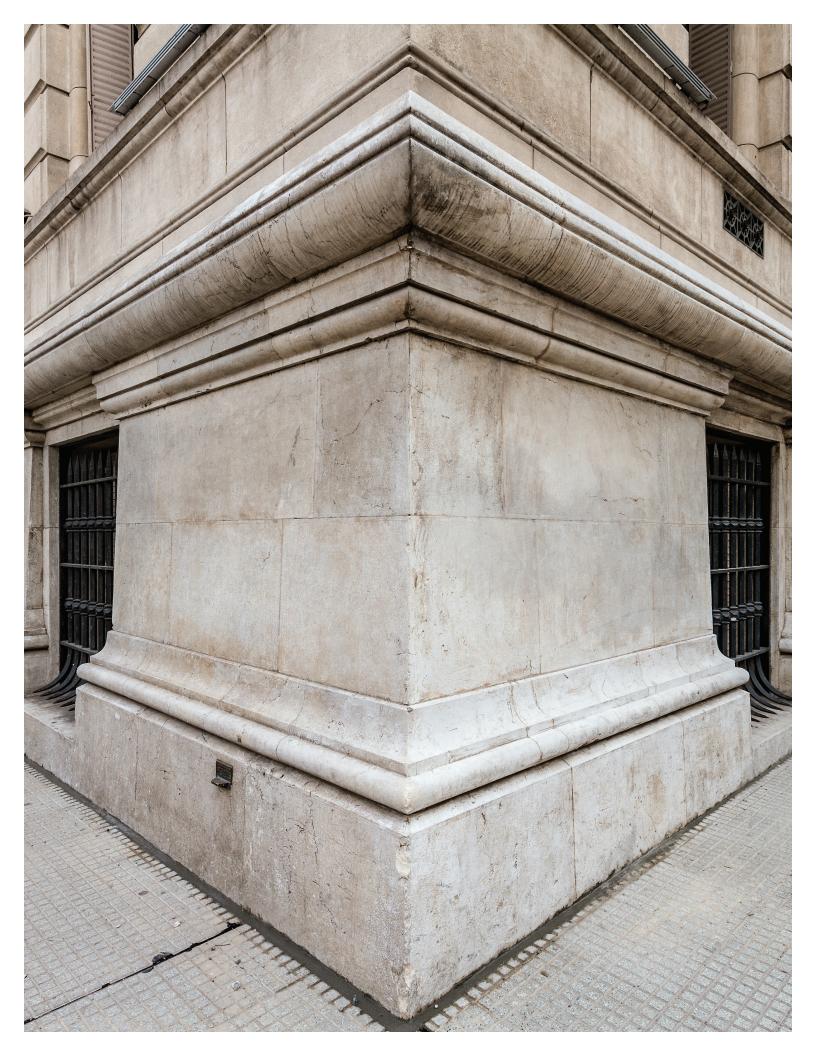
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What's Around the Corner?

At no time in the last 25 years has there been as much attention paid to what might be around the corner for the commercial real estate and commercial real estate finance markets. Since 2015 (and maybe earlier), industry pundits have been asking "what inning are we in?" At industry conferences, questions about the timing and impact of the next recession often outnumber those about current opportunities. And throughout the industry, borrowers, lenders and others are working through whether to take today's market as it is or to plan for interest rates, property values and/or loan performance that may be markedly different.

No one has the answers to these questions, but the market's focus on them is changing the complexion of what is being done and how different players are acting.

Take today's market as it is or plan for interest rates, property values and/or loan performance that may be markedly different?

1

Where Are We?

Uncertainty seems to abound in the global economy. Long-term interest rates are negative in Germany and Japan. Kristalina Georgieva, head of World Bank, recently noted "The global economy is now in a synchronized slowdown." The Federal Reserve Open Market Committee lowered short-term interest rates for the third consecutive meeting in October.

Commercial real estate (CRE) and finance (CREF) markets don't operate independently of the broader economy, but changes in the broader economy may not translate directly into commensurate changes in CRE and CREF.

JOBS

One of the hallmarks of the recent economic expansion has been the length and magnitude of improvement in the U.S. jobs market. In September 2019, the unemployment rate fell to 3.5 percent, matching the lowest level in the last 50 years. The tight labor market has been helping raise wages, but that wage growth has been slower than most economists have expected.

Job growth has also been slowing. With the exception of a surge of hiring in 2018, in every year since 2014, the number of jobs added has been below that of the year before — with job growth averaging 251,000 jobs per month in 2014, 227,000 in 2015, 193,000 in 2016, 179,000 in 2017, 223,000 in 2018 and 161,000 through September of 2019 (Chart 1). The same drift has continued in 2019, with employment growth trending down as the year has progressed.

From a commercial real estate perspective, the long run of steady job growth has been a boon to the office market — with the addition of 20 million jobs since the recession boosting overall demand for office space and offsetting some of the drag from a more efficient use of space. Job growth has also lifted consumer incomes and fostered household creation, supporting demand for retail and multifamily properties.

Looking ahead, job growth — and the demand it brings to the markets — is expected to remain positive in the coming years, but at a slower pace than we have seen recently. The impact on space markets will likely follow that same trend.

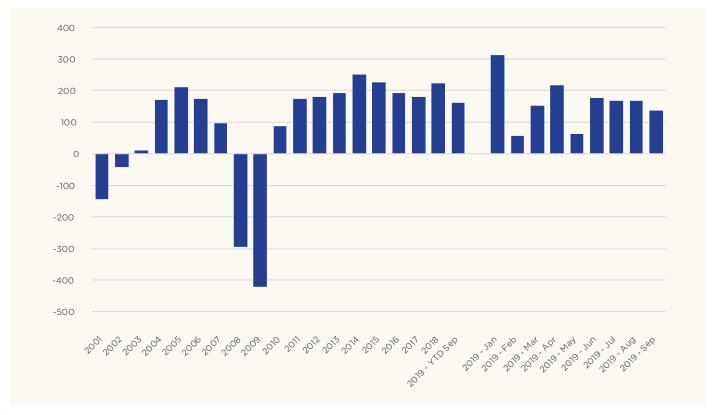
HOUSEHOLDS

Job growth has — and will continue to have — a profound effect on household formation. But even more fundamental, especially today, is the impact of demographics.

In 2015, MBA released *Housing Demand: Demographics and the Numbers Behind the Coming Multi-Million Increase in Households.* Modeling demographics, the economy and social trends, we forecast that between 2014 and 2024 the U.S. would add approximately 1.6 million households per year, on average. According to data from the Census Bureau's Housing Vacancy Survey, the U.S. added 1.6 million in 2017 and 1.7 million in 2018 (Chart 2). Given changes since the paper was released, particularly around immigration, future increases may come in below the ten-year forecast, but the overall theme remains one of growth.

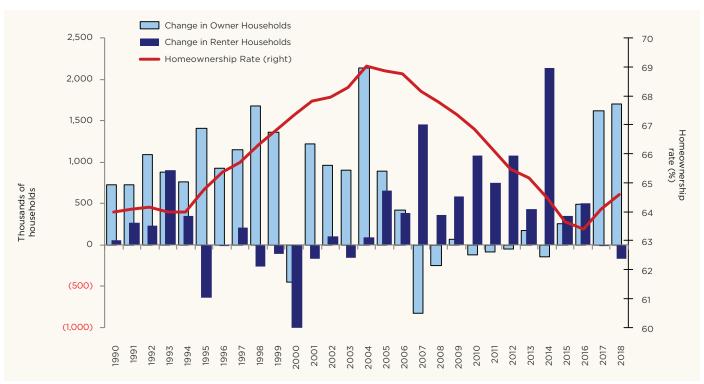
"The global economy is now in a synchronized slowdown."

CHART 1. AVERAGE MONTHLY CHANGE IN TOTAL NONFARM EMPLOYMENT (THOUSANDS)



Source: BLS

CHART 2. CHANGES IN THE NUMBER OF OWNER- AND RENTER-OCCUPIED HOUSEHOLDS AND HOMEOWNERSHIP RATE



Source: Mortgage Bankers Association and Census Bureau

The expansion is driven by two significant demographic realities — the baby boomers aging into the place of the smaller "greatest generation" and Millennials aging into the place of the smaller Generation X. While the aggregate numbers point higher, there are important implications for sub-segments of the population, and the markets they support (Chart 3). For example, the population between age 45 and 54 will continue to decline in coming years, the population 70-plus will grow sharply, and the population age 20 to 29 will switch from growth to decline.

These changes will have a significant impact on overall demand for housing, goods and services, as well as the ways those products are purchased and consumed.

CONSUMER

The U.S. consumer is the life-blood of the U.S. — and world — economy. As of the second quarter of 2019, personal consumption expenditures were estimated to contribute \$14.5 trillion to annual Gross Domestic Product (GDP) — accounting for 68 percent of total U.S. GDP.

Job, wage, wealth and household growth in recent years have all supported that consumption. Between August 2018 and August 2019, retail sales excluding motor vehicle and parts dealers increased by almost 4 percent (Chart 4). And since 2009, in only four months have retail sales been lower than they had been a year earlier.

And despite the recent focus on student debt, household balance sheets are — in the aggregate — in their best shape ever. According to data from the Federal Reserve, in the second quarter of 2019, as a percentage of disposable personal income, households' financial obligations and debt service payments were both at the lowest levels since the series started in 1980.

So consumers are in good shape for whatever may transpire. Given the outsized role they play, however, any changes in consumer sentiment — and action — could have profound effects on the economy, and also on demand for retail, hotel and other commercial property space.

0%

75+

1,200 90% 1,000 80% 800 70% 600 60% 400 50% 40% 200 30% 0 -200 20% -400 10%

CHART 3. ESTIMATED AND FORECAST AVERAGE ANNUAL CHANGE IN POPULATION, BY AGE GROUP (THOUSANDS)

Source: Census Bureau

-600

20-24

25-29

2010-2015

30-34

35-39

2015-2020

40-44

50-54

45-49

2020-2025

55-59

60-64

65-69

Household Rentership Rate (right)

70-74

CHART 4. YEAR-OVER-YEAR PERCENT CHANGE IN RETAIL SALES





INTEREST RATES

Today's interest rate environment is unlike any we have seen before, and is one of the signs many point to as a cause for concern about what might be next for the economy. Long-term U.S. interest rates are at some of the lowest levels on record, and internationally, some investors are paying central banks to hold their money for them.

For years economists have been forecasting that economic growth and a tightening labor market would help drive long-term interest rates higher. In 2012, 2016 and 2017 rates followed those expectation. But in every other year since 2008, demand for assets has instead pushed long-term rates lower, with the yield on the Ten-year Treasury ranging between 1.50 and 1.60 percent in mid-October 2019, roughly half the 3.15 percent it averaged over October 2018 (Chart 5).

At the same time, short-term rates have been elevated, flattening (and occasionally inverting) the yield curve. To many, the inverted yield curve is a potent signal of a coming recession. The Federal Reserve has been channeling this concern, along with worries about a global slowdown, trade wars and other potential economic headwinds, and working to lower short-term rates as a means of boosting economic activity.

U.S. markets are not accustomed to such low long-term yields on Treasuries and other investments. On the one hand, international competition for funds would seem to support a world in which rates could stay "lower for longer." On the other hand, economic growth and growing budget deficits should be pulling rates higher.

Commercial real estate finance can be heavily affected by changes in interest rates. Not only do they affect the cost of financing, and therefore the desirability of both loans and properties. Commercial real estate is an investment, and so as the yields on other investments (including Treasuries) go up or down, investor-demanded yields for commercial real estate may follow along in sympathy. The result can be shrinking cap rates (and rising property values) when rates drop and increasing cap rates (and declining property values) when rates rise.

Interest rates and the direction they head will have a profound impact on commercial real estate values and financings — as well as how individual investors and lenders fair in coming years. Up, down or flat, investors and lenders have to contend with where rates are today, and where they might go in coming years.

Percent 4.5 Ten-Year Treasury Yields, Actual and Q4 Philly Fed Forecasts 4.0 3.5 3.0 2.5 2.0 15 1.0 December forecasts 0.5 Actual Q 4 Q 4 2012 Q4 Q Q 4 Q 4 2010 Q4 Q Q 4 Q 4 Q 4 2011 Q4 2008 2009 2013 2015 2016 2018 2019

CHART 5. ACTUAL AND FORECAST INTEREST RATES

Source: Federal Reserve Board, Federal Reserve Bank of Philadelphia



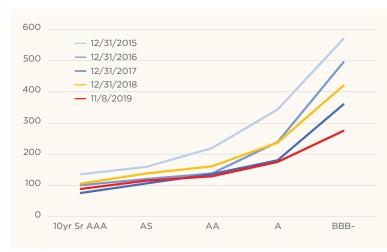
SEARCH FOR YIELD

At the same time that Treasury yields seem to be signaling uncertainty and concern about where the economy may be headed, other investment pricing shows a strong search for yield (and risk) among investors.

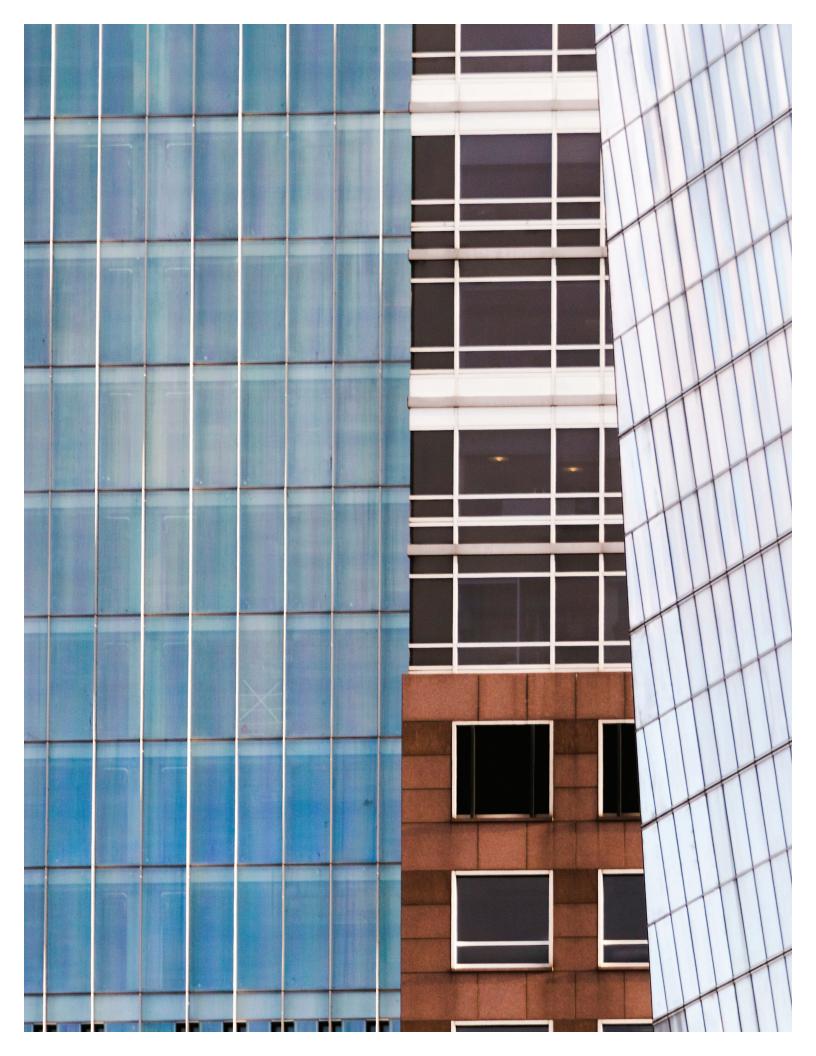
Property prices are growing more quickly in secondary and tertiary markets — which tend to have higher cap rates — than in primary markets. And demand for transitional properties, and financing for those properties, has been growing steadily, as investors search out opportunities to earn returns higher than those achieved by holding core properties.

Perhaps the clearest example of this search for yield is in the CMBS market and the spreads investors are demanding for different tranches of securities. In recent years the credit curve for CMBS bonds has been falling and flattening — meaning investors are willing to take on more risk for less absolute and relative return (Chart 6).

CHART 6. NEW ISSUE CMBS SPREADS TO SWAPS (BASIS POINTS)



Source: J.P. Morgan Securities



Property Types

All of these and other factors play out in commercial real estate markets, as demand for office, retail, multifamily, industrial and other space is affected by the broader economy. In addition, each property types has its own story at present — a set of factors tugging at the elusive equilibrium of supply and demand and the types of space users are seeking.

OFFICE

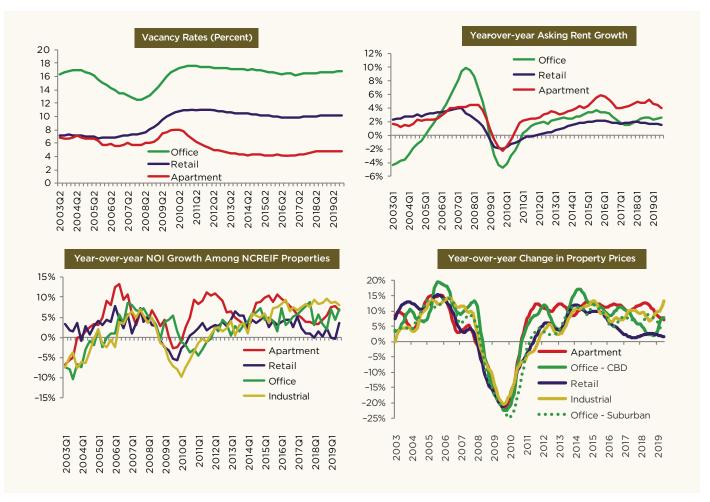
Office property markets have benefitted from ten years of steady employment growth — with the number of non-farm employees rising from 130 million in 2010 to 150 million at the start of 2019. But that job growth has had to fight against other trends, most significantly the more efficient use of office space. According to CoreNet Global, North American offices averaged 225 square feet per employee in 2010. That figure fell to 176 square feet in 2012 and 151 square feet in 2017. The reduced space needed as companies move to fewer offices and more open-space desks has cut into the overall demand for space and sapped a significant share of occupancy. Equally important is the changing nature of the use of space.

Analysis by Wells Fargo Economics Group found more than 70 million square feet of co-working space in the U.S., accounting for 4.0 percent of the total office inventory in San Francisco, 3.6 percent in Manhattan, 3.2 percent in Miami and 2.7 percent in Los Angeles. And despite the headlines focused on one or two large names, there are more than 200 different operators of these short-term rentals. And these numbers don't begin to capture the changing nature of office usage within more traditional office leases — with hoteling, hot-desking and teleworking, along with increased office common space and amenities all changing the nature of what office space is — and isn't — in demand.

To meet the demand for this new space, office construction has been strong. The Census Bureau reports that in 2018 developers put-in-place \$74.5 billion worth of office space — the highest level since the series started in 2002 and 8 percent higher than the year earlier. Much of this growth has been part of a push by companies to primary markets in search of talent. Marcus & Millichap has noted that as employment growth is pushing more to secondary and tertiary cities, so is office demand and growth.

All of these cross-currents have meant that after rising significantly during the Global Financial Crisis, office vacancy rates have held relatively steady since — falling slightly until 2017 and rising slightly since then. (Chart 7). Asking rents have followed suit and are nearing a decade of consistent year-overyear increases. Net operating incomes (NOIs) in the second quarter of 2019 were 4 percent higher than they had been a year earlier. And office property values, according to Real Capital Analytics, were 2 percent higher in August 2019 than in August 2018, driven by a 7 percent increase in the value of CBD properties and 1 percent increase in suburban properties.

CHART 7. COMMERCIAL/MULTIFAMILY PROPERTY FUNDAMENTALS



Source: REIS, NCREIF, Real Capital Analytics

MULTIFAMILY

As noted earlier, housing demand and household growth are both running at strong rates, with more than 1.6 million households added in each of the last two years. And while single-family new construction is lackluster, there are currently more multifamily units under construction than at any time since the mid-1970s — more than 600,000.

Much of the recent media attention around multifamily has focused on new construction of amenity-rich, urban in-fill properties. And indeed, urban core properties have been breaking the mold and, according to RealPage, growing in numbers at a rate twice that of other apartment types.

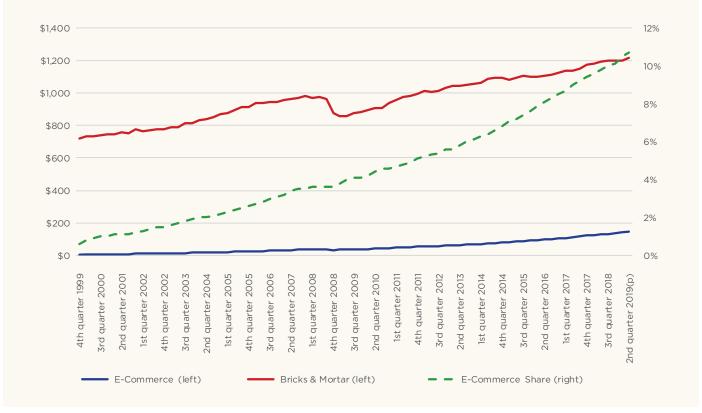
But in terms of sheer numbers — and recently property performance — more traditional suburban and garden style

apartments continue to drive the market. There are far more multifamily rental units in suburbs than in central business districts

Urban apartment properties start with high land costs, meaning developers need to build upward to spread those costs across as many apartments as possible and make the economics work. Given the costs of land and of vertical development, the cost of adding higher-end touches and amenities can have a relatively small impact on the property's total costs. The result is that most new urban development has been higherend and amenity rich.

Apartment vacancy rates are up from their post-recession lows, rising to 4.7 percent in the second quarter of 2019, according to REIS, for professionally managed properties. (Chart 7). But the addition of supply has changed some dynamics, with Realpage recently noting "affordable Class C apartments rank as

CHART 8. ESTIMATED QUARTERLY US RETAIL SALES (\$BILLIONS)



Source: Census Bureau

the tightest asset class on a national scale," with occupancy rates of 96.5 percent in mid-2019, compared to Class B at 95.9 percent and Class A at 95.3 percent.

Given strong demand, asking rents for apartments have grown more quickly than for any of the other major property type over the last decade, including year-over-year growth of 4.4 percent between Q2 2018 and Q2 2019. Net operating incomes (NOIs) in the third quarter of 2019 were 6.8 percent higher than they had been a year earlier. And multifamily property values, according to Real Capital Analytics, were 8 percent higher in Q3 2019 than in Q3 2018 — with a 9 percent rise in garden apartment values and a 3 percent decline among mid/high-rises.

RETAIL

No property type has received as much attention lately as retail. Headlines about the growth of ecommerce, the future of shopping malls and the impacts of tariffs have all led to headlines casting doubt on the role of brick & mortar retail going forward. And while these and other trends all portend change, the sector continues to benefit from an active U.S. consumer.

According to the Census Bureau, retail sales in the United States increased by 3.2 percent between Q2 2018 and Q2 2019 — driven by a 13.3 percent increase in e-commerce sales and 2.1 percent rise in other (bricks & mortar) sales. E-commerce now accounts for 10.7 percent of all retail sales, up from 9.8 percent a year earlier (Chart 8).

The increase in the share of goods sold through the internet has fostered a repositioning of retail space as a source of delivering services — with growth in the number of store fronts per capita of nail salons, pet care and restaurants offsetting (some of) the declines among newsstands, hardware and shoe stores.

These tensions come through in the base numbers. According to REIS, retail occupancy and rent growth have held relatively steady — with vacancy rates at 10.1 percent in Q2 2019 compared to 10.2 percent a year earlier and 10.0 percent in Q2 2017. Asking rents grew by 1.7 percent between Q2 2018 and Q2 2019, slower than either office or apartment properties and roughly on pace with the 1.79 percent rate a year earlier, and 1.77 percent the year prior.

But data from the National Council of Real Estate Investment Fiduciaries (NCREIF) shows year-over-year declines in retail NOIs in both Q1 and Q2 of 2019, compared to increases of between 4 percent and 9 percent for the other major property types. Investor sentiment is also seen in retail property pricing, with values up 1.4 percent between Q3 2018 and Q3 2019, compared to a 6.7 percent increase for all properties, and cap rates rising from 6.0 percent to 6.1 percent for shops and from 6.9 percent to 7.1 percent for retail centers.

INDUSTRIAL

It seems that for every ounce of concern about retail there is an equal amount of positivity about industrial. The key driver has been logistics, and the growth in demand for e-commerce support. The growth is not only changing the amount of space needed, but also the types, with greater emphasis on "last-mile" properties close to the end-consumer.

And the numbers have supported that optimism. Industrial vacancy rates have fallen steadily, from 11.7 percent in 2010 to 10.9 percent in 2011, 10.0 percent in 2012, 9.4 percent in 2013, 9 percent in 2014, 8.5 percent in 2015, 7.9 percent in 2016, 7.3 percent in 2017 and 7.1 percent in 2018. At the same time, asking rents — and their pace of growth — have been growing, with year-over-year increases rising from 1.3 percent in 2012 to 4.1 percent in 2017. Growth slowed to 2.5 percent in 2018 as new supply began to limit the supply/demand mismatch.

NOI growth has remained robust, leading the major property types by increasing at 8.9 percent between Q2 2018 and Q2 2019. The growth of NOIs, and investor interest, has rallied pricing for industrial properties, with values up 12 percent between Q3 2018 and Q3 2019. As just one sign of investor interest, the Wall Street Journal reports that as of October 2019, Blackstone owns 443 million square feet of warehouse space — half of it acquired during the year.

But the overall demand for space is just one aspect of the changes in industrial. Equally important is the change in the types of space sought. With increasing competition to deliver goods to end-consumers faster, warehouse operators are looking for space closer to population centers as a way to improve the cost and efficiency of the "last-mile" delivery. Building in more densely settled areas can be more difficult and expensive than traditional green-field development, and can also lead to previously unheard of developments, such as multi-story industrial.

Even with these challenges, industrial development has picked up in recent years. In October, Morgan Stanley analysts noted "E-Commerce has pushed fundamentals to new highs... but supply is now outstripping demand — a trend we have not seen during the last 8 years."

Industrial remains among the strongest and most sought after property types in commercial real estate. As with other property types, how well supply balances new demand will be a key determinant of how strong growth remains in coming years.

"E-Commerce has pushed fundamentals to new highs... but supply is now outstripping demand — a trend we have not seen during the last 8 years."

Capital Sources

Across all these property types, and others, the mortgage markets have been open. In 2018, mortgage bankers originated \$574 billion of loans backed by commercial and multifamily properties, a new record and 8 percent higher than in 2017. That strong level of borrowing and lending has pushed the amount of mortgage debt outstanding above \$3.5 trillion, also a record. This mortgage capital has flowed through to borrowers and helped support property values and transaction volumes. In the first half of 2019, originations were 11 percent higher than a year earlier, outpacing property price increases of 7 percent.

And while every major capital source has a strong appetite for commercial and multifamily mortgages, their motivations and the environments in which they are operating are distinct — leading to different focuses from each.

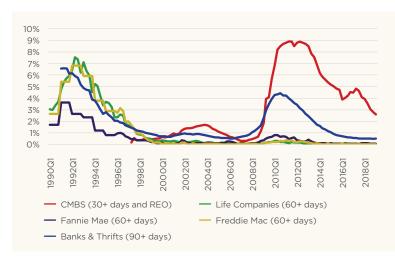
loan type. More recently, the performance of these loans has been extraordinary — with 90+ day delinquency rates ending 2018 at the lowest level on record — 0.48 percent (Chart 9).

BANK BALANCE SHEETS

At the end of the second quarter of 2019, 5,184 FDIC-insured institutions held nearly \$1.5 trillion in mortgages backed by income-producing commercial and multifamily real estate, making banks and other depository institutions the largest source of commercial and multifamily mortgage financing and accounting for 39 percent of the \$3.5 trillion total of commercial and multifamily mortgage debt outstanding.¹

Commercial and multifamily mortgages have long been a staple of bank portfolios and account for 19 percent of all loans and leases they currently have extended. Banks recent experience with commercial and multifamily mortgages has been extremely positive. During the Global Financial Crisis, commercial and multifamily mortgages were the best performing loans on their balance sheets, with the lowest charge-off rates of any major

CHART 9. COMMERCIAL/MULTIFAMILY DELINQUENCY RATES



Source: MBA

Note: Delinquency rates are calculated differently and are not comparable between capital sources.

The numbers cited here generally refer to banks' mortgages backed by multifamily and non-owner-occupied commercial properties. Many sources also include loans backed by owner-occupied commercial properties, as well as construction loans. We exclude the former because they are dependent on the ongoing operations of the owner enterprise, not on the commercial real estate space markets, for their repayment. We exclude the latter because, particularly during the most recent recession, banks' construction books were dominated by single-family construction loans and had little connection to commercial real estate markets.

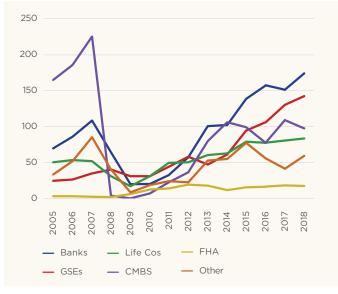
The wide variety of banks begets a wide variety of different types of loans made by banks. A special study MBA conducts on the characteristics of commercial and multifamily mortgages shows that banks tend to have the lowest median loan size of the major lending sources. Part of that comes from the vast number of institutions making just a handful of very small loans. In our review of 2018 multifamily lending, we found that 45 percent of active lenders made five or fewer multifamily loans and that more than a quarter of the loans (16,089 out of 57,200) were for \$500,000 or less.

But just as one might think of bank loans as tending to be shorter-term and floating rate, the reality is that banks offer a wide range of products — including very large loans (sometimes participated between multiple institutions), long-term and fixed rate products.

In 2018, MBA's Mortgage Bankers Originations survey tracked \$174 billion of lending by the major commercial real estatelending banks, a 15 percent increase from 2017 and a new record (Chart 10). Banks' holdings of commercial and multifamily mortgages grew by 5.3 percent between Q2 2018 and Q2 2019, while their holdings of just multifamily mortgages grew by 6.2 percent.

Some Fed and other officials have in recent years cited commercial real estate, particularly rising property values, as an

CHART 10. MORTGAGE BANKERS ORIGINATIONS, BY CAPITAL SOURCE (\$BILLIONS)



Source: MBA CREF Database

area warranting increased scrutiny. And the implementation of CECL could shift the capital-adjusted returns some banks see in real estate lending, and therefore their appetites. So far, neither these nor other headwinds appear to be slowing demand from banks for CRE loans. Through the first three quarters of 2019, banks increased their holdings of multifamily mortgages by 7 percent and other commercial mortgages by 3 percent, two of the largest percentage increases recorded among major asset types (Chart 11).

LIFE INSURANCE COMPANIES

The long-term nature of commercial and multifamily loans matches well with the long-term nature of many of the liabilities of life insurance companies. As a result, life companies and pension funds, as part of their overall investment portfolios, hold \$570 billion in commercial and multifamily mortgage debt, accounting for 16 percent of the total outstanding.² In the aggregate, life company mortgage portfolios account for approximately 7 percent of their overall investible assets, with some firms specializing more in the asset class than others.

CHART 11. Q3 2019 YTD CHANGE IN SELECTED HOLDINGS OF BANKS

Treasury and Agency Securities	11%
Multifamily Loans	7%
Other Loans and Leases	5%
Commercial Real Estate Loans	3%
Residential Real Estate Loans	2%
Consumer Loans	2%
Construction Loans	2%
C&I Loans	0%
Farm Loans	0%
Other Securities	-1%

Source: Federal Reserve

² In addition to their direct mortgage holdings, life insurance companies, banks and others may also hold commercial mortgage-backed securities, described below, as well as equity and other investments in commercial real estate.



The archetypal life company loan is larger and more conservative than loans from other capital sources — with almost 80 percent of the new loan balance in 2018 coming from loans of \$20 million or more, with loan-to-value ratios (LTVs) of 65 percent or less and/or with debt-service coverage ratios (DSCRs) of 1.50 or more. That conservatism is also seen in the fact that 95 percent of the book value and 98 percent of loans held by life companies are classified in the highest rated risk-based capital categories for such loans, CM1 and CM2.

But that characterization clouds the fact that some life companies specialize in small loans, and many have programs that are able to take on targeted risks in return for higher yields. Given the success of their mortgage portfolios, many life companies have increased the range of their lending and/or partnered with outside capital sources — domestic and foreign — to originate loans.

As a group, life companies also retain the closest connections to independent mortgage banking firms. MBA's Annual Origination Volume Summation records life companies closing \$83 billion of loans, of which intermediaries reported originating \$76 billion.

And like other capital sources, life companies' commercial and multifamily mortgages have performed extremely well. For most of the past decade-and-a-half, 60+ day delinquency rates have been below 10 basis points. As of Q2 2019, just 0.04 percent of the balance of loans held by life companies were delinquent.

Life companies continue to add to their holdings of commercial and multifamily mortgages, lending \$83 billion in the space in 2018 — a new record and 4 percent above 2017 levels — and growing their portfolios by \$57 billion or 12 percent. Through the first three quarters of 2019, life company originations are running right at that same record pace, showing once again the important role commercial mortgages have proven for themselves as a part of life companies' overall investment portfolios.

CMBS

The commercial mortgage-backed securities (CMBS) market connects fixed-income and other investors to commercial real estate. Through CMBS, mortgages backed by income-producing properties are pooled together and securities are created based on their cash flows. Most structures include a "waterfall" through which payments are prioritized to some securities over others, creating safer bonds (which pay lower yields) and riskier bonds (which pay higher yields).

2017 marked an important turning point for the CMBS market. Between the fourth quarter of 2007 and the second quarter of 2017, the balance of loans held in CMBS fell from \$750 billion to just \$428 billion, as more loans paid off and paid down each year than new loans were originated. With the wave of tenyear loans that were made in 2006 and 2007 having matured, beginning in the second quarter of 2017 new originations once again outpaced pay-offs and paydowns, and the outstanding balance of CMBS loans began to grow again, reaching \$471 billion at the end of the second quarter of 2019.

CMBS is often viewed as the most transparent capital source within the commercial real estate finance market, with regular reporting on individual loans, and an entire ecosystem of Wall Street analysts and others publishing detailed research on the sector. It is also a market driven by different economics than whole loan investors. The tranching of the credit risk into distinct bonds means that an investor in a super-safe AAA security has a different view of the risk and reward of their investment than does an investor in either a less-safe but higher yielding CMBS B-note or a whole loan such as those held by banks or life insurance companies.

One result of these differences is that not only do CMBS loans perform differently than do other loans, their performance is even measured differently. For most other capital sources, if a loan's repayment becomes suspect, the loan may be charged-off, with the investor writing that loan down on their balance sheet in anticipation of an eventual loss. Once written down, that loan is generally removed from both the numerator and denominator of the delinquency rate. Because CMBS loans live in a trust, and the market value of CMBS incorporates expectations about individual loans' repayments, there is no mechanism to write-down individual loans, meaning delinquent loans, and even those in foreclosure, remain in both the numerator and denominator of the delinquency rate. The result is that the CMBS delinquency rate tends to appear higher than do the rates of other groups.

This "all-in" CMBS delinquency rate fell to 2.46 percent during Q2 2019, roughly one-quarter of the 8.67 percent it hit at the end of 2012. Pulling out the loans that are in foreclosure or REO, the 30+ day delinquency rate fell to 0.40 percent at the end of 2018, the lowest level since CMBS delinquency rates started to climb in earnest in June 2008.

The CMBS market continues to adjust to market conditions. In 2006 and 2007, CMBS was the leading source of lending for mortgage bankers. During the Global Financial Crisis, issuance fell to near zero. In more recent years, conduit issuance (in which a number of loans are pooled and collectively back certain securities) has been augmented by strong growth in single-asset, single-borrower deals (in which one large loan or borrowing entity backs an entire deal).

In 2019, in the shadow of the credit market disruptions at the end of 2018, CMBS volume started the year slowly, with first half originations running 11 percent below the first half of 2018. As the year has progressed, investor demand for securities and an ability to compete for loans has rekindled the market, with many analysts expecting 2019 volumes to roughly match those of 2018.

FANNIE MAE, FREDDIE MAC AND FHA

Despite the fact that they are permitted to only purchase and guarantee residential and, in the case of FHA, health care mortgages, Fannie Mae, Freddie Mac, FHA and other federally related agencies are the second largest source of mortgage capital for the commercial and multifamily real estate markets. At the end of 2017, they held or guaranteed more than \$703 billion in multifamily and health care loans — 20 percent of all commercial/multifamily mortgage debt outstanding (MDO) and 48 percent of multifamily MDO.

Fannie Mae and Freddie Mac (the government sponsored enterprises, or GSEs) each have robust programs in which they purchase multifamily mortgages from lenders and create securities backed by those loans to sell in the secondary market. Fannie Mae's DUS program generally includes risk-sharing with the originating lender, who also services the loan on an ongoing basis. Freddie Mac's securitization process generally involves Freddie Mac pooling loans in a security structure in which they guarantee and sell lower risk bonds, and sell unguaranteed higher risk bonds directly to the market. Since 2008, both GSEs have been held in conservatorship by the government, with their activities overseen by the Federal Housing Finance Agency (FHFA).

The Federal Housing Administration (FHA) is also a key source of financing for multifamily and health care loans. Working with their MAP and other lenders, FHA guarantees certain loans, which can then be packaged in securities that are further guaranteed by Ginnie Mae.

GSE loans tend to be relatively long-term in nature, with the typical term being 10 years. Many FHA loans are fully-amortizing, may have a term of 40 years and can include construction financing as well. Both the GSE and FHA programs bring a federally guaranteed (low) interest rate to the multifamily markets.

GSE loan performance has been remarkable of late, with delinquency rates below ten basis points for almost the entirety of the last 4 years — and falling to three basis points for Freddie Mac and five basis points for Fannie Mae during Q2 2019. It is hard to imagine delinquency rates remaining that low in the long-run, but the performance of these loans remains extremely strong.

Origination volumes for the GSEs have grown significantly in recent years, from \$48 billion in 2013 to \$61 billion in 2014, \$94 billion in 2015, \$106 billion in 2016, \$130 billion in 2017 and \$143 billion in 2018. In 2018, loans for Fannie Mae and Freddie Mac accounted for 42 percent of all multifamily lending. Lending for FHA has been more varied, peaking at \$19 billion in 2012, as borrowers took advantage of low rates and FHA refinance programs. FHA volumes fell to \$12 billion in 2014 before rebounding to \$17 billion in 2018. The result has been that agency and GSE portfolios and MBS accounted for 48 percent of multifamily mortgage debt outstanding during the second quarter of 2019, up from 37 percent a decade earlier.

GSE activity is overseen by their conservator, the Federal Housing Finance Agency (FHFA), which has a number of governors of GSE activity, including multifamily lending caps, housing goals, duty to serve and more. For 2020, FHFA made adjustments to the lending caps, limiting Fannie Mae's and Freddie Mac's volume over the five quarters of Q4 2019 to Q4 2020 to \$100 billion and requiring that 37.5 percent of that volume meet their definition of mission-driven, affordable. Through the first half of 2019, originations for Fannie Mae and Freddie Mac were running 17 percent ahead of their pace a year earlier.



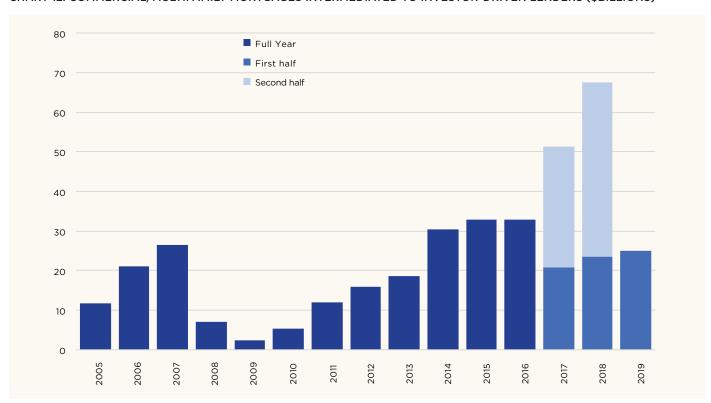
INVESTOR-DRIVEN LENDERS

A relatively new group of lenders have joined the above capital sources and become a major source of commercial mortgage finance in recent years — investor-driven lenders. These lenders — including debt funds, mortgage REITs, specialty finance companies and others — serve as a channel that allows investors to deploy investment funds in commercial mortgage debt. The sweet spot for many of these groups is providing relatively short-term adjustable rate debt to property owners looking to build or transition a property. The recent interest in these transitional properties has prompted demand for such debt, and interest from investors looking to put money to work in the commercial mortgage market has boosted the supply of

financing. These lenders often use warehouse lines or CRE CLOs to help finance their operations, but hold the core risk (and reward) of the loans for their equity investors.

MBA's Annual Origination Survey tracked \$32 billion of mortgage debt intermediated to investor-driven lenders in 2016, \$52 billion in 2017 and \$67 billion in 2018. In the first half of 2019, 10 percent more volume was intermediated to investor-driven lenders than during the first half of 2018, putting the group on a record pace and closing in on the volume of life insurance companies (Chart 12).

CHART 12. COMMERCIAL/MULTIFAMILY MORTGAGES INTERMEDIATED TO INVESTOR-DRIVEN LENDERS (\$BILLIONS)



Source: MBA CREF Database and Mid-year Originator Rankings

Conclusion

The fact that little of today's overall economic uncertainty is specifically focused on commercial real estate should be taken as a good sign, with an acknowledgement that economic changes — both good and bad — do filter through. It's also worth keeping an eye on a host of idiosyncratic changes that are coming to our markets — from the end of LIBOR, to the implementation of CECL, to the need for an extension of the government's terrorism risk insurance backstop, to... well you get the picture.

Commercial real estate and commercial real estate finance markets have been traveling in rarified air in recent years — with economic growth, low interest rates, stable market conditions and more all providing strong tail winds. As the winds continue to shift, they will create both challenges and opportunities for specific parts of the market and participants in them.



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