
Securitized Products Credit: Fundamentals Benefit from Recovery and Growth in U.S. Residential, Commercial and Commercial Loan Markets

Global risk appetite has been unstable in recent months. The sharp decline in oil prices spooked markets at the end of 2014, and drove down both equities and, to a lesser extent, spread products. With oil prices now seemingly stabilized, the appetite for risk is back. It also helps that the Federal Reserve continues to be dovish, holding back on rate hikes as mixed data shows the U.S. recovery is not yet as even or robust as expected.

In Securitized Products, the decline in oil is generally helpful to consumers, making it easier for them to service their debt or take on new obligations. Where lower oil prices can present risk (i.e. energy exposure in both CLO and CMBS collateral), diversification is helpful and overall concentrations are low. Across the spectrum we continue to see improved fundamentals in the Securitized Products sector, albeit more gradually than what we saw in past years as we first rose out of the crisis. We have also seen less spread volatility in the sector than in High Yield and Investment Grade, and we expect a favorable technical picture with regard to product supply versus investor demand.

Below we discuss several LP trends that support continued improvement in the fundamentals underlying Securitized Products.

Residential Real Estate Market Update

In residential real estate, prices are still approximately 15% below their prior peak (using the Case Shiller Top 20 Index). However, oil patch markets are above their old peak and markets like San Francisco and Boston are very close to their prior peak. Northeastern markets and others still beset with foreclosures that have very long timelines for resolution (the judicial states) are the laggards in recovery. Of note, however, is that these comparisons are nominal (before inflation) and that cumulative inflation since the crisis is about 13%, suggesting that home prices have recovered far less in *real* terms.

After above average growth of 8% in 2012, and 11% in 2013, the Case Shiller Top 20 Index was up 5% in 2014, and is expected to remain in a 4-6% range over the next two years. The positives for home prices are expected GDP growth north of 2.5%, continued wage growth, continued reductions in unemployment, rising consumer confidence and rising household formations. If home prices surprise, the risk is likely to the upside, and the driver will be formations. All of the positives for housing are stacked against persistently tight mortgage credit, and the likelihood this year that mortgage rates will increase, albeit probably not until late in the year.

Putting aside the level of home prices versus the peak, are home prices currently cheap? Or fair? There are a number of measures used to evaluate home prices, e.g., Price-to-Income, Affordability, and Rent-vs.-Buy. On a *Price to Income basis*, US housing is slightly overvalued (~5%) vs. historical multiples. Price to income measures are arguably too simplistic, because they ignore financing costs, which do impact the price that people can pay for a home. Because price-to-income ignores the level of mortgage rates, the measure tends to read as overvalued when interest rates are very low and particularly now, when we have had an extended period of low wage growth.

Affordability is arguably a more sophisticated measure of assessing whether housing is fairly valued, because it takes into account not just income, but also financing costs. Affordability metrics suggest that housing is still cheap. For example, the National Association of Realtors Affordability index is at 180; pre-crisis and pre-boom, the long-run average of the index was approximately 120. The index reading of 180 means that a household earning the median income can

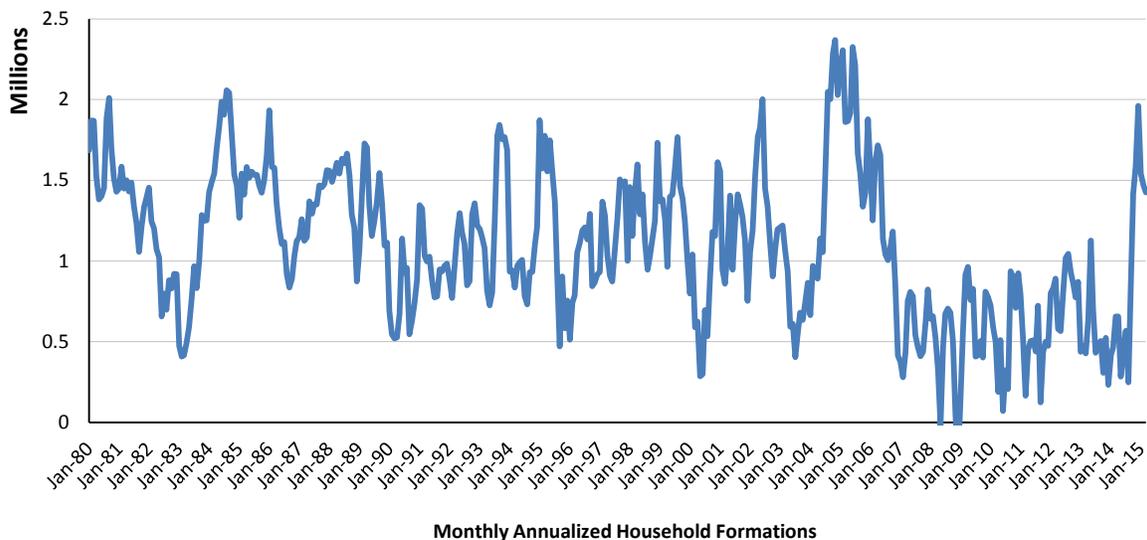
afford to buy 1.8 median homes at today's rates. A 200bp rate shock, with no change in income (a rather harsh and unlikely assumption), would simply restore affordability to "normal", i.e. the 120 index level that is the long-run average.

The *Rent vs. Buy* metric factors in income, rates, and the cost of a substitute good (rental housing) in order to assess whether home prices are cheap or fair. The measure divides average rent by after tax monthly payments on the median priced home (calculated on a market by market basis, and then aggregated). The long run nationwide aggregate average for the Rent vs. Buy metric is ~ 90%. This suggests that people pay more to own than to rent, presumably in order to benefit from an option on home prices (historically, homebuyers are willing to pay even more for this option in markets like California where it is easier and cheaper to default on a mortgage, and so the Rent vs. Buy metric is even lower in that state). Nationwide, the Rent vs. Buy ratio today is at 105%; we expect home prices to rise to bring the number back to 90% or lower.

The demand picture in residential real estate is showing strength. Existing Home Sales were up 6.1% m-o-m in March, and +10.4% year-over-year, the strongest reading since the third quarter of 2013. Two subcategories of sales are trending in important ways that suggest improvement in the market; the distressed share is falling and the first-time homebuyer share is rising (albeit the first time homebuyer share of existing home sales is still low at 30% vs. a 40% long run average). New Home Sales are also stronger, although that data series is much smaller and can be especially noisy and subject to revision. January and February were very strong, with February new home sales at a 7-yr high, while March showed a bit of a pullback (but with several other positive indicators, March may be noise). Notably, New Home Sales were up in lower price points, with homes under 300k comprising 61% of February sales, vs. 50% in the fourth quarter 2014. Builders are now focusing on first-time homebuyers as a source of growth, another hallmark of a return to normalcy in housing.

How can we get more first-time homebuyers, which are the engine of growth for housing and, by extension, so much of the economy? First-time homebuyers are a confluence of three elements; households being formed, households choosing to buy, and households obtaining credit. Household formations have been one of the greatest casualties in this crisis. Over many decades the long-run average for US formations ranged between 1.0 and 1.4 million per year, and from 2000-2006 formations averaged 1.35mn per year. During the crisis, formations were running at less than 550,000 per year; pent-up demand could now be as many as 3 million households. In recent months annual household formation data has been coming in at a rate of 1.6-2.0mn per year. We saw a 10-yr high in December, as shown in the chart below.

Finally Breaking Out of Slump in Household Formations



Of course, the formation of a household does not equate to the purchase of a home; most newly formed households rent initially, which still benefits the housing market. An increase in renters, all else equal, raises rents, and makes buying more attractive. Growth in renters also spurs investor demand for properties. The homeownership rate is down to 64% from its peak of 69%. Some have claimed this represents a paradigm shift and a lack of interest in buying; we believe it more likely represents a lack of access to credit with which to buy a home. For example, at the peak of home

prices, about one in three purchase mortgages went to borrowers with FICO credit scores under 700. Today only about one in seven purchase mortgages go to borrowers with FICO credit scores under 700. With a significant portion of household formations likely to be minorities, who traditionally have less access to credit, the re-emergence of alternative lending will be needed to stem the decline in homeownership.

Demand may also be improving for move-up buyers. First, negative equity is less and less a problem (about 18% of homeowners have negative equity today vs. ~34% at peak) preventing homeowners from trading up. We are also seeing more borrowers who ran into trouble now able to “clean up” their credit and improve their FICO with the passage of time. In the most extreme case of FICO scores “curing”, consider the nearly one million homeowners who went into foreclosure between 10/07 and 10/08; according to Fair Isaac (developer of FICO), 75% of them will have no record of it on their credit report by year-end.

As far as the supply picture for residential real estate, we are arguably “undersupplied”. Existing home supply nationwide is at 4.6 months, which is low. Historically a 6-month supply is considered an “equilibrium” level, with lower levels of supply usually consistent with upward pressure on home prices. In new homes, starts are running at a level too low for the long run annual rate of formations. Starts were ~2mn/yr at the peak of home prices, fell to 0.5mn during crisis and are still under 1mn.

In total, the valuation metrics and these supply and demand factors support our expectations of HPA 4-6% per annum over the next 12-24 months, whereby the many positives for the market remain reigned in by tight credit. On the downside, it is possible that a rate hike slows HPA, though historically wages and confidence have been more important than mortgage rates. The upside risk is possible surprises in formations, with an unleashing of pent-up demand before builders can react.

Commercial Real Estate Market Update

In Commercial Real Estate (“CRE”), recovery is significantly further along than in residential property. There are probably two reasons. One, residential real estate was beset with rampant fraud, a virtual absence of underwriting, and a degree of “product innovation” (e.g. negative equity products) that did not occur on the commercial side, and so residential real estate arguably became more inflated. Two, regulators and litigators have prevented residential lending from normalizing, whereas CRE credit has nearly normalized.

And so, overall the Moody’s /RCA Commercial Property Price Index (CPPI) has more than recovered its peak-to-trough loss during the crisis, but housing has only recovered about half of its peak-to-trough losses. The latest readings for the CPPI show it was up 1.5% month-over-month for February, and up 15.9% year-over-year. Within the CPPI index, we continue to see certain trends. For example, Major markets more than recovered their peak-to-trough losses, while Non-Major markets have recovered only 88% of their peak-to-trough losses. Multifamily has recovered the most, in part because they have also benefitted from a demand shift as the homeownership rate has fallen and renter-ship has risen. By property type, Retail has recovered the least; recouping 78% of their peak-to-trough losses. Like Multifamily, that also reflects a demand shift, in this case Retail is being harmed by a demand shift away from bricks and mortar.

If we look at aggregated property metrics, Net Operating Income or “NOI” has been growing quarter by quarter in each sector for the last four quarters. The Four-quarter rolling NOI is now at 6.57%. It is expected that future NOI growth in the next 2-3 years will continue to be positive, but likely to be in the 4-6% range at best, and flat to up 2% in Retail. Some of the NOI growth we have already seen is from rising rents, and some of it is in improved vacancies. Vacancies continue to fall and are at 8.12% today vs. 14% at the peak. Retail and Office, however, are still struggling with double-digit vacancy rates, which continue to ease albeit at a slow pace.

If we examine operating performance by sector, again, Multifamily has been the strongest performer and continues to lead the pack in NOI growth. In Multifamily, Four-quarter rolling NOI is just under 9%. That rate had been in the double digits in 2011-’12, peaking at 11.26% in 3Q’11, not long after the peak in single-family foreclosures, which was September 2010. Growth moderated after that point, and new supply started to come on line. Today Multifamily NOI

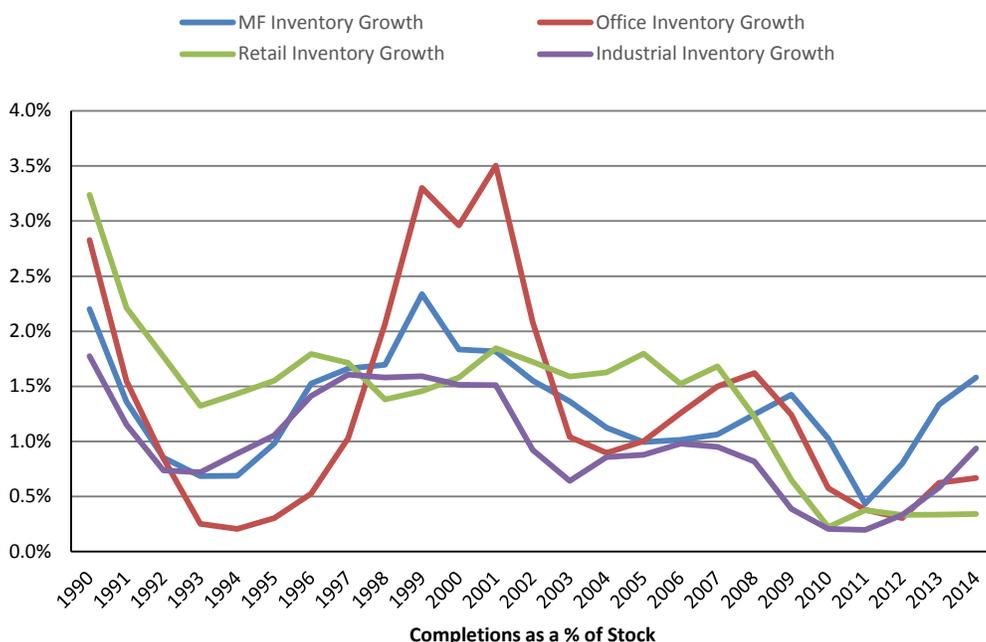
growth is once again nearing double digits as employment and formations pick up and most new formations enter the housing food chain as renters, first.

Growth in NOI for the Office sector has been quite strong recently, with Four-quarter rolling NOI growth of 7.39%, the highest since 1Q'07, and on a steady upward trend for the last five quarters. NOI growth for Industrial properties is at 5.89%, and has been above 5% for the last four quarters, after being sub-5% since 1Q'08. Not surprisingly, Retail NOI growth has been less robust than the other major property types, and more erratic, with major store closings, etc. Even so, there is strength in the recent figures. Post Crisis, NOI growth for Retail real estate has averaged 1.78%, and was negative for nearly two years from late '08 to mid '10. By contrast, Retail Four-quarter rolling NOI growth is now at 4.47%, a surprisingly good showing for a sector facing such headwinds. Going forward, the Retail property sector is likely to have more heterogeneous outcomes than other property types and to depend increasingly on the quality of operators. In that regard, it is somewhat similar to hotels, which are also particularly management intensive. The metrics used to analyze hotels are a little different than other property types; take for example "RevPAR" or Revenue Per Available Room. Hotels were one of the first sectors to recover, and RevPAR growth spiked over 10% in 2010. In 2014 RevPAR growth ranged from 6.5% in the Luxury category to 8.7% in Economy. RevPAR growth is expected to expand in 2015, based on demand trends and very small new supply.

Overall CRE capitalization ("cap") rates are at 6.4%, down from 7.8% in 2009. Cap rate *spreads*, i.e. the differential between the risk free rate and the cap rate, are still approximately 200bp above historical averages. US cap rates are higher than those in many developed countries, in part because our risk-free (Treasury) rates are relatively high vs. other developed countries.

CRE demand remains robust, with new supply muted for several years. Inventory growth rates in CRE, as measured by Completions divided by Inventory, have been declining for many years, and were near zero between 2010 and 2013. While construction has picked up since 2013, the growth rate is still well below the long run average. In aggregate for the US CRE market, average annual inventory growth from 1990-2008 was 1.33%. Over the past six years growth has been well below normal, averaging only 0.72% per year. The story is even more dramatic if we look at supply net of Multifamily, a sector that held up fairly well during the crisis and benefitted from the foreclosure fallout in single family. CRE supply growth net of Multifamily has dropped by nearly two thirds since the crisis, with an annual growth rate of 0.45% post 2008 versus the long run average of 1.29% from 1990-2008.

Low levels of Construction Bullish for CRE



US CRE transaction volumes were up 17% year over year in 2014 and were up sharply in the most recent month. The 25 largest markets all had year-over-year increases in sales volume, and more and more smaller markets are seeing

increased sales activity. Attractive cap rates and the strong dollar are also driving international demand for US CRE. Cross-border CRE investment was 12% of the total in 2014. China was 12% of that 12% (up from 8% in 2013), and reports are that China is gearing up to buy and develop US CRE. Looking at the first quarter, activity from Asia Pacific continues to rise, with Singapore recently buying an \$8bn portfolio of US industrial properties, catapulting them to the top spot in CRE Cross-Border investing, with Canada second and China third. Importantly, the Singaporean investment was a portfolio of industrial and warehouse properties located across the US, a notable foray outside of the traditional purview of Asia-Pac investing, which has tended to emphasize well-known properties in gateway cities, particularly in Manhattan. This augurs well for the type of collateral more typically found in CMBS conduit deals, which are generally not so-called “trophy” properties.

Underwriting standards tightened dramatically in response to the collapse in CRE prices and rising defaults beginning in 2008. When CMBS markets opened back up post crisis, it was initially on very conservative terms with regard to LTV, DSCR, etc. Over time, lending standards have eased as the markets normalized, raising some eyebrows. There are two very important differences, however, that make today’s CMBS more creditworthy than in the last cycle. The first is the abandonment of “pro forma underwriting”. Pro forma underwriting gives credit, during the loan underwriting process, to cash flows that are not yet in place; for example, future rent increases. Pro forma underwriting, which was standard in the CMBS market pre crisis, overstated cashflow by 40% or more in some cases. The second difference between today’s CMBS and pre-crisis CMBS is the sizing of credit enhancement. Subordination levels pre-crisis were as low as 3%; today subordination levels are typically 7% and higher, giving senior investors more than twice the level of protection against losses, and also making the subordinated classes themselves more robust.

Summing it up, demand remains robust for CRE investment. Property fundamentals are largely on the upswing, with continued caution around Retail. Lending standards continue to attract scrutiny, as investors struggle to draw the line between a normalization of CRE underwriting standards and a repeat of prior excesses. Cap rate compression is largely over; NOI growth will be the driver going forward. In such an environment, asset selection and in-depth credit experience are paramount for asset selection.

Commercial Loan Market Update

The CLO sector was the most directly impacted by the sell-off in energy. CLO equity NAVs fell ~18%, though they have since largely recovered. The most recent data in Leveraged Loans, the primary collateral type backing CLOs, showed only two sectors that did not post monthly gains. Oil & gas is still the “worst” sector, but it was down 1.39% in March vs. a 9.11% decline posted in December. Oil and gas is about 3.7% of the collateral pool of outstanding US 2.0 CLOs, for example. The Utilities sector was also off in March; -0.91%. Utilities are 3.4% of US 2.0 CLOs.

Distressed loans, i.e. loans that drop more than five points in 30 days, comprised 34 names in March. On a percentage basis, distressed loans are quite contained, with median exposure at 1.78% of US 2.0 CLOs. We continue to see very low levels of underlying loan defaults in the CLO space. For example, the LTM (“Last-12-month”) default rate for the US Leveraged Loan Index is at 1.26% as of April. For the CLO 2.0 market, losses have been much lower, with LTM ranging between 0 and 30bp, depending on the month and whether the CLO is amortizing or still in the reinvestment period. Even at the peak of LTM in the recent crisis, the index LTM was at 10.81% but the LTM for CLO 1.0 collateral was less than half that, at 5.3%.

Longer term, Leveraged Loan defaults, and CLO collateral defaults, are expected to stay under 2% per annum, with the maturity wall pushed out to 2019, generally good credit availability, and healthy margins paired with low rates to provide high interest coverage, extending one of the longest credit cycles in history.

The overarching issue in Leveraged Loans, is not, of course, the narrow question of Oil and Gas or any other industry exposure, but the broad issue of leverage multiples. Bank regulators have been quite vocal about this concern, and have now pretty much drawn a line at 6x EBITDA, with some exceptions. Loans with higher leverage will be “probed more deeply” by examiners, and an excess of unfavorable ratings on banks’ loan portfolios will result in penalties. This additional regulatory oversight is having its intended effect and is effectively capping leverage, since the vast majority of this type of lending is done by entities under the regulatory umbrella. Currently, debt to EBITDA for Leveraged Loans is

4.8-4.9x, up from a crisis low of 4.0x in 2009-'10, and not that dissimilar from leverage levels at the peak. However, interest coverage is much higher than at the peak, e.g. 4x today vs. 3x in 2007. Between lower borrowing costs and lower capital expenditures, the total Free Cash Flow being thrown off by borrowers is much higher than in 2007.

From a historical perspective, today's debt multiples are not particularly high. They have been significantly higher in other cycles. For example, in the mid/late 1990s, leverage was at 5.5-5.9X, up to 1X higher than today. Even in the early 1990s recession, leverage was 5.0-5.2X, moderately higher than today. And of course at the peak of the late 1980's High Yield bubble, leverage was 6.0-8.8x, i.e. 2-to-3.5 turns higher than today. By definition, Leveraged Loans entail more risk, but current leverage is reasonable, while EBITDA margins and cash flow are strong.

Borrowers continue to benefit from very high interest coverage, and should continue to do so for some time even after the Fed begins to raise rates. For example, 91% of US leveraged loans outstanding have LIBOR floors. The mode for these floors is 1%, therefore, given the current low level of LIBOR, it will take multiple rate hikes before the rate exceeds the floor and the borrower's payment goes up.

After years of rapid growth, leveraged loan supply is slowing. There are three likely reasons. First, the new regulatory guidelines on credit have made some loans untenable. Second, the decline in M&A activity has reduced demand. And, third, recent market volatility may have subdued the market. We are, in fact, seeing new issue Leveraged Loan quality improving. For example, "CC-rated" buckets are smaller; year to date they are at 7% vs. 16% in 2013. Also, we see less 2nd lien production; \$34bn in 2014, vs. year-to-date annualized under \$8bn.

Credit quality indicators in CLOs remain strong and recent trends in new issue leveraged loan collateral are positive. However, Leveraged Loan gross supply is down 70% and net supply is off 30%, year-to-date vs. 2014. Demand for leveraged loans is outstripping supply as retail demand is up and CLO issuance is still strong. This lack of supply in the Leveraged Loan market is likely to, eventually, constrain CLO issuance, which will be constructive for CLO prices. At the same time, the lack of supply may put downward pressure on Leveraged Loan credit quality. A common theme throughout credit markets applies to CLOs as well – at this stage of the cycle, manager skill will become increasingly important. We are already seeing great tiering among CLO issuers.

Conclusion

We continue to witness steady improvements in the underlying credit in Securitized Products. In many asset types, we are still "recovering". In all asset types, we are seeing the impact of a growing economy filter down into rising income, rising rents, and stronger corporate balance sheets. Given the floating rate nature of most of our portfolio (and hedges on the fixed rate portion), we expect that the benefits of a higher growth economy will fully accrue to the sector, while the resulting pullback in monetary policy accommodation will be muted.