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Multifamily Mid-Year Outlook 2013

- Total employment rose by more than 2 million jobs during the past twelve months; the unemployment rate is 7.4%.
- Rents are growing and vacancies are near historical lows for much of the country. In time, delivery of new supply will slow these trends.
- Cap rates are also near historical lows, but the spread to the 10-year Treasury is wide. Expectations are that cap rates will increase with Treasury rates, but at a slower pace.
- In multifamily debt markets, new purchase and guarantee volume has been up the past 3 years, with $143 billion done in 2012, just shy of 2007's peak. Our K-deal execution loans continue to be conservatively underwritten.
- Here we introduce the Freddie Mac Multifamily Investment Index to capture the relative attractiveness of commercial apartment buildings to investors.

Introduction

During the first half of 2013, the market was unsettled because of economic and capital market uncertainties. As the economy improves the Fed's shift to less-accommodative policies supporting the economy creates uncertainty about timing and impacts of the policy changes. Investor uncertainty about interest rates slows capital flows due to the effect of rates on future valuations. Meanwhile, sequestration-driven job losses and lower income for furloughed workers slows household formations, which reduces near-term demand for housing.

Despite the uncertainty in the macro economy, the multifamily market continues to report positive fundamentals. The apartment industry is experiencing occupancy rates at or near recent highs along with positive rent growth, although at a slower rate than prior years. The biggest factor directly impacting the multifamily market is delivery of new supply. During the recession developers stopped delivering new units which is making the recent increases in starts and permits spike relative to the past few years. In many markets the new supply is quickly absorbed due to the lack of new units available during the recession years. That said, in some markets occupancies will be driven down by the increases in new units, which will put downward pressure on rent growth in those areas.

Section 1 – Macroeconomic Fundamentals

While the economy is struggling with the uncertainties regarding government policies, the macro economy is steadily showing signs of recovering. Employment has increased at an annual rate of around 2 million the past two years and, as of June, has already gained over one million this year. Twelve month job growth as of June was 1.7%, the highest growth since 2006. However, total non-farm employment remains 1.6% below the pre-recession peak. The unemployment rate has been fluctuating around 7.6% since March 2013. While the July unemployment rate dropped to 7.4%, the addition of new payrolls was lower than anticipated by most economists. The Federal Reserve has indicated they are not inclined to change monetary policy until the unemployment rate drops to 6.5%.

With the announcement that the Fed may slow down Quantitative Easing, the 10-year Treasury continues to climb from the lowest levels in history. A significant concern is that interest rates rise too quickly and that could stall employment growth for several more years.

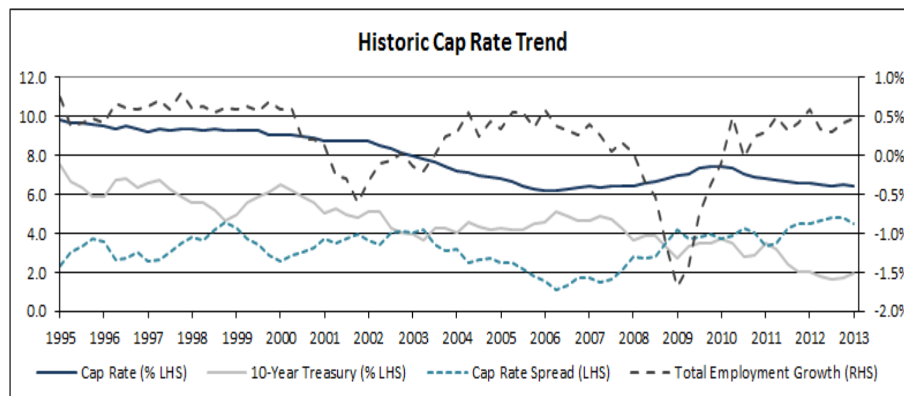
With the low interest rates, many home buyers have flooded the market by picking up homes with cheaper financing. Existing and new home sales are continuing to trend upwards along with home prices. However, homeownership rates are still continuing to trend downwards.

Cap rates and interest rates are positively correlated which impacts future property prices.

As interest rates are rising and expected to continue to rise, there is an increased concern on the impact it will have on capitalization (cap) rates. Generally, the interest rate and cap rate (the ratio of stabilized net operating income over property value) are positively correlated, so the long-term expectation of higher interest rates will negatively impact future property prices. Currently, the national cap rate for apartments is about 6.4% and expected to stay stable in 2013. During the multifamily recovery, the cap rate has been declining while the spread over the 10-year Treasury has widened out. The spread between the cap rate and the 10-year Treasury is an

indicator of risk. Today the cap rate spread is north of 400bps compared to slightly above 300bps, the long term average. It is reasonable to expect the spread to settle back to its long run average.

Exhibit 1 – Historic Cap Rate Trend



Source: Freddie Mac, RCA

As interest rates rise, there is upward pressure on the cap rate, but there is also room for the spread to compress. Cap rates are affected by several factors besides interest rates; including market fundamentals, economic performance, and investor demand. While an increase in interest rates will push up cap rates, the improving economy will provide some offset, and will be evident in a lower spread. We used an econometric approach to better understand how cap rate spreads move with economic factors. Based on this model we project that a 1% growth in employment could lower cap rates by 20-30bps. So as the economy continues to improve, interest rates will rise and cap rate spreads will tighten – the two are negatively correlated. These effects will differ by market, in the same way supply varies by market.

In the near future, we expect that interest rates will increase while the cap rate will remain stable at the 6-7% level, decreasing the spread over the 10-year Treasury. When the 10-year Treasury rate reaches 4%, the cap rate may rise to above 7% nationwide, consistent with the long term average spread of 300bps.

The multifamily rental market remains tight through the first half of 2013. Strong demand and still limited stock have driven down vacancy rates further and pushed up rents in the majority of top markets. The national vacancy rate, as reported by REIS, remained flat for the first half of 2013 at 4.3%, down 54bps relative to the previous year. At the same time, market rents grew by 2.6% compared to the previous year. Effective rents are up more, 2.8% over the last four quarters, reflecting strong fundamentals and fewer concessions.

Recovery of the job market and strengthening of the single-family market may shift some demand away from the multifamily market, but increases in overall housing demand will benefit the multifamily market. In addition, demographics look good for rental properties. As depicted in Exhibit 2, the past several years we have seen a movement from owner occupied housing to renter occupied, especially in younger cohorts. For example, 53% of households aged 25-34 were renters in 2006, but the share of renters in this age cohort surged to 60% in 2011. While this trend is expected to reverse slightly, renter occupied units will remain strong, especially the aging of the echo-boomer population.

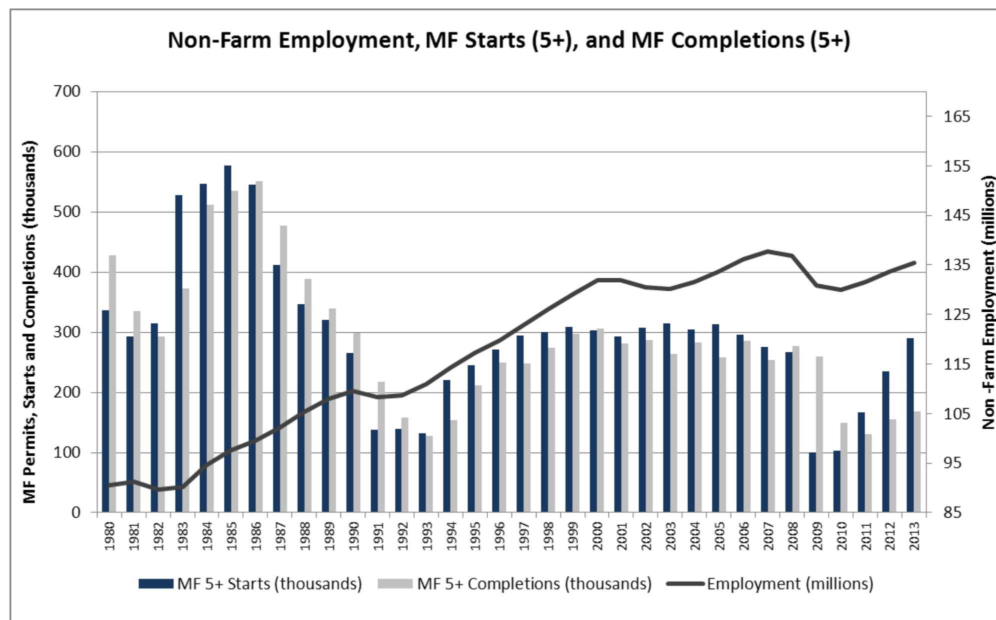
Exhibit 2 – Percentage of Renter Occupied Householders by Age Cohort

Age	2011	2010	2009	2008	2007	2006
< 25	86%	85%	85%	84%	82%	82%
25 – 34	60%	59%	57%	55%	54%	53%
35 - 44	40%	38%	37%	35%	34%	34%
45 - 54	29%	28%	27%	26%	26%	25%
55 - 64	23%	22%	21%	21%	21%	20%
> 65	21%	21%	21%	21%	21%	21%

Source: American Community Survey 1-yr Estimate

On the supply side, multifamily starts have risen as developers and investors have responded to strong rental market fundamentals. Exhibit 3 shows the lag between starts and completions of multifamily units along with the total non-farm employment level. While starts are returning to historical levels, completions will be delivered at a lag over the next few years. May 2013 permits for multifamily buildings, while high compared to the past twelve months, were lower by more than 7% relative to April, the peak since mid-2008. June permits for multifamily buildings were reported even lower, the second lowest since June 2012. The slow-down in permits indicates that investors' appetite for multifamily properties might be cooling and that future construction levels may remain at or below pre-recession levels.

Exhibit 3 – Employment, Multifamily Starts and Completions



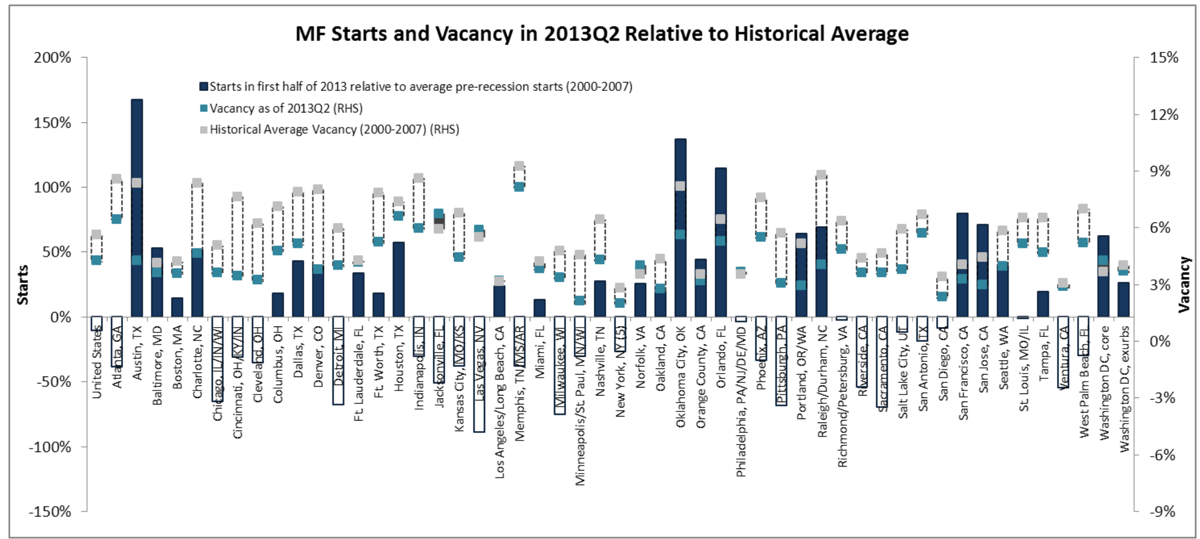
Source: Freddie Mac; US Census Bureau; Moody's Analytics. 2013 numbers are based on the annualized data as of Q2.

Section 2 – Market Level Analysis

In many markets, there is little risk of oversupply as vacancy rates are at or below pre-recession levels and can afford to rise.

The pace of growth is not even across all markets. Some markets are entering the growth phase and are poised for full-speed growth, while growth in other markets has slowed down. Exhibits 4 and 5 reveal much of the market level story by comparing current demand and supply levels against pre-recession norms. Exhibit 4 depicts multifamily (2+ units) starts in 2013Q2 relative to the pre-recession norm at the national level and for 51 major U.S. markets. Starts exceeded the pre-recession norm in 50% of the markets (26 out of 52). The Exhibit also depicts 2013Q2 vacancy rates and compares it with pre-recession norm levels (2000-2007). In almost all markets, vacancy rates are at or below pre-recession levels. This indicates that the added supply will not necessarily lead to oversupply in many of markets where starts exceed the pre-recession levels. However, those markets with an increase in supply but a small gap between current and historical vacancies could be at risk of higher than average vacancy rates. Only in three markets are vacancy rates higher than norms – Jacksonville, Norfolk, and Washington, DC. Still, vacancies in these markets are much lower compared to peak level attained during the recession: 6.8% versus 14.4% in Jacksonville, 4.0% versus 6.3% in Norfolk, and 4.3% versus 6.4% in Washington, DC.

Exhibit 4 – MF Starts and Vacancies Relative to Historical Average



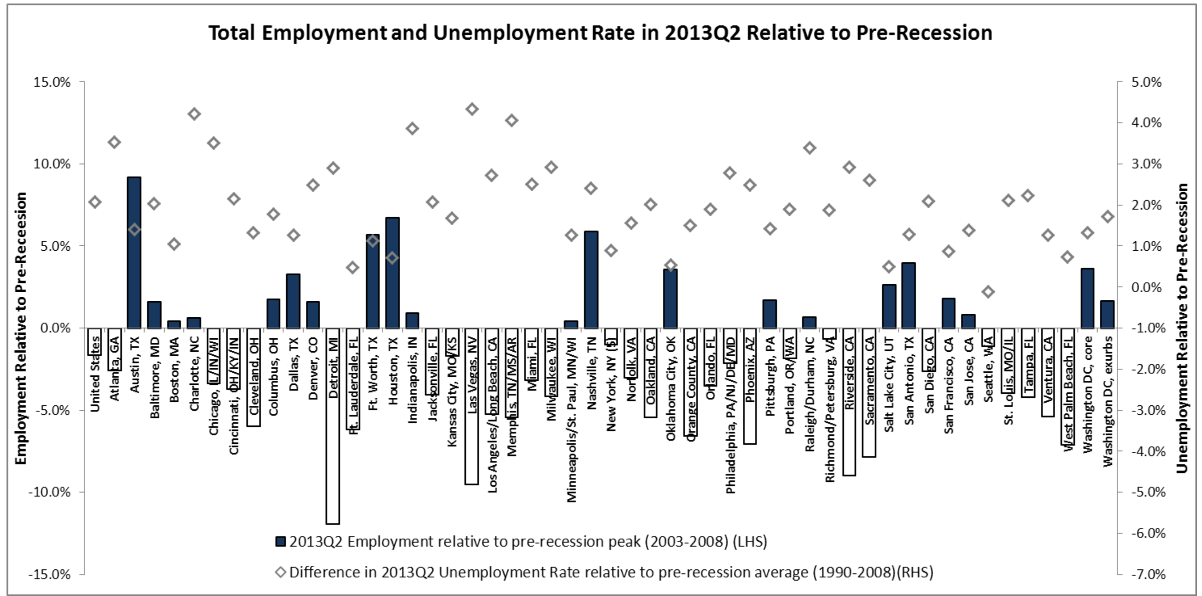
Source: Freddie Mac; US Census Bureau; Moody's Analytics; REIS

While several markets have seen greater employment compared to their pre-recession level, the unemployment level remains high

As Exhibit 5 reveals, the recovery of the non-farm employment rate is uneven across the nation. As of 2013Q2, there are 21 markets with non-farm employment exceeding the pre-recession peak, while 13 are more than 5% below their peaks. However, in all markets, the unemployment rate remains above the long-run average level (1990-2008). Therefore, a majority of the markets have not fully recovered from their employment losses.

The employment sector is not the only driver of the growth in the multifamily sector, as the recession led to a higher propensity to rent. Those who lost their homes to foreclosure or cannot buy due to tighter credit requirements are moving into the rental space. Furthermore, due to the uneven recovery across the nation, those who migrate to areas where the labor market is recovering more quickly are more likely to rent than own. The overall increase for rentals, however, will be split between single-family rentals and multifamily rentals.

Exhibit 5 – Employment and Unemployment Rate Relative to Pre-recession



Source: Freddie Mac; US Census Bureau; Moody's Analytics

Despite the challenges posed by the increase in new supply, we project markets will continue to experience growth in effective gross income (measured by rent multiplied by occupancy rate), albeit at slower rate than in 2012. On average, effective gross income is forecasted to grow at a 3.2% annualized rate through 2015, while the vacancy rate is projected to increase to 4.9% by the end of 2015. Most of the 'gateway' markets are projected to be among the top 10 growing markets presented in Exhibit 6, except for Washington DC and Chicago, which did not make the list. The top 10 list contains five California markets. But these markets are not immune to the risks of new supply and a recovering single family housing market.

Exhibit 6 – Top 10 Market Rents and Vacancy Forecasts

Metro	Annualized growth in effective gross income 2013-2015	Vacancy Forecast 2015
New York, NY (5)	4.8%	2.0%
San Francisco, CA	4.7%	2.8%
Denver, CO	4.2%	5.8%
Seattle, WA	4.0%	4.5%
Los Angeles, CA	4.0%	3.1%
Boston, MA	4.0%	3.8%
San Diego, CA	3.9%	2.7%
Charlotte, NC	3.9%	6.2%
Sacramento, CA	3.8%	3.9%
San Jose, CA	3.8%	3.1%
United States (top 70 metros)	3.2%	4.9%

Source: Freddie Mac

Below we provide commentary for four markets in different stages of recovery: Austin, where the economy is growing rapidly; Washington DC and Norfolk, markets sensitive to federal budget decisions; and Jacksonville, a market that continues to struggle to recover from the recession.

The Austin job market has been performing very well in the post-recession period. All industries are hiring more workers compared to the previous year. Total non-farm employment increased by 3.7% in 2013Q2 compared to the same quarter a year ago. At the same time, the new supply of multifamily units in Austin is amongst the highest of the major markets, both in absolute terms and market level relative growth. This may be a cause for concern, especially considering the historical market performance – historical vacancy rates range from as low as 2% to as high as 17%. Also, annualized rent decreased as much as 14% in 1986 and surged by 12% in the early 1990s. While the demand for multifamily units so far outpaces the supply – as vacancy rates in the Austin market are the lowest among the Texas markets and continue to decline, reaching 4.3% in 2013Q2 – the fear of oversupply remains high in this market. But with the current vacancy rate below the long-run average, the risks are not the same as in the past.

Washington, DC (the District of Columbia) is facing challenges related to both supply and demand. The area weathered the Great Recession better than many other markets as the government sector, comprising more than one third of the District's employment, was more stable than the private sector during the recession. But the

government sector is unlikely to be a stabilizing force in the near term. In the District, total non-farm employment grew only by 0.07% in 2013Q2 relative to the fourth quarter of 2012. On the supply side, starts of multifamily units have surged. In the fourth quarter of 2011 starts reached the highest point since 1985, while remained high in 2012, and then showed signs of slowing down only in the second quarter of 2013. As the sequestration effect is expected to continue throughout the remainder of 2013, the area is at risk of oversupply.

While the exurbs of Washington, DC (suburban Maryland and Virginia) will also be impacted by sequestration, the overall impact might not be as dramatic as the core market, as the share of government employees in the exurbs is smaller than that of the District. The effects of sequestration, however, may expand past government employees, as several industries in the area lean on the government sector. The exurbs are still subject to oversupply risk due to an increase in multifamily units. As a result of increasing supply, vacancy rates could see an uptick and reach higher than pre-recession norm levels while rental growth would slow down to compete with the newly added units.

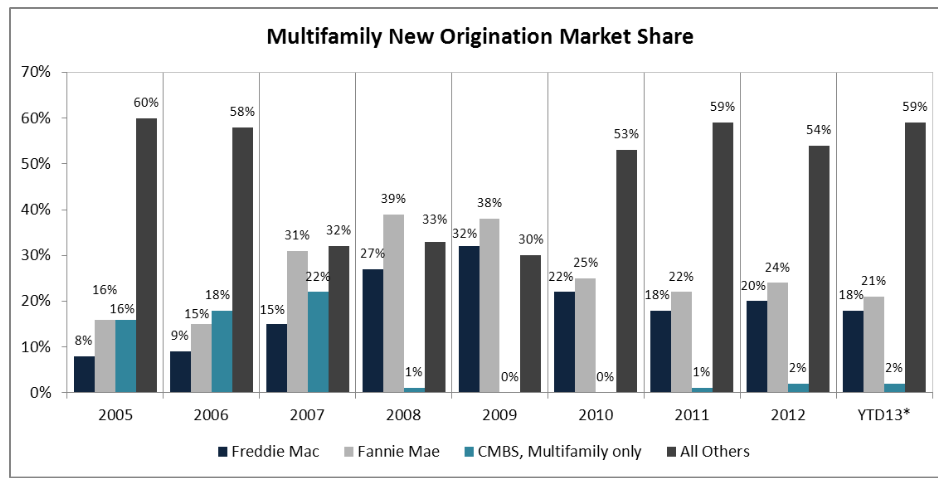
Another metro that is at risk of experiencing negative market fundamentals is the Norfolk metro area. With heavy dependence on the defense sector, the local economy has significant vulnerability to reduced government defense spending. Reduced government spending on the military, especially shipping-related spending, costs the local economy thousands of military jobs, which then impacts local businesses. The tourism sector is benefiting from the recovery in Virginia's and the nation's economies, but the gain in this sector will not offset the losses in the defense industry.

Unlike DC and Norfolk that have reached their peak, Jacksonville is still struggling to recover. Despite some growth in Jacksonville's economy, the multifamily sector remains one of the weakest among the metros we track. The vacancy rate as of 2013Q2, as reported by REIS, was 6.8%, the second highest after Memphis and still 83bps above the pre-recession norm. The metro was hit very hard by the Great Recession, during which vacancy rates surged north of 14%. New supply of multifamily units nearly stalled during the recession, as the completions added to the market in 2012 were less than one third of the pre-recession level. Meanwhile, total non-farm employment is still about 4% lower than the pre-recession peak level, and is not expected to fully recover until the second half of 2015. However, there are numerous factors that indicate some potential for improvement in Jacksonville's economy. Jacksonville benefits from having a diverse economic profile where many industries are seeing year-over-year increases in employment.

Section 3 – Multifamily Debt Markets

The GSEs' (Freddie Mac and Fannie Mae) market share of new multifamily mortgage originations has been stable in the recent years. Their market share is higher than the pre-recession level due to the diminished activities from the conduit sector. Except for conduits, other players such as life insurers and commercial banks have already come back to the commercial and multifamily market. According to MBA, life insurers have doubled the volume of originations from Q1 to Q2 this year. Another market participant, not included in the Exhibit7, is the Federal Housing Agency (FHA). FHA's 2013 year-to-date total insurance amount has been 50% more than the dollar amount the agency guaranteed in first half of 2012.

Exhibit 7 – Multifamily New Origination Market Share

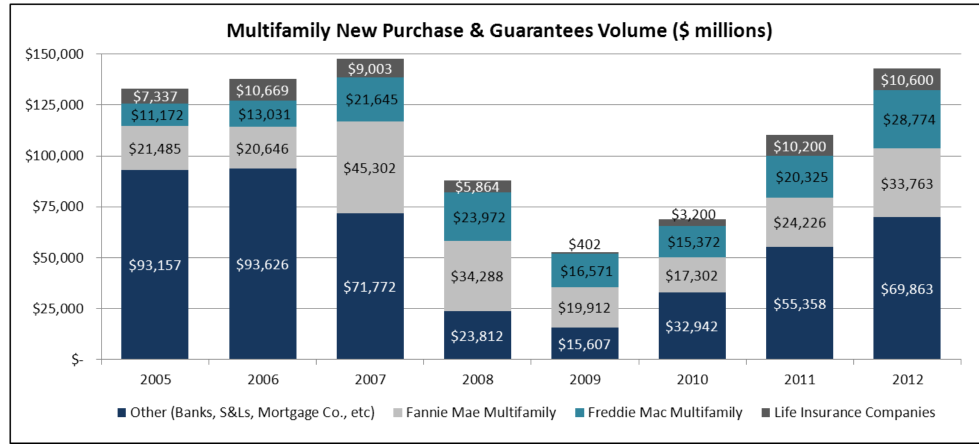


Source: MBA; Freddie Mac; FHFA; Fannie Mae; Trepp; ACLI; Wells Fargo; Intex

* YTD numbers based on projections and are subject to change as new information becomes available.

The total dollar amount originated is $143 billion (estimated by MBA) in 2012, a little shy of 2007's peak at $147.7 billion. This clearly shows that the market is in a recovering stage. Given the changes in fundamentals between 2007 and 2012 the increase is consistent with expectations.

Exhibit 8 – Multifamily New Purchase & Guarantee Volume ($ millions)

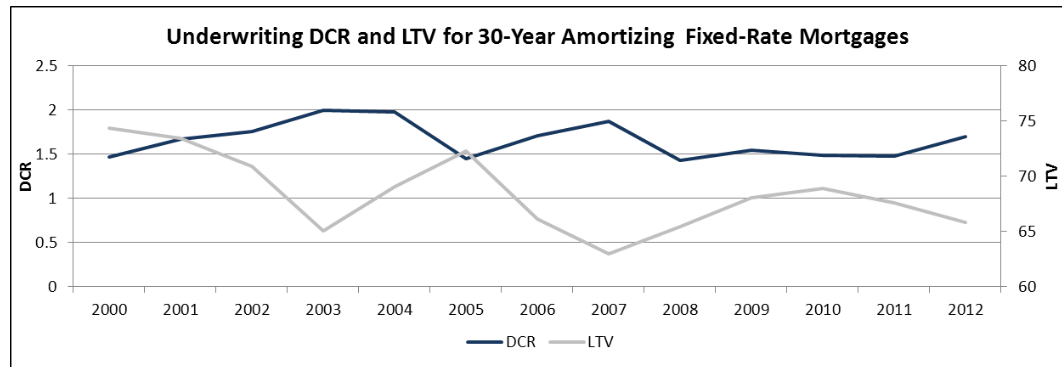


Source: MBA; Freddie Mac; FHFA; Fannie Mae; Trepp; ACLI

Freddie Mac's underwriting metrics have been improving over the past few years.

The past few years we have been experiencing a conservative trend in many areas of Freddie Mac multifamily loan underwriting, including LTV and DCR levels, loan terms, interest only periods. Exhibit 9 shows that Freddie Mac Multifamily mortgage LTV and DCR levels have been relatively stable since 2008 for fixed rate loans with 30 years of amortization. Currently, we are quoting with an average LTV at 65.8% and DCR at 1.69.

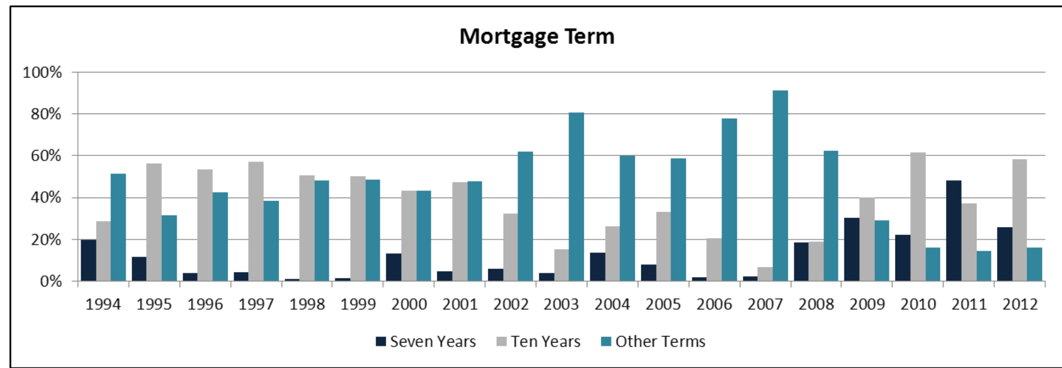
Exhibit 9 – Freddie Mac Multifamily Mortgage DCR and LTV for 30-Year Fixed-Rate Loans



Source: Freddie Mac

Since the inception of the K-deal execution in 2008, the majority of our business has been seven and ten year terms; away from other loan terms that mainly revolved around fixed-to-float options.

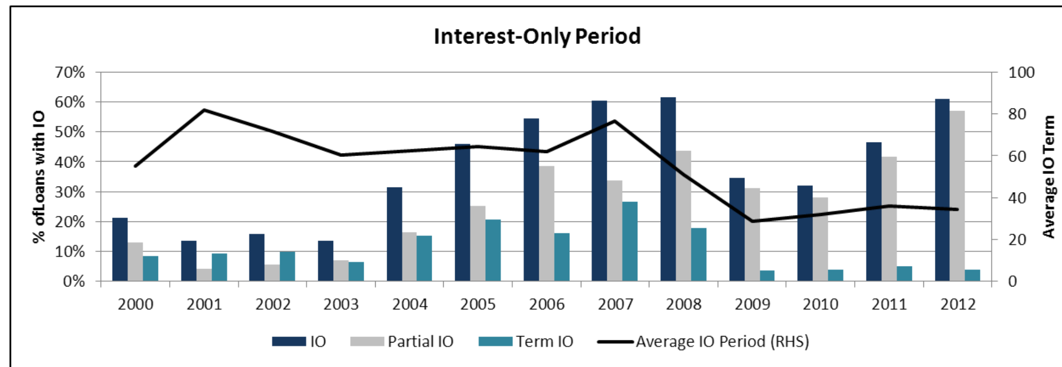
Exhibit 10 – Count-based Distribution of Freddie Mac Multifamily Mortgages by Loan Term at Origination



Source: Freddie Mac

While the total number of loans with interest only payments (IO) has increased over the past few years, those with full IO terms have decreased substantially since 2007 while those with partial IO terms have increased. Additionally, there has been a decrease in the average IO period, down from 6.4 years in 2007 to 2.8 years in 2012. Shorter IO periods speed amortization of the principal balance and decrease the refinance risk at the time of maturity.

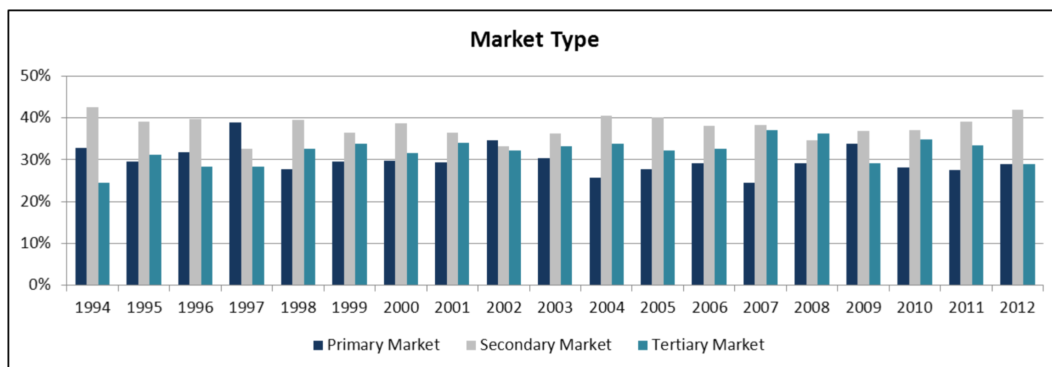
Exhibit 11 – Count-based Distribution of Freddie Mac Multifamily Mortgages by Interest-Only Period and Average IO Period



Source: Freddie Mac

Freddie Mac multifamily loan originations are well balanced among primary, secondary and tertiary markets. Since 2010, on an annual basis, about 2%-4% of Freddie Mac's multifamily business has moved from tertiary markets to secondary markets.

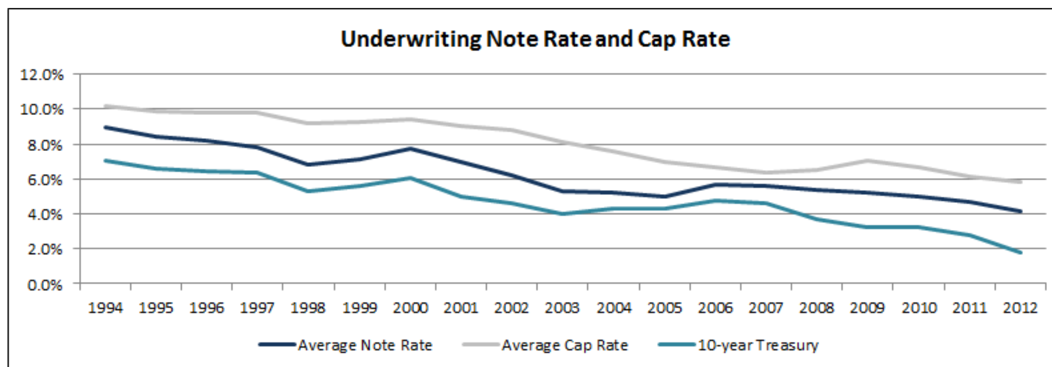
Exhibit 12 – Count-based Distribution of Freddie Mac Multifamily Mortgages by Market Type



Source: Freddie Mac

There has been a downward trend in note rate and cap rate over the past several years. This trend is consistent with the 10-year Treasury rate. Since 2007 we have seen a widening of the cap rate and note rate spreads over the Treasury.

Exhibit 13 – Freddie Mac Multifamily Mortgage Underwriting Note Rate and Cap Rate, versus 10-year Treasury Rate



Source: Freddie Mac, Moody's Analytics

Section 4 – Freddie Mac Multifamily Investment Index

As markets move, it is important to have an objective measure of current market conditions. In the single-family space, the affordability index from the National Association of Realtors fills this role. It measures the degree to which a household with median income can afford the mortgage payment on a median single-family home. Higher values of the index indicate greater affordability, indicating that the median income is above the 'threshold' income necessary to support mortgage

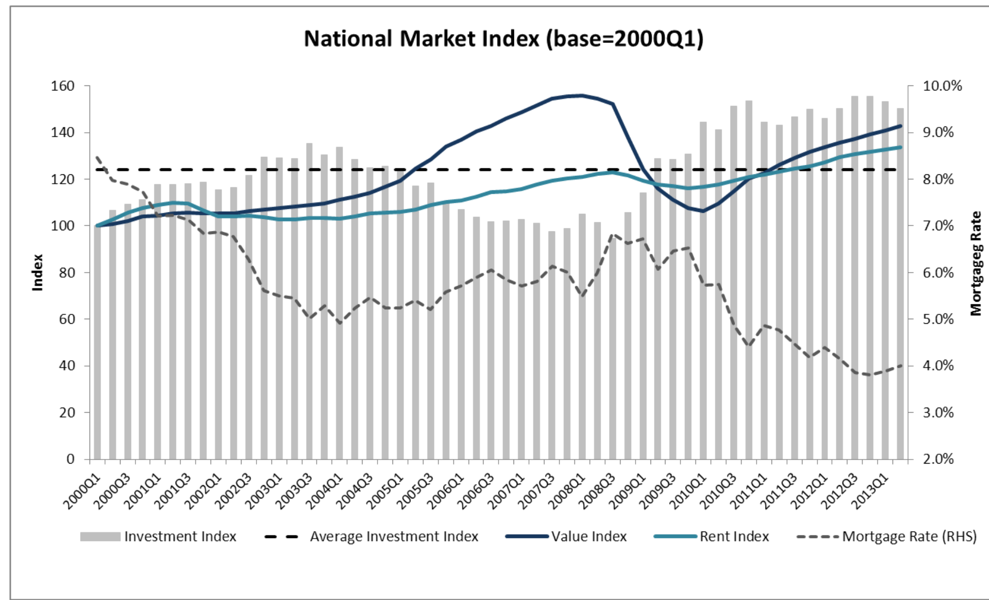
payments. As the index accounts for income as well as mortgage rates and house prices, it also shows when it is a good time for households to invest in a single-family home. The index does not capture the non-financial reasons for purchasing a home and it does not forecast future conditions, but it is a useful tool, helping potential buyers understand market conditions as they decide whether or not to purchase a single family home.

At Freddie Mac, we developed a similar metric that measures the relative attractiveness for investment in multifamily properties, and coined it the "Freddie Mac Multifamily Investment Index". The Index developed here presents to equity and debt investors information on market conditions over time for the national as well as for several metros. Many factors are important in multifamily investing and to capture all of these in one metric is not possible. The Freddie Mac Multifamily Investment Index measures relative attractiveness of investing in multifamily properties over time. The Index is computed using multifamily mortgage rates, multifamily property values, and effective gross income. Because multifamily property returns are driven by property cash flows, the Index looks attractive when there are relatively strong cash flows for each dollar of equity invested. The Index is positively correlated with effective gross income, and is negatively correlated with mortgage rates and property values. It measures conditions at the national and metro level, but it does not capture all factors and does not forecast future conditions. Certain factors not captured in this measure, especially at the property level, can produce returns different than indicated by the Index.

Investment Index reflects the current point in time attractiveness of the multifamily industry

Looking at the history of the Index for the national market, shown in Exhibit 14, we see how it tracks market conditions. In the early- to mid-2000s, it was an attractive time to invest in apartments. In the years leading up to the recession, the Index shows that investing in apartments was becoming less attractive and hit a floor in 2007, when property prices attained the peak level. Post-recession the Index rebounded. While property prices and effective income are growing about at the same pace, having divergent effects on the Index, mortgage rates are declining to historic lows, producing a very attractive investment environment. The peak was reached in the third quarter of 2012. Since then the Index has experienced a slight drop, but clearly the investment environment has not turned negative as the Index is well-above average.

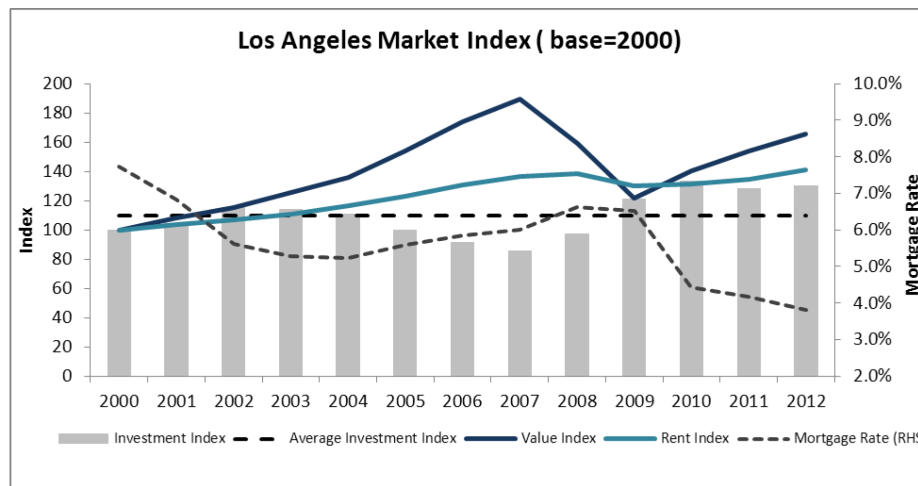
Exhibit 14 – Freddie Mac Multifamily Investment Index for the National Market (Base = 2000Q1)



Source: Freddie Mac; REIS; RCA; NCREIF; ACLI

The Freddie Mac Multifamily Investment Index is also calculated for Los Angeles, shown in Exhibit 15, and for Atlanta, Chicago, Dallas, New York, Washington DC, and Seattle markets (included in the Appendix). Similar to the national market, the Index for Los Angeles market is in the vicinity of the peak in 2012. But as the growth in property prices outpaces that of the effective gross income since 2009, the Index growth is relatively slower in LA than in the national market.

Exhibit 15 – Freddie Mac Multifamily Investment Index for Los Angeles (Base = 2000)



Source: Freddie Mac; REIS; RCA; NCREIF; ACLI

In 2012, in most of markets the value of the Index was above the historical average. New York is an exception where the value of the Index is below the average. For DC and Seattle, the value of the Index in 2012 is just slightly above the historical average. These markets have seen remarkable property price growth in the past few years, that outpaced (and nearly offset) the combined effect from effective income growth and the decline in mortgage rates. As discussed in much of this outlook, there are varying conditions in different markets across the country. However, for market participants concerned about where we are in the cycle, multifamily investment continues to look attractive according to the Freddie Mac Multifamily Investment Index. Note that the Index is designed to gauge the market level fluctuations and does not provide comparative information between markets.

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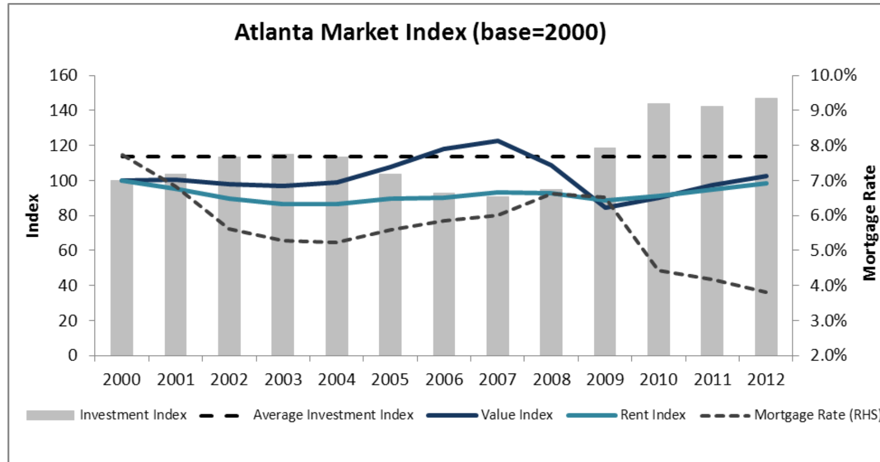
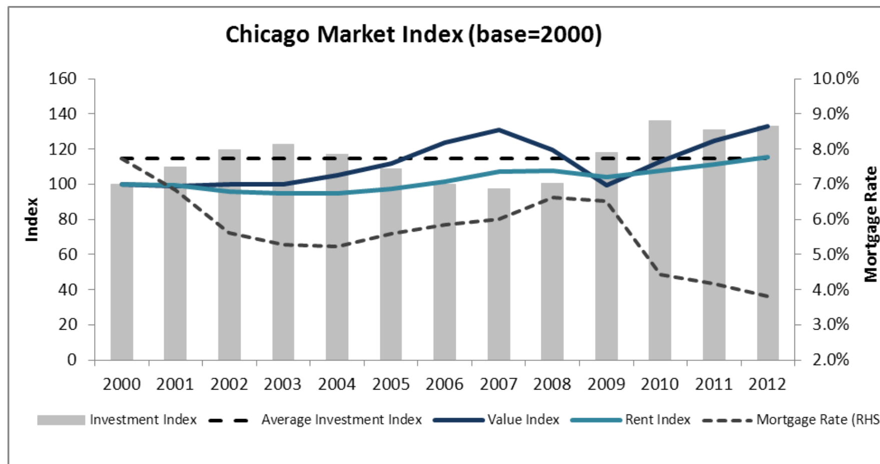
Appendix

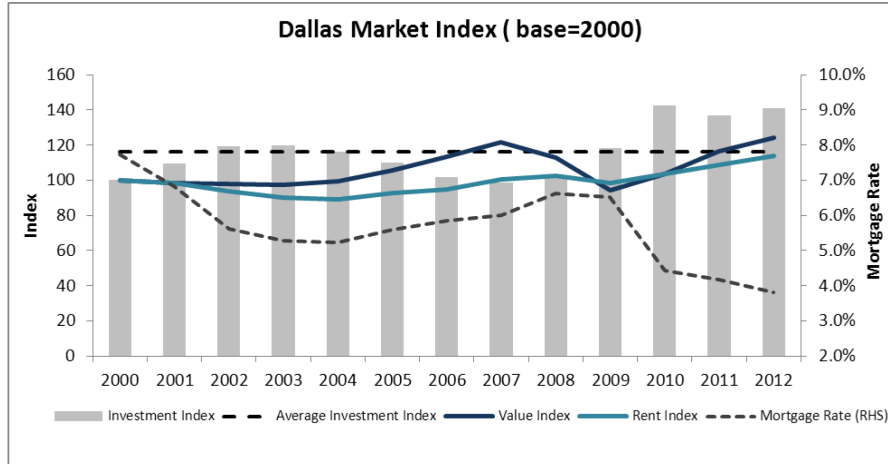
Freddie Mac Multifamily Investment Index for Atlanta, Chicago, Dallas, New York, Washington DC, and Seattle markets.



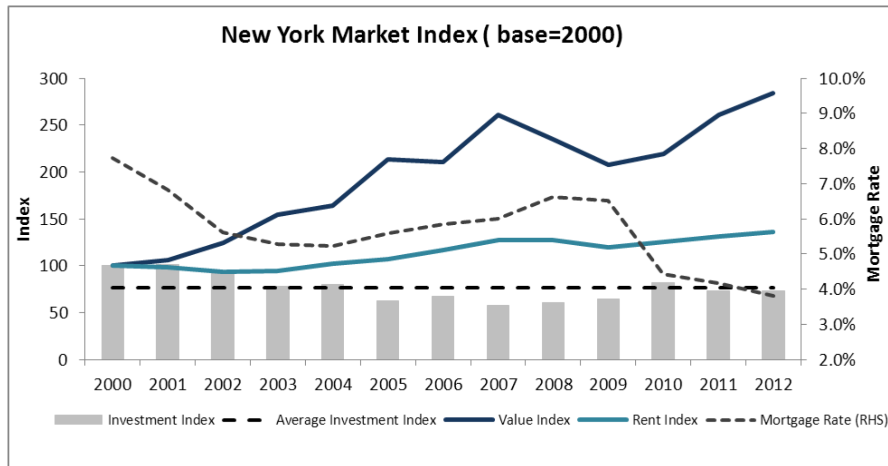
Source: Freddie Mac; REIS; RCA; NCREIF; ACLI



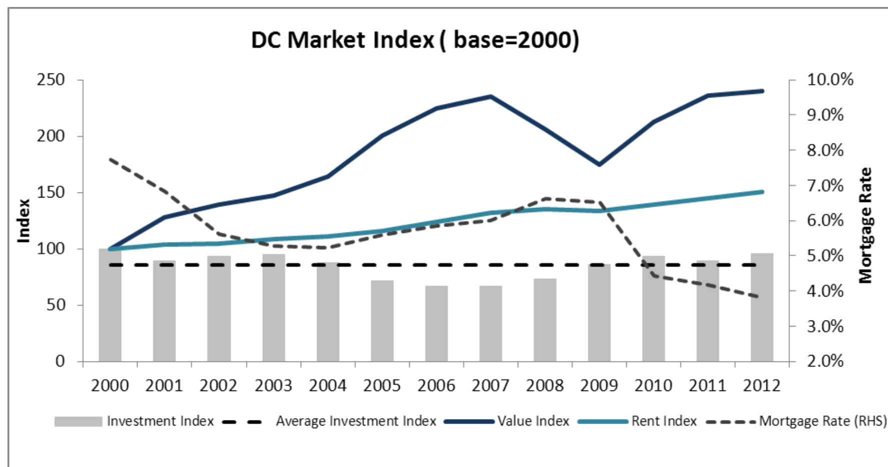
Source: Freddie Mac; REIS; RCA; NCREIF; ACLI



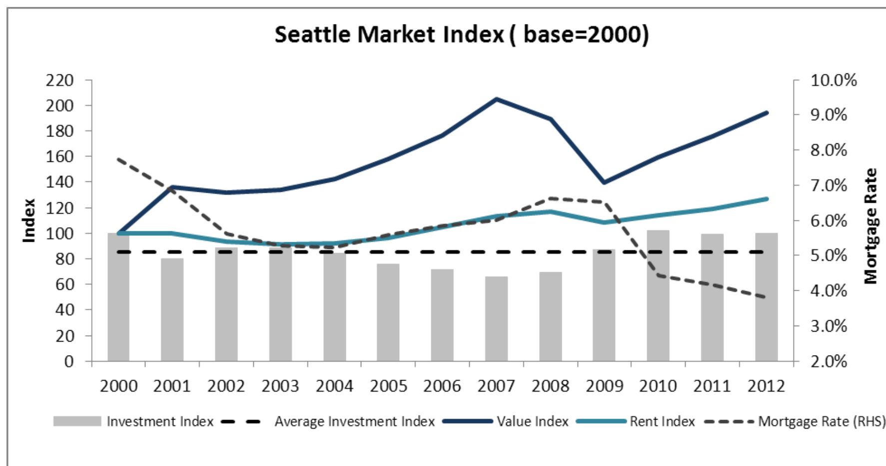
Source: Freddie Mac; REIS; RCA; NCREIF; ACLI



Source: Freddie Mac; REIS; RCA; NCREIF; ACLI



Source: Freddie Mac; REIS; RCA; NCREIF; ACLI



Source: Freddie Mac; REIS; RCA; NCREIF; ACLI