

Steve Guggenmos | 571-382-3520

Harut Hovsepyan | 571-382-3143

Sara Hoffmann | 571-382-5916

Yu Guan | 571-382-4730

Jun Li | 571-382-5047

Xiaoli Liang | 571-382-3250

Dohee Kwon | 571-382-4672

Tom Shaffner | 571-382-4156

## 2014 Multifamily Outlook

---

- Our expectations are for multifamily rent growth and vacancy in the coming year to be consistent with long-run average performance at the national level – slowing a bit from 2013.
  - In the past few years, metro level rent growth and vacancies have consistently improved with national averages. Going forward, there will be more dispersion as some metros will continue to improve while others will slow due to varying supply and demand conditions.
  - The 25- to 34-year-old age cohort is a key driver of demand for rental housing. Assuming employment conditions return to previous norms, this could add 1.6 million new workers from this cohort.
  - Favorable investment conditions persist according to our Freddie Mac Multifamily Investment Index, but have moderated slightly because of increased interest rates.
- 

### Introduction

In recent years, multifamily market conditions have led the recovery in the broader macro economy. So while employment levels remain below the previous peak, apartment fundamentals are strong. Occupancy rates have been above long-run averages for a couple of years and rent growth has been robust. At the same time, debt and equity capital flows to multifamily have been more favorable than to other sectors, leading to relatively strong property valuations. The last piece of the puzzle to recover has been supply which picked up meaningfully in 2013 – potentially peaking in 2014 – especially in gateway markets.

Economists expect that the broader economy is finally recovering from the Great Recession. Typically we expect “a rising tide to lift all boats” when there is economic growth. Certainly, it is helpful to have stronger labor markets and economic conditions. But because recent conditions have been so strong for multifamily sector, growth in this sector will be moderating some, more in line with long-run historical levels. With the changing conditions there will be more dispersion amongst markets depending on supply conditions and the pace of the pick-up in demand. So market and asset selection is particularly important during these competitive times, especially with interest rates on the rise as the accommodative policies of the Fed move into the rearview mirror.

## Section 1 – Market Fundamentals

Growth in employment and household formations were the primary tailwinds for the multifamily sector last year, while the growing supply and uncertainties in interest rates represented slight headwinds. In the end, 2013 was another year of healthy fundamentals due to sturdy demand and still limited supply. Apartment occupancy moved higher even though rent growth slowed down slightly compared to the growth a year ago. Strong fundamentals coupled with low interest rates and availability of credit fueled demand from investors that pushed property values above the previous peak attained in 2007Q4. Even office, retail and hotel sectors saw strong price growth, signaling the commercial real estate sector as a whole is growing. We expect favorable conditions in the multifamily market to continue through 2014, but with some moderation relative to 2013.

### *Employment*

*Unemployment is down from one year prior, but total employed is still 1.7 million away from pre-recession numbers and the labor force has been shrinking.*

The job market showed steady growth in 2013 despite the Sequestration and federal government shutdown. The seasonally adjusted unemployment rate as of December 2013 was 6.7%, 120 basis points lower than a year ago<sup>1</sup>. Looking forward, in 2014 the unemployment rate is expected to continue to decrease. Freddie Mac projects that by the end of 2014, unemployment will be around 6.4%, seasonally adjusted, slightly higher than the 5-6% range generally considered to be consistent with a strong economy.

While the unemployment rate is important for policy considerations and gauges the general health of the economy, strong employment growth is essential for economic growth in general, and the multifamily sector in particular. The demographic characteristics of employment growth also play an important role for the growth in

---

<sup>1</sup> The decline in the unemployment rate was due partially to a reduction in the labor force, as the total labor force in December 2013 was 0.4% below that of a year ago. There are several reasons for the reduction in the labor force including retirement of many baby-boomers and discouraged workers giving up their job search.

demand for multifamily apartments. As young adults are more likely to rent than own, job gains in this age cohort will particularly benefit the multifamily sector.

The strong employment growth in past few years has boosted the overall economy and was the main driver of the strong multifamily demand. The economy added more than 2.2 million jobs in 2013, a pace consistent with the previous two years. However, jobs added since 2010 were not enough to make up for the losses from 2008 and 2009 - total non-farm employment in 2013 stood 1.7 million below the pre-recession peak. We expect total employment to continue to grow, keeping pace with the past several years, and add more than 2 million jobs in 2014 which will surpass the pre-recession peak set in 2007. Therefore, the apartment rental sector is expected to continue to expand.

### ***Interest Rates***

In the summer of 2013, long-term interest rates spiked with the expectation that government support of financial markets would soon be ending. The 10-year Treasury rate increased a full percentage point during 2013. Consistent with most market observers, we expect interest rates to continue to gradually increase into 2014, but because of the steep reaction of the bond market in 2013, the overall change in rates could reasonably be expected to be less in 2014. Freddie Mac projects that the 10-year Treasury rate to end the year at 3.2%. However, interest rates are volatile, especially during periods of uncertainty about the economy and/or monetary and fiscal policies. Overall, macro conditions remain favorable for multifamily markets as the labor market will grow as interest rates trend up.

### ***Single-Family Housing***

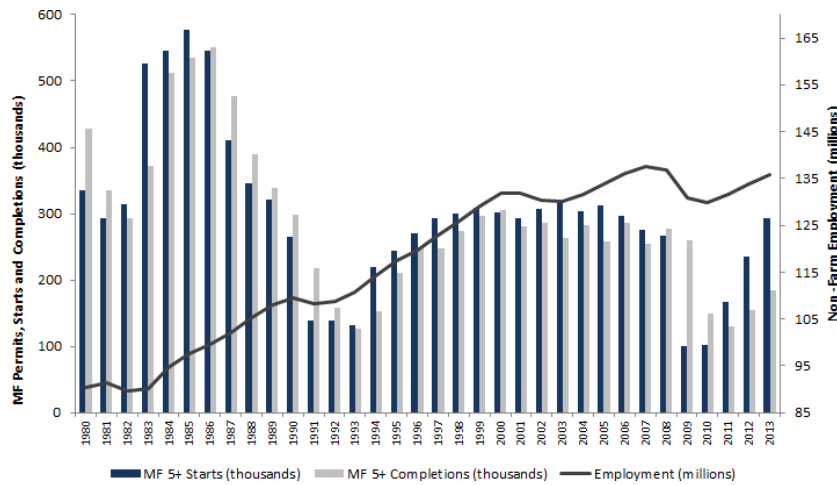
The single-family housing sector improved in 2013 and will continue to do so into 2014. While construction has picked up recently, the single-family inventory has been undersupplied for several years now, as inventory has not kept pace with rising demand and prices have risen. Freddie Mac expects new starts to rise to 1.15 million in 2014, compared to 930,000 new starts in 2013. Home sales are expected to increase by 5% from 2013's levels, with about a 3% rise in existing home sales and a 30% jump in new home sales. House prices will continue to increase into 2014, but may slow down to around 5% annualized in 2014, compared to 10% in 2013. In the long-run, the recovery of the single-family housing sector benefits the overall economy, which in turn is likely to have a positive effect on the multifamily sector. On the other hand, increasing mortgage rates and house prices lessen homeownership affordability, making rent more favorable, in comparison.

**Multifamily Supply**

In the multifamily sector, supply and demand factors are coming into balance on the national level. Multifamily construction starts picked up in 2013, reaching 292,000 units, 20% higher than a year ago and 80% higher than in 2011. The pace of increase is noticeable, but Exhibit 1 shows that the current level is in line with starts during the 1997 – 2006 period. During this time, the level of completions was stable and barely outpaced starts. Naturally, there is a lag between completions and starts, as the majority of starts become completions within one to two years. The only time completions were significantly higher than starts was when starts started to scale back, normally during economic recessions. Expectations are for completions in 2014 to continue to rise as starts become completions and deliver new units to the market. Note that not every market will follow the national trends. In several markets starts are outpacing historical highs and if they persist at high levels without commensurate increases in demand, those markets are at risk of downward pressure on rents because of the increased supply.

*Multifamily starts in 2013 are in line with the 10 years prior to the Great Recession while completions are still lagging and are likely to catch up in 2014.*

Exhibit 1 – Multifamily Starts, Completions and Employment



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

**Property Valuations**

Multifamily investors have benefitted from strong value appreciation in recent years. On the national level, multifamily values have fully recovered from the Great Recession, according to Real Capital Analytics (RCA). Office, retail and hotel sectors, while still below the pre-recession peak, saw strong price appreciation in 2013. The strong investor demand in apartments can be attributed to the favorable fundamentals and lower risk premiums coupled with the low interest rate environment and the difficulty in finding higher yielding high quality investments.

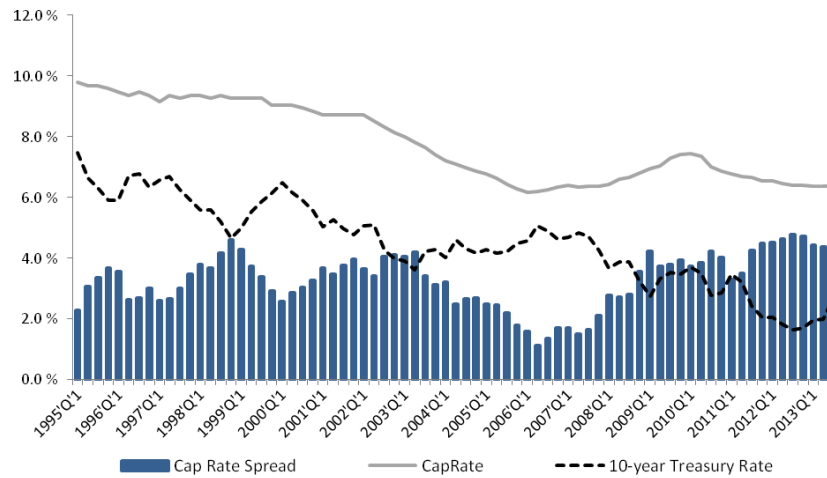
Investors' strong appetite for investments in major markets helped push property prices up the most in those markets. It has not been unusual to see 4% cap rates in markets like Boston, New York City, San Francisco, San Jose and Washington DC.

As interest rates rise, there is upward pressure on the cap rate, but there is also room for the cap rate spread to compress. Cap rates are affected by several factors in addition to 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.

Cap rates rise with interest rates because future cash flows are worth less in higher rate environments which, all else equal, contribute to lower property values. But because rising interest rates often go together with higher inflation – including rent inflation – the impact to value is not clear. That is why supply conditions are so important. If supply exceeds demand, in a given market, that puts downward pressure on property cash flows and values. So in this period of rising rates, it is especially important that supply stays in line with demand.

The current national cap rate is about 6.4% and has been stable in 2013. Even with recent increases in the 10-year Treasury rate, the cap rate spread is still around 400bps, far above the long-term average of 300bps. This indicates that at least some of the risk of rising interest rates has been accounted for in prices. Based on our analysis, the cap rate will stay below 7% for the next couple of years, provided continuing employment growth of about 2% and a slow increase of the 10-year Treasury rate to the 4% range. We project positive gross effective income growth in 2014, albeit, at lower levels than previously seen. This increase in property cash flows will be the primary driver of property value increases in a rising rates environment.

Exhibit 2 –Multifamily Cap Rate

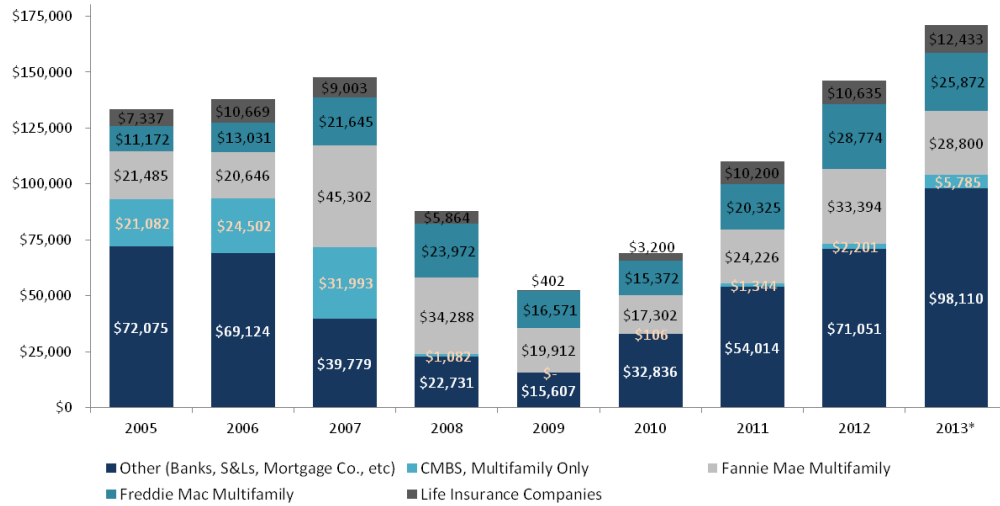


Source: Freddie Mac; RCA

***Origination Volume***

On the debt side, 2013 saw another strong year of available liquidity in the multifamily market. It is likely that the strength in office and retail fundamentals may increase debt capital available to commercial real estate. The total dollar amount of multifamily debt originated in 2013 was \$171 billion (estimated by MBA), 16% higher than the previous peak of \$148 billion, attained in 2007. This clearly shows that the market is in a growing stage. Per FHFA directive, GSEs reduced their volume by 10% compared to origination amount in 2012. Accordingly, market share of new multifamily originations fell in 2013 to 17% from 23% for Fannie Mae, and to 16% from 20% for Freddie Mac, while the share of banks increased from to 57% from 49%. The share of conduits, at 3.4%, while much lower than at the height of the market when this segment took up 22% of the market, has more than doubled from last year.

Exhibit 3 – Multifamily New Purchase & Guarantee Volume (\$ millions)



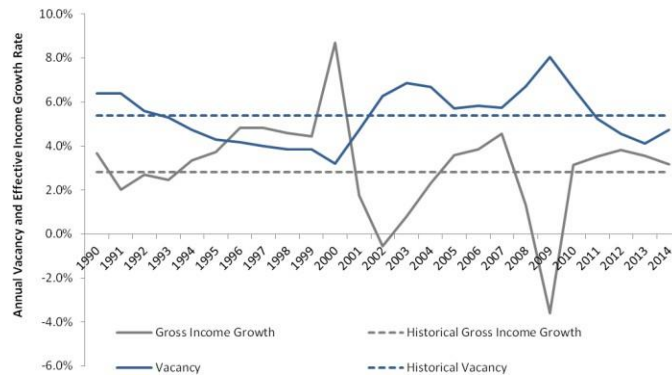
Source: Mortgage Bankers Association, Freddie Mac  
 Notes: 2013 numbers are estimates as of December 2013

**Section 2 – Market Level Analysis**

*Multifamily vacancy rates are below historical rates. Growth in gross effective income is expected to decrease to the historical level in 2014.*

In 2013, rent growth in most markets continued to be strong compared to historical levels, while in the some markets the growth slowed down compared to 2012. We project that at the national level the growth rates will slowdown in 2014 due to increases in vacancy rates. As seen in Exhibit 4, based on historic fundamentals from REIS, the apartment industry is still performing within historical norms, measured from 1990 to 2013. Current gross effective income growth of 3.6% is higher than the historical average of 2.8% and the current vacancy rate of 4.1% is below the average of 5.4%. On the national level, we expect vacancy rates to increase to 4.7% in 2014 compared to 4.1% in 2013. As a result, we expect the growth in gross effective income to slow down to 3.2% in 2014. With vacancy rates still below their historical averages, most markets should be able to absorb any new supply.

Exhibit 4 – Historical and Forecasted Annual Vacancy Rate and Gross Effective Income Growth



Source: REIS, Freddie Mac projections

While not all markets will experience moderating conditions, those that won't will primarily be in markets that were slow to recover from the recession. However, the expected rent growth in those areas will most likely still remain below rent growth in the larger primary and secondary markets in 2014. Exhibit 5 shows our top 10 markets by gross effective income growth in 2014 and their corresponding vacancy rates. All 'gateway' markets except for Washington DC are projected to be among the top 10 growing markets. Strong employment growth, especially in the high-paying sectors, low affordability of single-family houses, and the relative shortage of existing multifamily stock are the key drivers for the projected gross effective income growth in these markets.

Exhibit 5 – Top 10 Market Rents and Vacancy Forecasts

Metro	Annualized growth in gross effective income 2014	Vacancy Forecast 2014
Denver, CO	5.0%	5.0%
San Francisco, CA	4.6%	2.9%
Seattle, WA	4.4%	4.7%
San Diego, CA	4.3%	2.7%
Oakland, CA	4.0%	3.3%
Sacramento, CA	3.9%	3.9%
San Jose, CA	3.8%	3.1%
Chicago, IL	3.8%	3.9%
Boston, MA	3.7%	3.8%
Baltimore, MD	3.7%	4.5%
United States (top 70 metros)	3.2%	4.7%

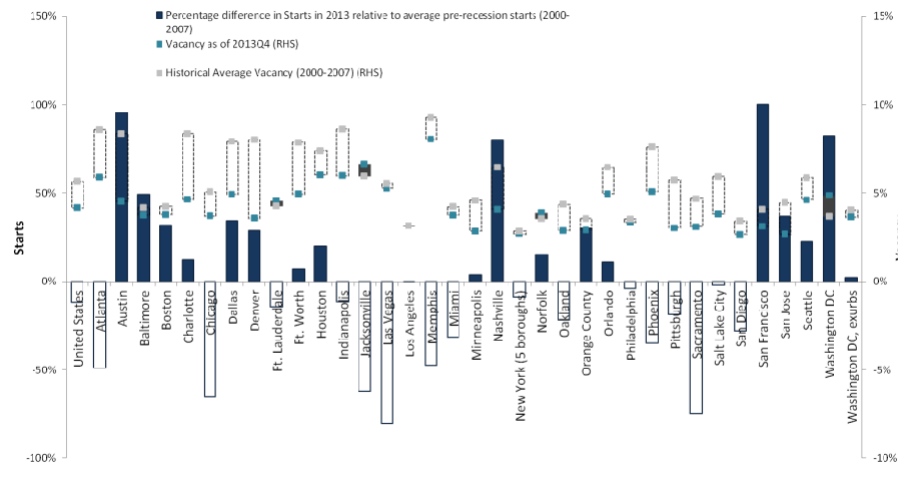
Source: Freddie Mac

Strong rent growth, low vacancy rates, and high property values have spurred a new wave of supply in most markets. Nationally the level of new construction starts is in line with pre-recession levels, but some markets have seen a significant surge in new supply, raising overbuilding concerns in those markets. Exhibit 6 compares current market demand and supply levels against the pre-recession norm, depicting multifamily construction starts and vacancy rates in 2013 relative to the pre-recession (2000 – 2007) average levels. In almost all markets, vacancy rates are at or below the market norm level. This indicates that the added supply will not necessarily lead to oversupply in many of the markets where starts exceed the pre-recession start levels, as many of these markets can absorb the new supply. However, markets with an increase in supply but a small gap between current and historical vacancies could be at risk of higher than average rates. In four markets, Washington DC, Norfolk, Jacksonville, and Fort Lauderdale, vacancy rates are higher than norms. While the supply is low in Jacksonville and Fort Lauderdale relative to historical levels, the new construction supply exceeds market level norms in Norfolk and more considerably in Washington DC, exposing these two markets to higher risk.

*Multifamily starts are up compared to historical averages for many markets, but vacancy rates are still well below their historical norm, suggesting a room to absorb new supply.*

It is important to note that construction starts and relative vacancy rates are not the sole determinants of multifamily growth. Other factors, such as single-family affordability and employment growth, are important drivers for the multifamily sector as well. Increases in multifamily construction starts in some markets where starts have exceeded pre-recession norms, is driven by strong growth in employment. California markets have seen steady growth in the technology sector, while the energy sector is booming in Texas. These sectors are characterized by high paying jobs with predominantly young-adult employees. As such, the growth in these industries also boosted the demand for multifamily rentals.

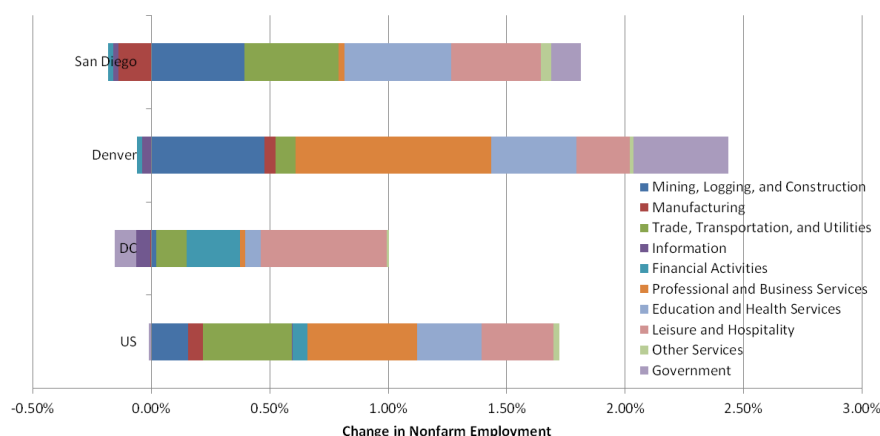
**Exhibit 6 – MF Starts and Vacancies Relative to Historical Average**



Source: REIS; Moody's Analytics; Freddie Mac

Next, we will look at three markets with differing multifamily conditions. In San Diego, there is robust growth and strong demand with modest supply increases. In Denver there is very strong job growth and in-migration but supply is starting to catch up with demand. Finally, in Washington DC, economic conditions are weakening and are at risk of government policy changes while there has been a large inflow of new supply. Exhibit 7 shows the change in nonfarm employment over the 12 months ending November 2013 by industry for each metro along with the change on the national level. The exhibit reveals the job growth by sector and that the strong diversified economies of San Diego and Denver contributed to their overall economic growth.

Exhibit 7 – Sector Job Changes Relative to Nonfarm Employment (November 2012 – November 2013)



Source: Bureau of Labor Statistics

In San Diego, total nonfarm employment increased by 1.7% in November compared to the previous year and the unemployment rate declined to 6.9% from 8.3% a year ago. The tourism sector, that constitutes more than one fifth of total job market, benefited from the recovery of US and Mexican economies. On the other hand, the defense sector, constituting another fifth of the job market, was stagnant due to budget cuts. House prices surged in 2013, with an 18% increase compared to the previous year, according to Moody’s. While still lower than the pre-recession level, the high house prices benefit multifamily demand. Meanwhile, population increased by 1.2% in 2013. A majority of the net migration to this area was from abroad, which also benefited the multifamily market as new immigrants are more likely to rent than to buy. Development of new multifamily buildings is on the rise, in line with the fast job growth in the construction sector. But construction starts in 2013 were still far behind pre-recession levels. The vacancy rate remained relatively flat, but at a very impressive 2.6% - the lowest since 2000. Rents were up 3% relative to the previous year, which indicates strong growth while maintaining low vacancy rates. With

strong demand and still limited stock, San Diego's recovery is expected to strengthen in 2014.

In Denver fundamentals continued to improve and the market has been one of, if not the top, performing multifamily market in 2013. Total nonfarm employment increased by 2.4% in November 2013 compared to the previous year, while unemployment dropped to 5.8% from 7.2% over the same period. The strong job market has attracted a large number of migrations, mostly domestic. Denver's population grew by 1.8% in 2012 and 1.7% in 2013. House prices saw a second year increase since the recession and already returned to pre-recession levels. Multifamily completions increased at a steady pace, delivering 3,776 units in 2013. Vacancy rates continued to decline, dropping to 3.6% from 4.0% a year earlier, according to REIS, and rent grew at a higher speed than the previous year, at 4.4% for market rent and 4.7% for effective rent. In 2014, while the vacancy is expected to creep upwards, rents are projected to continue to grow.

The Washington DC market weathered the Great Recession better than many other metropolitan areas. However, recent drag from sequestration, the government shut-down, and the surge of multifamily construction have all started to negatively impact conditions in this market, and the market is not likely to see significant improvement in the near term. Total nonfarm employment increased by 0.9% in November 2013 compared to one year ago. The unemployment rate declined modestly, to 4.9% in November from 5.2% a year ago, according to BLS. The declining unemployment rate was also partly due to 10,601 people leaving the labor force. This does not bode well for the apartment market which thrives on employment gains and is especially unsettling news when the area is expecting a large inflow of new apartment deliveries within the next several years. REIS reports that 2,671 new completions came online in 2013 and 1,871 in 2012, compared to the annual historical average completions of 817 between 2000 and 2010. It's predicted that 3,974 and 1,990 new units will be completed in 2014 and 2015 in DC – and, to differing degrees, the DC suburbs face many of the same risks. Due to the large level of new supply and slowing of the economy, the vacancy rate rose to 4.8% in 2013 from 4.4% in 2012 according to REIS, and rent growth slowed to 1.6% compared to 3.4% in 2012. The strong single-family market may draw some potential buyers away from renting apartment units, but affordability issues could benefit the demand for multifamily dwellings. One potential positive for the market is migration, as the demand of the multifamily rental is very closely linked to population growth. The DC area has been attracting immigrants in recent years, mostly international. Between 2011 and 2012, 42,281 people moved to the DC area, 89% of them were from abroad. Nevertheless, projected rent growth in the market is substantially slower than national average rent growth.

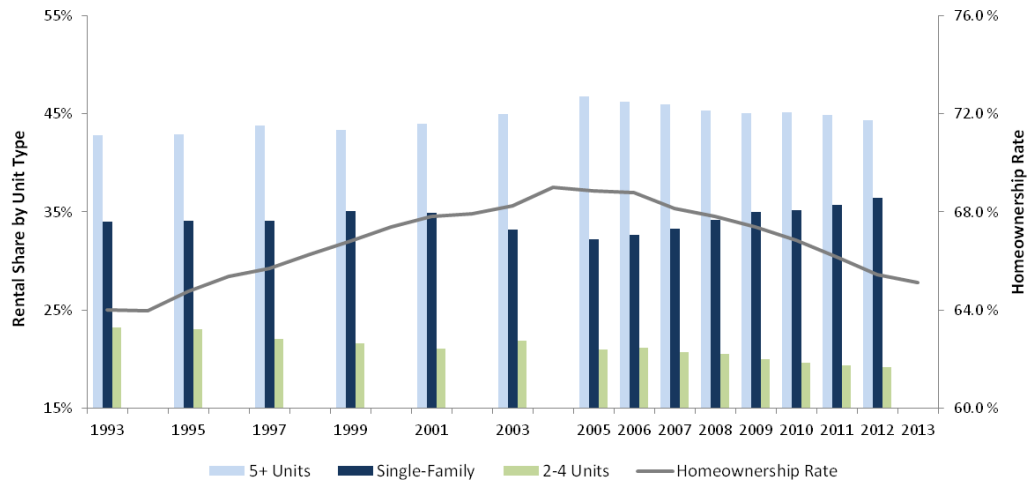
### Section 3 – Demographics of Multifamily Demand

As new supply is beginning to come online across the country, it is a challenge for industry participants to measure demand in the medium- to long-term and ensure that supply and demand stay in balance. In this section we will look at two demographic trends and their potential impact on the multifamily industry. First, while the number of renter households over the past several years has been increasing, a new trend has emerged. Many of those new households are renting homes in the form of 1-unit dwellings, or single-family houses. As many single-family rentals resulted from weakness in the for-sale market, we expect that once property prices rebound, more houses will be sold potentially forcing these tenants into other living arrangements. Second, we explore the potential pent-up demand among young adults by analyzing the number of adults that would normally be employed if it were not for the adverse economic conditions.

Using data from the American Community Survey, American Housing Survey, and Housing Vacancy Survey, we break down renter households by unit type. Homeownership rates in the US had been on rise since mid-90s to the wake of the housing crash, reaching from a long-term average of 64% to almost 69% in 2008. Since then the homeownership rate retreated to 65% as of the end of 2013. The number of renters has increased by more than 5 million, or 15%, since 2006. Many renters, however, chose to rent single-family homes instead of multifamily units. The majority of added renters (62%, or 3.2 million out of 5 million) chose single-family houses, while only 32% chose to rent multifamily dwellings, defined as 5 or more units. The remainder rented dwellings with 2 to 4 units. As shown in Exhibit 8, since 2006, the share of single-family renters in the total rental population has increased from 33% to 37%. Meanwhile, the share of multifamily renters has declined from 46% to 44%, while the share of renters in buildings with 2- to 4-units has declined from 21% to 19%. If the share of single-family rental houses reverts to historical average level of 34% (1985 – 2003), then approximately 1 million households will exit the single-family rental sector. If these households cannot afford or choose not to buy a home, they will continue to look for rental units. As single-family house prices and interest rates rise, affordability of owning a single-family home will continue to decrease. As such, these households may turn to multifamily rental properties.

*The share of single-family renters to total renters is the highest since 1990s. As single-family recovers, many single-family renters are likely to turn to multifamily for rental place*

Exhibit 8: Homeownership Rate and Share of Rental Population by Unit Type: 1993 - 2013

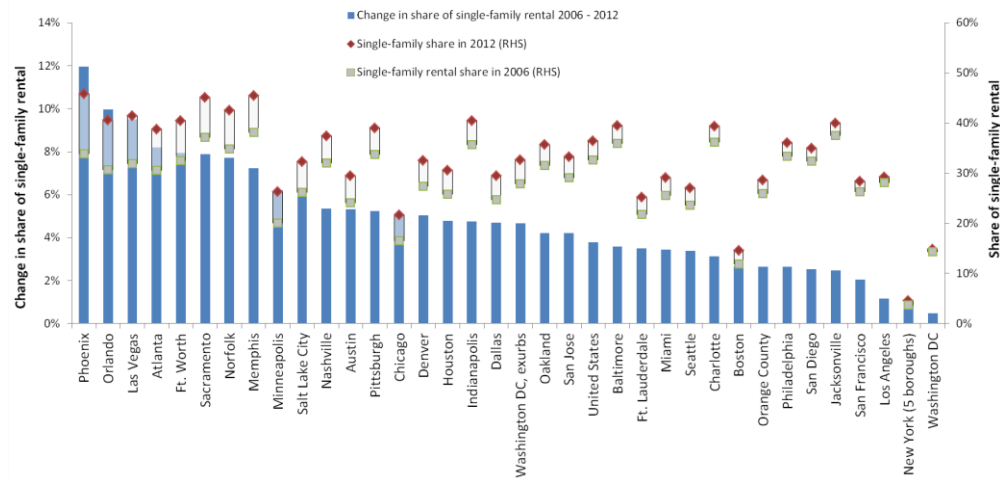


Source: American Community Survey; 1-year estimates; American Housing Survey; Housing Vacancy Survey; Moody's Economy.com

Notes: And total Renter households may not sum due to 'Other' category which includes Mobile Homes. Total percentage of renter households that fall under other is less than 5%.

Exhibit 9 compares single-family renter households as a percentage of total renter households across several metro areas from 2006 to 2012. In every market the share of renters in single-family units increased during those six years. Even in markets where single-family rental constitutes a small share of total rentals, such as New York, Washington DC, and Boston, the share of single-family rentals is higher in 2012 compared to 2006. The graph also shows the total change in single-family rentals over the same period. The largest increase in this share is observed in markets where the single-family housing market was hit hard by the housing-driven recession. The share of single-family rentals has increase by 10 percentage points or more in Phoenix, Las Vegas, and Orlando. As the single-family sector in these markets recovers some single-family renters may consider multifamily properties. As such, these markets may see growth in multifamily demand in the mid-term horizon. On the other hand, markets like New York, Washington DC, and Los Angeles are less likely to benefit as much from the potential demand coming from single-family renters, as the increase in single-family rental share was less than 2 percentage points in these markets.

Exhibit 9 – Changes in Single-Family Share of Renter Households



Source: American Community Survey, 1-year estimates; American Housing Survey; Housing Vacancy Survey; Moody's Economy.com

Next we explore the potential pent-up demand for households based on the “missing” jobs among young adults. We look at young adults, aged 25 to 34, as they make up the largest share of all renters, at 26% and 62% of these young adult households chose to rent as opposed to owning their residences. While the percentage of householders aged 15 to 24 who rent is 87%, they make up only 10% of the total renters. Thus we will exclude those adults aged less than 25 as their total share of households is relatively low.

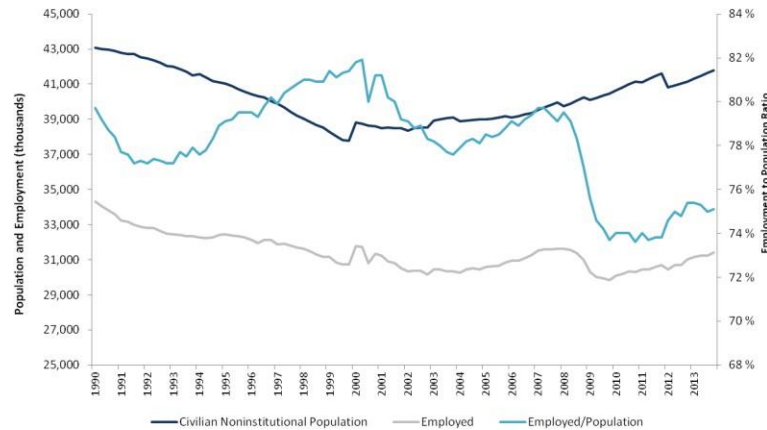
*Young adults make up the largest share of renters and also have the second highest unemployment rate. As more jobs are added, there is potential for increase in demand for rental.*

At the end of 2013, the unemployment rate for young adults (aged 25 to 34) was 7.2%, or roughly 2.5 million people unemployed. The average unemployment rate leading up to the recession, from 1990 - 2007, was 5.4%. The difference implies that there are about 600,000 more people in this demographic category looking for work.

By using the employment to population ratio, we also capture the reduction in employment while taking population growth into account to better understand potential demand. Exhibit 10 shows that the employment to population ratio has never caught up after the recession in the early 2000's. The average pre-recession, 1990 - 2007, employment-to-population ratio was 79%, whereas currently it's at 75%. While this implies that total employment is down, there has also been a large number of people who have left the work force. The percentage of the population not in the labor force is up 2.3% in 2013 compared to the pre-recession average. This translates into roughly one million young adults out of the labor force. Along with those looking for employment, we estimate there are about 1.5 million additional young adults that would be employed, if not for the adverse economic

conditions. While predicting the number of households that could form from these young adults is out of the scope of this paper, we hope to explore in later research how household formations will be effected once employment recovers.

Exhibit 10 – Employment and Population Ages 25 to 34



Source: Bureau of Labor Statistics

While demand for multifamily properties has been very strong the past several years, we expect that demand will continue to remain robust, albeit, at perhaps lower levels. As employment increases, we predict demand for housing will follow suit. But the question remains as to what type of housing they will flow into, rental or owner. As interest rates and home prices continue to increase and pressure homeownership affordability, we expect demand for multifamily housing to remain strong in many markets into 2014.

**Section 4 – Freddie Mac Multifamily Investment Index**

*The Multifamily Investment Index remains above the historical average, but due to sharp interest rate increases during 2013, it has moderated.*

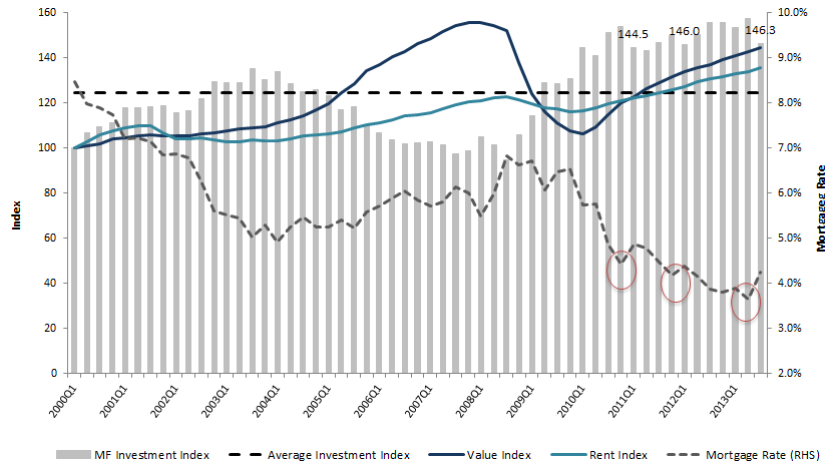
In our mid-year outlook for 2013, we introduced the “Freddie Mac Multifamily Investment Index”<sup>2</sup> which measures the relative attractiveness of investing in multifamily properties over time. We have updated the Freddie Mac Multifamily Investment Index for 2013Q3 for the national market<sup>3</sup>. The most current reading is 146.3, which remains well above the historical average of 124.6. By this measurement, multifamily properties still present a fairly attractive investment opportunity. But the index has decreased from the peak of 158 in 2013Q2. This downward turn is comparable to what happened back in 2011Q1 and 2012Q1, when rent growth and valuations remained in line but funding costs increased abruptly

<sup>2</sup> Multifamily Mid-Year Outlook 2013 [http://www.mf.freddiemac.com/docs/2013\\_multifamily\\_midyear\\_outlook.pdf](http://www.mf.freddiemac.com/docs/2013_multifamily_midyear_outlook.pdf)

<sup>3</sup> In our Mid-Year Outlook we provided Investment Indexes for several metros along with the national market index. Going forward, we will publish metro level indexes on our web in a separate report.

(represented by the three circled spikes on the graph in Exhibit 11) due to the European debt crisis and the tapering fears. According to the American Council of Life Insurers (ACLI), the mortgage rates increased from 3.64% in 2013Q2 to 4.25% in 2013Q3. The spike in the interest rates is the main driver for the decrease in the attractiveness of multifamily investment, as measured by the Index. However the Federal Reserve, under new stewardship, is committed to accommodative monetary policy which in general creates market expectations that the interest rate environment will not spike up, but will increase more gradually. Hence, if the established relationship between rental income and valuation remains stable, that implies the Investment Index will stay above historical average for the next two to three years.

Exhibit 11 – Freddie Mac Multifamily Investment Index for the National Market (Base = 2000Q1)



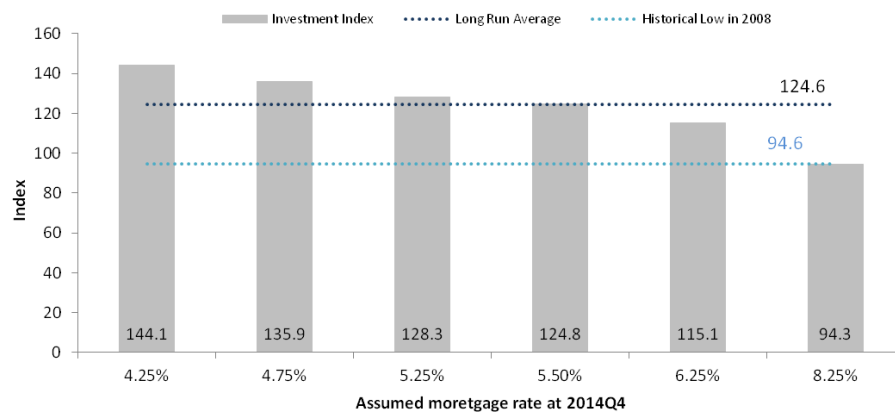
Source: Freddie Mac; REIS; RCA; NCREIF; ACLI

To better understand the impact of borrowing costs, we conducted a sensitivity analysis on the Investment Index. By assuming NOI and property price trends consistent with the past five quarters, we extend the index calculation to the end of 2014 with different funding cost assumptions.

As shown in Exhibit 12, if the note rate remains at 4.25% and the quarterly NOI and property price growth rates remain at 0.9% and 1.3%, respectively, the Investment Index will decrease slightly from 146.3 today to 144.1 by the end of 2014. If the note rate rises above 5.5%, the Investment Index will be at par with its historical average (from 2000Q1 to 2013Q3). An extreme upward shock in mortgage rates up to 8.25% would be required in order to drive the Investment Index down to the historical low seen in 2008Q3.

Note that the Investment Index at a level below its long-run average does not necessarily indicate a sign of market weakness. Rather, it indicates that investment opportunities are less attractive compared to the historical average. For example, the value of the Investment Index in the 2004 - 2005 period was below the historical average even though the multifamily rental housing market remained robust. What does raise a red flag is a sudden distortion in the balance of valuation, interest rates, and rental income. As presented in Exhibit 11, in 2006-2007 property prices climbed at a much higher rate as compared to the growth in rental income. As a result, the Investment Index declined below the historical average. The Investment Index did not recover until the crisis broke. Hence, this sensitivity analysis suggests that the multifamily rental housing market remains healthy at the moment; nonetheless, investors should keep an eye on valuations should the Investment Index continue to decline over the next few years.

Exhibit 12 – Impact of Rising Interest Rates on Multifamily Investment Index



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

### Conclusion

As the broader economy continues to grow, we expect the multifamily industry to remain an attractive investment in 2014. Revenue growth in the industry will continue to perform near or above historical averages, but at lower rates than the previous two years. The growth in some markets, however, began slowing down and vacancy rates are inching up. New supply of multifamily units will put pressure on rent growth and vacancy rates. As such, understanding individual markets will be the key for investors going forward.