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REAL ESTATE

Think

U.S.: Investing in the MiMis (Millennials & Middle Income Households)

November 2018

INTRODUCTION TO THE MIMIS

We believe MiMis, or millennials and middle income households, will continue to drive demand for U.S. apartments in the coming decade. We define middle income households as those earning between 80% and 120% of area median income which is typically those earning between \$45,000 and \$75,000 per annum. These households comprise between 20% and 35% of each age cohort (Fig. 1). Middle income households often have to rent out of necessity which creates consistent demand for apartments targeting middle income renters.

Millennials are the largest generation on record (Fig. 2) and like the Baby Boomers before them, they will reshape the economy and many industries as they heavily consume goods and services, including housing. Millennials compose 35% of the workforce and their contribution to the U.S. economy continues to grow.

In this analysis, we define the millennial generation as those born between 1981 and 1998. Furthermore, we divide the millennials into older millennials (OMs) and younger millennials (YMs) cohorts.



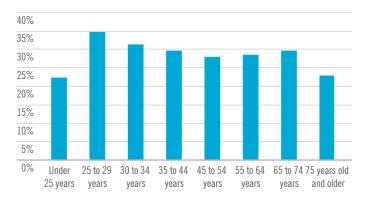
Melissa Reagen Managing Director, Head of Research, Americas



The OMs are roughly 30-36 years old and have largely married, started families, and the majority are likely to buy homes within the next few years. We believe this will create an investment opportunity in the overbuilt luxury and class A apartment markets, particularly in large, expensive major metros across the U.S..

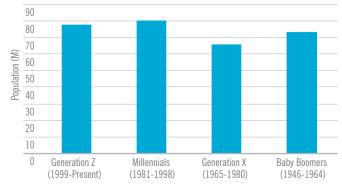
The YMs are roughly 19-29 years old and are in a very different stage of life compared to older millennials in their 30s. In the coming decade, the younger millennials could reshape apartment markets in cities such as Charleston and Orlando if, as we anticipate, these cities experience an influx of millennials looking for high quality jobs and a lower cost of living.

Fig.1: Percent of each age cohort that earn middle income (\$45k-\$75k)¹



Source: ¹ Bureau of the Census and the Harvard Joint Center for Housing Studies, America's Rental Housing 2017

Fig. 2: Generations defined²



Source: 2 Moody's Analytics

OLDER MILLENNIALS

We believe the eight central cities shown in Fig.3 are at greatest risk of losing higher income OM renters to suburban homeownership. As the OMs start to marry and have families, it will create the need for more space in the form of a single-family home. As the OMs in these eight cities move to the suburbs, demand for class A and luxury apartments should wane and prices for these types of apartments are likely to fall, creating an investment opportunity.

In order to evaluate the affect OMs will have on commercial real estate in these 'flight to suburb' metros, our analysis of mobility data from the Census Bureau indicates most adults that move remain in the same metropolitan area as opposed to relocating to a new metropolitan area. As a result, we assume 70%, or 2.1 million of the three million OMs in these eight cities will stay in their current metro area as they marry and have children.

Our analysis shows these eight cities experienced a large influx of millennials in the last decade due to their strong post-recessionary job growth. Most of the OMs in these eight cities are currently renters given the relative lack of home affordability in these areas. However, homeownership rates among 35-39 year olds currently stand at 56.8% versus 47.9% for 30-34 year olds.³ Based on this, we have assumed a 60% homeownership rate among the OMs, which corresponds to roughly 1.3 million at risk to flee to suburban locations and purchase a single family home. The other 40% of OMs (close to one million) are likely to seek out more affordable locations in the U.S. given the expensive housing in places like San Francisco, New York City, San Jose, and Los Angeles.

INVESTMENT OPPORTUNITY: LUXURY DISLOCATION

The potential dislocation in the luxury and class A apartment market in the eight cities shown on Fig. 4, represents a cyclical opportunity for investors. In our view, these central cities remain attractive locations for multi-family investment due to their high cost of living and strong, well-diversified job markets. During this economic cycle, many of these typically supply-constrained metros experienced unprecedented levels of new supply, much of which was concentrated in the urban core and much which was luxury and class A stock.

Source: 3Census Bureau

Fig. 3: 'Flight to suburb' metros



Nuveen Real Estate's megatrend filtering approach*

Hard factors (i.e. scale, productivity, etc.)		
Soft factors (i.e. connectivity, livability, etc.)		
Growth factors		
Sustainability factors		

Characteristics⁴

Job growth ('12-'17) $> 2.5\%$
Population growth (ages 25-29; '12-'17) > 1.5%
2016 home ownership rate <= 62%
2017 affordability index < 130
% of Millennials > 22.0%

Source: 4 Moody's Analytics

As a result, luxury and class A apartment rents have begun to soften. Despite falling rental rates, many of the class A and luxury apartments in these eight metros will remain out of reach for the large number of YMs following behind the OMs. Class A and luxury apartment buying opportunities could arise as pricing becomes dislocated due to more pessimistic rental growth expectations, concerns about over-supply, and/or flight to value in secondary and tertiary markets. As shown in Fig. 4, apartment prices in New York, San Francisco, and San Jose are beginning to show signs of softness.

Fig. 4: Multi-family property pricing

Flight to suburbs metros	Current apartment property prices vs. cycle peak
Boston	Still growing
Denver	Still growing
Los Angeles	Still growing
New York	Prices falling
San Diego	Still growing
San Francisco	Prices falling
San Jose	Prices falling
Seattle	Still growing

^{*}Nuveen Real Estate has created a proprietary filtering approach to identify cities across the world that are best positioned for outperformance in tomorrow's world. The filtering approach includes hard factors such as the size of a city, soft factors such as how internationally connected a city is as well as growth and sustainability factors.

THE YOUNGER MILLENNIALS AND THE NEXT MILLENNIAL MAGNETS

The YMs are largely in their 20s and are just beginning to exert their influence. YMs have more recently attended college and are looking for their first job, or are upgrading to a second job. In the earlier stages of their careers, they are likely to be attracted to areas with strong job prospects, particularly in tech. With only 15% of first time home buyers under the age of 30⁵, we assume YMs will generate demand for rented apartments for at least another seven to ten years.

We have identified a group of established, but affordable tech hubs (Fig. 5). In these hubs, tech jobs represent a sizeable component of the local economies (7.2% on average) and forward looking prospects are favorable. In the emerging wild card cities, the share of tech employment is marginally below the national average of 4.9%, but growth in tech has been strong and is expected to continue at a well-above average pace going forward.

Higher education and health care often have strong ties to the tech sector, which is particularly evident in places like Raleigh and Austin. While Charleston is known as 'Silicon Harbor', the city's health care sector has added the most jobs in recent months and is projected to be the top source of near-term job gains.

Charlotte's competitive advantage in the banking industry is creating growth opportunities for financial technology. Disney is the largest employer in Orlando, and consistently ranks as a top ten desirable employers among millennials. Corporate headquarters drive growth in locales such as Austin and Atlanta. Austin is home to Whole Foods, Minneapolis to Target, and Atlanta to Coca-Cola, UPS, Delta, and Home Depot. While these identified tech hubs have attractive growth prospects, one must consider the various industries beyond tech that are driving each millennial magnet's growth story.

Fig. 5: Next millennial magnets



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Nuveen's megatrend filtering approach*

Hard factors (i.e. scale, productivity, etc.)

Soft factors

(i.e. connectivity, livability, etc.)

Growth factors

Sustainability factors

Established tech hubs

High tech job growth (F) =>1.3%

High tech share of emp (2022F) > 5.0%

Affordability index (2022F) > 130

Emerging wild cards

High tech job growth (F) > 1.3%

Recent high tech job growth ('12-'17) > 2.5%

High tech share of emp (2022F) = 4%-5%

Source: ⁵Bureau of Economic Analysis
All data on this page derived from Moody's Analytics

MILLENNIALS ARE THE 'RENTERSHIP GENERATION'

Millennials tend to earn the U.S. median household income or less, making them a Rentership Generation (Fig. 6). As shown in Figure 1, relative to other age cohorts, a higher percentage of those ages 25 to 34 earn between \$45,000 and \$75,000 annually which should drive demand for apartments.

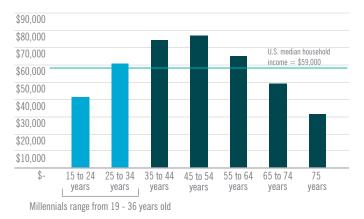
While 40% of millennials earn college degrees, many are early in their careers or are employed in fields with more modest salaries. Korn Ferry analyzed salaries of 310,000 entry-level positions from nearly 1,000 organizations across the U.S.. Based on the analysis, 2018 U.S. college graduates made on average \$50,390 per annum. While tech employment will continue to be a major demand driver, the majority of recent college graduates earned traditional bachelor's degrees. The National Center for Education Statistics report the following top earned college degrees for 2016 graduates:

- 1. Business (19%, 364K degrees)
- 2. Health professions and related programs (11%, 216K degrees)
- 3. Social sciences and history (9%, 167K degrees)
- 4. Psychology (6%, 118K degrees)
- 5. Biological and biomedical sciences (6%, 110K degrees)
- 6. Engineering (5%, 97.9K degrees)

Aside from earning middle income salaries, several key factors contribute to millennials' propensity to rent such declining home affordability, record student loan debt burdens, stricter lending requirements, and delayed decisions to marry and start families. According to the National Association of Realtors, U.S. homes have become increasing unaffordable with home prices exceeding 2006-peak levels. As a result, many middle income Millennials, even those who move to the suburbs, will not be able to afford a home, generating demand for apartments.

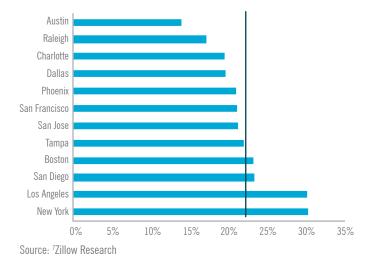
Additionally, Zillow reports that 22.5% of millennials are living at home with their parent(s), up nine percentage points since 2005 (Fig. 7). However, in cities such as Austin and Raleigh, a smaller share of millennials living with their parent(s) which should translate into higher rentership rates in these metros. Nuveen Real Estate's identified 'Flight to suburb' markets like New York and Los Angeles have a fairly large percentage living with their parent(s) which could contribute to the luxury and class A apartment pricing dislocation.

Fig. 6: Median household income by age cohort⁶



Source: 6U.S. Census Bureau

Fig. 7: Share of millennials living with parent(s) in 2016 by metro⁷



INVESTMENT OPPORTUNITY: FOLLOWING THE MIDDLE INCOME RENTER

Middle income households represent a stable and sustainable long-term source of demand for apartments. Middle and lower income households tend to rent out of necessity, rather by choice. Rentership rates rise significantly in more expensive metro areas like New York or San Francisco, but the middle income groups rent at rates outpacing the national average in many of the more affordable metro areas like Dallas and Atlanta (Fig. 8).

Fig. 8: Rentership rates by metro area (income=\$45k-\$75k)8



Source: 8JCHS tabulations of U.S. Census Bureau, 2016 American Community Survey 1-Year Estimates

> Median household incomes vary by metro area, which impacts the amount of rent the median earning household is able to afford at a maximum of 30% of their income level. In some markets, target apartment communities will likely be concentrated among the Class B segment. However, Class A rents in many metro areas (exceptions include the eight 'Flight to suburb' metros where Class A rents are not affordable) are within the affordable range for the median-earning household and represent a broader investment universe.

> The majority of Millennials will likely be more costconscious, at least initially, and will avoid the more recently built higher end rental units, creating increased demand for value-oriented Class A and well-located Class B apartment communities. We believe exciting and emerging/redeveloping neighborhoods in some of these metros could prove particularly attractive to younger millennials for the next ten years and beyond.

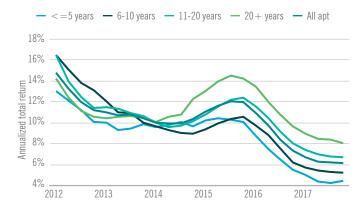
Affordability is a key differentiator among the markets we have identified. The apartment markets in each of these metros will undoubtedly benefit from the growth in tech and influx of YMs. Many of the 'next millennial magnets' are less urban in nature, and multi-family demand will likely be concentrated in attractive, highly-amenitized suburban locations.

APARTMENTS TARGETING MIDDLE AMERICA HAVE PERFORMED WELL

Our analysis shows that older and more seasoned properties have consistently outperformed the NCREIF apartment index as a whole during this expansion. Specifically, apartment properties in the 20+ year age cohort have been the top performing age cohort since 2014.

Effective rent growth for class B apartments has largely outpaced that seen in class A apartments since 2013, when supply first began to accelerate. New supply has generally been concentrated in the class A segment of the apartment market, which caused rent growth to slow in 2016 and 2017. This trend has created opportunity for Class B assets in recent years.

Fig. 9: Annualized apartment total returns by property age9



Source: 9NCREIF

Fig. 10: Effective rent growth: class A vs class B¹⁰



Source: 10Real Page

CONCLUSION

In our view, targeting MiMis, or millennials and middle income households, will provide investors with significant favorable investment opportunities in tomorrow's world. Middle income households represent a stable and sustainable long-term source of demand for apartments as they tend to rent out of necessity and not necessarily by choice.

At the same time, the millennial generation has exerted considerable influence on commercial real estate in recent years and will continue to do so in tomorrow's world. It is important to remember that the generation spans nearly twenty years, but distinctions should be made between the younger and older segments of the cohort. The older millennial cohort are now reaching, or have reached, the age at which most are facing typical 'grown up' life decisions while the younger millennials, on the other hand, have arrived and will drive demand for housing in potentially different ways that bears watching.

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