

Co-Living as an Emerging Market: An Assessment of Co-Living's Long-Term Resiliency

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Submitted to the Program in Real Estate Development in Conjunction with the Center for Real Estate in Partial Fulfillment of the Requirements for the Degree of Master of Science in Real Estate Development

at the

Massachusetts Institute of Technology

September 2019

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## **ABSTRACT**

Co-living, while a relatively new concept for the real estate industry, has become increasingly pervasive within the United States over the past decade. This form of communal rental housing offers reduced personal and private space in exchange for certain benefits, including a 15-30% reduced rental rate when compared to studio units. Changing social and economic factors have led to an increased interest in this type of residential product among both real estate developers and tenants alike. Today, there are approximately 30 co-living companies operating in the United States with close to 3,500 rooms in operation (JLL 2019a). Furthermore, this growth is expected to accelerate as global funding for co-living has increased by more than 210% since 2015 and around 7,000 rooms are planned to open in the United States over the next two years (JLL 2019a). However, while the concept has gained traction, it remains a nascent product type within real estate. Even with high growth, co-living's long-term sustainability remains to be proven.

This thesis uses a mixed-methods approach to evaluate the long-term resiliency of co-living as a product type. Our research provides insight into the various types of co-living business models currently active in the United States, and we conduct a thorough review of the international and domestic co-living markets. Financial models are utilized to assess the financial resiliency of co-living given potential changes to certain market conditions and demand drivers. We investigate the planning policies affecting co-living in targeted markets in the United States. The thesis concludes with a report on the market perception of co-living from real estate professionals and the general populous.

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# Acknowledgements

We would like to thank the following people.

Your input was essential for our research.

Jeremiah Adler

Roy Alpert

Elvina Beck

Samantha Gajewski

Charles Kuntz

Brian Lee

Edward Laurence

Christine McDannell

Jeffrey Munger

Tanin Paisarnsrinin

Mo Sakrani

Jacob Shapiro

Eli Sokol

Shawn Tsai

Ted Tye

Lucas Umbreit

Steve Weikal

Brian Wang

This thesis would not have been possible without the support of our Advisor.

Thank you for giving so much of your time and energy to this project.

Jennifer Cookke

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# Introduction

The shortage of attainable housing has become a significant challenge throughout the United States. Equally, existing housing typologies are poorly suited to accommodate growing trends in society including urban migration, delayed marriage, and the rise of the sharing economy. One novel solution that address many of these issues is a form of communal rental housing, called co-living. While a relatively new concept for the real estate industry, it has become increasingly pervasive in recent years. Since mid-2015, internet searches of people inquiring about “co-living” have risen exponentially (Exhibit 0.1). As familiarity with the concept has grown, it has become the subject of multiple articles, professional reports, and discussion panels. The first co-living conference, Co-Liv, occurred in San Francisco in 2017 (Lowe 2019). Today, there are approximately 30 co-living companies operating close to 3,500 rooms in the United States (JLL 2019a).

Various social and economic factors, such as declining homeownership rates and escalating rental prices, have spurred this rapid growth. In exchange for less personal space and privacy, co-living offers residents several advantages, including lower rental rates and a greater sense of community. Simultaneously, real estate owners and investors benefit from higher per-square-foot rents and greater net profits. While these factors appear promising for the future of co-living, some real estate professionals remain concerned about its longevity.

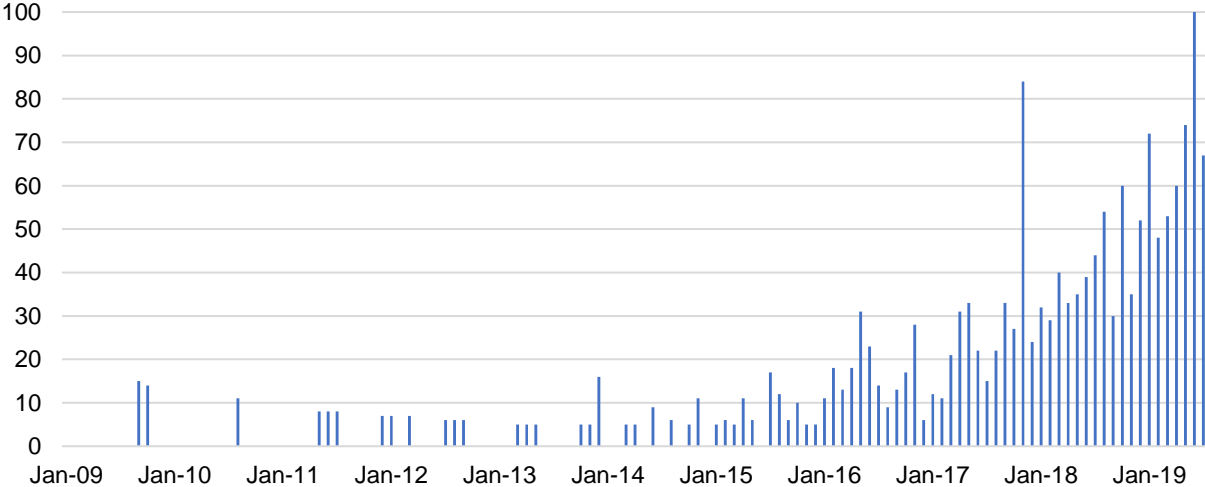


Exhibit 0.1: Google Searches for 'Co-Living' Over Time (Source: Google Trends)



Real estate is inherently a long-term investment. The average lifespan of an office building is 73 years (Mullenix 2014). However, as most co-living companies are less than 10 years old, the product type has yet to experience an economic downturn and will face challenges before maturing into a significant product type within residential real estate. Changing market conditions or reversals in consumer preferences could eliminate the additional financial benefit offered by co-living. The depth of demand is still uncertain. Few zoning regulations have been adjusted to specifically account for co-living and could thus hamper growth. As there are multiple variations on the co-living business model, including owner-operator and operator only, it is difficult to know which model will perform best over time. It is understandable that some real estate professionals are cautious when considering co-living as a potential investment given these unknowns. For these reasons, the purpose of this thesis is to evaluate the long-term resiliency of co-living as a product type.

We achieve this objective by first defining co-living for the purpose of our thesis and differentiating it from comparable product types. Next, we describe the recent supply and demand drivers that have enabled co-living to grow rapidly in recent years. We also provide a market overview of the product type, starting from a global perspective, then narrowing our focus to demographics and trends in the United States, and then to the major Metropolitan Statistical Areas (MSAs) New York City, San Francisco, and Los Angeles. From there, we define and assess the different co-living business models currently prevalent in the United States and provide profiles on the co-living companies operating in this country. Following this, we perform a comparative analysis of a co-living financial model and a traditional multifamily model. Using this baseline analysis, we simulate potential scenarios including adverse changes to market and demand factors that affect co-living in order to evaluate the product type's financial resiliency. Next, we outline the planning policies affecting co-living and the challenges surrounding them. Finally, we conclude with research on the public perception of co-living and seek to identify both potential opportunities and risks regarding the demand for this type of housing. Research and data for this thesis were collected from professional articles, studies, reports, a survey of the general public, and a series of interviews with co-living companies and real estate professionals.

Co-living's rise to prominence has been rapid with most indicators predicting it will continue on an upward trajectory. However, there are concerns as to its long-term viability, and a lack of thorough research conducted on this emerging market. Through extensive research and analysis, our thesis seeks to clarify these issues and affirm co-living as a durable residential real estate product type.

# Chapter 1 : What is Co-Living?

## 1.1 Co-Living Defined

The contemporary form of co-living in high-priced urban markets is still a relatively new concept. Companies in the United States only began branding themselves with the term within the last decade, and many have vastly different operational models. As a result, an exact definition for co-living is not always clear. It has been incorrectly likened to communes of the 1960s and 1970s or cohousing communities popular in Denmark (Robinson 2017). While these could both be classified as forms of co-living in a general sense, the term in the context of modern urban rentals takes on a different meaning. The New York Times has described co-living as “*adult dorms*” (Bowles 2019). However, this paints an image of small, old facilities that provide cheap housing with little to no privacy. In many ways, co-living brings the best parts of college dorm style living, like community and affordability, while improving on the less desirable aspects.

Wikipedia defines co-living as, “*a type of intentional community providing shared housing for people with shared intentions. This may simply be coming together for activities such as meals and discussion in the common living areas yet may extend to shared workspace and collective endeavors such as living more sustainably*” (Wikipedia contributors 2019b). Although this is an accurate description, it is too broad and encompasses a wide range of communal living arrangements. When considering the new co-living asset class for the purposes of this thesis, the definition is more specific. OpenDoor, a California-based company founded in 2013, defines co-living as,

*“a modern form of housing where residents share living space and a set of interests, values, and/or intentions. It’s a new take on an old idea, imagined by a millennial generation that values things like openness and collaboration, social networking, and the sharing economy. Fundamentally, co-living is a cultural distinction, as it can encompass many structural forms, including rental and ownership, urban and rural. Still, in its current embodiment, co-living tends to be urban and integrated into a single building,*

*house, or apartment. And the demographics tend towards 20 and 30 something professionals more than families, boomers, and retirees.” (OpenDoor 2014)*

This definition highlights a few key points that have come to identify modern co-living. First, co-living tends to be focused in dense urban areas and is gaining traction most quickly in cities with very high housing costs such as San Francisco, Los Angeles, and New York City. The physical rental structures vary widely, but companies are typically utilizing individual apartment units, entire single-family homes, or whole apartment buildings. Residents will rent an entire bedroom or a single bed within a shared bedroom. Units may have a private bathroom, and occasionally a private kitchen, but typically the kitchen and living room, as well as any other common area, are shared by multiple residents. For example, a company may purchase or master lease a conventional 4-bedroom, 2-bathroom house or apartment and rent each bedroom to unrelated individuals. In the past, co-living properties have been repurposed and retrofitted single-family homes or apartments. However, more recently, ground up developments specifically designed for co-living are becoming more prolific. In exchange for less personal private space, residents pay a lower monthly rate than they would for a comparable studio unit with similar levels of amenities and a similar quality of finishes.



*Exhibit 1.1: Potential 5-Bed Co-living Floorplan (Paras 2018)*

The community element is a key part of the co-living definition. While the extent to which companies focus on this aspect varies, it is always a component. There may be a unifying theme that connects all the residents, such as a co-living house that only contains aspiring artists, or there may simply be an encouragement of social interaction. The owner/manager will usually program social and community events for the residents or residents will be encouraged to coordinate their own activities.

Convenience is another feature of co-living operations. Lease terms tend to be shorter and more flexible than traditional multifamily leases. While one-year leases are available, three- to nine-month options are common and some companies offer stay periods as short as one week or even one day (O'Connor 2019). Units are typically delivered fully furnished to reduce move-in expenses and to minimize hassle for the residents. Private spaces vary in refinement but come with the essential amenities including a bed frame, mattress, and storage, and the common areas are often thoughtfully designed. Supplies like pots, pans, dishes, and glassware are often provided for the residents to share. For convenience, as well as to mitigate any potential conflicts between the residents, high-speed internet, all utilities, a regular room cleaning service, and some miscellaneous consumable communal items such as toilet paper and dish soap are often provided for residents as part of their monthly rent. In most cases, the monthly rent is all-inclusive and constant, giving tenants the comfort of always knowing in advance the exact amount owed.

Finally, co-living is distinguished by the specific target demographic. In general, single, middle-class millennials (defined as the population born between 1981 and 1996, or between ages 23-38 in 2019) are the prime candidates (Dimock 2019). Some companies target a very specific user group within this demographic while others cast a wider net. More recently, companies have begun branching into co-living specifically designed for couples and families which could expand the target demographic.

## 1.2 History of Shared Housing

While contemporary co-living has only been around for a few years, communal living is by no means a new concept. In this section, we provide a brief history of shared housing that has led to the rise of co-living.

For hunter-gatherer societies, all living was communal. Hunter-gatherer camps consisted of anywhere from 5 to 18 interdependent families that were involved in almost every aspect of each other's lives (Strauss 2016). Longhouses, which represent the earliest form of permanent structure in many cultures, can be described as some of the first co-living structures. These long, proportionately narrow, single-room buildings were built in various parts of the world including Asia, Europe, and North America as far back as 7,000 years ago. In these structures, large extended families all resided under one roof (Pollard 2015).



*Exhibit 1.2: Viking Longhouse (Pedersen 2013)*

As societies developed, so did their living arrangements. However, communal living was still common. Housing in the Middle Ages fell somewhere in between that of our hunter-gather ancestors and that of the modern day. While single-family households were still far from the norm, households in Western Europe began to organize around the more familiar nuclear family

structure. However, according to Strauss, “[i]n addition to parents and their children, medieval households frequently included various townspeople, poor married couples, other people’s children, widows, orphans, unrelated elderly people, servants, boarders, long-term visitors, friends, and assorted relatives” (2016). Furthermore, these homes were considered less of a permanent private family establishment and more of a temporary shelter that locals would sometimes treat as public space. Residents would often move amongst different houses and it was common for teenagers to spend time living away from their families. It was not until later that the idea of a private household began to catch on (Strauss 2016).

The urban middle class first began truly accepting the notion of a single-family household in the 1500s. However, it was more of a goal to strive for than a practicality. Most people were simply unable to run a household on their own as they relied on the community to survive. It was not until the industrial revolution that communities became less important for survival; thereafter, nuclear households consisting of the father, mother, and children began taking shape (Strauss 2016). Before the industrial revolution, most people lived and worked in the same place. With industrialization, people would commute back and forth between where they lived and the factories (and later offices) where they worked. This separation of home and work led to a rise in domestic privacy (Yoh 2018).

It was also around this time that a concept much like our modern notion of co-living began to take hold - boarding houses. According to Wikipedia, “*A boarding house is a house (frequently a family home) in which lodgers rent one or more rooms for one or more nights, and sometimes for extended periods of weeks, months, and years. The common parts of the house are maintained, and some services, such as laundry and cleaning, may be supplied*” (Wikipedia contributors 2019a). This housing structure was popular in developing cities throughout the 19<sup>th</sup> century and until the 1930s (Graham 2013). In *The Boarding House in Nineteenth-Century America* (2007), the Indiana University history professor Wendy Gamber estimates that “*between one third and one half of nineteenth-century urban residents either took in boarders or were boarders themselves.*” However, the vast amount of home building and growth of the suburbs in the 1950s made it possible for the middle class to afford their own homes or apartments. As such, boarding house use dwindled and became relegated to the housing of those

who could not afford any other option (Campsie 1994). It is only recently that this type of shared housing structure has gained prominence once again.



*Exhibit 1.3: Workers from an Alabama Munitions Plant Eating Dinner at their Boarding House, 1941  
(Delano 1941)*

### **1.3 Comparable Product Types**

In order to better understand what co-living is, it is useful to define what it is not. To that extent, we shall briefly describe those housing structures that have some similarities to co-living or are often discussed in the same context. These include:

- Communes
- Cohousing
- Hostels
- Micro units



### 1.3.1 Communes

Communes in the United States first appeared in the nineteenth century. These early intentional communities were to some extent inspired by the works of Henry David Thoreau and Samuel Butler. However, it wasn't until the 1960s that communes became popularized and started growing rapidly in number. Societal discontent over the Vietnam War drove many to seek alternative lifestyles and this type of living represented a drastic separation from mainstream society. As a result, over two thousand communes were formed between 1965 and 1970 (Götz 2019).

In a general sense, communes and co-living are similar – they are both groups of people living together and sharing common interests. However, the community element in a commune is greatly emphasized over that of co-living. In addition to shared interests, people in communes will often have common values and beliefs – social, spiritual, and/or political. Beyond this sharing of intangibles, property, possessions, work, income and/or assets are also shared between the residents (Foundation for Intentional Community 2007). According to the Foundation for Intentional Community, the term commune is broadly used when referring to intentional communities that share 100% of their income, and there are currently over 200 of these communities worldwide. The physical housing for communes has no prescribed or standard definition. Each community works with what it has available and can vary drastically from one to another.



*Exhibit 1.4: Montague Farm Commune, 1970 (Davis 2018)*

### 1.3.2 Cohousing

The first attempt at cohousing began in Denmark in the 1960s. A Danish architect and his circle of friends were looking for a new, more supportive way to live. Together, they bought land on the outskirts of Copenhagen and developed plans for a dozen homes set around a common house and swimming pool. While this particular neighborhood was never built due to community opposition, others learned about the idea and by the end of 1973, two cohousing developments were operational in Denmark (Milman 1994). Today, there are over 700 cohousing communities in Denmark and the concept has spread globally (Strauss 2016). However, since arriving in the United States in 1991, cohousing has not grown as fast as it has in Europe. According to the Cohousing Association of the United States (2019), there are currently less than 300 cohousing communities operating in the US.

Similarly to communes and co-living, cohousing is a form of intentional community. Unlike these other forms, cohousing participants typically own their individual homes which have traditional amenities including a private kitchen, living room, bedrooms, and bathrooms. These homes are built around each other and share certain communal areas such as outdoor space and a common house which may have a large kitchen and dining room (The Cohousing Association of the United States 2019). In these ways, it may appear similar to a condominium or tract housing community. However, while the residents have independent incomes and private space, the community element plays a major role. Residents collectively manage the community and have regular shared meals, meetings, workdays, and events. They are encouraged to interact, cooperate, and care for one another (The Cohousing Association of the United States 2019). People are attracted to this housing type for a greater sense of community more than anything else. While affordability might be a concern for cohousing, it is not a primary driver. Additionally, this type of housing is generally geared toward families with children or are designated as elderly communities (Kaysen 2018).



*Exhibit 1.5: Petaluma Avenue Homes, Cohousing Community (Craig 2018)*

### **1.3.3 Micro Units**

Rising rents and construction costs in highly desirable areas are causing tenants and developers alike to choose smaller, lower priced units with higher density and per square foot rents. Living in small units is obviously not a new concept. However, in recent years the term micro unit has evolved to mean something more than simply a very small apartment.

While still an ambiguous term, a report on micro units by the Urban Land Institute states, “*a good definition of a micro unit is a purpose-built, typically urban, small studio or one-bedroom using efficient design to appear larger than it is and ranging in size from as little as 280 square feet up to as much as 450 square feet (which roughly equates to 20 percent to 30 percent smaller than conventional studios in a given market)*” (2015, 6). There are instances when co-living has been combined into this micro unit category (Young 2017). However, micro units are defined as being standalone units with their own fully functioning kitchens and bathrooms. Shared common areas is not an attribute associated with micro-units. Additionally, as they contain all the features of a studio but in a smaller space, micro units frequently highlight their ultra-efficient design and use of multi-functional furniture, such as murphy beds (Urban Land Institute 2015). The target

demographic for these types of micro units are younger singles with relatively high paying jobs in urban areas. These tenants can still afford the moderately high rents but are willing to sacrifice personal square footage for a high-quality unit in a popular location (Young 2017).

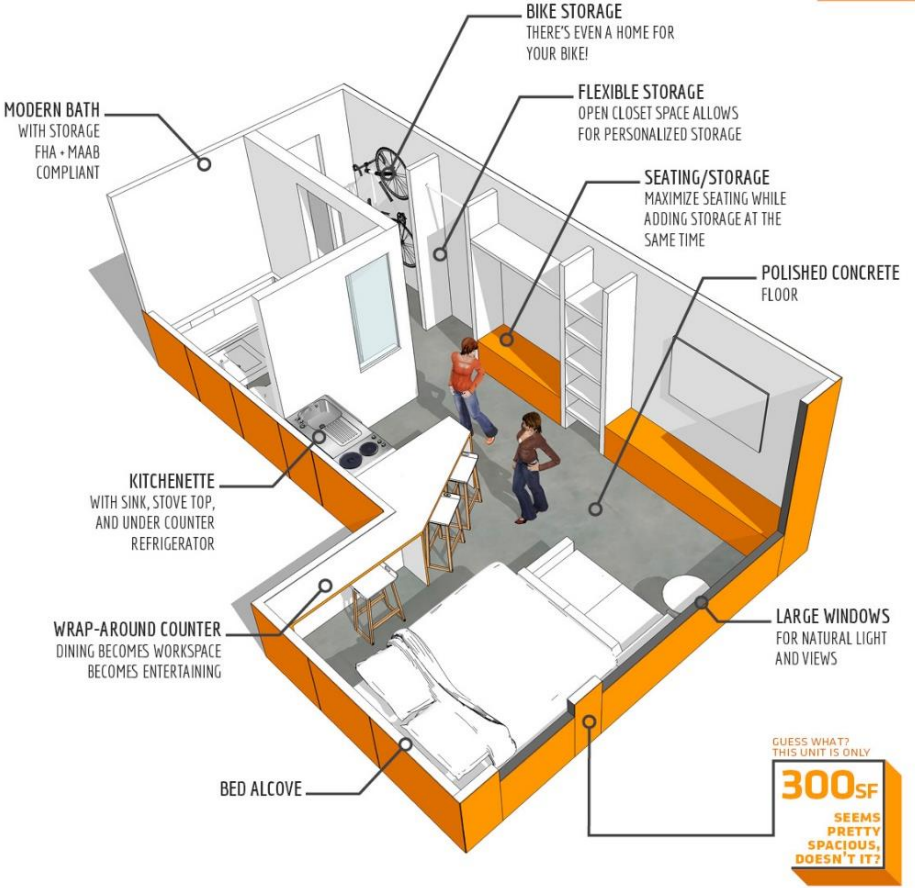


Exhibit 1.6: Micro Unit Model (Convey 2014)

**1.3.4 Hostels**

The first hostel dates back to early 20<sup>th</sup> century Germany. A schoolteacher named Richard Schirrmann recognized a need for school aged youths to have a safe and affordable place to stay as they traveled to other parts of the county. In 1912, he opened the first Jugendherberge (youth hostel) in western Germany. The concept gained traction and by 1932, there were more than

2,000 youth hostels in Germany alone, with another 600 all across Europe (Hostelling International 2006).

Since then, the hostel concept has grown and spread all over the world. Today, there are approximately 10,000 hostels across Europe and around 300 in the United States (Underwood 2016). However, this product type still largely caters to younger travelers looking for an inexpensive place to stay. A common style of hostel will have multiple bunk beds or single beds in a shared room with little privacy. Most have common areas like an entertainment room or dining space and are generally considered a desirable place to meet and socialize with other travelers. By providing fewer room amenities than hotels, such as telephones, coffee makers, and daily turndown service, as well as increasing the number of paying guests per square foot, hostels can pass these savings on to occupants. While people can and do stay in hostels for extended periods of time, they tend to focus on travelers and most visitors stay only a few nights at a time (Rodgers 2018).



*Exhibit 1.7: Flow Hostel, Budapest (Morrison 2018)*

## Chapter 2 : Co-Living Supply and Demand Drivers

From longhouses to boarding homes, people have lived together in some form of intentional community for centuries. Why then has the current co-living movement only begun to surge in the United States over the last decade? In Chapter 2, we will answer this question by looking at the supply and demand drivers behind contemporary co-living.

### Chapter 2.1 Reasons for Demand

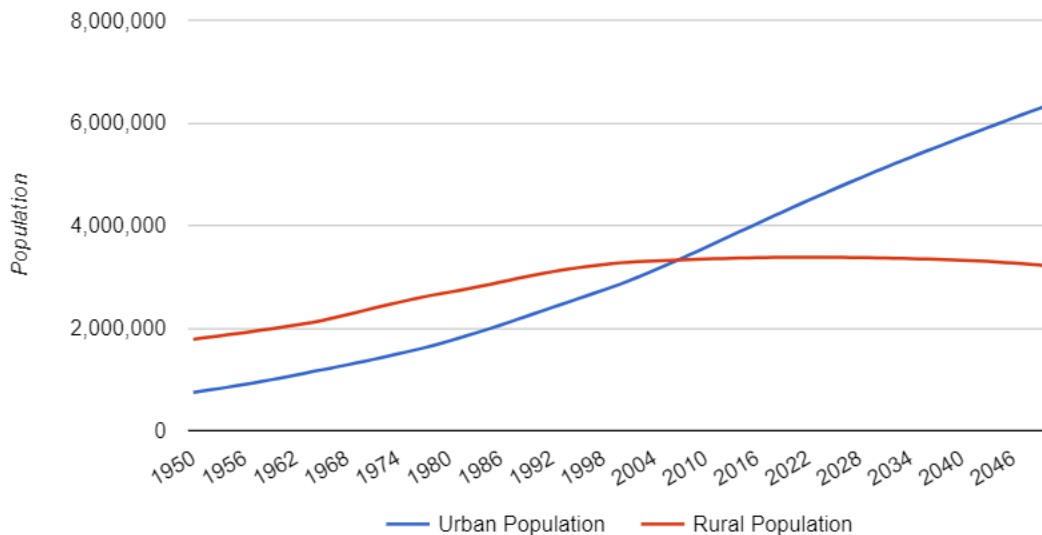
From a demand perspective, it is critical to understand trends affecting the main target demographic of the co-living movement – millennials. This generation, those born between 1981 and 1996, are the largest generation in the American labor force as of 2016 (Fry 2018b). We will explore the many social and economic factors that are affecting millennials and making co-living a more attractive living option.

#### 2.1.1 Urbanization

At a global level, people are increasingly moving from rural and agricultural areas to urban centers. In 2009, the United Nations estimated that approximately 3 million people were moving to cities every week. Currently, over 50% of people worldwide live in cities, up from 30% in the 1950s (Boyd 2017). This movement is driven by various factors, including agricultural innovations reducing the number of workers required in rural areas, and concentrations of wealth creation moving to cities (Boyd 2017).

While this transition from rural to urban areas is more pronounced in some developing countries, it is still occurring in developed countries like the United States, where many cities continue to grow. Exhibit 2.1 below demonstrates the changes in urban and rural populations in the United States from 1950 to 2050 (actual and predicted). According to Boyd, “[t]oday, 82% of North Americans live in urban areas and are increasingly concentrating in mid-sized and large cities.

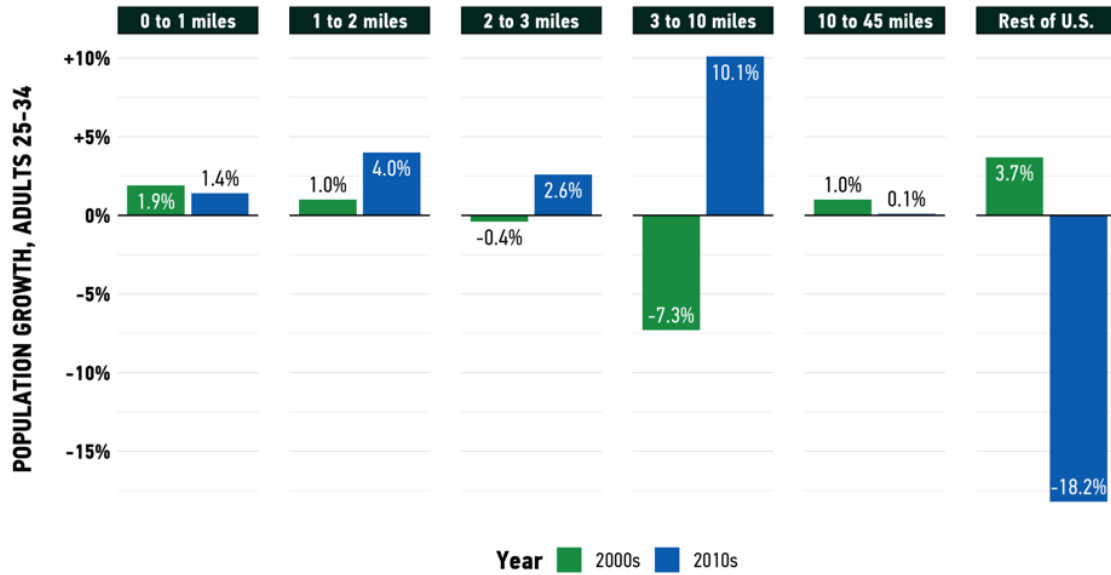
*In 2010, 41 urban areas in the United States housed more than 1 million people, up from 12 areas in 1950 and projected to grow to 53 by 2030” ( 2017).*



*Source: United Nations, Department of Economic and Social Affairs, Population Division.*

*Exhibit 2.1: United States Urban vs. Rural Population from 1950 to 2050 (Boyd 2017)*

For millennials, this attraction towards urbanization is taken one step further. Not only do they prefer living in cities, millennials are flocking to downtown urban cores. They have not moved to suburbs the way past generations did. Pete Saunders from Forbes found that from 2010 to 2015, urban cores of the 33 largest metro areas added 1.09 persons for every 1.00 person added to the outlying suburban areas. However, that number jumps up to 1.53 persons when only looking at highly educated millennials (those with a bachelor's degree or higher) (Saunders 2017). A report from CityLab found similar results (Exhibit 2.2). In comparing the locational population growth of people between the ages of 25 and 34 from 2000 to the 2010s, it was observed that significantly more growth was occurring between one to ten miles from city centers in the 2010s. Furthermore, population growth for this age group at distances greater than ten miles from city centers was almost non-existent or negative (Capps 2018).



Source: Hyojung Lee (David H. Montgomery/CityLab)

Exhibit 2.2: Population Growth Rate among Adults 25-34 by distance from city centers (Capps 2018)

Further research has shown that millennials are congregating in and around downtown cores. As can be seen in Exhibit 2.3 below, in the 30 largest U.S. cities, 18 of the top 20 neighborhoods with the largest shares of millennial residents are in or near that city’s downtown (Katzeff 2018).

ZIP Codes With The Biggest Shares Of Millennials					
By percentage of neighborhood population that was born between 1977 and 1996, as of 2016					
Zip code	City	Neighborhood	Location	Share of millennials	Millennial population
60661	Chicago	West Loop	Downtown	73%	6,800
19127	Philadelphia	Manayunk	Neighborhood	71%	4,500
10005	New York	Wall Street	Downtown	71%	6,200
02113	Boston	North End	Downtown	70%	5,200
20036	Washington, D.C.	Dupont Circle	Downtown	69%	3,900
80203	Denver	Capitol Hill	Downtown	66%	13,500
10006	New York	Wall Street	Downtown	66%	2,200
75201	Dallas	Arts District	Downtown	65%	8,800
10018	New York	Midtown West	Near Downtown	64%	6,200
94158	San Francisco	Mission Bay	Near Downtown	63%	3,800
73102	Oklahoma City	Business District	Downtown	63%	3,300
77054	Houston	Astrodome	Neighborhood	63%	14,400
43215	Columbus, Ohio	Downtown	Downtown	62%	8,600
28202	Charlotte, N.C.	Fourth Ward/Uptown	Downtown	62%	7,400
75202	Dallas	Downtown	Downtown	61%	1,400
78751	Austin	Hyde Park	Near Downtown	61%	8,900
60654	Chicago	River North	Downtown	61%	10,500
60642	Chicago	Goose Island	Near Downtown	60%	11,700
19102	Philadelphia	Center City West	Downtown	60%	2,900
46204	Indianapolis	Near North	Downtown	60%	4,200

Source: rentcafe.com

Exhibit 2.3: ZIP Codes with the Biggest Share of Millennials (Katzeff 2018)





It is difficult to identify to the precise reasons why this trend is occurring, although some speculate millennials are more willing than previous generations to sacrifice some of the benefits of living in the suburbs – larger living spaces with more privacy – for the lifestyle they want (Katzeff 2018). Some millennials desire to live in vibrant walkable neighborhoods with easy access to urban amenities like art and cultural centers (Katzeff 2018). Others seek access to multiple modes of transportation (public transit, biking, or walking) or shorter commutes to work. Since many of the highest paying jobs are located in and around urban cores, millennials are moving to be closer to these positions (Florida 2016).

The flood of millennials into urban cores has caused rental prices to skyrocket and has made finding affordable living arrangements challenging. Co-living companies are aware of this trend and are capitalizing on it by placing their units in high-demand, high-priced urban centers such as New York City, San Francisco, and Los Angeles. Since this emerging product type is typically priced lower than a comparable studio unit, it offers a lower cost alternative to those millennials who want to migrate to city centers.

### **2.1.2 Economics**

A key benefit of co-living is its reduced cost relative to other housing options. Most co-living companies target rents that are 15% to 30% below that of a comparable studio unit. Co-living company, Common, claims that “*Common members save over \$500 every month over a traditional studio apartment*” (Common 2016). Exhibit 2.4 illustrates the financial savings offered by a Common co-living unit compared to a traditional studio and a Craigslist room in the same area.

New York City 		Craigslist Room	Traditional Studio
Rent:	\$1,300	\$1,650	\$2,100
Utilities:	Included	\$60	\$110
Washer/Dryer:	Included	\$50	\$50
Cleaning:	Included	\$120	\$240
Supplies:	Included	\$40	\$40
Wifi:	Included	\$40	\$70
<b>Total Cost:</b>	<b>\$1,300</b>	\$1,960	\$2,610

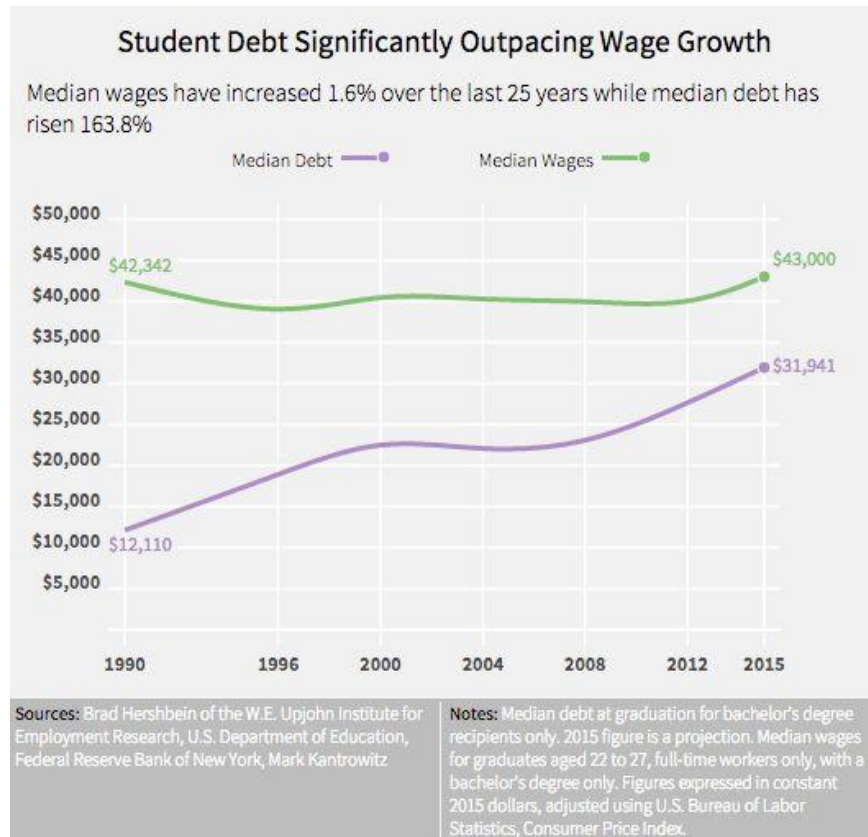
\* Common coliving rooms are also furnished - more than a \$4,000 value - and never require a broker fee.

Source: [Common.com/why-common](http://Common.com/why-common)

*Exhibit 2.4: Cost of Common Co-Living Unit vs. Comparable Housing Options (Common 2016)*

In general, co-living offers renters the opportunity to live in high-quality units located in desirable locations that would normally be unaffordable. By forgoing some degree of privacy and private space, they receive large communal areas and better amenities at a discount to comparable studio units. This is an attractive feature for many millennials as this generation is facing economic challenges that their parents and grandparents did not.

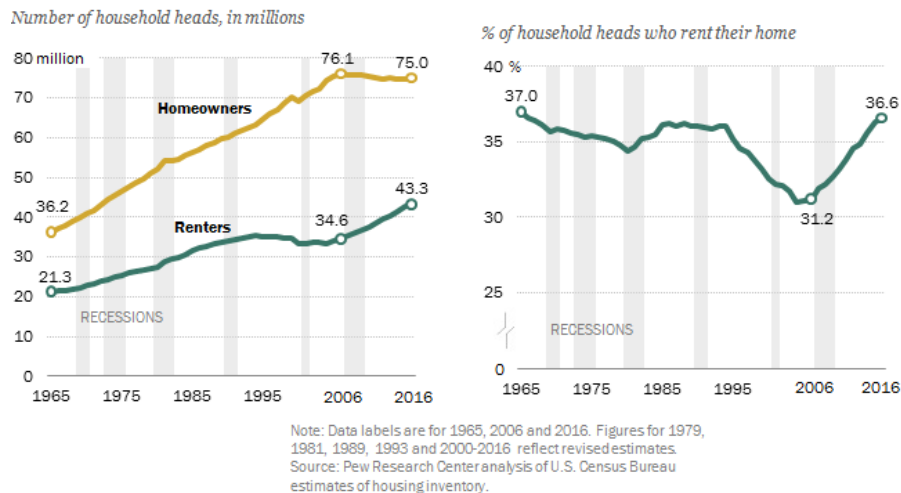
As a generation, millennials are much better educated than their predecessors. According to Pew Research Center, approximately 39% of those ages 25 to 37 have a bachelor's degree or higher, compared to roughly 25% of Baby Boomers and 29% of Gen Xers when they were the same age (Bialik and Fry 2019). While largely a good thing for millennials, high college tuition costs are forcing them to take on more student debt than ever before. Nationally, federal student loan debt totals \$1.5 trillion. 43 million Americans have student debt with the average household owing almost \$48,000 (Strassmann 2019). From 1990 to 2015, the median debt at graduation for bachelor's degree students increased by roughly 164% (Exhibit 2.5). Meanwhile, the average wage only increased by 1.6% (Nasiripour and Forster 2016).



*Exhibit 2.5: Student Debt vs. Wage Growth from 1990 to 2015 (Nasiripour and Forster 2016)*

This large increase in debt accompanied by little wage growth has played a key role in millennials delaying some life decisions that many previous generations prioritized, such as buying a home. The Federal Reserve estimates that approximately “20 percent of the decline in homeownership among young adults can be attributed to their increased student loan debts since 2005” (Mezza, Ringo, and Sommer 2019). Furthermore, rising construction material and labor costs combined with increasing land prices have caused home values to soar. From 1990 to 2016, the average home price has grown 41% faster than inflation (Joint Center for Housing Studies of Harvard University 2018). A recent study showed that close to 90% of millennial renters want to buy a home at some point in the future. However, less than 5% plan to do so within the next year. Of those that want to buy a home, over 70% said financial issues were a reason that they have yet to do so (Salviati and Warnock 2018). Renting then becomes one of the only viable options for many millennials.

The United States homeownership rate peaked at 69% around 2005. In the aftermath of the Great Recession, Americans moved away from homeownership and towards renting. By 2014, the homeownership rate had declined by roughly 4%. For people aged 24 to 32, this drop was even more significant. In 2005, the homeownership rate for this age group was 45%, but by 2014 it had dropped by 9% (Mezza, Ringo, and Sommer 2019). Over roughly the same time period, the number of people renting increased from 31.2% in 2006 to a near 50-year high of 36.6% in 2016. For households headed by people under 35 years old, 65% were renting in 2016 (Cilluffo, Fry, and Giger 2017). Even though an increasing percentage of the population is renting, this does not mean renting is affordable.



*Exhibit 2.6: Change in the Number of Households Owning and Renting from 1965 to 2016  
(Cilluffo, Fry, and Giger 2017)*

According to US Census data from 1960 to 2014, inflation-adjusted rents have significantly outpaced real household income. Real household income has risen by 18%, whereas rents have jumped up 64% (Woo 2016). Rising rents, lagging income growth, and higher debt levels have made renting challenging in many highly desirable markets. In cities like San Francisco, Miami, New York, and Los Angeles, over 50% of the average monthly income would be needed to rent a median priced, two-bedroom apartment (Pender 2014). For someone with student loans, this may not even be possible. As a result, millennials may move far away from job and entertainment centers or into lower quality apartments to find affordable places to live.

Alternatively, co-living provides a housing option which responds to these economic challenges faced by millennials. It offers less private space in exchange for discounted, amenity-rich housing in desirable locations.

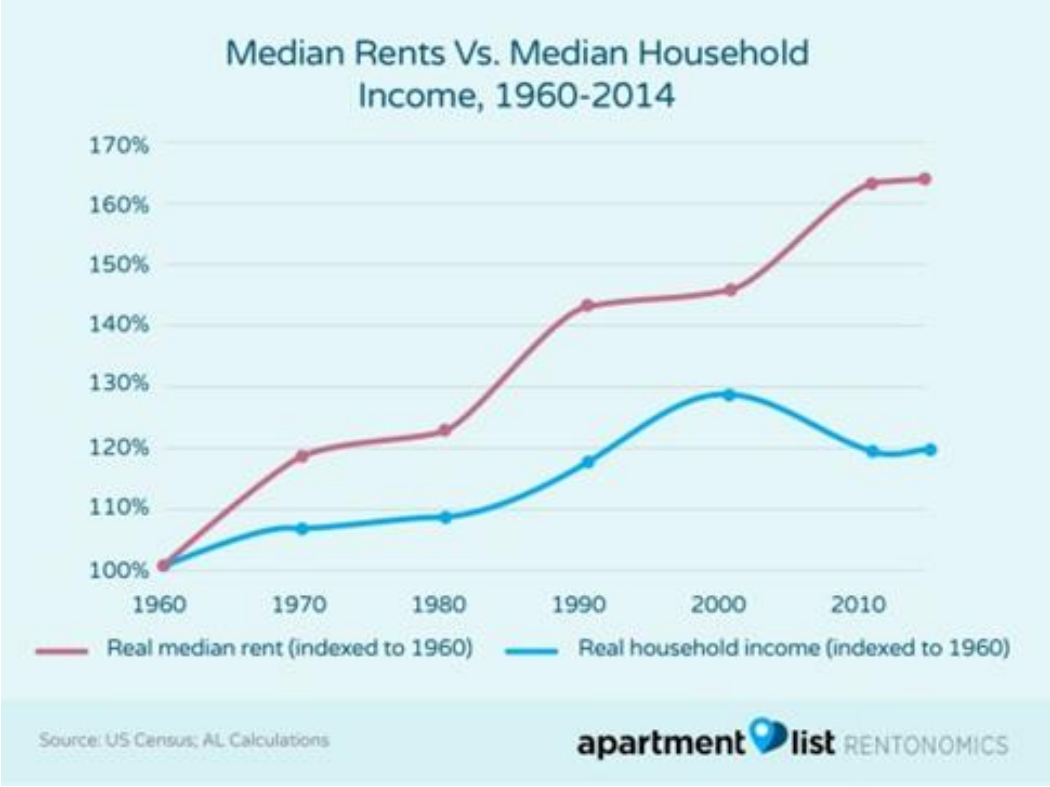
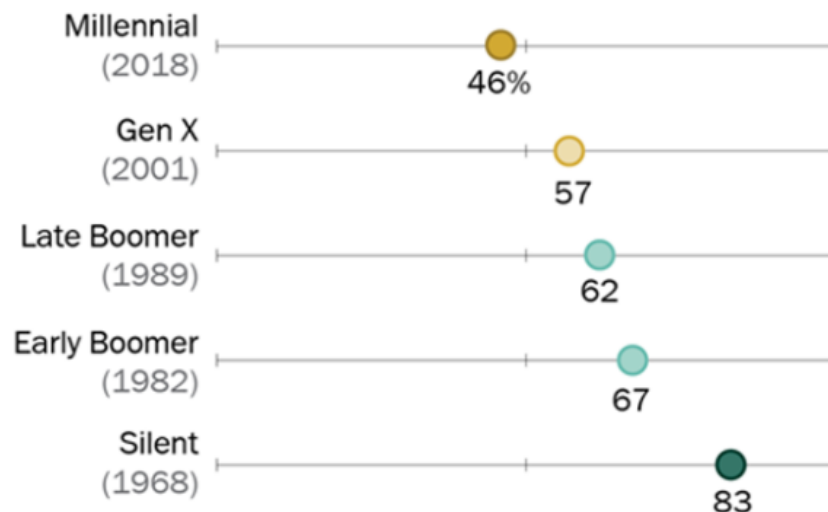


Exhibit 2.7: Median Rents vs. Median Household Income from 1960 to 2014 (Woo 2016)

### 2.1.3 Social Factors

Economic factors have certainly played a major role in the swift expansion of contemporary co-living, however, many recent social changes have also aided the rise of this movement. One such change is that millennials have been delaying marriage and are choosing to start families later in life. In 1968, the average American woman was married at age 21, today that number is closer to 28. The same is true for American men – in 1968 most were married at 23, but today the average is 30. Only around 46% of millennials ages 25 to 37 are married as compared to 67% of Baby Boomers and 57% of Gen Xers when they were the same age (Bialik and Fry 2019).



Source: Pew Research Center analysis of 1968, 1982, 1989, 2001 and 2018 Current Population Survey Annual Social and Economic Supplements (IPUMS).

*Exhibit 2.8: Percent of 25- to 37-year-olds who are married (Bialik and Fry 2019)*

Millennials are also waiting longer to become parents. Only 48% of women ages 20 to 35 in 2016 were mothers. When Gen Xers and Baby Boomers were these same ages, 57% and 58% of women were mothers, respectively (Bialik and Fry 2019). These major life events generally increase the likelihood that young people will decide to settle down and buy a house. However,

by shifting these decisions to later in life, many millennials are delaying buying a home and electing to rent longer.

Homeownership in the United States has declined since 2005 and this trend is even more pronounced for younger generations (Mezza, Ringo, and Sommer 2019). Consequently, millennials are renting in cities and living in what the United States Census Bureau calls a “doubled-up” household for longer. According to the Census Bureau, “[t]hese “doubled-up” households are defined as those that include at least one “additional” adult – in other words, a person 18 or older who is not enrolled in school and is not the householder, spouse or cohabiting partner of the householder” (Johnson 2011). This includes people who live with roommates or parents. The trend of doubling up increased in the aftermath of the Great Recession when the lack of economic prospects caused many to move back in with their parents or find roommates to reduce the financial burden of renting. Yet, years after the recession and well into an economic boom, doubling up has increased. In 2017, close to one third of American adults (31.9%) were living in doubled-up households, a 4.5% increase since 2004 (Fry 2018a). Among the 79 million adults living in a shared household, about 25 million own or rent the household, 10 million adults are the spouse or unmarried partner of the head of the household, and another 40 million, or 16% of all adults, are the “extra adult” in the shared household. This percentage is up from 14% in 1995 (Fry 2018a).

In addition to delaying marriage and parenthood until later in life, the millennial generation has other characteristics that have made renting and co-living more popular. With approximately 44% of millennials an ethnic minority, this is the most racially and ethnically diverse adult American generation (Frey 2018). Studies have shown that on average, certain minority racial and ethnic groups have lower homeownership rates. The fact that these groups are a larger percentage of the millennial generation could have contributed to the overall decreased homeownership rate (Choi et al. 2018). Additionally, some studies have shown that minority groups are more likely to move to urban areas, which could further help explain why millennials are moving to urban cores (Gabriel and Painter 2008).

Even taking into consideration these changes in diversity and family timing preference, homeownership rates for the millennial generation have still declined. Between 1990 and 2015, the homeownership rate for white households, ages 25 to 34, who were married with children

and made more than \$100,000 per year, still dropped by 2.8% (Choi et al. 2018). This shift suggests a change in attitude towards homeownership. The Urban Institute suggests that it could be a result of millennials living through the Great Recession:

*“Baby boomers and Gen Xers saw homeownership as a place to live and as a store of value and the best way to build wealth, but millennials, whose formative years occurred during the Great Recession, are unlikely to take the wealth building assumption as a given. Stated differently, millennials become homeowners when it meets their needs but are not sold on the idea that sacrificing today to save for a down payment is the best strategy, in large part because they see their home as a place to live and are at least unsure about homeownership’s wealth-building opportunity.”* (Choi et al. 2018, 22)

All these factors have contributed to a large number of millennials choosing to rent and stay renters for longer. In 2013, approximately 60% of millennials were renters (Goldman Sachs Global Investment Research 2015). For co-living companies, this means a larger pool of potential tenants than ever before.

Another contributing social factor to the growth of contemporary co-living is the emergence of the sharing economy. With the creation of the internet and widespread adoption of smartphones, people now have more ways to connect with each other than ever before. This in turn has enabled the owners and users of assets to interact in new ways. In 2015, Goldman Sachs Global Investment Research released a report that stated, *“[i]t’s not just homes: millennials have been reluctant to buy items such as cars, music and luxury goods. Instead, they’re turning to a new set of services that provide access to products without the burdens of ownership, giving rise to what’s being called a “sharing economy”*” (2015). This trend has led to the success of companies like Uber, Turo, Bluebikes, and Bird. Co-living represents how rental housing is being influenced by the sharing economy. Short-term leases on fully furnished apartments all but eliminate the burden of ownership and provide the flexibility that many millennials value.

The co-living business model falls into a category that has only recently been accepted in the real estate industry, known as space-as-a-service. At its core, this concept further embraces the trend that is moving millennials away from products and ownership and towards services and access. While its purveyors do not use an agreed upon common definition, space-as-a-service refers to



landlords providing space to tenants on demand (i.e. daily, weekly, monthly, or yearly) as well as services appropriate for the needs of those tenants to use that space (Slumbers 2019). WeWork, a company formed in 2010 that is currently valued at \$47 billion, is a prime example of how well this model has worked in the office market (Sorkin 2018). WeWork provides well designed state-of-the-art office space on flexible lease terms with the inclusion of many amenities, from utilities to office supplies. The online hospitality marketplace Airbnb has also shown that space-as-a-service can succeed in the vacation rental space. While they did not invent the concept, WeWork and Airbnb have demonstrated the potential for space-as-a-service and have revealed a need for a change in the traditional landlord-tenant relationship. Co-living is the next logical evolution of space-as-a-service into the realm of residential rentals by providing space, furniture, utilities, and certain other amenities all together on a flexible lease.

Given the success of these space-as-a-service business models and the rise of the sharing economy, we must next consider why these concepts are appealing for millennials. Amongst other things, this generation values flexibility and convenience. Some data indicates that millennials change jobs more frequently than previous generations. A study performed by LinkedIn found that people who graduated college between 1986 and 1990 change jobs an average of 1.6 times in the first five years out of school. For those who graduated between 2006 and 2010, this number nearly doubled to 2.85 times (Beger 2016). While it is unclear whether or not millennials are actually changing jobs more frequently than older generations did at the same age – a Pew Research Center study indicates they are not (Fry 2017) – a large portion of millennials still believe they will leave their current job in the near future. In a Deloitte survey of 10,455 millennials across 36 countries, *“43 percent envision leaving their jobs within two years; only 28 percent seek to stay beyond five years”* (2018, 17). As a result of this belief, millennials want to be nimble with their living arrangements. The idea of buying a home and taking on a 30-year mortgage, or even signing a 12-month lease, may be too binding for some. Co-living alleviates this burden by offering flexible, shorter-term lease terms that are ideal for people who have just moved to a city for a new job, or locals who do not know how much longer they will stay with their current employer.

For these millennials who plan to change jobs in the near future, or simply have an active lifestyle, co-living also addresses their desire of convenience. In a survey conducted by Harris

Poll on behalf of Eventbrite in 2014, 78% of millennials preferred to spend their money on experiences or events rather than buying something tangible (Harris Poll 2014). Renting generally all but eliminates the need for millennials to take on onerous basic home maintenance – no yards to mow, repairs to make, or upgrades to install. If there are any issues, the tenant simply calls the landlord and it is taken care of. Co-living builds on this convenience factor by offering features like lumping the rent, internet, and utility bills into one monthly payment. Most also offer weekly or bi-weekly cleaning, provide furniture for the units, and supply certain other household items. These make the move-in and move-out process simple, reduce potential friction between residents, and further reduces the number of household chores residents need to do themselves. This in turn enables millennials to focus on the experiences that they value.

This convenience factor extends to those apartment seekers who want or need roommates. Instead of scouring Craigslist for both an apartment lease that fits their needs and roommates they get along with, co-living handles the process for you. Co-living companies provide quality housing, allow you to set your own lease duration, and essentially find roommates for you (some even provide a matching service). They handle the screening process, collect the rent, and have systems in place to reduce potential tenant conflicts. If difficulties do arise, the staff can step in and try to resolve them or, in extreme cases, they may be able to move one of the residents to a different unit or building.

The flexibility and convenience offered by co-living also caters well to the needs of a growing subset of Americans known colloquially as digital nomads. This group does not fit one definition but is generally described as a set of people whom embrace a lifestyle that allows them to work remotely while traveling the world. According to a research brief by MBO Partners, “*Digital nomads work a variety of fields, with the most common professions being creative professionals (writers, designers, editors, content creators, etc.), IT professionals (programmers, developers, etc.), marketing and communication professionals, and those involved in ecommerce*” (2018, 2). Approximately 4.8 million Americans currently classify themselves as digital nomads and this number is expected to grow with increasing levels of remote working (Exhibit 2.9) and improving technology (MBO Partners 2018). Flexible co-living lease terms and fully finished units make the moving process easier for someone who will not be staying in a single city long. Also, the lower cost and community atmosphere are attractive features for digital nomads. Some

co-living companies are specifically targeting this demographic by providing locations all over the world that include shared office space (MBO Partners 2018).

### Employees Are Spending More Time Working Remotely

	2012	2016	Difference
	%	%	Percentage Points
<b>Less than 20%</b>	34	25	-9
<b>20% to less than 40%</b>	20	20	0
<b>40% to less than 60%</b>	12	13	+1
<b>60% to less than 80%</b>	10	11	+1
<b>80% to 100%</b>	24	31	+7

*Exhibit 2.9: Percentage of Time Employees Spend Working Remotely, 2012 vs. 2016 (Mann and Adkins 2017)*

Millennials grew up amid a communication revolution. From the internet and instant messaging, to smartphones and social media, no previous generation has had this level of connectivity. Nevertheless, the level of loneliness in the United States has been growing. Vivek Murthy, the former Surgeon General, wrote that “[l]oneliness is a growing health epidemic. We live in the most technologically connected age in the history of civilization, yet rates of loneliness have doubled since the 1980s” (2017). An online survey of 20,000 U.S adults by Cigna found that 46% feel alone and 47% feel left out sometimes or always (Palack 2018). Even though we are more connected than ever, one study found that “online social contacts with friends and family were not an effective alternative for offline social interactions in reducing feelings of loneliness” (Yao and Zhong 2014) and a survey conducted by the American Journal of Public Health found a strong correlation between social media use and depression – that the more time young adults

spent on social media, the more likely they were to feel depressed (Luxton, June, and Fairall 2012). Additionally, an extensive study by the Harvard Business Review estimated that loneliness is more harmful than smoking 15 cigarettes per day for your overall health (Murthy 2017). With all this evidence, it should be no surprise that millennials are looking for ways to make more in-person social connections and are eager to find a sense of community. Filling this gap is part of the mission of many co-living companies. They believe the organic interactions created by the use of communal space, in addition to organized social events, will produce the community and social engagement that people seek.

This myriad of social factors affecting millennials has contributed to the expansion of contemporary co-living. The trend towards delaying major life decisions and a reduction in the homeownership rate means large portions of this generation are choosing to rent and are staying renters longer. Societal acceptance of the sharing economy and space-as-a-service business models has led to a general acceptance of co-living. Even millennials' desire for more flexibility, convenience, and in-person social connection is achieved with co-living. Combined with the economic challenges faced by this generation and the preference for living in city centers, it is no surprise that co-living has seen such rapid growth.

## **Chapter 2.2 Reasons for Supply**

On the supply side, we will discuss the financial benefits co-living can offer developers and investors. This incentive, combined with city governments looking for creative solutions to the housing crisis, and financial capital seeking alternative investment opportunities, have contributed to the rise in the number of co-living units available.

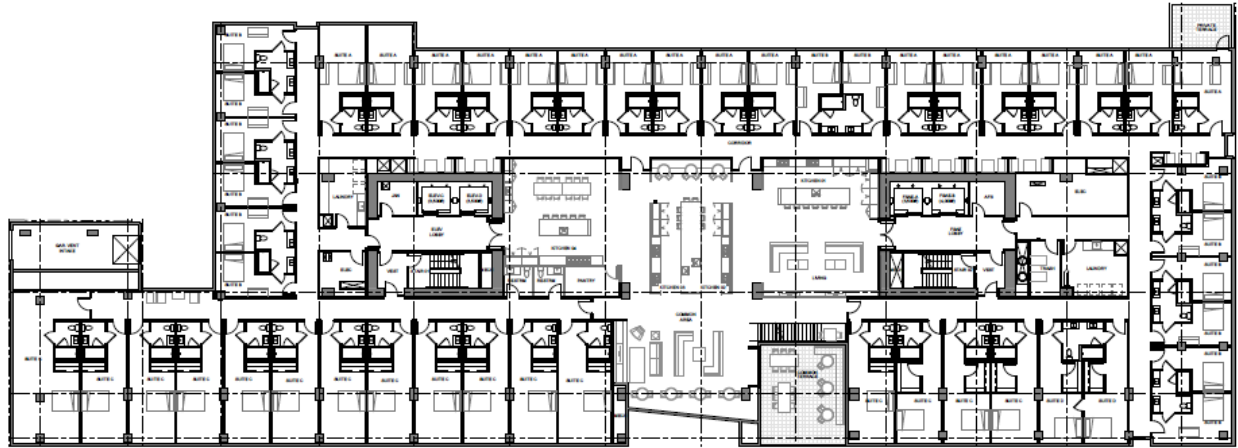
### **2.2.1 Higher Returns**

When assessing any investment, one of the most important considerations for any real estate developer or investor is the financial return. Projects or product types that offer high returns

while minimizing risk are always going to be attractive. This is one of the main reasons why co-living has gained so much attention from the real estate industry.

Co-living can offer tenants lower rents by exchanging individual private space for common areas. Most co-living companies we interviewed stated that their bedrooms rent for between 15-30% less than a comparable studio. While this is a significant savings for the tenant, the owner also benefits financially by collecting a much higher rent per square foot. According to a study by the site Rent Café, the average studio unit in the United States is 472 square feet (Balint 2018). On the other hand, bedrooms for some co-living companies average 140 square feet, over 70% less than the average studio (Molla 2019). Even when factoring in the shared common space, the rent per square foot of a co-living unit will be much higher than that of a traditional multifamily unit. This fact is compounded by the increasing square footage of non-revenue generating amenity space provided in traditional multifamily developments. By renting each bedroom to individual tenants, the owner collects more rent than they would by renting an entire multibedroom unit to one tenant, and the common areas and amenity spaces are utilized for their intended purpose.

In recent years, multifamily developers have been reducing unit sizes and have been building more studio and one-bedroom units in order to maximize their rent per square foot (Molla 2019; Mejia 2015). From 2009 to 2014, studio and one-bedroom units accounted for over 50% of all deliveries (Mejia 2015). With a new co-living development, this densification can be furthered by fitting more small bedroom units on each floor. Developers also reduce construction costs by eliminating high-end kitchens with expensive appliances in each unit. Instead, high-end, well-appointed kitchens can be shared by multiple tenants. In Starcity's 803-bed development in San Jose, the 3<sup>rd</sup> floor will contain 49 units but only 4 kitchens (Exhibit 2.10). Higher rents per square foot and potentially lower construction costs can yield noticeably higher returns for co-living investors.



*Exhibit 2.10: 3rd Level Floorplan of Starcity's San Jose Project (City of San Jose 2019)*

While these co-living features offer significant financial benefits to owners, there are items that counterbalance some of the advantages. First, in order to maximize convenience and reduce potential conflict between residents, co-living companies will offer tenants one all-inclusive rent bill, which typically includes the cost of internet, utilities, a regular cleaning service, and community events. These services are usually not provided by traditional multifamily property owners and are an additional operating expense for co-living. Second, owners, landlords and developers who choose to hire or partner with a co-living operator may face higher fees. Due to the greater amount of work required to manage co-living – organizing social events, coordinating services, managing tenant conflicts – and the promise of higher returns, management fees are often higher for co-living operators. Lastly, co-living buildings may have higher upfront and ongoing capital expenses. Unlike traditional multifamily, co-living owners usually provide internet and fully furnished units for tenants. The cost to purchase, install, and maintain these can be significant. Furniture in particular can be a large expense as it costs thousands of dollars to fully furnish each bedroom, especially in high-end buildings. On Common’s website, they state, *“Common coliving rooms are also furnished - more than a \$4,000 value”* (Common 2016).

As this asset class matures, systems will improve, economies of scale will take effect, and additional competition will all help to reduce these additional costs. Nevertheless, even with higher operating expenses, co-living is earning enough of a premium above traditional multifamily to absorb these additional costs and still deliver outsized returns. This is one of the

main reasons investors and developers are attracted to co-living and why the product type has seen an increase in supply.

### **2.2.2 Public Partner Support**

For co-living to succeed, tenants, investors, and lenders must all accept the concept. However, there is another player that has contributed to the growth of contemporary co-living – local governments. Many American cities currently have zoning and building codes that limit or prevent the development of co-living properties. Most have minimum unit sizes and a cap on the number of unrelated adults that can room together under the same roof (Badger 2013). In New York City, only up to three unrelated roommates are allowed (Chen 2018). However, public officials have begun to see a need to revise these policies in order to address the rapid growth in demand for housing that has caused prices in certain major cities to skyrocket. In 2012, the mayor of New York City, Michael Bloomberg, announced his plans for the “adAPT NYC” competition, where developers were invited to submit proposals for a new micro unit development in the Kips Bay neighborhood of Manhattan. The restriction limiting average apartment size in new buildings to at least 400 square feet was waved, and developers could create units as small as 250 square feet (Allen 2012). In his statement announcing the competition, mayor Bloomberg said, “[p]eople from all over the world want to live in New York City, and we must develop a new, scalable housing model that is safe, affordable and innovative to meet their needs” (Allen 2012). This revealed a desire for cities to try new creative solutions to address the housing crisis and created an opportunity for co-living.

In 2018, the New York City Department of Housing Preservation and Development took steps towards embracing co-living by announcing the pilot program, ShareNYC. The department requested proposals for private development sites to create co-living units for mostly income-restricted and very low-income renters (S. Chen 2018). One year later on the other side of the country, San Jose, California became the first city to approve a new co-living zoning category. This enabled Starcity, a San Francisco base co-living company, to gain entitlements and start construction of their 803-bed ground-up development project (Bitters 2019). If these changes

indicate a growing acceptance of co-living by city governments, co-living developers will be encouraged to increase the rate of supply.

Even though many cities are open to and moving towards co-living, there are still regulatory challenges affecting its growth. Washington, DC only has one reference to co-living in its Comprehensive Plan, which reads:

*“Encourage cooperatives, shared housing, and co-housing (housing with private bedrooms, but shared kitchens and common areas) as a more affordable alternative to condominiums. Ensure that such housing is appropriately regulated to avoid adverse effects on surrounding residences and neighborhoods.” (DC Office of Planning 2011, 5-16)*

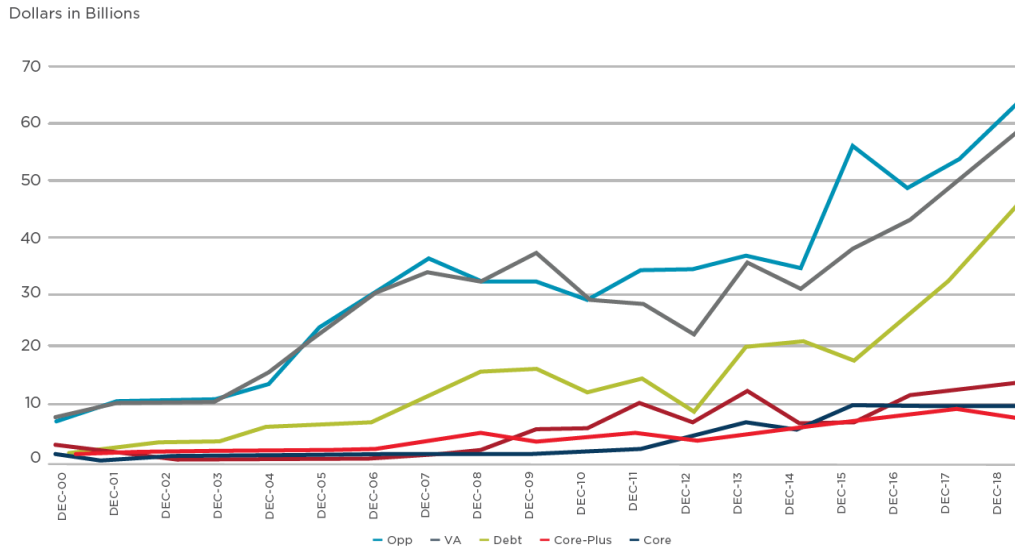
This section does not specifically address co-living yet appears to be generally supportive of the concept. Nevertheless, certain zoning codes are still restrictive and have proven to be an obstacle. This was demonstrated by the issues co-living company Common had with their second Washington, DC project. A neighborhood association successfully appealed the project’s building permits based on the fact that it would violate the zoning code which states that only a maximum of six unrelated people can live together *“as a single house-keeping unit”* (Varga 2018). Clarifications or exceptions to zoning regulations in Washington DC and other cities will need to be implemented in order to reduce uncertainty around new co-living projects.

### **2.2.3 More Capital Seeking Opportunities**

Another reason why the supply side of co-living has seen such growth in recent years is the availability of capital. Since 2009, the United States has experienced a huge wave of real estate appreciation. As a result, a vast amount of capital has entered the market. A Cushman & Wakefield report states, *“Real estate transaction volumes in 2018 were the strongest on record reaching US\$1.75 trillion; a 4% year-on-year (y/y) growth and surpassing previous highs of US\$1.68 trillion in 2017”* (2019a). Even though there have been apprehensions about the yield curve inverting, trade tariffs, and a general slowdown in the global economy, investors are still confident about the strength of commercial real estate. In a recent survey by Deloitte of 500 global investors, 97% stated they planned to *“increase their capital commitment for CRE over*



*the next 18 months*” and the United States is the most preferred market in terms of inbound capital (2018b, 2). The table below shows the amount of capital committed by investors targeting North American commercial real estate which has yet to be spent.



*Exhibit 2.11: Dry Powder Targeted at North American Commercial Real Estate by Strategy (Cushman & Wakefield 2019b)*

With increasing levels of capital searching for investments, the market has become very competitive and finding viable opportunities is challenging. As a result, investors have been diversifying their portfolios by allocating more capital to new and emerging business models. Deloitte found that investors were planning on increasing their investments in niche or nontraditional properties by 13% in the next 18 months (Deloitte 2018b). The following graph illustrates that this trend has been occurring over the last decade.

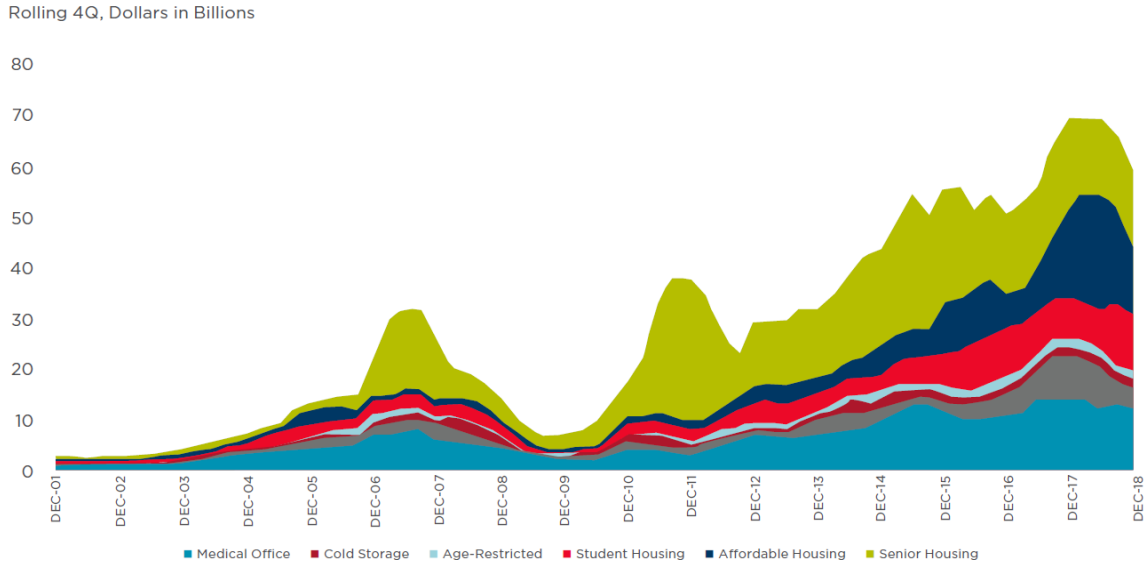


Exhibit 2.12: Niche Asset Investment Sales Volumes (Cushman & Wakefield 2019b)

Organizations that are not usually classified as traditional real estate investors also see potential in this industry and are searching for opportunities to capitalize on it. Tech investors and venture capital firms have invested significantly more capital into real estate property technology, also known as PropTech, than ever before. In 2012, only about \$221 million was invested in PropTech globally. By 2016, that number had increased to \$2.665 billion (CB Insights 2017).

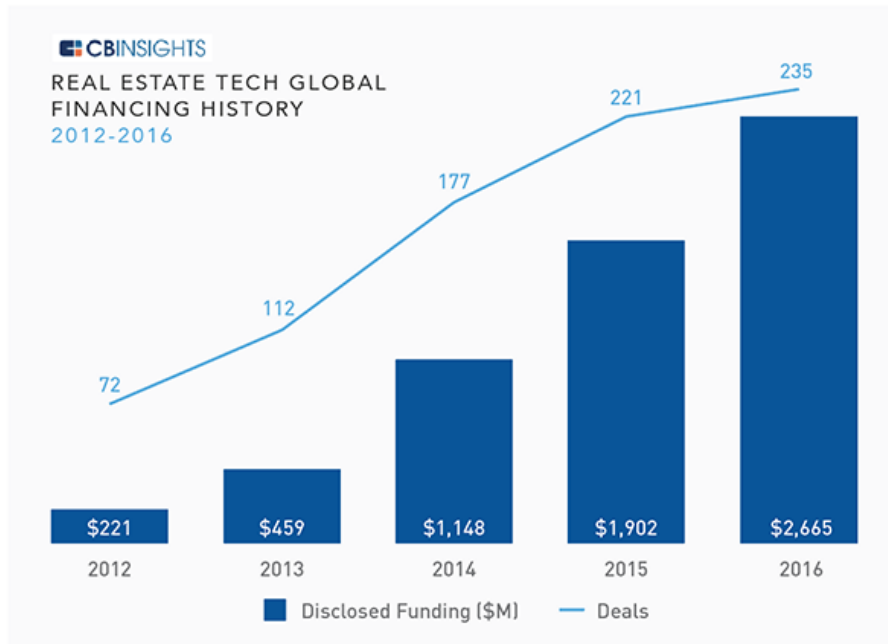


Exhibit 2.13: Real Estate Tech Investments (Deal and Dollars), 2012-2016 (CB Insights 2017)

All this data indicates that more investors view the United States real estate industry as a great investment opportunity and are willing to consider unconventional product types. Co-living is an attractive option for these investors and many co-living companies have already benefited. In 2017, Common was able to raise \$40 million of series C venture funding from a venture and growth equity investment firm (Chernova 2017). In 2019, Medici Living Group's co-living subsidiary, Quarters, raised \$300 million to develop 1,500 units across the United States (Jeans 2019). As co-living companies continues to prove their product can generate substantial tenant demand and yield high returns, investors will move more capital into this niche and further drive supply growth.

# Chapter 3 : Co-Living Business Models

This chapter will analyze the types of business models that are being practiced by co-living companies active in the United States today. First, we will outline the fundamentals of the Owner Operator model, followed by descriptions of the two types of Operator models, one using a Management Fee and another using a Master Lease. Of the companies we interviewed and researched, the majority are pursuing an asset-light strategy and not owning/developing their own properties. While this business model allows for rapid growth and does not require the same level of capital, it does miss out on much of the value added to the asset through the operation of co-living. At the end of the chapter we profile the co-living companies currently active in the United States.

## 3.1 Owner Operator

In this model, the co-living company is both the developer, owner, and operator of the building. These companies can profit from managing every part of the value chain, but a lot of capital is required. Below are the companies who are pursuing this model at various scales:

The Collective	Treehouse
Quarters*	OpenDoor*
Starcity	Here&Now
X Social Communities	Zoku

\*Currently pursuing both models.

Being both the owner and operator allows for more control of the end product, assuming that, at the corporate level, the company is not substantially controlled by a venture capital partner. For ground-up developments, this ensures that the architecture, programming and interior design of

the building are determined by the co-living company and not another entity. In addition, integrating the investment, design, development and operations team into all phases of the project's development results in a product that is purpose-built. For companies such as The Collective, aligning all aspects of the product to the company thesis is critical for the brand, especially as it tries to define the product type as well as establish itself as the dominant player. When we spoke with Lucas Umbreit, an Investment Associate at The Collective, he said, *"the combination of an operations company and a property company shows that our investment thesis is in alignment, which is very attractive to investors."* At the time of writing, The Collective operates one major ground-up development, Old Oak in London, and is developing several other ground-up developments in London, Germany, New York, Chicago and Miami.

The funding requirements to develop a new building in a gateway city are significant, requiring access to capital and agreements with equity investors and lenders. From our interviews with co-living developers we learned how these companies capitalize their projects. According to Mo Sakrani, CPO at Starcity, they fund their developments with a capital stack similar to conventional multifamily developers, parallel to pursuing venture capital on a corporate level. Their projects typically have a 65% debt to equity ratio, with Starcity as the sponsor putting up 10% of the required equity. Similarly, The Collective typically targets a 70/30 debt to equity ratio and funds 10% of the equity. Mo Sakrani claimed that the sources of equity are changing as the product type matures. Originally the majority of equity came from high net worth individuals, but now boutique and institutional private equity companies are starting to provide capital. Debt is raised from institutional lenders, although the capital comes at a slight premium when compared to multifamily deals. Currently The Collective and Starcity are raising capital on a deal-by-deal basis, but to enable more rapid growth, The Collective is currently pursuing a programmatic raise of \$200-300 million in order to fund acquisitions and pre-construction costs on multiple projects.

At a small scale, co-living companies are leveraging family resources and personal connections to fund their smaller deals. For example, Reza Merchant, Founder and CEO of The Collective, initially took out a £1.8 million loan on his family's house to finance one of his early acquisitions which was a small apartment building in London that he transformed into co-living. OpenDoor, founded in 2013 by Jay Standish and Ben Provan in Oakland, originally signed master leases on

houses which does not require the same level of capital, but have since evolved to develop privately financed ground-up projects.

Companies like Starcity and The Collective are highly leveraged in their deals because they are focused on expansion and do not necessarily have the balance sheet to fund a larger share. The downside risk of such a capital stack is high if the project does not meet its financial goals, but the upside is magnified as less cash is initially invested. Lenders are always looking at the downside risk and can therefore be very conservative in their analysis. It can be difficult for lenders to find comfort through precedent, even considering the successful management buyout of The Collective's Old Oak property in London. Unlike conventional product types which investors and lenders understand, co-living is still new. In their presentations to capital partners, co-living companies must first explain the project's business model, and their interpretation of co-living, before delivering a more conventional pitch about the project's returns.

### **3.2 Operator**

More common than the owner-operator model is the operator business model. Within this model are two distinct variations. First, there is the management fee model and second, there is the master lease model. This sub-chapter will explain both models. Many co-living companies pursuing the operator model intend to create a scalable cash flow business, while others intend to create a well-performing operating company before pursuing ground-up developments as the sponsor once they have the necessary capital. In all cases, co-living operators will partner with an owner or developer through a master lease agreement or a management agreement. On the following page are the co-living companies predominantly pursuing the operator business model at the time of writing.

Common	Tribe
Ollie	Outpost Club
Roomrs	Hacknsleep
WeLive	Goal House
Outsite	Urbanests
Bungalow	Aviato Club
Venn	HubHaus
Node	PodShare
Roam	Dwell
Quarters	OpenDoor

### 3.2.1 Management Agreement

In this model, the co-living company signs a management agreement with a landlord and operates the building for a fixed percent of gross revenues while the landlord is able to benefit most from any growth in rent. The co-living company will re-engineer the leasing structure of the building to rent individual bedrooms instead of units, change the marketing approach, bring in community hosts and fully furnish the apartments. The management fees charged by co-living companies are typically higher than a traditional management company, often charging a 5% of NOI base fee according to Charles Kuntz, Innovation Officer at Hines. This high fee can discourage a lot of owners, but Roy Alpert, an advisor and investor with the co-living company Roomrs, claimed that their landlord partners can see as much as 20-25% in additional cash flow due to the higher price per square foot, higher occupancy rates and direct-to-consumer approach.

The co-living company, Common enters into long-term property management agreements with building owners, similar to the model practiced in the hotel industry where the management company receives a flat rate management fee until a return threshold is met. After that, the

management company receives a percentage of the returns. The parallels with the hotel industry do not end there. Like a hotel management company such as Marriott, Common will partner with a developer as an advisor during the design phase. This ensures that the developer produces a purpose-built, co-living community based on Common's recommendations and specifications. Brian Lee, Senior Director of Real Estate at Common, spoke to this similarity in an interview with Luft, the travel and tourism consultancy. *"Common's trajectory is very similar to that of a hotel operator. If you think of where the hotel industry was in the 1950's and 1960's, I think that's where co-living is today. The hotel industry several decades ago was very fragmented, it wasn't branded, but now, over the past 30 or 40 years you've seen the rise of megabrands such as Hilton, Hyatt and Marriott. I think that in residential there is a need for that so Common is trying to create a residential brand that serves renters at lots of different stages of their lives"* (Bujarski 2018). This model has also been practiced by Starcity for their C1 development in Los Angeles with the developer California Landmark Group, and by Ollie for their ALTA+ project in Long Island City with Simon Baron Development and Quadrum Global.

Roomrs, founded in New York City in 2017, is a good example of a management fee co-living company. They partner with landlords to manage individual or groups of apartments within buildings rather than the entire building, allowing them to scale very quickly. Funding is provided by a private equity firm that specializes in real estate service companies, as well as a series of active investors such as Roy Alpert.

Roomrs' product strength is the convenience of their platform, more than the community or enviable amenities. This clearly has appeal, which is reflected in the effective 100% occupancy rate across all their rooms as well as an active waitlist. The average age of their tenants is 26 and Roomrs believes that young professionals in their early to mid-twenties are the perfect demographic because they do not own furniture and want a place that is convenient, reliable and safe. Instead of redesigning room layouts and conducting extensive renovations, they will redecorate the apartment, adding new paint, wallpaper and furniture as well as bedding and kitchen items. These management agreements typically have a 5- to 15-year term. They operate 400 rooms in 160 apartments throughout Brooklyn and Manhattan and aim to have 1,000 rooms in New York City by the end of 2019, with their ultimate goal being 10,000 rooms.



Roomrs wants to establish a consistent and robust cash flow which only requires a small internal team with low overhead. Roy claimed that there are no plans to own properties under the Roomrs brand, but they would consider launching a separate company which would acquire existing properties for the purposes of co-living development. One key investment that they have made is in a furniture warehouse adjacent to New York City. This strategy has allowed them to replace furniture quickly, maintain a consistent aesthetic in their apartments, and order discounted items in bulk. Roy reported that the capital expenses in Roomrs' apartments are less than conventional multifamily, because residents are not moving furniture in and out, which causes wear and tear on apartment buildings. All capital expenses are split evenly with the landlord and turnover costs are \$100 per room on average.

For these companies, scale is important for their bottom line. As they are working for a fee, rapid expansion is critical, as is maintaining a low overhead. Like the hotel companies they are imitating, the efficiency of operations will be critical to their success.

### **3.2.2 Master lease**

A master lease is common in many commercial real estate sectors. The agreement can work with almost any product type that is generating consistent cash flow, such as apartment buildings, mobile home parks, or retail stores. This type of agreement is popular among co-living operators because, in a master lease agreement, the lessee gains equitable title to the property, so all of the profits and tax benefits go to the operator. The owner also benefits as the operator is responsible for everything involved with the property including management, leasing, maintenance, utilities and taxes, while the seller remains the legal owner of the property and receives monthly lease payments from the operator. Depending on the particular agreement, occasionally the operator has the option to purchase the property after an agreed-upon number of years.

Master lease agreements gives the co-living company a lot of control over the physical asset, allowing them to arrange apartments how they see fit. However, the main benefit for the co-living operator is the ability to retain all excess cash flow. After the monthly lease payment and operational expenses are paid, the operator receives all the profit. Co-living operators will increase the NOI on the property through upgrades and increased bedroom count, and profit from

all the added returns. The agreement gives the owner the security of consistent, assured cash flow and, while they will not share in any of the upside, they also will not share in any of the downside if the project performs poorly.

In our interview with Jacob Shapiro, Director of Business Development at Outpost Club, he said that, despite it being a high revenue business, they target over one hundred units per city in order to achieve their targeted financial returns. As a result, Outpost Club prefers to sign master leases with landlords of mid-rise multifamily buildings who can give them a large number of units to operate.

It remains to be seen if one of these models succeeds over the others. If we compare the co-living business to the hotel business, then the management fee model will likely continue to scale the fastest and may be the dominant model in the future. It is also possible that, like hotels, we will witness the rise of the franchise model, whereby developers are constructing properties per the specifications outlined by a major co-living company. Brian Wang, Director of Investments at The Collective, thinks that while there may only be one or two real winners in the operator model, there will be plenty of opportunity for ground-up co-living developers to define the product type and capture the market. For now, each of these models have their advantages and disadvantages. The owner-operator model is defining the product type as well as benefiting from all the value created, while the operator-only models are establishing a customer base quickly and can focus on providing customers with a more convenient, reliable and polished product through partnerships with conventional developers.

### **3.3 Profiles of Co-Living Companies in the US**

Below are profiles of active co-living companies within the United States. Included in this list are foreign companies who have expanded to the US as well as domestic companies. Information for these profiles was gathered from interviews, company websites, and reports.

## Common

**Company History:** Founded in 2016 in New York City by Brad Hargreaves, at the time of writing Common is the largest co-living operator in the US. Common plans to spend more than \$300 million building ground up developments in Philadelphia, Atlanta, San Diego and Pittsburg. In December 2017, Common announced that it had closed a \$40 million Series C financing round, led by Norwest Venture Partners, bringing its total funding to over \$60 million.

**Business Model:** Operator

**Scale:** Approximately 700 beds, 18 locations

**Current Locations:** New York City, San Francisco, Oakland, LA, Seattle, Washington D.C., Chicago

**Pipeline:** Philadelphia, Pittsburg, San Diego, New Orleans, Newark, Atlanta

**Cost:** \$1340 - \$2150

**Room Typologies:** Private rooms in shared apartments with private or shared bathrooms.

**Length of Lease:** Varies by building and city. Most tenants are on six-month or year-long leases.

**Perks:** Bedrooms come with a bed, nightstand, lamp, and linens. Utilities, cable, washer/dryer, weekly common space cleaning, Wi-Fi, pots and pans, basic supplies such as toilet paper, paper towels, cleaning products, and garbage bags are included. The company is open to residents moving between buildings and is flexible with move-in dates for roommates, allowing residents to move in on different days, with rooms taken on a first-come, first-served basis.

**Community Factor:** Regular events are planned by Common and residents. Residents can communicate via Slack or the Common app, which enables community members to view and sign up for events organized by Common or create their own and invite members of the community.

## Ollie

**Company History:** Founded in New York City in 2012 by brothers Andrew and Christopher Bledsoe, Ollie raised \$15 million in its series A funding round in 2018, led by Aviva Investors.

Among other projects, they operate 14 floors of ALTA, a new ground-up development in Long Island City.

**Business Model:** Operator

**Scale:** Approximately 650 beds, 3 locations

**Locations:** New York City, Pittsburg

**Pipeline:** Los Angeles, Boston and more.

**Cost:** \$1,260 - \$2,775 a month.

**Room Typologies:** Private studios and private bedrooms within shared apartments.

**Length of Lease:** One Year. When possible, Ollie tries to offer shorter-term leases.

**Perks:** All units furnished with high-end, modular furniture, weekly housekeeping, towel and linen service, premium TV programming, and Wi-Fi. Residents of ALTA+, located in a new high-end rental building in Long Island City, can use the gym, indoor lap pool, indoor and outdoor lounges, barbecue areas, event space, co-working lounge, a game hall, and all other amenities located within the building.

**Community Factor:** Regular events are organized by an in-house community manager.

## The Collective

**Company history:** London-based company was founded by Reza Merchant in 2011 after he graduated from university in London and was disappointed by the living options available to him. After operating many smaller properties, in 2016 The Collective opened Old Oak, which is a purpose-built ground-up development with 546 beds. At the time of writing, The Collective has raised approximately \$700 million to fund its global expansion.

**Business Model:** Developer / Operator

**Scale:** Approximately 750 beds, 7 locations

**Locations:** London

**Pipeline:** Frankfurt, Berlin, New York City, Chicago, Miami, Dublin

**Cost:** Approximately £1000 - £2000

**Room Typologies:** Compact private bedroom with private bathroom.

**Length of Lease:** Short-stay and long-stay options available

**Perks:** All rooms are fully-furnished and members pay an all-inclusive monthly fee.

Membership includes access to The Collective's member app, the service of a 24-hour concierge plus onsite amenities such as a gym, spa, cinema, food & beverage, laundry and co-working space.

**Community factor:** Events are created for members at all times of day, from morning yoga sessions to evening live music events. The Collective's broader mission is to provide solutions to urban issues across the globe. For example, The Collective Foundation supports small businesses through an accelerator program, and Old Oak in London even provides units to the homeless population. In all their properties common areas are thoughtfully-designed and members are encouraged to create their own events.

## Starcity

**Company history:** Founded in San Francisco by a team of four, this VC-backed company raised \$16.5 million in their Series A fundraising in March 2018. They advocate for diversity in their communities and seek to create sustainable urban housing aimed at the middle class. They are pursuing ground-up developments and in Spring 2019, gained approval for an 800-unit, 18-story co-living building in San Jose.

**Business Model:** Developer / Operator

**Scale:** Approximately 100 beds, 8 locations

**Current Locations:** San Francisco, Los Angeles

**Pipeline:** San Jose

**Cost:** Approximately \$1845 - \$4000

**Room Typologies:** Private bedrooms with shared bathrooms and common area, private bedrooms with private bathroom, and private bedrooms in shared suites.

**Length of Lease:** 3-, 6- and 12- month leases are offered.

**Perks:** Bedrooms include a dresser, bedside table, shelves, and curtains. Much of the furniture is custom-designed, including the bedframe for optimal functionality and longevity.

**Community factor:** Each building has community managers that plan events and members are also encouraged to plan gatherings for themselves. In addition, Starcity engages with local

community groups, small businesses and nonprofit leaders in each of their neighborhoods to try and foster mutually beneficial partnerships.

## **X Social Communities**

**Company history:** An offshoot of the nationwide development company, Property Markets Group (PMG), X Social Communities (XSC) was launched in 2016. In partnership with Raven Capital Management, a New York-based private equity firm, PMG has committed \$300 million in equity to building X Social Communities, which it described as a multifamily housing division. XSC has 10,000 units in the pipeline nationwide, according to Noah Gottlieb, a principal at PMG (Solomont 2018). All buildings are ground-up developments.

**Business Model:** Developer / Operator

**Scale:** Approximately 1000 units, 3 locations

**Locations:** Miami, Chicago

**Pipeline:** Fort Lauderdale, Denver, Orlando, Phoenix, Oakland

**Cost:** Varies by location

**Room Typologies:** Private apartments and private bedrooms within shared apartments.

**Length of Lease:** One Year

**Perks:** Bedrooms come with a bed, linens, built-in closet and private bathroom. Common areas furnished with a sectional couch, television, coffee table, cutlery, cookware and are cleaned every week.

**Community factor:** XSC hosts daily social events for residents as well as having a generous number of amenities. For example, at X Miami, they have a large gym and fitness studio, sky dog park, screening lounge, two-level coworking lab, pool deck and lawn with covered bar, grilling entertainment patio, self-service mini-market, picnic courtyard, lobby coffee and cocktail lounge that is open to the public.

## Quarters

**Company history:** Founded in 2012 and a subsidiary of Germany-based Medici Living Group, Quarters announced in late 2018 that it had raised \$1.14 billion, backed by Luxembourg-based CoreState Capital Group. The money will be spent over the next three years to expand in Europe and the US. Quarters opened its first US location in New York in 2017, on the Lower East Side. Quarters started renting at an East Village location in March 2018, and in February 2019 announced plans for a Bedford-Stuyvesant location with 23,000 SF of residential space. They pursue ground-up developments in addition to 10 - 20 year master lease agreements with owners.

**Business Model:** Developer / Operator and Operator

**Scale:** 1,700 beds, 15 locations

**Locations:** New York, Chicago, Berlin, Philadelphia, Rotterdam, Stuttgart, The Hague, Munich, Hamburg, Frankfurt, Amsterdam and Dusseldorf

**Pipeline:** Washington, D.C., San Francisco, Los Angeles, Boston, Philadelphia, Denver, Austin, Seattle and Miami

**Cost:** Approximately \$1,079 - \$2,799

**Room Typologies:** Private bedrooms with shared bathrooms, private studios and private one-bedroom units.

**Length of Lease:** Varies by location. Leases are extendable.

**Perks:** Wi-Fi, electricity, heat, cable and Netflix, laundry, casper mattresses, bed linens, and high-end appliances. Built-in technology allows keyless entry to the apartments and rooms, and renters can operate doors, light, heat, and blinds through an app. Coworking spaces, communal kitchens, recreation rooms, movie rooms, bike storage, rooftop decks and grills are provided.

**Community factor:** Weekly events and additional networking and entertainment opportunities are provided. The Quarters app enables residents to book services, communicate with other members, and get tips on local news and events.

## Zoku

**Company history:** The first Zoku micro-loft hotel opened in Amsterdam in June 2016, and co-founder Hans Meyer plans to expand internationally. Within the next 10 years, the team plans to

open 50 Zoku locations around the world. To date, Zoku has been privately funded, but crowdfunded €300,000 in just 21 minutes from people in its target audience.

**Business Model:** Developer / Operator

**Scale:** 133 beds, 1 location

**Locations:** Amsterdam

**Pipeline:** New York City, Chicago, Boston, Seattle and Paris

**Cost:** Starts at €130 per night, €165 average-daily-rate

**Room Typologies:** Private micro-lofts

**Length of Lease:** 1 night or more

**Perks:** Each apartment is turn-key ready and fully-equipped with a Workspace with supplies, full kitchen with coffee maker, separate sleeping space with a king-sized bed, living area, large kitchen table, private bathroom, 24/7 check-in, you can customize the art on your walls. Tenants get access to all of Zoku's social spaces including the coffee bar, game room, kitchen, coworking spaces, music corner, and treatment room.

**Community Factor:** Weekly events are curated by Zoku's community managers.

## Bungalow

**Company history:** Founded in early 2017 by CEO Andrew Collins in San Francisco, Bungalow signs minimum 3-year master lease agreements on existing properties, renting out houses and small multifamily properties, and guaranteeing owners high occupancy levels. They raised \$14 million in their Series A round led by Bay Area based investor Khosla Ventures. Bungalow has also raised a \$50 million debt facility to fuel its growth. Unlike Common and Ollie, Bungalow prefers smaller, existing properties to large new developments.

**Business Model:** Operator

**Scale:** 2000+ members, 500+ homes

**Locations:** Bay Area, Boston, Chicago, Los Angeles, New York City, Philadelphia, Portland, San Diego, Seattle, Washington DC

**Pipeline:** International

**Cost:** Varies by location, ranges from \$750 - \$2500 for 12-month lease. Cost is affected by lease length.



**Room Typologies:** Private bedroom with shared bathroom

**Length of Lease:** 4- to 18- month leases available

**Perks:** Monthly house cleaning, timely response and resolution of maintenance requests, high-speed internet, common area furnishings, all home utilities, items and services that ensure the safety and security of each home, and any other furnishing or service determined necessary by Bungalow.

**Community Factor:** Bungalow hosts regular events for its members, in all locations.

## **Outpost Club**

**Company history:** Outpost Club was created in 2016 by three Ukrainian immigrants after they experienced first-hand the challenges of finding housing in New York City as international renters. Their complaints included credit checks, background checks, scams, agent commissions, paying first and last month's rent, and more.

**Business Model:** Operator

**Scale:** Approximately 200 beds, 11 locations

**Locations:** New York City, San Francisco

**Cost:** Rates range from \$690 to \$2,190, depending on the length of stay, type of room, and availability.

**Room Typologies:** Private apartments, private bedrooms within shared apartments and shared bedrooms.

**Length of Lease:** 1 month minimum

**Perks:** New appliances and furnishings, keyless entry, Nest thermostats and security, regular housekeeping, household essentials are provided. Bedrooms are set up with bed linens, towels, and extension cords. Apartments have communal living rooms, kitchens and co-working spaces.

**Community factor:** Outpost Club offers multiple events per month that are free to members.

## Roomrs

**Company history:** Roomrs was founded in 2017 by CEO Or Goldschmidt after he spent several years of working in New York real estate. Roomrs has so far raised \$2.4 million in their seed funding phase.

**Business Model:** Operator

**Scale:** Approximately 500 beds, aiming for 1000 beds by end of 2019.

**Locations:** New York City

**Cost:** \$1,000 - \$4,000

**Room Typologies:** Furnished room in a two, three, or four-bedroom apartment, with studios also available.

**Length of Lease:** 3-, 6- or 12-months

**Perks:** Furnishings, Wi-Fi, utilities, bedding and towels, kitchen utensils, monthly housekeeping are included, most units have washers and dryers and dishwashers. Some buildings are equipped with smart technology such as keyless entry. Aside from shared kitchens, bathrooms, and living spaces, some buildings have communal spaces such as rooftop decks and furnished basements.

**Community factor:** Events for residents that are also open to the public.

## Dwell

**Company history:** Dwell currently operates two full co-living townhouses in New York City. The original Dwell co-living space is in a restored brownstone in Crown Heights and the second location is Dwell St. Marks, which is also a fully restored brownstone.

**Business Model:** Operator

**Scale:** Under 20 units, 2 locations

**Location:** Crown Heights and Prospect Heights, Brooklyn.

**Cost:** \$1,300 - \$2,000

**Room Typologies:** Private bedrooms within shared townhouses.

**Length of Lease:** Three months with flexible lease terms available.

**Perks:** Wi-Fi and utilities, Netflix and Hulu, an Amazon Echo, cleaning service, in addition to basics such as bread, eggs, juice, olive oil, snacks, and breakfast. In addition to common living and kitchen spaces, both Dwell locations have outdoor spaces.

**Community factor:** Each building has a live-in house manager who manages events and what to spend the discretionary budget on.

## **Node**

**Company history:** Node was founded in London in 2016 by Canadian Anil Khera, who previously served as a Managing Director at The Blackstone Group in London.

**Business Model:** Operator

**Scale:** Approximately 75 units

**Locations:** New York City, Los Angeles, Dublin, London, Manchester

**Pipeline:** Toronto, Seattle

**Cost:** Approximately \$1,200 - \$3,000

**Room Typologies:** Private studios and private bedrooms within shared apartments.

**Length of Lease:** 6 or 12 months

**Perks:** Laundry, Wi-Fi, smart-home features, SMEG refrigerators, mid-century modern furniture, access to outdoor space with a grill and a fire pit.

**Community factor:** Node has a "community curator" for every city who plan events for tenants and provides volunteering opportunities. Node also offers a roommate-matching service.

## **WeLive**

**Company history:** An offshoot of the co-working company WeWork, WeLive opened its first location in the spring of 2016 at 110 Wall St.

**Business Model:** Operator

**Scale:** 416 units, 2 locations

**Locations:** New York City and Crystal City, VA

**Pipeline:** Seattle

**Cost:** Varies by location, \$1,800 - \$3,275

**Room Typologies:** WeLive offers furnished studios, and rooms in 2-bed, 3-bed, and 4-bedroom apartments.

**Length of Lease:** Short-stay and long-stay options available.

**Perks:** Stocked kitchen, towels and bedding, flat-screen TVs, monthly cleanings, a front desk to receive mail and packages, and an on-site community manager. There is also a laundry/arcade room, reading lounges, media lounges equipped with Apple TV, premium cable, an exercise and screening room, and fully-stocked communal kitchens with brewed coffee and tea.

**Community factor:** WeLive offers lounges and a bar, plus regularly scheduled events and mixers, and residents can message each other on the WeLive mobile app. Gatherings include happy hours, cooking classes, and health and fitness classes.

## Tribe

**Company history:** Started in 2015 and previously known as Founders House, the company changed its name to appeal to a wider demographic beyond their initial target market of budding entrepreneurs within the tech industry. That being said, the company's character is still rooted in the original concept of being a startup incubator.

**Business Model:** Operator

**Scale:** 220 members, 8 locations

**Locations:** Bedford-Stuyvesant, Boerum Hill, Bushwick, Ditmas Park, Prospect Lefferts Gardens, and Williamsburg (all New York City) and San Francisco.

**Cost:** \$750 - \$1200+

**Room Typologies:** Shared bedrooms and private bedrooms within shared apartments

**Length of Lease:** Minimum 2 months

**Perks:** Utilities, Wi-Fi, Netflix, Hulu, HBO, laundry detergent, and cleaning included. Bedrooms come with a bed, pillows, sheets, and hangers.

**Community factor:** Each residence house has a designated house leader, and weekly Sunday dinners. There is a significant emphasis on group activity, and members are expected to get to know each other.

## Goal House

**Company history:** Founder Ben Smith (who also started Tribe co-living) started the off-shoot in 2018 to create a tight-knit community where people could support each other in their life goals and hold each other accountable.

**Business Model:** Operator

**Scale:** One townhouse, number of rooms not available

**Locations:** Brooklyn

**Cost:** Starts at \$800 (shared room) and \$1,200 (private bedroom)

**Room Typologies:** Shared bedrooms and private bedrooms within a shared house

**Length of Lease:** Minimum 3 months

**Perks:** Bedrooms and common areas are furnished and equipped with the basics, including a memory foam mattress, kitchen supplies, toilet paper, a washer/dryer, and a cleaning service.

**Community factor:** Community is at the core of Goal House's mission. The company hosts "goal sessions" for members in addition to networking events, dinners and casual game/movie nights.

## Outsite

**Company history:** Founded by Emmanuel Guisset in Santa Cruz in 2015, Emmanuel wanted to provide a place for digital nomads to both live and work across the globe.

**Business Model:** Operator

**Scale:** 18 locations, approximately 150 beds

**Locations:** Los Angeles, San Francisco, Venice Beach, Lake Tahoe, Austin, Santa Cruz, Puerto Rico, Bali, Lisbon, Swiss Alps, Costa Rica, Santiago, Biarritz

**Pipeline:** Plan to open a location every 2 months in 2019

**Cost:** Rates are different for Outside members versus non-members and vary by location. (In addition to a discount on rates, members pay \$249 annually for curated perks, access to exclusive community channels, and a network of professional and travel experts.) In New York City, the monthly cost for a shared room is \$1,500 for members and \$1,800 for non-members; a private room is \$2,300 a month for a member, while non-members pay \$2,800.

**Room Typologies:** Private bedrooms with shared bathroom, and private apartments

**Perks:** Outside features high-speed Wi-Fi in all its locations, as well as fully-equipped co-working spaces. Rooms are full-furnished with storage and linens provided. Kitchens are well equipped and are stocked with the basics.

**Length of Lease:** 2 night minimum

**Community factor:** With the help of a community manager, Outside hosts weekly events in-house, such as dinners or breakfasts, as well as off-site events.

## Venn

**Company history:** Founded in 2016 by Chev Avni, David Sherz and Or Bokobza in Tel Aviv, Venn also has locations in Brooklyn and Berlin. The company's mission stresses community activism and it says its financial model reinvests revenue back into the neighborhood through local small business support, cultural and creative projects, educational opportunities, safety initiatives, and programs to minimize displacement. While co-living is at the center of their business, they also operate buildings in their neighborhoods with other uses. In June 2019, Venn announced that they had raised \$40 million in their Series A round, with investors such as Pitango Venture Capital, Hamilton Lane on behalf of the New York State Common Retirement Fund, and Bridges Israel. They aim to bring Venn to 100 cities by 2030.

**Business Model:** Operator

**Scale:** 500 members, 1000+ units and many shared spaces

**Location:** Tel Aviv, Brooklyn, Berlin

**Pipeline:** Global

**Cost:** Start at \$1,100

**Room Typology:** Private apartment or private rooms in shared 2-3 bed apartments.

**Length of Lease:** No minimum stay, but tenants are encouraged to sign a 1-year lease.

**Perks:** Furnished or unfurnished rooms, Wi-Fi, washer/dryers, common space cleaning, storage, gardens or rooftop decks.

**Community Factor:** Venn publishes an annual Impact Report which analyses the effect of their properties on residents and the surrounding neighborhood. Through a series of partnerships, members can use Venn satellite spaces within the neighborhoods such as a co-working spaces,

cafes, galleries and event spaces. In Tel Aviv, the company has apartments in eight buildings all within a few blocks of each other and Venn hopes that residents of each will connect and commingle at apartments and recreational spaces to create genuine community. Organized events are common and include live music, workshops, yoga, and gatherings around neighborhood happenings. A proprietary app enables members to manage apartments, order and pay for local services, create and join local activities, and connect with each other.

## Aleph

**Company history:** Aleph was founded in 2018 and operates in New York City.

**Business Model:** Operator

**Scale:** 7 locations, number of beds unknown

**Locations:** Williamsburg, Bedford-Stuyvesant, Bushwick, Stuyvesant Heights (all Brooklyn)

**Pipeline:** Manhattan and UK

**Cost:** Starts at \$1,250 but you can pay more to have a private bathroom.

**Room Typologies:** Private bedrooms

**Length of Stay:** Minimum 30 days

**Perks:** Furnished apartment, utilities, Wi-Fi, an equipped kitchen, cleaning, laundry facilities, toilet paper and regular maintenance.

**Community factor:** Community managers plan events for members and members also plan gatherings themselves.

## Urbanests

**Company history:** Previously known as Latitude 38 Housing Services, Urbanests strives to be a leading provider for affordable housing options in San Francisco. They work with universities, corporations, and boot camps, with the goal of finding students, interns, techies, young professionals, and others a convenient, affordable accommodation option in San Francisco.

**Business Model:** Operator

**Scale:** 14 locations, number of rooms unknown

**Locations:** San Francisco

**Cost:** Shared bedrooms start at \$545/month and private rooms start at \$1095/month. Traditional apartments are also available starting at \$2095/month.

**Room Typologies:** Shared bedrooms, private bedrooms in shared apartments and traditional apartments.

**Length of Stay:** 3, 6, 9 or 12 months

**Perks:** Bed linens are provided, as well as basic kitchen supplies. Utilities, Wi-Fi, housekeeping is included.

**Community factor:** A house-manager is on call when needed but all community activities are initiated organically by the residents.

## **OpenDoor**

**Company history:** Founded by Jay Standish and Ben Provan in 2013 in Oakland, the two graduate school friends decided to sign a master lease on a house and develop one of the first co-living buildings in the United States.

**Business Model:** Developer / Operator

**Scale:** 8 locations, 94 units

**Locations:** Oakland, Berkley, San Francisco

**Pipeline:** Portland, OR

**Cost:** \$750 - \$2300

**Room Typologies:** Private bedrooms with shared bathrooms and private bedrooms with en-suite bathrooms

**Length of Lease:** One year minimum

**Perks:** Each OpenDoor location is in a large, retrofitted house with common areas available to all members.

**Community Factor:** OpenDoor's mission is to foster community between members, and their mission statement lays out their goals on their website. The founders say, "*We do not think of ourselves as a real estate company, rather we are in the business of human experience – curating communities and spaces that enable a lifestyle rich with purpose and connection.*"



Open Door strives to create a community with purpose, and each house centers on a theme, like creative empowerment, transformation, or social impact.

## Haas

**Company history:** Founded by Peter Thompson, who was inspired by the “hacker-house” movement that was popular in San Francisco.

**Business Model:** Operator

**Scale:** 3 locations, approximately 25 members

**Locations:** San Francisco

**Cost:** Membership based fees starting at \$1200 with private bedrooms \$1900+

**Room Typologies:** Each bedroom includes three to five of our custom sleep pods and dedicated member storage. Private bedrooms also available.

**Length of Lease:** 1-, 2-, 6- and 12-month memberships

**Perks:** Membership includes a fully-stocked shared kitchen plus access to thoughtfully designed common areas. Regular housekeeping ensures the space is always clean, and housekeepers replace bathroom supplies.

**Community Factor:** People are encouraged to get to know each other, and communal spaces are generously sized to facilitate social gatherings.

## HubHaus

**Company history:** Founded in San Francisco by Shruti Merchant and Kerry Jones in early 2016. The company rents out large houses, typically with 5-10 bedrooms. In March 2018, HubHaus announced that they had raised \$12 million in their Series A funding round from Social Capital and General Catalyst.

**Business Model:** Operator

**Scale:** Approximately 100 houses, 500 members

**Locations:** SF and Bay Area, Los Angeles, Washington DC

**Cost:** \$600 - \$1690

**Room Typologies:** Semi-shared bedrooms (with sliding partition wall), private bedrooms and private bedrooms with en-suite bathroom.

**Length of Lease:** 12 months minimum

**Perks:** All utilities, high speed Wi-Fi, washer/dryer set-up, water, gas, and electricity are included in an additional amenities fee and are coordinated by HubHaus. Housekeeping service twice a month

**Community Factor:** Cook a shared meal, make art, plant an herb garden, or have some friends over for a movie night. Add a little love & vibrancy to your Haus and really make it a home. Curated community events.

## HacknSleep

**Company history:** Founded in 2015, Hacknsleep provides co-living houses for young professionals in San Francisco. The homes are located in remodeled existing buildings.

**Business Model:** Operator

**Scale:** 3 houses, approximately 30 rooms

**Location:** Three locations in San Francisco, in Nob Hill, Market and Noe Valley.

**Cost:** Approximately \$1200 - \$2050

**Room Typologies:** Shared bedrooms and private bedrooms with shared bathrooms.

**Length of Lease:** 1-month minimum, depending on the house

**Perks:** Apartments are full-furnished, housekeeping services are provided, household essentials are provided.

**Community Factor:** Members can attend Hacknsleep events hosted at any of the apartments. Partners include accelerator programs, tech bootcamps and computer programming schools.

## Here&Now

**Company history:** Founded by Avi Mermelstein, Here&Now owns and operates a townhouse in Bushwick, Brooklyn – the company’s pilot project.

**Business Model:** Developer / Operator

**Scale:** 18 beds, 1 location

**Location:** Bushwick, Brooklyn

**Cost:** \$1400 - \$1700

**Room Typologies:** Private bedrooms with shared bathrooms

**Length of Lease:** 4 months minimum

**Perks:** Tenants get Casper mattress, linens, a dresser, fully-equipped kitchen, smart TV, Wi-Fi, and all utilities. Personal and common spaces are furnished with products created by Etsy artisans and local craftspeople. The house has a large lounge/co-working space, where cold brew and kombucha are on tap as well as a backyard, roof deck and shared bikes.

**Community Factor:** Residents organize weekly Sunday night dinners. All applicants are interviewed in person to see if they are looking for the kind of community Here&Now is offering.

## Roam

**Company history:** Founded by Bruno Haid, he says he got the idea for Roam when he was working on founding several small tech-companies, and hopping between major cities to do so. "Roamers," as the company calls its customers, can sign a flexible lease that gives them access to all of Roam's locations around the world.

**Business Model:** Operator

**Scale:** Approximately 150 beds

**Locations:** San Francisco, London, Bali, Miami and Tokyo

**Cost:** Prices vary by location. They start at \$500 per week (\$1,800 per month) and rise to \$1,200 per week (\$4,200 per month). They also offer a Flex pricing scheme in which customers pay \$3500 upfront and get pro-rated rates for staying at any location.

**Room Typologies:** Private room with bathroom.

**Length of Lease:** One week. They have weekly and monthly prices.

**Perks:** Fully furnished private room with bathroom, full access to all communal areas, shared kitchen and laundry facilities. Most locations include extras such as a pool, media room and an event space.

**Community factor:** Each room is private with a private bathroom, but emphasis has been placed on the design of the common areas, which always include a large chef's kitchen, a co-working space, a weekly communal dinner and other events.

## **UP(st)ART**

**Company history:** Founded in 2016 by Jeremiah Adler, UP(st)ART offers a shared space where creatives can live, work, collaborate and create together. Jeremiah moved to LA in his early 20's for creative pursuits before moving to real estate, and UP(st)ART provides the type of accommodation he, and other creatives, were searching for upon moving to LA. In contrast to other co-living companies, they admit residents based on their artistic portfolio and ambition rather than their credit score or income. Goal is to reach 1000 members in Los Angeles.

**Business Model:** Operator

**Scale:** Approximately 300 beds, 5 locations

**Locations:** Los Angeles

**Pipeline:** Other major west-coast cities.

**Cost:** Varies per house but cost typically ranges from \$695 - \$775 per month

**Room Typologies:** UP(st)ART provides a "pod" which contains a bed with linens and a reading lamp. There are multiple pods in each bedroom.

**Length of Lease:** Minimum one month.

**Perks:** All facilities at any house including office spaces, recording studios, musical instruments, hot tub, sauna, big screen TVs, HBO, Wi-Fi. No credit check required.

**Community factor:** UP(st)ART hosts a lot of events for its members such as family dinners, workshops, guest speakers, and has established partnerships with many companies in LA who offer discounted classes, access to shows and other perks. Tenants are selected based on creative merit and portfolio of work, rather than based on financial requirements.

## PodShare

**Company history:** Founded in 2012 by Elvina Beck, PodShare was created as a remedy for the shortage of affordable housing options in Los Angeles. In equal measure, she intended to provide a home for the global citizen by offering one price to live, “*anywhere in the world, for any duration of time.*” PodShare often re-purposes commercial buildings for their homes under 5 – 15-year master leases.

**Business Model:** Operator

**Scale:** 7 locations, 220 pods

**Locations:** Los Angeles (Hollywood, Downtown, Los Feliz, Westwood and Venice) and San Francisco.

**Cost:** \$50 per night, \$280 per week, \$1000 per month across all locations

**Room Typologies:** A pod is a bunk bed that comes with a flat screen TV, personal outlets and a night light. There are multiple pods in each bedroom.

**Length of Lease:** One night minimum in LA, one month minimum in SF

**Perks:** While residents only receive a 50 SF pod, they benefit from generously sized common areas. Pricing is all-inclusive and is the same across all PodShare locations.

**Community factor:** Each pod is located within a room of other pods, so fundamentally, this co-living company emphasizes communal living. In fact, PodShare promotes the design of the layout as offering the maximum number of “collisions”, or put another way, the maximum number of personal interactions. Aside from the intimate nature of the sleeping accommodation, every month PodShare hosts a gathering for music, comedy or theater.

## Treehouse

**Company history:** The newest company on this list, Treehouse has its first location opening in August 2019, which will house 70 residents. The building is a ground-up development, purpose built for co-living.

**Business Model:** Developer / Operator

**Scale:** One location, 70 residents

**Location:** Hollywood

**Cost:** Not available at this time.

**Room Typologies:** Unit options range from a studio with a private bedroom, bathroom and kitchen to an apartment where the kitchen is shared. Every resident at Treehouse has their own private bathroom.

**Length of Lease:** One year.

**Community factor:** Purpose-built community spaces are open to all residents, and are designed for communal cooking, eating and events. Community dinners every Sunday are provided by Treehouse and events such as rooftop yoga, a speaker series and live music are in the calendar. Residents, not Treehouse, review and select applicants to move in, to ensure that everyone is in a place that feels right.

## **Aviato Club**

**Company history:** The company states that their goal is to “*connect our members with Silicon Beach IT professionals*” and that “*whether you are looking for funding, co-founders, team members, investors*” Aviato Club will help members make connections.

**Business Model:** Operator

**Scale:** 4 houses, number of units unknown

**Locations:** Los Angeles (Downtown, Burbank, West Hollywood) and San Francisco.

**Cost:** Varies per location. Downtown LA is \$175 per week and \$650 per month, while San Francisco location is only available per month, for \$900.

**Room Typologies:** Bedrooms have bunkbeds and rooms either have two residents or four.

**Length of Lease:** 1- to 12-months, varies by location.

**Perks:** Move-in dates are flexible, and no security deposit is required. Units are furnished.

**Community factor:** Co-working spaces are provided in every house and community events include bowling, beach volleyball, movie nights, beach yoga and career workshops.

The number of co-living companies in the United States will undoubtedly increase in the future. Demographic and economic shifts will result in more entrepreneurs entering the co-living market at a variety of scales. What remains to be seen is whether there is enough demand for there to be a series of dominant players, or whether one or two companies will rise to the top.

# Chapter 4 : Market Review

This chapter investigates the breadth of the co-living movement across the globe, and the reasons for its emergence. It examines the factors that create opportunities for co-living companies, such as growing urban populations, increasing mobility among young professionals and the affordability crisis affecting many major international cities. We begin with an overview of co-living around the globe, before outlining key markets within the United States.

## 4.1 Co-Living Around the Globe

In order to fully understand the scale of co-living as a product type, we must look beyond North America and Europe. Co-living has become an emerging product type globally. In Singapore, where serviced apartments already represent a significant percentage of the overall Class A apartment supply, several companies are testing the water. For example, CapitaLand’s serviced residence unit, The Ascott Limited, has created a new co-living brand Lyf, which claims to be “*designed and managed by millennials, for millennials*” and co-living start-up Hmlet has received significant investment from Aurum Investments. In India, there are four start-ups that focus on co-living within the city of Gurgaon and two based out of Bengaluru. We also see co-living properties in the Philippines, Japan, Malaysia, Thailand, Indonesia, Cambodia and Vietnam.

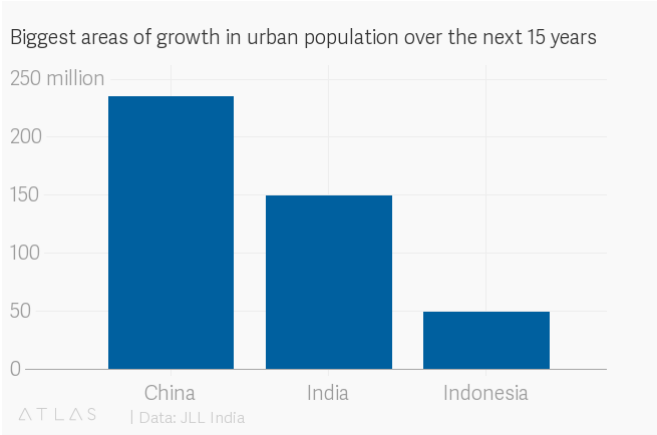


Exhibit 4.1: Comparison of Growth in Urban Population Over Next 15 Years (Bhattacharya 2019)



China in particular has seen tremendous investment in co-living. The growth in supply is underpinned by three major factors: first, support from the Chinese government, second, the opportunity to reposition older or underused buildings and third, the migration of young people towards cities. Through a number of policy initiatives, the Chinese government is encouraging the development of new cities, as well as the densification of existing urban hubs. It is well-reported that China is urbanizing at incredible rates, as shown by the graph produced by JLL in Exhibit 4.1. Contemporary co-living in China started with YOU+ International Youth Community in 2012, which expanded rapidly to now have a network of residences housing more than 10,000 tenants across 25 properties (Knight Frank 2019a). By the end of 2016, there were nearly 90 co-living operators across the country with Vanke Port Apartments, one of the largest operators, managing more than 60,000 units. Many of these companies have scaled quickly and have received significant investment from institutional capital. At the time of writing YOU+ operates 16 properties, Mofang has expanded to approximately 15,000 units, ZiRoom operates 7 properties, and Coming Space manages approximately 10,000 units. In China, the co-living trend fits with the central government’s desire to build a substantial residential rental market, which they hope will boost labor mobility by allowing graduate workers to live in first tier cities such as Shanghai, where property costs have soared in recent years.



Exhibit 4.2 : Dwelling Prices to Rent Ratio (Indexed) in Major Co-Living Markets (Bhattacharya 2019)

Joe Zhou, Head of Research for JLL China explains what has sparked the high levels of demand in China. *"The demand from millennials for co-living is huge in China. In the past five years alone, there were 43 million new graduates. Given the high housing prices across the country's tier 1 and 2 cities, it will take at least three to five years for them to start purchasing their own homes, which means many of them will have to rent or look for short-term alternatives. Therefore, co-living is definitely an attractive option"* (JLL 2018). We spoke with Shawn Tsai, Associate Director of Capital Markets at Gaw Capital, who confirmed that, due to rising house prices, young people are not able to purchase homes like in the past, so they must rent. He believes some of the success of co-living in China is due to the fact that young people are often the first in their family to migrate to cities, so they lack a network of friends and family, hence adding to the appeal of the community associated with co-living. Shawn Tsai also described the unreliable and inconsistent quality of rental apartments in cities, and difficulty of finding a place to live. Co-living companies in China simplify this process and provide a reliable product, thereby reducing much of the stress associated with finding an apartment.

With a high correlation between a lack of affordable housing and high demand for co-living it is no surprise that Hong Kong, the world's most expensive housing market according to JLL, has seen a rising number of co-living developments (JLL 2018). Weave Co-Living opened its first location in Hong Kong in August 2018, with 160 beds operating at a 95% occupancy rate. Due to this success, US private equity firm Warburg Pincus announced in November 2018 that it was investing up to \$413.5 million to aid the company's expansion in the region (Zhou 2018). Founder and CEO Sachin Doshi accredits Weave's success with the economic realities and cultural changes in Hong Kong. In a statement he said, *"[w]ith serious affordability constraints and limited supply of quality rental apartments across many gateway cities in the region, collaborative living is an innovative, hassle-free way of urban living with all the perks and none of the pain points of traditional accommodation models – all at a value-for-money price"* (Zhou 2018). In contrast to the market in Hong Kong, while apartment space is not inexpensive in Tokyo, years of deflation have benefited renters. At the time of writing, only a few co-living spaces have been developed in Tokyo.

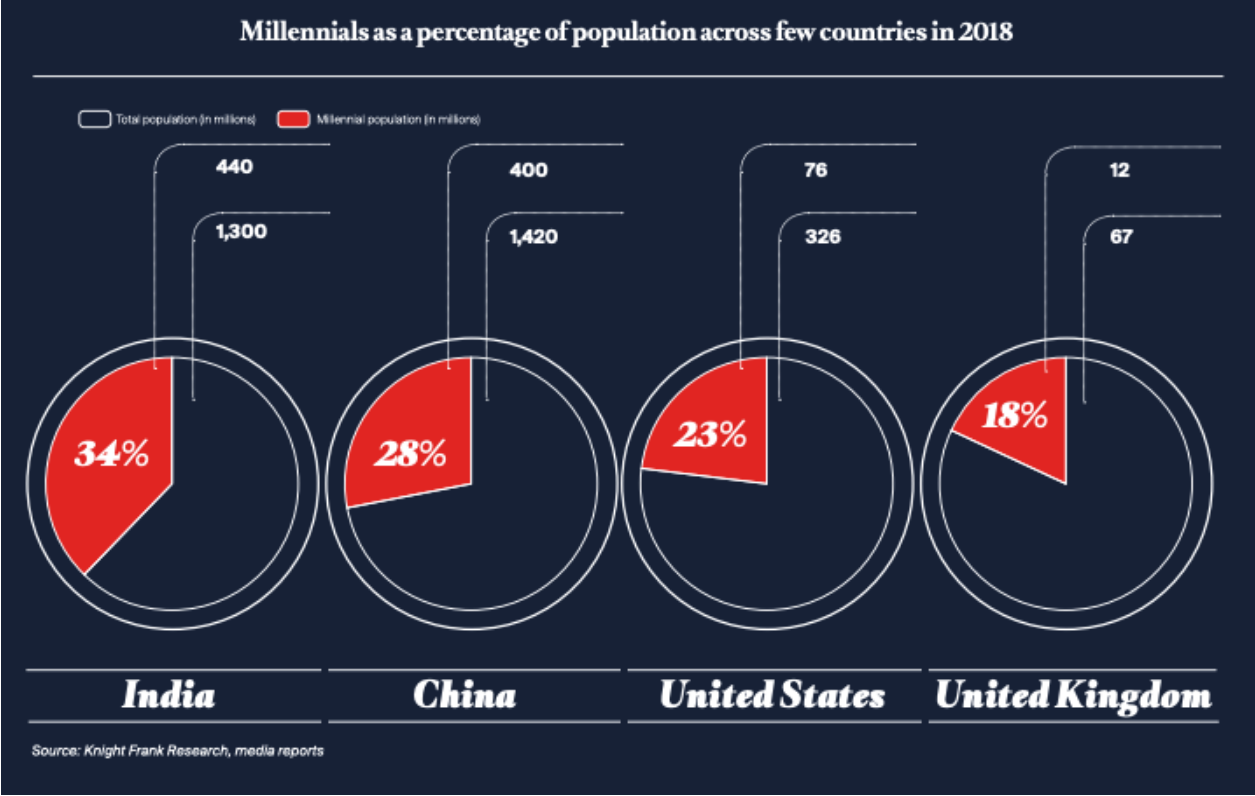
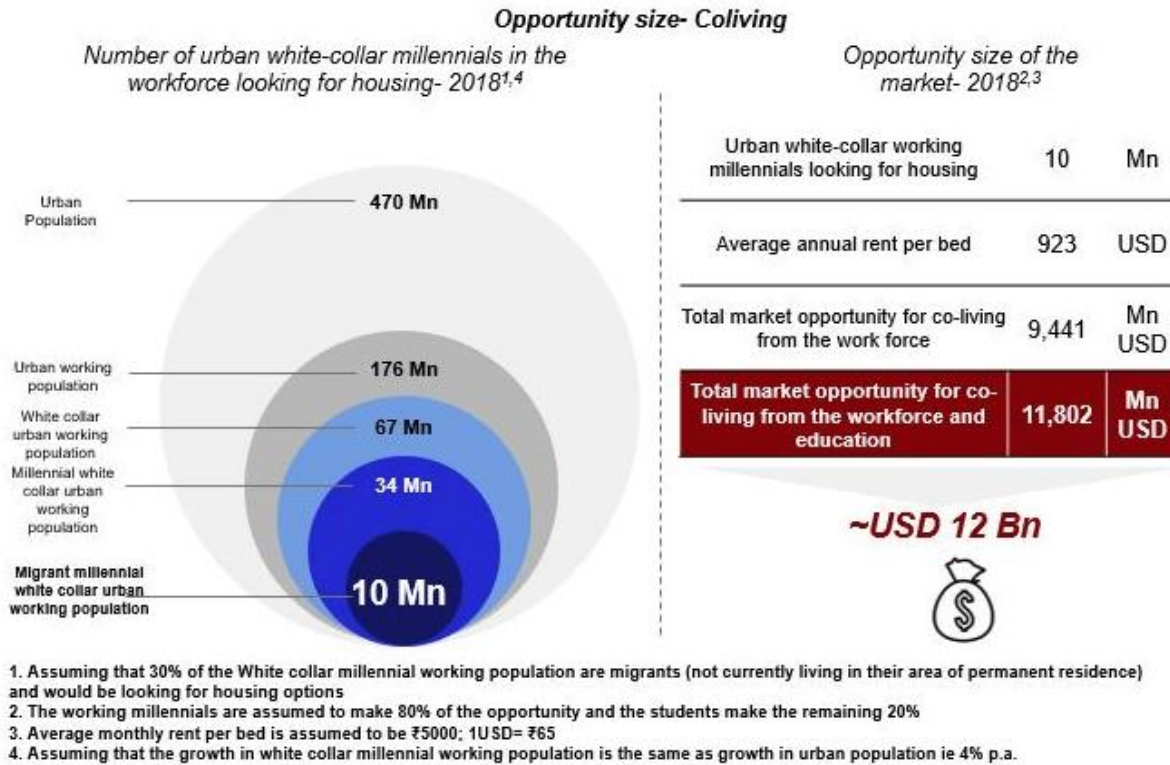


Exhibit 4.3 : Millennials as a Percentage of the Population Across a Few Countries in 2018 (Knight Frank 2019b)

Like China, India is also expected to see a huge rise in the number of co-living units over the next couple of years. JLL India released a report in April 2019 stating that, “[t]he 150 million urban residents that it is poised to add over the next 15 years will make the country the “trailblazer” of co-living in Asia-Pacific” (JLL 2018). As migration to cities increases, real estate prices are pushing younger generations away from home ownership and towards renting. According to research by leading Indian data advisory firm RedSeer Consulting, the co-living market in India stands at \$120 million but will be worth over \$2 billion in 2022 (Redseer 2019). This is partly due to the prediction that the Indian workforce is expected to increase to 600 million by 2022 from the current estimated 473 million, and, as shown in Exhibit 4.3, millennials make up 34% of the total population in India, far higher than other countries (Knight Frank 2019a). According to the Economic Survey of India 2017, the interstate migration rate doubled between 2001 and 2011, compared to the previous decade when growth was 4.5% annually (Knight Frank 2019a). Between 2011 to 2016, interstate migration in India grew to 9 million

people per year. This is a significant numeric indication of the additional population pressure in urban centers (Knight Frank 2019a).

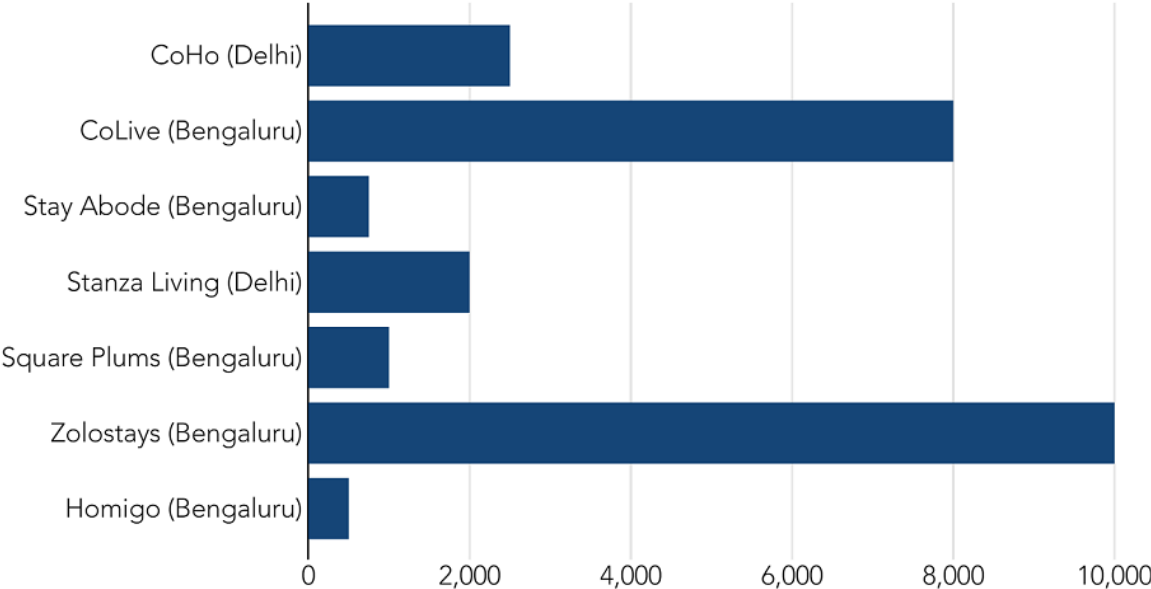


*Exhibit 4.4 : Opportunity Size for Co-Living Market in India (RedSeer 2019)*

Between Q1 2018 and Q1 2019, the co-living market in India grew by 100% with a number of developers and investors making bullish bets on this emerging asset class. The arrival of startups such as NestAway, NoBroker and StanzaLiving doubled the supply of beds in India to around 50,000 in 2018 (Redseer 2019). International institutional investors as well as venture capital firms are also drawn to the booming industry, JLL noted in its report, citing marquee investors like Sequoia (Stanza), Nexus Venture Partners (Zolo) and Goldman Sachs (Nestaway) (Bhattacharya 2019). In October 2018, Softbank-backed hospitality startup OYO announced the launch of its co-living vertical OYO Living and Bengaluru-based Zolostays (the largest co-living operator in India) raised \$30 million from investors IDFC Alternatives, Mirae Asset, and Nexus Venture Partners. By the end 2019, Zolostays is targeting 50,000 beds in India. StayAbode Ventures is developing one of the largest ground-up co-living projects in India with 1,400 beds

being built in Whitefield, Bengaluru. Bengaluru is home to a number of multinational firms including Facebook, Amazon, Apple, Microsoft, and Google—and a working population of over 50,000 millennials. This activity has not gone unnoticed by US-based co-living companies. Reports suggest that WeWork also plans to bring WeLive, which currently operates exclusively in New York City and Washington DC to India sometime in 2019 (Khan 2019).

**Major co-living space operators in India (in number of beds)**



*Exhibit 4.5 : Major Co-Living Space Operators in India (Knight Frank 2019b)*

Cost is clearly an important factor driving demand for co-living in India, but it also offers convenience, community and critically, security that a typical residential set-up may not. Discrimination and harassment from landlords is a significant issue in India and can be based on reasons ranging from being unmarried to being non-vegetarian to religious beliefs (Bhattacharya 2019). New co-living companies offer an affordable, secure alternative with an inclusive, tolerant ethos that appeals to a younger more liberal demographic. In a recent study, 72% of Indians ages 18-23, 56% of Indians ages 24-29 and 29% of Indians ages 30-35 reported that they would consider co-living spaces as accommodation (Knight Frank 2019a).

## 4.2 Co-Living in the US

In the United States, co-living is predominantly found in New York, San Francisco and Los Angeles. David Martin, who co-leads JLL's US multifamily investment sales platform states that, "*[t]he co-living trend is absolutely tied to affordability in major markets. We see rapid growth in cities that are economically prosperous, particularly gateway and unaffordable markets. There's a change in the ideology of residents there.*" This statement is true but co-living companies are also seeing success in cities such as Pittsburgh. It appears that, as long as the project is located near a major university with post-graduates, or a major white-collar employer, there is demand for this product type. While the demographic most commonly cited when discussing co-living is young, single professionals, co-living companies target a much wider demographic. Ideally, tenants are between the ages of 25 and 50 and earn \$40,000 to \$90,000 a year, says Shawn Lambert, an analyst focused on investor research at JLL (JLL 2019b).

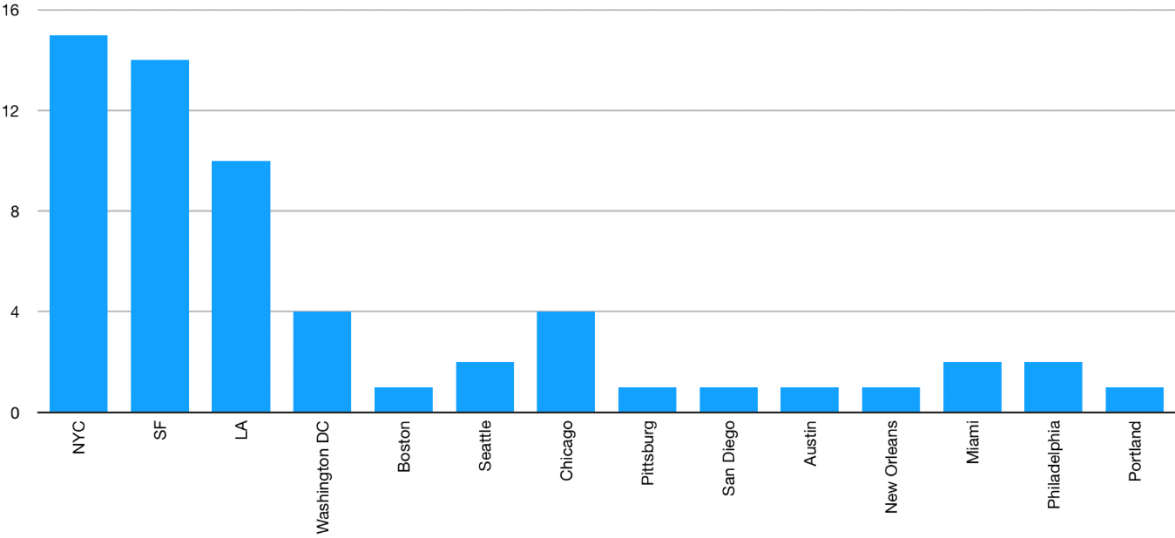
Cities with the highest percentage of individuals sharing residences is highly correlated with high rent burdens. Across the country, the percentage of the population that is sharing accommodation is increasing. The five MSAs with the highest percentage of adults living in shared accommodation are Los Angeles-Long Beach-Anaheim CA (45.5%), Riverside CA (43.7%), Miami-Fort Lauderdale FL (41.0%), New York NY (40.0%), San Jose CA (38.6%) and San Francisco (38.5%). The full list is shown in the table on the following page.

<b>Metropolitan Area</b>	<b>2016 - Percent of Adults Living in Doubled-Up Households</b>	<b>2000 - Percent of Adults Living in Doubled-Up Households</b>
New York, NY	40.00%	32.70%
Los Angeles-Long Beach-Anaheim, CA	45.50%	37.40%
Chicago, IL	32.40%	27.40%
Dallas-Fort Worth, TX	30.00%	22.60%
Philadelphia, PA	33.00%	23.90%
Houston, TX	32.80%	24.30%
Washington, DC	34.60%	27.10%
Miami-Fort Lauderdale, FL	41.00%	30.10%
Atlanta, GA	31.70%	25.50%
Boston, MA	32.30%	25.30%
San Francisco, CA	38.50%	32.30%
Detroit, MI	29.50%	23.30%
Riverside, CA	43.70%	28.20%
Phoenix, AZ	32.20%	23.60%
Seattle, WA	28.30%	20.00%
Minneapolis-St Paul, MN	23.50%	17.50%
San Diego, CA	37.90%	28.60%
Saint Louis, MO	25.20%	18.70%
Tampa, FL	29.00%	19.10%
Baltimore, MD	33.40%	23.40%
Denver, CO	27.10%	20.70%
Pittsburgh, PA	24.50%	18.50%
Portland, OR	28.50%	20.20%
Charlotte, NC	26.40%	19.90%
Sacramento, CA	33.10%	21.70%
San Antonio, TX	37.20%	23.60%
Orlando, FL	35.00%	22.80%
Cincinnati, OH	24.00%	16.30%
Cleveland, OH	23.70%	20.30%
Kansas City, MO	23.10%	17.20%
Las Vegas, NV	36.40%	27.70%
Columbus, OH	24.20%	16.60%
Indianapolis, IN	25.00%	16.10%
San Jose, CA	38.60%	36.30%
Austin, TX	30.40%	23.00%

*Exhibit 4.6 : Percent of Adults Living In Doubled-Up Households*

Co-living companies now operate throughout the US. Exhibit 4.7 illustrates the quantity of co-living companies operating in each city, regardless of how many units they operate. The three largest markets are New York City, San Francisco and Los Angeles. New York City is home to the largest number of co-living companies in the US, with many of the most well-capitalized companies headquartered there. These include Common, Ollie and The Collective along with a large number of smaller companies.

A clear indicator that this is an emerging market, 55.1% of total US investment-grade co-living was delivered in 2018. By 2021, there is estimated to be over 10,000 investment-grade co-living rooms in the United States, from approximately 3,500 rooms today. Notably, the scale of co-living developments is also increasing. In 2016, the average number of units per co-living asset was 58, but in 2021, that figure should rise to 164. This is due to the institutional capital entering the market, allowing companies to pursue more ambitious deals.



*Exhibit 4.7 : Locations of active Co-Living Companies in the United States*



### 4.2.1 New York City

Population: 8.62 million

Average Age: 36.6

Median Household Income for One-Person Household: \$74,700

Median Property Value: \$609,500

Median Monthly Rent for a 1-Bedroom: \$2,850

Home Ownership: 32.7%

In 2019 New York City's population topped 8.5 million for the first time in history. The area median income (AMI) for New York, as defined by US Department of Housing and Urban Development is \$74,700 for a one-person household. The middle class, which is defined as between 80% - 120% AMI, is therefore \$59,760 - \$89,640. According to 2017 data from the New York City Housing and Vacancy Survey (HVS), which conducts surveys every 3 years, more than 921,000 renter households in New York City, or 44% of all renters, pay at least 30% of their income on rent, after accounting for the value of rental housing vouchers and Supplemental Nutrition Assistance Program (SNAP) benefits. More than half of these households- greater than 462,000 families and single adults -are considered severely rent burdened, which means they pay at least half of their income in rent (Campion 2018).

According to the Citizens Housing and Planning Council, nearly 50% of New Yorkers are now estimated to be single and 32% are single people living alone, but studios, the ideal form of housing for single residents, only make up 7% of New York's housing stock (Watson 2019). Housing advocates and developers have not only started exploring the possibilities of living small; they have realized that New York is facing *"a big mismatch between the housing stock and the population,"* says Graham Hill, founder of the small-living site Life Edited (Nonko 2016). Initiatives such as adAPT NYC and ShareNYC have shown that the city understands regulatory changes are necessary in order to expedite the development of housing built to match the needs of today's New Yorkers.

**Table 1: Rent Burdened Households by Rent to Income Measurements, 2017**

	<u>Gross Rent Measure</u>	<u>Adjusted Income Measure: Sect 8 + SNAP</u>
<b>Total Renter Households</b>	<b>2,103,874</b>	<b>2,103,874</b>
Rent Burdened ( $\geq 30\%$ )	1,173,765	921,153
Severely Rent Burdened ( $\geq 50\%$ )	701,305	462,236
Rent Burdened, Share	56%	44%
Severely Rent Burdened, Share	33%	22%

Source: CBC staff analysis of data from the U.S. Census Bureau, *New York City Housing and Vacancy Survey: 2017 Data Files*.













*Exhibit 4.8 : Rent Burdened Households in New York City by Rent to Income Measurements (Campion 2018)*

New York City has the highest concentration of active co-living companies in the United States, with at least 15 active companies at the time of writing. Co-living units are located throughout New York City but there is a trend toward areas with good public transportation infrastructure, and neighborhoods where the area median income is below the city’s overall AMI.

Brooklyn, where most co-living units are located, is New York City’s most populous borough. Co-living companies typically operate in the areas of Brooklyn where the AMI is below the average for the entire city. These include neighborhoods such as Bedford-Stuyvesent, Crown Heights Lefferts Gardens and Central Harlem. Bedford-Stuyvesent, for example, has a median household income of \$36,879, Crown Heights Lefferts Gardens \$41,841 and Central Harlem \$38,621. While the majority of Brooklyn is zoned for low-rise residential, there have been significant re-zonings in recent years which have increased the permitted density in transit-oriented and high-traffic areas. The map on the following page shows all the co-living units in New York City, with different colors representing the fifteen companies currently operating there. We must note that, due to privacy restrictions, we are not able to map all the locations in the area.



Exhibit 4.9 : Locations of Co-Living Units in New York City

- |  |  |  |  |   |   |
|--|--|--|--|---|---|
|  Aleph          |  Outpost Club |  Common   |  Ollie  |  Roomrs  |  Dwell |
|  The Collective |  Node         |  Quarters |  WeLive |  Outside |  Venn  |

## 4.2.2 San Francisco

Population: 884,363

Average Age: 38.3

Median Household Income: \$82,900

Median Property Value: \$1.1 million

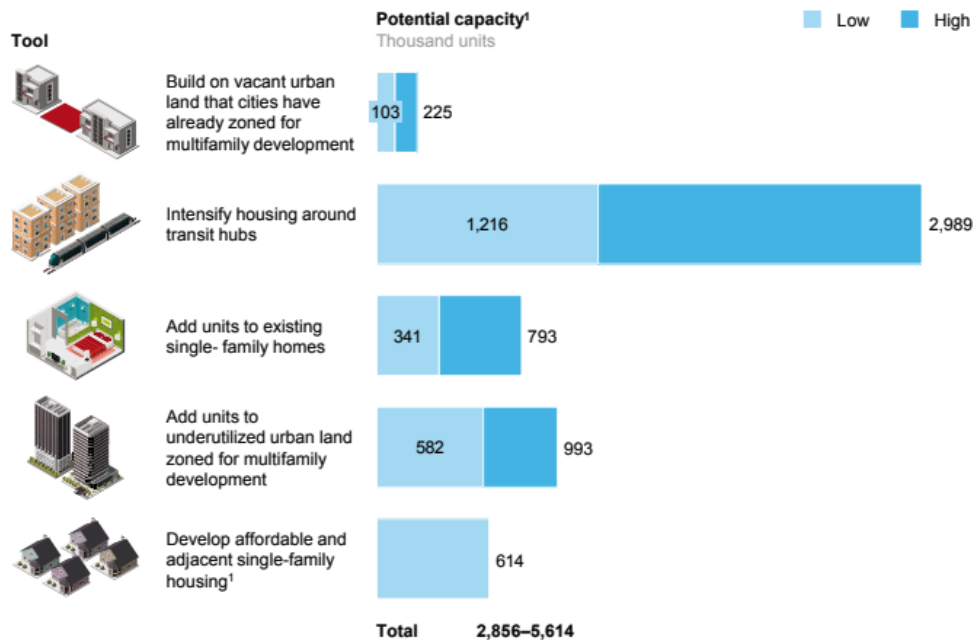
Median Monthly Rent for a 1-Bedroom: \$3,700

Home Ownership: 36.5%

San Francisco's housing crisis is well-publicized, but the issue affects the whole state of California. In 2017, California had the highest estimated number of chronically homeless people in the nation, at 35,798. In 2016, McKinsey published an extensive report which analyzed the challenges California faces as it tries to provide housing at a reasonable cost for middle-income Americans. They found that 50% of California's households cannot afford the cost of housing in their local market and the state ranks 49<sup>th</sup> among the 50 US states for housing units per capita. Since 2005, California has added only 308 units for every 1000 new habitants. To put that in context, New York added 549 units per 1000 new habitants (Woetzel et al. 2016). The McKinsey report proposed solutions to California's housing crisis. Of those solutions, the most impactful would be the densification of housing around transit hubs, as shown in Exhibit 4.10. Co-living's product type can accommodate more residents on any given site due to the smaller average size of the units. This factor should help convince local policy-makers that co-living could be part of the solution to the housing crisis in California.

The affordability crisis in San Francisco is shared by most of the Bay Area. As a result, co-living companies such as Starcity and OpenDoor are seeing opportunities in San Jose and Oakland respectively. Looking forward, due to the less arduous regulatory process in many of these other cities in the Bay Area, we could see an exponential expansion of co-living around, but not in, San Francisco.

**California has room to build more than five million new units in “housing hot spots”**

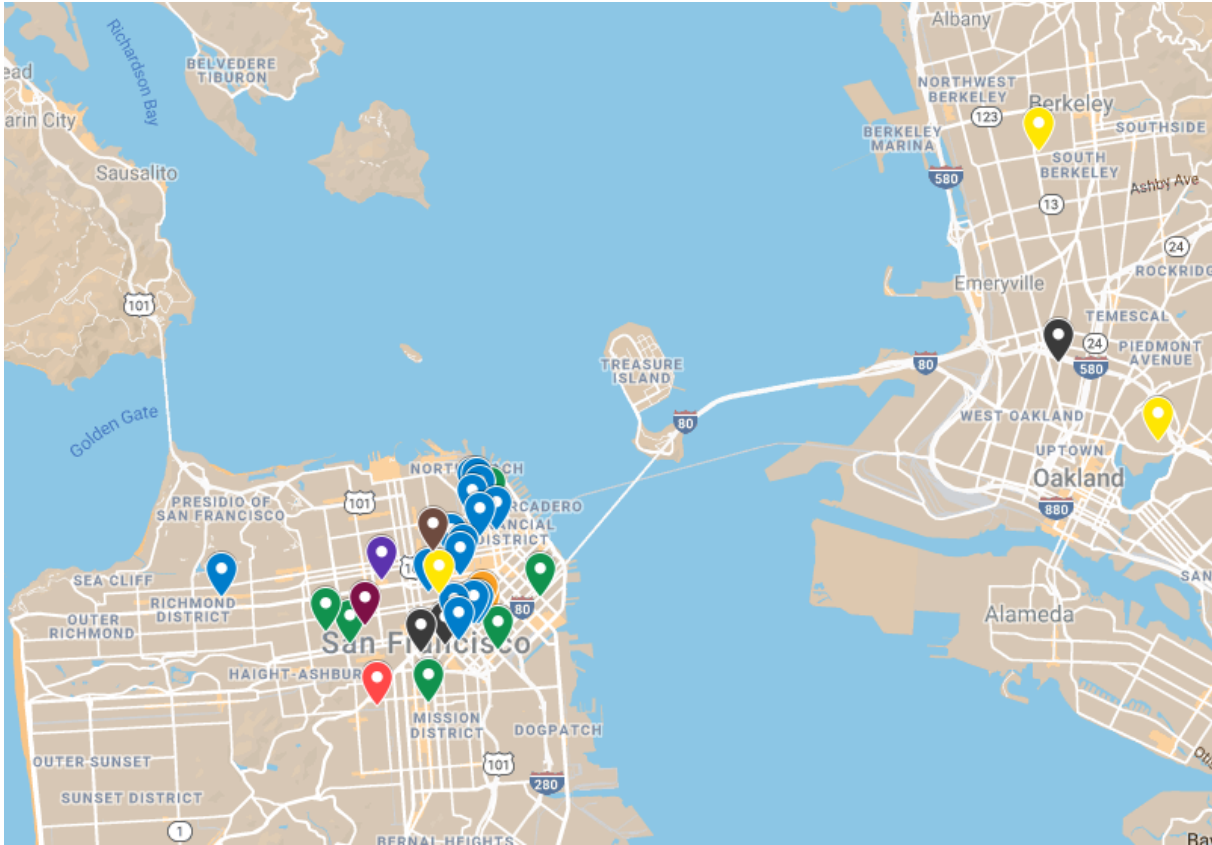


<sup>1</sup> Estimate for single-family potential capacity is highly conservative as it examines only three counties: Sacramento, San Bernardino, and Contra Costa.


SOURCE: McKinsey Global Institute analysis

*Exhibit 4.10 : Capacity for new housing units in California. (Woetzel et al. 2016)*

The rent in San Francisco is the most expensive in the United States. The median rent for a one bedroom apartment is \$3,700 and a two bedroom is \$4,500 as of April 2019 (C. Chen 2019). 73% of households are not able to afford housing in San Francisco (Woetzel et al. 2016). Due to this affordability crisis and the high density (second only to New York City in number of households per acre) the number of co-living companies has grown quickly in San Francisco. The area median income for San Francisco, as defined by US Department of Housing and Urban Development is \$82,900 for a one-person household. The middle class, which is defined as between 80% - 120% AMI, is \$66,300 - \$99,500 in San Francisco. The “hacker-house” phenomenon found its roots in San Francisco – and the concept shares many qualities with the co-living product type. Hacker-houses are shared houses and apartments rented by professionals trying to advance their careers in Silicon Valley who wanted the support network of like-minded people, while also saving money on rent. As shown in Exhibit 4.11, San Francisco has the second highest concentration of active co-living companies in the United States, with 13 active companies at the time of publishing.



*Exhibit 4.11 : Locations of Co-Living Units in San Francisco*

- |  |  |
|--|--|
|  Roam       |  Outpost Club |
|  Outside    |  Starcity     |
|  Tribe      |  Common       |
|  Urbanests  |  OpenDoor     |
|  HacknSleep |  |

Co-living units are located throughout San Francisco and Oakland. The map above shows co-living units in San Francisco, with different colors representing the companies currently operating there. We must note that, due to privacy restrictions, we are not able to map all the locations in the area. Unlike in New York City, the spread of co-living units is primarily near the downtown area. This is potentially due to the weaker public transportation infrastructure of San Francisco, forcing people to live closer to the central business district.

### 4.2.3 Los Angeles

Population: 4 million

Median Age: 35.8

Median Household Income for One-Person Household: \$55,909

Median Property Value: \$647,000

Median Monthly Rent for a 1-Bedroom: \$2,280

Home Ownership: 36.6%

Los Angeles suffers from the same housing crisis that is enveloping San Francisco and the rest of California. In the Metropolitan Statistical Area of Los Angeles-Long Beach-Anaheim, households earning up to 115% of area median income, or \$69,800 per year, are unable to afford local housing costs. Put another way, 67% of households are not able to afford housing in Los Angeles. While the average rent in Los Angeles is considerably lower than in San Francisco, it is still the fifth most expensive city in the United States (C. Chen 2019). Solving the housing crisis is a leading issue in California politics, exemplified by the Los Angeles Transit Oriented Development Program which was launched in 2017 after a wave of public support (Pimentel 2019). In this program developers can receive incentives of up to an 80% density bonus, 55% FAR bonus and a substantial reduction in required on-site parking. Programs such as this one indicates that higher density developments could become more prevalent in Los Angeles.

Los Angeles currently has the fourth largest talent pool in the country within the tech-sector, and, according to CBRE, was the second fastest growing high-tech employment center in the US in 2018, adding 14.7% more jobs than the previous year (CBRE 2019). This growth in the tech sector is creating jobs for highly-educated young professionals, who are the key demographic for co-living companies.

As shown in the map on the following page, Los Angeles has the third highest concentration of active co-living companies in the United States. Co-Living units are primarily located in West Los Angeles and around the Hollywood neighborhood. We must note that, due to privacy restrictions, we are not able to map all the locations in Los Angeles.

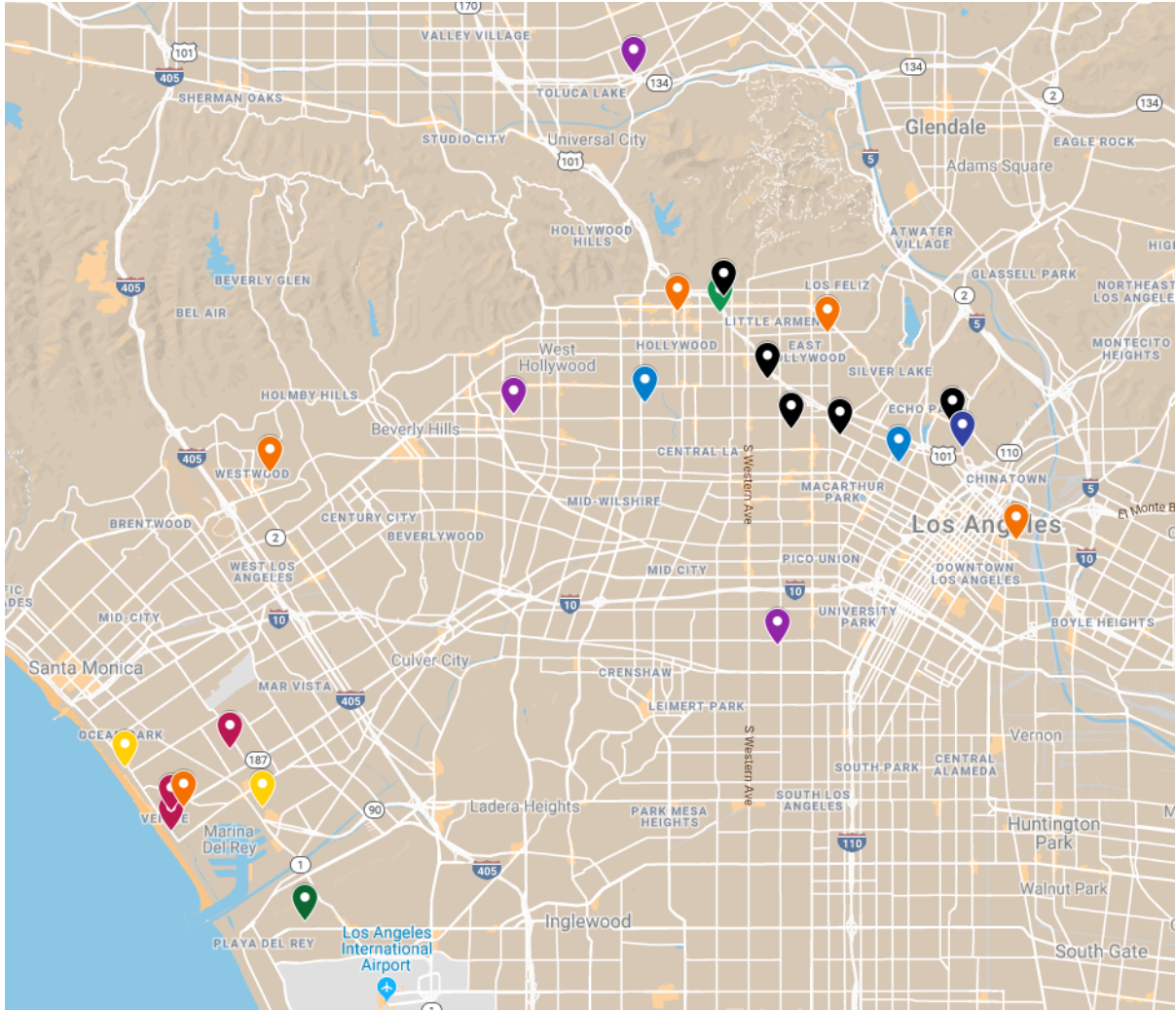


Exhibit 4.12 : Locations of Co-Living Units in Los Angeles

- |  |   |
|--|---|
|  Common           |  Outside     |
|  Starcity         |  Aviato Club |
|  Treehouse        |  UP(st)ART   |
|  PodShare         |  node        |
|  Kindred Quarters |   |



# Chapter 5 : A Financial Assessment of Co-living

## 5.1 Purpose

The contemporary form of co-living is still a relatively new asset class in terms of real estate investment vehicles. Part of its recent rise to prominence can be attributed to the financial benefits it offers to both sides of the supply and demand equation. Tenants enjoy quality housing in desirable locations for less rent than a comparable studio unit and owners benefit from offering less individual private space by collecting higher rents per square foot. While co-living companies claim the product type delivers higher returns compared to traditional multifamily, little financial data from a neutral source is available to support this assertion.

According to an article by Bendix Anderson on ALTA+, Ollie's new high-rise apartment building in Long Island City, Queens, "*[t]hese co-living suites earn an average of 44 percent more income in rent per sq. ft. than the more conventional 297 luxury apartments at the 43-story tower ... The net operating income from these units is also 30 percent higher per sq. ft., even with the extra cost of co-living amenities like the housekeeping service*" (2019). Debt brokers have stated that co-living can generate operating margins that are 30-50% higher than conventional multifamily (Parker and Jeans 2019). While these statements are certainly promising and support the belief that co-living offers higher returns, few corroborating details are available. Co-living companies are understandably hesitant to release confidential financial details and as of this writing, no co-living asset sales in the United States have been reported.

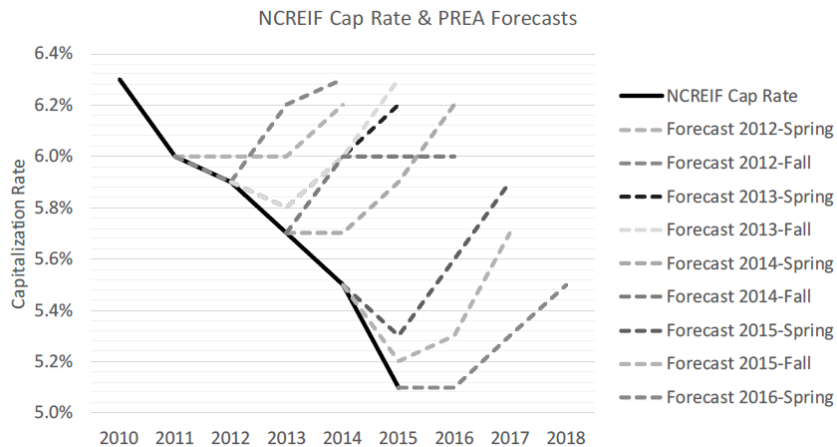
Another concern over the future potential of co-living as an investment strategy is it has only begun to grow in the United States since after the Great Recession. All co-living companies profiled in Chapter 4 have operated in the United States for less than 10 years and have yet to experience a market downturn. As such, there is some uncertainty as to how co-living will perform when the next financial decline inevitably arrives. Furthermore, there is concern about the longevity of co-living from a demand perspective. Real estate developments and acquisitions are by their nature, long-term investments. Investors in these assets need to have confidence the demand for their product will remain strong over time. Yet, some in the real estate industry

believe that co-living could be a fad. They suspect the economic and social trends that have led to the rise of co-living could fade over time, leaving the number of renters willing to consider co-living insufficient.

The purpose of this chapter is to investigate the impact changing market conditions could have on the long-term financial success of co-living. To do this, we first create realistic financial models for a co-living building and an equivalent conventional multifamily building. The results of these two models will be compared to quantify the additional returns co-living currently offers. Next, certain co-living model inputs will be adjusted to simulate adverse changes in market and demand conditions. These results will then be compared to the original multifamily model outputs to assess the potential financial resiliency of co-living.

## 5.2 Assessment Methodology

Precisely predicting future real estate market conditions or project yields is an imprecise science. Expert attempts to forecast market changes are often wrong (Exhibit 5.1). Even the most detailed and relatively accurate financial model will not exactly predict the future returns of a single project. Too many macro and micro factors affect the success of a project over the 3 to 5 years (or longer) it takes to develop a large commercial property. Nevertheless, it is common practice in the real estate industry to attempt to do exactly this on potential developments.



*Exhibit 5.1: Actual vs. Expert Forecasts of Cap Rates (Income Yields) of US Investment Property (Geltner and De Neufville 2018, 37)*

The Discounted Cash Flow (DCF) model is the typical method used by real estate professionals to estimate the current (or future) value of a development. Projections of future project cashflows are calculated and then discounted to their present value using an appropriate, risk-adjusted discount rate. Not only is this model based on fundamental financial economic theory, but it is widely accepted by the financial industry as a valuation technique and is easily implemented with modern computer spreadsheet software (Geltner and De Neufville 2018). Even though precisely predicting future cash flow is challenging, the DCF model provides a foundation from which potential projects can be evaluated. Therefore, this tool is used for our assessment.

However, the results produced by a DCF model will only be useful if the assumptions entered are accurate and realistic. We cannot use erroneous or overly optimistic inputs and expect a meaningful output. The phrase “*garbage in, garbage out,*” used in computer science to describe the concept that flawed input data will produce nonsense outputs data, succinctly describes the notion (The Tech Terms Computer Dictionary 2015). It is critical to ensure all key model assumptions are as precise as possible given available information.

The first step in our assessment is to create a DCF model of a hypothetical yet realistic conventional multifamily development. The physical building structure is based off the apartment building located at 247 N. 7th Street Brooklyn, NY 11211 (Exhibit 5.2). Next, we create a financial model for a co-living building with similar physical characteristic (location, gross building square footage, and so on). Data collected from interviews with co-living companies, along with publicly available information and personal market knowledge, is used to determine our input assumptions. The results from both models will then be analyzed and compared to form our base case financial assessment. Next, we apply sensitivity analyses to key co-living model inputs (exit cap rate, rents, vacancy, and operating expense) to simulate adverse changes in certain market factors and co-living demand characteristics. These results are analyzed and compared to the multifamily base case models in order to assess the ability of co-living to withstand these negative market shifts.



*Exhibit 5.2: Exterior Elevation of 247N7 Apartments (StreetEasy 2018)*

The three key investment metrics the analysis focuses on are: internal rate of return (IRR), equity multiple, and development spread.

- **Internal Rate of Return (IRR)** – IRR is one of the most widely used measures of an investment's performance in the real estate industry. It is the discount rate that sets the net present value of all project cashflows equal to zero. Only three pieces of information are required to calculate the IRR: the cost required to acquire the asset, the net cashflows for each period after it is acquired, and an estimate for what the asset is, or will be, worth. In contrast to a time-weighted average return, IRR is a money-weighted average meaning it reflects the effect of capital flow timing, or the time value of money. Savvy investors follow the IRR investment decision rule which states, 1) maximize the difference between the project's expected IRR and the required return, and 2) never do a deal with an expected IRR less than the required return (Geltner et al. 2013). While a useful investment measure, IRR does have limitations. When using it to compare mutually exclusive projects, IRR does not take into consideration whether the projects have different capital requirements or risk profiles. Also, IRR ignores reinvestment rates by implicitly assuming all cash flows can be reinvested at the same rate as the IRR.

Assuming the IRR is high, this is impractical as finding another high yield investment to reinvest returns is often difficult (Lanctot 2019).

- **Equity Multiple** – This relatively simple investment performance metric is frequently reported alongside the IRR. It is the ratio of the total cash an investment returns over its life to the total equity invested. An equity multiple of 2.00x would mean that for every dollar invested into a project, two dollars is expected to be returned to the investor over the project life. While providing an overall snapshot of an investment in absolute terms, and helping to put the IRR into perspective, the equity multiple is a limited metric. It does not consider the time value of money and is of little help when comparing investments. Two 5-year investments could both have the same equity multiple but the first investment returns cash evenly over each of the 5 years, whereas the second does not return any cash until year five. From an IRR and time value of money perspective, the first investment would be superior.
- **Development Spread** – The development spread, often denoted in basis points, is equal to the yield-on-cost (also known as the development yield) minus the market capitalization rate. This difference is the developer's profit and can be thought of as the additional incentive necessary for developers to take on the risks of a new construction project. A larger development spread means more profit for the developer.

## **5.3 Assumptions**

This chapter will provide a detailed description of the assumptions used in the baseline conventional multifamily and co-living financial models.

### **5.3.1 Physical Characteristics**

The physical characteristics of the structure being modeled form the framework around which the DCF model is created. For the purposes of this analysis, we assume that both the co-living and multifamily structures will have similar design characteristics. They will both be luxury rental buildings with a full suite of amenities that make them comparable to the highest priced rental apartment buildings in the vicinity. By making this assumption, we are essentially determining if it would be more profitable to build a luxury multifamily or a luxury co-living property given a specific site.

### **5.3.2 Location**

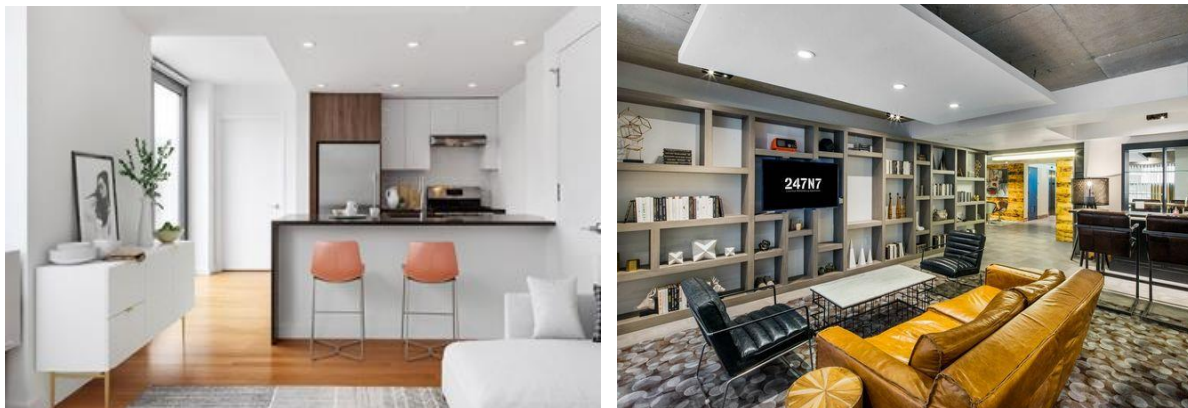
We selected the Williamsburg neighborhood in Brooklyn, New York for the focus of this assessment. This area features several newly built and under construction high-end multifamily buildings and has already attracted attention from various co-living companies. Common, Roomrs, Outpost Club, and Outsite all have co-living facilities operating in and around Williamsburg. Furthermore, our personal familiarity with this area will enable us to select more realistic input assumptions.



*Exhibit 5.3: Map Location of 247N7 Apartments (Source: Google Maps)*

### 5.3.3 Building

After a detailed investigation of this neighborhood, the physical building characteristics of the property located at 247-251 N 7th Street were selected for the model. This 129,689 square foot property, called 247N7, was built in 2015 and is one of the newer multifamily properties in the area. It is a 7-level luxury apartment complex with a full suite of high-end amenities including personal concierge services, rooftop decks with views of the Manhattan skyline, a 13,000 square foot courtyard, a fitness center, a 24/7 lobby attendant, a workspace/library, and 85 on-site garage parking spaces. The property totals 169 units, which are comprised of studio, one-bedroom, and two-bedroom units.



*Exhibit 5.4: 247N7 Apartments, Unit Kitchen (Left) and TV Lounge (Right) (247N7 2017)*

### 5.3.4 Unit Mix

The unit mix for the multifamily model is pulled directly from CoStar data. This shows a total of 59 studio units, 67 one-bedroom units, and 43 two-bedroom units. While the square footage of these units varies, the average studio unit is 435 square feet, the average one-bedroom is 670 square feet, and the average two-bedroom is 879 square feet.



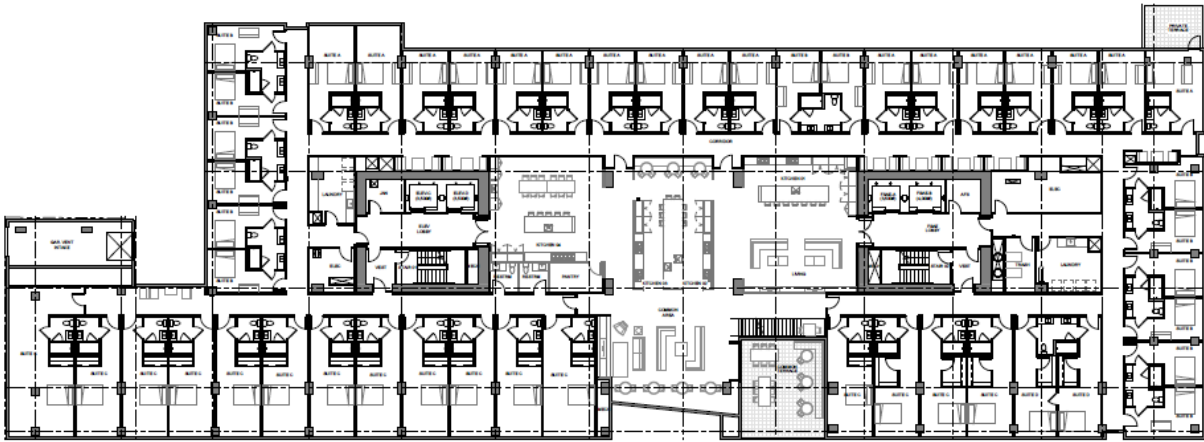
*Exhibit 5.5: Floors 2 to 6 Floorplate for 247N7 Apartments (StreetEasy 2018)*

For the co-living model, we assume 100% of the units are designed specifically for co-living. Some new co-living developments have only allocated a portion of the building to co-living, like Ollie's ALTA+ project in Long Island City which has only allocated 13 of the 43-floors to co-living. Others, like Treehouse in Los Angeles, include some traditional studio units mixed in with the co-living units (Barbanel 2018). Starcity's new 803 bed development in San Jose and The Collective's upcoming 350,000 square feet development at 555 Broadway in Brooklyn, are two of the few co-living developments that will only have co-living units. The floorplates of



these buildings have been specifically designed to optimize various aspects of co-living and thus differ drastically from that of traditional multifamily buildings.

Given our selected physical building has a gross building area of 129,689 square feet, we have estimated that 327 co-living units, each averaging 300 square feet, could fit within the structure. This assumes a building efficiency of 84% and another 10% of the building dedicated to communal space. Also, like Starcity's San Jose project, we assume each co-living unit has a private bedroom with an en-suite bathroom (either a private bathroom or a bathroom shared with only one other unit). The kitchens, dining rooms, living rooms, and laundry rooms are communal.



*Exhibit 5.6: 3rd Level Floorplan of Starcity's San Jose Project (City of San Jose 2019)*

### **5.3.5 Hard and Soft Costs**

Construction costs for a development project can be separated into two main categories – hard costs and soft costs. Hard costs are any expenses that have to do with the physical construction of the property and are typically the majority of total construction costs. Labor and materials fall into this category and include the cost of cement and windows or the cost to grade and excavate a site. Soft costs, on the other hand, are those construction costs that are not directly related to the physical construction and usually account for approximately 30% of construction costs.

Architecture and engineering fees are often a main component of soft costs, but taxes, project management, and inspection fees are also included in this category.

From our conversations with multiple co-living companies, the hard and soft costs to develop a co-living building are approximately equivalent to that of a conventional multifamily building. While co-living buildings reduce costs by providing fewer kitchens and appliances, they have other additional costs. For example, our co-living structure will have more bathrooms than the traditional multifamily building as it has significantly more units, each with an en-suite bathroom. Furthermore, co-living companies are conscious of the fact that their product is still relatively new and untested. Many are choosing to design their new ground up developments in such a way that they can easily be converted to traditional multifamily layouts. Co-living company Ollie, uses their own in-house architecture and design team to create these alternative layouts and have implemented this strategy in the co-living components of their Long Island City project (Isaacson 2019a). While a smart hedge against potential future demand shifts, according to Hines Innovation Officer, Charlie Kuntz, there are some additional costs to this embedded optionality. For the purposes of this analysis, we assume most hard and soft cost components are the same for both product types.

From our knowledge of the New York City real estate development market, we estimate hard costs to be \$375 per square foot for Labor and Material with an additional 10% contingency. All other hard costs, such as those for site utility connections and pre-construction consulting, are estimated to be \$500,000. For soft costs, Architecture and Engineering is \$40 per square foot, Marketing and Leasing is \$5,000 per unit (or per bedroom in the case of the co-living building), and Taxes and Insurance is \$8 per square foot. We also include a developer fee equal to 2.5% of the total project cost before financing.

Although we can assume the above hard and soft cost to be equivalent between traditional multifamily and co-living projects, co-living projects have at least one major additional development cost. Unlike conventional multifamily units, co-living bedrooms and the communal spaces are often fully furnished. The cost to provide furniture for every bedroom and common area in a luxury apartment building is not inconsequential and can range anywhere from a few thousand dollars to well over \$10,000 per room, according to the co-living companies we interviewed. For the purposes of this analysis, we assume an additional Furniture, Fixtures, and Equipment (FF&E) expense for the co-living project of \$6,000 per unit.

<b><u>Multifamily Model</u></b>			
	<u>/Rentable SF</u>	<u>/UNIT</u>	<u>AMOUNT</u>
Hard Costs			
Labor and Material	448.85	287,771	48,633,375
Contingency (10%)	44.88	28,777	4,863,338
FF&E	-	-	-
Other Hard Costs	<u>4.61</u>	<u>2,959</u>	<u>500,000</u>
Total Hard Costs	498.35	319,507	53,996,713
Soft Costs			
Architecture & Engineering	47.88	30,696	5,187,560
Marketing and Leasing	7.80	5,000	845,000
Taxes and Insurance	9.58	6,139	1,037,512
Development Fee	2.5% <u>17.13</u>	<u>10,981</u>	<u>1,855,755</u>
Total Soft Costs	82.38	52,816	8,925,827

*Exhibit 5.7: Multifamily Model Hard and Soft Costs*

<b><u>Co-Living Model</u></b>			
	<u>/Rentable SF</u>	<u>/UNIT</u>	<u>AMOUNT</u>
Hard Costs			
Labor and Material	495.75	148,726	48,633,375
Contingency (10%)	49.58	14,873	4,863,338
FF&E	20.00	6,000	1,962,000
Other Hard Costs	<u>5.10</u>	<u>1,529</u>	<u>500,000</u>
Total Hard Costs	570.43	171,128	55,958,713
Soft Costs			
Architecture & Engineering	52.88	15,864	5,187,560
Marketing and Leasing	16.67	5,000	1,635,000
Taxes and Insurance	10.58	3,173	1,037,512
Development Fee	2.5% <u>19.62</u>	<u>5,885</u>	<u>1,924,555</u>
Total Soft Costs	99.74	29,922	9,784,627

*Exhibit 5.8: Co-Living Model Hard and Soft Costs*

### 5.3.6 Financing

Financing co-living projects has its challenges. Lenders tend to be conservative and, as co-living is still relatively untested, they are hesitant to lend aggressively on the product. To better insulate themselves against any real or perceived risks, lenders may require higher down payments and/or lend on less favorable terms compared to traditional multifamily. According to some of the co-living companies we interviewed, lenders will sometimes calculate the net operating income of a potential new co-living development (or repositioning) as if it were going to be operated as a traditional multifamily building. Lenders base their requirements (loan to value, debt service coverage ratio, and so on) off this lower number and ignore any additional revenues the co-living operation could collect. This can limit the ability of co-living developers to fully leverage their projects and reap the additional financial benefits. Only after the building has operated successfully as a co-living building will the lenders consider this additional income in their calculations. Nevertheless, co-living is gaining in popularity and beginning to prove itself. The term is no longer unfamiliar to lenders and they have started to see its potential. Brian Lee from Common stated that loan terms on co-living buildings are no longer different to that of traditional multifamily, but it may take more searching to find the right lender. As such, both models use the same financing terms.

For the purposes of this analysis, the projects timeline will only include pre-development, construction, lease up, and a six-month stabilized occupancy/disposition period. As such, we assume the project only has a construction loan with interest-only payments that can be extended past project stabilization and through to sale of the property. From conversations with multifamily developers, a project of this scale would have a Loan To Cost (LTC) of 70% with a floating interest rate of London Inter-bank Offered Rate (LIBOR) plus 4.5%. However, for simplicity, we will use a fixed interest rate. The current forward curve for LIBOR rates shows that rates are expected to decline over the next few years. Even though this would be beneficial for our projects, we assume LIBOR will remain fixed at the July 2019 rate of 2.33% (YCharts 2019). As such, we assume a fixed interest rate of 6.83% (2.33% + 4.5%). There will also be a onetime, upfront financing fee equal to 1% of the loan amount.

<b><u>Multifamily Model</u></b>						
<u>SOURCES</u>	<u>LTC</u>	<u>ANNUAL RATE</u>	<u>% OF SOURCES</u>	<u>/UNIT SF</u>	<u>/UNIT</u>	<u>AMOUNT</u>
Equity	30.0%		30.0%	227.78	146,038	24,680,365
Debt	70.0%	6.83%	70.0%	531.47	340,748	57,586,360
Total Sources			100.0%	759.25	486,785	82,266,725

*Exhibit 5.9: Multifamily Model Financing*

<b><u>Co-Living Model</u></b>						
<u>SOURCES</u>	<u>LTC</u>	<u>ANNUAL RATE</u>	<u>% OF SOURCES</u>	<u>/UNIT SF</u>	<u>/UNIT</u>	<u>AMOUNT</u>
Equity	30.0%		30.0%	260.59	78,178	25,564,233
Debt	70.0%	6.83%	70.0%	608.05	182,416	59,649,974
Total Sources			100.0%	868.65	260,594	85,214,207

*Exhibit 5.10: Co-Living Model Financing*

### 5.3.7 Rental Revenues

Rental revenues are some of the most fundamentally critical inputs for any real estate development model. They represent market demand for the units and are thus some of the most dynamic and subjective values. Pricing luxury apartments is a delicate balance between keeping the vacancy rate as low as possible while pushing rents as high as they can go. Rents for the multifamily model have been pulled from a Rent Comparables report on 247N7 apartments generated by CoStar. These values have been adjusted upwards 5% to account for the fact that our structure is a new build, whereas the 247N7 apartments is over 4 years old. While identical units on different floors will rent for different prices, we assume the average between all studio units is \$2,922, the average between all one-bedroom units is \$4,151, and the average between all the two-bedroom units is \$5,140.

Property Name/Address	Rating	Yr Built	Property Size		Asking Rent Per Month Per Unit				Rent/SF
			Units	Avg Unit SF	Studio	1 Bed	2 Bed	3 Bed	
1 One Blue Slip 1 Blue Slip	★★★★★	2019	372	662	\$2,880	\$3,793	\$5,683	\$7,869	\$6.31
2 568 Union 568 Union Ave	★★★★★	2010	95	689	\$2,848	\$3,474	\$6,646	-	\$6.13
3 Atelier 239 N 9th St	★★★★★	2015	120	602	\$3,207	\$3,838	\$5,622	-	\$6.09
4 60 Water 60 Water St	★★★★★	2014	290	719	\$3,023	\$3,916	\$5,960	-	\$5.93
247N7 247 N 7th St	★★★★★	2015	169	641	\$2,783	\$3,953	\$4,895	-	\$5.90
5 Level - BK 2 N 6th Pl	★★★★★	2017	554	916	\$2,665	\$4,365	\$5,490	\$9,010	\$5.85
6 Leonard Pointe 395 Leonard St	★★★★★	2015	188	637	\$2,890	\$3,256	\$5,266	-	\$5.69
7 1 North 4th Place 1 N 4th Pl	★★★★★	2015	509	833	\$3,254	\$3,896	\$4,025	\$7,752	\$5.69
8 325 Kent 325 Kent Ave	★★★★★	2017	522	689	\$3,116	\$3,506	\$5,134	-	\$5.55
9 34 Berry 34 Berry St	★★★★★	2010	142	603	\$2,687	\$3,618	\$5,045	-	\$5.43

*Exhibit 5.11: Rent Comparables Summary Table for 247N7 Apartments (CoStar 2019, 3)*

Rents for co-living units are typically less than those of comparable studio units. According to Mo Sakrani, the CPO of Starcity, their rents are 25-30% less than a comparable studio, including additional costs such as utilities and Wi-Fi. Brian Lee from Common stated that their units are usually 15-20% less than studio units in the area. From our research, co-living units that offer private bedrooms are priced anywhere from 15% to 30% below a comparable studio, depending on location, amenities, and physical building/unit characteristics. Given the high demand for apartments in the Williamsburg neighborhood and the fact that our property is a brand-new building with high-end amenities, designed specifically for co-living, with each unit having an en-suite bathroom, we assume a discount on the lower end of this spectrum. At 15% less than the multifamily model studio units, the average co-living unit rent is \$2,484 per month.

<b>Multifamily Model</b>					
<b>RENTAL INCOME</b>			108,352 NSF	83.5% EF	129,689 GSF
<b>UNIT TYPE</b>	<b>UNITS</b>	<b>AVG. SF</b>	<b>RENT/SF/MO</b>	<b>RENT/UNIT/MO</b>	<b>TOTAL RENT/YR</b>
Studio	59	435	6.72	2,922	2,068,882
One-Bedroom	67	670	6.20	4,151	3,337,123
Two-Bedroom	43	879	5.85	5,140	2,652,111
<b>GROSS RENT</b>	169	641	6.20	3,973	8,058,116

Exhibit 5.12: Multifamily Model Rental Income

<b>Co-Living Model</b>					
<b>RENTAL INCOME</b>			98,100 NSF	75.6% EF	129,689 GSF
<b>UNIT TYPE</b>	<b>UNITS</b>	<b>AVG. SF</b>	<b>RENT/SF/MO</b>	<b>RENT/UNIT/MO</b>	<b>TOTAL RENT/YR</b>
Co-Living	327	300	8.28	2,484	9,746,539
	-	-	-	-	-
	-	-	-	-	-
<b>GROSS RENT</b>	327	300	8.28	2,484	9,746,539

Exhibit 5.13: Co-Living Model Rental Income

### 5.3.8 Leases and Vacancy

Some co-living companies choose to operate their buildings similarly to hotels, with residents able to rent units by the day or week. The homepage on WeLive’s website, the co-living venture from the co-working company WeWork, asks visitors if they want to “*stay for a few nights*” or “*move in for months.*” While the flexibility of this model may appeal to a wider audience and has its benefits, we assume our co-living building is only offering longer lease terms. This will mean less tenant turnover and allow the building to maintain a high occupancy. According to a March 2019 report by Douglas Elliman, the average vacancy rate for Manhattan, Brooklyn, and Queens rentals is under 2% (Douglas Elliman 2019). However, a Rent Comparables report on 247N7 apartments generated by CoStar, shows an average vacancy rate for comparable properties of 4.0%. To be conservative, we assume a stabilized vacancy rate of 4.0% for the multifamily model.

No. Rent Comps	Avg. Rent Per Unit	Avg. Rent Per SF	Avg. Vacancy Rate
<b>17</b>	<b>\$3,870</b>	<b>\$5.59</b>	<b>4.0%</b>

*Exhibit 5.14: Rent Comparables Summary Data for 247N7 Apartments (CoStar 2019)*

Co-living properties often have a vacancy rate equal to, or lower than, that of traditional multifamily properties in the area. Brian Lee from Common stated that their portfolio of co-living units is 99% occupied and at one point they have had 15,000 people register interest for 4 available units. This is in part due to the high demand for these types of lower cost units, combined with a lack of supply. Nevertheless, as 4.0% is already a low vacancy rate, we also assume a 4.0% vacancy rate for the co-living model.

### **5.3.9 Operating Expenses**

All costs associated with operating and maintaining the property are known as operating expenses. These include the cost of repairs and maintenance, landscaping, building payroll, real estate taxes, insurance, marketing, management fees, and owner paid utilities. According to the 2018 National Apartment Association Survey of Operating Income & Expenses in Rental Apartment Communities, the average operating expenses for properties less than 5 years old was around 35% of gross potential rent (Munger and Yoon 2018). Older properties tend to have higher operating expense because they require more maintenance and repairs.

For the purposes of our analysis, we have elected not to breakout and itemize each operating expense. Instead, we only have three line items: general operating expenses, management fees, and taxes & insurance. General operating expenses for the conversional multifamily model is set to 21.0% of Effective Gross Revenue (EGR) and is 75% fixed. The management fees and property taxes & insurance for the multifamily model are set to 3% of EGR and \$6.50 per square foot, respectively. Together, the total operating expenses equals 34.90% of EGR.

Co-living properties have additional operating expenses that most multifamily properties do not. In an effort to make the communal living process easier, more enjoyable, and to minimize



potential confits, co-living companies will pay for all utilities (high-speed internet, electricity, gas, water, and trash), a frequent cleaning service, regular community events, and provide some basic household items such as dish soap and paper towels. The cost of these additional expenses varies depending on location and operating company. For example, National Development CEO, Ted Tye, expected co-living operating expenses to be 35% to 40% of NOI for Ink Block, their mixed-use master plan development in Boston. This aligns with comments from other co-living companies we interviewed. As we assume the co-living model will have nearly double the number of units as the traditional multifamily model (327 versus 169), the general operating expenses category is set to 26% of EGR to account for the additional expenses, 5% higher than the multifamily model.

Also, because co-living generally requires a higher degree of management care, co-living operators often charge higher managing fees. Accounting to Charlie Kuntz form Hines, where a traditional property management company would charge an owner 3% of EGR or less, some co-living companies require 5% of EGR plus 20% of profits above that which could have been earned if the property were operating as a traditional multifamily building. These co-living management fees may decrease in the future as the asset class becomes more mature and competition drives down prices. The management fee for the co-living model is set to 5% of EGR with no additional profit sharing. Property taxes & insurance is the same as the multifamily model at \$6.50 per square foot. Total operating expenses for the co-living model is 40.01% of EGR.

<b><u>Multifamily Model</u></b>				
<b><u>OPERATING EXPENSES</u></b>	<b><u>% FIXED</u></b>	<b><u>% OF EGR</u></b>	<b><u>UNIT/YR</u></b>	<b><u>AMOUNT/YR</u></b>
General Operating Expenses	75%	21.00%	9,613	1,624,516
Management Fee	0%	3.00%	1,373	232,074
Property Taxes & Insurance	100%	10.90%	4,988	842,979
<b>TOTAL OPERATING EXPENSES</b>		34.90%	15,974	2,699,568

*Exhibit 5.15: Multifamily Model Operating Expenses*

<b>Co-Living Model</b>				
<u>OPERATING EXPENSES</u>	<u>% FIXED</u>	<u>% OF EGR</u>	<u>UNIT/YR</u>	<u>AMOUNT/YR</u>
General Operating Expenses	75%	26.00%	7,440	2,432,736
Management Fee	0%	5.00%	1,431	467,834
Property Taxes & Insurance	100%	9.01%	2,578	842,979
<b>TOTAL OPERATING EXPENSES</b>		40.01%	11,448	3,743,549

*Exhibit 5.16: Co-Living Model Operating Expenses*

### 5.3.10 Capital Expenditures

Unlike operating expenses, which are required to run a property day-to-day, capital expenditures are usually one-time repairs or upgrade expenses that fall outside of standard replacement reserves. Generally, capital expenditures extend the life of a property, like replacing a roof, or are a purchase of something new. As both of our properties are new developments, few capital expenditures should be required initially and setting aside funds for this purpose is not a major concern. Nevertheless, lenders will still require funds to be allocated. \$250 per unit for capital reserves and another \$250 per unit for other capital expenditures are used for both models.

It should be noted that by using a ‘per unit’ assumption for capital expenditures, the co-living model has significantly more funds allocated than the multifamily model. However, in addition to the standard capital expenditures, co-living owners are also responsible for providing and maintaining all the unit and common area furniture. These will need to be replaced at regular intervals and may necessitate higher capital expenditure budgets over time.

<b><u>Multifamily Model</u></b>			
<b><u>CAPITAL EXPENDITURES</u></b>	<b><u>% OF EGR</u></b>	<b><u>UNIT/YR</u></b>	<b><u>AMOUNT/YR</u></b>
Capital Reserves	0.55%	250	42,250
Other Capital Expenditures	0.55%	250	42,250
<b>TOTAL CAPITAL EXPENDITURES</b>	<b>1.09%</b>	<b>500</b>	<b>84,500</b>

*Exhibit 5.17: Multifamily Model Capital Expenditures*

<b><u>Co-Living Model</u></b>			
<b><u>CAPITAL EXPENDITURES</u></b>	<b><u>% OF EGR</u></b>	<b><u>UNIT/YR</u></b>	<b><u>AMOUNT/YR</u></b>
Capital Reserves	0.87%	250	81,750
Other Capital Expenditures	0.87%	250	81,750
<b>TOTAL CAPITAL EXPENDITURES</b>	<b>1.75%</b>	<b>500</b>	<b>163,500</b>

*Exhibit 5.18: Co-Living Model Capital Expenditures*

### **5.3.11 Capitalization Rate**

The capitalization rate, or simply the cap rate, is calculated by dividing a property's Net Operating Income (NOI) by its value. This figure is frequently used in commercial real estate as a way of establishing property value. Investors analyze recent sales of comparable properties in the vicinity of their project to determine the market cap rate. The asset's value is then calculated by dividing the project's annual net operating income by that cap rate. Cap rates vary greatly by location and asset type but are determined from investment supply and demand in the asset market. Three of the main factors that affect cap rates are risk, expected growth, and the opportunity cost of capital (Geltner et al. 2013).

Compared to other major asset classes (office, industrial, retail, and hotels), multifamily tends to have lower cap rates. In North America for the second half of 2018, cap rates for infill Class A multifamily properties averaged 4.70%, compared to 5.28% for Class AA Central Business District (CBD) office and 5.07% for Class A industrial (CBRE 2019, 1). Co-living, while a new asset class, still resembles traditional multifamily in many ways and most co-living advocates

believe its cap rates will match those of comparable multifamily buildings. However, some co-living models offer short-term stay options which likens them more to hotels than multifamily. Hotels are more complicated to operate than multifamily and are viewed as riskier by most investors. As such, hotel cap rates tend to be much higher than multifamily, meaning their values are lower given an equivalent net operating income. Cap rates for luxury CBD hotels averaged 7.04% across North America in the second half of 2018 (CBRE 2019, 1).

Even only considering co-living companies that offer longer term rental options, their lease lengths are still typically less than traditional multifamily, although there is some variation. Mo Sakrani from Starcity stated that their average lease length is around eight months. Brian Wang, Director of Investments for The Collective stated that at Old Oak, their 546-bed co-living development in London, the average stay is between 12-14 months. Furthermore, like hotels, operations is a more important component of co-living (from organizing community event to managing tenant conflicts) and furniture is provided in all units. From this perspective, co-living combines multifamily with some elements of hospitality. As such, investors may set co-living cap rates above those of traditional multifamily.

This uncertainty around co-living cap rates is a concern for most institutional investors. Having a high degree of confidence for what an asset could sell for is an important factor in any financial model. It will not be until after multiple co-living properties have sold in the United States that exit cap rate estimates can be accurately made. Nevertheless, our interviews with co-living companies and investors alike have indicated lenders are applying multifamily cap rates to co-living. Brian Wang of The Collective stated that lenders compare their product to multifamily rather than hotel. As such, our base case analyses for both models will assume a 4.50% cap rate. This figure was determined by assessing recent multifamily sales across Brooklyn. As the project period is 4 years, we assume a cap rate increase of 0.25% over this timeframe.

REVERSION (SALE) ASSUMPTIONS	
Market Cap Rate Today	4.50%
Cap Rate at Sale (Terminal Cap)	4.75%
Selling Costs	1.50%

*Exhibit 5.19: Multifamily and Co-Living Model Cap Rates and Selling Costs*

### 5.3.12 Land Cost

The cost to acquire land is a key component of development project financials. Determining a price that will ultimately lead to a profitable project is often a challenge for real estate developers. A common practice in the real estate industry is to back into this land value. Using local knowledge, zoning research, and construction expertise, a developer will create a financial model for what they believe should be built on the subject parcel. Only once complete, the developer will adjust the land value input to determine what they think they can pay for the land and still earn an acceptable profit.

This strategy was applied to determine our land value. After the multifamily model was completed, the land value input was adjusted until the key investment metrics mentioned previously appeared acceptable. A land value of \$100 per gross building square foot, or \$12,968,900, was selected as it yields an unlevered IRR of approximately 13.5% and a development spread above 160 basis points (bps). By using this land value, we assume it is the lowest price required to acquire the site. Thus, the co-living model uses the same land value. Also, we assume closing costs for the land acquisition is 1.5% of the land value.

In reality, this land value is likely too low for the Williamsburg neighborhood. Yet, our main purpose is to compare the financials of a co-living development to a comparable multifamily project. If the land values are the same between each model, the comparison will still be meaningful.

<b><u>Multifamily Model</u></b>			
	<u>/Rentable SF</u>	<u>/UNIT</u>	<u>AMOUNT</u>
Land Costs			
Land Costs	119.69	76,739	12,968,900
Closing Costs	<u>1.80</u>	<u>1,151</u>	<u>194,534</u>
Total Land Costs	121.49	77,890	13,163,434

*Exhibit 5.20: Multifamily Model Land Costs*

<b><u>Co-Living Model</u></b>			
	<u>/Rentable SF</u>	<u>/UNIT</u>	<u>AMOUNT</u>
Land Costs			
Land Costs	132.20	39,660	12,968,900
Closing Costs	<u>1.98</u>	<u>595</u>	<u>194,534</u>
Total Land Costs	134.18	40,255	13,163,434

*Exhibit 5.21: Co-Living Model Land Costs*

### 5.3.13 Timeline

The hold period for a real estate development can vary drastically based on the investor’s strategy. Some companies, like many Real Estate Investment Trusts (REITs), develop with the intention of holding long-term and so are more concerned with the long-term performance of an asset. The Collective also follows this long-term hold strategy. During our interview, they stated they are in the cash flow business, so intend to hold onto assets for as long as possible. Selling will generally only be considered if they need capital. Other developers build with the intention of selling but are flexible on timing. They may hold a property for years after stabilization in an effort to time the market and benefit from cyclical appreciation. Still others, sometimes called merchant builders, are in the business of building and selling immediately. Holding the asset is something they rarely consider. It is this latter business model that our financial analysis is designed for.

We assume a total pre-development period of 12 months followed by 24 months of construction. The lease-up period for 169 traditional multifamily units is estimated to be 12 months. We also assume the same lease-up period for the 327 co-living units. While there are almost twice the number of co-living units, demand for this product type is currently high and supply is limited. Given the low vacancy rate in Williamsburg, we believe a 12-month lease-up period for the co-living units is a reasonable assumption, perhaps even conservative. According to Brian Wang of The Collective, the Old Oak project in London reached 90% occupancy within four months of opening. Finally, we assume both properties will be sold six months after stabilized occupancy has been achieved. Since no co-living properties have currently sold in the United States, we

cannot accurately predict how long it would take sell a co-living asset. As such, we assume it will take the same amount of time to sell both properties.

Regarding the outlay of capital, all acquisition costs (land value and closing costs) are paid upfront in month 0. Financing fees are paid in month 12, prior to start of construction. All soft costs, excluding marketing and leasing costs, are dispersed evenly over the full 36-month pre-development and construction period. Marketing and leasing costs start 12 months prior to construction completion. Unlike soft costs, hard costs are typically not distributed linearly. Projects generally start by having smaller monthly hard cost payments as construction gets going, then as construction ramps up the payments get larger, before dropping down again as construction tapers off. Therefore, we use the S-curve method to forecast hard cost distributions, starting month 13 and ending month 36.

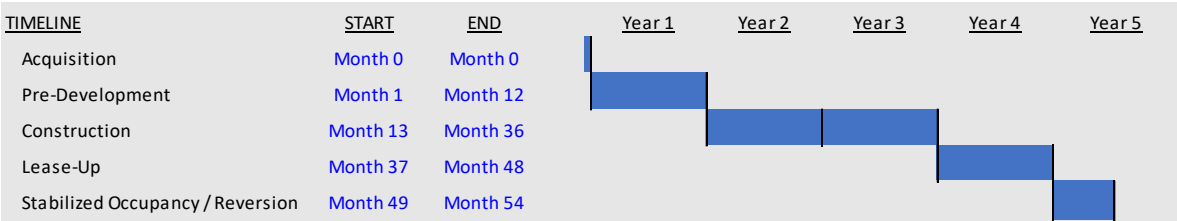


Exhibit 5.22: Multifamily and Co-Living Model Timelines

**5.3.14 Miscellaneous**

- Ground Floor Retail** – It has become increasingly common for new multifamily developments to include some type of retail component on the ground floor. These mixed-use developments provide certain benefits including, creating denser more walkable cities and helping developers diversify their project income streams by including complementary asset classes. Having a restaurant or other food options on the ground floor might be particularly beneficial for a co-living project as the lack of a private kitchen may cause residents to eat out more frequently and appreciate a convenient option. However, 247N7 apartments does not have a ground floor retail component so we assume our models do not either.

- **Other Income** – Many large apartment buildings collect income from other sources in addition to rental income. These include income from laundry machines and vending machines which the owner may provide and maintain themselves. Sometimes owners will elect to use a servicing company that provides the machines, services them, collects the income, and then shares a portion of the proceeds with the owner (Chara 2013). Another source of income is parking. While many properties provide off-street parking as part of the lease, others may offer them to tenants for an additional monthly fee (Chara 2013). Leonard Pointe Apartments, another high-end apartment building in the Williamsburg neighborhood, charges \$250 per month, per space (UDR Apartments 2019). For the purposes of this analysis, we elect not to include any additional sources of income.
- **Growth Rates** – According to a report from Freddie Mac on multifamily market data, “*Over the long term, market-level rents and expenses generally grow between 2 to 4% annually*” (2018, 6). Given this information, and the fact it is common in the real estate industry to use fixed rent and expense growth rates, growth rates for both models are 3%.
- **Selling Cost** – The disposition of a commercial real estate asset will have certain costs and fees associated with it. These may include transfer taxes, brokerage commissions, legal fees, and administrative costs. We assume the selling costs for both of our models equals 1.5% of the sales price.

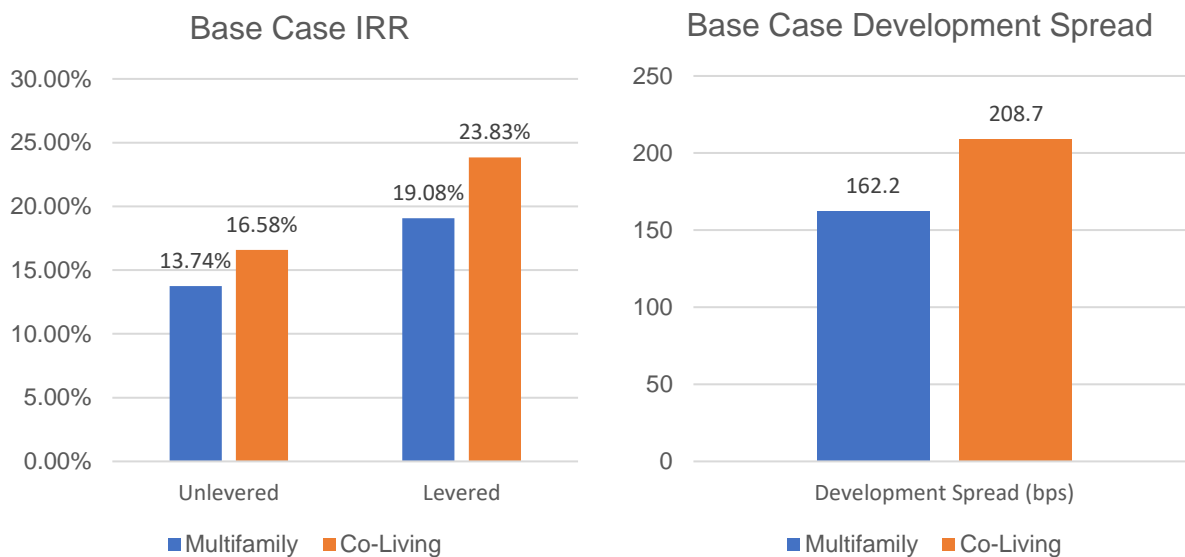
## 5.4 Results

The results of both DCF models, using the assumptions listed above, will be examined by focusing on the three investment metrics described earlier – IRR, equity multiple, and development spread. The financial performance of the co-living building will be compared to that of the multifamily property to assess its relative performance. From these base case scenarios, we adjust certain inputs to simulate adverse changes in market factors and co-living demand characteristics. These results will help clarify the degree of financial resiliency co-living could possess as an asset class.



### 5.4.1 Base Case

For the multifamily model, the unlevered IRR equals 13.74% with an equity multiple of 1.47x. Factoring in financial leverage, the project IRR becomes 19.08% and the equity multiple is 2.03. The untrended development spread is 162.2 bps. Given the current state of the real estate development market in Brooklyn, these returns would be attractive for most real estate developers. Regardless, the main purpose of this model is to act as a reference point from which we can assess the financial returns of the co-living model. The precise realism of these numbers, while important, is not essential for our objective. For the co-living model, the unlevered IRR equals 16.58% with an unlevered equity multiple of 1.57x. With financing, the IRR and equity multiple increase to 23.82% and 2.36x, respectively. The untrended development spread is 208.7 bps.



*Exhibit 5.23: Multifamily vs. Co-Living Base Case Key Investment Metrics*

It is evident from these results that the co-living property will produce significantly higher returns than the multifamily property. The unlevered IRR is 2.55% greater for co-living and the development spread is 46.5 bps higher. As we assume both project timelines and exit cap rates are the same, this spread is due to the co-living property only having a marginally higher total project cost, but a significantly higher rental income. The total multifamily project cost

excluding carrying costs is \$76,085,973. For the co-living project, the total is only 3.71% greater at \$78,906,773. This difference is mostly due to the added co-living FF&E cost of \$6,000 per unit and the additional marketing and leasing expense due to the greater number of co-living units (327 units for co-living verses 169 units for multifamily). On the other hand, EGR for the multifamily properties is only \$7,735,791, whereas it is \$9,356,678 for the co-living property. This 21.0% difference is more than enough to absorb the added co-living operating expenses and results in an NOI that is 11.46% greater than the multifamily property.

### 5.4.2 Higher Cap Rates

Exit cap rates are still one of the biggest unknowns for the new co-living asset class. While most co-living companies are confident cap rates will match those of comparable multifamily properties, the product type is still in its infancy and no co-living properties have currently sold in the United States. As co-living usually offers shorter-term lease options and caters to a narrower, more transient tenant base, investors may view it as a riskier investment. It appears unlikely that co-living cap rates will be likened to those of hotels, however a 25 bps to 50 bps premium over traditional multifamily cap rates is possible.

Exit Cap Rate	Untrended				
	Dev. Spread	Unlevered IRR	Unlevered Emx	Levered IRR	Levered EMx
<b>4.500%</b>	<b>208.7 bps</b>	<b>16.58%</b>	<b>1.57X</b>	<b>23.83%</b>	<b>2.36X</b>
4.625%	196.2 bps	15.62%	1.53X	22.26%	2.24X
4.750%	183.7 bps	14.69%	1.50X	20.71%	2.13X
4.875%	171.2 bps	13.79%	1.46X	19.17%	2.02X
5.000%	158.7 bps	12.92%	1.43X	17.64%	1.92X
5.125%	146.2 bps	12.08%	1.40X	16.13%	1.82X
5.250%	133.7 bps	11.25%	1.37X	14.62%	1.73X

Exhibit 5.24: Exit Cap Rate Sensitivity Table

The table above displays the co-living model key investment metrics relative to increasing exit cap rates. A 25 bps increase in the exit cap rate will reduce the profitability of the co-living model but it still produces a noticeable premium over the multifamily model. The development spread difference drops to 21.5 bps and the unlevered IRR is 0.95% greater. Even with a 37.5 bps cap rate increase, co-living will still generate a marginally greater development spread and IRR. However, the differences become small enough that investors may view them as equivalent investment options. Above a 45 bps cap rate increase, multifamily begins to out-perform co-living in all of the key investment metrics.

These results demonstrate the importance of determining accurate market cap rates for the co-living product type. If cap rates do align with those of traditional multifamily, as most co-living companies believe, then co-living offers superior returns. At a slightly higher cap rate, the return premium offered by co-living would still be attractive to many investors and developers, especially in markets where margins on traditional multifamily projects are low. However, these results indicate that at over a 50 bps increase to traditional multifamily cap rates, co-living would no longer deliver the highest returns.

#### **5.4.3 Less Demand / More Supply**

One of the main concerns real estate investors have with co-living is the depth and resiliency of demand for the product. As discussed in Chapter 2, many recent economic and social changes have enabled the swift growth of co-living. From affordability issues to delaying marriage, and from the growth of the shared economy to urbanization, millennials are facing challenges and preference changes that previous generations did not. Together, these have driven demand for co-living. Nevertheless, real estate is inherently a long-term investment and investors want to be confident these changes will not diminish over time. Or if they do, that co-living will still have enough demand. For these reasons, it is important to consider what would happen to the financial returns of our co-living model if demand falls.

Current demand for co-living is extremely high, as evidenced by the 15,000 people that previously registered interest for four available Common co-living units. However, this could change for many reasons. Economic factors, like increasing wages or reduction in multifamily

rents, could make renting traditional multifamily more financially viable. Social dynamics could change, causing people to move less frequently or prefer living in the suburbs over downtown urban cores. Having roommates could become less socially acceptable. While the millennial generation has gravitated towards co-living, this may not be true for Generation Z. All of these changes could cause a reduction in demand for co-living over time. Alternatively, current demand could remain constant, but a surge of new co-living developments could create oversupply. Owners would be forced to offer concessions to attract the limited number of co-living amenable tenants.

The two main inputs affected by changes in demand are the vacancy rate and rents. Either less tenants can be found to occupy units at high rental rates, or rental rates will need to be decreased to maintain a low vacancy.

Vacancy	<u>Untrended</u>				
	<u>Dev. Spread</u>	<u>Unlevered IRR</u>	<u>Unlevered Emx</u>	<u>Levered IRR</u>	<u>Levered EMx</u>
4.00%	<b>208.7 bps</b>	<b>16.58%</b>	<b>1.57X</b>	<b>23.83%</b>	<b>2.36X</b>
6.00%	192.6 bps	15.64%	1.53X	22.28%	2.25X
8.00%	176.6 bps	14.67%	1.50X	20.67%	2.13X
10.00%	160.5 bps	13.69%	1.46X	19.00%	2.01X
12.00%	144.5 bps	12.69%	1.42X	17.24%	1.89X
14.00%	128.4 bps	11.67%	1.38X	15.39%	1.78X

*Exhibit 5.25: Vacancy Rate Sensitivity Table*

The table above shows the effect of increasing vacancy rates on the co-living key investment metrics. Assuming demand for traditional multifamily remained constant, the vacancy rate would have to increase to over 9.75% for traditional multifamily to outperform co-living. In high demand, supply constrained markets that co-living companies tend to focus their attention, it seems unlikely that a 5.75% difference between multifamily and co-living vacancy rates would exist. Social changes causing a drop in co-living demand would need to occur. This result

supports the long-term resiliency of co-living. With small to medium reductions in occupancy, co-living can still be expected to perform well.

Rent	Untrended				
	Dev. Spread	Unlevered IRR	Unlevered Emx	Levered IRR	Levered EMx
<b>\$2,484</b>	<b>208.7 bps</b>	<b>16.58%</b>	<b>1.57X</b>	<b>23.83%</b>	<b>2.36X</b>
\$2,434	193.1 bps	15.67%	1.53X	22.34%	2.25X
\$2,384	177.6 bps	14.74%	1.50X	20.79%	2.14X
\$2,334	162.1 bps	13.79%	1.46X	19.17%	2.02X
\$2,284	146.6 bps	12.83%	1.42X	17.48%	1.91X
\$2,234	131.1 bps	11.85%	1.39X	15.71%	1.80X
\$2,184	115.6 bps	10.84%	1.35X	13.85%	1.68X

Exhibit 5.26: Rental Rate Sensitivity Table

Key investment metrics for various reductions in the average co-living rental rate are displayed in the table above. Assuming no change in the multifamily rental rate, it would take a 6.0% reduction in the base case average rent to render the multifamily property more profitable than co-living. At \$2,334 per month, this equates to a 20.01% reduction from the comparable studio rent of \$2,922 per month. A 20.01% reduction from market studio rents is not impossible given it falls within the 15% to 30% reduction range most co-living companies price their units. However, \$2,334 per month for these brand new co-living units in a high-end, amenity-rich building would mean they are priced lower than 16 of the 18 comparable studio units from the CoStar Rent Comparables Report on the 247N7 apartments. It is unlikely this situation would occur and so the results indicate a degree of financial resiliency for co-living.

It should be noted that, if co-living vacancy rates do increase, utilizing the short-term rental strategy many co-living companies are already gravitating toward could be advantageous (assuming zoning permits). As vacant units are already fully furnished, they could be rented on a short-term basis until longer-term tenants can be found. This method could allow co-living companies to maximize their use of available space and alleviate pressure to reduce rents in order to quickly fill vacancies.

#### 5.4.4 Higher Operating Expenses

The operating component of a co-living building tends to be much more complex and financially intensive than traditional multifamily buildings. In addition to all the standard operating expenses like repairs, maintenance, landscaping, payroll, taxes, and insurance, co-living owners also cover the cost of tenant utilities, internet, a frequent cleaning service, and miscellaneous household supplies. Property management typically organize community events, manage any conflicts between community members, and are responsible for leasing more units (relative to comparable size multifamily buildings) on shorter term leases. As such, co-living companies usually have higher management fees compared to multifamily.

For all these reasons, the total operating expense for our co-living model was set to 40.01% of EGR as opposed to 34.90% of EGR for the multifamily model. However, while estimates for traditional multifamily operating expenses have countless historical datapoints to support them, the same is not true for co-living. It is possible that operating expenses could be higher than expected or grow at an accelerated rate, particularly in the categories of tenant utilities, replacement reserves, common area maintenance, and cleaning.

Total OpEx Percent of EGR	General OpEx Percent of EGR	Untrended Dev. Spread	Unlevered IRR	Unlevered Emx	Levered IRR	Levered EMx
40.01%	26.00%	208.7 bps	16.58%	1.57X	23.83%	2.36X
41.26%	27.25%	194.3 bps	15.72%	1.54X	22.43%	2.26X
42.51%	28.50%	180.0 bps	14.85%	1.50X	20.99%	2.15X
43.76%	29.75%	165.6 bps	13.97%	1.47X	19.48%	2.04X
45.01%	31.00%	151.3 bps	13.07%	1.43X	17.92%	1.94X
46.26%	32.25%	137.0 bps	12.15%	1.40X	16.29%	1.83X

*Exhibit 5.27: Operating Expenses Sensitivity Table*

The table above shows how increasing the co-living model general operating expense would affect its key investment metrics. Total operating expenses would need to be over 44% of EGR, compared to 34.90% for that of the traditional multifamily model, for the returns of the two models to be equivalent. In absolute terms, the multifamily total operating expense equals

\$2,699,568. However, at 44% of EGR, the co-living total operating expense is \$4,117,816. This \$1,418,248 difference is over a 50% increase from traditional multifamily. From our conversations with co-living companies, this increase is excessive. The largest additional co-living operating expense line item is tenant utilities. According to Numbeo.com data from July 2019, the average basic utility bill (electricity, heating, cooling, water, garbage) for a 915 square foot apartment in New York City is \$140.74 per month (Numbeo 2019). For smaller co-living units with shared common space, we can expect the per unit utility cost to be lower. Nevertheless, \$140.74 per month for 327 units yield an annual tenant utility expense of only \$552,264. It is unlikely that co-living operating expenses will exceed those of traditional multifamily to the degree necessary to make co-living less profitable. Co-living generates enough of a rent premium that additional operating expenses can be absorbed.

## **5.5 Summary**

These results indicate that rental price and exit cap rate have the most impact on the success of a co-living development project. Vacancy rate and operating expenses, while significant inputs, can both increase to some degree and co-living will still outperform a comparable multifamily building. Ensuring rents and the exit cap rate inputs are as realistic as possible is vital to creating an accurate co-living model.

Enough co-living units are currently available in cities like New York City and San Francisco that confidence in expected rental rates is high. Depending on the market, a 15% to 30% discount on comparable studios is sufficient. Co-living could suffer a small reduction in rental revenues pricing due to a drop in demand or oversupply and still be more profitable than traditional multifamily. Furthermore, it appears likely that a new co-living development would be better positioned to withstand a general economic downturn as it would already be priced at the lower end of the luxury unit price spectrum. In addition, the ability to easily integrate a short-term rental strategy to fill vacant units while looking for long-term tenants could help this asset class endure unfavorable market conditions.

Appropriate exit cap rates are still one of the biggest financial question marks for co-living. However, this will become clear over time. A few largescale transactions and more publicly available data will provide investors with enough confidence to start investing in the product type. After this happens, co-living will soon become recognized as a permanent niche in the real estate industry.



# Chapter 6 : Public Policy Affecting Co-Living

## 6.1 Overview

The planning policies of individual cities are some of the biggest hurdles the co-living industry faces. Among the most prominent policies affecting co-living are those that regulate the following factors:

Length of Lease Terms

Minimum Unit Sizes

Dwelling Unit Maximums

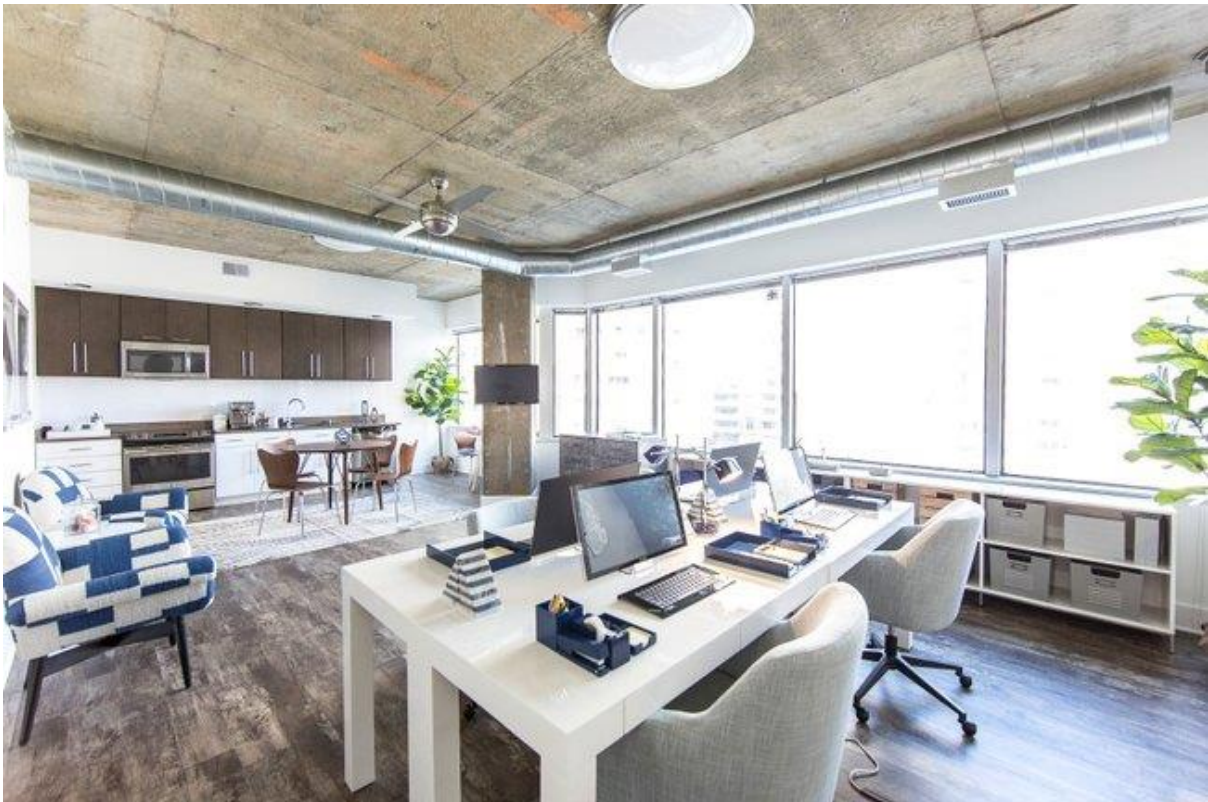
Single-Room Occupancies

Affordable Housing Requirements

The co-living product type often does not fit within the existing zoning and building regulations of cities, making it difficult for co-living companies to gain the necessary building permits and approvals. Ana Paula Emidio, Co-Liv's Policy Research Forum Coordinator, argues that, *"In terms of policy, the biggest planning limitations to co-living spaces can be found in the zoning regulations of cities... the co-living concept still does not exactly fit into conventional zoning rules, making it even more challenging to find a common ground of where and how ordinances can be applied to this context"* (Fix and Lesniak 2017). Many planning regulations limit the feasibility of co-living operators and developers, and occasionally the ambiguity surrounding the rules can lead to complaints and the threat of violations. In 2015, a complaint was filed with New York City's Department of Buildings for Common's 1162 Pacific St. property in Crown Heights, Brooklyn claiming that Common had illegally converted the four-story home into a single-room-occupancy residence (Anuta 2015). In the end, Common's legal argument was valid, but they received a lot of negative publicity, potentially damaging their short-term ability to raise capital.

These ambiguous rules do not only exist in New York City, and it is one of the reasons why the co-living sector in cities such as Paris is slow to develop.

In order to meet demand and expand, the co-living sector needs more flexibility and ingenuity from governing authorities, permitting non-traditional residential product types to thrive without the constraints of strict, decades-old building codes and zoning regulations. That being said, some policy innovations do exist and municipalities across the globe are becoming more accepting of the co-living typology. In Alexandria, Virginia an innovative zoning code adopted for commercial-residential ‘e-lofts’ falls under a commercial-residential mixed-use high-density (CRMU-H) zoning (Dietsch 2016). This dual-use concept allows *“businesses to write-off up to 49.9 percent of their home office space if located in their apartment unit,”* meaning that individuals and/or companies can either rent an apartment, rent office space or do both with any of the 200 units in the e-loft complex (Dietsch 2016).



*Exhibit 6.1: Interior of E-Lofts in Alexandria, VA (Dietsch 2016)*

Another example is Santa Cruz’s Accessory Dwelling Unit (ADU) program, which allows for the addition of separate units to pre-existing homes, which include a “*separate kitchen, sleeping, and bathroom facilities, attached or detached from the primary residential unit on a single-family lot*” (City of Santa Cruz 2018). These ADUs provide an opportunity to increase the amount of affordable rental housing, giving homeowners a chance to supplement mortgage payments and at the same time offer new residences within a low-density neighborhood.

Dialogue between multiple parties is critical to the development of co-living spaces. The values and objectives of co-living operators and city governments have the potential to be aligned, and the increased density of co-living developments provides a solution for cities suffering from an affordability crisis. In order for the co-living sector to continue its expansion, co-living companies may need to make strides towards more sustainable and affordable practices, which could make them more visible in the eyes of local municipalities and planners. Co-living operators may need to put a genuine emphasis on affordability by partnering with city councils, policymakers and national housing programs, who could provide funding for affordable co-living spaces. It remains to be seen how the industry will evolve but as cities become prohibitively expensive for the middle class, there is an opportunity for companies and cities to work towards a solution that remains good business while providing housing solutions for a growing urban population. In the next sub-chapter, we report on the regulatory environment within the cities of New York City, San Francisco and Los Angeles, and how zoning and building code regulations in those cities affect the co-living industry.

## **6.2 New York City**

New York city has ambitious goals for affordable housing, and under the previous two Mayors, density restrictions have loosened. Under the de Blasio administration, New York City is financing affordable housing at a record-setting pace. In 2017 alone, 24,500 affordable units were created or preserved – more than any other year on record (Goodman 2018). This rise of affordable supply is due to Mayor de Blasio’s 2014 plan, *Housing New York: A Five-Borough, Ten-Year Plan* which aimed to create and preserve 200,000 high-quality, affordable homes over a period of ten years. In 2017, the administration went one step further with *HNY 2.0*, promising

to complete the initial goal two years ahead of schedule and generate an additional 100,000 homes over the following four years.



*Exhibit 6.2 : Mayor Bill de Blasio Announcing the Launch of Housing New York in 2014  
(NYC Office of the Mayor 2014)*

Under the umbrella of the HNY 2.0 plan was the shared housing pilot program, ShareNYC, which was launched on November 1, 2018. The initiative by the New York City Housing Preservation and Development Department (HPD) requested proposals for the design, construction and management of shared housing projects by qualified development teams on private sites. This competitive RFI/RFEI was the first of its kind in New York. HPD stated a preference for proposals that were “*affordable to a variety of incomes, including extremely low and very-low income New Yorkers as well as formerly homeless households*” (NYC HPD 2018).

Initiatives such as ShareNYC are encouraging for co-living companies active in New York. In this sub-chapter we outline some of the factors impacting co-living in New York City.

### 6.2.1 Minimum Room and Unit Size

The New York City Building Code and New York City Housing Maintenance Code govern that each apartment in a new multiple-dwelling building shall have at least one room with a minimum floor area of 150 square feet. In apartments that are not classified as studios, all primary “living” rooms (living rooms and bedrooms) shall contain at least 80 square feet of floor space and every living room shall be at least eight feet in a horizontal dimension. Bedrooms must include at least one window that meets the city’s light and air requirements, and a closet. Under these rules, the minimum studio-style micro unit square footage is 150 square feet excluding the kitchen (or kitchenette), bathroom, and closet.

Until 2016, New York City had minimum apartment sizes prescribed in the New York City Building Code. Buildings developed under the Quality Housing Regulations had a minimum apartment size of 400 square feet. This requirement was removed from the zoning code in 2016, allowing developers to develop micro-units within new buildings or through alterations of existing buildings, with no overall minimum square footage requirement. The minimum apartment size restriction was lifted as a result of the adAPT New York City pilot program, launched in July 2012, which requested proposals for a new model of housing: micro-units. The adAPT New York City Competition was created to introduce additional choices within New York City’s housing market to accommodate the city’s growing population of one- and two-person households.

The result of the 2013 competition was Carmel Place, a nine-story, 55-unit building located at 335 East 27th Street, designed by nArchitects and developed by Monadnock. The building opened in the summer of 2016 and features apartments ranging from 260 to 360 square feet. While 40% of the units were set aside for affordable housing via a housing lottery, the rest were set at market rate prices and managed by Ollie through a multi-year management agreement. Minimum size limits still exist for affordable housing units under *Inclusionary Housing* rules. Below is a list of the minimum square footage for apartments regulated by these rules, based on the number of bedrooms.

**Studio Apartments:** 400 SF Minimum

**Two Bedroom Apartments:** 775 SF Minimum

**One Bedroom Apartments:** 575 SF Minimum

**Three Bedroom Apartments:** 950 SF Minimum

## 6.2.2 Length of Stay

The New York City Building Code classifies a dwelling used transiently (for less than 30 days) as R-1 and a building used on a permanent basis as R-2 (more than 30 days). Therefore, under this code, a tenant is considered a permanent resident after staying longer than 30 days. Club houses, hotels, motels, rooming houses, settlement houses, vacation timeshares and other transient accommodation typologies are classified as R-1, in addition to certain student dormitories and congregate living units (typically operated by municipal agency or non-profit). The R-2 classification includes typical permanent residences, but can also include apartment hotels, otherwise known as extended stays. This allows residents to stay for a minimum of 30 days within an R-2 property, permitting operators to rent units on a month-to-month basis within Residential zones. It is worth noting that R-2 properties are classified for permanent residents only and should not be used for short-stay rentals.

The New York State Department of Finance and Taxation defines permanent residency differently, stating that in order to qualify as a permanent resident, the tenant must stay in the hotel/co-living unit for at least 90 consecutive days without interruption. Up until that point, state and local sales tax must be charged to a guest. Additionally, the New York City Department of Finance defines a permanent resident as someone who rented a room for a period of at least 180 consecutive days. While co-living properties are not hotels per zoning, both the city and the state will demand taxes for residents who they consider transient. In 2019, the New York City Hotel Room Occupancy Tax is based on the rent of the room per night. For a room charging \$40 or more, the tax is \$2 per day per room plus the city rate of 5.875%. In addition, New York State will charge a Hotel Unit Fee of \$1.50 per day per room. These costs are always transferred to the resident or guest, which increases the monthly rate a tenant would pay. For understandable reasons, some companies avoid the medium-term 3- to 6-month leases in order to avoid the tax complication and regulatory oversight. However, the leases offered by many co-living companies are shorter than 12 months, with 3-month and 6-month options proving popular. For the companies we spoke with the average lease length was typically 7 to 8-months. Brad Hargreaves, CEO of Common (which offers month-to-month rent), claims that over 70% of their tenants sign a commitment beyond a single-month lease.

As a tenant, your rights change within a building depending on your status. If you have stayed there for less than 30 days and have not signed a lease, you do not have many rights. As a month-to-month tenant who is also not on a lease but has stayed in the apartment for over a month, the landlord has the ability to evict with 30 days notice, but you do have additional rights having stayed beyond 30 days. The most secure position is to have a long-term lease signed, in order to benefit from the tenant laws underlined in New York City’s Real Property Law and by New York City’s Housing Preservation and Development department.

### **6.2.3 Legal Occupant Limitations**

New York’s definition of a dwelling unit incorporates another definition – that of a family. The term “family” has many definitions in the eyes of the New York State Housing Maintenance Code. For the purposes of co-living, the definitions that matter are: *“Not more than three unrelated persons occupying a dwelling unit and maintaining a common household”* and, *“Not more than three unrelated persons occupying a dwelling unit in a congregate housing or shared living arrangement and maintaining a common household.”* This definition limits the number of unrelated occupants to a dwelling unit to three people. Despite this rule, many co-living companies operate larger units with more than 3-bedrooms. This law is broken frequently but is largely ignored by the authorities unless a complaint is made by a neighbor (Buckley 2010).

In all cases, the *“occupancy”* of a unit must not exceed the maximums contained in Section 27-2075(a) of the New York City Housing Maintenance Code, which states that the maximum number of persons who may occupy any apartment shall be determined by dividing the total liveable floor area of the apartment by 80 square feet. In addition, the dwelling unit must comply with additional occupancy and construction requirements as may be established by the Housing Preservation and Development Commission.

### **6.2.4 Single Room Occupancies (SROs)**

A major element affecting co-living in New York is the prohibition of new Single Room Occupancy (SRO) units. In SRO buildings, residents typically rent an individual bedroom and

share a kitchen or bathroom. In the 1950s in New York City, a law was enacted prohibiting the creation of new SROs, as they had devolved from being essential workforce housing to becoming associated with seedy behavior. Today, strangers renting a multibedroom apartment are required to co-sign a single lease for the entire unit, rather than each having their own individual lease.

An SRO is defined per the following definition found in the New York State Multiple Dwelling Law (“MDL”) § 4(16):

*“Single room occupancy” is the occupancy by one or two persons of a single room, or of two or more rooms which are joined together, separated from all other rooms within an apartment in a multiple dwelling, so that the occupant or occupants thereof reside separately and independently of the other occupant or occupants of the same apartment.*  
(NYS Multiple Dwelling Law 2019)

The Certificate of Occupancy will state whether a building contains apartments or whether it may be rented for SRO use. Therefore, *MDL § 301* would be violated if an apartment in a regular building was rented for SRO use. If there is a violation, then, according to *MDL § 302*, the building’s mortgage goes into default, no rent is due from the tenants and no lawsuit for rent may be brought against the tenants. Additionally, the Building Department has the power to vacate any dwelling or any part thereof which contains tenants living in conditions contrary to the SRO law. Any such dwelling cannot be re-occupied until it the unit conforms to the law.

So how do co-living companies navigate the SRO regulations? First, if the company is renting out an apartment with two or more bedrooms, it cannot sign individual agreements with tenants. All the people living in the suite have to sign the lease, otherwise the co-living company is risking legal action. Different companies handle this in different ways. Common has created terms within their lease which guarantee that, for example, if one roommate terminates the lease early, Common is solely responsible for finding a new tenant and the remaining tenants are not liable for the departing roommate’s rent. Put another way, when tenants sign a lease for a Common apartment, it is only between them and Common, not the other roommates. Although there have been several complaints made to the New York City Department of Buildings that Common is operating illegal SROs, all have been resolved. As of now, the city does not appear



to believe that Common is operating SRO buildings. WeLive's solution to the SRO regulations is simple – they do not offer a roommate matching service so, if someone wants to rent a four-bedroom apartment in WeLive, then they have to bring three friends. This results in an end-product which is very different from what Common is offering, lacking the fundamental convenience factor. Beyond the lease agreement, there are other obstacles that co-living companies have to navigate because of SRO regulations. For example, companies cannot install exterior locks on bedroom doors within shared apartments, although suite doors and closets have exterior locks and bedrooms do have interior ones. This lack of security may present a concern to some tenants as they are living with strangers.

### **6.2.5 Dwelling Units Maximums within Buildings**

In all residential districts, the maximum number of dwelling units is calculated by dividing the maximum residential FAR permitted by the applicable factor for the particular zoning district. This maximum number limits the density of housing allowed in any one building. However, this limitation is typically high within zones that permit multifamily, so it should not affect co-living companies unless they are pursuing extremely dense housing.

## **6.3 San Francisco**

The planning department of San Francisco is notorious among those in the real estate industry because of the extremely long entitlements process, constant threat of litigation, high impact fees and the fact that, (unlike New York City) nothing is as-of-right. In addition, the city demands that a mandatory minimum of 20% of units in multifamily properties be deed restricted and below market. Due to these factors, developers are wary of the risks associated with investing in San Francisco, which is in part why there is such a critical affordability crisis in the city.

### **6.3.1 Impact Fees**

Co-living is a real solution to San Francisco's housing problem and companies like Starcity are expanding in the area due to the extremely high demand for an affordable housing product. Eli Sokol, Development Manager for Starcity, explained to us that while their preferred product typology actually works well under San Francisco's "Group Home" zoning classification, the impact fees are particularly burdensome for the co-living sector. While the impact fees are high for all developments in San Francisco, the city uses the number of units in a building to calculate the total fee, rather than projected NOI, land value or another factor. Because co-living units are much smaller than conventional multifamily units, they have a higher number of units resulting in a higher impact fee. Impact fees do vary, but Eli told us that, for a \$90 million project, the impact fee could be several million dollars.

### **6.3.2 Affordability Requirements**

Another factor which affects the feasibility of any co-living project in San Francisco is the mandatory affordable housing requirement. The city mandates that all multifamily housing projects must include a minimum of 20% affordable units that are deed-restricted and below market. The rental rates are set by the Mayor's Office through an annually published rate-sheet. This document determines the affordable housing rent rates for certain types of units. Starcity's product type does not fall neatly into any of the unit type categories, Eli Sokol said that they get "*saddled with an SRO rate, which is very punitive.*" This SRO rental rate is much lower than those for traditional multifamily unit types, such as studios and multi-bed apartments, therefore severely impacting a project's financial feasibility.

The city's 2013 decision to require "Group Home" projects to meet the same affordable housing requirements as other market-rate developments may be the reason why more developers are not entering a market that clearly has a need for co-living. This decision ended a co-living project that developer Build Inc. and co-living provider OpenDoor proposed at 1532 Harrison St. The proposal called for 235 micro-suites organized around 28 shared living spaces but because the city mandated that 20% of units be affordable at the SRO rate, the project was suddenly unviable. "*Overnight the board killed our project – we reverted to traditional multifamily*

*development,”* said Michael Yarne of Build Inc *“Killing something before it’s even tried, it’s a tradition in San Francisco”* (Dineen 2019).

### **6.3.3 Group Housing Classification**

While there are a number of hurdles co-living operators and developers face in San Francisco, there are also opportunities. Unlike New York City, Single Room Occupancy units are permitted. This allows Starcity to construct its preferred typology which features individually rented bedrooms on a floor with a series of shared bathrooms and a large shared kitchen and common area. This typology allows Starcity to increase the number of units per floor thereby allowing them to increase their rent per square foot while also creating an affordable option for people with premium design and features. The minimum bedroom size in San Francisco is 70 square feet, which would not be marketable, so it does not affect Starcity or other co-living companies.

### **6.3.4 Future Policy Changes**

There is increasing backlash against San Francisco’s unaccommodating planning regulations. In contrast, a few miles south in San Jose, where Starcity is building an 803-bedroom project, the city has embraced co-living, according to Sean Milligan, a partner with developer KT Urban, which is working on more than 1,100 co-living bedrooms in San Jose (Dineen 2019). In early 2019 the San Jose City Council voted to change its municipal code to allow development of co-living spaces (San Jose City Council 2019). That decision resulted in a new zoning provision opening the door for co-living projects in the city.

## 6.4 Los Angeles

The planning environment in Los Angeles is more similar to New York than San Francisco. Unlike in San Francisco, and many other Californian cities, Los Angeles provides for as-of-right development for residential development consistent with base zoning, and development does not exceed 49 units (O'Neill, JD, Gualco-Nelson, JD, and Biber, JD 2017). This policy comes with two notable exceptions. Some development would be as of right under Los Angeles local law but for the application of a Specific Plan or a Community Design Overlay (CDO), and some proposed development would be as of right but for the application of state-mandated subdivision approval processes. Despite the ability to pursue as of right developments, Los Angeles still suffers from a slow entitlement process. Some practitioners and policymakers have argued that state mandated environmental review under the California Environmental Quality Act is a primary driver of delay in residential development while others argue that local land use regulations are to blame.

If a prospective developer wants to modify a site's zoning in Los Angeles, they have to apply for the necessary land use permits from the Los Angeles Department of Building and Safety (LADBS) through an entitlements process. The high rate of density bonuses and re-zonings in Los Angeles indicates the extent to which developers are requesting deviations from the base zoning. Density bonuses allow for more residential units and less parking, which increases property value, and is key for co-living developments. These bonuses provide allowances within the site's designated zone, but they do not permit developers to build outside of what the land is zoned for. Qualitative interview data gathered by a team of researchers from Berkeley Law and Columbia School of Urban Planning also suggest that density bonuses have become a de facto source of variances in the city (O'Neill, JD, Gualco-Nelson, JD, and Biber, JD 2017). If a project is not as-of-right, a public hearing is required. The length of the entitlements process in Los Angeles reflects the arduous process seen across California, an issue that was specifically highlighted in McKinsey's 2016 report on the state's housing crisis, but is shorter than many cities in California.

**Figure 10. Mean Approval Time of Discretionary Projects by Project Size Measured in Months**

Mean Approval Time By Project Size	Los Angeles	Santa Monica	Long Beach	Pasadena
5-25 units	11.3	55.8	11.9	15.4
26-50 units	12.0	19.2	10.9	13.0
51-100 units	12.0	34.9	8.8	13.0
101-150	16.2	n/a	11.6	27.9
151+ units	22.0	101.7	9.3	26.6
Across All Project Types	13.1	48.30	10.53	16.25

**Figure 11. Median Approval Time of Discretionary Projects by Project Size**

Mean Approval Time By Project Size	Los Angeles	Santa Monica	Long Beach	Pasadena
5-25 units	8.2	43.6	10.9	14.3
26-50 units	9.5	19.2	6.6	12.6
51-100 units	9.9	44.6	6.2	13.0
101-150	10.3	n/a	7.2	27.9
151+ units	13.0	101.7	9.9	26.6
Across All Project Types	9.5	38.8	7.2	14.33

*Exhibit 6.3 : Mean Approval Time of Discretionary Projects in Four Californian Cities (O’Neill, JD, Gualco-Nelson, JD, and Biber, JD 2017)*

### 6.4.1 Density Limitations

The vast majority of land in Los Angeles is zoned for single-family use. Multifamily developments are permitted within certain zones and density is controlled by requiring a minimum lot area per apartment. For example, R-5 Zoning: High Density Multiple Residence permits multifamily buildings but limits the minimum required lot area to 5000 square feet and the density to 100 -150 dwelling units per acre. This is one of the highest density zones in Los Angeles, but there are not many sites which allow for that density. The city features a large number of Planned Development Areas, which alter the underlying zoning. For example, density limitations and minimum parking requirements made building micro-units in Los Angeles financially infeasible until the city approved the Transit Oriented Communities (TOC) plan in 2017. In order to have a broader impact, the city would need to approve a provision for the all

neighborhoods, as well as make revisions for community plans, the zoning code, open space and tree requirements, impact fee structure and building code requirements.

Los Angeles's regulations do not appear to be deterring the development of co-living buildings in the city. *"In LA, the sky's the limit,"* said Eli Sokol when discussing the Los Angeles market for Starcity. While they cannot build their favored SRO typology in Los Angeles, Starcity was able to implement a slightly model in their recently completed C1 at Marina Arts development on which they partnered with California Landmark Group (CLG). The product is similar to many co-living offerings around the country. Private suites are available, as are 3- or 6-bedroom suites with shared kitchens and common areas. More affordable units are available with shared bathrooms as well as co-living suites with en-suite bathrooms for each resident. In terms of lease length, tenants can choose between 3-,6- or 12-month leases. As long as Los Angeles continues to be a desirable place to live with rising rental rates, co-living companies will continue to thrive and operate there.

## Chapter 7 : Market Perception

This chapter reports on the perception of co-living among investors, lenders and consumers. Naturally, co-living companies state that their product is both financially profitable and in demand by a large, underserved portion of the population. Nevertheless, ultimately the success of co-living will be determined by the market. There needs to be a deep pool of consumer demand, enthusiasm from the investor community, and acceptance from institutional lenders in order for this emerging product type to mature into a substantial segment within residential real estate.

### 7.1 Investor Perception

*“If you are a 35-year-old and you live in [WeLive or Common], you are a loser.”*

Stonehenge Partners CEO Ofer Yardeni in 2017

As recently as 2017 co-living was fairly unproven despite the extremely high occupancy rates reported by co-living companies. The image of co-living remained burdened by the nickname of “adult dorm” and many saw it as a fad. At that stage, raising capital was a challenge for the industry so the majority of equity investors both on a project level and a corporate level were high-net-worth individuals and niche venture-capital firms. As co-living has rapidly expanded in major US cities, as well as internationally, investors are increasingly seeing the product type as a viable investment. Co-living companies are now able to attract investment from a much wider group of sources. Global funding in the co-living space has increased by more than 210% annually since 2015, totaling more than \$3.2 billion, according to JLL. So far in 2019, \$800 million has been secured, with \$283 million in the pipeline (Martin 2019). A recent report published by Cushman and Wakefield identifies a growing trend of investors seeing niche real estate asset classes such as co-working, data centers, age restricted and affordable housing as well as self-storage as a sound investment since the recession (Isaacson 2019b). In the past these niche asset classes had an insignificant footprint in investor portfolios, but now they are an important piece. The report states that co-living has reached a critical tipping point as there is

proven demand for the product, as evidenced by the burgeoning group of co-living companies entering the market, and the increasing amount of capital being drawn to the sector. *“From well-established firms to newer players, all of these organizations are grabbing a foothold. And these organizations are evolving. They’re entering new cities and markets, increasing capacity at established locations and partnering with other services to curate an experience that attracts the largest number of tenants. Demand is proven”* (Isaacson 2019b). In conversation with Lucas Umbreit of The Collective he said, *“[i]n America, there is so much capital and everyone is in the hunt for yield. We can underwrite more attractive returns than other companies.”* The institutional investors in America have a certain amount of capital that they need to deploy every year, as well as a range of funds within their portfolio which target both core assets as well as opportunistic assets. Umbreit adds, *“every big investor has different funds – corporate bonds for example where you get 4-5% return – then there are other funds which aim for 8% cash-on-cash or more, so there will always be an appetite for a risk-diverse portfolio from investors.”*

Late in the economic cycle, investors are looking for real estate asset classes which are underpinned by structural factors that protect their value in the event of a downturn (Watson 2019). The residential rental market is primarily driven by demographic demand, rather than the business cycle like other asset classes. *“That makes it a stable investment perfect for institutions at a time when investors are starting to think more conservatively about their portfolios, and which lends itself to more recession-resistant asset classes,”* argues Bob Faith, CEO at Greystar (Watson 2019). Co-living is viewed as a specialized segment within the multifamily sector, but for many investors, this becomes a key element of their approach to the sector. Thomas Landschreiber, CIO at CoreState Capital Holding announced in late 2018 that they were partnering with Medici Living to invest over \$1 billion in Quarters, the co-living subsidiary of Medici. He stated that, *“[w]e try to follow the demographics and our tenants – from student homes, to apartments to your professionals, normal residential, serviced apartments for when the travel for business, and lastly, we will develop a silver-age product for when people want to leave their big family house and move back into the city”* (Watson 2019). Data from Real Capital Analytics shows that, after a recession, multifamily tends to recover more quickly than other asset classes. According to their Commercial Property Price Index (CPPI), core commercial property fell 36.6% during the global financial crisis and took 78 months for full recovery, while apartment values fell only 32.2% and took just 47 months to recover the loss (Shanesy 2018).



Evidence suggests there is high latent demand for co-living, and that there is still a lack of supply despite the recent expansion of many co-living companies. As a result, many investors believe that this sector will continue to grow and their invested capital could have the potential for very strong returns. However, once there is a large increase in supply and more investors enter the sector, the returns will be dampened, so the timing of the investment is critical. It is likely that once there have been a few key take-out loans secured in the US, and there is a proven positive return profile, *“there will be an embrace before a herding”* says Jeff Munger, Head of Research and Strategy at Quadreal.

Venture capital firm Maveron Ventures invested in Common because it believes that companies like Common address a significant market opportunity. *“What we’re looking for are big industries where consumers, and especially millennial consumers, feel disconnected from the brands that exist,”* said Jason Stoffer, a partner at the firm. Millennials, *“expect a level of authenticity,”* he said, *“and the reality is an Avalon Bay apartment building is sterile. It’s not authentic. You don’t know your neighbors. People want a level of responsibility and a brand which has a soul”* (Lien 2016). Brad Hargreaves, CEO of Common sees a greater understanding of co-living from investors and potential developer partners. In a 2018 interview he said, *“[i]t’s becoming clear that this is not a momentary fad, so we’re seeing much better conversations with potential real estate partners”* (Hudson 2018).

The pitch from co-living companies to investors is clear and multi-faceted. Not only is a co-living unit up to 30% cheaper for residents than a conventional studio, but amenities, perks and more flexible lease terms are also included. Lucas Umbreit of The Collective puts it this way, *“we want to create a very attainable product which is premium in quality compared to the overall market.”* While creating a more attainable product for consumers, real estate owners can generate more revenue per square foot by offering residents smaller units. The fact that this model is financially attractive to both consumers and investors explains why an array of high-profile investors are backing co-living brands, including Aviva Investors and the Texas Employees Retirement System (Ollie); Raven Capital Management and Property Markets Group (X Social Communities); and SoftBank (WeWork sister brand WeLive) (Isaacson 2019b).

However, not all co-living companies are sharing the same success. The best-known co-living failure is the venture capital-backed Campus, a San Francisco start-up that launched in 2013.

Within two years it operated 30 houses through master leases but the company shut down in August 2015 because it was *"unable to find a way to make Campus into an economically viable business"* (Lien 2016). WeLive is another company which seems to have miscalculated the product offering. Their units are not rentable per bed, are more expensive than many market rate studios in their competitive set, and one could argue that too much focus was placed on the design of the common areas, while the bedrooms are incredibly sparse. At the time of writing, WeLive operates two locations, one in New York City and another in Washington DC, but are reported to be opening up a location in Seattle in late 2019 and potentially another in India.

## **7.2 Developer Perception**

Conventional multifamily developers are increasingly attracted to co-living due to the higher returns per square foot and the consistent high occupancy rates reported by co-living operators. They are seeking to partner with co-living companies through a management agreement or occasionally as a co-sponsor on a project. In New York and other major gateway cities, the demand for co-living appears robust, but in other cities the level of demand is less clear. That being said, Ollie operates Baumhaus, a 127-unit development in Pittsburgh, PA with a mixture of fully furnished micro-studios, 2- and 3-bedroom suites featuring all of Ollie's typical perks. Since opening in 2017, the project has performed very well, aided by its location between Carnegie Mellon and a cluster of tech offices including Google. The Baumhaus development is a strong indicator that the product provided by companies like Ollie is in demand throughout many urban areas of the US.

According to Zumper Rent Report, Boston has the third most expensive rent in the country, making it another target market for co-living developers. In addition to the high cost of rent, the city has a large number of universities which attract a transient population, as well as a low rate of homeownership (35.2%). The Ink Block is a mixed-use master plan development in Boston's South End neighborhood led by National Development as the Sponsor. Developed in four phases, upon completion it will include 468 apartments, 60,000 square feet of retail, a 206 key AC Hotel by Marriot, and a 14 story co-living building with 180 units. The co-living building is 50% microunits, with the remainder being 2-, 3- or 4-bedroom units. In an interview with

National Development CEO Ted Tye and Senior Project Manager Samantha Gajewski, they explained that another apartment building could cannibalize demand for the conventional units constructed during the initial phases. In order to create the community they wanted, a co-living building was the logical choice of use. Their target market – transient young professionals and recent movers to the city – are abundant in Boston, and there is a severe affordability crisis due to rising rents.

Ted says that developers in Boston are still wary of co-living, in part due to the disappointing performance of WeLive, which launched with high expectations. However, the success of other co-living companies was enough to persuade him. For the Ink Block, National Development partnered with Ollie to lend their brand to the building, and for their operational expertise. Ted explained that Ollie is not the sole operator, and much of the operations will be handled internally as there is incredible value to be gained from managing the asset.

According to Ted, the higher risk of co-living is simply due to the lack of examples in the US. The co-living property they are developing is designed to be fully convertible to multifamily apartments, and their internal development model plans for that worst-case scenario. The project's construction lenders, being traditionally conservative, charged a slight premium on the capital compared to multifamily. However, Ted says the difference is only a few basis points and does not significantly impact the financial performance of the project.

These increases in cost should be more than compensated for by the higher price-per-square foot they are able to achieve in rent, even with the higher operational expenses due to the services and amenities provided (Ted expected operational expenses to be 35%-40% of NOI). Micro-units will be priced similarly to traditional studios in the rest of the development and all shared apartments will be leased on a per-bed basis.

One of the key hurdles National Development had to overcome was the city and the local community resistance. While neither had a problem with the physical building, they had an issue with the shorter-term leases National Development was proposing. Originally there were many 3- and 6-month units, but neighbors did not want a transient community, and there was opposition from Boston hotels, who have a powerful voice in the city due to their status as a major employer.



*Exhibit 7.1 : National Development's Ink Block Development with the Co-Living Tower in the Foreground (National Development 2019)*

We interviewed Charles Kuntz, Innovation Officer at Hines to understand how co-living is perceived by an institutional real estate developer and investor with a renowned global perspective. While Hines is known as an office developer, they have recently entered other sectors, such as student housing, high-end multifamily and the industrial sector. Charles explained that Hines is currently evaluating the best way to deliver co-living, which includes researching how to allow for flexibility in the future by designing the units in such a way that they could be converted into conventional multifamily units.

Partnerships between developers and co-living companies during the design phase of a project are becoming more common, with co-living companies such as Common and Ollie mimicking the business model practiced by hotel operators. In New York, Simon Baron Development and

Quadrum Global partnered with Ollie for their new Long Island City luxury rental tower ALTA. The project includes 169 micro-units operated by Ollie as well as conventional apartments.+. Matthew Baron, President of the firm says that they decided to partner with Ollie in part because, *“Co-living is not, from my perspective, a new business model. But it is definitely a shift in how we’re approaching the shared housing model. We’re delivering the product people are already looking for, but [we’re] making it better, more relevant”* (Hudson 2018).

Not all developers are enamored with co-living. Kushner Companies’ Charles Kushner told The Real Deal last year that he ditched WeLive as an anchor tenant at his One Journal Square apartment complex in Jersey City, despite losing a \$6.5 million annual state tax credit. Kushner said the communal living plan put forward by WeLive was *“bastardized”* and could cripple his plans for the development. *“[If] their concept was wrong, we would have to rebuild the building,”* Kushner said (Parker and Jeans 2019).

### **7.3 Debt Lender Perception**

Charles Kuntz of Hines told us that lenders are generally comfortable with micro-units and co-living, but they underwrite the projects as multifamily, so a project must be feasible in both scenarios. The debt lenders always look at the downside risk, and Charles claims that the biggest hurdle is the lack of asset sales in the US. Until the capital markets see a successful sale, there will always be a premium associated with the capital due to the perceived risk. Charles also claims that lenders are concerned about the depth of demand. Co-living works in New York, he says, but he questions whether it works in Houston.

A key development which increased lender’s appetite for co-living occurred in 2018 when British and Singaporean investors successfully sold their stake in The Collective’s Old Oak project, a 546-bedroom co-living development in northwest London. The private investors who helped fund the development sold off their 75% stake to The Collective for \$162.5 million (Isaacson 2019b). The Collective continue to operate the property, as well as own the asset. The building, which opened in 2016, stabilized in less than a year and in Q1 and Q2 of 2018, boasted a 98.6% occupancy rate. The management buyout was backed by financing from Deutsche Bank and Cataline Re.



*Exhibit 7.2: The Collective's Old Oak development in London (The Collective 2019)*

The success of Old Oak has given the co-living industry an enormous boost. Despite the project being located in Acton, an unfashionable neighborhood in the northwest of London, the project has proven that there is high demand for this type of product. Rents start at £1,061 a month, so there are also cheaper places to live in the London, and the demographic data of the residents also provides lenders with a compelling investment thesis. The average income of a resident is £35,000 which is below London's average median salary of £39,476 according to the UK's Office for National Statistics. Therefore, this is not a high-end product, but in fact, serves the largest demographic slice of the population – those in the middle. The average age 28, and the turnover rate is comparable to traditional apartments. Philip Hillman, chairman of the UK Alternatives team at JLL said, *“There is a shortage of good quality, affordable accommodation for people who don't just want to buy, or feel they can't buy”* (Smith 2018).

Due to the success of Old Oak and the quantity of high-performing co-living examples from around the world, lenders are starting to view co-living as a viable asset. Debt brokers say banks and other lenders are becoming more attracted to co-living, thanks to an increase in returns that can beat out other rental properties. Matthew Polci, of Mission Capital Advisors, said, “*the higher rents that co-living units can achieve typically translate into an operating margin [that’s] 30 to 50 percent higher than conventional multifamily*” (Parker and Jeans 2019). According to Mo Sakrani of Starcity, cap-rates for co-living developments continue to fall rapidly and are currently only marginally higher than traditional multifamily. He claims that only a couple of years ago, cap rates were comparable to hotels. This was echoed in our conversation with Brian Wang, Director of Investments at The Collective, who said cap-rates for co-living are now only slightly higher than traditional multifamily, separated by only a few basis points. Matthew Polci, who has negotiated financing for co-living start-ups, said lenders interested in co-living are the same firms providing debt for standard rental apartments, student housing and hotels. Their acceptance of the co-living model has steadily increased within the past two to three years, he added (Parker and Jeans 2019).

The appetite for co-living among permanent (take-out) lenders is growing, despite the lack of reported deals in the US. Brian Wang of The Collective claimed that, on a deal they are looking at, there is debt lender comfortable enough to write in a clause within the construction loan thereby creating an agreement with the Collective where they would provide the take-out loan. Lucas Umbreit, also of The Collective added, “*In the end, both equity and debt investors are looking at underwriting cash flows and if you have a stabilized, well performing asset, they are willing to pay the premium, even if it is still in a more niche market.*”

Co-living companies such as The Collective and Quarters originated in Europe and are now entering the US market. At the time of writing, The Collective has acquired three sites in New York City, one in Chicago and another in Miami. Quarters, the co-living division of the Berlin-based Medici Living Group, has raised \$1.4 billion in equity and debt for co-living projects internationally, including \$300 million allocated for North American expansion (Parker and Jeans 2019). Confidence in Quarters’ co-living model is high in Europe. Gunther Schmidt, Founder and CEO of Quarters, said he plans to open 6,000 beds across the continent, thanks to the significant investment Medici landed in December from Luxembourg-based real estate

investor CoreState Capital Holding. However, while Deutsche Bank made the first step in providing financing as a permanent lender in the UK, the co-living industry is still too nascent in the US and as a result, a permanent loan on a major development has not yet been secured. The question is, which institution will be the first to be a permanent lender on a US co-living property? Mark Fogle, CEO of Acres Capital wrote, “[t]he role traditional commercial lenders will play is yet to be determined as permanent financing options are yet to be tested” (Fogel 2019).

Despite all the positive news, there is some hesitation from lenders regarding the depth of demand in the United States, and some lenders are concerned about the cultural differences between the US and Europe. “If you think about Europe in general, and people who travel there, they stay in hostels — it’s much more of a transient community,” said Avison Young investment sales broker Brandon Polakoff, who is based in Manhattan. “In the U.S. ... people have opted for hotels in the major cities” (Parker and Jeans 2019). This perspective is likely shared by many, but there is a large difference between the hostel product marketed to travelers and co-living, which is an alternative to traditional housing.

## 7.4 Consumer Perception

Co-living companies are confident about the high level of latent demand for their product. During an interview with Sky News in the UK, Reza Merchant of The Collective said, “[w]e are very confident about the long-term sustainability of our business because, if you think about our end users, they’re not going anywhere. In our existing project Old Oak in West London our average income is £35,000 a year so we are targeting people on middle incomes... Therefore if there are any short-term downturns in the market that only creates opportunity for us.” This perspective is shared by others including Jeff Munger, Head of Research and Strategy at Quadreal. During our conversation Jeff expressed concern that, among all asset classes hit by the Great Recession, high-end apartments suffered the greatest losses yet, “it’s troubling that, since the crisis, most new construction dollars has been spent on high-end apartments within urban cores.” Due to tighter returns, developers have been less focused on middle-income housing



within urban areas. It is reasonable to suggest that, at the next downturn, many people will downsize or make other compromises in order to spend less.

Understanding the depth of consumer demand is critical to predicting the scalability of the co-living industry. We do not have concrete evidence that there is deep demand for co-living, as there are so few examples of co-living properties when compared to conventional forms of housing. Companies such as Common will state that they have a waitlist of hundreds of people per apartment, but those claims are based on the number of people registering interest on their website, which is different from someone actually submitting an application for an apartment. That being said, Jacob Shapiro, Director of Operations for the co-living company Outpost Club stated that each Outpost Club apartment receives on average five different applicants, and their occupancy percentage hovers around 97%. This high level of occupancy is shared among all the co-living companies we interviewed. The fact remains that we do not know what the *natural vacancy rate* is for this new asset class in each particular location, as there simply are not enough examples.

At the time of writing, there has not been a significant study conducted about the demand of co-living, both in regard to the reasons for demand and the size of the demand. However, a widely distributed survey conducted by graphic design agency Anton&Irene in collaboration with Ikea-backed research company SPACE10 has provided interesting insights into the perception of co-living among people of all ages and from around the world. At the time of writing the survey has had over 120,000 respondents. The survey is intended to be playful, and the creators established the following premise, which is shown to respondents at the start of the survey:

*“Welcome to the year 2030. There are 1.2 billion more people on the planet. 70% of us are living in cities now. In order to house 1.2 billion more people, all of us are sharing more household goods and services than ever before. We refer to this sharing as co-living, and many more of us are living this way now, but it’s not a new thing. Communal living has always been a solution to common problems, like rapid urbanization, loneliness, and high living costs. But what does co-living look like in the year 2030? Who is it for? How has it changed our society? What are we sharing? With many more of us now co-living, there is no one configuration. Discover what type of co-living would be uniquely suited for you. Reserve your spot for ONE SHARED HOUSE 2030.”*

The results from the survey can be filtered so that you can see how they differ by demographic factors such as gender, age, relationship status and country. As we are focused primarily on the

co-living market in the US, we investigated the preferences of all respondents residing in the US but did not apply any additional filters. Below is a selection of results which provide us with insights into people's preferences. The full list of results can be found on the One Shared House website (<http://onesharedhouse2030.com>)

1. Respondents would prefer couples, single men and single women in their community.
2. They would be happier if they could access multiple homes, rather than reside in one.
3. They would prefer to live in the city.
4. They would prefer members to share equal ownership of the house.
5. They would pay extra for a service which managed all house-related items.
6. They would prefer to have common areas come furnished but furnish their private spaces themselves.
7. They prefer house members from different walks of life, rather than people like them.
8. They would trade a private kitchen for more flexible private space.
9. They think 4-10 is the right amount of people in the community.
10. They want new house members to be selected by a consensus vote.
11. They worry most about potential lack of privacy.
12. They believe that the two biggest pros of living with others is having more ways to socialize and splitting costs and getting more bang for your buck.

While the size of their respondent pool is large, we do not know the significance (p-value) of each of the results as we do not have access to the survey's raw data output. Additionally, we do not know the average age of respondents, or their profession or level of education. We will note however, that this survey has primarily been accessed through external design and architecture blogs, so the demographic of the respondents may be skewed due to the similar nature of their interests.

### 7.4.1 Market Research: Survey Analysis

For this thesis we sought to evaluate the depth of demand for co-living. We wanted to gain insights into consumer awareness of co-living, the elements of co-living which are most/least attractive, people's perception of having roommates, and how people value space versus privacy, location and other qualities. In order to do this, we conducted a survey with the general public, with a sample size of 1,070 respondents. Unlike the survey conducted by Anton&Irene, we did not present any information prior to the survey, except the title "Co-Living Survey.". That being said, before asking a few simple questions about co-living, we showed this brief definition of co-living to the respondents:

*Co-Living apartments are typically 25% - 35% smaller than typical rental apartments. Tenants may share a kitchen and a bathroom with other tenants, but in return they get free services such as weekly housekeeping, community events, fully furnished units and more flexible lease terms. Co-Living apartments are typically 15% cheaper than market-rate studio apartments.*

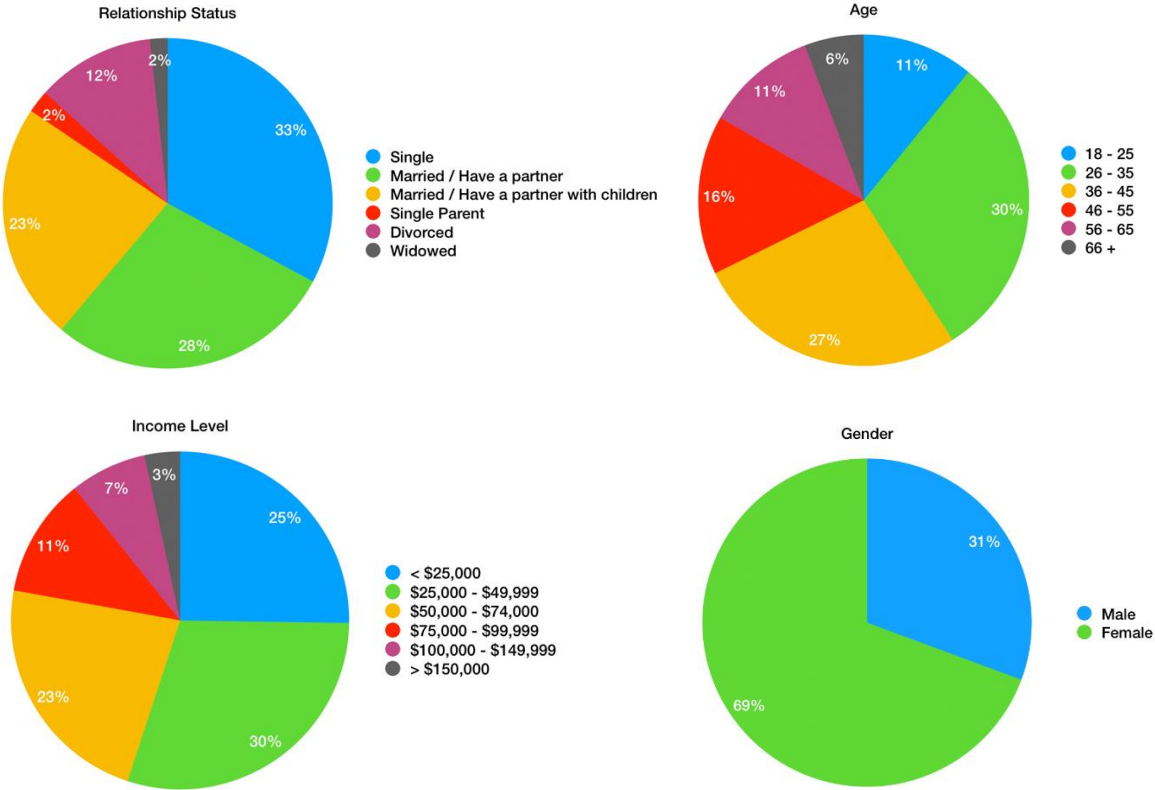
A note about the structure of the survey. We wanted a sample size large enough to give us a low *confidence interval* and a high *confidence level*. The confidence interval, otherwise known as the margin of error, is typically reported as a +/- number. The confidence level informs what percentage of the true population would choose the answer selected by the survey sample. For our survey, we wanted a 95% confidence level with a 3% confidence interval for the US population, which is approximately 329,000,000. Our sample size of 1,070 achieves that level of accuracy. Our survey was answered by people with a variety of ages, relationship statuses and income levels. We conducted the survey using software by Qualtrics and distributed it through Amazon Mechanical Turk.

The survey is on the following page.

1. What is your age? *18-25 / 26-35 / 36-45 / 46-55 / 56-65 / 65+*
2. Which of these options best describes your relationship status? *Single / Married or have a partner / Married or have a partner with children / Single parent / Divorced / Widowed*
3. What is your current income level? *Less than \$25K / \$25K-\$50K / \$50K-\$75K / \$75K-\$100K / \$100K - \$150K / More than \$150K*
4. What is your gender? *Male / Female*
5. Have you ever lived with a roommate (who was not a relative)? *Yes / No*
6. Did or do you like having roommates? *Like a great deal / Like somewhat / Neither like nor dislike / Dislike somewhat / Dislike a great deal / Have never lived with roommates*
7. If given a choice between one of the other, would you choose to live by yourself or with roommates? *Live my myself / Live with roommates*
8. If you have lived with roommates (not including a college dorm), what was your reason for having roommates? You may select multiple answers. *Wanted to spend less on rent / Wanted to live with friends / Wanted to have other people around / Wanted to live in a better location / Have never lived in roommates outside of a college dorm*
9. Have you heard of Co-Living? *Yes / Maybe / No*
10. Description of Co-Living. *(see previous page)*
11. Would you ever consider living in a Co-Living Building? *Definitely yes / Probably yes / Probably not / Definitely not*
12. As a potential tenant, what would be attractive about co-living to you? Please rank from most attractive to least attractive. *Paying less rent than for a market-rate apartment / Having flexible lease terms / Having fully furnished apt with premium furniture and appliances / Being part of a community outside of work or school / Having perks like housekeeping and curated events / Affording to live in a more attractive location.*
13. As a potential tenant, what would be unattractive about co-living to you? Please rank from least attractive to most attractive. *Living in a smaller apartment / Having a fully furnished apt / Having another people around / Sharing a bathroom / Sharing a kitchen / Sharing a living room or common area / Sharing a bedroom*
14. What would you be most willing to share in return for cheaper rent? *Kitchen / Living room / Bathroom / Bedroom*
15. Imagine you are deciding between two apartments to rent that are in the same location. The first is a private studio in a new building with luxury amenities for \$1500 per month, not including utilities and Wi-Fi. The second is a co-living unit in a new building (with the exact same luxury amenities) which has a private bedroom and bathroom, but a shared kitchen. The apartment is fully-furnished with furniture you like and is \$1350 per month all-in. Which would you take? *The studio / The co-living unit*
16. Imagine you live in a home you love, in a location you love, but for reasons out of your control, you can no longer afford to live in that home. What would you be most willing to sacrifice when looking for a new home? Please select one option. *Location / Space / Privacy / Amenities*

Results from the survey reveal insights into people’s preferences for their place of residence, and how they prioritize certain qualities in a home. The results also indicate opportunities for co-living companies, as well as some potential limits to the appeal of co-living units.

Below are charts which illustrate some demographic data for our 1,070 respondents. This demographic data helps us to analyze the results of the survey, as we can identify how answers change based on demographic factors. All respondents lived in the United States at the time of taking the survey and had received at least a high school diploma.

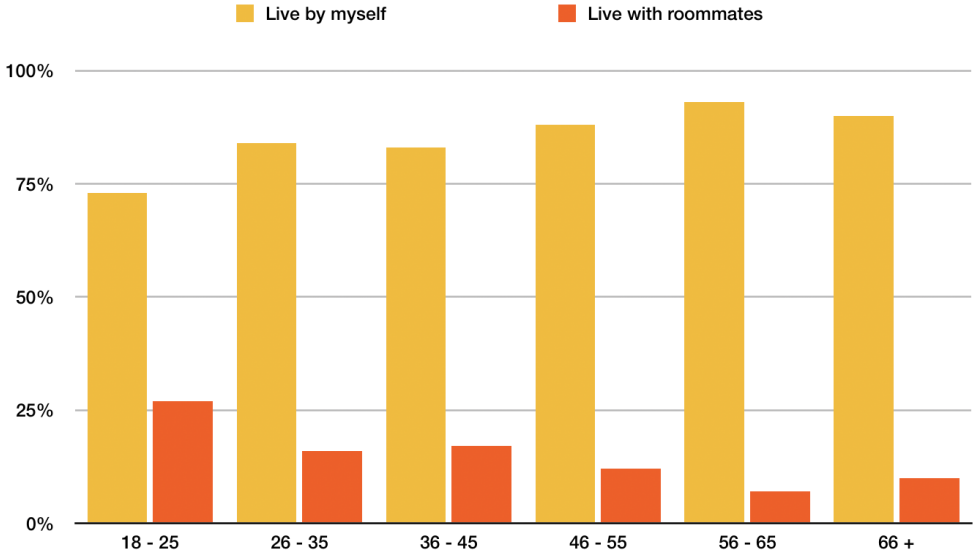


*Exhibit 7.3 : Demographics of our survey sample.*

A large majority (80%) of our respondents had, at some point, lived with a roommate who was not a relative. This ratio was consistent among all age categories (+/-) 4% with the exception of respondents older than 66. Of that group, only 60% of respondents had lived with a non-relative roommate, perhaps indicating that forty years ago, rent was not the burden that it is now. Also,

because older generations tended to marry earlier in life, their only roommate may have been a spouse.

From our results, it appears as though people are choosing to have roommates out of necessity rather than by choice. When asked if living with roommates or living alone is preferred, 85% of all respondents said that they would choose to live alone. Broken down by age, respondents 18 - 25 were more inclined to live with roommates, with only 73% of respondents stating a preference for living alone. Respondents 56 and older were less inclined to live with roommates with 91% of respondents stating a preference for living alone.



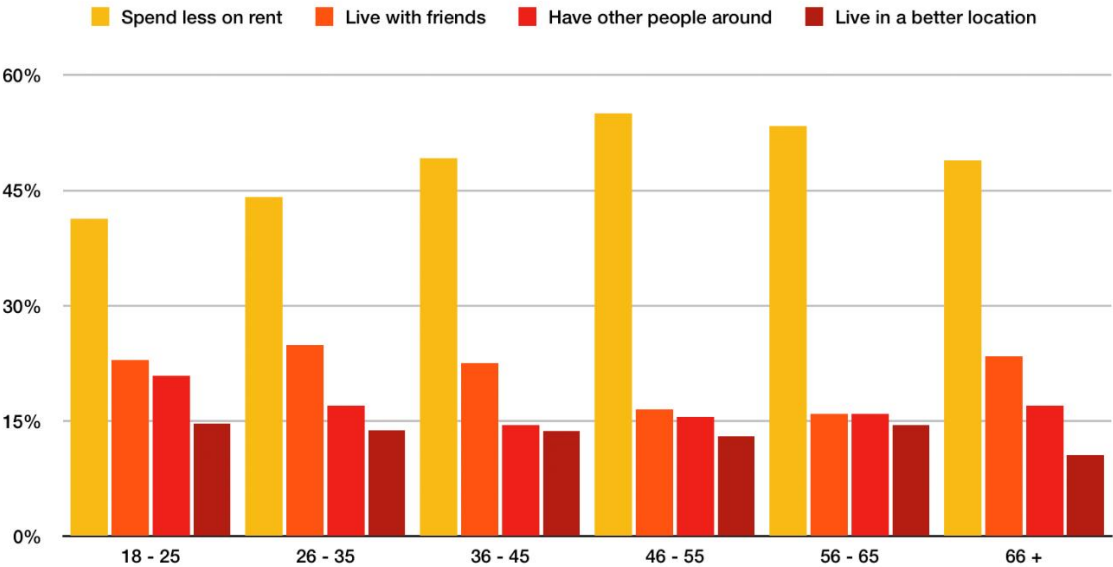
*Exhibit 7.4 : If given a choice between one of the other, would you choose to live by yourself or with roommates?*

Although not a significant difference, men had a greater preference for living with roommates than women. 82% of men stated a preference for living alone, while 86% of women stated a preference for living alone.

Considering the preference for living alone, why have people decided to share their living quarters with a roommate? First, we must note that 13% of the respondents have never lived with

a roommate outside of a college dorm. Of the 87% of respondents who have lived with a roommate outside of college, 48% said that they wanted to spend less on rent, 22% said that they wanted to live with friends, 17% said they wanted to have other people around and 13% said they wanted to live in a better location.

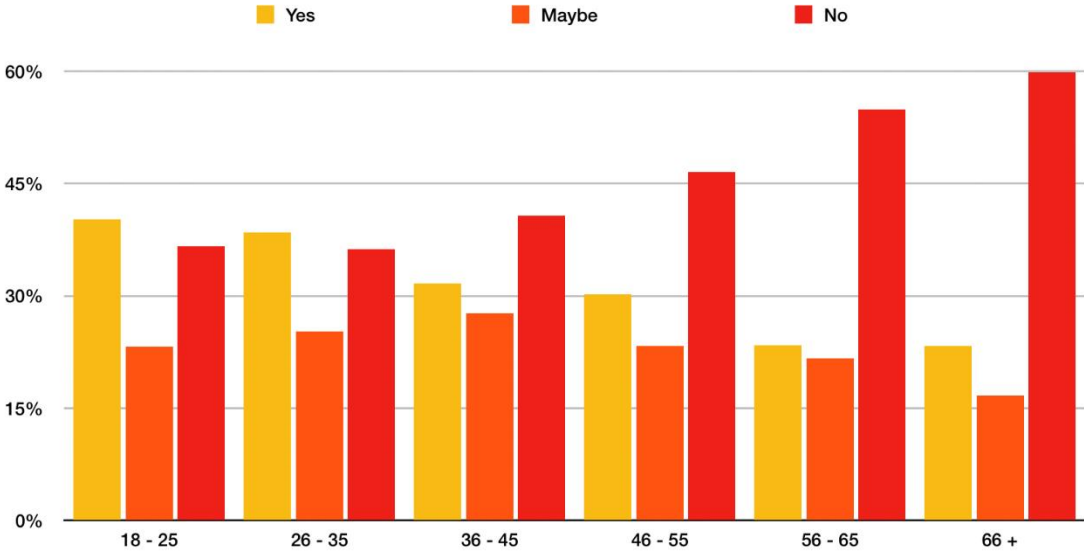
These responses vary by age group. 41% of respondents ages 18-25 said that they chose roommates in order to spend less on rent, while 23% said they wanted to live with friends and 21% said that they simply wanted other people around. Our results suggest that, as people get older and reach middle-age, the dominating reason to have roommates is to spend less on rent, rather than for any social reason. However, that trend reverses for respondents over 66, who indicated that that would be more inclined to live with roommates so that could live with friends or simply enjoy the company of other people.



*Exhibit 7.5: If you have lived with roommates (not including a college dorm), what was your reason for having roommates? You may select multiple answers.*

The reasons for living with roommates were not significantly affected by the respondent’s income level, gender or relationship status.

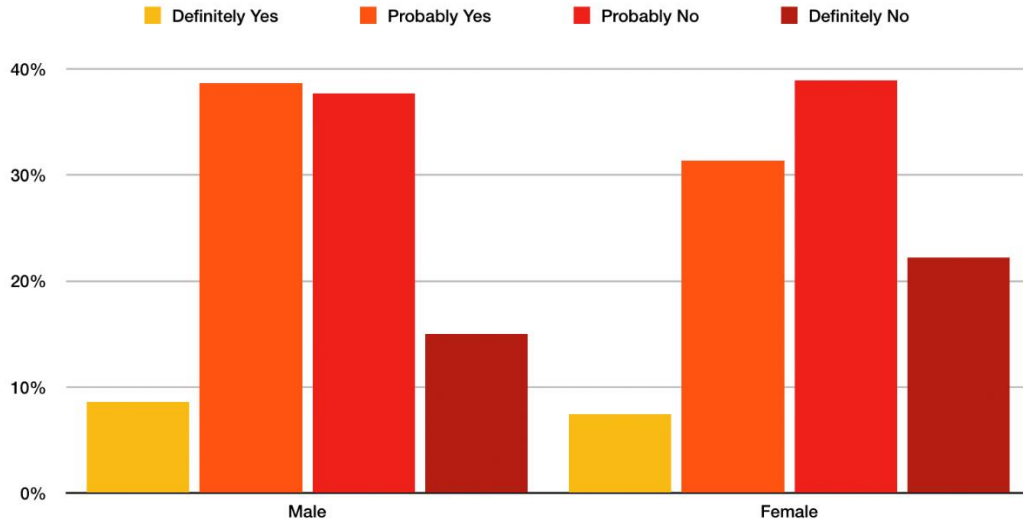
What is the market-awareness for co-living among consumers? As an emerging product type primarily popular with young professionals in gateway cities, we were interested in how much recognition co-living had with the wider public. This survey was answered by people all over the United States with at least a high school diploma. We suspect that, if we had limited our pool of respondents to just residents of major urban areas, we would have recorded a higher level of awareness for co-living, but we cannot be sure. 33% of all respondents said that they had heard of co-living, 24% said that they were not sure, and 43% said that they had not. Older respondents were less aware of co-living, and younger respondents were more aware of co-living. This aligns with the average age of tenants recorded by most of the co-living companies we researched.



*Exhibit 7.6 : Have you heard of Co-Living?*

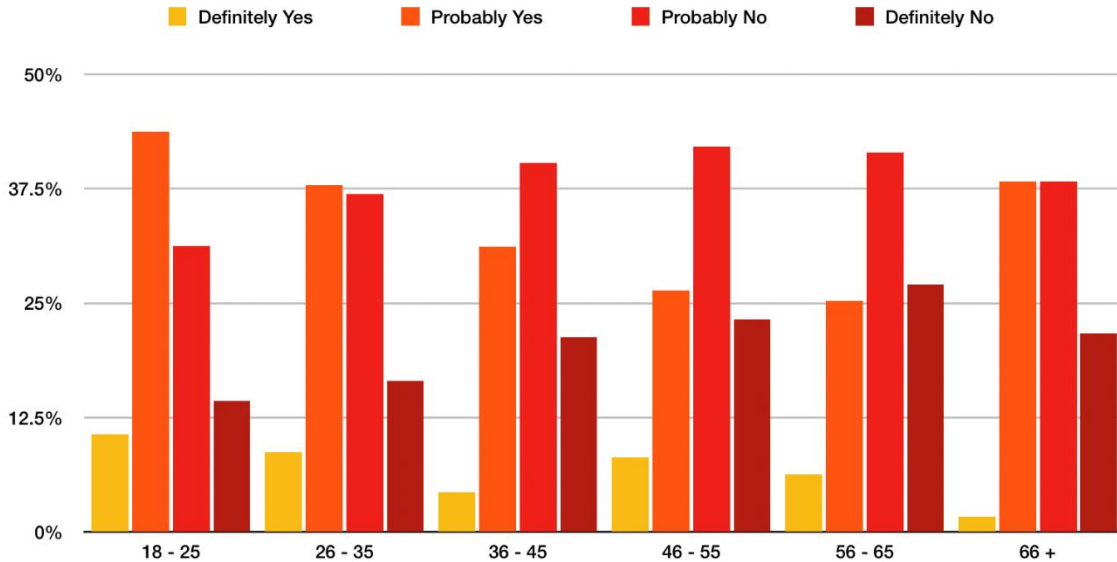
After showing respondents the definition of co-living indicated previously in this sub-chapter, we asked respondents whether they would ever consider living in a co-living building. 20% of all respondents said Definitely No, 38% said Probably No, 34% said Probably Yes, and 8% said Definitely Yes. Men were more likely to consider co-living than women, with 47.3% of men and 38.81% of women responding that they would definitely or probably consider co-living.





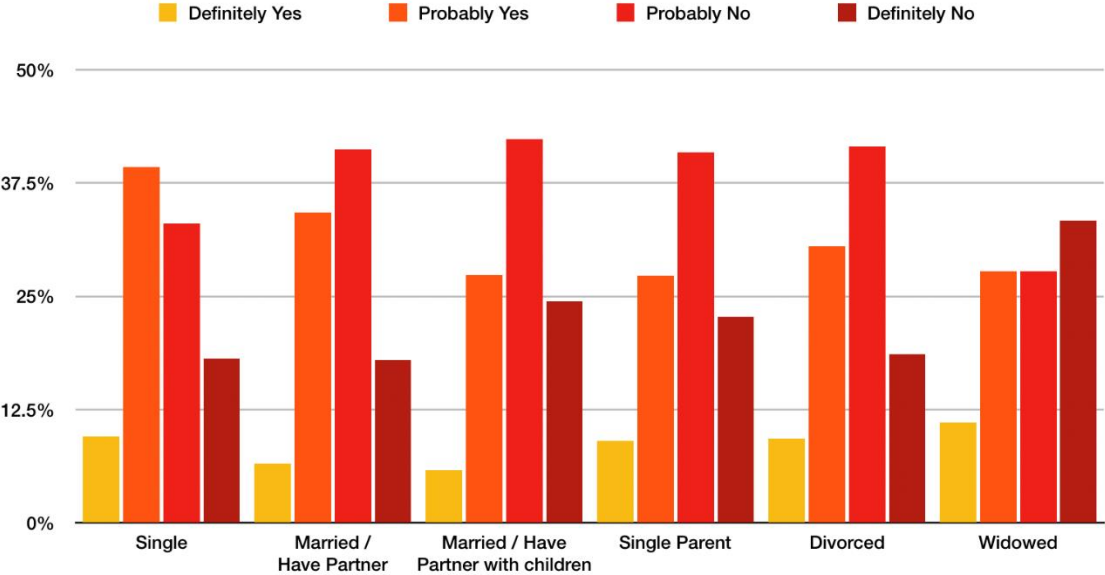
*Exhibit 7.7 : Would you ever consider living in a Co-Living Building?*

In response to the same question, younger respondents were more likely to consider co-living than older respondents, as shown below.



*Exhibit 7.8 : Would you ever consider living in a Co-Living Building?*

Respondents who were single were most likely to consider co-living, while those who were married or had a partner with children were the least likely to consider co-living. Singles along with divorcees answered “definitely yes” the most, with 9.52% and 9.32% respectively.



*Exhibit 7.9 : Would you ever consider living in a Co-Living Building?*

We asked respondents what would be most attractive about co-living and gave them six options to choose from that they could rank from most attractive to least attractive. The options are listed below:

- Having flexible lease terms
- Paying less rent than for a market-rate apartment
- Having a fully furnished apt with premium furniture and appliances
- Being part of a community outside of work or school
- Having perks like housekeeping and curated events
- Affording to live in a more attractive location

The results clearly indicate the attribute that is most attractive to respondents, and the one that is least attractive. The most attractive is “paying less rent than for a market-rate apartment.” 74% of all respondents placed this as their first choice, and a further 15% placing it as their second choice. The least attractive attribute was, “being part of a community outside of work or school.” This was placed last (6<sup>th</sup>) by 53% of respondents and 5<sup>th</sup> by a further 22%. There was not a significant difference in preference between the other attributes with the mean placement between 1 – 6 ranging from 3.50 for “having a fully furnished apartment with premium furniture and appliances” to 3.72 for “having perks like housekeeping and curated events.”

We also asked respondents which attributes were the least attractive about co-living and presented these options which, again, they could rank from least attractive to most attractive.

- Having a fully furnished apt
- Having other people around
- Living in a smaller apartment
- Sharing a living room or common area
- Sharing a bathroom
- Sharing a bedroom
- Sharing a kitchen

While less clear-cut than responses to the previous question, sharing a bedroom was the least attractive attribute, and sharing a bathroom was also unappealing to our respondents. 53% of respondents placed “sharing a bedroom” as the least attractive attribute and a further 21% placed it as the second least attractive. Sharing a bathroom was also unpopular, with 18% of respondents placing it as the least attractive attribute, a further 47% placing it as the second least attractive and 20% placing it as the third least attractive. Between other attributes, sharing a kitchen was less attractive than sharing a living room. Of all the companies we researched and

spoke with, most provided a private bedroom, and many provided a private bathroom, but few provided a private kitchen and living room.

Today, city-dwellers have a choice of accommodation that ranges from Class B/C apartments to luxury Class A apartments with amenities. They also have a choice of whether to live alone in a one-bedroom or studio, or to share an apartment with friends or roommates found on a listing site such as Craigslist. There are a variety of options but the affordable options for those in the middle class are limited, resulting in the affordability crisis that we see today in cities such as New York City and San Francisco. We asked this question in the survey:

Imagine you are deciding between two apartments to rent that are in the same location. The first is a private studio in a new building with luxury amenities for \$1500 per month, not including utilities and Wi-Fi. The second is a co-living unit in a new building (with the exact same luxury amenities) which has a private bedroom and bathroom, but a shared kitchen. The apartment is fully-furnished with furniture you like and is \$1350 per month all-in. Which would you take?

A. *The studio*

B. *The co-living unit*

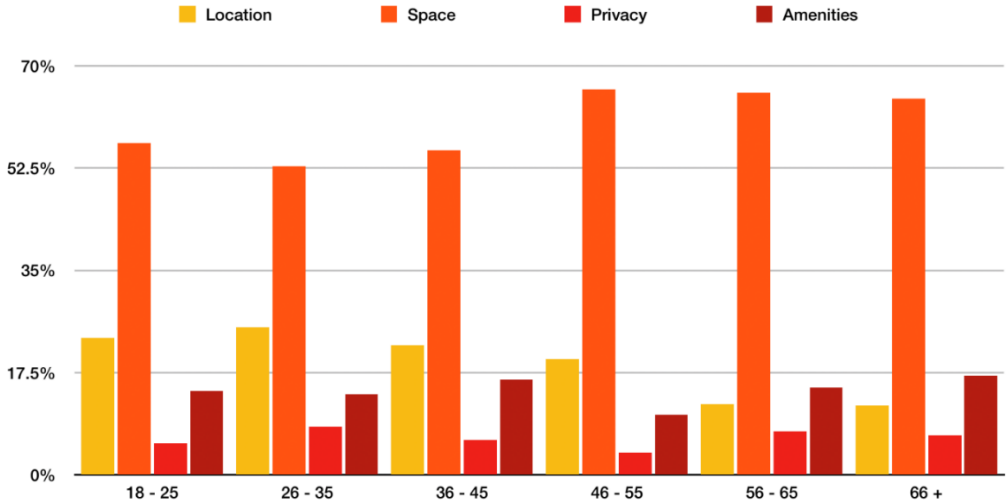
Respondents were split, with 51% taking the studio and 49% taking the co-living unit. However, one age group answered very differently to others. 65% of respondents ages 18 – 25 chose the co-living unit over the studio while in every other age group, a majority of respondents chose the studio. Among the various relationship status groups, 55% of singles and 55% of single parents chose the co-living unit, while other groups chose the studio. There was not a significant difference between male and female respondents. Additionally, there was not a significant difference between those who had heard of co-living and those who had not prior to the survey – in both groups 51% of respondents chose the studio. Unsurprisingly, 63% of those who stated that they “liked a great deal” and 60% of those who “liked somewhat” having roommates chose the co-living unit. The results to this question suggest that co-living has broad market appeal if the price is below a market rate apartment, and that Gen-Z has more interest in co-living than the millennial generation, which is encouraging for co-living companies.

In 2019, living in a major US city requires some sacrifices. High rent prices, increasing demand and a lack of supply means that people are often deciding to compromise on one or many attributes when looking for a place to live. We asked our respondents to consider what they would give up knowing that they had to sacrifice something in order to afford their home.

Imagine you live in a home you love, in a location you love, but for reasons out of your control, you can no longer afford to live in that home. What would you be most willing to sacrifice when looking for a new home? Please select one option.

- A. Location
- B. Space
- C. Privacy
- D. Amenities (laundry, dishwasher, etc.)

Among all respondents, 58% said they would compromise on space, 21% location, 14% amenities and 6% privacy. This order was the same across age groups, but space was sacrificed more among older respondents (46+) while younger respondents sacrificed location more.



*Exhibit 7.10 : Imagine you live in a home you love, in a location you love, but for reasons out of your control, you can no longer afford to live in that home. What would you be most willing to sacrifice when looking for a new home?*

The results were not significantly different between male and female respondents and among all relationship status groups the order was the same.

#### **7.4.2 Summary**

The survey data offers us some insights into the attributes that people value most, how age may affect preferences, and what the consumer perception is of co-living. The primary reason for sharing accommodation is clearly price, although some people, particularly those under 35, will choose to have roommates so that they can live with their friends or simply be around others when they are at home. Among all demographics, co-living is most attractive to people under 35 and there currently appears to be more appeal among men than women. This gender difference is seen in people's feelings towards having roommates in general, with 42% of men but only 33% of women reacting positively to having had roommates in the past. Notably, the survey indicates that being part of a community outside of work or school is not an important factor for most people, and that the other attributes offered by co-living companies such as furnished apartments and flexible lease terms are more attractive.

## Conclusion

The original purpose of this thesis was to illuminate the co-living market as it stands today, and to ask whether this product type has the necessary qualities to become a fundamental asset class within residential real estate. In order to answer this question, we wanted to assess how co-living would perform during an economic downturn and analyze the challenges that the sector faces. The results of our investigation indicate that co-living should perform better than traditional multifamily during an economic downturn. In addition, this thesis illustrates that the co-living sector is on the precipice of becoming accepted among a wider group of institutional lenders, policy-makers and the general public. Our research drew upon qualitative and quantitative data in order to arrive at this conclusion and reports on the challenges and opportunities that the co-living asset class faces in the future.

The evidence from our financial assessment shows that if a co-living asset suffers a small reduction in rental revenues due to a decrease in demand, it would still remain more profitable than a traditional multifamily asset. Not only is this result encouraging, the lower rental rates for co-living units suggest that the level of demand should be more resilient than for conventional units during an economic downturn, as consumers will be looking to cut costs. The added ability to sign short-term leases also attracts a portion of the population currently underserved by conventional multifamily offerings.

Equally notable is the cap-rate compression reported by all of the co-living companies, investors and lenders we interviewed, no matter whether they were active in the US or abroad. Furthermore, global funding for co-living has increased by more than 210% since 2015, and this capital is being used to finance large-scale projects in markets such as India, China, Europe and the United States. These factors reflect that, while lenders and institutional investors may be slow to fully accept co-living, there is strong recognition within the capital markets that co-living has merit. In the United States, large purpose-built, ground-up projects from The Collective, Starcity and X Social Communities will soon set a precedent for the market.

As we reported, the policy regulations of individual cities will continue to be an obstacle that co-living companies must navigate through for the foreseeable future. Recent policy initiatives in multiple cities including New York City, Los Angeles and San Jose clearly demonstrate that policy-makers recognize that co-living companies could provide a solution to the affordability crisis affecting their cities. The prevalence of “nimbyism” in cities will continue to be a roadblock for higher density developments but, as long as the trend towards urbanization continues, cities will have no choice but to advocate for increasing density.

Ultimately, the depth of demand for co-living among the general public will be the factor that determines its long-term viability. While the combination of demographic factors such as delayed marriage and economic factors such as increasing property prices provide a large market opportunity for co-living, it is unclear whether the next generation will make the same choices as millennials. Our survey clearly indicates that people choose to share accommodation in order to spend less on rent, and that square footage is the attribute people are most willing to sacrifice in order to save money, suggesting that smaller units with more privacy may have a wider market appeal. Notably, Americans ages 18-25 are more likely to choose a co-living unit over a studio, and they are more likely to choose to share their apartment with roommates in order to live with friends or simply have other people around, rather than to spend less on rent.

The emergence of co-living in the United States has occurred over the past decade, so we do not have the benefit of witnessing how it will perform during a recession. While the evidence we have gathered suggests that co-living should perform better than traditional multifamily, the evolution of the asset class over the remainder of this economic cycle will clarify its long-term viability. For now, it is evident that co-living is a product that reflects the wider trends in today’s society and is part of a solution to some of our city’s largest challenges.



# Appendix

## Base Case Multifamily Financial Model Assumptions:

INVESTMENT DESCRIPTION							
Name	Multifamily County			USA			
Address	State			New York			
City	Brooklyn Zip Code			11211			
Analysis Begin Date	Jan-2020		Sale Date	Month 55	Jul-2024		
Land Area	17,424 SF	0.4 acres	Buildings	2.0			
Units/Acre	422.5 Avg. # of Stories			7.0			
FAR	7.44 Units			169 units			
Gross Buildable (GBA)	129,689 SF	Net Rentable	83.5% of GBA	108,352 SF			
Total Parking Spaces	85 Structured Parking Spaces			85			
Parking Ratio	0.50/unit Surface Parking Spaces			0			
DEVELOPMENT PERIOD CASH FLOWS							
SOURCES AND USES							
				108,352 NSF	169 Units		
USES	START	END	METHOD	/Rentable SF	/UNIT	AMOUNT	
Land Costs							
Land Costs	Month 0	Month 0	Straight-Line	119.69	76,739	12,968,900	
Closing Costs	Month 0	Month 0	Straight-Line	1.80	1,151	194,534	
Total Land Costs	Month 0	Month 0		121.49	77,890	13,163,434	
Hard Costs							
Labor and Material	Month 13	Month 36	S-Curve	448.85	287,771	48,633,375	
Contingency (10%)	Month 13	Month 36	S-Curve	44.88	28,777	4,863,338	
Other Hard Costs	Month 13	Month 36	S-Curve	4.61	2,959	500,000	
Total Hard Costs	Month 13	Month 36		498.35	319,507	53,996,713	
Soft Costs							
Architecture & Engineering	Month 1	Month 36	Straight-Line	47.88	30,696	5,187,560	
Marketing and Leasing	Month 25	Month 36	Straight-Line	7.80	5,000	845,000	
Taxes and Insurance	Month 1	Month 36	Straight-Line	9.58	6,139	1,037,512	
Development Fee 2.5%	Month 1	Month 36	Straight-Line	17.13	10,981	1,855,755	
Total Soft Costs	Month 1	Month 36		82.38	52,816	8,925,827	
Total Project Cost before Financing				702.21	450,213	76,085,973	
Carry Costs							
Capitalized Construction Interest				50.95	32,664	5,520,292	
Financing Fees	Month 12	Month 12	Straight-Line	4.92	3,151	532,602	
Operating Shortfall				1.18	757	127,858	
Total Carry Costs				57.04	36,572	6,180,751	
<b>Total Uses</b>	<b>Month 0</b>	<b>Month 36</b>		<b>759.25</b>	<b>486,785</b>	<b>82,266,725</b>	
SOURCES	LTC	FUNDING ORDER	ANNUAL RATE	% OF SOURCES	/UNIT	/UNIT	AMOUNT
Equity		1	See Waterfall	30.0%	227.78	146,038	24,680,365
Debt	70.0%	3	6.83%	70.0%	531.47	340,748	57,586,360
Total Sources				100.0%	759.25	486,785	82,266,725
CASH FLOW OF SOURCES				% OF SOURCES	/UNIT	/UNIT	AMOUNT
Total Equity				30.0%	227.78	146,038	24,680,365
Debt							
Debt before Reserves				63.1%	479.35	307,327	51,938,210
Interest Reserve				6.7%	50.95	32,664	5,520,292
Operating Shortfall Reserve				0.2%	1.18	757	127,858
Total Debt				70.0%	531.47	340,748	57,586,360
<b>Total Sources</b>				<b>100.0%</b>	<b>759.25</b>	<b>486,785</b>	<b>82,266,725</b>

## OPERATING PERIOD CASH FLOWS

INCOME				Basic Lease Up Method			
Operation Begin Month	Month 37						
Annual Income Growth Rate	3.0%	Begin Month 37		% Pre-Leased		15%	
1st Stabilized Month	Month 49			Lease-up Pace (Units/Mo)		12.0 units	
				Lease Contract Length		12 Months	
<u>RENTAL INCOME</u>				108,352 NSF	83.5% EF	129,689 GSF	
<u>UNIT TYPE</u>	<u>UNITS</u>	<u>AVG. SF</u>	<u>INITIAL FREE RENT</u>	<u>STAB. FREE RENT</u>	<u>RENT/SF/MO</u>	<u>RENT/UNIT/MO</u>	<u>TOTAL RENT/YR</u>
Studio	59	435	0.0 Months	0.0 Months	6.72	2,922	2,068,882
One-Bedroom	67	670	0.0 Months	0.0 Months	6.20	4,151	3,337,123
Two-Bedroom	43	879	0.0 Months	0.0 Months	5.85	5,140	2,652,111
GROSS RENT	169	641	0.0 Months	0.0 Months	6.20	3,973	8,058,116
- Concessions (Free Rent)					-	-	-
- Gain/Loss-to-Lease					-	-	-
- Non-Revenue (Model) Units	0 unit(s)		0		-	-	-
TOTAL RENTAL INCOME					6.20	3,973	8,058,116
<u>OTHER INCOME</u>			<u>% FIXED</u>	<u>% OF TOTAL RENT</u>	<u>/SF/MO</u>	<u>UNIT/MO</u>	<u>AMOUNT/YR</u>
Other Income			0%	0.00%	-	-	-
Parking Income			0%	0.00%	-	-	-
TOTAL OTHER INCOME				0.00%	-	-	-
TOTAL POTENTIAL INCOME					6.20	3,973	8,058,116
- General Vacancy and Credit Loss				4.00%	(0.25)	(159)	(322,325)
EFFECTIVE GROSS REVENUE					5.95	3,814	7,735,791
EXPENSES				BASIC EXPENSE UNDERWRITING			
Annual Expense Growth Rate	3.0%	Begin Month 37		Prop. Tax (Operation Yr 1) % of Full		100.0%	
				Prop. Tax (Operation Yr 2) % of Full		100.0%	
				Prop. Tax (Operation Yr 3) % of Full		100.0%	
<u>OPERATING EXPENSES</u>			<u>% FIXED</u>		<u>% OF EGR</u>	<u>UNIT/YR</u>	<u>AMOUNT/YR</u>
General Operating Expenses			75%		21.00%	9,613	1,624,516
Management Fee					3.00%	1,373	232,074
Property Taxes & Insurance					10.90%	4,988	842,979
TOTAL OPERATING EXPENSES					34.90%	15,974	2,699,568
<b>NET OPERATING INCOME</b>							<b>5,036,223</b>
<u>CAPITAL EXPENDITURES</u>			<u>% FIXED</u>		<u>% OF EGR</u>	<u>UNIT/YR</u>	<u>AMOUNT/YR</u>
Capital Reserves			0%		0.55%	250	42,250
Other Capital Expenditures			0%	Straight-Line	0.55%	250	42,250
TOTAL CAPITAL EXPENDITURES					1.09%	500	84,500
CASH FLOW FROM OPERATIONS							4,951,723

REVERSION (SALE) CASH FLOWS				
TIMING		REVERSION (SALE) ASSUMPTIONS		
Construction End Month	36	Market Cap Rate Today	4.50%	
Operatin Begin Month	37	Cap Rate at Sale (Terminal Cap)	4.75%	
1st Stabilized Month	49	Selling Costs	1.50%	
Sale Month	55	As of Today	Month 49 - 60	Month 55 - 66
PRO FORMA		UNTRENDED	TRENDED	SALE
GROSS RENT		8,058,116	8,299,859	8,424,357
- Concessions (Free Rent)		-	-	-
- Gain/Loss-to-Lease		-	(110,799)	(113,368)
- Non-Revenue (Model) Units		-	-	-
TOTAL RENTAL INCOME		8,058,116	8,189,060	8,310,990
OTHER INCOME				
Other Income		-	-	-
Parking Income		-	-	-
TOTAL OTHER INCOME		-	-	-
TOTAL POTENTIAL INCOME		8,058,116	8,189,060	8,310,990
- General Vacancy and Credit Loss		(322,325)	(327,562)	(332,440)
EFFECTIVE GROSS REVENUE		7,735,791	7,861,498	7,978,550
OPERATING EXPENSES				
General Operating Expenses		1,624,516	1,673,252	1,698,350
Management Fee		232,074	235,845	239,356
Property Taxes & Insurance		842,979	868,268	881,292
TOTAL OPERATING EXPENSES		2,699,568	2,777,364	2,818,999
NET OPERATING INCOME		5,036,223	5,084,133	5,159,551
CAPITAL EXPENDITURES				
Capital Reserves		42,250	43,518	44,170
Other Capital Expenditures		42,250	43,518	44,170
TOTAL CAPITAL EXPENDITURES		84,500	87,035	88,341
CASH FLOW FROM OPERATIONS		4,951,723	4,997,098	5,071,211
SALE PROCEEDS	VALUATION			
Gross Sale Proceeds	108,622,130	DIRECT CAPITALIZATION		
- Selling Costs @ 1.50%	(1,629,332)	UNTRENDED	TRENDED	SALE
Net Sale Proceeds	106,992,798	4.50%	4.72%	4.75%
- Loan Payoff	(57,586,360)	5,036,223	5,084,133	5,159,551
<b>Equity Proceeds from Sale</b>	<b>49,406,439</b>	<b>Stabilized Value</b>	<b>111,916,062</b>	<b>107,652,487</b>
				<b>108,622,130</b>
RETURNS				
PROPERTY-LEVEL CASH FLOWS				
Total Project Cost (Before Carry Costs)				76,085,973
Total Construction Loan Interest (Before Lease-up Income)				9,617,683
Total Loan Draws				57,586,360
Cash Flow from Operations				4,617,054
Net Sale Proceeds				106,992,798
- Loan Payoff				(57,586,360)
Equity Proceeds from Sale				49,406,439
		<b>EQUITY MULTIPLE</b>	<b>IRR</b>	<b>NET PROFIT</b>
<b>Net Unlevered Cash Flow</b>		<b>1.47X</b>	<b>13.74%</b>	<b>35,523,879</b>
<b>Net Levered Cash Flow</b>		<b>2.03X</b>	<b>19.08%</b>	<b>25,373,594</b>
		UNTRENDED	TRENDED	SALE
<b>Yield-on-Cost</b>		<b>6.12%</b>	<b>6.18%</b>	<b>6.27%</b>
<b>Market Cap Rate</b>		<b>4.50%</b>	<b>4.72%</b>	<b>4.75%</b>
<b>Development Spread</b>		<b>162.2 bps</b>	<b>145.7 bps</b>	<b>152.2 bps</b>

Base Case Multifamily Financial Model Annual Cash Flow:

MULTIFAMILY		MIT CO-LIVING THESIS					
Brooklyn, New York		ANALYSIS START - JAN-2020					
ANNUAL CASH FLOW							EXIT
	Analysis Month	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	Analysis Date	Dec-2019	Dec-2020	Dec-2021	Dec-2022	Dec-2023	Jul-2024
<b>ANNUAL DEVELOPMENT CASH FLOWS</b>							
Land Costs		13,163,434	-	-	-	-	-
Hard Costs		-	-	26,998,356	26,998,356	-	-
Soft Costs		-	2,693,609	2,693,609	3,538,609	-	-
TOTAL PROJECT COST BEFORE FINANCING		13,163,434	2,693,609	29,691,965	30,536,965	-	-
Carry Costs		-	532,602	319,459	3,133,435	2,195,255	-
TOTAL PROJECT COST		13,163,434	3,226,211	30,011,425	33,670,400	2,195,255	-
SOURCES		13,163,434	3,226,211	30,011,425	33,670,400	2,195,255	-
USES		13,163,434	3,226,211	30,011,425	33,670,400	2,195,255	-
<b>ANNUAL OPERATING CASH FLOWS</b>							
Rental Income		-	-	-	-	4,355,674	4,747,573
Other Income		-	-	-	-	-	-
Retail Income (Net of Expenses)		-	-	-	-	-	-
TOTAL POTENTIAL INCOME		-	-	-	-	4,355,674	4,747,573
- General Vacancy and Credit Loss		-	-	-	-	(174,227)	(189,903)
EFFECTIVE GROSS REVENUE		-	-	-	-	4,181,447	4,557,670
<b>OPERATING EXPENSES</b>							
General Operating Expenses		-	-	-	-	1,437,913	976,063
Management Fee		-	-	-	-	125,443	136,730
Insurance		-	-	-	-	-	-
Property Taxes & Insurance		-	-	-	-	842,979	506,490
TOTAL OPERATING EXPENSES		-	-	-	-	2,406,335	1,619,283
NET OPERATING INCOME		-	-	-	-	1,775,112	2,938,387
CAPITAL EXPENDITURES		-	-	-	-	45,675	50,770
CASH FLOW FROM OPERATIONS		-	-	-	-	1,729,437	2,887,617
<b>ANNUAL PROPERTY-LEVEL CASH FLOWS</b>							
Total Project Cost (Before Carry Costs)		13,163,434	2,693,609	29,691,965	30,536,965	-	-
Total Construction Loan Interest (Before Lease-up Income)		-	-	319,459	3,133,435	3,875,546	2,289,242
Total Loan Draws		-	-	21,720,704	33,670,400	2,195,255	-
Financing Costs		-	532,602	-	-	-	-
Cash Flow from Operations		-	-	-	-	1,729,437	2,887,617
Net Sale Proceeds		-	-	-	-	-	106,992,798
- Loan Payoff		-	-	-	-	-	(57,586,360)
Equity Proceeds from Sale		-	-	-	-	-	49,406,439
Net Unlevered Cash Flow		(13,163,434)	(2,693,609)	(29,691,965)	(30,536,965)	1,729,437	109,880,415
Net Levered Cash Flow		(13,163,434)	(3,226,211)	(8,290,721)	-	49,146	50,004,813

(Model Templated Source: Adventures in CRE)

Base Case Co-Living Financial Model Assumptions:

INVESTMENT DESCRIPTION							
Name	Co-Living		County			USA	
Address			State			New York	
City	Brooklyn		Zip Code			11211	
Analysis Begin Date	Jan-2020	Sale Date	Month 55			Jul-2024	
Land Area	17,424 SF	0.4 acres	Buildings			2.0	
Units/Acre			817.5 Avg. # of Stories			7.0	
FAR			7.44 Units			327 units	
Gross Buildable (GBA)	129,689 SF	Net Rentable	75.6% of GBA			98,100 SF	
Total Parking Spaces			85 Structured Parking Spaces			85	
Parking Ratio			0.26/unit Surface Parking Spaces			0	
DEVELOPMENT PERIOD CASH FLOWS							
SOURCES AND USES			98,100 NSF	327 Units			
USES	START	END	METHOD	/Rentable SF	/UNIT	AMOUNT	
Land Costs							
Land Costs	Month 0	Month 0	Straight-Line	132.20	39,660	12,968,900	
Closing Costs	Month 0	Month 0	Straight-Line	1.98	595	194,534	
Total Land Costs	Month 0	Month 0		134.18	40,255	13,163,434	
Hard Costs							
Labor and Material	Month 13	Month 36	S-Curve	495.75	148,726	48,633,375	
Contingency (10%)	Month 13	Month 36	S-Curve	49.58	14,873	4,863,338	
FF&E	Month 30	Month 36	S-Curve	20.00	6,000	1,962,000	
Other Hard Costs	Month 13	Month 36	S-Curve	5.10	1,529	500,000	
Total Hard Costs	Month 13	Month 36		570.43	171,128	55,958,713	
Soft Costs							
Architecture & Engineering	Month 1	Month 36	Straight-Line	52.88	15,864	5,187,560	
Marketing and Leasing	Month 25	Month 36	Straight-Line	16.67	5,000	1,635,000	
Taxes and Insurance	Month 1	Month 36	Straight-Line	10.58	3,173	1,037,512	
Developer 2.5%	Month 1	Month 36	Straight-Line	19.62	5,885	1,924,555	
Total Soft Costs	Month 1	Month 36		99.74	29,922	9,784,627	
Total Project Cost before Financing				804.35	241,305	78,906,773	
Carry Costs							
Capitalized Construction Interest				56.49	16,947	5,541,536	
Financing Fees	Month 12	Month 12	Straight-Line	5.63	1,689	552,347	
Operating Shortfall				2.18	653	213,550	
Total Carry Costs				64.30	19,289	6,307,434	
<b>Total Uses</b>	<b>Month 0</b>	<b>Month 36</b>		<b>868.65</b>	<b>260,594</b>	<b>85,214,207</b>	
SOURCES	LTC	FUNDING ORDER	ANNUAL RATE	% OF SOURCES	/UNIT	/UNIT	AMOUNT
Equity		1	See Waterfall	30.0%	260.59	78,178	25,564,233
Debt	70.0%	2	6.83%	70.0%	608.05	182,416	59,649,974
Total Sources				100.0%	868.65	260,594	85,214,207
CASH FLOW OF SOURCES				% OF SOURCES	/UNIT	/UNIT	AMOUNT
Total Equity				30.0%	260.59	78,178	25,564,233
Debt							
Debt before Reserves				63.2%	549.39	164,816	53,894,888
Interest Reserve				6.5%	56.49	16,947	5,541,536
Operating Shortfall Reserve				0.3%	2.18	653	213,550
Total Debt				70.0%	608.05	182,416	59,649,974
<b>Total Sources</b>				<b>100.0%</b>	<b>868.65</b>	<b>260,594</b>	<b>85,214,207</b>

## OPERATING PERIOD CASH FLOWS

INCOME				Basic Lease Up Method			
Operation Begin Month	Month 37						
Annual Income Growth Rate	3.0%	Begin Month 37		% Pre-Leased		15%	
1st Stabilized Month	Month 49			Lease-up Pace (Units/Mo)		24.0 units	
				Lease Contract Length		9 Months	
<u>RENTAL INCOME</u>				98,100 NSF	75.6% EF	129,689 GSF	
<u>UNIT TYPE</u>	<u>UNITS</u>	<u>AVG. SF</u>	<u>INITIAL FREE RENT</u>	<u>STAB. FREE RENT</u>	<u>RENT/SF/MO</u>	<u>RENT/UNIT/MO</u>	<u>TOTAL RENT/YR</u>
Co-Living	327	300	0.0 Months	0.0 Months	8.28	2,484	9,746,539
GROSS RENT	327	300	0.0 Months	0.0 Months	8.28	2,484	9,746,539
- Concessions (Free Rent)					-	-	-
- Gain/Loss-to-Lease					-	-	-
- Non-Revenue (Model) Units	0 unit(s)		0		-	-	-
TOTAL RENTAL INCOME					8.28	2,484	9,746,539
<u>OTHER INCOME</u>			<u>% FIXED</u>	<u>% OF TOTAL RENT</u>	<u>/SF/MO</u>	<u>UNIT/MO</u>	<u>AMOUNT/YR</u>
Other Income			0%	0.00%	-	-	-
Parking Income			0%	0.00%	-	-	-
TOTAL OTHER INCOME				0.00%	-	-	-
TOTAL POTENTIAL INCOME					8.28	2,484	9,746,539
- General Vacancy and Credit Loss				4.00%	(0.33)	(99)	(389,862)
EFFECTIVE GROSS REVENUE					7.95	2,384	9,356,678
EXPENSES				BASIC EXPENSE UNDERWRITING			
Annual Expense Growth Rate	3.0%	Begin Month 37		Prop. Tax (Operation Yr 1) % of Full		100.0%	
				Prop. Tax (Operation Yr 2) % of Full		100.0%	
				Prop. Tax (Operation Yr 3) % of Full		100.0%	
<u>OPERATING EXPENSES</u>			<u>% FIXED</u>	<u>% OF EGR</u>	<u>UNIT/YR</u>	<u>AMOUNT/YR</u>	
General Operating Expenses			75%	26.00%	7,440	2,432,736	
Management Fee				5.00%	1,431	467,834	
Property Taxes & Insurance				9.01%	2,578	842,979	
TOTAL OPERATING EXPENSES				40.01%	11,448	3,743,549	
<b>NET OPERATING INCOME</b>						<b>5,613,129</b>	
<u>CAPITAL EXPENDITURES</u>			<u>% FIXED</u>	<u>% OF EGR</u>	<u>UNIT/YR</u>	<u>AMOUNT/YR</u>	
Capital Reserves			0%	0.87%	250	81,750	
Other Capital Expenditures			0%	Straight-Line	250	81,750	
TOTAL CAPITAL EXPENDITURES				1.75%	500	163,500	
CASH FLOW FROM OPERATIONS						5,449,629	

REVERSION (SALE) CASH FLOWS				
TIMING		REVERSION (SALE) ASSUMPTIONS		
Construction End Month	36	Market Cap Rate Today 4.50%		
Operatin Begin Month	37	Cap Rate at Sale (Terminal Cap) 4.75%		
1st Stabilized Month	49	Selling Costs 1.50%		
Sale Month	55	As of Today	Month 49 - 60	Month 55 - 66
PRO FORMA		UNTRENDED	TRENDED	SALE
GROSS RENT		9,746,539	10,038,935	10,189,519
- Concessions (Free Rent)		-	-	-
- Gain/Loss-to-Lease		-	(134,015)	(137,122)
- Non-Revenue (Model) Units		-	-	-
TOTAL RENTAL INCOME		9,746,539	9,904,920	10,052,398
OTHER INCOME				
Other Income		-	-	-
Parking Income		-	-	-
TOTAL OTHER INCOME		-	-	-
TOTAL POTENTIAL INCOME		9,746,539	9,904,920	10,052,398
- General Vacancy and Credit Loss		(389,862)	(396,197)	(402,096)
EFFECTIVE GROSS REVENUE		9,356,678	9,508,724	9,650,302
OPERATING EXPENSES				
General Operating Expenses		2,432,736	2,505,718	2,543,304
Management Fee		467,834	475,436	482,515
Property Taxes & Insurance		842,979	868,268	881,292
TOTAL OPERATING EXPENSES		3,743,549	3,849,422	3,907,111
NET OPERATING INCOME		5,613,129	5,659,301	5,743,191
CAPITAL EXPENDITURES				
Capital Reserves		81,750	84,203	85,466
Other Capital Expenditures		81,750	84,203	85,466
TOTAL CAPITAL EXPENDITURES		163,500	168,405	170,931
CASH FLOW FROM OPERATIONS		5,449,629	5,490,896	5,572,260
SALE PROCEEDS		VALUATION		
Gross Sale Proceeds	120,909,280	DIRECT CAPITALIZATION		
- Selling Costs @ 1.50%	(1,813,639)	UNTRENDED	TRENDED	SALE
Net Sale Proceeds	119,095,641	4.50%	4.72%	4.75%
- Loan Payoff	(59,649,974)	5,613,129	5,659,301	5,743,191
<b>Equity Proceeds from Sale</b>	<b>59,445,667</b>	<b>Stabilized Value</b>	<b>124,736,200</b>	<b>119,831,211</b>
			<b>120,909,280</b>	
RETURNS				
PROPERTY-LEVEL CASH FLOWS				
Total Project Cost (Before Carry Costs)				78,906,773
Total Construction Loan Interest (Before Lease-up Income)				9,825,500
Total Loan Draws				59,649,974
Cash Flow from Operations				4,997,311
Net Sale Proceeds				119,095,641
- Loan Payoff				(59,649,974)
Equity Proceeds from Sale				59,445,667
<b>Net Unlevered Cash Flow</b>		<b>EQUITY MULTIPLE</b>	<b>IRR</b>	<b>NET PROFIT</b>
<b>Net Levered Cash Flow</b>		<b>1.57X</b>	<b>16.58%</b>	<b>45,186,178</b>
		<b>2.36X</b>	<b>23.82%</b>	<b>34,808,330</b>
		UNTRENDED	TRENDED	SALE
<b>Yield-on-Cost</b>		<b>6.59%</b>	<b>6.64%</b>	<b>6.74%</b>
<b>Market Cap Rate</b>		<b>4.50%</b>	<b>4.72%</b>	<b>4.75%</b>
<b>Development Spread</b>		<b>208.7 bps</b>	<b>191.9 bps</b>	<b>199.0 bps</b>

Base Case Co-Living Financial Model Annual Cash Flow:

CO-LIVING		MIT CO-LIVING THESIS					
Brooklyn, New York		ANALYSIS START - JAN-2012					
ANNUAL CASH FLOW							EXIT
	Analysis Month	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	Analysis Date	Dec-2019	Dec-2020	Dec-2021	Dec-2022	Dec-2023	Jul-2024
<b>ANNUAL DEVELOPMENT CASH FLOWS</b>							
Land Costs		13,163,434	-	-	-	-	-
Hard Costs		-	-	26,998,356	28,960,356	-	-
Soft Costs		-	2,716,542	2,716,542	4,351,542	-	-
TOTAL PROJECT COST BEFORE FINANCING		13,163,434	2,716,542	29,714,899	33,311,899	-	-
Carry Costs		-	552,347	295,796	3,149,905	2,309,385	-
TOTAL PROJECT COST		13,163,434	3,268,890	30,010,695	36,461,804	2,309,385	-
SOURCES		13,163,434	3,268,890	30,010,695	36,461,804	2,309,385	-
USES		13,163,434	3,268,890	30,010,695	36,461,804	2,309,385	-
<b>ANNUAL OPERATING CASH FLOWS</b>							
Rental Income		-	-	-	-	5,396,364	5,742,336
Other Income		-	-	-	-	-	-
Retail Income (Net of Expenses)		-	-	-	-	-	-
TOTAL POTENTIAL INCOME		-	-	-	-	5,396,364	5,742,336
- General Vacancy and Credit Loss		-	-	-	-	(215,855)	(229,693)
EFFECTIVE GROSS REVENUE		-	-	-	-	5,180,509	5,512,643
<b>OPERATING EXPENSES</b>							
General Operating Expenses		-	-	-	-	2,161,285	1,461,669
Management Fee		-	-	-	-	259,025	275,632
Property Taxes & Insurance		-	-	-	-	842,979	506,490
TOTAL OPERATING EXPENSES		-	-	-	-	3,263,289	2,243,791
NET OPERATING INCOME		-	-	-	-	1,917,220	3,268,852
CAPITAL EXPENDITURES		-	-	-	-	90,525	98,236
CASH FLOW FROM OPERATIONS		-	-	-	-	1,826,695	3,170,616
<b>ANNUAL PROPERTY-LEVEL CASH FLOWS</b>							
Total Project Cost (Before Carry Costs)		13,163,434	2,716,542	29,714,899	33,311,899	-	-
Total Construction Loan Interest (Before Lease-up Income)		-	-	295,796	3,149,905	4,011,753	2,368,046
Total Loan Draws		-	-	20,878,785	36,461,804	2,309,385	-
Financing Costs		-	552,347	-	-	-	-
Cash Flow from Operations		-	-	-	-	1,826,695	3,170,616
Net Sale Proceeds		-	-	-	-	-	119,095,641
- Loan Payoff		-	-	-	-	-	(59,649,974)
Equity Proceeds from Sale		-	-	-	-	-	59,445,667
Net Unlevered Cash Flow		(13,163,434)	(2,716,542)	(29,714,899)	(33,311,899)	1,826,695	122,266,256
Net Levered Cash Flow		(13,163,434)	(3,268,890)	(9,131,910)	(0)	124,327	60,248,236

(Model Template Source: Adventures in CRE)



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