



Investing in Disruptive Change: The Great U.S. Wealth Migration

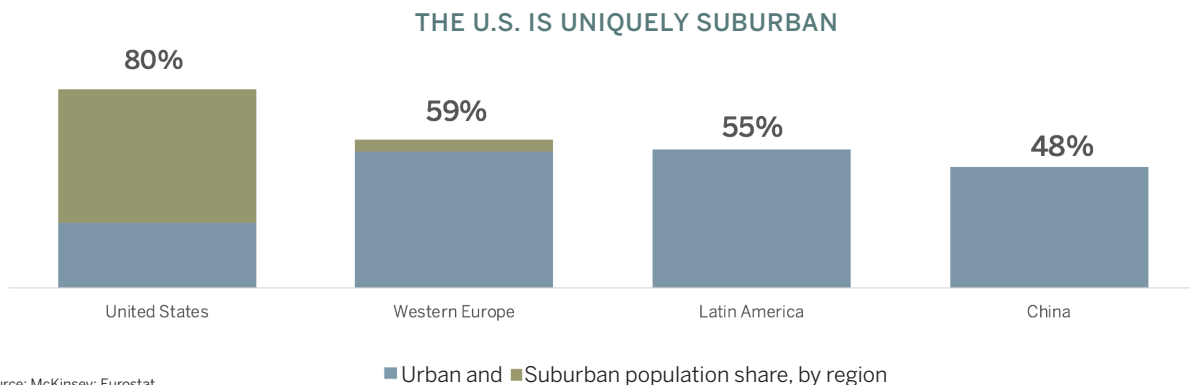
As thematic investors, we look for phenomena that are transforming economic prospects across multiple industries. Then, we seek to identify companies that will benefit, are investable through public equities with ample liquidity, and are likely to pay off within three to five years. Here we discuss one of these phenomena, the migration of U.S. wealth to urban areas, and some of the investment implications.

For the first time in over a century, more people in the United States are moving to cities than to suburbs. The educated and affluent are opting for walkable cities with restaurants, shopping, schools and parks easily accessible via sidewalks and bike paths. In contrast, moderate and low-income people are leaving cities, often priced out by rising rents.

This wealth migration to cities is the result of lifestyle preferences that are favoring urban amenities over suburban space. This shift is being reinforced by contemporary urban planning and secular economic trends, including the migration of businesses to urban areas with highly educated workforces. We believe these trends will continue for decades, with urbanization spreading outward from city cores, turning many suburbs into urban-like villages.

American Exceptionalism

Urbanization is a centuries-old global trend that has accelerated in recent decades. China's population is now approximately 50% urban, up from 16% fifty years ago, but it's still well below that of Western Europe and Latin America. By some measures, the U.S. is the most urbanized country in the world, with 80% of its population living in metropolitan areas. But by another measure, the U.S. is far less urban than most developed countries. More than 60% of the U.S. population lives in close-in suburbs that are part of metropolitan areas. This development pattern is virtually unique to the U.S. and largely the result of government policies.

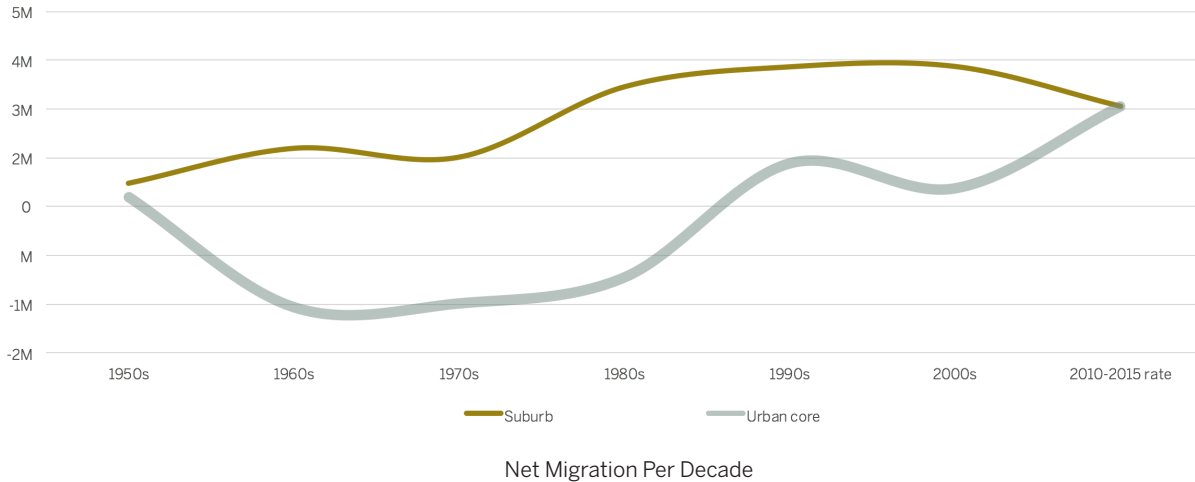


Source: McKinsey; Eurostat

The American Dream of home ownership was created by the Federal Housing Administration in the 1930s and propelled forward after World War II by the Veterans Administration home loan program. Then, the creation of the interstate highway system in the 1950s, coupled with low gas prices, made suburb-to-city commutes both easy and affordable. A final suburban push came in the 1960s, as safety fears stirred by urban riots dominated headlines and television screens. Rising crime rates prompted people with the means to live elsewhere to leave cities for the safety of the suburbs. The population of most U.S. cities fell in the 1960s and 1970s, leaving cities poorer and more racially segregated. But migration to cities resumed in the 1980s and has sped up over the last 15 years, finally outstripping the slowing rate of net migration to suburbs. Now, urban population growth is being driven by high earners and the highly educated. As city rents rise, lower income people are leaving, priced out by rising rents and rising home prices.



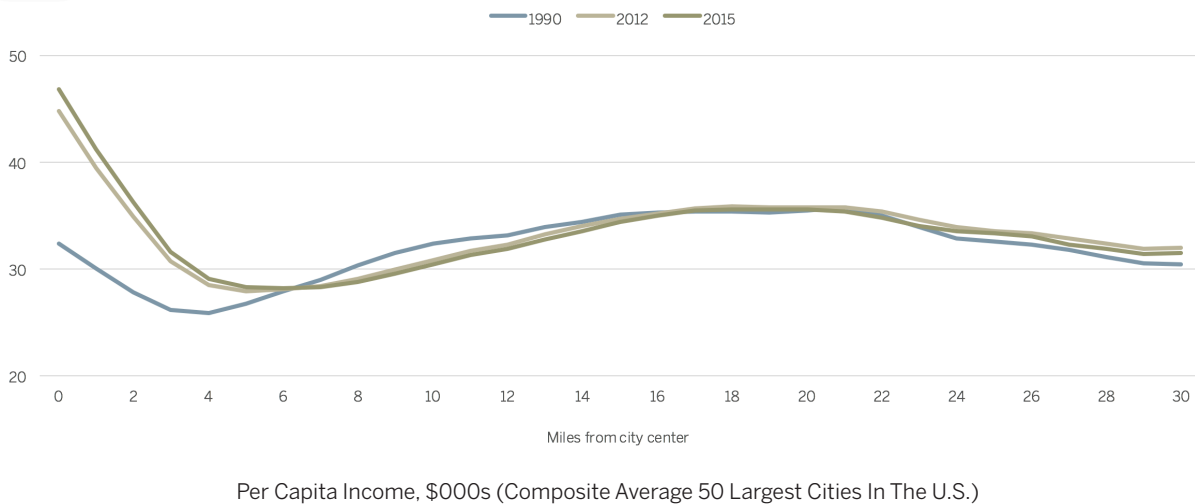
MIGRATION TO CITIES IS ON THE UPSWING



Source: US Census, iamB Consulting

Today, the U.S. is becoming a more urban society and cities are becoming wealthier. These trends are reinforcing each other in a virtuous cycle, with falling crime rates making urban living more desirable, new approaches to urban planning fostering walkable neighborhoods with dining and shopping, an educated and youthful population developing a taste for the new urban lifestyle, and companies, particularly knowledge-based companies, moving to be near pools of talent. The clustering of people, talent, firms and capital has spurred innovation and increased productivity, turning cities into incubators of economic development.

THE WEALTHY HAVE MOVED CLOSER TO CITY CENTERS



Per Capita Income, \$000s (Composite Average 50 Largest Cities In The U.S.)

Source: UVA Demographic Research Group, US Census, iamB Consulting



Falling Crime Rates

Cities have become safer. New York City reported 2,000 violent crimes per 100,000 people per year, on average, in the 1980s, but only 600 per 100,000 between 2008 and 2014. Other cities reported similar, though smaller, drops. In aggregate, violent crime rates in large cities have declined by one-third over the last decade. In contrast, crime rates in suburbs have risen 17% on average, with drug-related crimes accounting for most of the increase. Safety improves quality of life. With urban crime rates falling and suburban crime rates rising, suburbia is losing one of its long-held advantages.

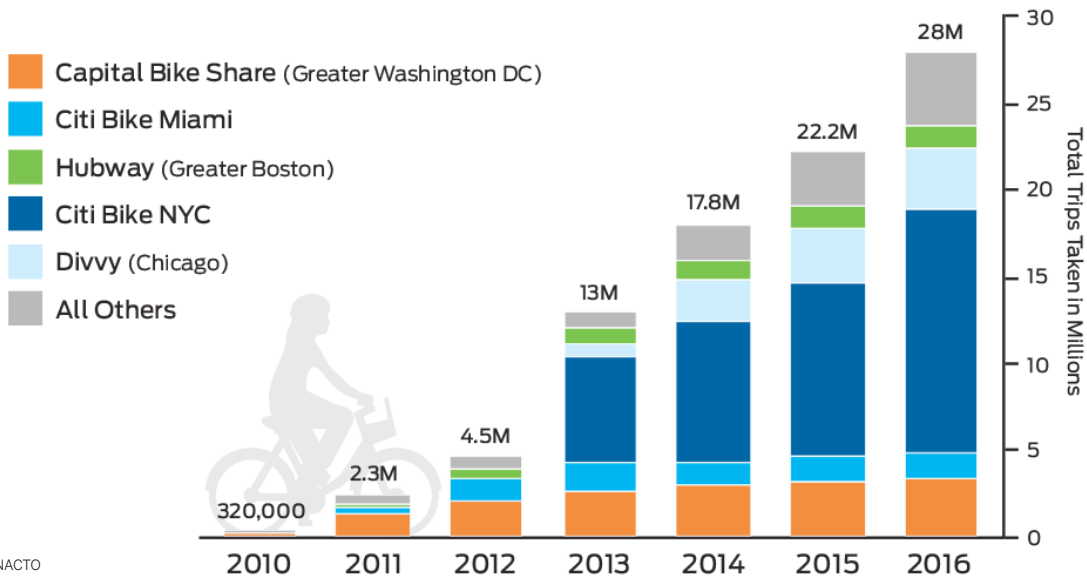
The New Urban Planning

For decades, cities across the U.S. have been making concerted efforts to attract young, educated, and higher-income people, and the companies that employ them. In the 1980s, New York redeveloped the South Street Seaport and Boston revitalized Quincy Market into charming old-fashioned shopping and dining districts attracting new residents and more visitors. This trend predates Millennials' current love affair with cities. We think it is likely to endure for this and future generations.

The new urban planning models focus on being pedestrian friendly. Sidewalks are a priority and neighborhoods are re-zoned so that residential, retail, office buildings, schools, and recreational facilities are within compact areas. According to a study by Redfin of the Washington, D.C. metro area, walkability pays off in higher real estate values. A 20-point increase in a walkability score translates into a \$9 per square foot premium in office rents, \$7 premium in retail rent, 80% increase in retail sales, a \$300 per square foot premium in residential rents, and an \$80 per square foot premium in residential housing prices.

Biking, too, has become a priority as it has grown in popularity. Newer urban planning models include bicycle trails and bike sharing systems, which provide another transportation option for young professionals less keen on driving. Chicago saw its investment in biking correlate with its rise as a global startup destination. "You cannot be for a startup, high-tech economy and not be pro-bike," Chicago Mayor Rahm Emanuel has said.

BIKE SHARE RIDERSHIP IS GROWING RAPIDLY



Source: NACTO

Smart urban planning allowed New Orleans to make its comeback after Hurricane Katrina. The city devised a master rebuilding plan focused on three key goals: walkability, new business formation, and sustainable development using green technology and better transportation planning. The plan worked. In 2014, a boom in start-up activity resulted in New Orleans

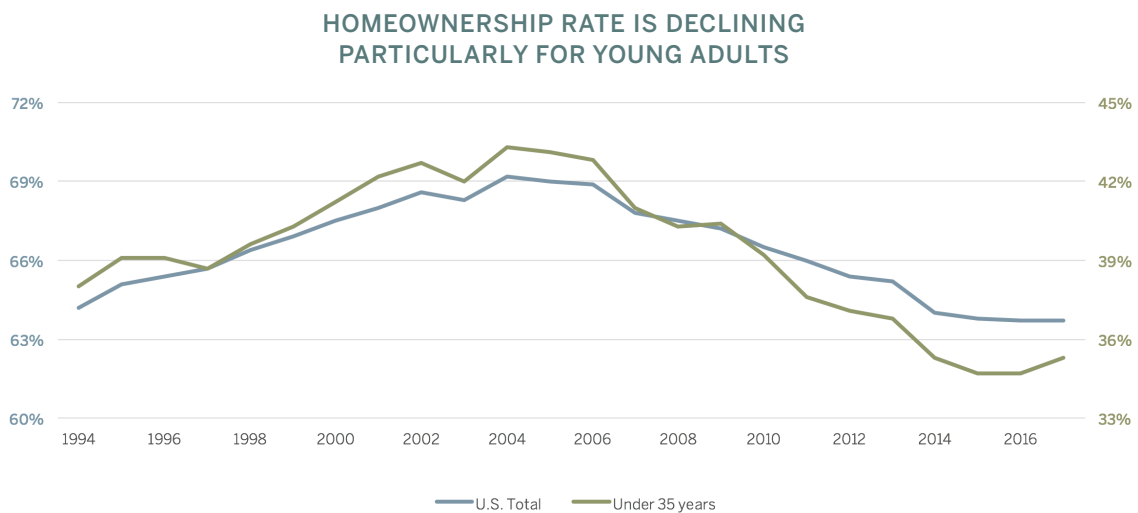


having new business formations 64% higher than the national average. Suburbs like Bethesda, Maryland and Palo Alto, California have adopted similar urban planning measures to become walkable urban villages clustered around big cities. Increasingly, these wealthy, urban-like suburbs centered around transportation hubs extend urbanization outward. Suburbs without such amenities, by contrast, face a decline in population, jobs and tax revenues. As a result, they may soon be forced to cut services, as some cities and rural towns have been forced to do.

Not Just Demographics

Some observers dismiss the wealth migration to cities as the temporary result of a demographic bulge that will reverse as Millennials mature and choose to raise their families in the suburbs, as their parents and grandparents did. We agree there is a demographic factor at work here, but we think that Millennials are less likely to leave cities than previous generations, and those who do leave will likely move to urban-like suburbs.

Millennials, the generation born between 1981 and 1997, include some 47 million people and about 30% of the U.S. workforce. Having come of age during the last two recessions, many Millennials had difficulty starting a career. Many are also saddled with student debt. Both factors make it challenging to afford a family or buy a home. Largely as a result, homeownership for people under age 35 has fallen sharply from its peak in 2004.



Source: U.S. Census Bureau

Today, first-time homebuyers have been living in rental apartments for six years on average, longer than at any time in the last 50 years and more than double the average during the early 1970s. And Millennials are just the latest of several generations to wait longer to marry and start a family. The average age of first marriage and childbirth has been rising for nearly 50 years.

The revival of once blighted cities started in the 1980s, when falling crime rates and de-industrialization began to make many cities safer and cleaner. Young professionals pioneered the gentrification of urban neighborhoods such as New York City's Upper West Side, Boston's Back Bay, and Washington, D.C.'s Capitol Hill, in the 1980s and 1990s. Many of those young professionals stayed to raise families because they liked walking their children to school and stopping at a neighborhood cafe on the way home. Similar lifestyle shifts occurred in cities across the nation in subsequent decades as people sought shorter commutes and city planners designed mixed use developments of retail, housing and commercial space, creating true live, work, play environments.



Jobs Follow Talent

Both new and established companies want to be located near clusters of talent. As talented young professionals show a preference for cities over suburbs, companies are following.

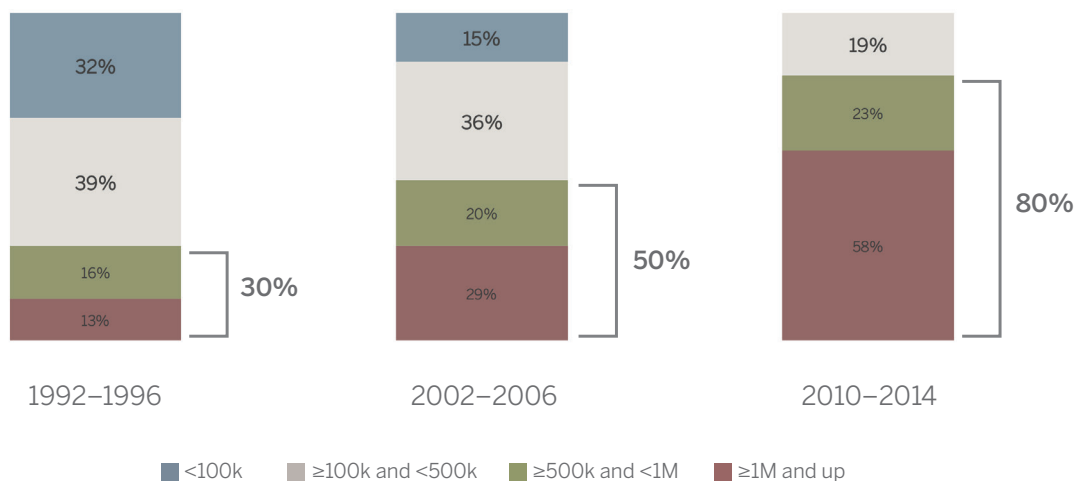
- Rolls-Royce moved 2,500 employees from six primarily-suburban locations to a single downtown office in Indianapolis in 2011, to meet the wishes of students coming out of engineering school. These students were “looking for the downtown living environment,” according to a company report.
- Forty-four years after leaving New York City for a 70-acre suburban office park in Fairfield, Connecticut, GE will relocate its headquarters to downtown Boston in 2019.
- McDonald’s is moving its headquarters from a suburban office park in Oak Park, Illinois, to downtown Chicago.
- Marriott is moving from a suburban office park with limited public transit to downtown Bethesda, Maryland, adjacent to the metro rail and just outside of Washington, D.C.
- Amazon’s announcement in 2017 that it was seeking a second headquarters specified that it wanted to locate in a metropolitan area with a population over one million, strong technical talent, and access to mass transit.

The Knowledge-Based Economy

The service and technology sectors, often referred to as “knowledge industries,” continue to power the U.S. and global economies. Companies in these industries are increasingly city-based. More than half of new companies with at least \$1 billion in market value are headquartered in downtown San Francisco or New York City. Most are tech firms.

An analysis of new business formations after cyclical downturns shows how this trend has evolved. Smaller cities and rural areas drove the economic recovery in the 1990s, together creating roughly 70% of new business formations. By contrast, in the 2000s recovery, large cities created 50% of U.S. jobs, as the tech-driven economy took off and suburban office parks began to decline. And in the most recent post-financial crisis recovery, large cities fueled four out of five new business formations and accounted for 60% of all new jobs, while new business creation in rural areas has stagnated.

NEW BUSINESS CREATION TRENDING TO CITIES



Share of U.S. Business Creation by County Population

Source: Economic Innovation Group



Investment Considerations

The U.S. wealth migration to cities has investment implications that span sectors and industries. By studying this shift, we can better understand the evolution of new business models designed to take advantage of higher-density living, and assess the opportunity set of companies poised to benefit from these secular trends.

- A decade ago, we sought to invest in the growth of cities in emerging markets, particularly China. Our investment ideas back then centered on materials, infrastructure and manufacturing. In contrast, our current investments in the migration of U.S. wealth to urban areas are tilted toward technology, data and services.
- American consumers spend \$13 trillion per year. Investment opportunities arise from understanding where and how that money will be spent. The answer to 'where' lies increasingly in urban areas.
- Urban dwellers now earn 30% more than their rural counterparts. With incomes and spending growing faster in urban areas than in America overall, we project that spending per square mile in urban areas will increase by 40% in 2020.
- Urban consumers spend differently than their rural counterparts. They spend more on housing, education, clothing, cosmetics and food outside the home—and far less on cars and transportation.
- New business models are emerging that capitalize on the concentration of people and wealth in urban areas. Many of these businesses focus on convenience and choice. Delivery businesses will continue to evolve for food and consumer goods; and mobility services, such as ride-sharing, will transform transportation.
- Older infill industrial properties will become increasingly valuable for redevelopment as fulfillment centers for e-commerce firms. At the same time, new retail construction will decrease as store footprints shrink. We expect a 5% to 10% contraction in retail square footage, with each one percent being the equivalent of 1,800 football fields.
- Significant chunks of suburban commercial real estate are likely to lose value, unless they find ways to become destinations. Strip malls and big box retailers appear most vulnerable.

In sum, the wealth migration to urban areas with distinct amenities is defining a growing ecosystem that we think will spawn innovative new economic activities for years to come.