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Analyzing global cities in the 2020s

Post-pandemic life is on the horizon, but which global markets are best positioned to benefit over the next decade?

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The coronavirus pandemic has changed how we work, shop, communicate, and even where we choose to live. While some of these changes will be temporary, we believe that the pandemic has accelerated trends that will have a lasting impact on our lives and cities worldwide.

Trends and opportunities

Certain cities and submarkets within cities are better positioned to capitalize on these trends, creating opportunities for investors around the globe.

Notable trends that will affect global market performance going forward include:

- A wider adoption of work from home and hybrid work models
- Significant migration to the outer ranges of commuter belts, revived cities and towns, and growing regions that provide attractive lifestyle benefits
- The integration of e-commerce into both in-person and online retail experiences
- The evolution of transportation and industry supply chains
- Lower demand for business travel, relative to leisure travel

Successful investing in real estate will rely on understanding the impact of these trends on cities worldwide. The population centers that will benefit from these shifts, most notably due to the added flexibility afforded to workers, will differ based on region.

In the United States, suburban areas outside of gateway and low-cost markets will benefit economically, mainly in the Sun Belt and Mountain West regions.

In Europe, many residents may migrate to small towns outside gateway markets, leading to an extension of the commuter belt, and some residents may move to innovative and attractive second-tier cities.

In Asia, this adoption will benefit gateway markets in metros that have the infrastructure to support a digitally based economy; however, residents may capitalize on added work-life flexibility to move within those gateway markets.

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United States: An increasingly digital society

The U.S. economic recovery from the coronavirus pandemic has been greater than that of most other developed economic recoveries thus far. Because the U.S. has relatively widespread broadband access and an economy not reliant on the physical production of goods, U.S. consumers have adapted more quickly to digital life. Certain American markets are well-positioned to benefit from the continued digital shift, while others are not. Three key factors will determine which markets these are:

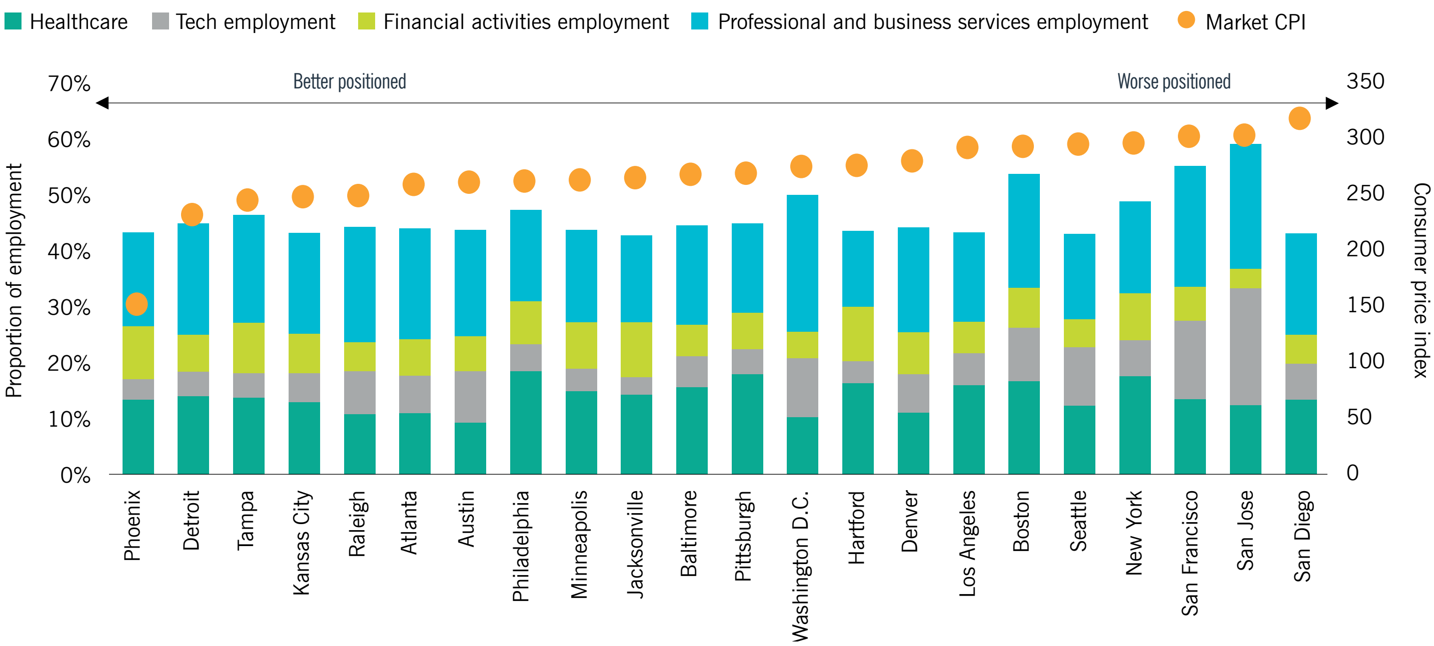
- Proportion of employment in high-paying service-based industries (i.e. technology, health care, finance and professional services, and legal services) relative to the cost of living
- Ability to transition low-wage employers tied to declining industries (traditional retail, commercial construction) to low-wage employers in growing industries (logistics, residential construction)
- Ability to serve as a low-cost alternative to gateway markets and a market where residents carry low household debt burdens.

High-wage employment: a service-based economy

High-paying service-based industries, such as technology, financial and professional services, and legal services, have been resilient during the pandemic, as workers in those industries have quickly adapted to digital business methods. Recent technological developments in data connectivity, data storage and video communication have allowed workers in these industries to conduct business remotely. Certain areas of the health care industry, such as life science and medical research, have not only been resilient but have also grown due to renewed interest and funding during the pandemic.

While some cities with high exposure to these have outperformed during the pandemic, others have not. Long-term demographic trends, such as millennials reaching homeownership age, are having a considerable impact on where workers in these industries desire to be. Specifically, markets such as Tampa, Raleigh and Phoenix, with a high proportion of employment in service-based industries and a low cost of living, should continue to benefit from this shift. Exceptions are Detroit and Philadelphia, which also have a similar employment profile but based around manufacturing company operations.

Figure 1: **Markets with above-average allocation to high-income service-based employment, ranked by CPI**



Source: Moody's Analytics, June 2021

With greater flexibility afforded to workers, the economic and lifestyle calculation of living in many of the country's most expensive markets makes increasingly less sense

Markets with the highest concentration of employment in health care, technology, financial activities, and professional and business services are primarily located on the coasts (e.g., San Jose, Boston, New York and Washington D.C.). The markets that benefitted the most from inward migration in 2020 were markets located in the Sun Belt.[1] This suggests that workers are moving from high-cost living markets to low-cost markets that provide employment opportunities in health care, technology, financial activities, and professional and business services industries.[2] Non-coastal Sun Belt markets had net migration rates in 2020 similar to averages seen after the global financial crisis (GFC), which were around 1.0% to 1.5%, as all large markets faced some out migration to small markets in 2020, regardless of location. Gateway markets saw substantially higher outmigration rates in 2020 relative to post-GFC averages.

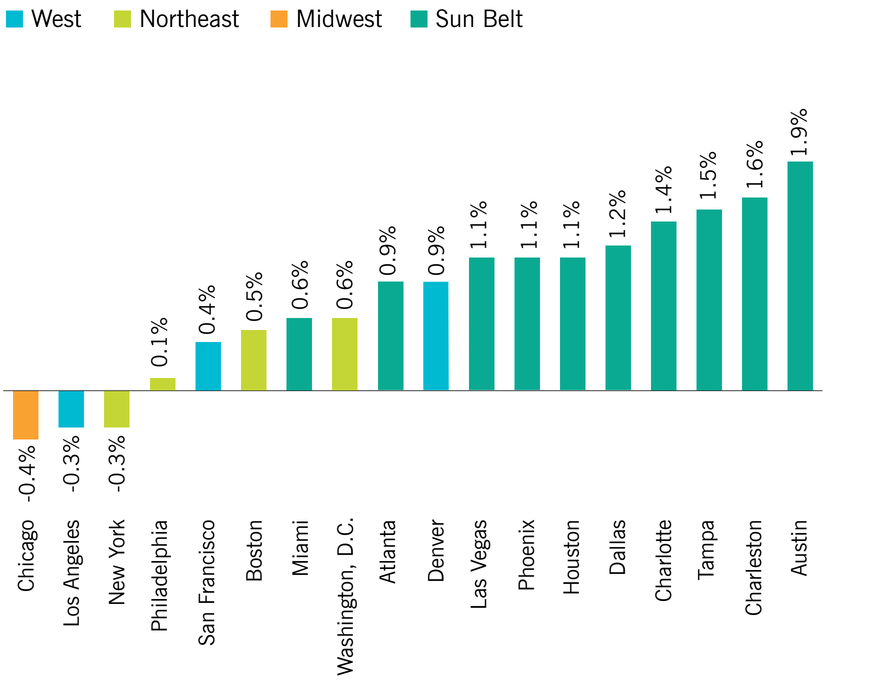
Living in a core coastal market has never been more expensive, particularly on a relative basis. Coastal markets had an even greater discrepancy between Class-A apartment rents to median incomes in 2019 than during the housing boom of the mid-2000s. Meanwhile, for secondary markets, this ratio was lower in 2019 than in 2007.[3] With greater flexibility afforded to workers, the economic and lifestyle calculation of living in many of the country's most expensive markets makes increasingly less sense.

During the 2010s, many millennials postponed homeownership to stay in high-cost markets. Many popular leisure and entertainment venues were forced to close during the pandemic, significantly decreasing the appeal of living in high-cost markets and paying high-cost rents. Therefore, many millennials, having reached the age traditionally associated with first-time homeownership (30-39), bought homes in lower-cost markets by taking advantage of low interest rates and higher savings rates.

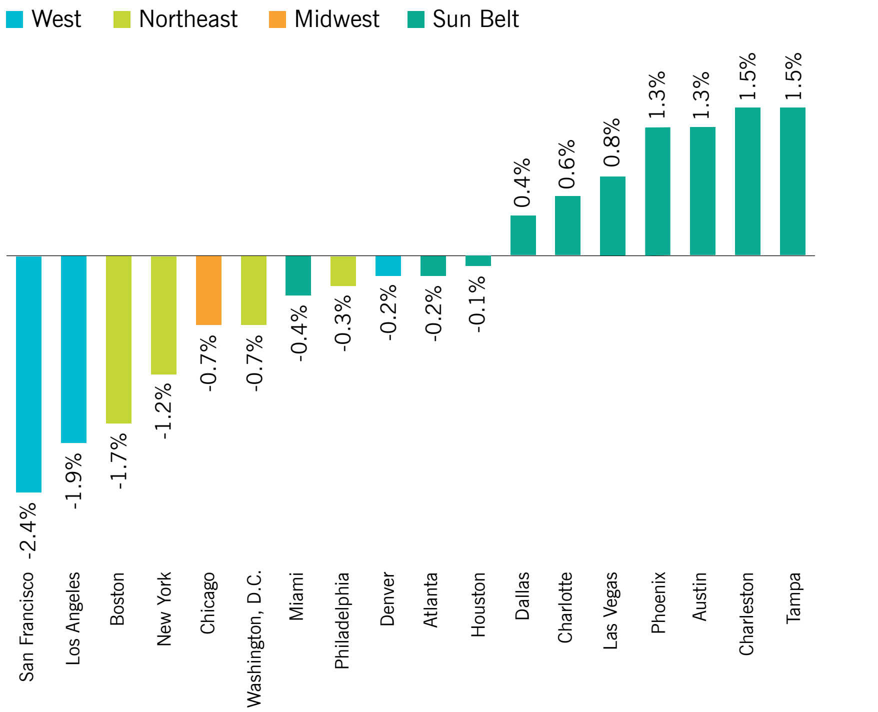
Markets such as Austin, Phoenix, Charlotte, Raleigh and Tampa should continue to benefit from inward migration of high-income residents from higher-cost markets such as New York, Los Angeles and San Francisco until there is more housing-cost parity among high-cost and low-cost markets.

Figure 2: **Net migration before and during the pandemic**

Net migration rate by metro (2010-2019, annualized)

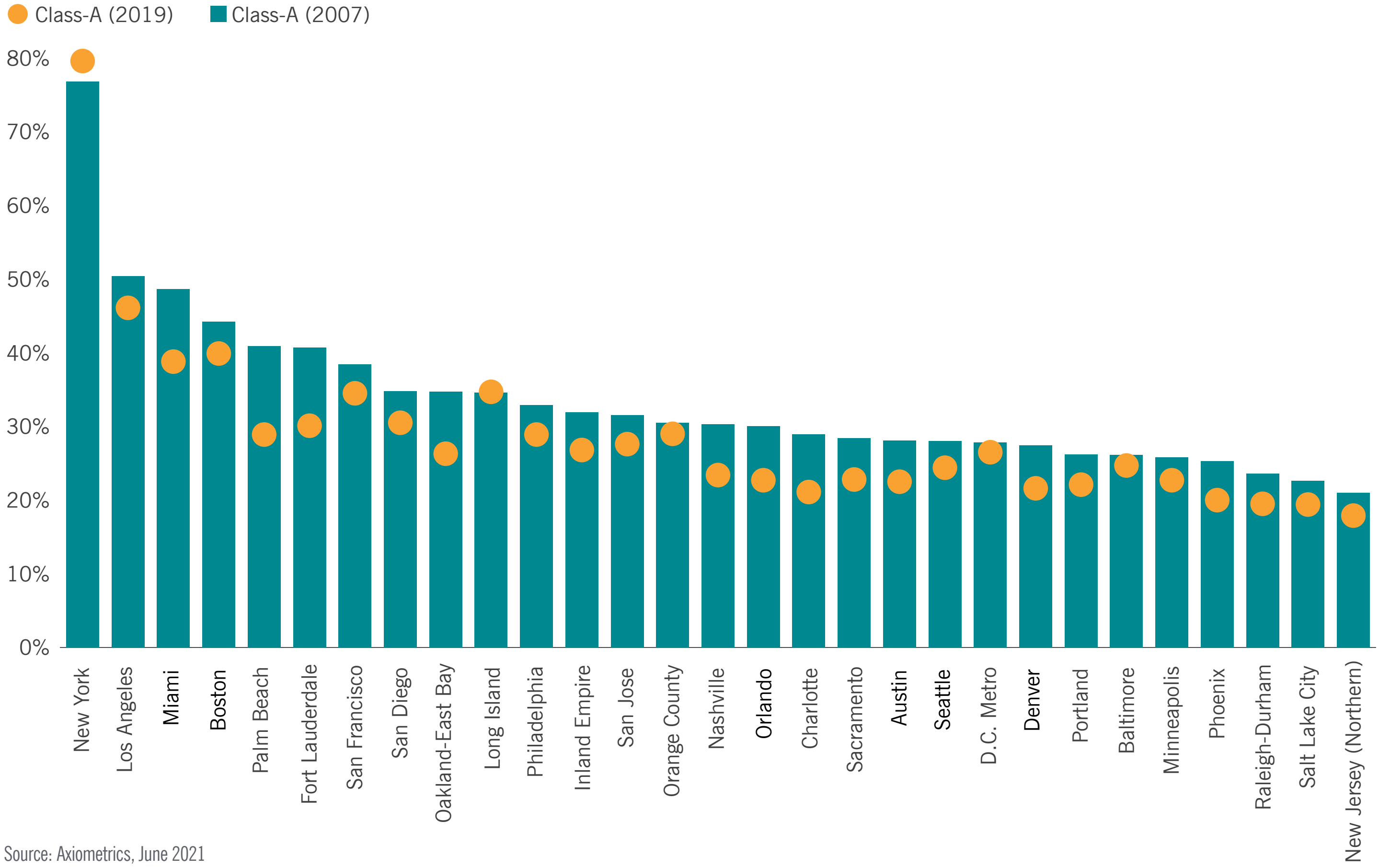


Net migration rate by metro, 2020



Source: Placer AI, December 2020

Figure 3: **Class-A apartment rent-to-medium income ratio (2007 vs. 2019)**



Source: Axiometrics, June 2021

Low-wage employment: retail's loss is logistics', gain

At the outset of the pandemic, many low-wage service-based industries, such as leisure and hospitality, retail trade, transportation, public utilities, and tourism and entertainment, contracted considerably. However, some of these industries, such as hospitality and entertainment, have recovered as coronavirus-related restrictions have been removed. In contrast, others, such as retail and transportation, have lagged in their recoveries. Lodging real estate values have recovered and are now above pre-pandemic values; however, retail, mall, office and strip center values are still well below pre-pandemic values.[4] This implies that investors believe that many headwinds facing the retail and office sectors, such as e-commerce and working from home, will permanently lower demand for these property types.

Figure 4: **Changes in property values**

Sector	ΔPre-COVID	Δ3Mo.	Δ12Mo.
Manufactured homes	25.1%	15.9%	30.3%
Self-storage	23.6%	20.0%	29.5%
Industrial	20.7%	1.0%	26.5%
Net lease	16.8%	20.1%	24.9%
Senior housing	11.1%	5.3%	11.1%
Life science	10.1%	4.3%	13.1%
Student housing	8.5%	14.1%	25.5%
Apartment	8.0%	12.7%	20.3%
Lodging	3.5%	5.0%	24.2%
All property	2.6%	6.8%	14.1%
Core sector	1.6%	5.0%	13.4%
Core sector (less ind.)	-2.6%	7.3%	10.6%
Medical office	-3.1%	0.5%	2.0%
Skilled nursing	-5.4%	0.5%	1.0%
Strip center	-6.8%	7.5%	9.7%
Office	-8.0%	1.5%	1.2%
Retail	-12.3%	5.0%	6.5%
High-quality malls	-17.5%	2.6%	3.4%

Source: GreenStreet Advisors, June 2021

One key permanent change that will likely result from the pandemic is each worker's relationship with the office.

Exposure to retail trade and low-wage office-based employment will disproportionately impact markets that cannot support transitioning these workers to growing industries that rely on low-wage employment, such as logistics, storage and residential construction. In particular, markets such as Raleigh, Riverside and Memphis are likely to maintain their proportions of low-wage employees due to the significant concentration of logistics employment or the significant inward migration into those markets. However, markets such as Washington D.C., New York and San Francisco are likely to lose low-wage workers, as those markets have seen residential outmigration and are too expensive to serve as logistical hubs (relative to markets such as Baltimore, Northern New Jersey and Oakland).

The benefit of being a low-cost alternative

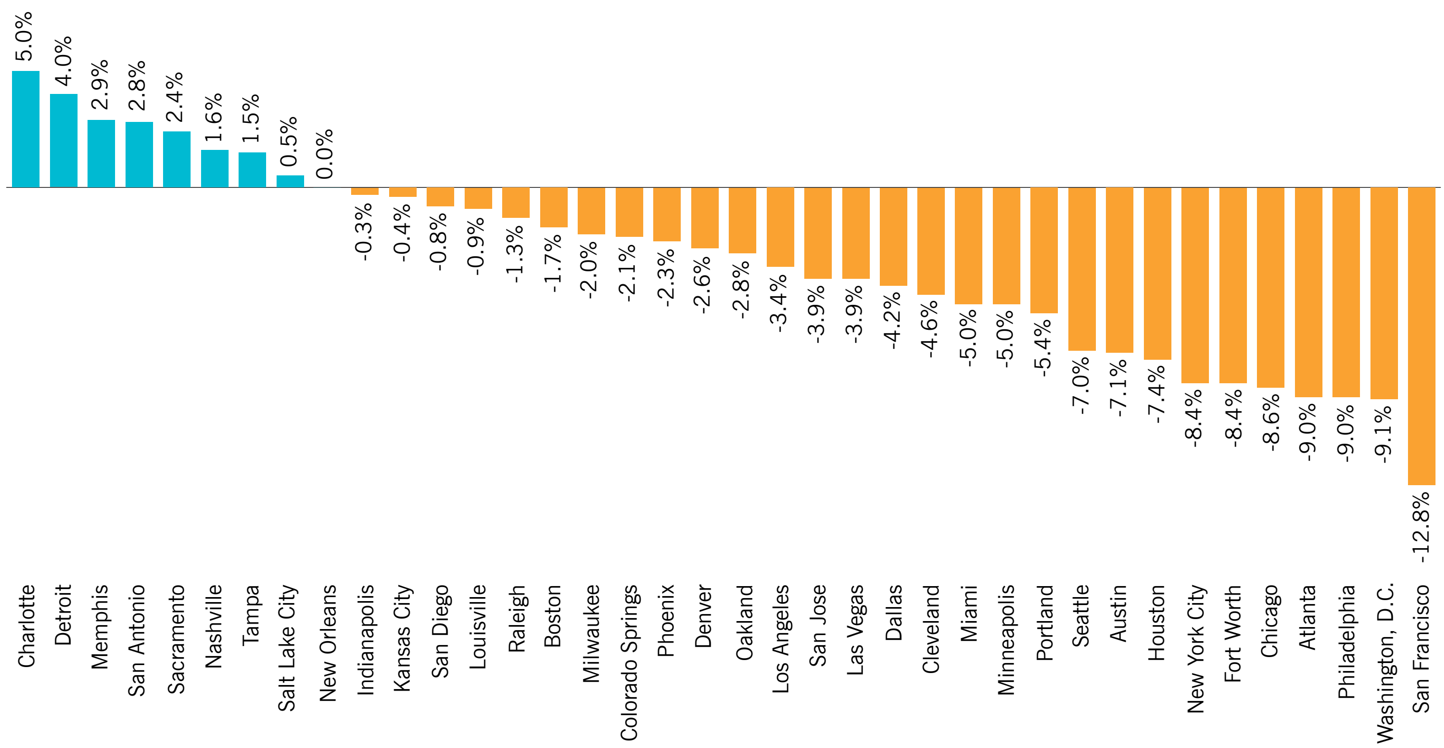
According to most surveys, most workers want to work in a hybrid work environment post-pandemic. For example, according to a Blackhawk Networks survey (cited in Forbes), 62% want to work in a hybrid work environment, compared to the 23% who want to work full-time in the office and 15% who want to work remotely full-time.[5] As a result, suburban areas and low-cost markets near high-cost markets will benefit from inward migration from high-cost markets. This trend will be most apparent with high-income workers, who will no longer need to live in areas close to central business districts in high-cost markets.

Markets with a relatively low cost of living, such as Charlotte, San Antonio, Sacramento and Detroit, have gained the highest share of high-income employment since the pandemic began. These markets have gained this employment, while nearby higher-cost markets, such as Atlanta, Dallas, San Francisco and Chicago, have substantially lost high-income workers.[6 7]

In addition, the suburbs have been quietly growing in population over the last few years, primarily driven by older millennials, who have aged into their household formation years and are seeking additional space for their families. According to the National Association of Realtors (NAR), 53% of homes purchased by residents aged 30 to 39 last year were located in suburban locations. The leading factor that led to moving was a life change (addition to family, marriage, etc.).[8 9]

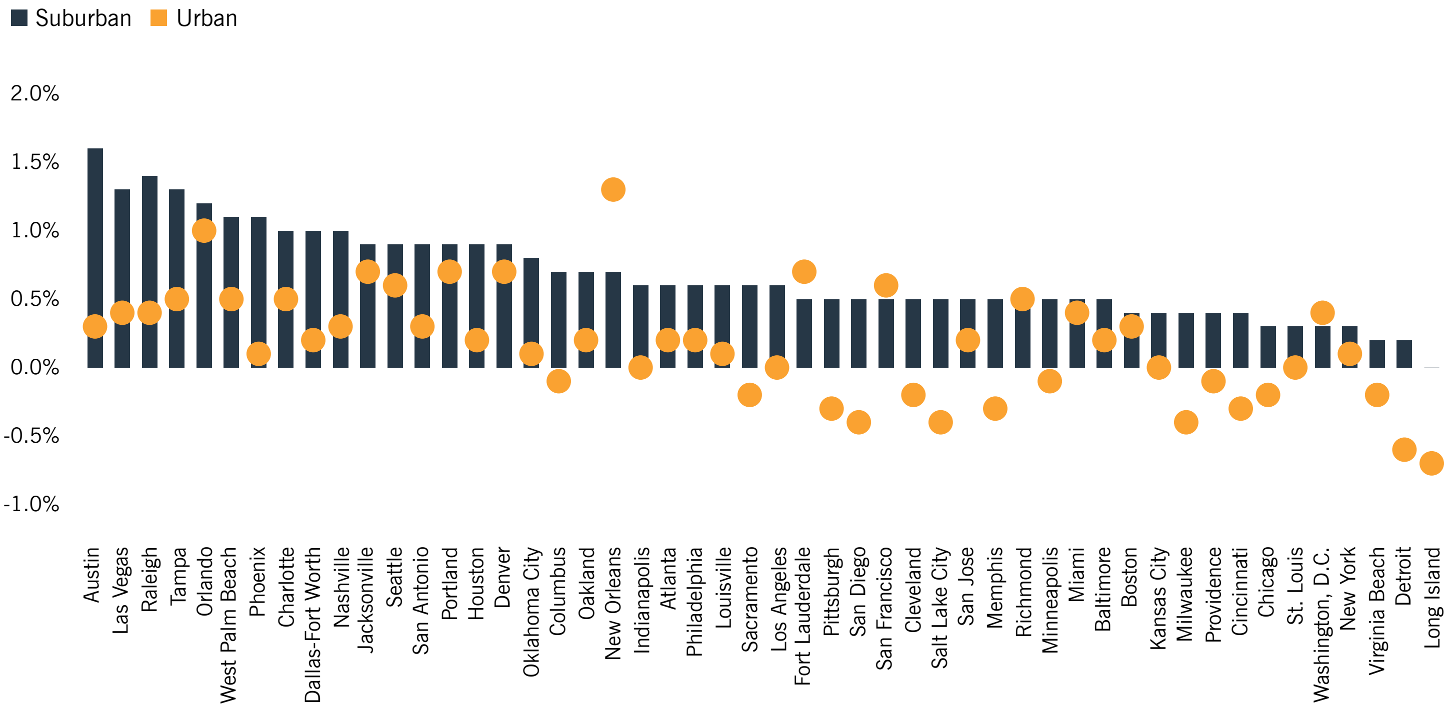
The coronavirus pandemic has accelerated suburban migration in all regions, as workers have felt less tied to city centers with a work-from-home lifestyle that is likely to continue in some capacity post-pandemic.

Figure 5: **Employment by market (% change in high-income workers since Jan 2020)**



Source: Opportunity Insights, June 2021

Figure 6: **Suburban/urban net migration rates across the top 50 markets**



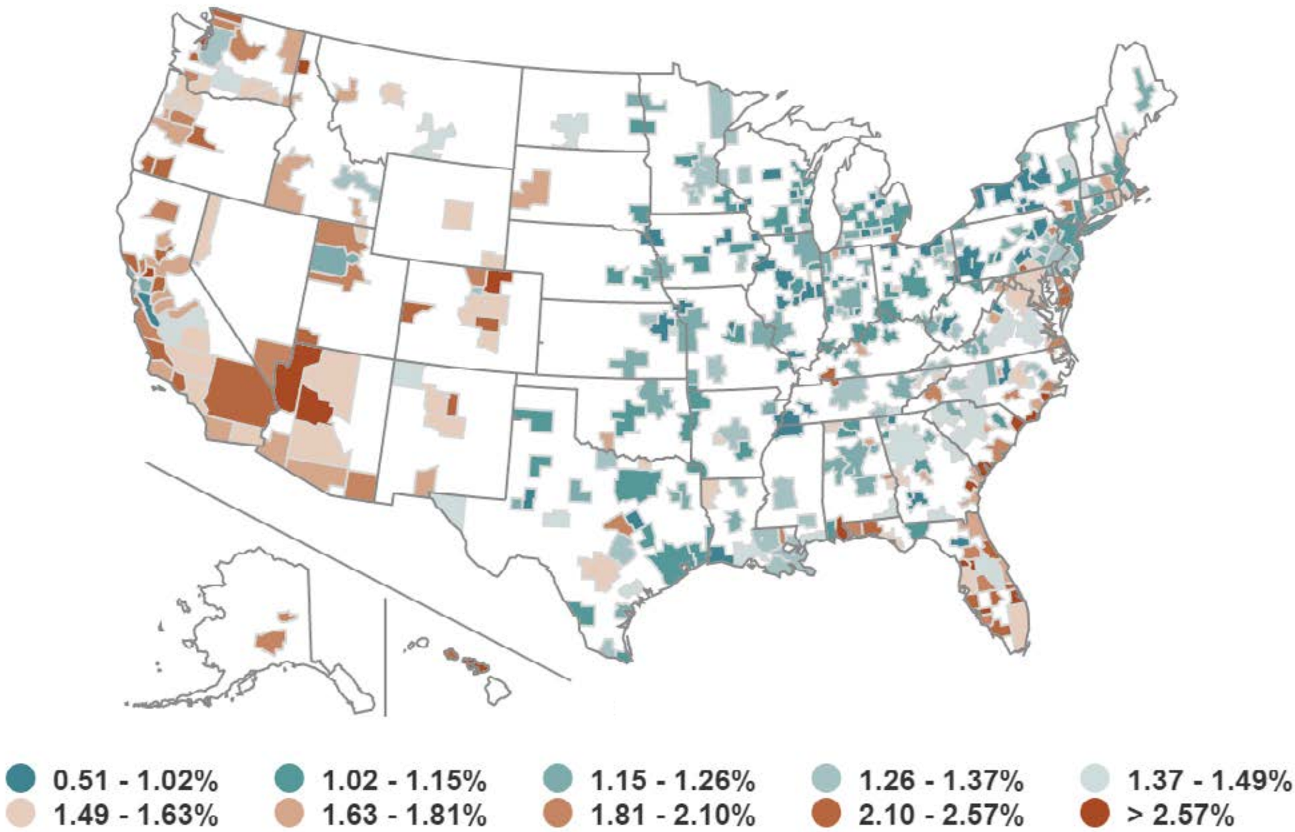
Source: Placer AI, December 2021

For example, the suburban net migration rate in the Nashville metropolitan area was two times that of the urban area in 2015, but four times as fast as the urban area in 2020.[10] In the Boston metro area, the relative growth of the suburbs increased from one times that of the urban area in 2015 to two times last year. In fact, across most metropolitan areas last year, net migration rates were stronger in suburban areas than in urban areas.

One type of market that could be a key beneficiary of the urban-to-suburban migration are markets composed of suburban areas, such as Long Island, Northern New Jersey, Orange County, Inland Empire, Oakland and San Jose. For example, in 2020, the largest beneficiaries of outmigration from New York City were Long Island and Fairfield (CT) and for San Francisco were Oakland and San Jose.[11]

As a result, suburban areas and low-cost markets near high-cost markets will benefit from inward migration from high-cost markets.

Figure 7: **Household debt-to-median-income ratio**



Source: Federal Reserve Bank of New York, December 2020

With that said, household debt sustainability will be one distinctive factor that affects future economic performance for some markets. Markets such as Las Vegas, Phoenix, Riverside, Portland and Charleston currently have high debt-to-income ratios due to high homeownership rates and high residential real estate values. Historically, markets with high debt-to-income ratios tend to be more cyclical. Many of the markets that currently have high debt-to-income ratios were negatively impacted during the GFC.[12] However, the number in markets with high debt-to-income ratios is considerably lower low than before the GFC.

Some of these markets, such as Phoenix and Las Vegas, are aiming to attract more high-income earners by creating a favorable business environment for science and technology-based companies, which would decrease the debt-to-income ratios for these markets. However, without a significant influx of high-income residents, these markets will likely face more economic volatility in the long run, relative to similar markets with lower debt-to-income ratios.

Europe: Coronavirus reshuffle creates a welcome boost for some cities

The pandemic is now receding across Europe, though there are some key differences between Europe and other regions, making it more difficult to conclude the lasting impact the coronavirus pandemic will have on cities. For example, in Europe, many smaller companies in more traditional industries such as law, manufacturing, retail or transport have not fully embraced remote work environments. However, residents have widely adapted to using digital alternatives in larger international cities like London, Paris, Amsterdam and Berlin. Therefore, for some markets, the impact of the pandemic is likely to remain subtle and drawn out over the next decade.

Nevertheless, the coronavirus pandemic will significantly impact the relative attractiveness of some areas and markets relative to others. First, a hybrid work environment may extend commuter belts around large European markets. Second, many residents may leave high-cost gateway markets for secondary cities that provide a better quality of life in some countries. Third, some heartland industrial markets may benefit from higher logistics demand.

Suburbanization – further out and about?

European residents traditionally have not embraced the suburbs in the same ways U.S. residents have. U.S. residents gravitated to city centers due to restrictions on greenfield developments and ample public transportation options, as well as for historical and cultural reasons. However, flexible working patterns spawned by the pandemic may alter many households' preferences for the first time in decades. More companies are now starting to encourage workers to commute to the office for one to three days rather than five days a week, leading to a trend whereby residents bypass suburbs in favor of small towns outside the historical commuter belt. While only a third of jobs are office based, this share is more pronounced in cities where service industries account for a higher percentage of employment. This shift may revive some less accessible villages and towns in the vicinity of thriving cities, even if regulations to preserve green space limit population growth in these newly popular outskirts, at least in the short and medium term.

City hierarchies – leaving Paris for Bordeaux?

During the pandemic, millennial and Gen Z preferences for meaningful employment and better work-life balance became more noticeable. The lockdowns fueled additional interest in cities offering a higher quality of living, especially those with cheaper housing, more green spaces, shorter commutes and a generally slower pace of life. Firms have taken note, as there is anecdotal evidence that points to an increase in job offers in regional cities and a rising number of fully remote jobs. However, while the EU provides freedom of movement across the continent to all member state citizens, in practice, language barriers often limit choices to cities within each country or language region.

Preferences are not uniform across Europe. For example, Bordeaux has become a beneficiary of in-migration from the North in France given its accessibility from Paris. However, in German-speaking regions, which lack a dominant large city typical of Francophone Europe (Paris) and the Anglosphere Europe (London), Vienna and Berlin have become attractive to in-movers due to lower housing costs and a higher quality of life. Still, charming university towns such as Münster, Regensburg, Jena or Freiburg have also benefitted in this region. In Italy, the second-tier business centers of Bologna and Turin will benefit due to their fast train links (less than an hour) to the business capital Milan.

City comebacks: from post-industrial decay to logistical prowess

Before the coronavirus pandemic, many of Europe's former industrial heartland cities, like cities in the U.S. Sun Belt, had been in economic decline relative to cities with service-based economies. However, the pandemic has significantly boosted e-commerce demand and presented a new opportunity for some structurally challenged cities to revive their economies by attracting logistics-based employers. The logistics sector, which saw 25 million square meters of new development in Europe in 2020, has benefitted from restrictive greenfield development policy and strong storage and transport demand. In the 20th century, cities with extensive infrastructure for commerce were built to accommodate a large workforce and were geographically well-connected. These cities, many of which have brownfields for development and pockets of underemployed workers, are prime candidates to become strong logistics markets. Examples of these cities include Liege in Belgium, Eindhoven in the Netherlands, Marseille and Lille in France, Rhein-Ruhr in Germany, the Midlands in the U.K. and Silesia in Poland.

Asia Pacific: Bright lights, big cities

Many workers are accepting longer commuting hours within a hybrid working arrangement for bigger living spaces, greener surroundings and lower rental costs.

The pandemic has led to an accelerated shift of some existing trends across the Asia Pacific region. For example, it has increased the growing e-commerce market share, deepened technological innovation and penetration, and reshaped behavioral attitudes over work-life balance. However, it is unlikely that these overarching macro trends will overturn many long-held beliefs over the attractiveness of urban living and the existing hierarchy of cities within each country. Instead, many residents will likely move afield within cities rather than leave cities altogether due to (1) the attractiveness of dominant cities, (2) the ability of cities to provide employment opportunities that are not available in rural areas and (3) demographic trends that favor urban population growth within different countries.

The appeal of big cities behold

Unlike in Europe and America, where most dominant cities are similar in size to Paris or Chicago, Asia Pacific cities are behemoth by most measures. Tokyo is the world's largest metropolitan area by population (and output), followed by Shanghai (3rd), Beijing (8th) and Osaka (10th). Tokyo makes up about one-third of the Japanese economy, and Seoul makes up about one-fifth of the South Korean economy. In contrast, Osaka and Busan – the second largest cities in Japan and South Korea, respectively – account for only 15% and 5% of their national economy and population.

Across the Asia Pacific region, populations have been gravitating towards urban centers for many reasons. In China, the decline in the agriculture sector and the corresponding rise of the manufacturing and services sector have led to migration towards bigger, faster-growing cities, which have higher-paying jobs, better quality of life and access to amenities and health care. Even though China's overall population growth has stayed stagnant since the 1980s due to the one-child policy, the registered population of major cities within the key Pearl River Delta, Yangtze River Delta and Bohai regions has grown by more than five times the national average due to rapid urbanization and boundary expansion. Similarly, even as the general population declines and ages in Japan, many small towns are losing residents to large cities. Tokyo's population has been growing at close to 1% over the past decade, though Japan's overall population has declined during this period.

We expect residents to not only continue these trends post-pandemic but to reinforce them. Census estimates still suggest that large Asian Pacific region urban centers, such as Tokyo, Seoul, Beijing and Sydney, will continue to grow demographically and economically. These markets support certain high-paying employment types, such as technology, corporate management and digital work, in their respective countries and regions. Given this reality, more widespread adoption of digitally based lifestyle choices in the Asia Pacific region will only grow the divide in opportunities between gateway markets and some secondary markets, benefiting gateway market migration.

Moving further afield within the city, but not moving out

Even though workers are unlikely to leave the major cities, there is evidence of workers moving further away from the city centers. In Hong Kong, some are moving to the outlying islands, and in Tokyo, some workers have moved away from the central five-wards to areas such as Kita and Setagaya, which have low housing costs but longer commute times. Micro-location analysis will be critical in assessing migration within large cities. In Tokyo, multifamily assets in outer wards may outperform holdings in the central five-ward, as families move to larger units to fetch lower per tsubo rents over smaller units.

However, these wards, such as Setagaya outside of Tokyo or Zhongguancun outside Beijing, are not necessarily suburbs. They are more akin to small cities within a city, with high population density and efficient transportation networks. The population of Setagaya, for instance, is close to a million people, and Zhongguancun has more than 3 million people. These wards will continue to be at a distinct advantage in their ability to attract new residents relative to smaller cities, as they benefit from access to key transportation infrastructure, such as metro systems. Tokyo and Beijing, for example, have some of the busiest and most extensive metro systems in the world.

The DNA of cities always matters

Even though large markets will continue to grow in Asia, some markets will gain increasing importance from the pandemic over others, and the delineation between gateway markets may widen. For example, while both are key regional financial centers, Singapore may attract more tech companies away from Hong Kong. Still, Hong Kong will always have appeal as a gateway into China. Similarly, due to higher housing costs, workers may relocate away from Sydney to Melbourne. Still, Sydney's more diversified economy will continue to attract migrants and talent searching for higher-paying jobs over the long term. In China, Shenzhen and Hangzhou are strongly emerging tech hubs that have drawn investment and labor.

Still, both cities are unlikely to leapfrog Shanghai and Beijing in importance, as both are provincial-level cities. Tourist magnets such as Seoul, Tokyo and Hong Kong may be faltering due to the pandemic, but the appeal of leisure infrastructure will draw tourism back over time. Across the Asia Pacific region, prominently placed cities will continue to maintain their importance, but more cities will come to the fore, expanding the investment universe for real estate investors.

Conclusion: Diversify to benefit

The coronavirus pandemic has led to permanent behavioral changes, which have caused workers, firms and local governments to reassess the locations that could provide a better quality of life and higher productivity in the post-coronavirus world. Real estate investors should take note of these behavioral changes. Cities are far from uniform, and we show that opportunities for real estate markets vary widely across the globe.

In the short term, virus control-related factors will remain relevant, in particular, (1) the ability of vaccines to remain efficacious against new variants, (2) differences in government policy towards controlling the pandemic and (3) the ability of digital infrastructure to stay stable despite potential threats (i.e., cybersecurity, enterprise risk).

However, over the longer term, we argue that Asian, North American and European cities will chart distinctive paths into the more digital post-coronavirus world due to different realities in terms of geography, economic structure, demographics and culture.

The coronavirus pandemic may have affected every global region, but markets and countries within different regions will emerge from the pandemic with different economic trajectories. Real estate investors will benefit significantly from international diversification in this new economic cycle, as markets within one country or region tend to be much more correlated than markets within different countries and regions.

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