LaSalle®

ISA2022 INSIGHT REPORT

ISA 2022

Demographics of Aging

THE IMPACTS OF AGING ON REAL ESTATE INVESTING

As populations age, what are the impacts on real estate?

Demand-Side

- Aging populations prefer specific locations, accessibility, and proximity to family & specialized services
- Over 65 population growing faster than other cohorts
- They are more active & wealthier than previous senior cohort

Supply-Side

- Physical specs of buildings catering to seniors are highly regulated in some markets
- Rising dependency ratios make construction workers relatively scarce
- Construction therefore tilts to mechanized techniques such as factory-built modules

Favored Sectors

- Health Care (Medical office)
- Senior Residential (independent and assisted living)
- Gaming/Leisure/Resort
- Logistics (e-commerce adoption higher for boomers than prior senior cohorts)

Building Features

- Aging-in-place trend requires residential adaptations
- Wheelchair access required
- More regulatory hurdles
- Less reliance on stairways
- More reliance on sensors

Capital Markets

- Tilt toward conservative income
- Shift to self-directed or "target date" investment model vs a "defined retirement benefit" approach
- Investment products distributed by well-known, reliable partners
- Current/future retirees have more wealth than previous generations

Why demographic trends matter

- The French philosopher Auguste Comte is remembered for the famous line, “Demography is destiny.” Comte should also be remembered for “positivism”—the view that human progress comes through the accumulation of knowledge. Comte’s views laid the foundation for the great secular shift of modernity – which understands that humanity itself, rather than theological or metaphysical forces, determine the future path of modern society.
- Demographic and sociological analysis are part of Comte’s legacy. Through Comte, we understand that demographics are not just about enumerating population statistics. The study of demographics includes the complexities of migration, culture, and interaction with financial markets, economies, education, public health, technology, and the built environment.
- In this report, we focus on ***aging***, which will have enormous and fundamental implications on future consumer and business preferences. Changes in the age structure of a country or a city have profound implications for investors in the long run. Short term impacts are sometimes harder to identify, as age structure trends are slow to develop. Yet, expected changes in the age structure are not likely to reverse, therefore they have great predictability compared to many other macro or demographic trends.
- For real estate investors, understanding the current and future age structure of a population provides signals on the potential shift in real estate occupier demand and property type required to serve the population. Aging also has implications for investor behavior and risk tolerance in the capital markets.

Examples of the Implications of Demographic Trends on Real Estate Investments

Markets with favorable demographic trends	• In China, the favorable demographic trends of urbanization and the rise of the middle class have supported steady growth in consumption including online retail sales. This positive trend has in turn supported occupier demand for Chinese logistics. It has also brought young people to the cities, leaving behind a concentration of elderly in rural areas. In another example, the rise of the “sunbelt” in the U.S. has been an unmistakable tailwind for metro growth in Florida, Texas and Arizona. This growth has occurred across a wide swath of the age structure — not just for retirees.
Markets with challenging demographic trends	• **Large economic centers** where demographic trends are better than the rest of the country can mitigate the impact of weaker population growth at the country level. For example, the demographic outlook for major cities in Japan and Germany are stronger than the rest of the country. These cities continue to provide investors with a broad range of investment opportunities despite the demographic challenges at the national level. • **Alternative property type that are suitable for the age structure.** For example, growth in the older population offers opportunity in healthcare and age-restricted residential sectors (including care home and retirement living) that cater to demand from the aging demographic group. Down-sizing of empty nesters spurs demand for self-storage in the U.S., Australia and Europe.

Source: LaSalle Investment Management, as of June 2022

Median age varies widely by region and country

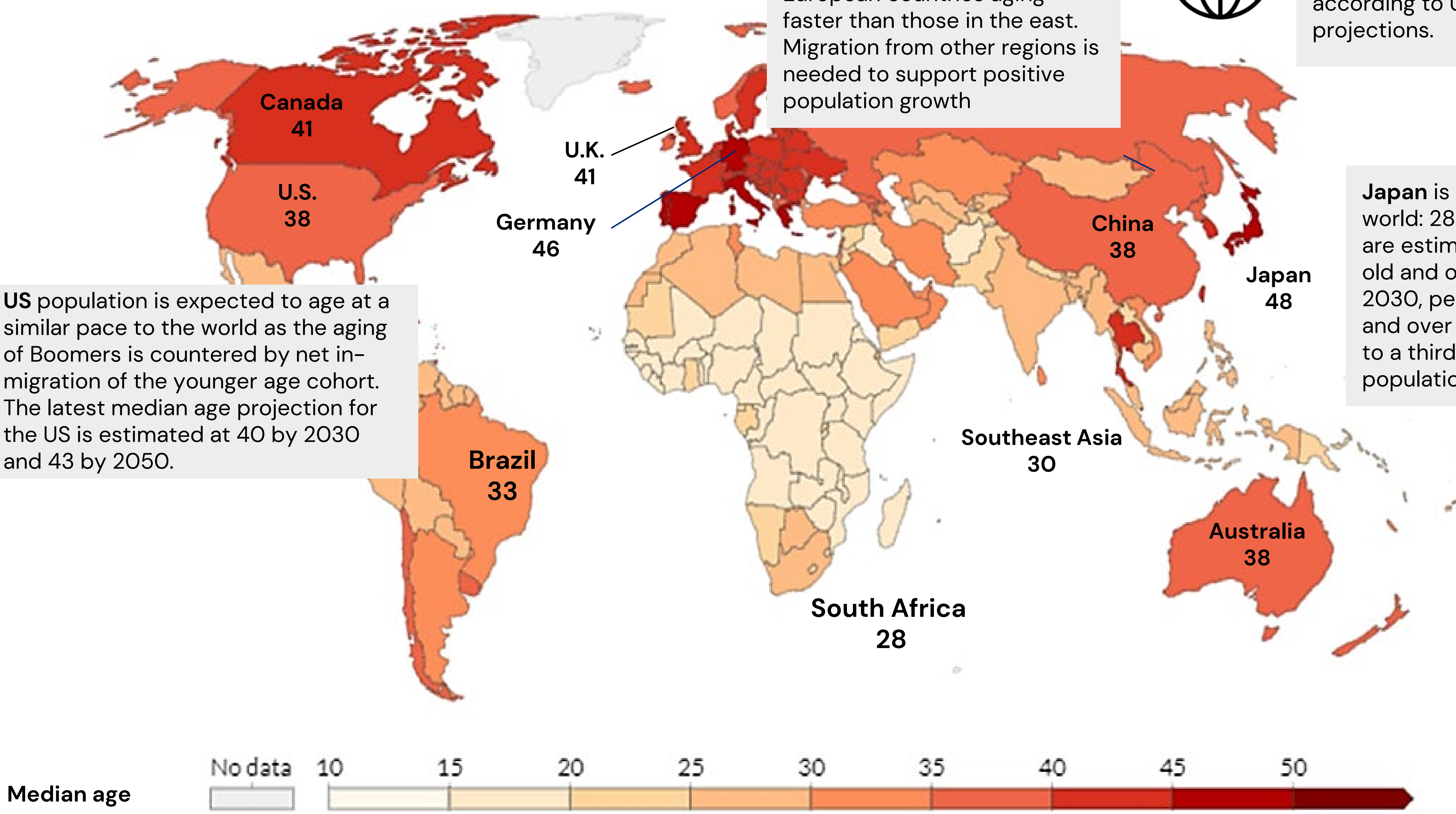
The Median Age of the Population in 2020

Europe: is the oldest continent in the world but there is variation between the countries, with southern European countries aging faster than those in the east. Migration from other regions is needed to support positive population growth

World: Thirty years ago, the median age of the world's population was 24; in 2020, it was 31, and by 2050 it will be 36, according to United Nations (UN) projections.

Japan is the oldest in the world: 28% of the population are estimated to be 65 year old and older in 2020. By 2030, people aged 65 years and over will represent close to a third of the country's population.

US population is expected to age at a similar pace to the world as the aging of Boomers is countered by net in-migration of the younger age cohort. The latest median age projection for the US is estimated at 40 by 2030 and 43 by 2050.



Source: The United Nations World Population Prospects 2022 (The medium-variant projection)

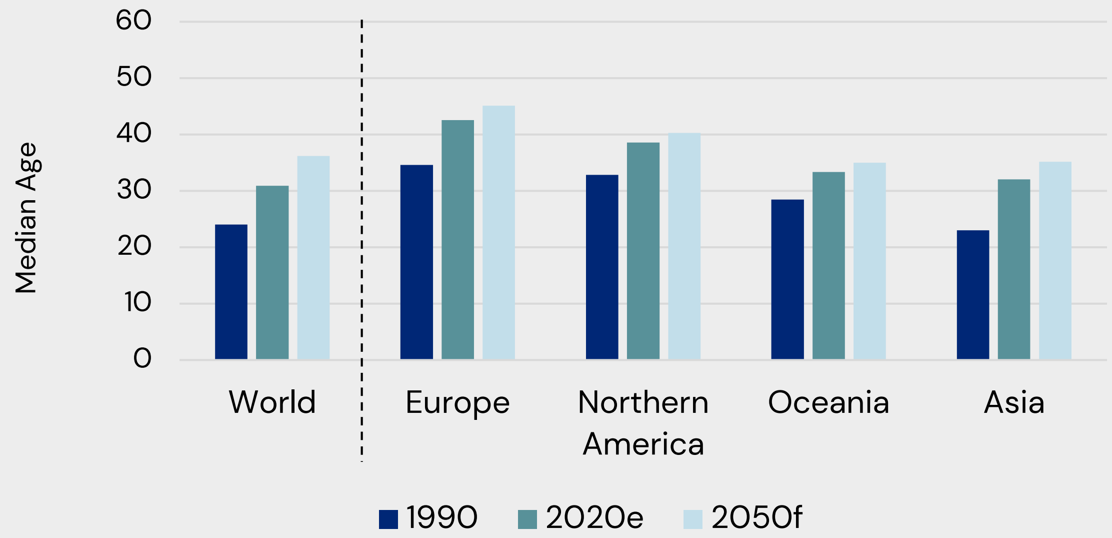
Global Aging trends

The shift in age structure could have implications for real estate investment

- Thirty years ago, the median age of the world's population was 24; in 2020, it was 31, and by 2050 it will be 36, according to United Nations (UN) projections.
- The age structure of many economies, especially among the advanced economies[1], has moved or is moving from pyramid-shape to kite-shape as the youth population (e.g., age 0-14) declines relative to those of the working-age (e.g., age 15-64) and the retiree cohorts (e.g., age 65+).
- This transformation in the age structure among the developed economies was primarily driven by the increase in life expectancies from 56 years to 73 years and the decrease in birth rates from 32 per 1,000 people to 18 per 1,000 people in the last fifty years (i.e., 1970-2020).
- One of the consequences of this transformation in the age structure is a shrinking working-age population. However, the picture is far from uniform. For example, Europe is expected to experience a decline in work-age population in the next decade. In contrast, the work-age population in the rest of the world could still increase, albeit at a different pace.
- To alleviate the impact of a shrinking working-age populations, some countries have turned to migration. With that said, migration in most countries is likely to mitigate but rarely can it reverse the decline in working-age population.
- One of the implications of the rapid growth in elderly populations is an increase in the "dependency ratio", as the working population supports a growing pool of retirees who have dropped out of the labor force. This shift has implications for savings and investment behavior also.
- For more details on migration trends, please refer to [ISA 2022 Insight report - Demographics of Migration]().

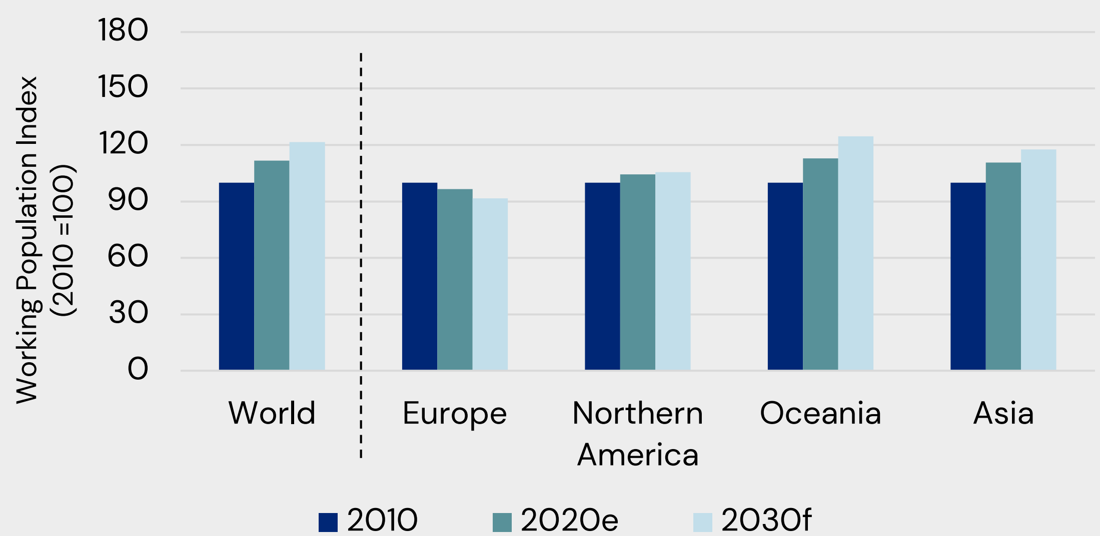
Note:
1. According to the International Monetary Fund (IMF), advanced economies are usually defined as having a high level of per capita income, a varied export base, and a financial sector that is integrated into the global financial system. As of 2020, the IMF categorized 39 nations as advanced economies.

Median age of the population by region



Source: The United Nations World Population Prospects 2022 (The medium-variant projection)

Working population (age 14-64) index by region

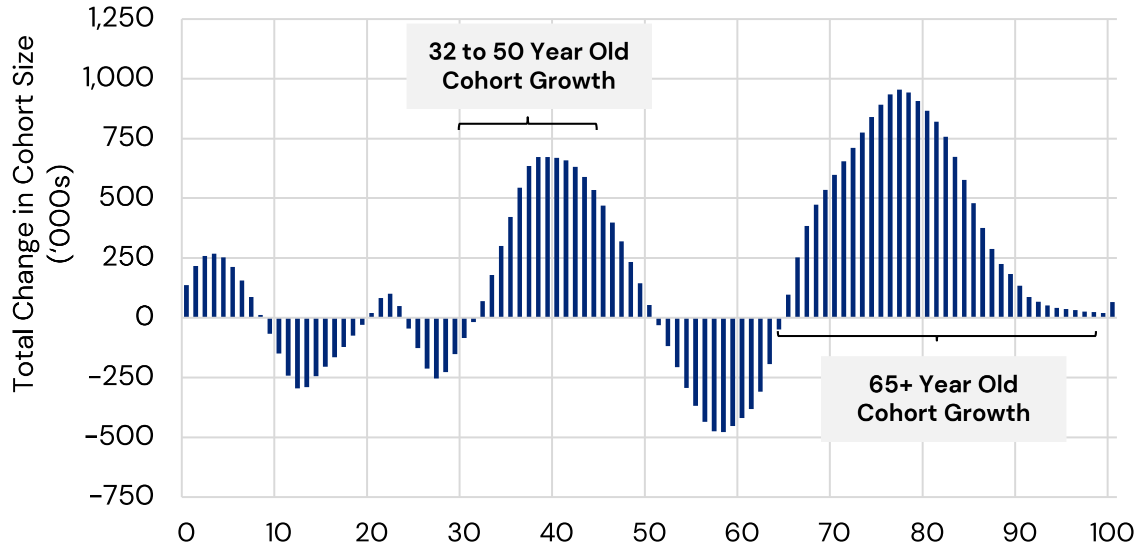


Source: The United Nations World Population Prospects 2022 (The medium-variant projection)

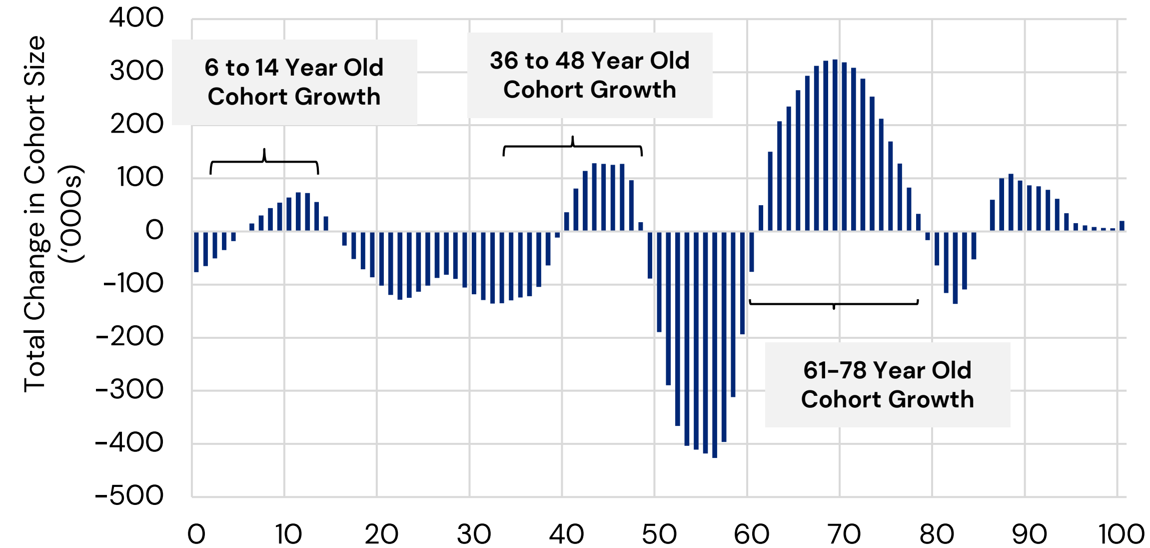
Growth in older age cohorts provide signals of shifts in future demand

Consumption and investment behavior are all influenced by the age structure of the population

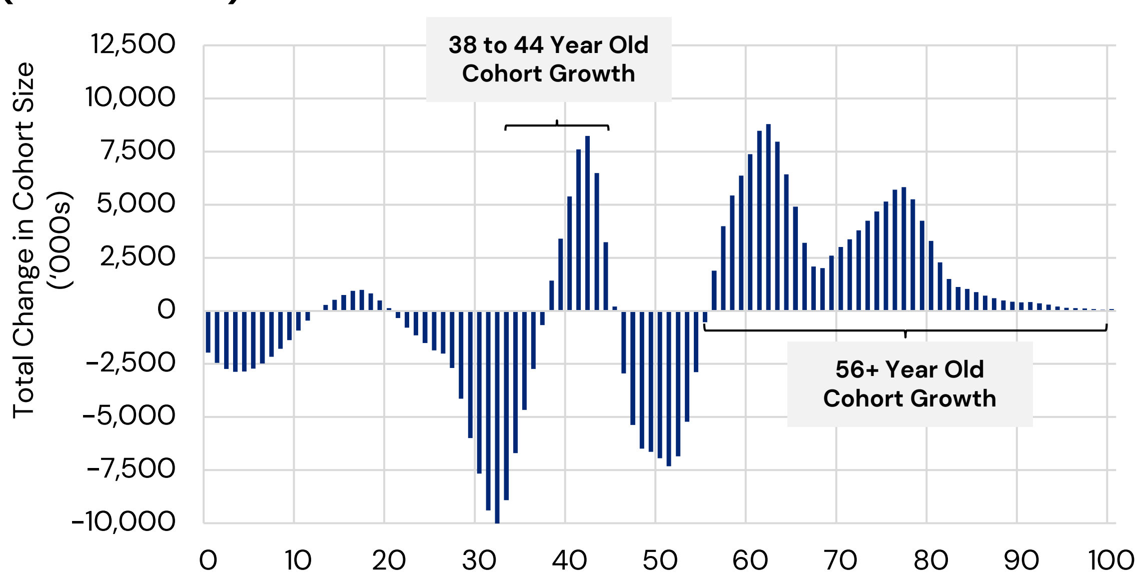
U.S.: population cohort change in next 10 years (2020-2030)



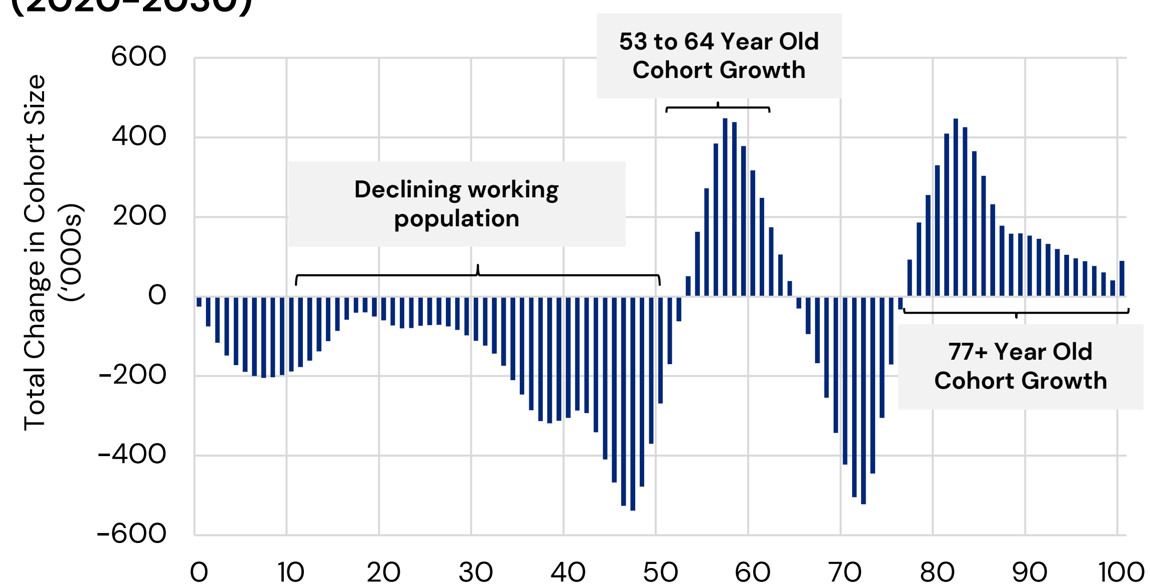
Germany: population cohort change in next 10 years (2020-2030)



China: population cohort change in next 10 years (2020-2030)



Japan: population cohort change in next 10 years (2020-2030)



The most striking shift is the growth of +60 age cohorts as people survive to older ages than ever before

Source: The United Nations World Population Prospects 2022 (The medium-variant projection)

Property type demand evolves with generational changes

Cohort market shares vary by country; the patterns shown below are approximate

Demand for different property types by age cohort concentration

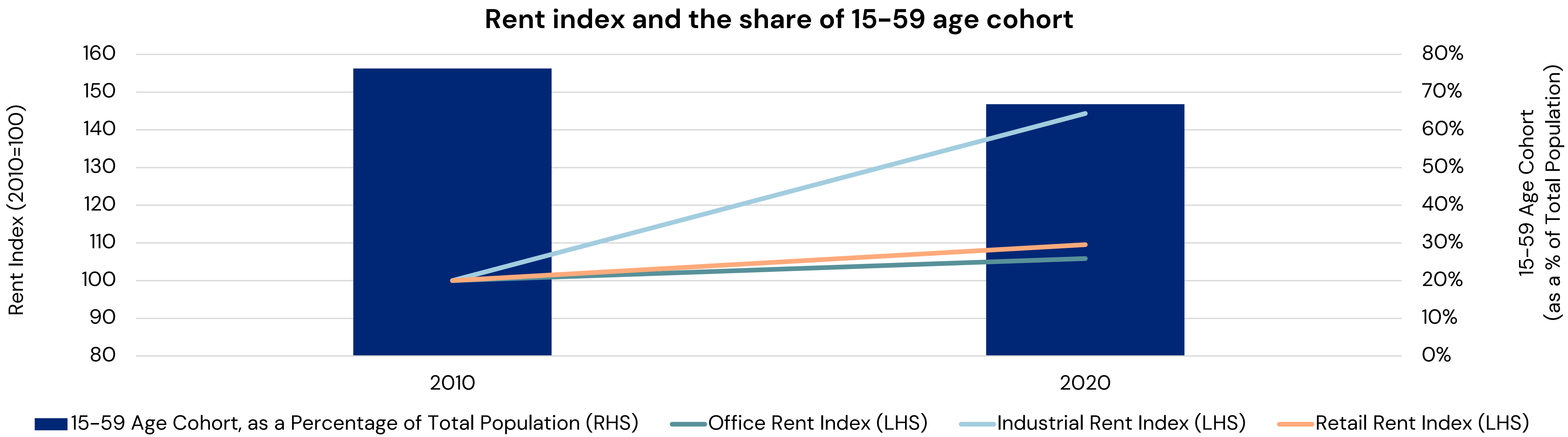
Property Type		Young Adult (20 – 40 years)		Middle-Aged Adult (40 – 60 years)		Older Adult (>60 Years Old)	
	<20's	20's	30's	40's	50's	60's	70+
Office							
Medical Office							
Retail - Discretionary Spending (i.e., prime shopping malls, etc.)							
Retail - Non-Discretionary Spending (grocery-anchored centers, etc.)							
Logistics							
Self-Storage							
Multifamily Rental (Traditional & Age-Restricted)							*Age-restricted 65+
For-Sale Residential & Single Family Rental (SFR)							

Relatively Low Demand — Relatively High Demand

Source: LaSalle Investment Management, as of July 2022

China: focus on sectors that are supported by demographic trends

Rent growth has been strongest in logistics, a sector that has not been affected by the gradual decline in the size of the working age population



Demographic Trends

- Compared to some developed countries, China is still a relatively young country with a median age of 38.4 versus medians over 40 for Japan, Germany, Italy and the U.K. However, China is also aging, as the population of Chinese below the age of 38 age is projected to decline, while the population of Chinese above the age of 56 are forecasted to increase.
- The experience of China suggests 1) demand for real estate may continue to grow in a country with a relatively young but aging population structure; 2) the logistics sector has benefited more than retail and office sector from the age structure. As e-commerce penetration is high across many different age groups.

Investment Strategy

- Focus on real estate sectors that are less vulnerable to aging population, such as the logistics sector.
- Watch out for emerging sectors that could benefit from aging population, such as senior housing.

Source: JLL REIS (Rent Index), as of 2020. Bureau of Statistics of Shanghai (Age Cohort), as of 2020. U.N. Population Division (Median Age), as of 2022

Japan: focus on metro markets with pockets of growth opportunities

Capitalize on diverging demographic trends within the country

Demographic Trends

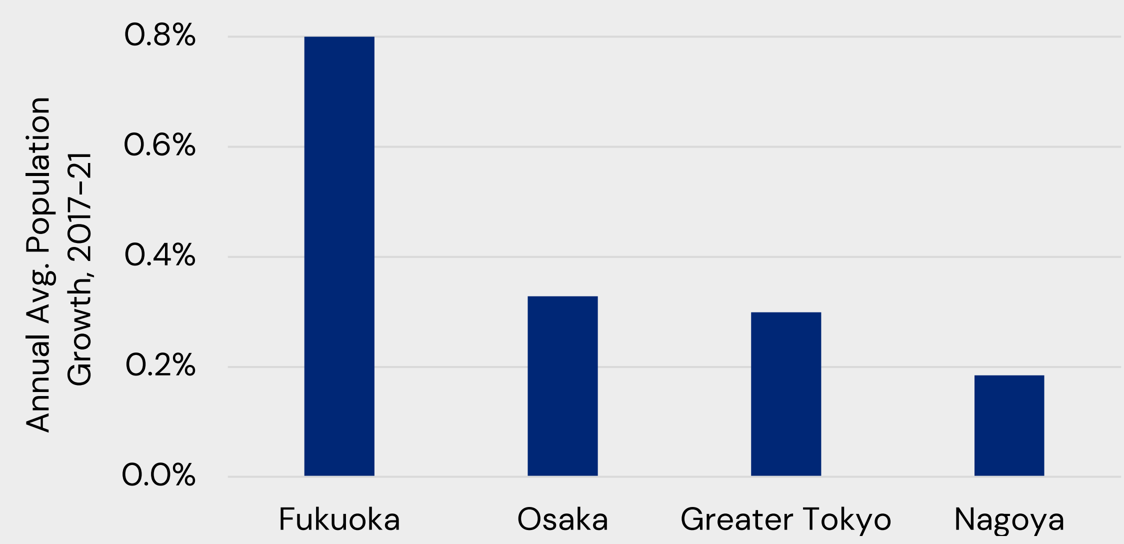
- The Japanese population has been shrinking since 2011. Consequently, Japan's working population (age 15-64) is expected to decline from 74.8 million in 2020 to 69.5 million in 2030.
- However, Japan's shrinking population and working population trends are not uniform.
  - Tokyo, Osaka, and Nagoya, the largest economic centers in Japan, continue to experience positive population growth in the last five years as they attract domestic migrants in search of education and job opportunities. As a result, the projected working population growth in these cities is expected to outperform the national trend.
  - In Fukuoka, population growth in the last five years was the highest among major Japanese cities, driven by local government policies. The proportion of the population age 20-30 is also higher than the national level due to the various education opportunities in the city.
- This diverging demographic trend among Japanese cities continues to present pockets of opportunities for real estate investors despite the demographic challenge at the national level. National trends mask more favorable metro/local trends.

Investment Strategy

- Focus on large economic centers in Japan – Tokyo, Osaka, and Nagoya, where the demographic outlooks are still supportive of real estate demand.
- Focus on select Japanese cities with positive demographic trends and an attractive quality of life like Fukuoka.

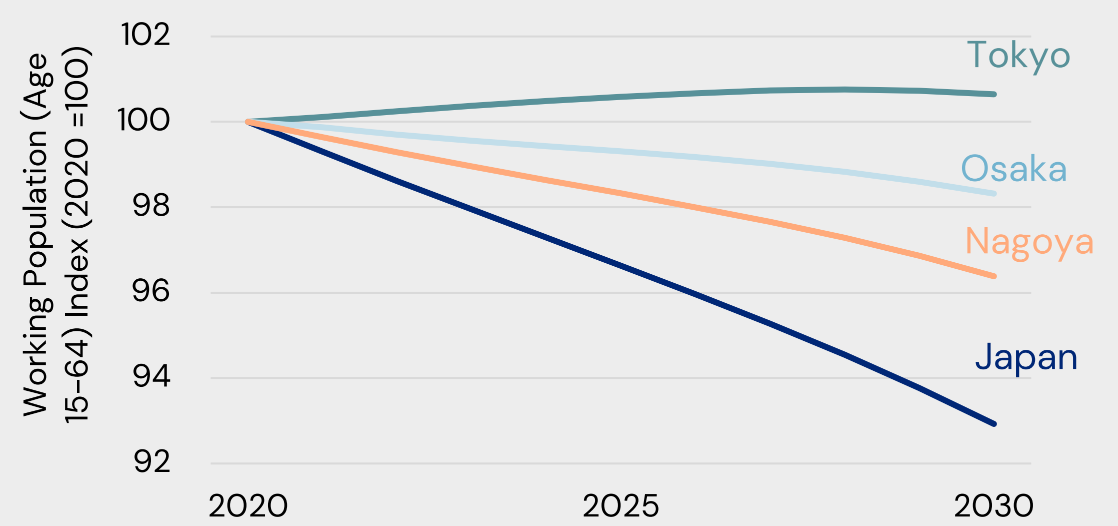
Source: LaSalle Investment Management, as of 9 June 2022

Japan: annual average population growth, 2017-2021



Note: Greater Tokyo includes Tokyo, Chiba, Saitama, and Kanagawa. Fukuoka, Nagoya and Osaka is based on city level data. Source: Oxford Economics, as of 30 March 2022

Japan: working population (age 15-64) index



Source: The United Nations World Population Prospects 2022 (Japan), Oxford Economics 2022 (Tokyo and Osaka), as of 30 March 2022

Germany: outlook for major cities far stronger than rest of country

Population growth of working age and retirement age to be strongest in urban areas

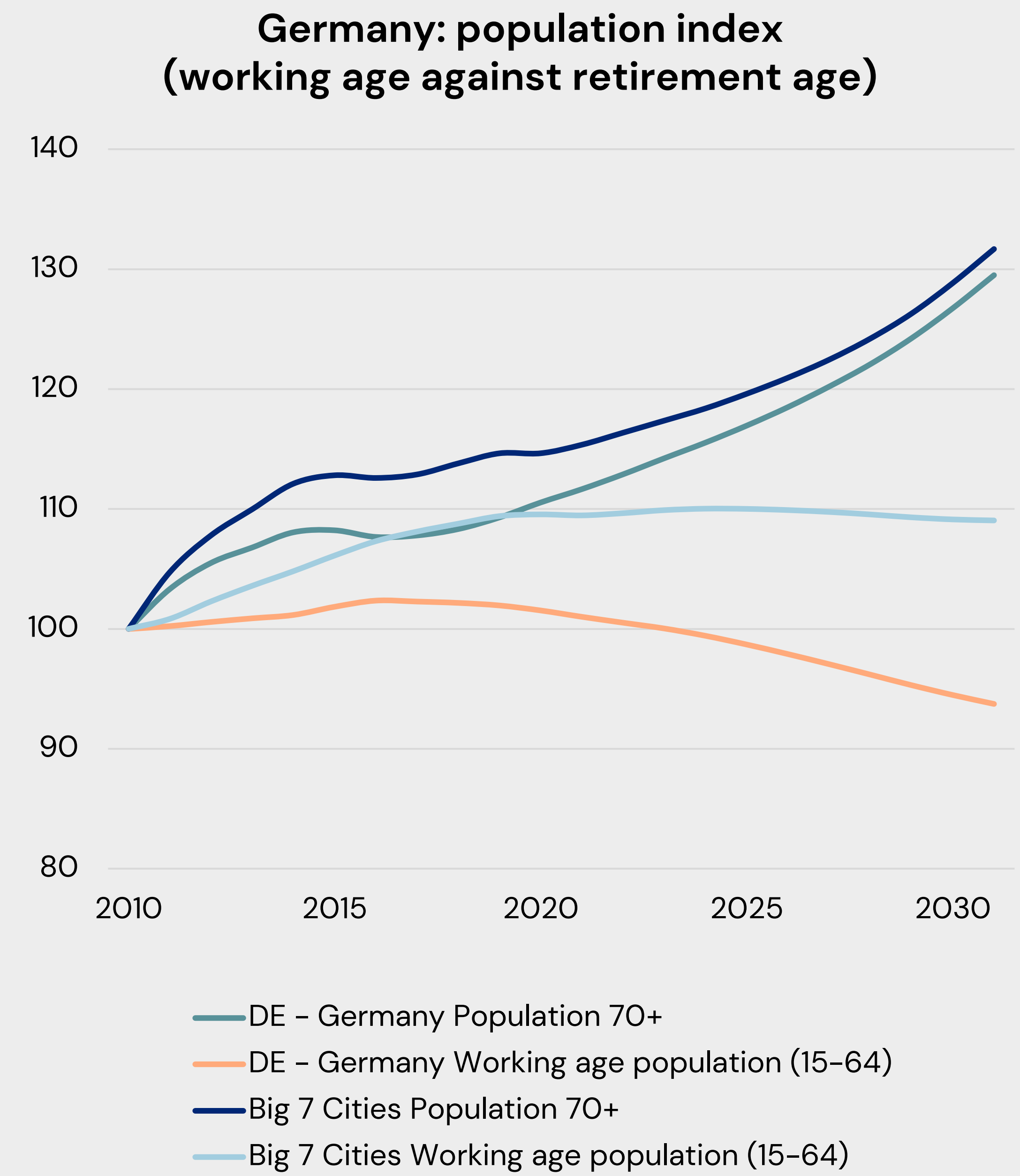
Demographic Trends

- German population growth has been modest over the past decade with most growth being attributed to inbound migration from refugee populations.
- Looking forward, total population is forecast to be largely flat as a result of the country's aging population. Working age population growth has been negative since 2016 for Germany as a whole and is forecast to see year-on-year declines over the next decade.
- This is not the case for the seven largest German cities, where working age population growth has been positive and is forecast to remain so until 2025, at which point it will remain largely flat.
- By contrast, the population of Germans over the age of 70 will grow sharply, both nationally and within the major cities.

Investment Strategy

- Growth in older population offers opportunities to invest in healthcare, care home and retirement living, with a focus on the largest cities where demand will be strongest.
- Investment in other sectors should be targeted at the largest cities where the demographics will be more supportive of demand for real estate than the rest of the country. There are several cities within Germany with favourable demographics, giving investors a range of markets to target.

Source: LaSalle Investment Management, as of 9 June 2022



Note: Big 7 cities: Berlin, Munich, Cologne, Dusseldorf, Frankfurt, Stuttgart, Hamburg. Source: Oxford Economics, as of 22 June 2022

US: seniors outpace working age population growth in all major metros

Sunbelt markets strongly benefit from growth of both working age and 65+ population

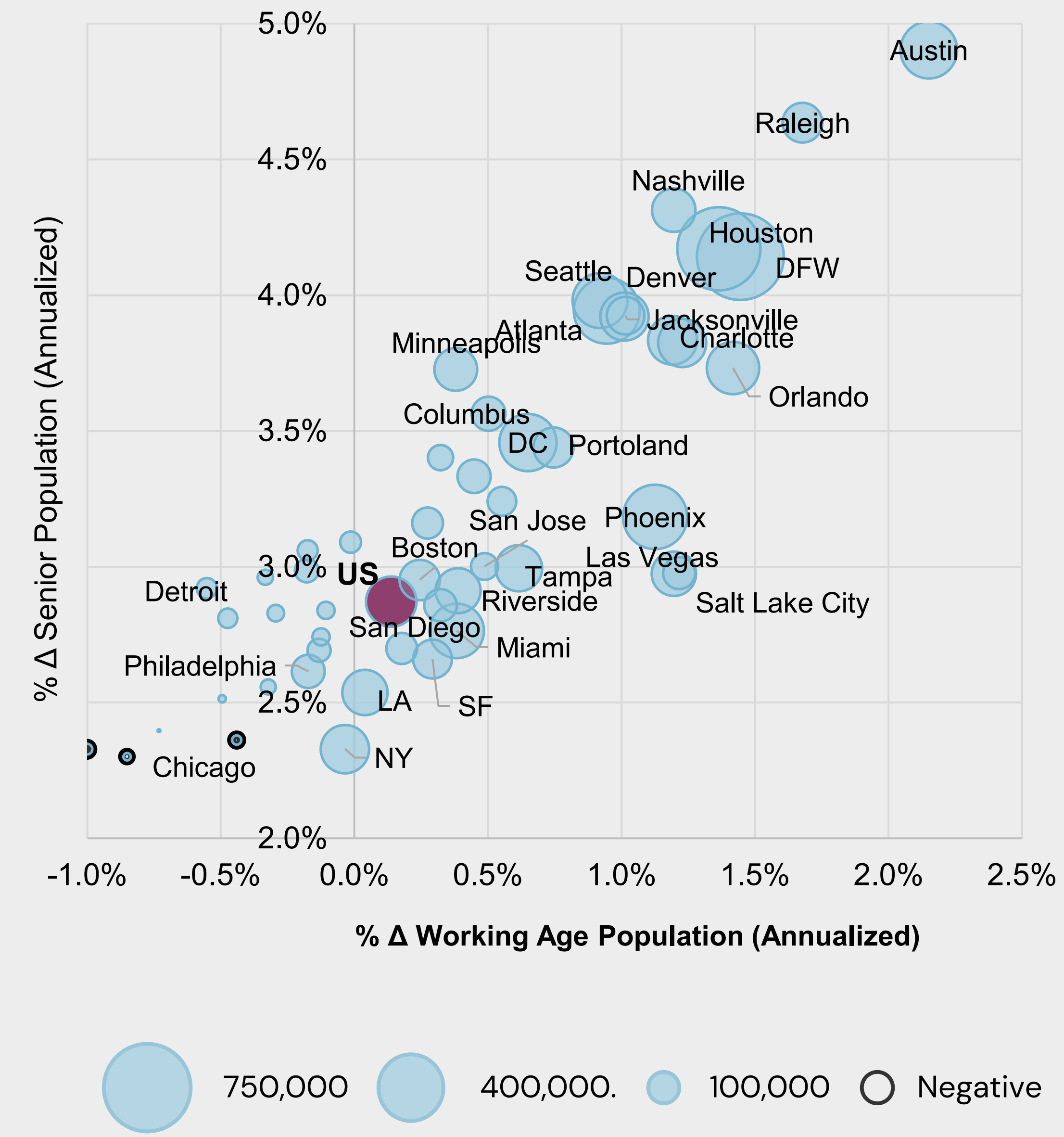
Demographic Trends

- US overall population is projected to grow by 0.7% annually over the next five years. Working age population is expected to hold flat at 0.1% annual growth rate, compared with 0.5% of under 18 child population and 2.9% annual pace growth of senior population of 65 and older.
- As result of the aging 'boomer' generation and their locational preferences for retirement, coupled with post-pandemic domestic migration trends, there is great variability in population forecasts across US markets. **But also, the age structure of the existing population has a significant impact.**
- While sunbelt markets in the state of Texas, Carolinas, Florida, and Arizona have long been popular retirement destinations and are expected to see robust population growth especially from older age cohort, growth will also be driven by strong in-migration of working age group and organic growth of the child population.
- Population growth in most gateway markets will lag the US average across age cohorts, but sustain overall positive population growth, with the exception of Chicago. Metros like Nashville and Austin, attract both older and younger cohorts.

Investment Strategy

- Target high growth sunbelt markets with strong overall population growth trend across different age groups that will support diversified real estate demand.
- Investment in niche sectors catering to older demographics i.e. Medical Office Buildings, Age-Restricted Residential that expect high demand in areas with a growing elderly population.

2021-2026 US population change by age cohort and metro[1,2]



[1] Includes only top 50 CBSAs by current population (2021 est.).
[2] Bubble size represents cumulative absolute change in total metro population between 2021 estimate and 2026 forecast. US overall is not in scale.

Source: ESRI Business Analyst 2021. As of June 2022.

Retirement Assets and Real Estate Investment Trends in the US

The aging of American society will also affect real estate capital markets. Accumulated savings both inside and outside the tax-advantaged American retirement system is unprecedented. Never before in modern history has one generation in one country controlled so much wealth. United States retirement assets' growth more than doubled over the last 15 years, reaching $39.4T in value in 2022 for tax-advantaged plans. Growth was not spread uniformly across different types of retirement plans or across the entire aging population[1]. Defined Benefit Plans now comprise 30% of total retirement assets, compared to 39% in 2007. Defined Contribution Plans, such as 401(k)s, on the other hand, comprise 28% of retirement assets, compared to its 26% share 15 years prior. Individual Retirement Accounts, or IRAs, are growing faster than any other source of tax-advantaged retirement asset and that spread is increasing. Since around 2005, IRAs have exceeded DC plans as the largest pool of retirement assets and currently total nearly $14T or 36% of tax-advantaged retirement savings. Nearly all IRA growth sources from rollovers, as opposed to annual contributions.

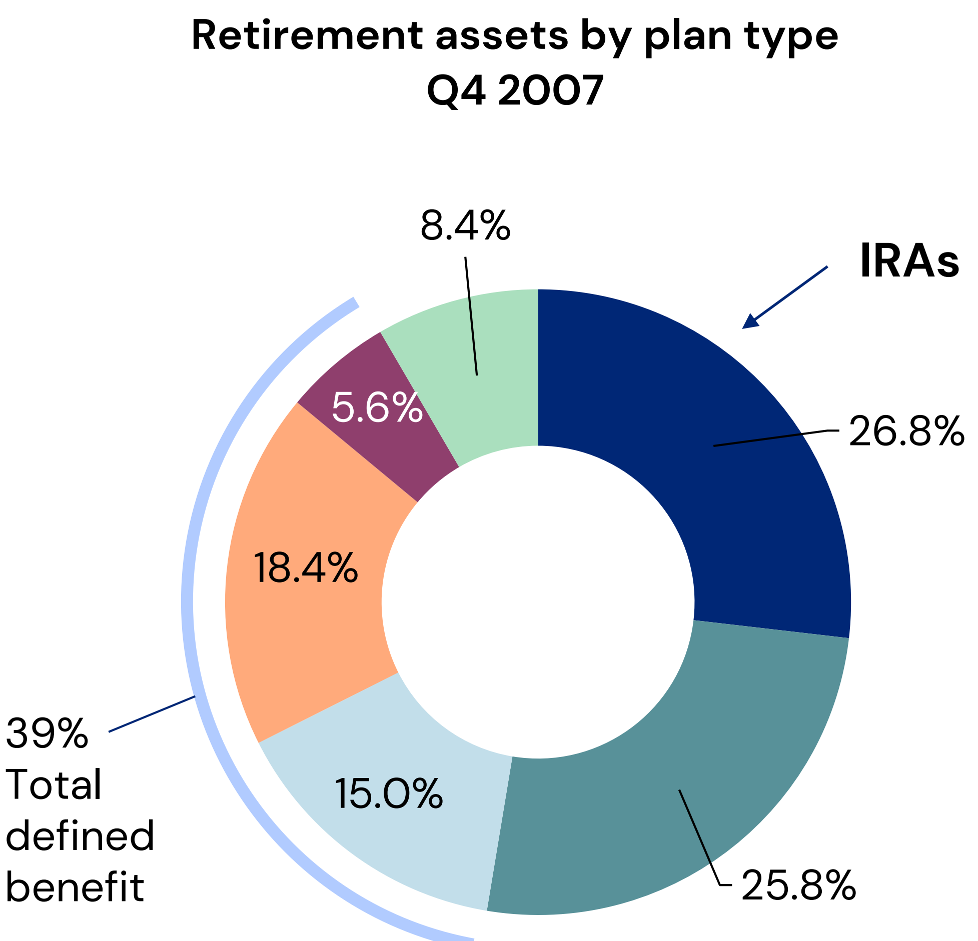
With the large number of baby boomers exiting the workforce and transferring assets from 401Ks, the growth of IRAs is expected to continue. This raises the question – what do these trends mean for income-producing real estate? Currently, the two largest pools of retirement assets in the US, --IRAs and DC plans--are both under-allocated to income-producing real estate relative to defined benefit plans. The methods of allocating to real estate will almost certainly follow a different path for IRA assets.

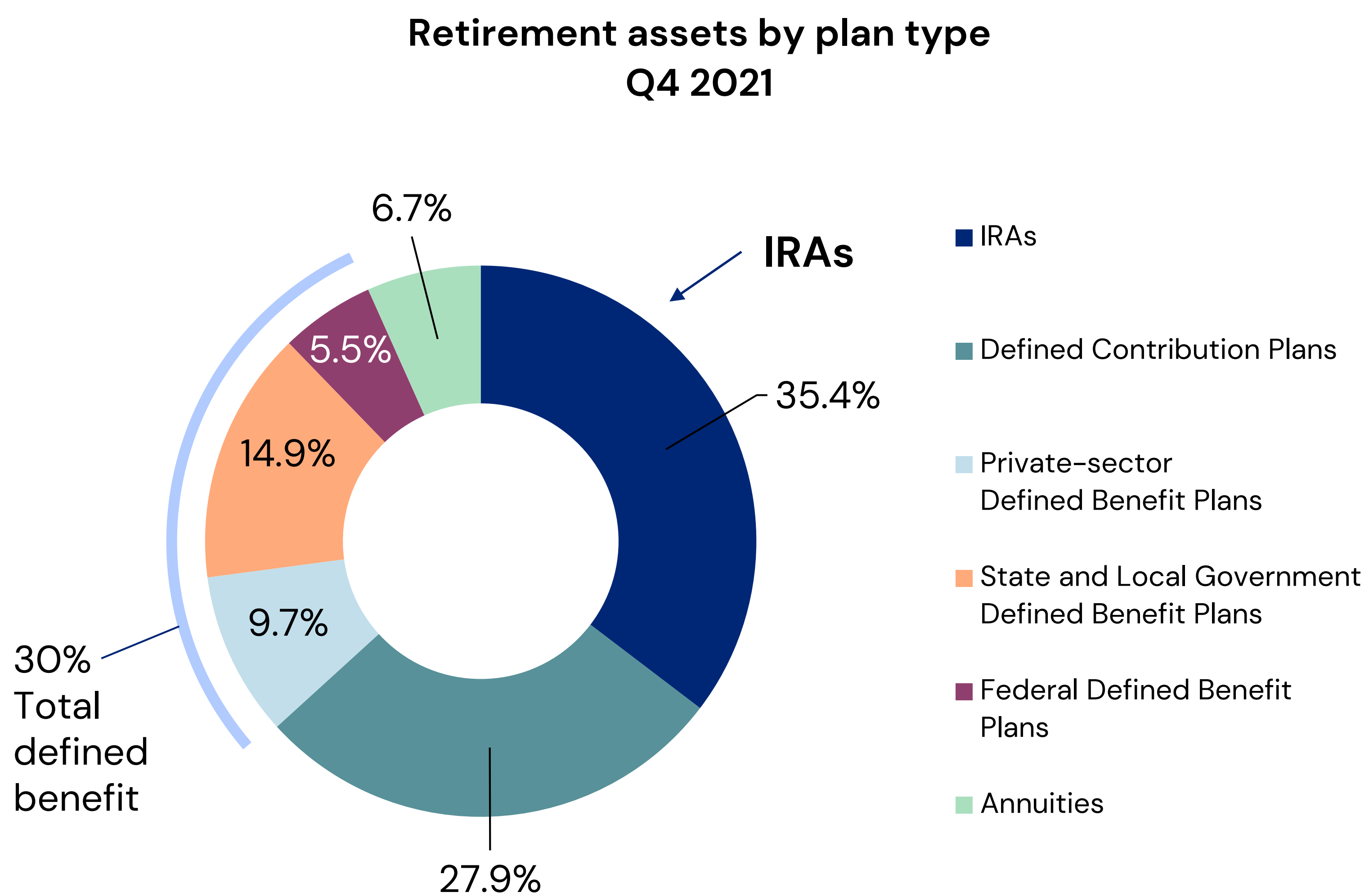
We expect that IRAs will inevitably access real estate, but through different channels than those used by DB and DC plans. More than half of all rollover transitions are assisted by a financial advisor. Customized solutions will likely replace the menu of choices presented to 401-K participants or the actuarial-based approach of Defined Benefit plans. New investment products will emerge to meet this demand. To be successful, these vehicles must provide liquidity, transparency, and portability as the composition and financial needs of households are constantly changing, even in retirement.

1 Economic Well-being of U.S. Households in 2021, US Federal Reserve May, 2021. Table 23 Retirement Savings. The Fed's analysis shows that 87% of all US households over 60 report having retirement assets. Unfortunately, their analysis also indicates that one fifth of seniors rely solely on social security and many of these households live close to the poverty line. The unequal distribution of retirement assets in the US is even greater than the unequal distribution of income. See: Horowitz, Igielnik, and Kochhar, Trends in income and wealth inequality   Pew Research Center January 2020

How will an aging US population invest in real estate? US retirement assets more than doubled in last 15 years

From $17.7 in 2007 to $39.4T in 2022. IRAs grew faster than any other source



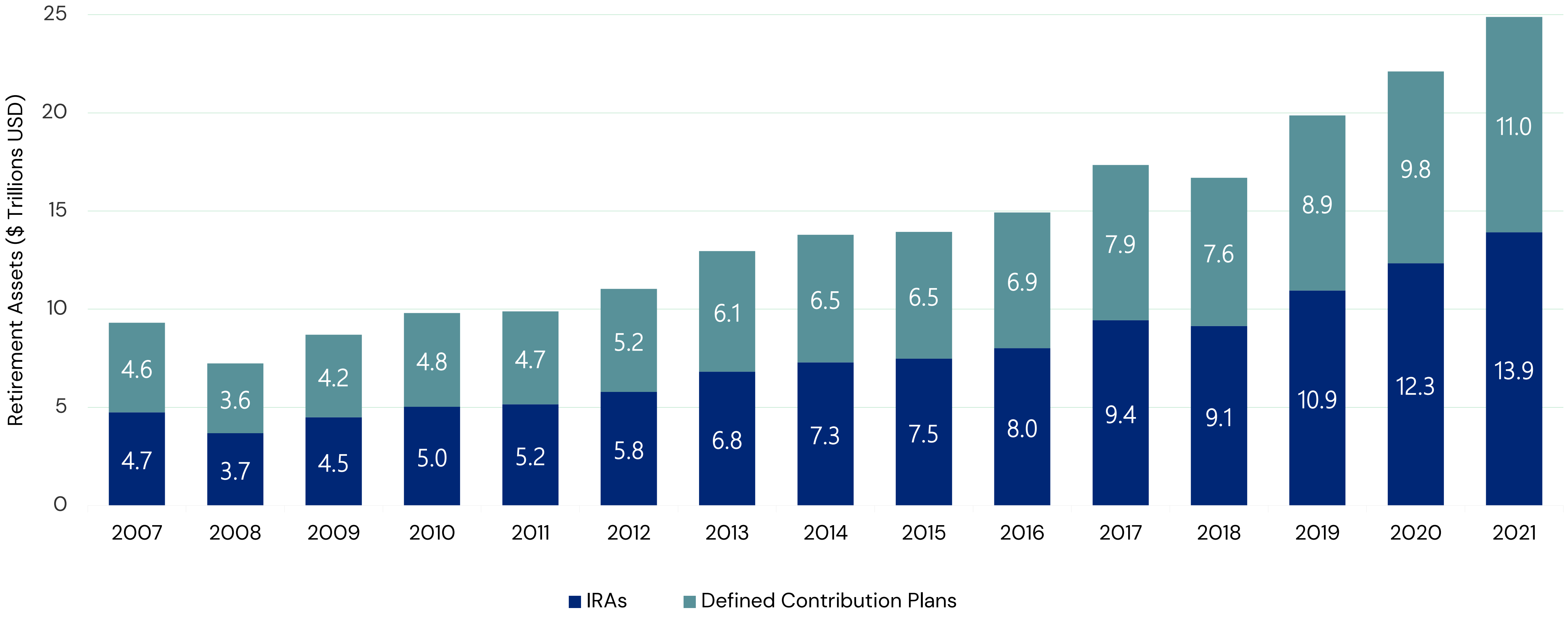


Individual Retirement Accounts (IRAs) are the largest source Retirement Assets and total $14T

Source: ICI (Investment Company Institute) Quarterly Retirement Market Data. Data to Q4 2021, Most Recent as of May, 2022.

Growth of US Retirement Assets: 2007-2021

Since 2007, IRAs have exceeded Defined Contribution plans in total assets



The two largest retirement asset categories have experienced similar growth trends, but IRAs have grown at a faster pace. In last 10 years, total IRA assets grew by 9.2% annually, compared to 7.7% for DC plans (CAGR).

Source: ICI (Investment Company Institute) Quarterly Retirement Market Data. Data to Q4 2021, Most Recent as of 18 April 2022.
ICI's Defined Contribution (DC) category includes private employer-sponsored DC plans (including 401(k) plans), 403(b) plans, 457 plans, and the Federal Employees Retirement System Thrift Savings Plan.

The rise of self-directed investing for retirement in the US means access channels for real estate will change

IRAs and DC Plans are both early in the process of adding real estate compared to DB plans

Myth	Reality
IRAs shrink when workers retire	They grow by 3.4X (mean) or 2.3X (median) due to the "rollover" of DC plans
IRAs mirror DC and DB plan Elections	ICI Data suggests otherwise: Less real estate and less "Target Date"
DC Plans are Larger and Growing Faster	IRAs are already the largest pool of retirement assets and have been since ~2005

- IRAs are the largest pool of assets in the US retirement market: $14 Trillion in IRAs vs $11 Trillion in DC assets, but they are under-allocated to income-producing real estate
- IRAs can be expected to add real estate, just as DB and DC plans did, however the channels chosen by individuals are likely to be different than the channels chosen by DB and DC plans
- DC Plans have favored "Target Date" funds where allocations to real estate are made based on the age of the participant
- Financial Advisors will be an important catalyst for how IRAs access real estate: 62% of the IRA rollover market involves a Registered Financial Advisor

Source: LaSalle and ICI

Contacts

Dennis Wong
Senior Strategist
Asia Pacific Research and Strategy

Singapore
Dennis.Wong@lasalle.com

Petra Blazkova
Managing Director
European Research and Strategy

London
Petra.Blazkova@lasalle.com

Fred Tang
Head of Research & Strategy
Greater China

Shanghai
Fred.Tang@lasalle.com

Sophia Sul
Associate VP
US Research & Strategy

Chicago
Sophia.Sul@lasalle.com

Ryan Daily
Associate
European Research & Strategy

London
Ryan.daily@lasalle.com

Elysia Tse
Head of Asia Pacific Strategy

Singapore
Elysia.Tse@lasalle.com

Jacques Gordon
Global Strategist

Chicago
Jacques.Gordon@lasalle.com

Kyra Spotte-Smith
Senior Analyst
US Research & Strategy

Chicago
Kyra.Spotte-smith@lasalle.com

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