nuveen
REAL ESTATE

Perspectives in today's real estate market

Nuveen Real Estate Strategic Insights

Q3 2021

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES

A word on risk

Investment involves risk, including loss of principal. The value of investments and the income from them can fall as well as rise and is not guaranteed. Changes in the rates of exchange between currencies may cause the value of investments to fluctuate.

Real estate investments are subject to various risks, including fluctuations in property values, higher expenses or lower income than expected, and potential environmental problems and liability. Please consider all risks carefully prior to investing in any particular strategy. A portfolio's concentration in the real estate sector makes it subject to greater risk and volatility than other portfolios that are more diversified and its value may be substantially affected by economic events in the real estate industry. International investing involves risks, including risks related to foreign currency, limited liquidity particularly where the underlying asset comprises real estate, less government regulation in some jurisdictions, and the possibility of substantial volatility due to adverse political, economic or other developments. Any assumptions made or opinions expressed herein are as of the dates specified or if none at the document date and may change as subsequent conditions vary. In particular, this document has been prepared by reference to current tax and legal considerations that may alter in the future. This document may contain "forward-looking" information or estimates that are not purely historical in nature. Such information may include, among other things, illustrative projections and forecasts. There is no guarantee that any projections or forecasts made will come to pass.

Global real estate outlook

Next 12 months

	Overall	Retail	Industrial/ Logistics	Housing	Office	Real Estate debt	Alternatives
U.S.	Neutral	Negative	Positive	Positive	Negative	Neutral	Positive
Canada	Neutral	Neutral	Positive	Neutral	Negative	Neutral	Positive
U.K.	Neutral	Negative	Positive	Neutral	Neutral	Positive	Positive
France	Neutral	Negative	Positive	Neutral	Neutral	Positive	Positive
Germany	Positive	Neutral	Positive	Positive	Neutral	Positive	Positive
Spain	Neutral	Negative	Positive	Positive	Neutral	Neutral	Positive
Australia	Neutral	Negative	Positive	Positive	Neutral	Positive	Positive
China	Positive	Neutral	Positive	Neutral	Neutral	Neutral	Positive
Japan	Neutral	Neutral	Positive	Positive	Neutral	Neutral	Positive
South Korea	Neutral	Neutral	Positive	Neutral	Neutral	Neutral	Positive

Negative

Neutral

Positive

Note: 'Alternatives' refers to real estate driven by alternative housing, healthcare and technology in the U.S./Asia Pacific and real estate driven only by alternative technology in Europe

Source: Nuveen Real Estate

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Real estate headwinds, turbulence, and tailwinds

TAILWINDS
Trends that favor demand

- **Online shopping** supporting increased demand for modern last mile and distribution facilities
- **Scientific discovery and innovation** boosting demand for life science space
- **Aging populations** creating opportunities in healthcare real estate such as Japan, China and Europe
- In the U.S., the Netherlands and Scandinavia **aging Millennials** forming households is creating opportunities in suburban real estate --- particularly with increased WFH adoption
- Continued **growth in U.S. sunbelt markets** due to cost-of-living, weather, and favorable employment environment
- Europe is leading the **Green investment boom** generating investment opportunities across property types.
- **Transformation of digital economy** is creating opportunities in data centers

TURBULENCE
Opportunities and risk

- The **future of the office is still uncertain**, creating both opportunities and risk in the sector
- The extent that **business and leisure travel** return creates unknowns in the hospitality sector
- **Net Zero Carbon** requirements may lead to stranded assets, which cannot be upgraded
- **Slowing (and in many countries declining) working age population growth** impacting economies and real estate usage

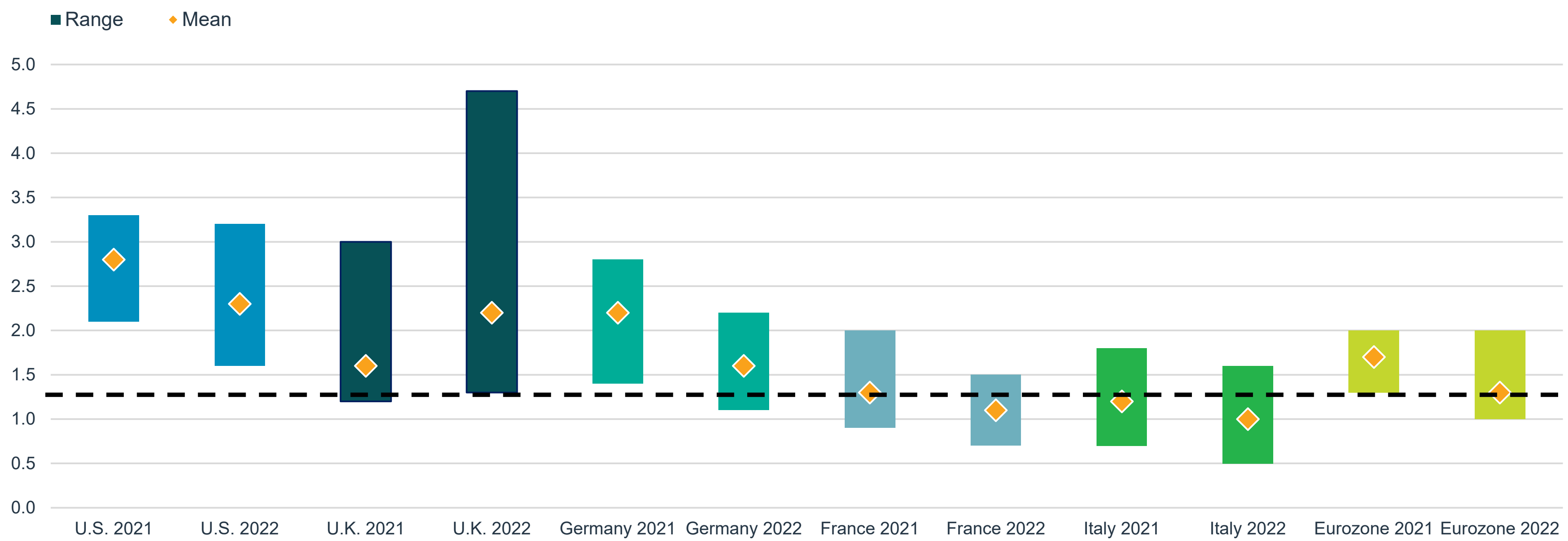
HEADWINDS
Challenges for real estate

- **Global climate change** is creating additional risks in many top global cities
- **Diverging wealth and resultant political instability** is creating a more challenging political environment for landlords
- **Ecommerce and shifting consumer preferences** are creating challenges for traditional retail
- The **adoption of working from home** could put long-term pressure on Class B/C offices.
- Profitability challenges in Europe due to **excessive land prices and rising construction costs**

Keeping an eye on inflation risks

Inflation has picked up markedly in the U.S. and Europe posing a new risk to real estate investments. However, the uptick is expected to be transitory.

Global economies support the recovery



Source: Consensus Forecasts, May 2021

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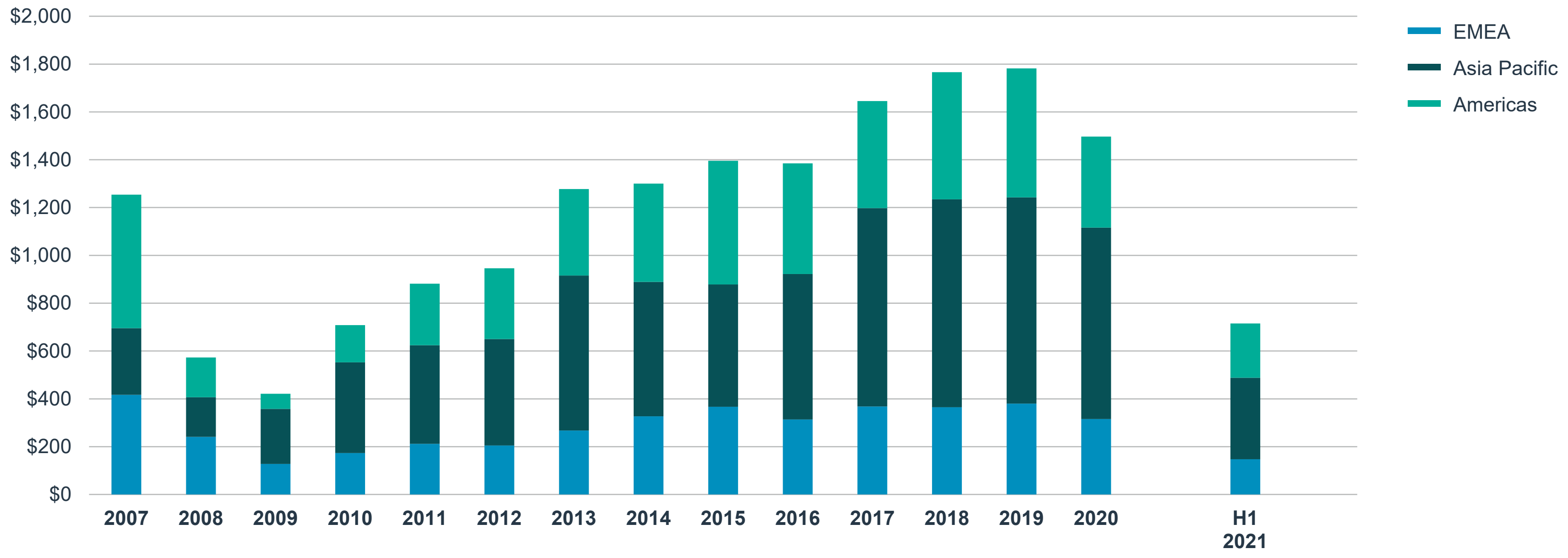
Appetite for global real estate set to strengthen again this year

Global capital continues to target real estate as the sector emerges in good shape from the pandemic.

The strongest recovery came from the U.S. from very low 2020 levels, while Europe and Asia were holding up better in 2020 and hence experienced a lower increase from higher levels

Global property investment by region (billion US$)



Source: Real Capital Analytics (RCA), 2021

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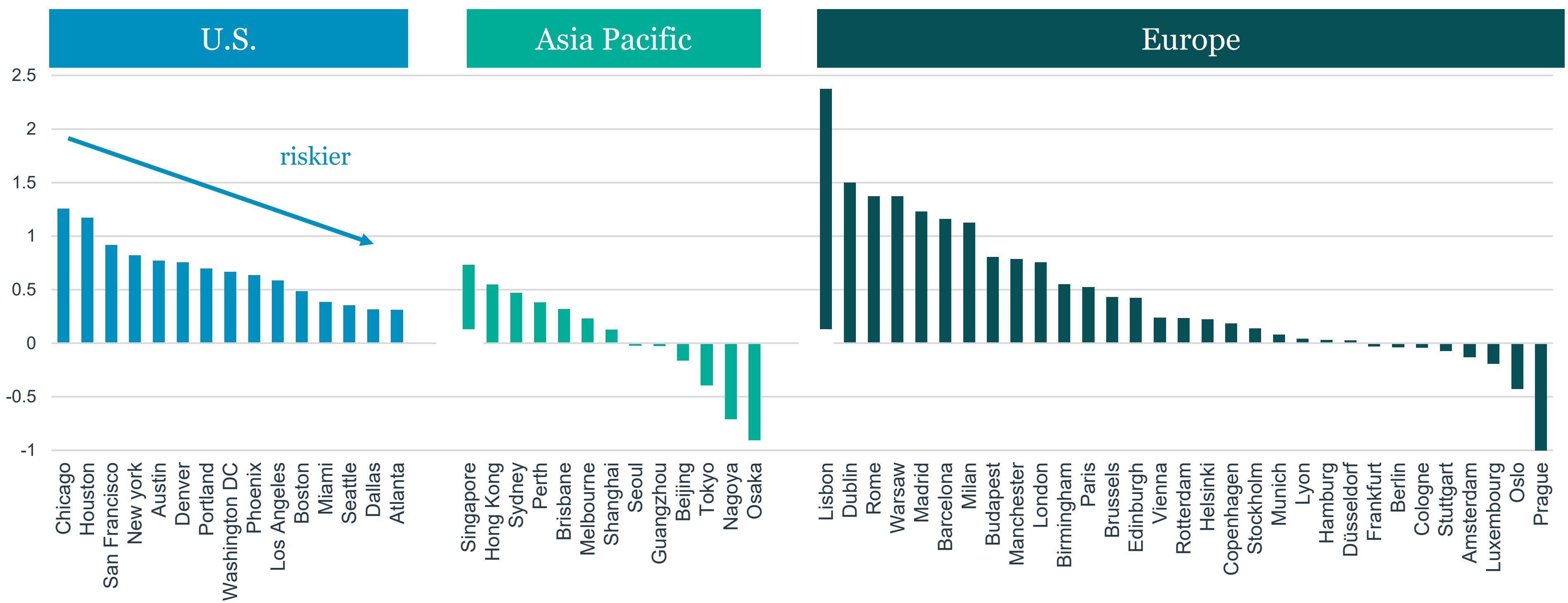
Property remains good value in many global cities

Global cities real estate continues to offer attractive income returns compared to the respective bond markets. All U.S. markets and the majority in Asia and Europe offer relatively better value compared to bonds than over the last 10 years on average.

Spreads with gov. bonds, current vs 10-years 2011 – 2020, offices, %



Source: Source: PMA 2021, Oxford Economics 2021, Nuveen Real Estate Research analysis, Q1 2021

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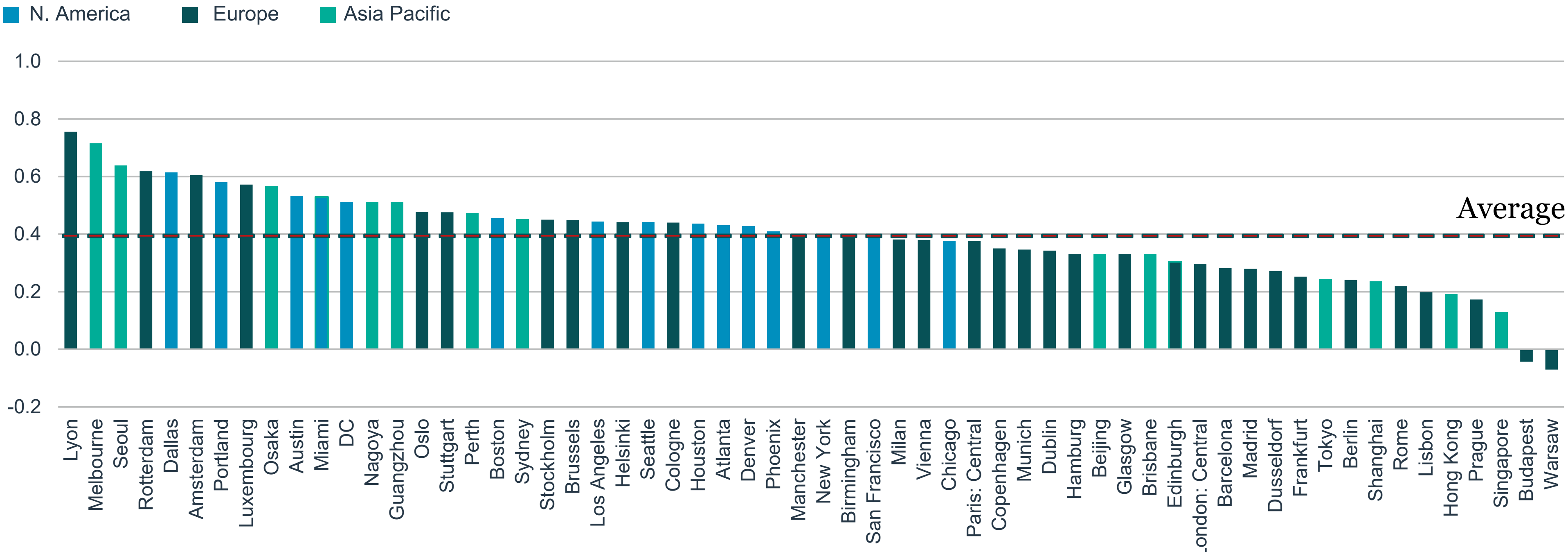
Risk return profile of office cities

The risk/return analysis (sharpe ratios) for office investments, the globally most aligned property type, shows strong results for cities from each of the key global regions.

Asia-Pacific markets offer the highest number of well placed cities. U.S. cities are notably absent from the bottom quartile, while European and Asia Pacific (APAC) are spread over the entire scale, implying that city selection is of most important outside the U.S.

Sharpe ratios, prime offices, 1995 – 2020



Source: Data available for 59 centers.: source PMA, Nuveen, Spring 2021.

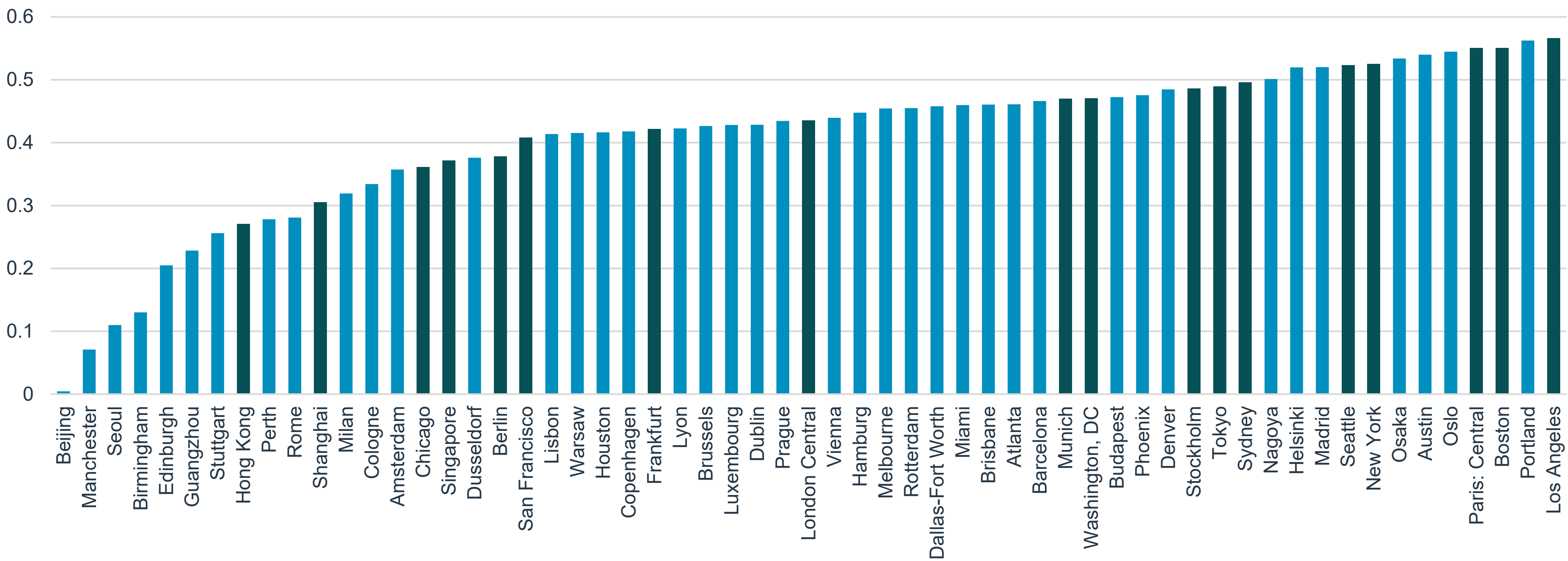
Global diversification advantage

Combining cities with different characteristics enhances diversification.

The analysis shows that APAC and second tier cities in any region offer best diversification potential. That means from a diversification vantage point a global portfolio should ideally have exposure to Asia, the U.S. and Europe, while not be limited to the biggest gateway cities.

Average performance correlation with all other centers (offices, 1995 – 2020)

Top 20 most liquid cities highlighted in green



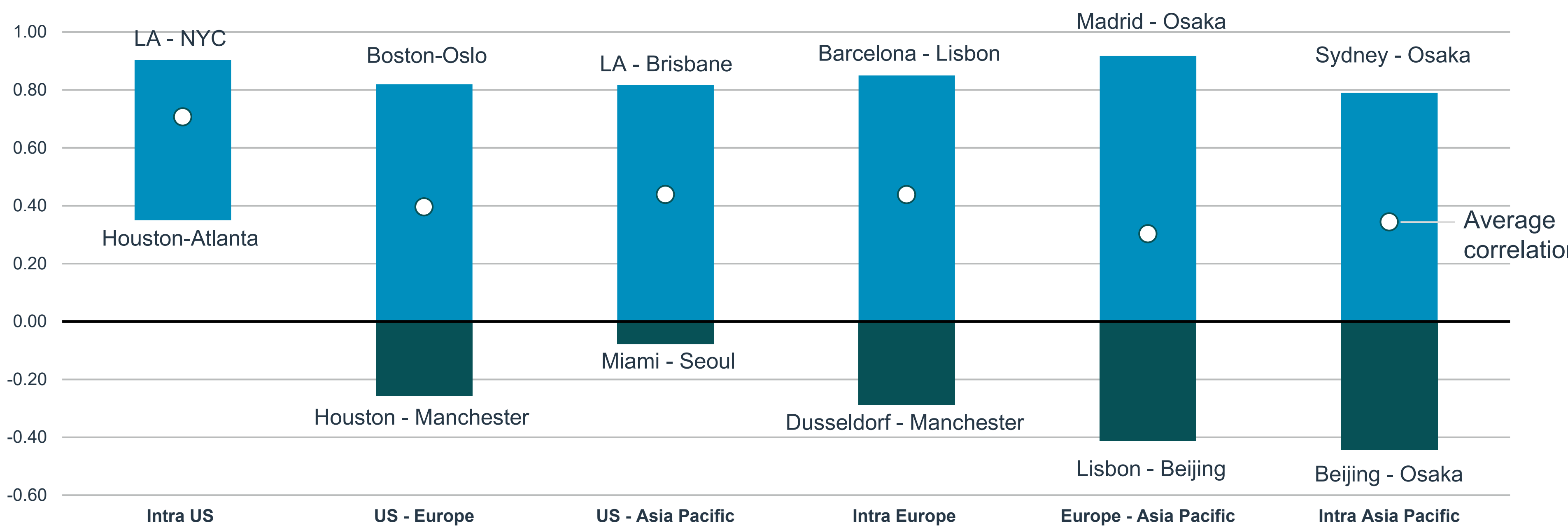
Source: PMA, Nuveen Real Estate 2021. NB Top 20 most liquid cities are highlighted

Careful city selection enhances diversification

Being one economy, U.S. cities tend to be more correlated with each other than cities within either Asia Pacific or Europe, which are spread over many countries.

There is significant diversification potential within each region, but best results are achieved constructing portfolios across the globe. Some outlier cities in Europe are particularly useful to diversify a U.S.-dominated portfolio.

Total return correlation coefficient between cities (bottom city pairing: least correlated; top city pairing most correlated), 1995 – 2020



Source: PMA, Nuveen, 2021.

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Asia Pacific

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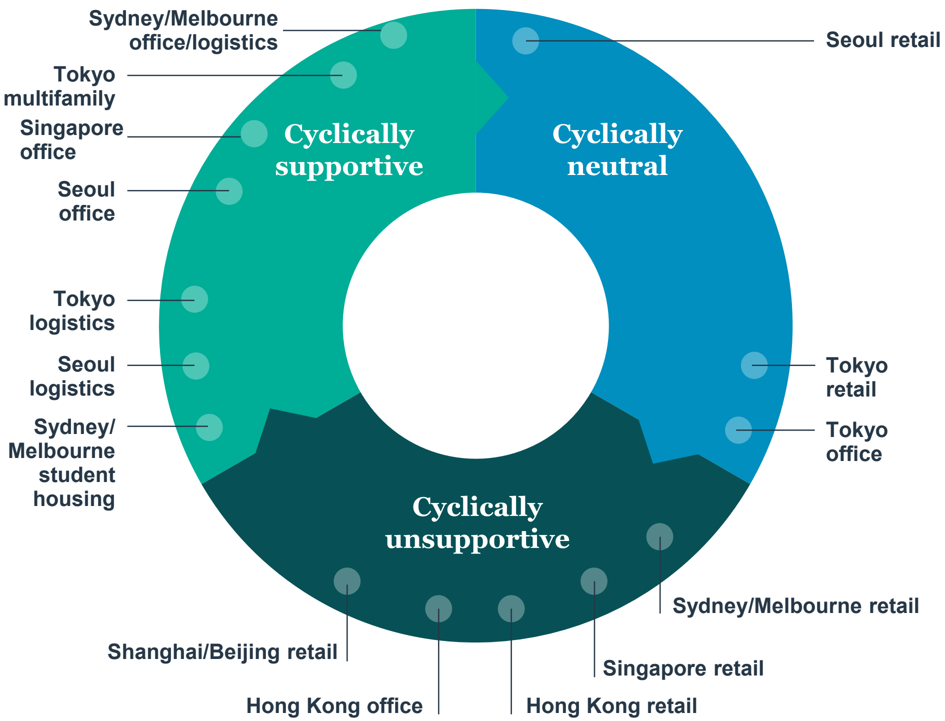
Asia Pacific overview

Growth fears on rising infections, hopes on rising vaccinations

- Growth risk has risen in Q3 as a result of increasing infections across the region, but rising vaccinations will help to mitigate downside and provide legs to improvement heading towards year-end
  - Consumer environment to weaken in the current quarter as lockdowns dampen spending while production is still underpinned by positive global trade outlook
  - Ramp up in vaccinations will help mitigate downside risks, as economies steadily ease restrictions in the coming quarter; at more than 80% fully vaccinated, Singapore looks to live with the endemic
- Monetary policy outlook to diverge but rates to stay near cyclical lows
  - Bank of Korea has raised rates for the first time since the onset of the pandemic to counter macroprudential risks, with another rate hike expected this year. Reserve Bank of Australia is expected to lift rates above cyclical lows before the end of 2022
  - Most other regional central banks are likely to adopt a more dovish outlook, reflecting an uneven growth outlook even as employment conditions have started to stabilize
- Capital market sentiment remains very strong, due to hot money flows and low financing costs
  - Weight of capital creates investment challenges, as ongoing price tightening drives desperation and lower target returns while occupier risks remain elevated across selected sectors and geographies
- Focus on resilience and income to mitigate tail-end risks and medium-term rate tightening
  - New built modern last mile and distribution centres in Greater Tokyo and Seoul provide attractive income opportunities, as do multifamily (including senior living) in Tokyo and east coast Australia
  - Ride on rental growth cycle in Singapore office; flight to quality in Australia offices to persist on narrowing pricing gap to logistics

2021 brings acceleration in structural trends

Income resilience plus rental growth will help mitigate pricing risks



Singapore office takes the lead

- Muted medium-term supply and rising tech occupier demand will complement an optimistic growth outlook to drive rental growth in Singapore over the next 3-4 years
- Hong Kong to lag recovery on supply surge, particularly in Central CBD
- New regulatory actions are unlikely to change tech companies' office demand in Tier-1 Chinese cities in the long term

Focus on income-anchored logistics assets

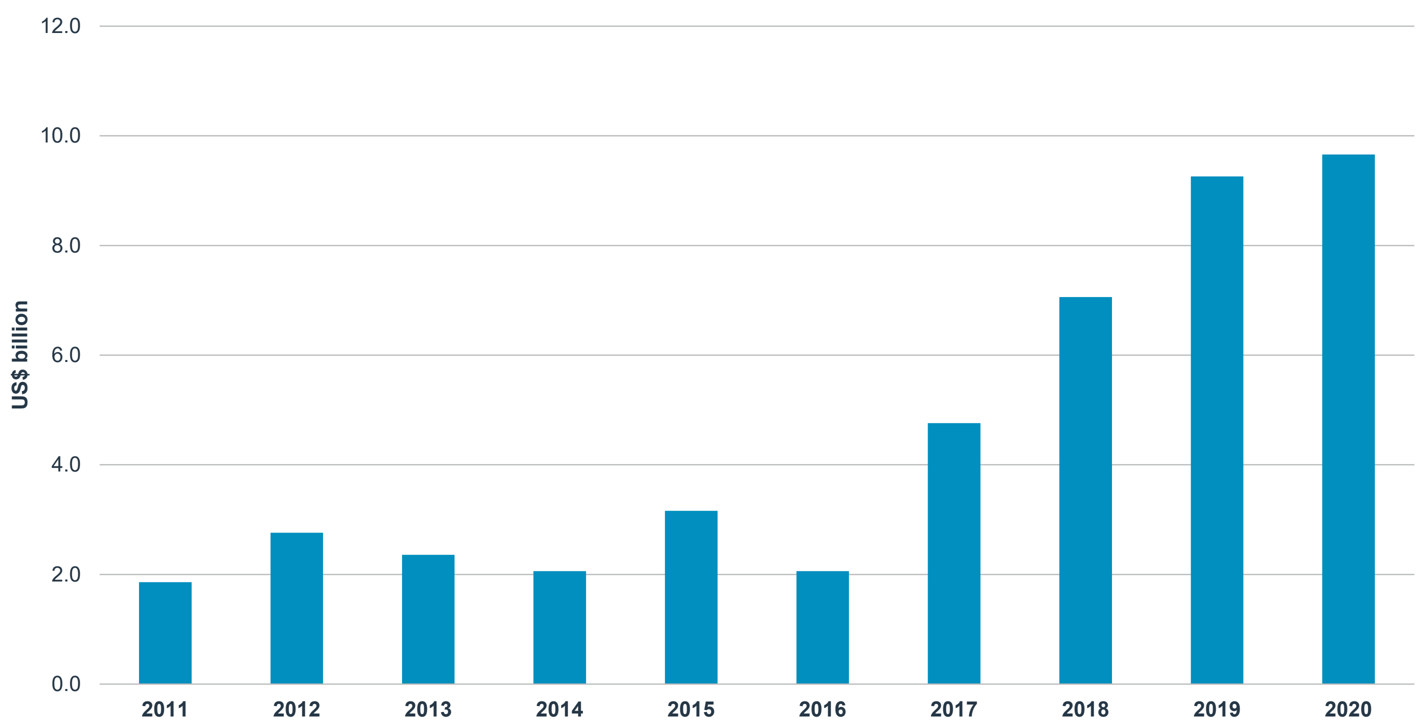
- Investor demand for logistics asset is reflected in fundraising volumes and pricing dynamics
- Structural factors and post-lockdown behaviour suggest logistics demand may be more sustainable in APAC, whereas shortage of high-quality assets accentuates the demand-supply imbalance in markets such as Seoul and Tokyo

Source: RCA

Office: some markets offer emerging value play

Expansion and hiring plans in this occupier group were uninterrupted by the health crisis, including demand for office space. Winners are Singapore, Tier-1 Chinese cities and Seoul.

Property acquisitions by technology firms



Source: RCA

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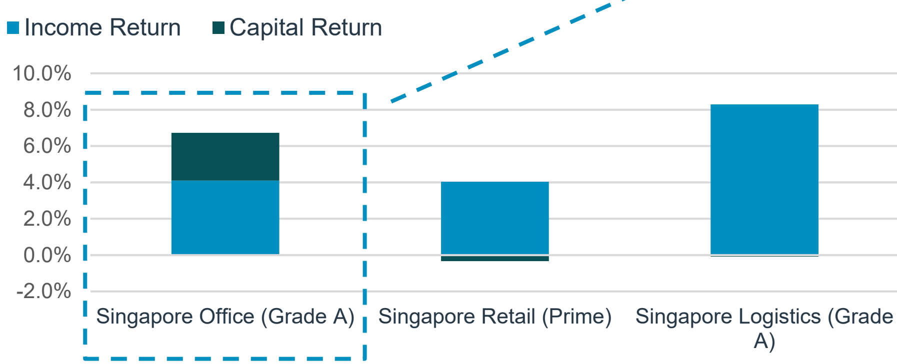
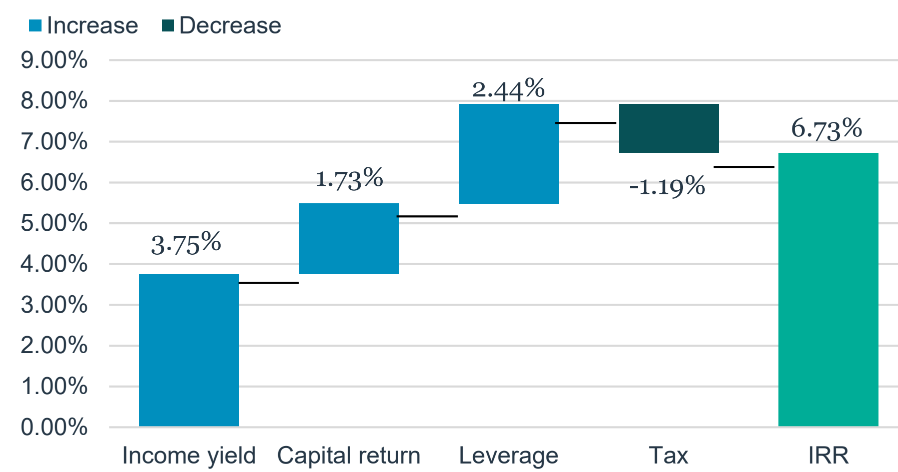
Focus: Singapore office house view

Limited supply will complement stock withdrawal and rising tech demand to position the Singapore office sector for medium-term outperformance

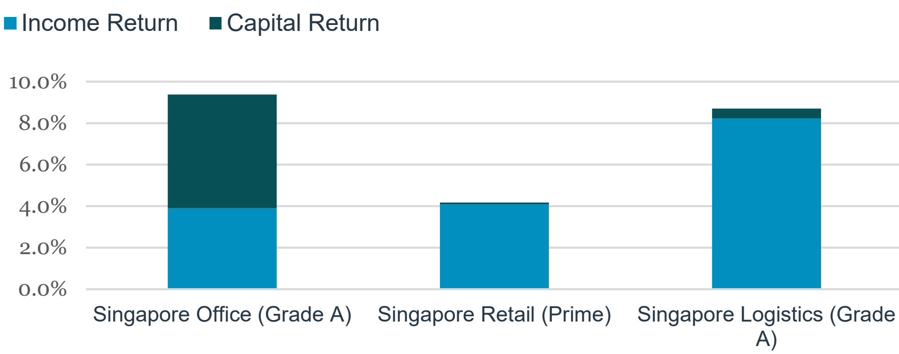
Core returns



Waterfall chart (Singapore office)



Core plus returns



Source: Nuveen Real Estate, 2021

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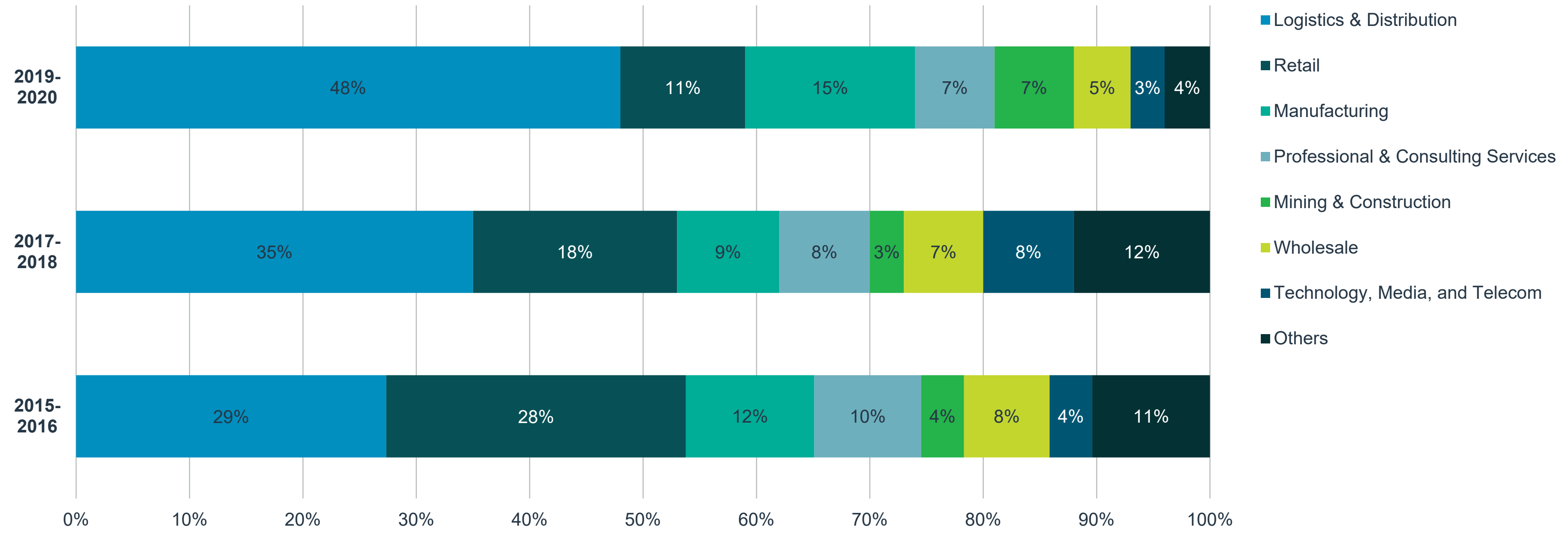
Logistics: market and asset selection is key to delivering long-term value

Change of occupier composition is accompanied by shifting logistics/industrial space requirements. Rising occupier cohorts are after last-mile delivery facilities located in densely populated residential and commercial districts.

Asia Pacific logistics take-up by occupier-type



Source: JLL, 2021

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Europe

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Europe view

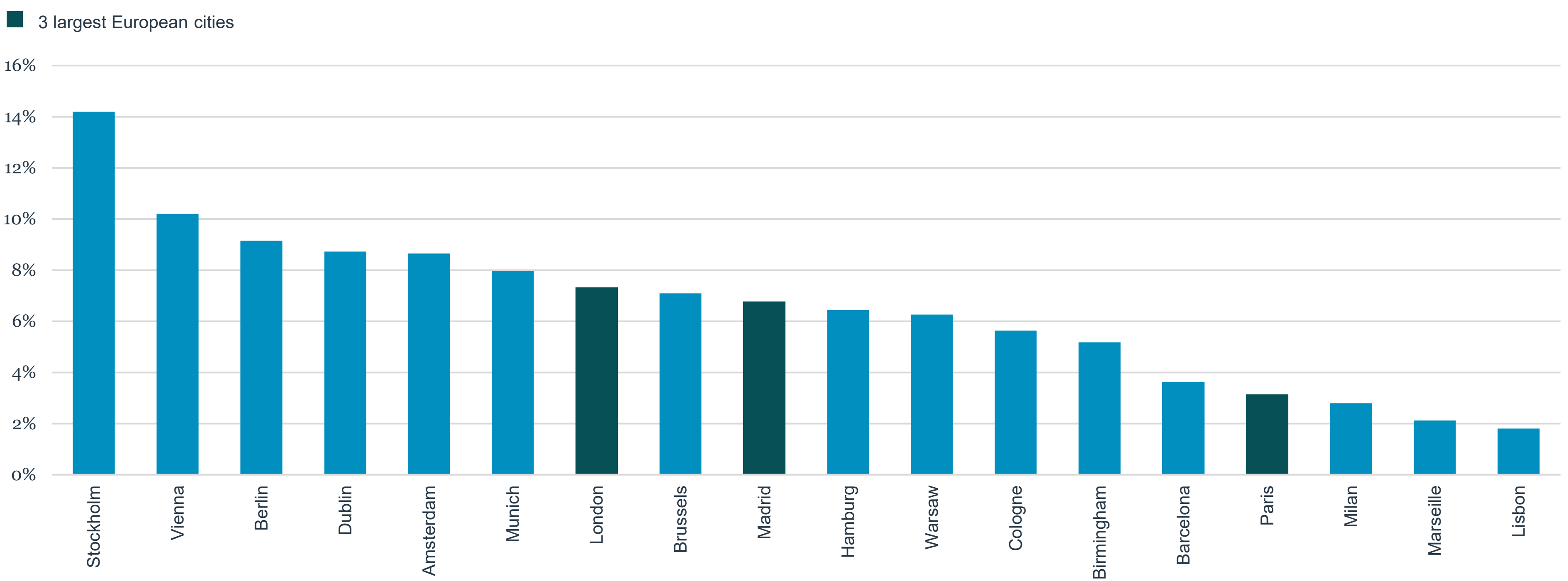
The recovery is gaining pace, gaining pre-COVID output levels sooner than previously expected

- Germany and most Northern European economies have recovered faster than expected, regaining pre-pandemic levels in the course of 2021. Spain, Italy and the U.K. are expected to need until early 2022. Southern Europe is suffering from lower levels of summer tourism, while the U.K. is held back by Brexit related issues.
- Industrial and apartment markets have weathered the storm very well with values rising above pre-pandemic levels. The office market has held up despite home working leaving offices empty for more than a year. Investors believe that high quality offices in good locations will remain in demand, a thesis supported by early evidence. The retail market continues to suffer and will not bottom out before the end of the year. Grocery and convenience are the clear winners. Important to note that the deep capital declines in U.K. retail are not mirrored in any other European market.
- Investment markets have shown signs of life in the second quarter 2021. The U.K. saw strong investment inflows for the first time since the Brexit vote in 2016. Germany and France continue to benefit from buoyant domestic markets as well as cross border investments. Retail hasn't recovered pre-pandemic levels, while logistics and residential activity is higher then anytime since before the GFC. The capital rotation into alternatives is underway, but held back by lack of available product.

Europe's fastest growing cities are not the biggest

Key cities are set to continue outperforming second tier cities and national averages. Fastest growth remains concentrated in the North and West of the continent; generating demand for real estate.

Total population growth rates 2010's to 2020's



Source: Eurostat, Oxford Economics, Nuveen, 2021

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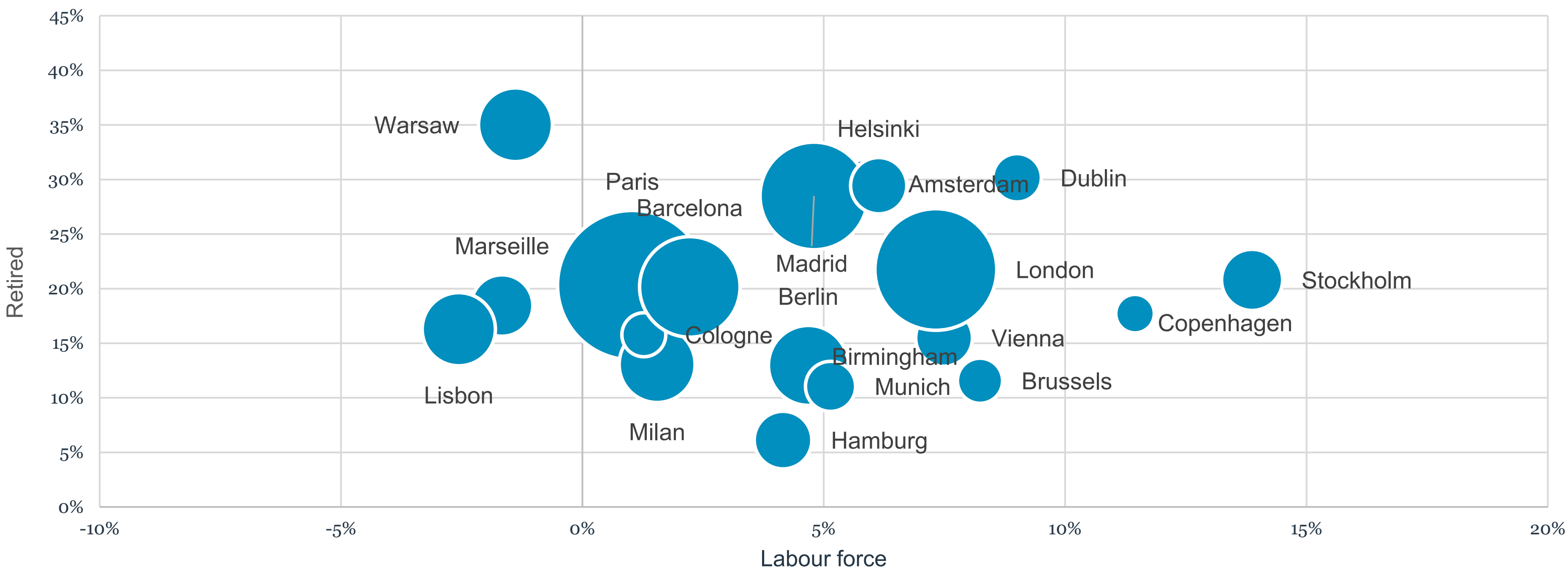
Retirees will drive demand for health related real estate

A rising share of disposable income is controlled by the healthy and active recently-retired, the fastest growing demographic. Over time it will fuel continued growth in demand for medical services and assisted living.

Retired and labour force growth rates 2010's to 2020's (bubble size represents total number)



Source: Eurostat, Oxford Economics, Nuveen, 2021

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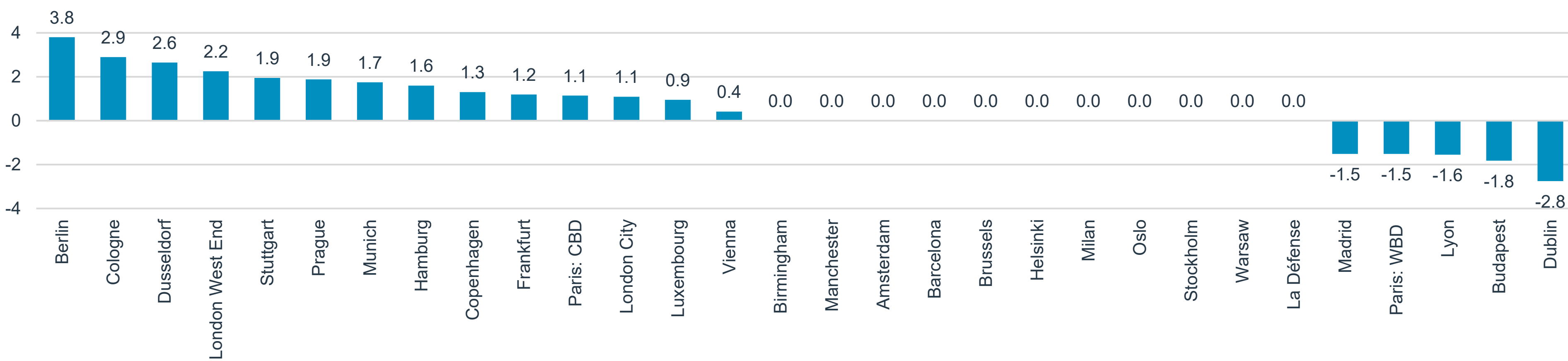
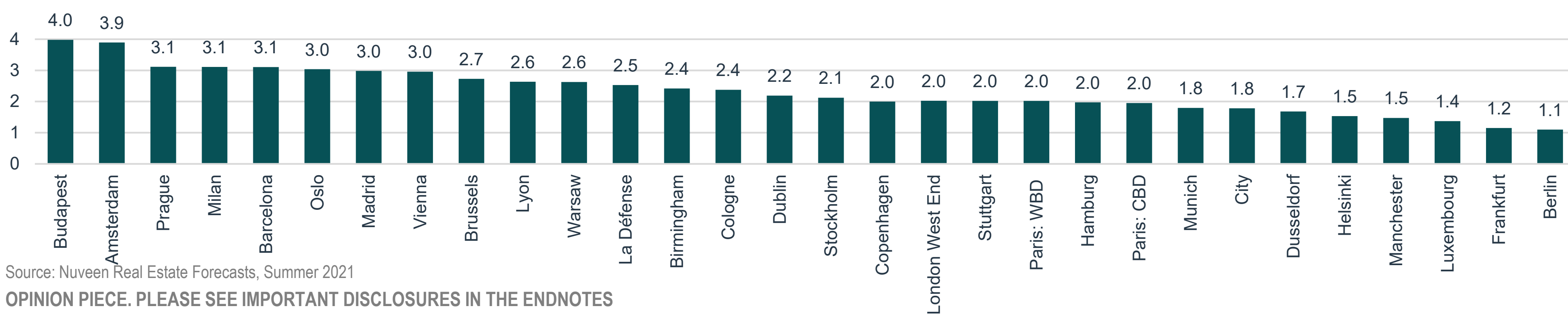
European office

While market leasing activity remains far from normal, we are beginning to see signs of recovery. In terms of future performance, we expect prime rental growth in 2021 in a few lead markets such as Munich, Hamburg and Paris CBD.

2021 – 22, % pa



2023 – 26, % pa



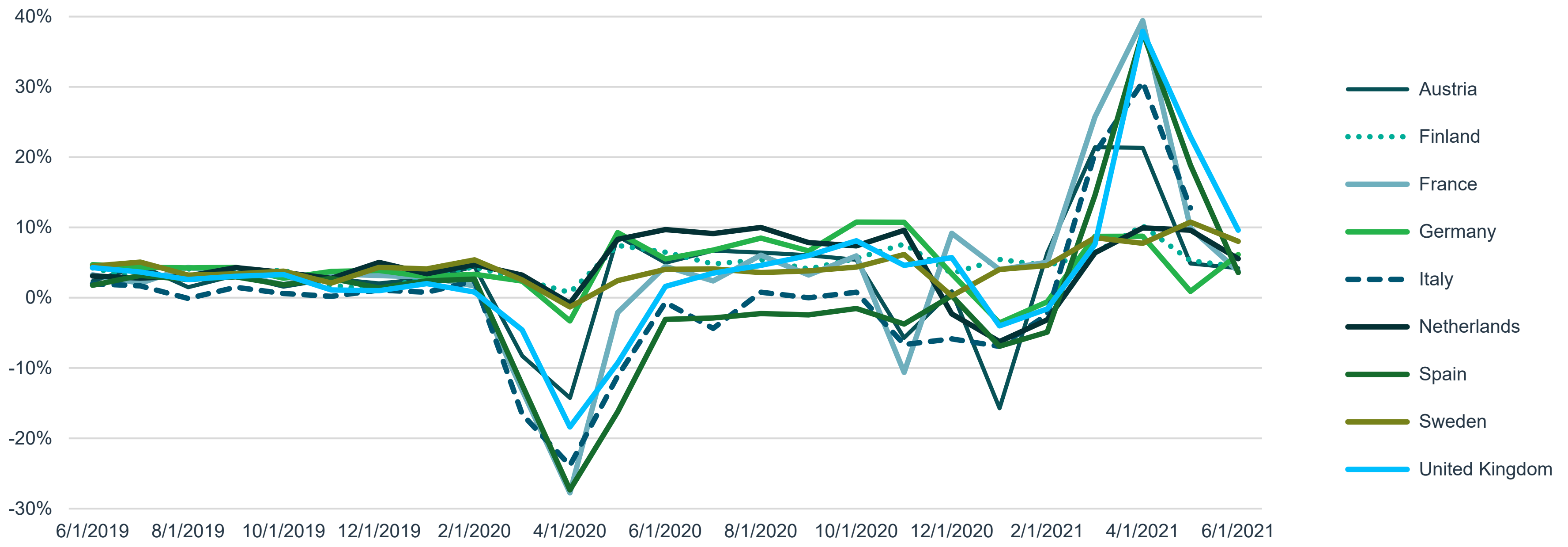
Source: Nuveen Real Estate Forecasts, Summer 2021

Retail slowdown after initial bounce due to Delta variant concerns

Expectations for a post pandemic spending boom are gathering pace.

April retail sales data broke all records with the European average growing by 24% year-on-year (France, Spain & Italy closer to 40%). Convenient, grocery-anchored retail parks have recovered well in terms of footfall and remain a strategic pick in light of the pandemic and ongoing structural changes.

Monthly retail sales growth % p.a.



Source: Macrobond, July 2021

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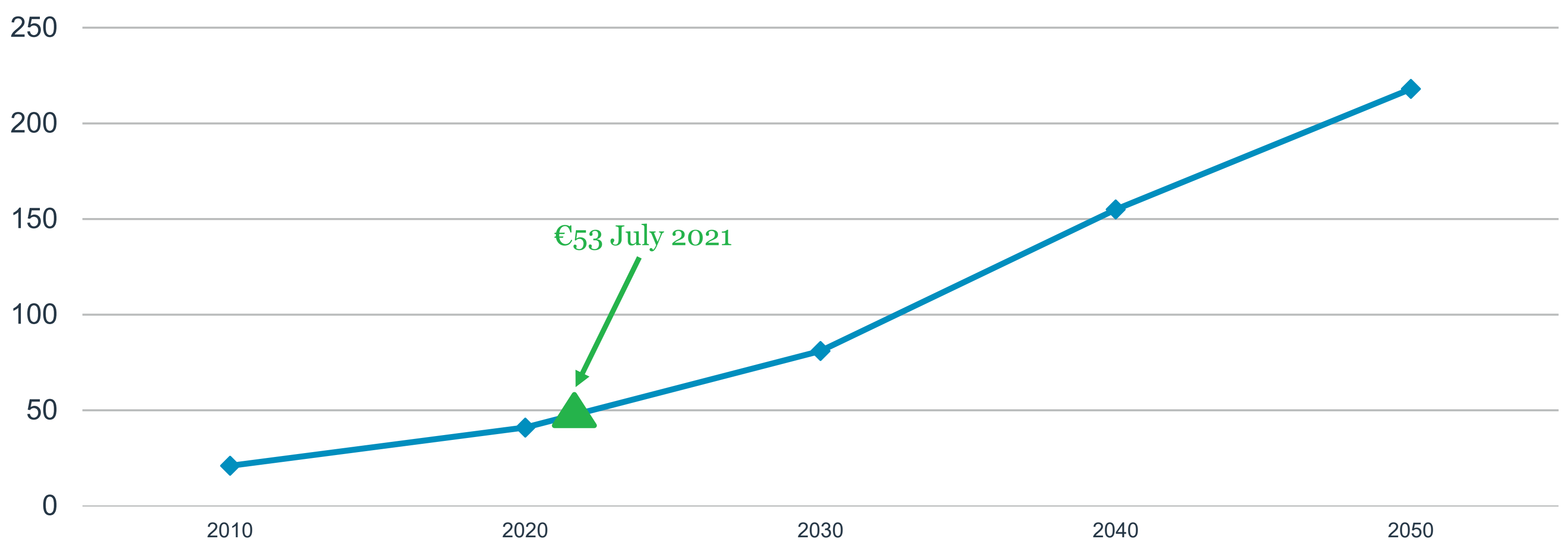
Logistics: prepare for decarbonization effects on locations

Decarbonisation efforts and carbon pricing could lead to rising transportations costs, favouring logistics locations which help to minimise the distances goods have to travel.

Global divisions of labour and terms of trade may have to be rethought with an eye on reducing transport distances and CO_2 emissions. Existing locational advantages such as being close to infrastructure, consumers and production are likely to become even more pronounced. Locations that mainly rely on cheap labour to attract logistics businesses will be less well placed as a result.

EU carbon market: pricing forecast (€ per t/CO_2)



Source: London School of Economics (Case for carbon pricing, 2011), European Union, 2020

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United States

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United States view

Uncertainty remains as COVID-19 lingers, but there are signs of strength in the property markets and with consumers

Primary sector updates

- Vacancy in the U.S. office market has continued to rise as businesses relinquish space amidst continued uncertainty, but demand losses are moderating. Gross leasing activity in the second quarter was above its pre-COVID level for the first time since the beginning of the pandemic.
- The industrial market remains very strong, with net absorption at record levels over the past year and vacancy levels back near record lows. Rent growth and investor interest remain strong - for good reason.
- The apartment market has seen record demand and rent gains over the past several months, with annual rent growth now positive in every major market. Concessions are back to normal levels, although central business district apartments are still having to do a bit more work to lure tenants back than in the suburbs.
- Strong support from the U.S. government has helped buoy the retail sector, and the pace of store closures has slowed to a level not seen in five years. Historic oversupply and the impact of continued ecommerce adoption are still headwinds for the sector, but there are pockets of strength and opportunity.

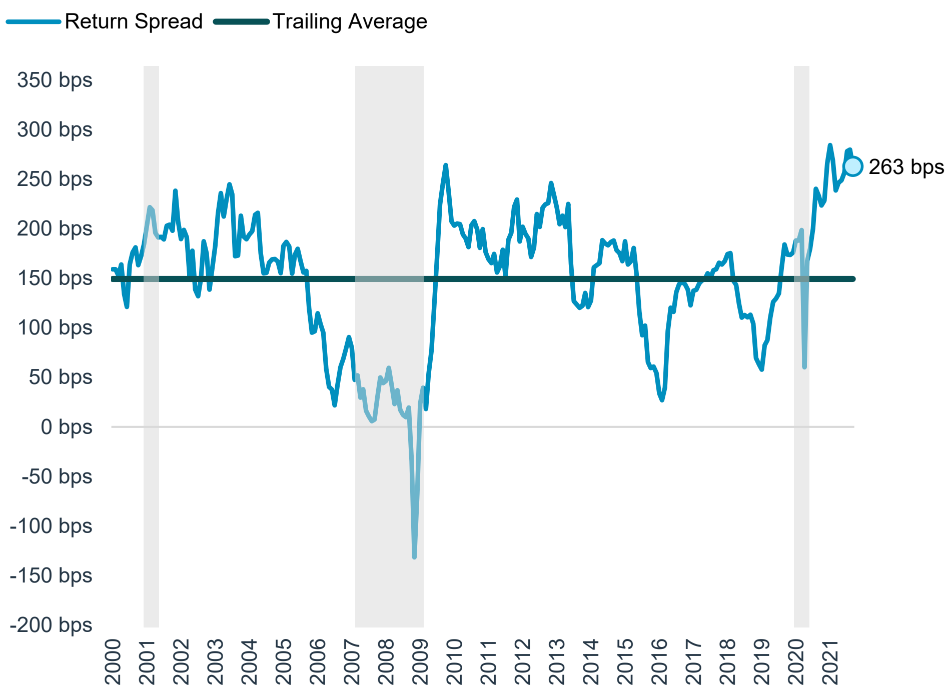
Insights

- Suburban population growth is outpacing urban areas in most markets around the country, and the Sun Belt continues to outshine the rest of the country in attracting newcomers.
- Some of the best performing property types include self-storage, industrial, and manufactured housing. Many of the alternative sectors have strong prospects, further supported by public market early-indicators.
- Despite record valuations in many sectors, U.S. commercial real estate is providing good value relative to bonds.
- National Institute of Health (NIH) and venture capital funding continues to propel the life sciences industry throughout the pandemic.

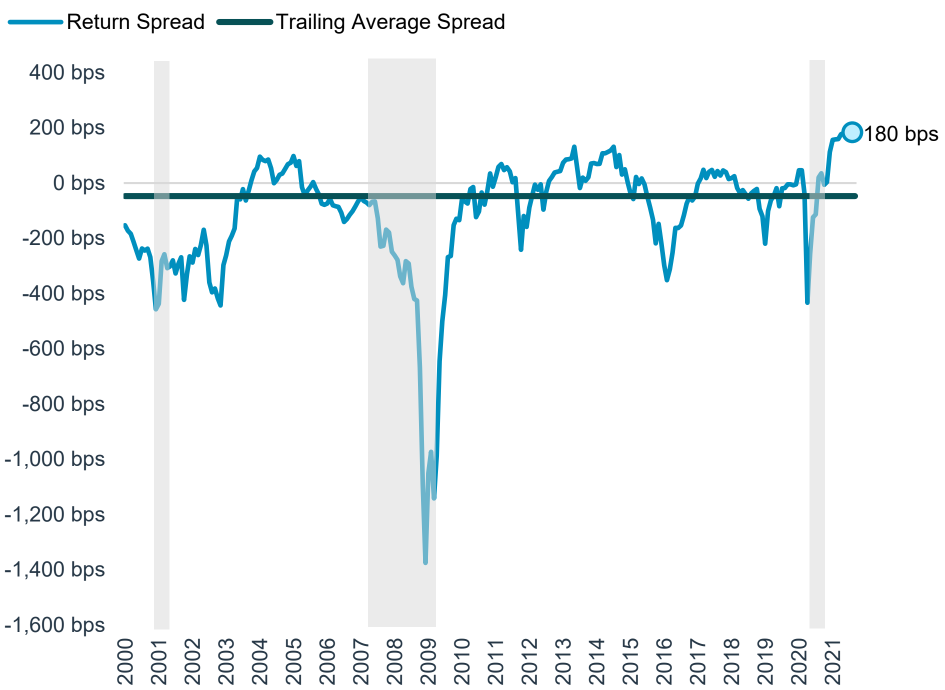
U.S. Real estate provides value relative to bonds

Historically, expected returns on direct real estate have exceeded those on long-term Baa-rated corporate bonds by 149 bps and have been roughly in line with riskier high-yield bonds. Currently, spreads are near or at all-time highs. Real estate is cheap relative to corporate bonds.

CRE vs. Baa-rated corporate bonds



CRE vs. high-yield bonds



Source: Bloomberg, Green Street Advisors

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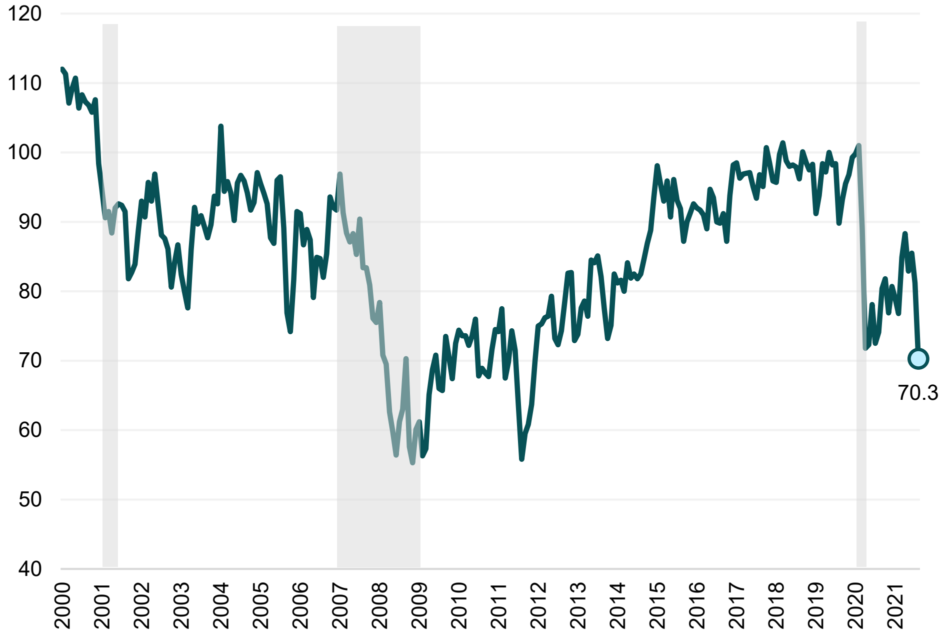
Recovery continues despite volatile consumer

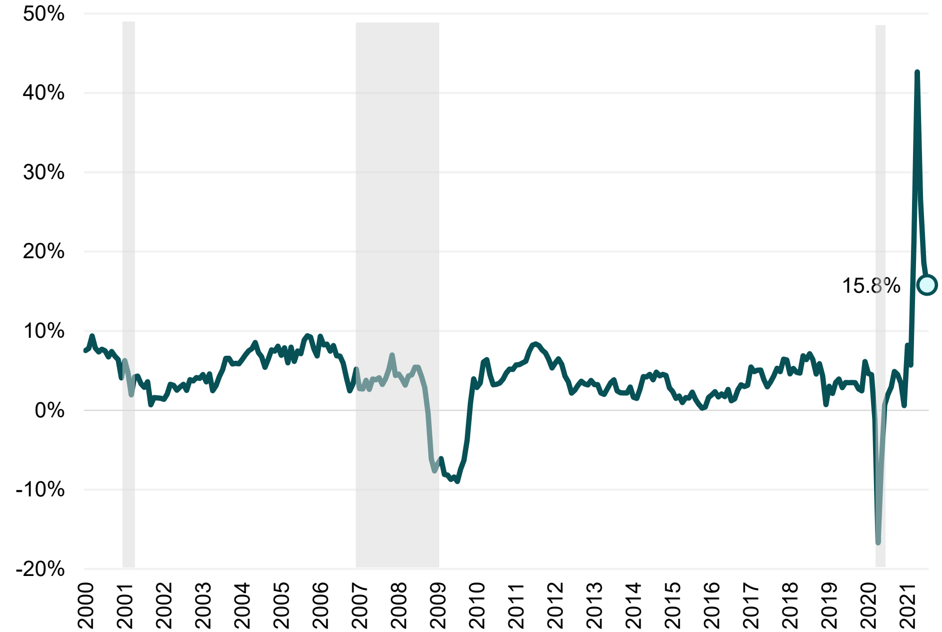
The sharp drop in consumer sentiment in August highlights virus worries and should not be viewed as a read on the economy.

In a similar lens, the decline in July's retail sales is distorted by spending patterns shifting from goods to services. Both retail sales and personal consumption expenditures are well above pre-COVID levels.

University of Michigan consumer sentiment index



Retail sales and food Excl Motor vehicles and parts dealers ($M)



Source: Bloomberg

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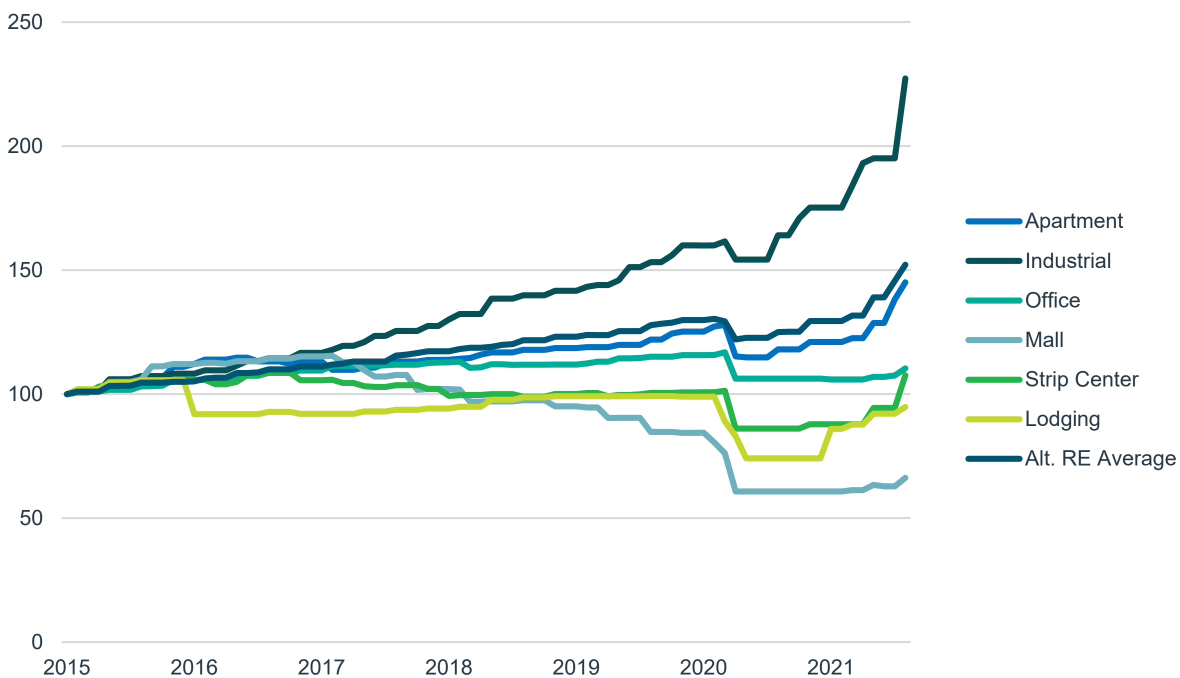
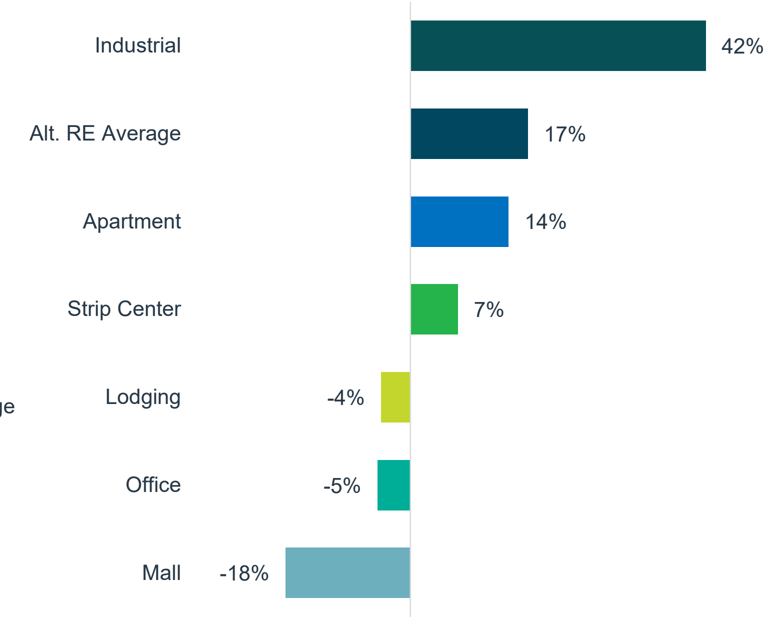
Most private market values up vs. pre-COVID

Commercial property values are increasing at a rapid clip relative to pre-pandemic pricing with industrial and non-traditional property sectors leading the way. Only lodging, office, and high-quality mall pricing remain below.

Green Street commercial property price indexes



Change in private market values relative to pre-COVID



Source: Green Street Advisors

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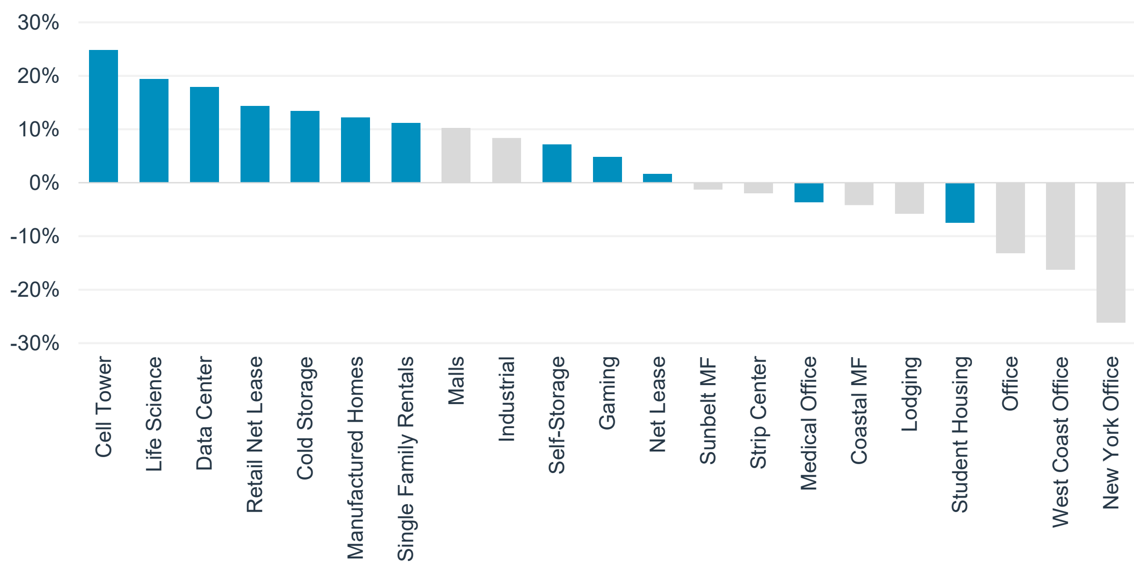
Public market signals outperformance in non-traditional sectors in the year ahead

Green Street Advisors recently conducted a study to highlight the effectiveness and predictive power of asset value premium/discount signals in the public market.

They found that sectors trading at relative premiums exceeding 10% witnessed outsized appreciation in the ensuing year of about 9%. Sectors trading at similar-sized discounts underperformed by approximately 7%. Their study also confirmed that false signals were rare as large premiums or discounts to asset values were followed by directionally similar moves in property prices about 85% of the time.

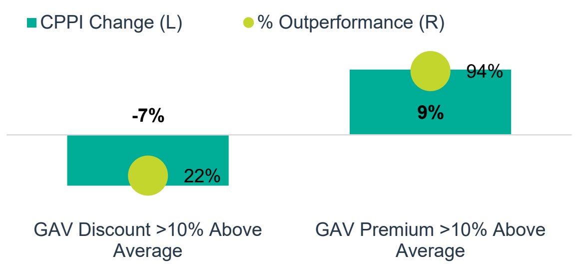
Premium/Discount to asset value by sector as of Sep 21

Blue bars represent non-traditional property sectors

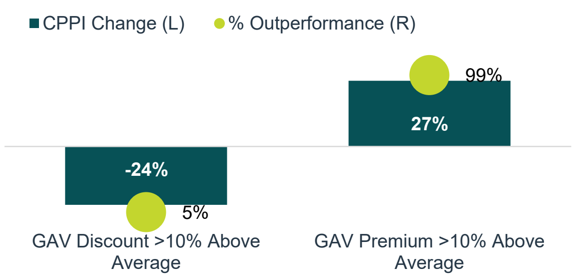


Public market premium lead private market pricing

1-year forward



5-year forward



Source: Green Street Advisors, NRE Research

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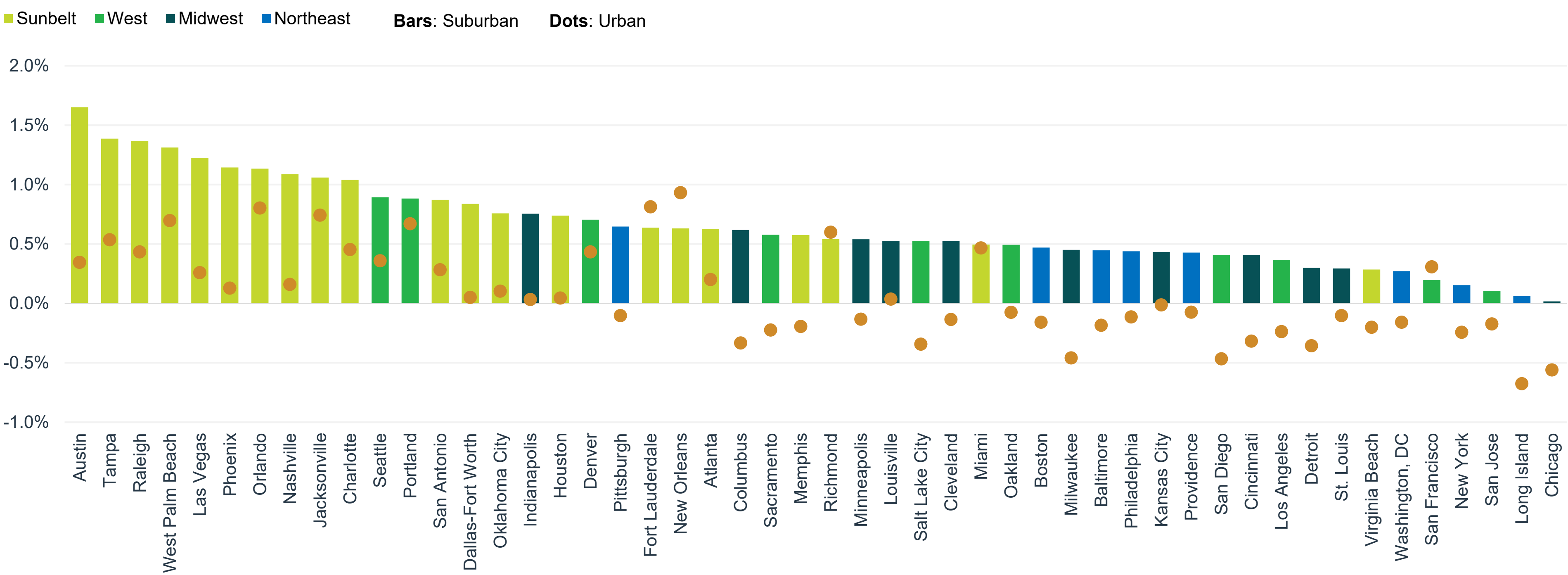
Suburbs are outpacing urban areas nationwide

Across most markets in the U.S., growth in the suburbs is outpacing urban areas.

In both urban and suburban areas, the Sun Belt is seeing the highest levels of population in-migration. Outside the Sun Belt, many urban areas are expected to see negative net migration in 2021.

Estimated net migration in 2021: urban vs. suburban



Source: StratoDem Analytics, BLS, US Census Bureau

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