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STATE OF THE INDUSTRY

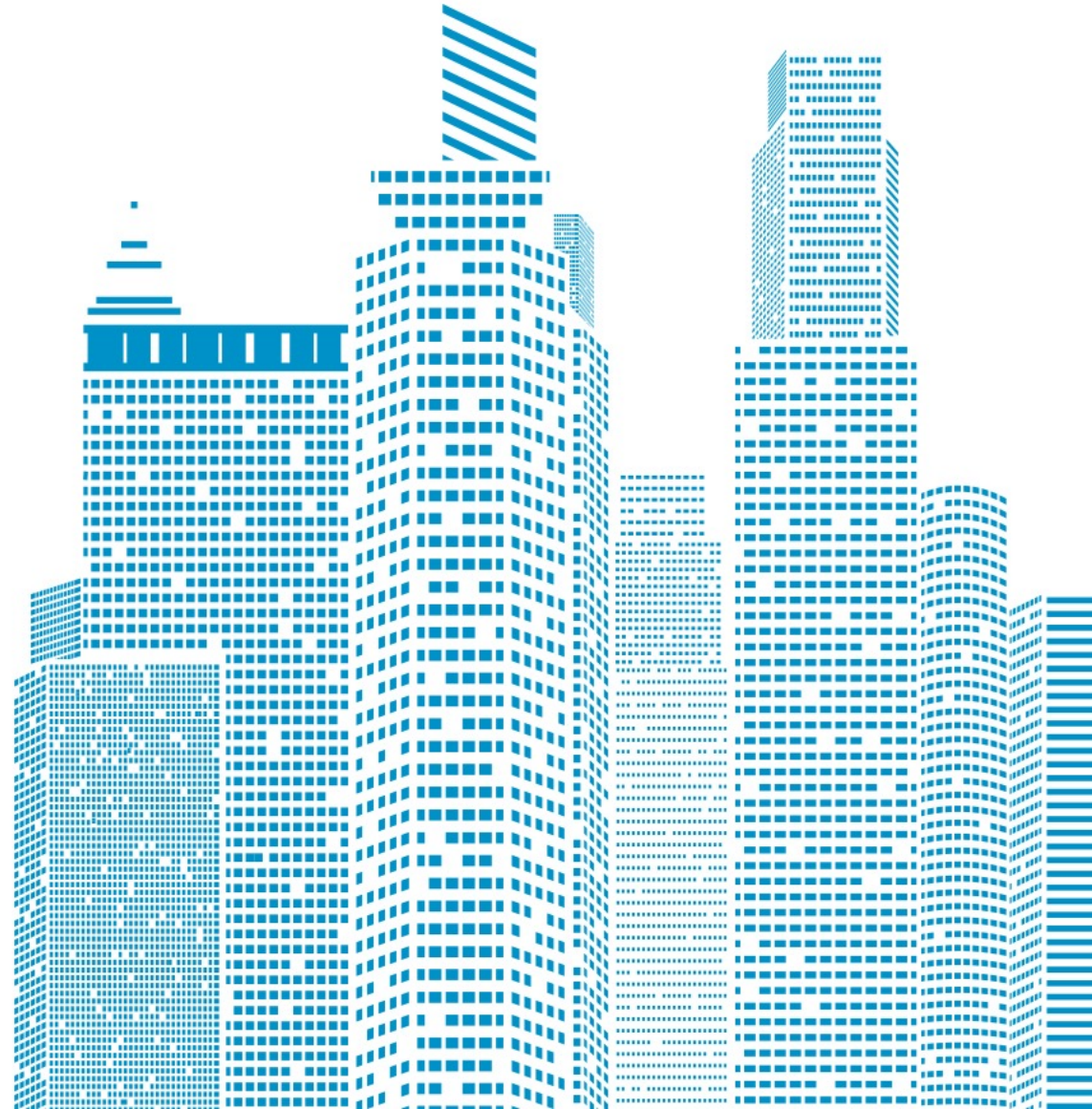
September 16, 2021 // 12:00 PM

Renaissance Hotel

Featuring

CHRIS NEBENZAHL

Editorial Director, Yardi

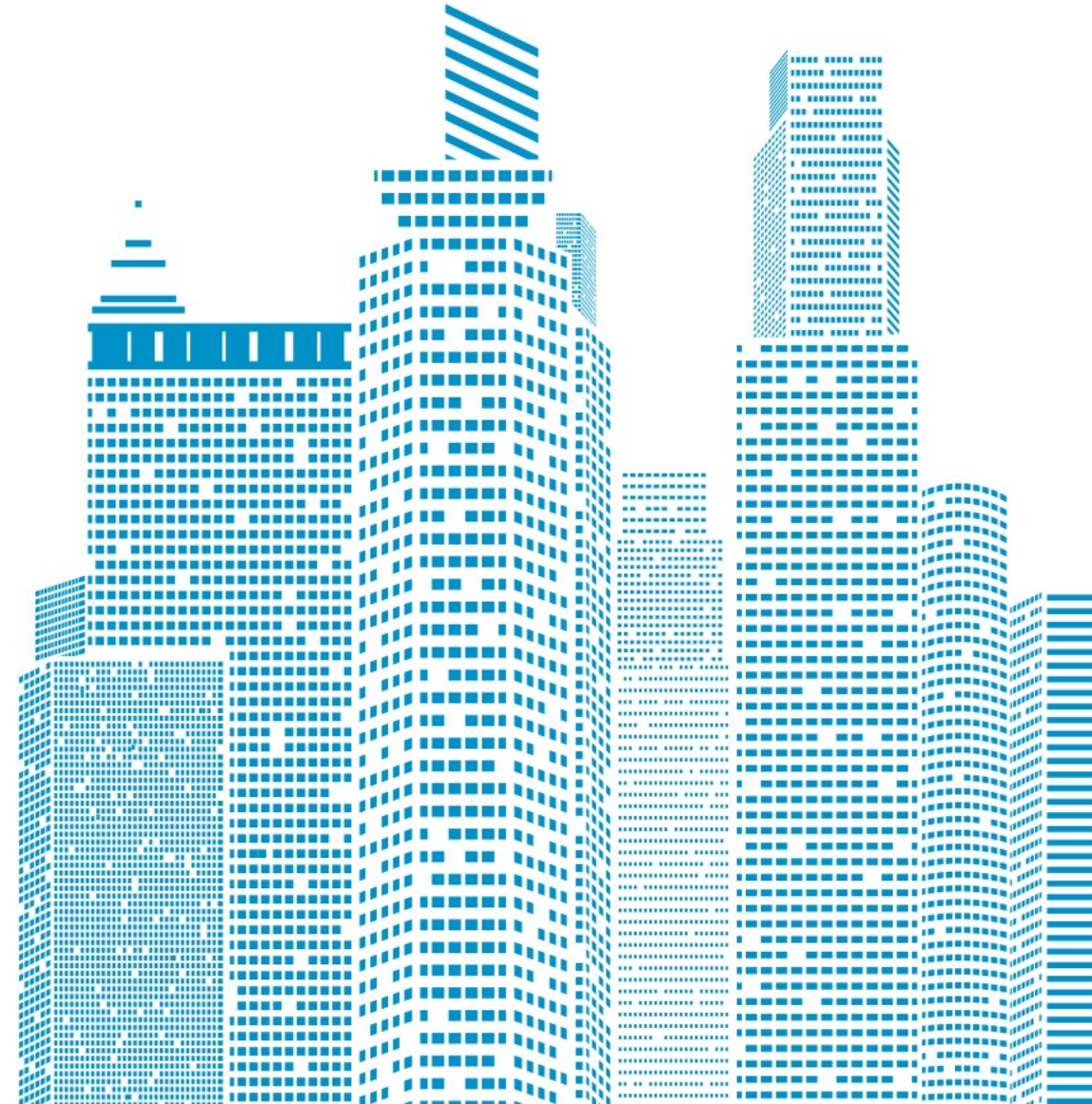


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AGENDA

- Opening Remarks
- Macroeconomic Outlook
- Multifamily Fundamentals
- Deep Dive: Dallas

Yardi Matrix House View

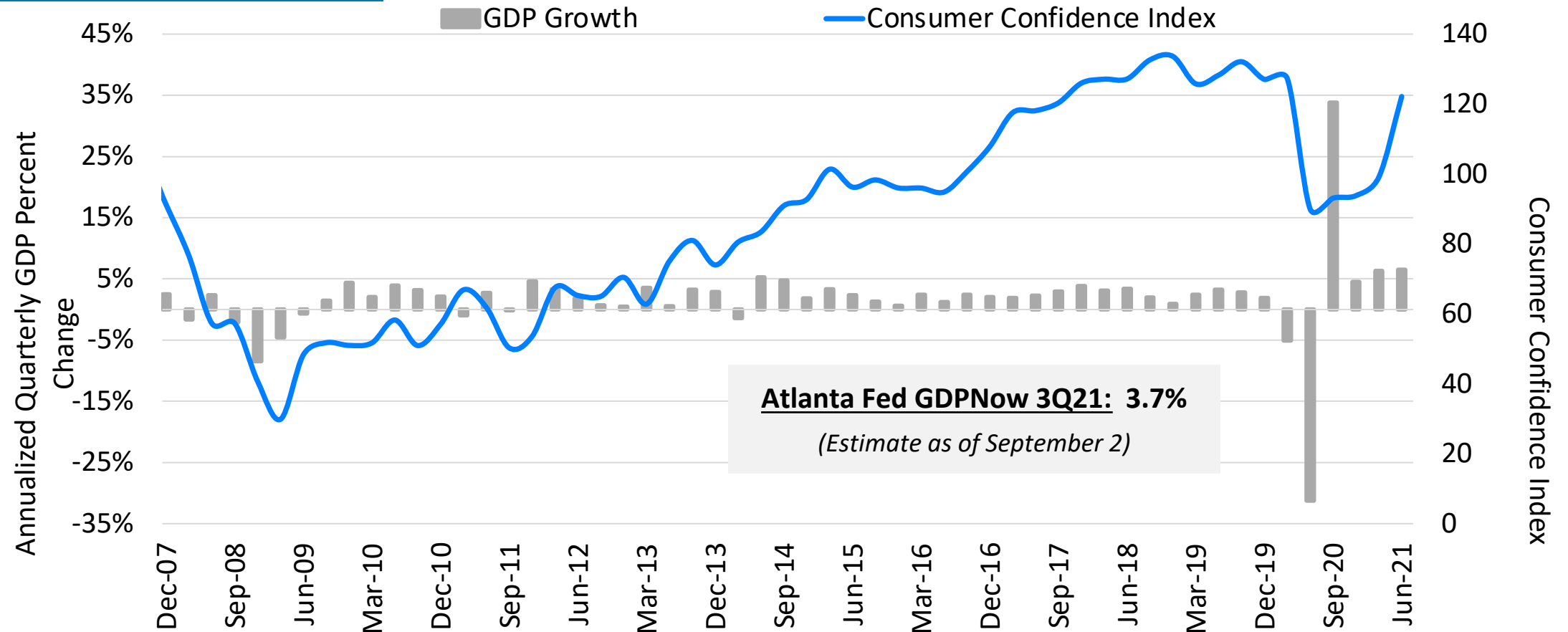
September 2021

- The U.S. economy is strong, but rising inflation remains a looming concern
- The pandemic has further fueled a general spreading of the population
 - The question for investors is still how much of this is temporary vs permanent?
 - How permanent these demographic changes are is largely dependent on the future of work
- Demographic trends, such as delayed marriage, delayed childbirth, and rising student debt levels are fueling strong demand for multifamily
- Tech hub markets are doing well and will continue to grow, while gateway markets are turning a corner
 - Absorption and rent growth has been the strongest in emerging tech hub markets and most are back to pre-pandemic levels
 - As people get vaccinated and demand picks up in the urban cores, there will be less concessions.
We are already seeing this happening

Source: Yardi Matrix

Macroeconomic Outlook

GDP Growth Recovering After Plummeting in First Half of 2020



Source: Yardi Matrix; Moody's Analytics; Bureau of Labor Statistics (BLS); S&P Dow Jones Indices LLC; CoreLogic, Inc; Federal Housing Agency (FHFA); Freddie Mac; Fannie Mae; U.S. Bureau of Economic Analysis (BEA); U.S. Board of Governors of the Federal Reserve System (FRB); Investing.com; Federal Reserve Bank of Atlanta

U.S. GDP Forecast: a V/U-Shaped Recovery

We share Evercore ISI's view, that the recovery in GDP looks like a V/U-shaped rebound

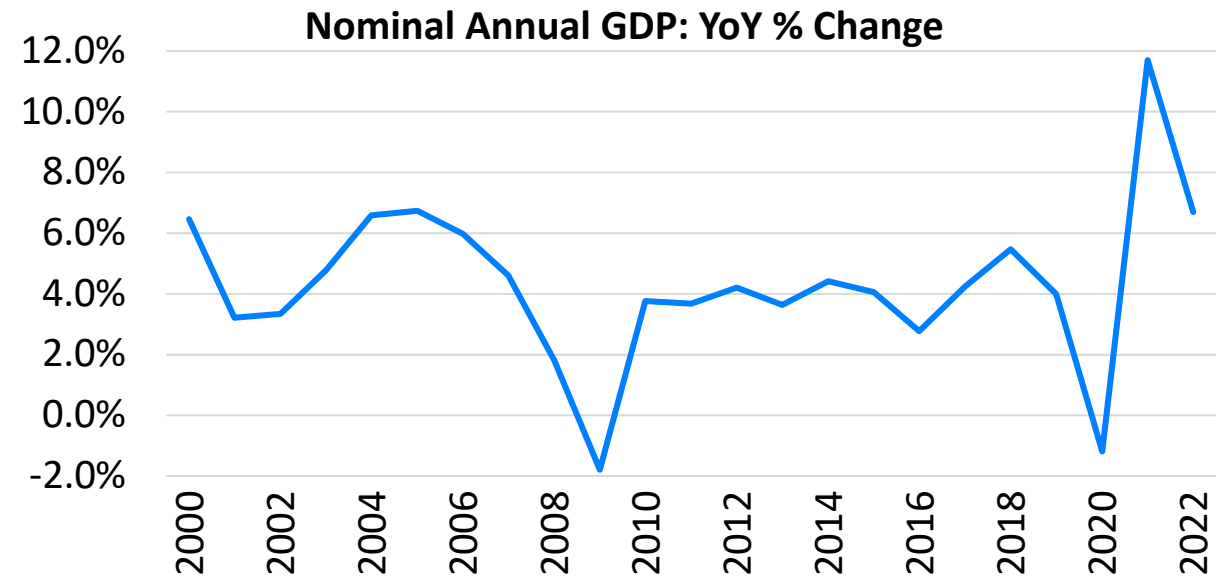
Looking ahead, these 5 factors are likely to continue to propel unit growth, inflation and asset prices:

1. Massive monetary stimulus
2. Continued reopening
3. Record surge in consumer net worth
4. Excess saving
5. Inventory rebuilding

The Delta variant may have more impact than anticipated, so Evercore trimmed their Q3 GDP estimate from +10% to +8% for Q3 and from +6% to +5% for Q4

If this forecast is accurate, the recovery will be V/U-shaped

	2020	2021 Forecast	2022 Forecast
Real GDP: YoY % Change	-2.3%	7.2%	4.0%
Core PCE Deflator: YoY % Change	1.4%	4.0%	3.0%
Fed Funds: Year-end	0.25%	0.25%	0.25%
Bond Yields: Year-end	0.93%	1.60%	2.30%



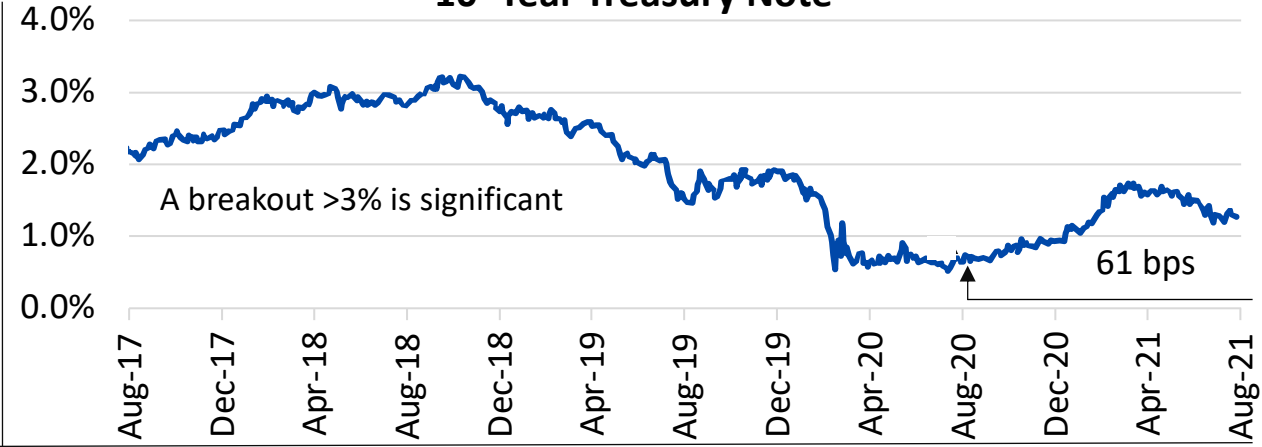
Source: Yardi Matrix; Evercore ISI, U.S. Outlook, April 5, 2021; Evercore ISI, Weekly Economic Report, August 8, 2021

U.S. and International Financial Markets

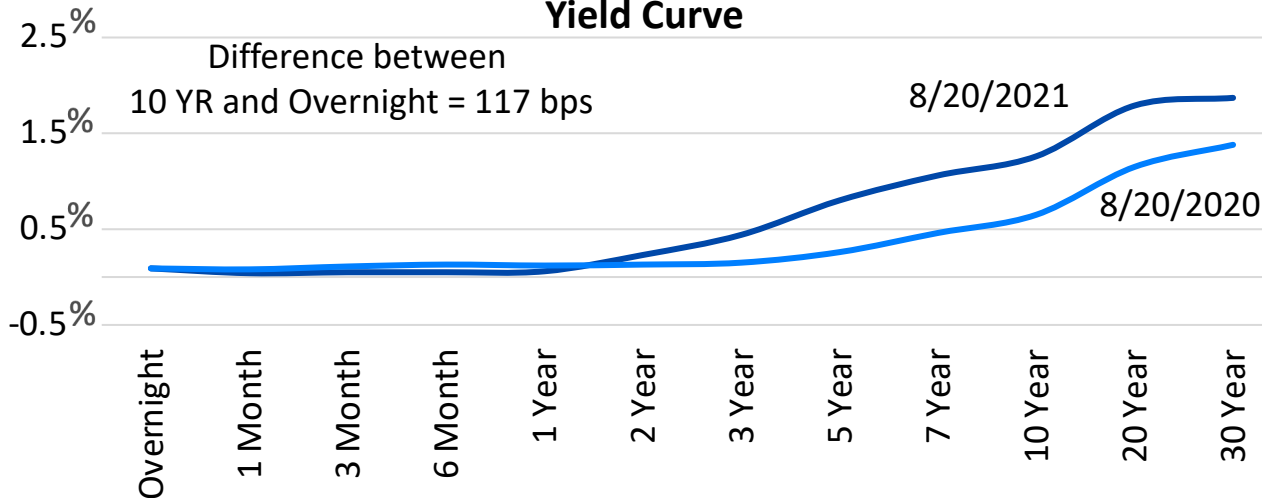
S&P 500



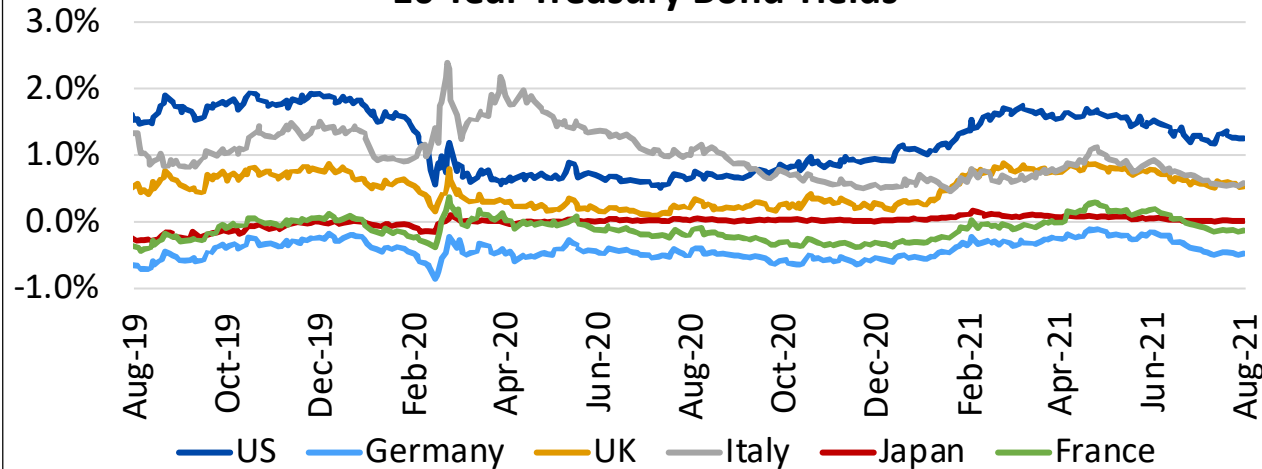
10 -Year Treasury Note



Yield Curve



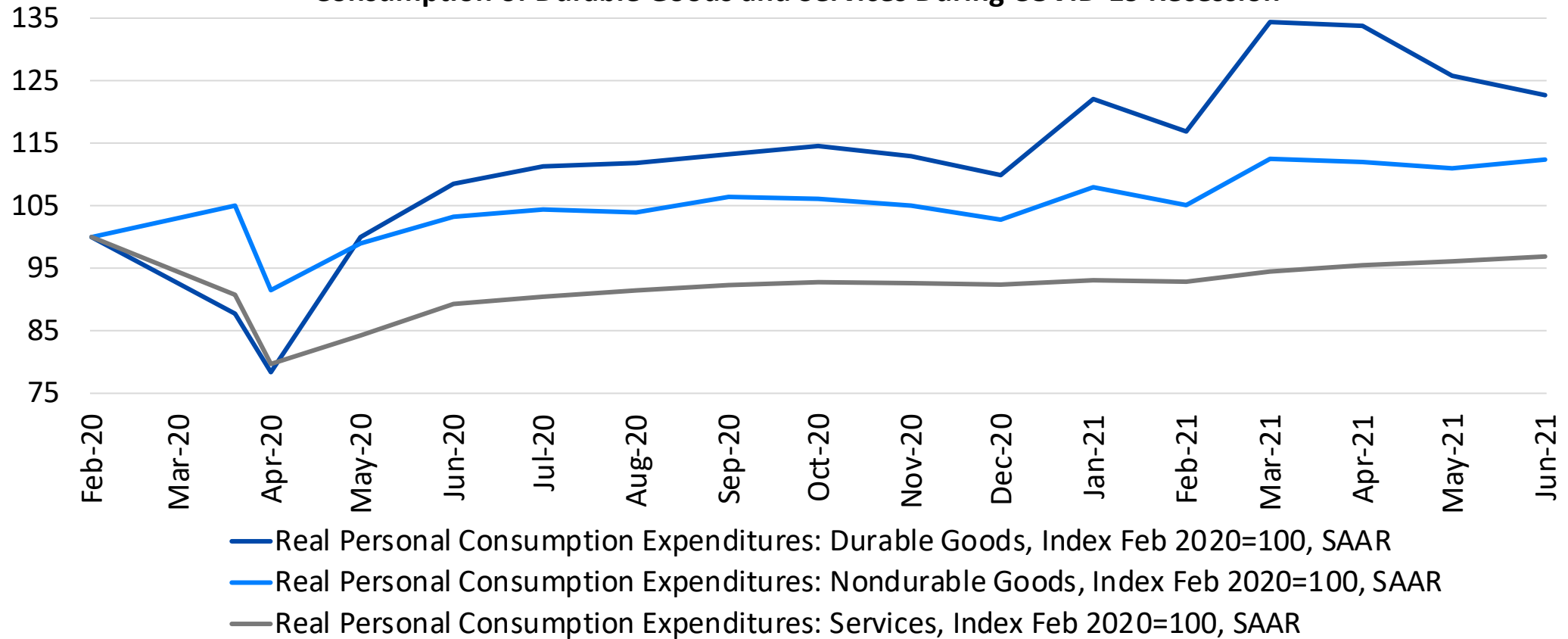
10 Year Treasury Bond Yields



Source: Yardi Matrix; Moody's Analytics; Investing.com

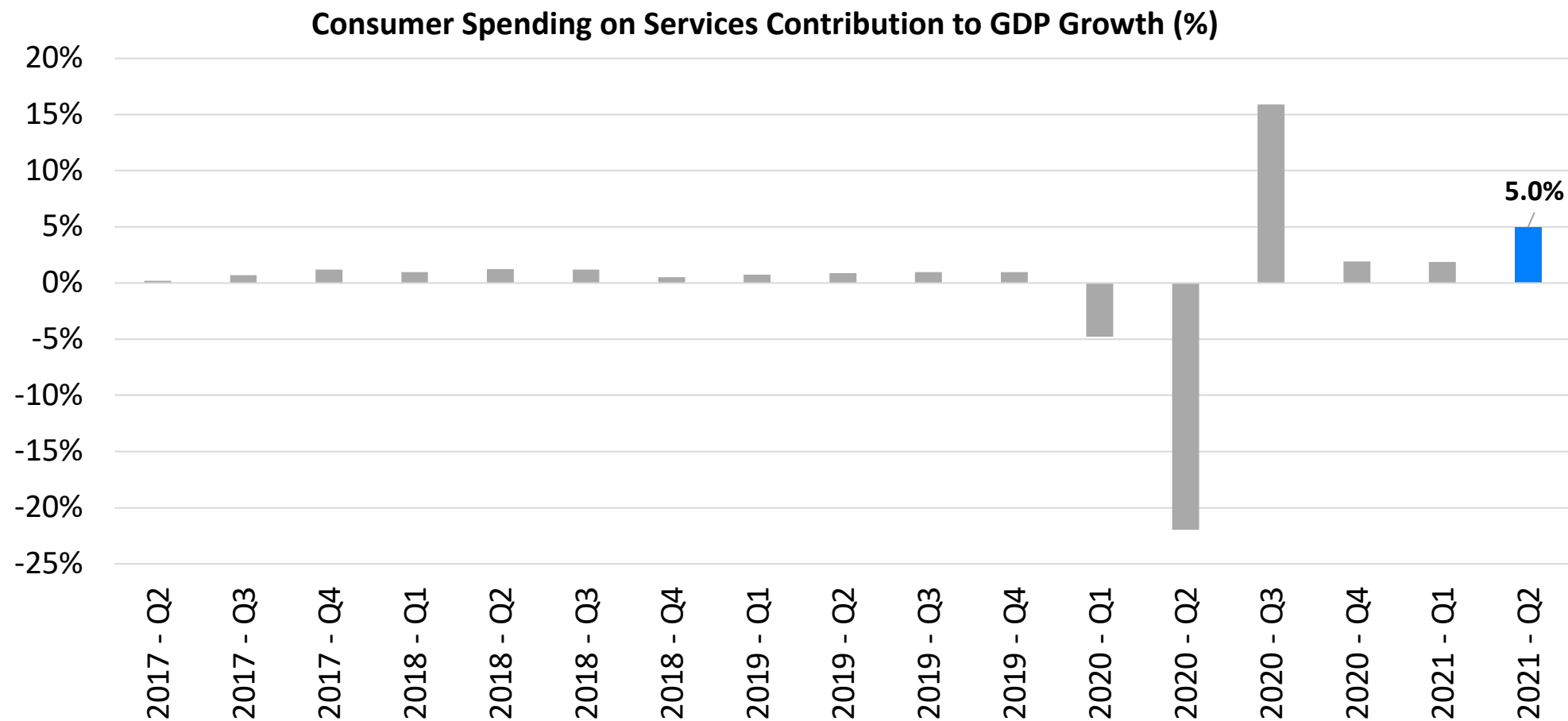
From Services to Goods: Consumers Spending More on Durable Goods

Consumption of Durable Goods and Services During COVID-19 Recession



Source: Yardi Matrix; Federal Reserve Bank of St. Louis (FRED); U.S. Bureau of Economic Analysis

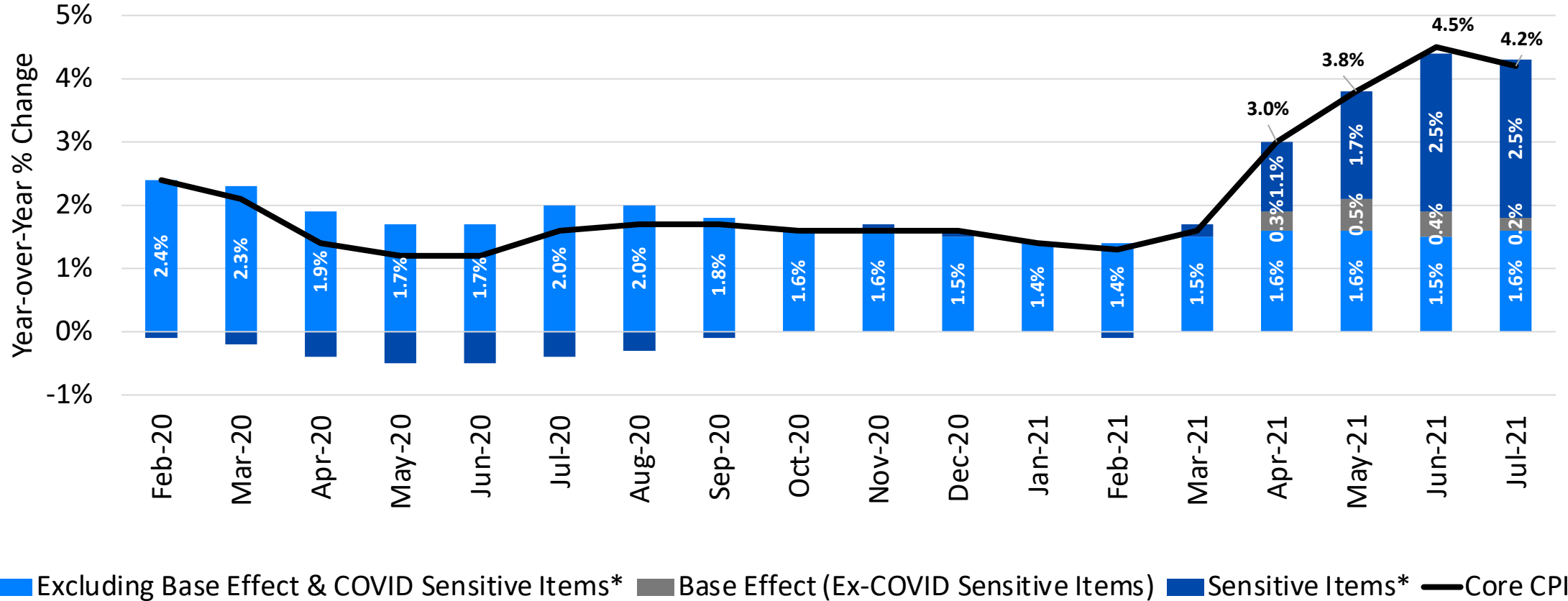
Spending on Services Is Beginning to Pick Up



Source: Yardi Matrix; Bureau of Economic Analysis (BEA)

COVID-19 Sensitive Items Are Currently Contributing to the Rise in Inflation

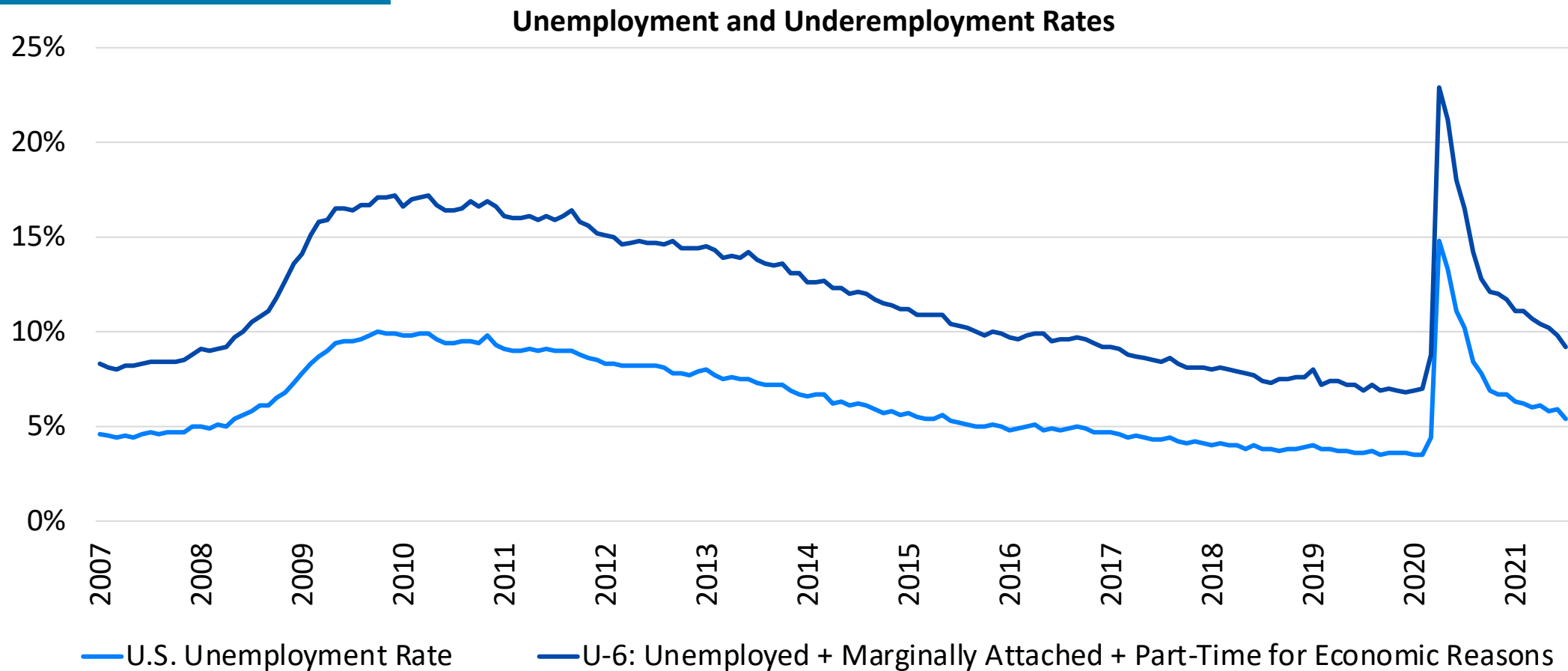
U.S. Core CPI: Contributions From COVID-19 Sensitive Items & Base Effect



*Sensitive items: lodging away from home, used cars, car rentals, airline fares, televisions, toys, personal computers

Source: Yardi Matrix; Bureau of Labor Statistics (BLS); Bureau of Economic Analysis (BEA)

Unemployment and Underemployment Falling, but Still Elevated

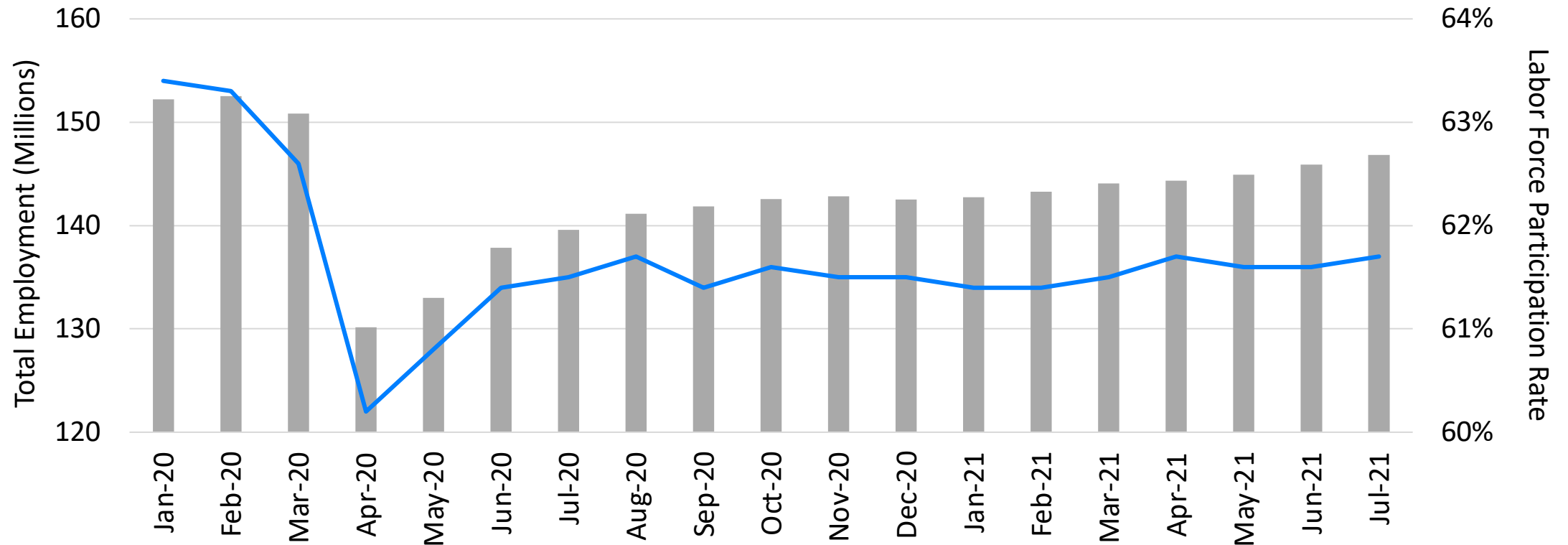


*Data through July 2021

Source: Yardi Matrix; U.S. Bureau of Labor Statistics (BLS)

Labor Participation Recovering, but There is Room for Improvement

Total Employment and Labor Participation Rate

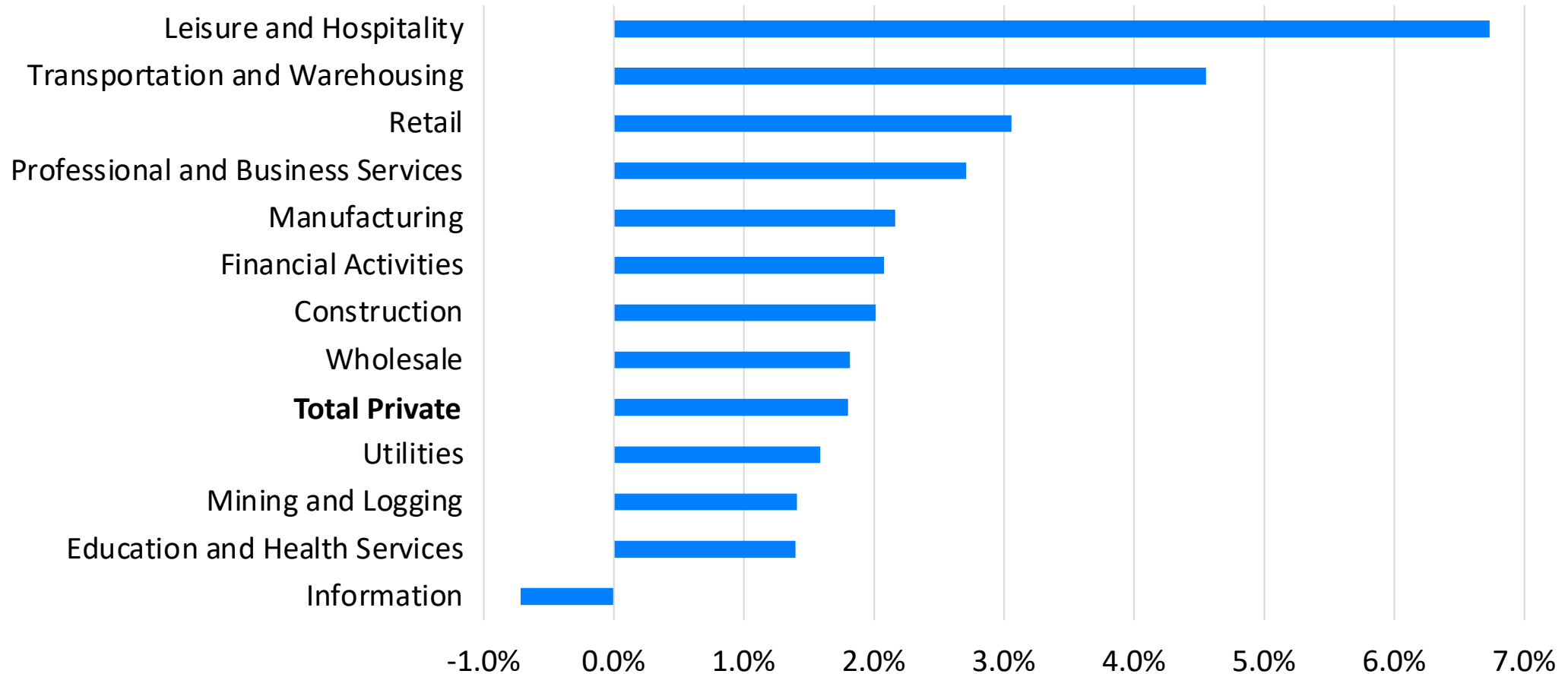


*Seasonally adjusted

Source: Yardi Matrix; U.S. Bureau of Labor Statistics (BLS); Federal Reserve Bank of St. Louis (FRED); Marcus & Millichap

Wage Growth Has Been Strongest at the Lower End

6-Month Change in Average Hourly Earnings (Feb. 2020 - July 2021)



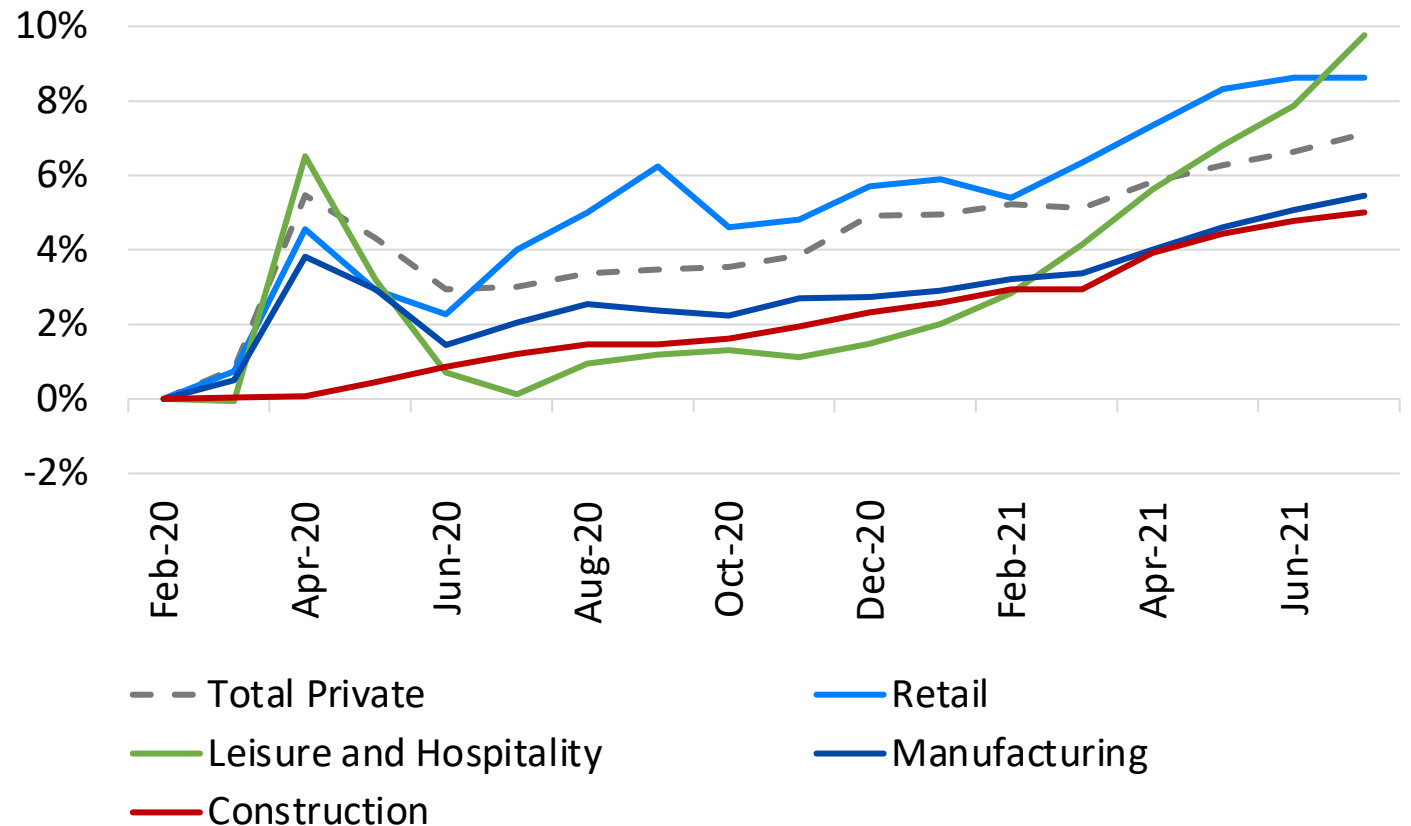
*Average hourly earnings of all employees, seasonally adjusted

Source: Yardi Matrix; U.S. Bureau of Labor Statistics (BLS); Federal Reserve Bank of St. Louis (FRED); The Daily Shot

Booming Economy Is Paying Off for Lower-Wage Workers

- Lower-wage workers have seen some of the fastest wage growth since the early 1980s
- New jobs in restaurants, hotels, stores, salons and other in-person jobs accounted for roughly half of all payroll gains in June
- Demand for workers is outpacing the supply of people ready to go back to work
- Businesses are competing hard for a smaller labor pool, offering perks such as more time off, signing bonuses and higher pay
- Economists expect hiring to further improve over the summer into the fall

Change in Average Hourly Earnings (Select Industries)



*Average Hourly Earnings of All Employees, Seasonally Adjusted

Source: Yardi Matrix ; U.S. Bureau of Labor Statistics (BLS); Federal Reserve Bank of St. Louis (FRED); Wall Street Journal; Washington Post

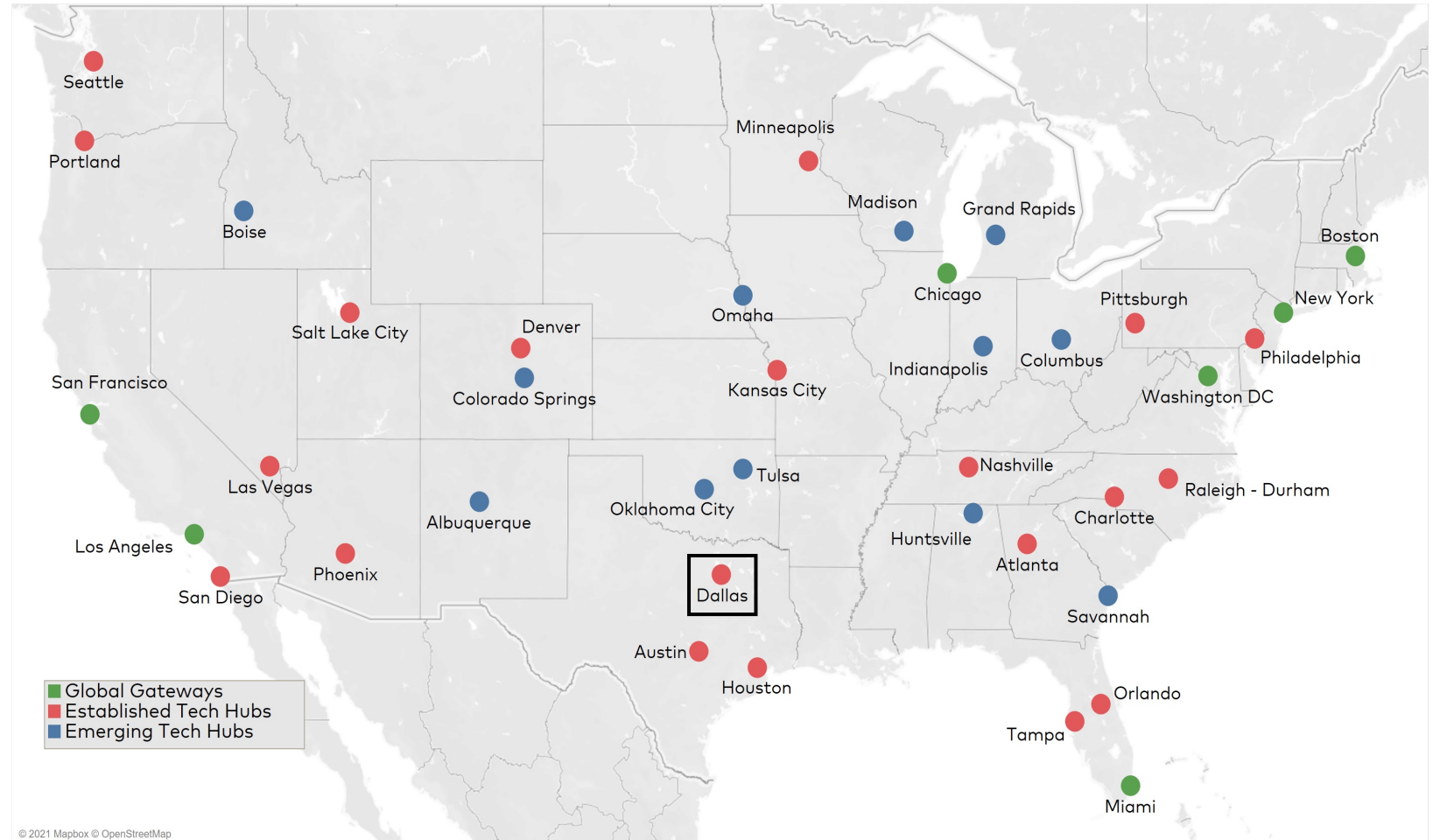
Prognosis 2021

- Nationally, the economy is recovering quickly. However, the rate of recovery varies across states due to their different policies, with states ending supplemental benefits seeing a faster decline in unemployment claims
- Both GDP and employment are coming back
- Key indicators Yardi Matrix will be following closely:
 - Rising inflation rates
 - Migration flows out of gateway markets
- Multifamily has done well, with tech hubs growing and gateway markets recovering off a bottom

Source: Yardi Matrix

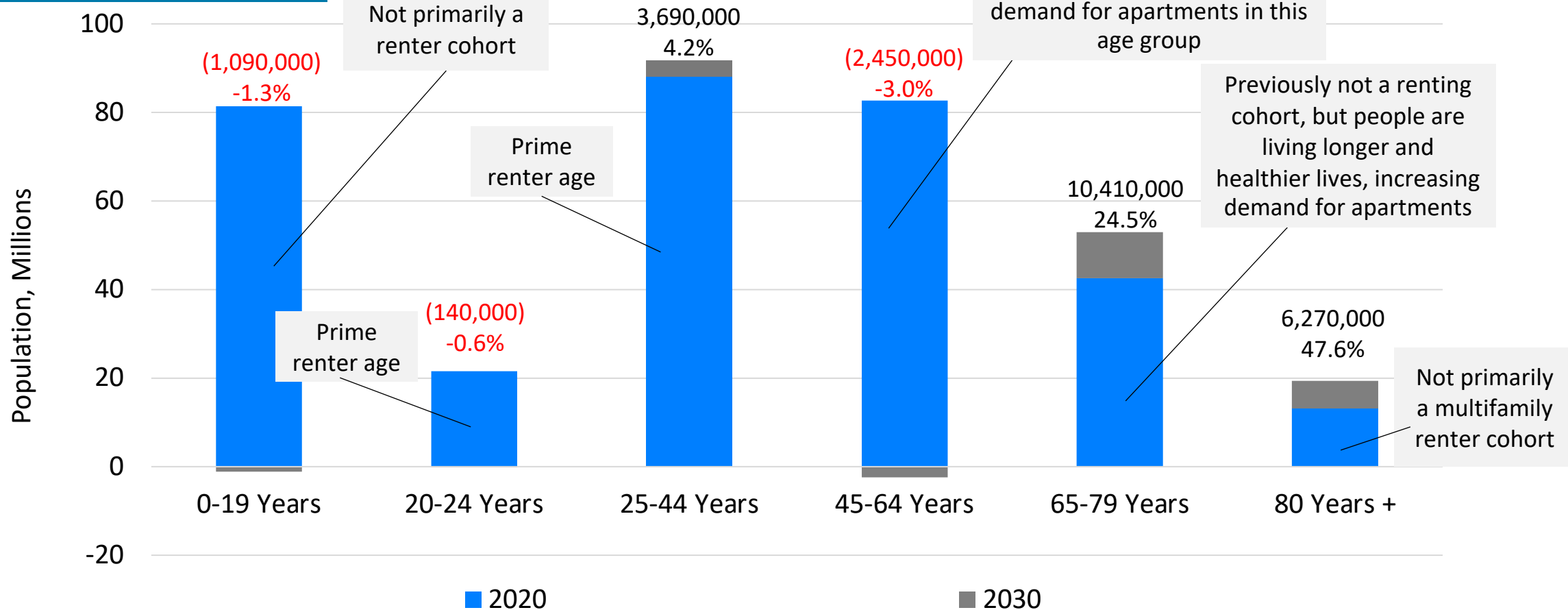
Multifamily Fundamentals

Our Market Universe for Investment Strategy Analysis



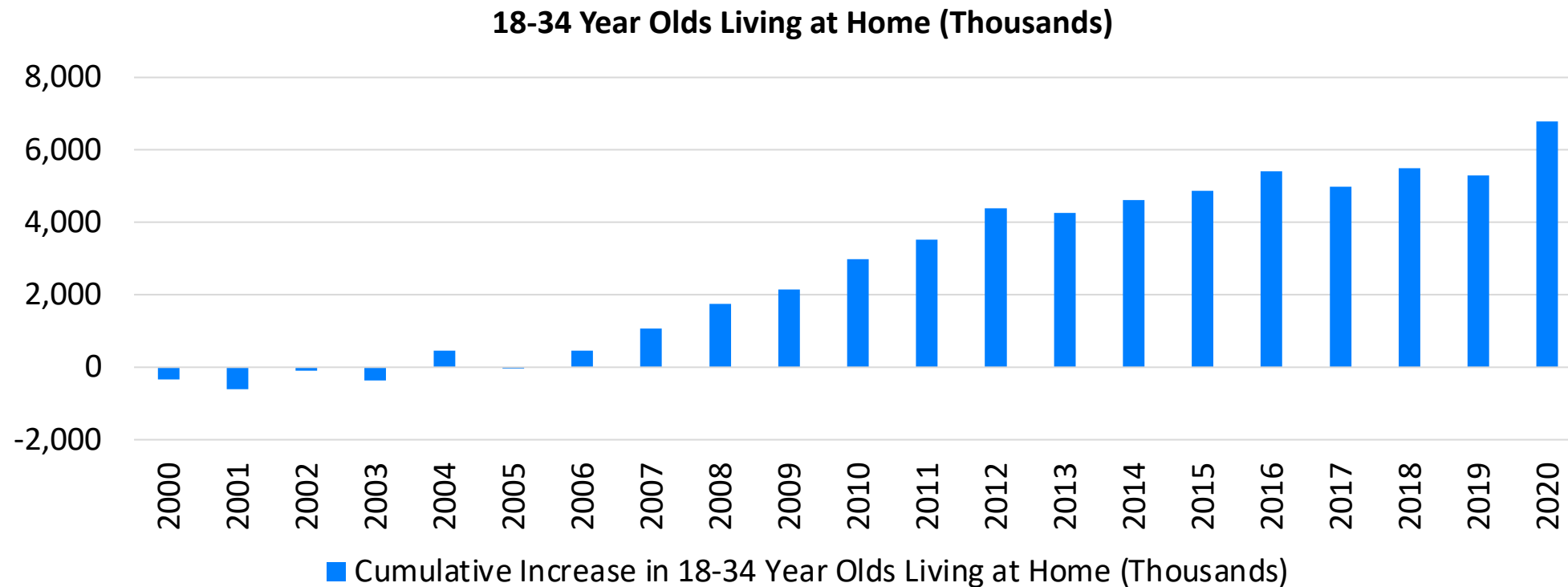
Source: Yardi Matrix

Within Each Age Group, There Are Drivers of Demand



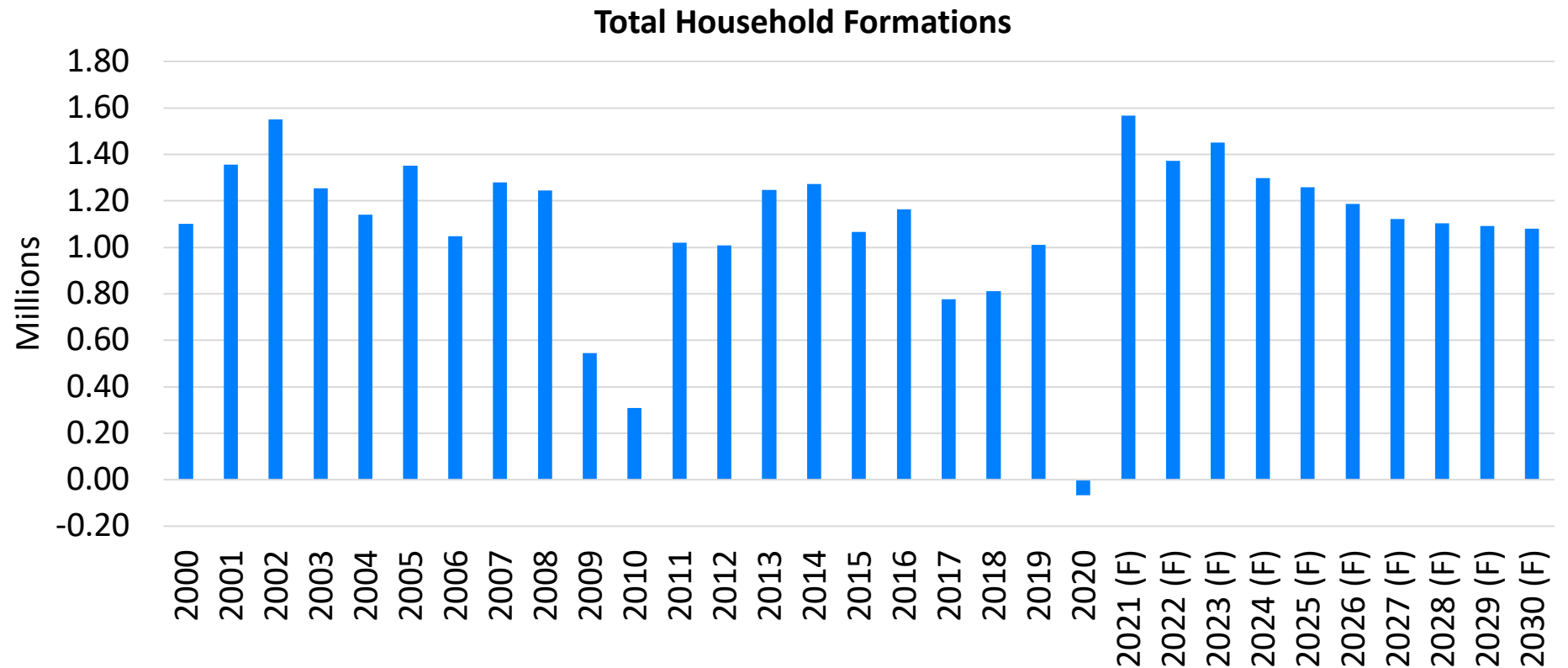
Source: Yardi Matrix; Moody's Analytics; U.S. Census Bureau (BOC)

The Surge of Young People Living at Home Amid the Pandemic Will Eventually Unwind, Creating Demand for Multifamily



Source: U.S. Census Bureau (BOC), Current Population Survey

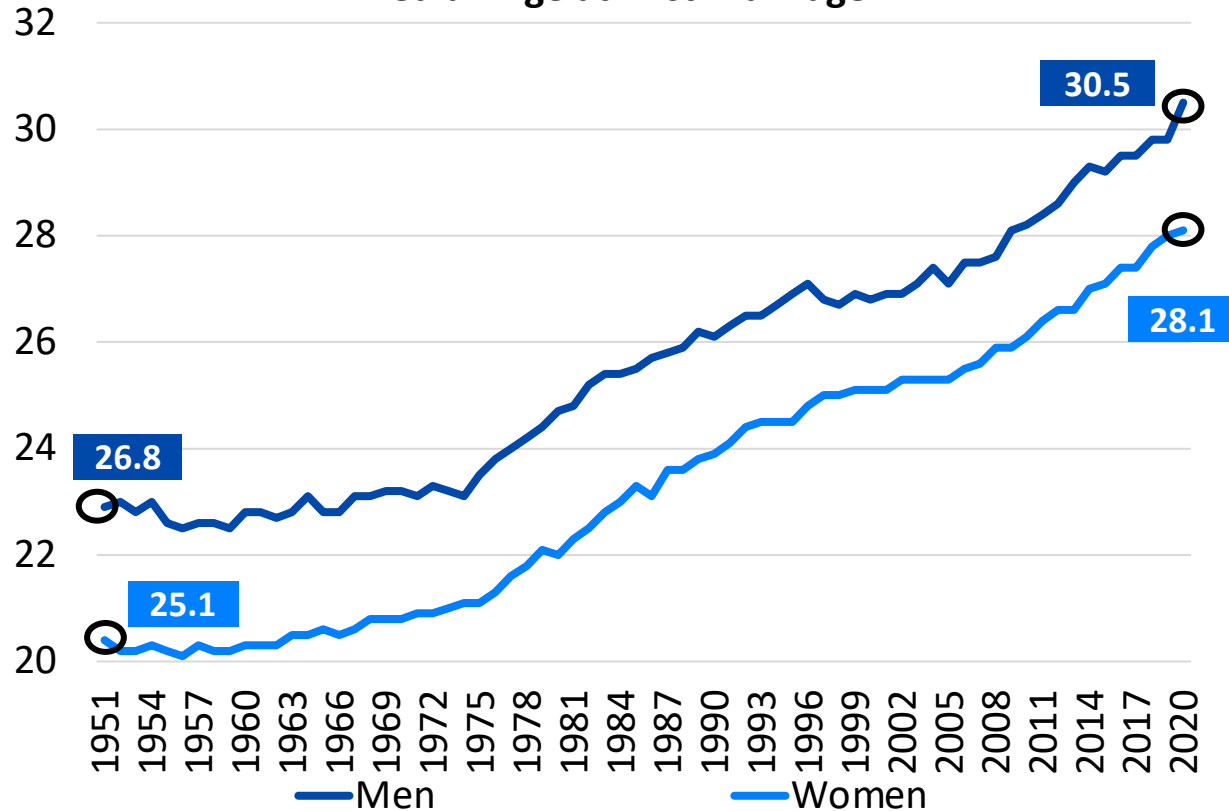
Recovery of New Household Formations Will Also Create Demand for Multifamily



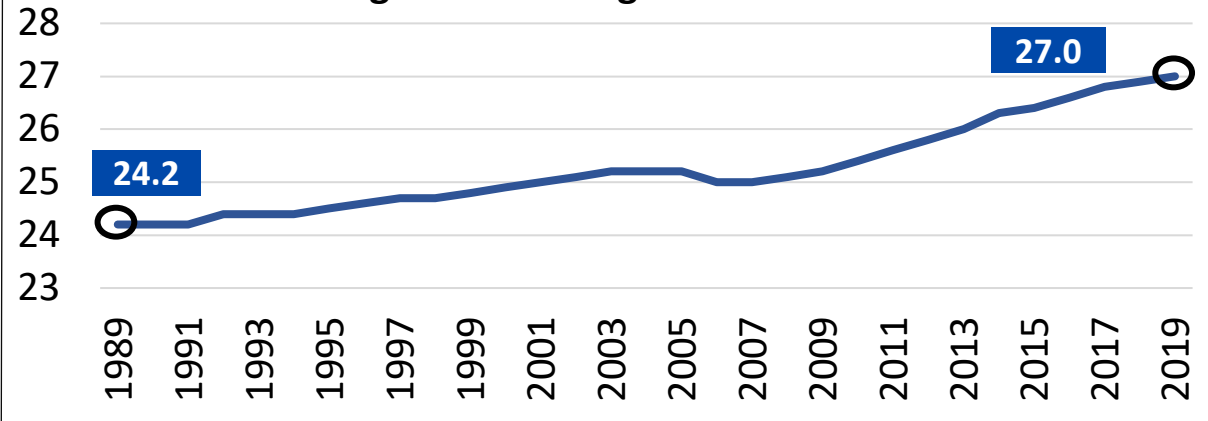
Source: Yardi Matrix; Moody's Analytics; U.S. Census Bureau (BOC)

Lifestyle Changes Fueling Strong Demand for Multifamily

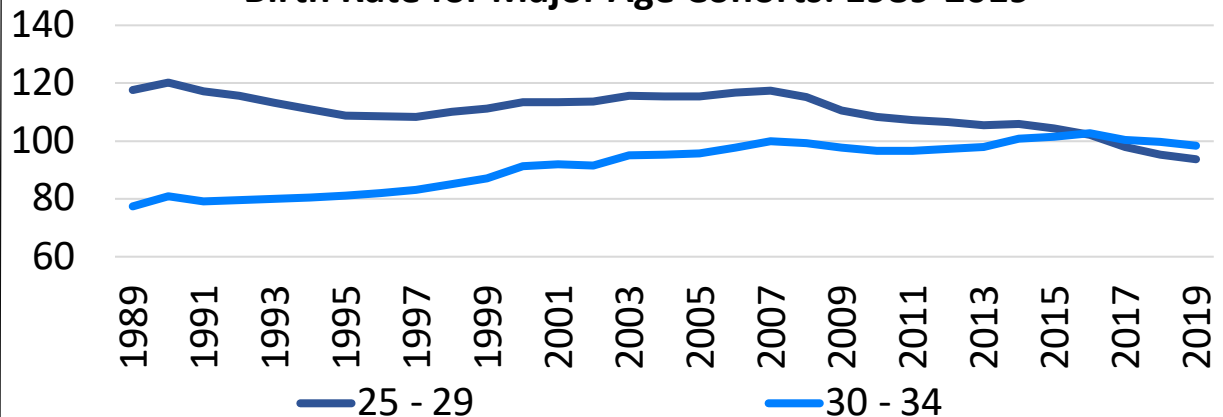
Median Age at First Marriage



Average Mother's Age at First Birth

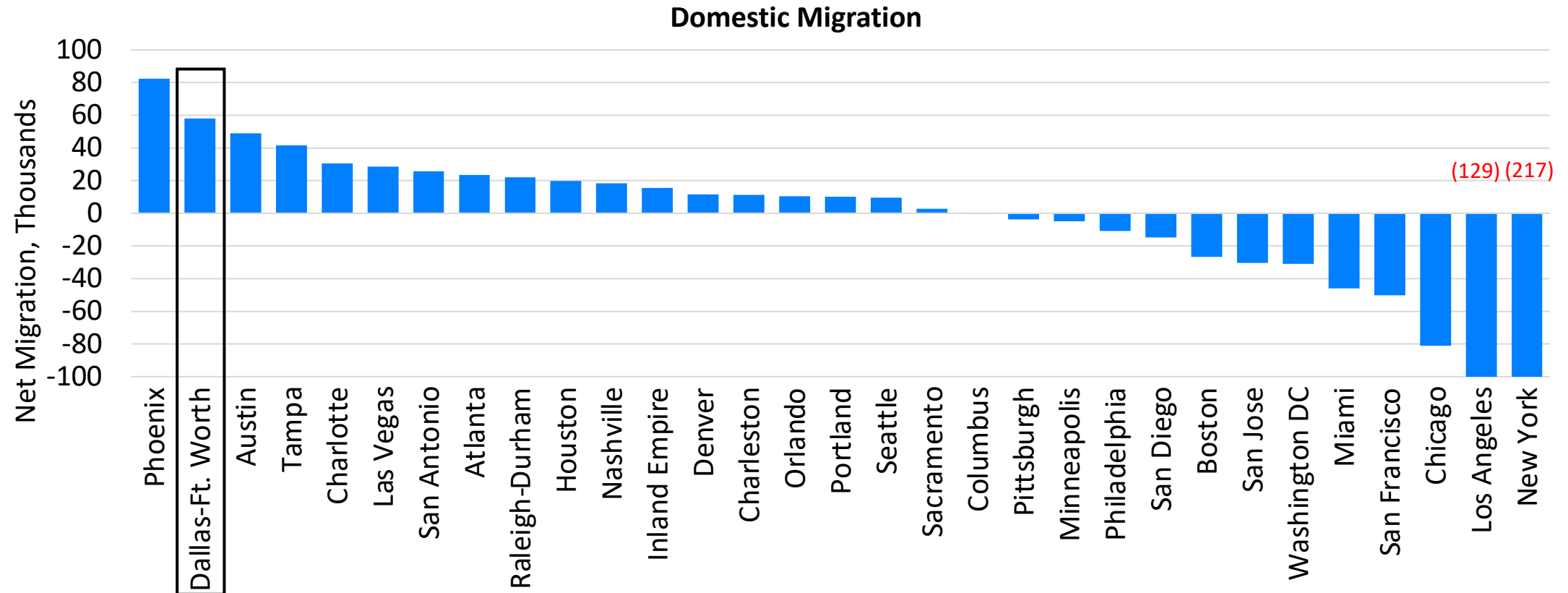


Birth Rate for Major Age Cohorts: 1989-2019



Source: Yardi Matrix; U.S. Census Bureau (BOC), Current Population Survey; CBRE Research, Delayed Childbearing Contributes to Longer Tenure in Multifamily Rentals; NCHS, National Vital Statistics System, published November 2019, birth rate for major age cohort data represents births per 1,000 women in age cohort

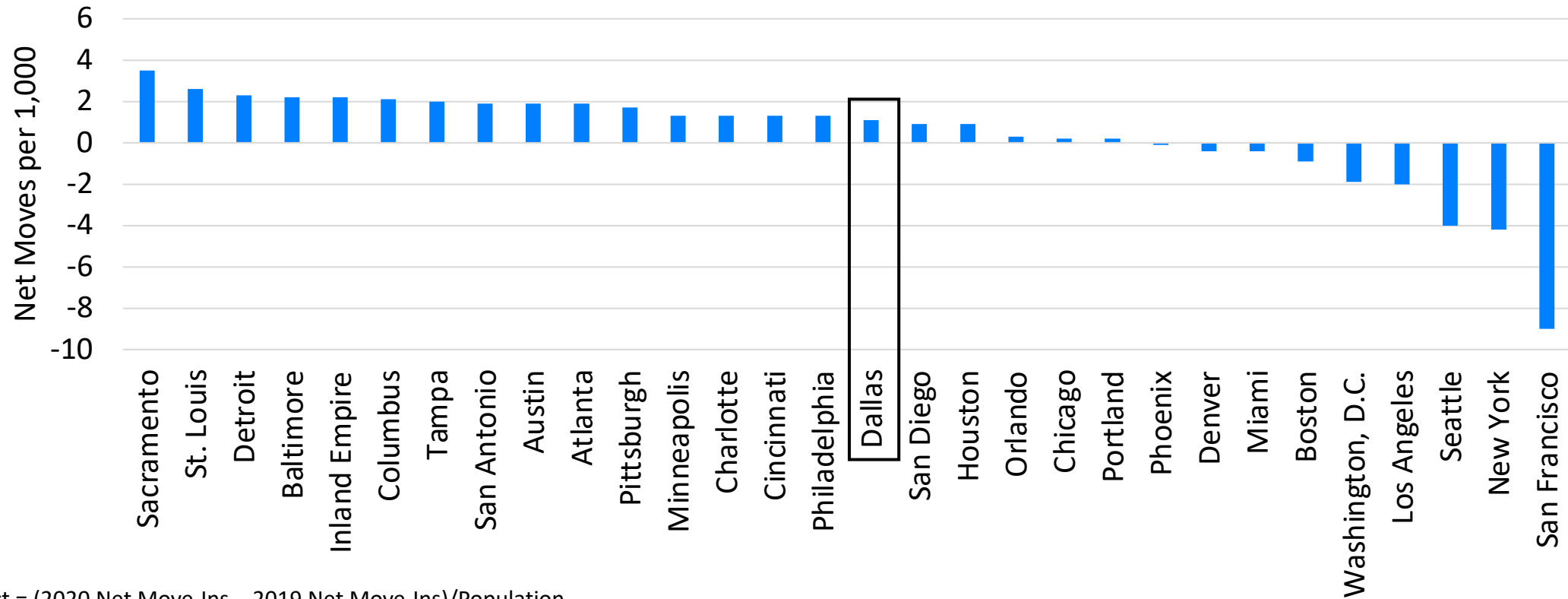
Prior to the Pandemic,
Tech Hub Markets Were
Already Seeing a
Surge in Net Migration



Source: Yardi Matrix; U.S. Census Bureau, "Annual Estimates of the Components of Population Change - July 1, 2019 to July 1, 2020 - Domestic Net Migration"

The Pandemic Has Only Accelerated That Trend and the Movement is Not Over Yet

Change in Net Moves Per 1,000 Population, 2020 vs. 2019: COVID-19 Impact

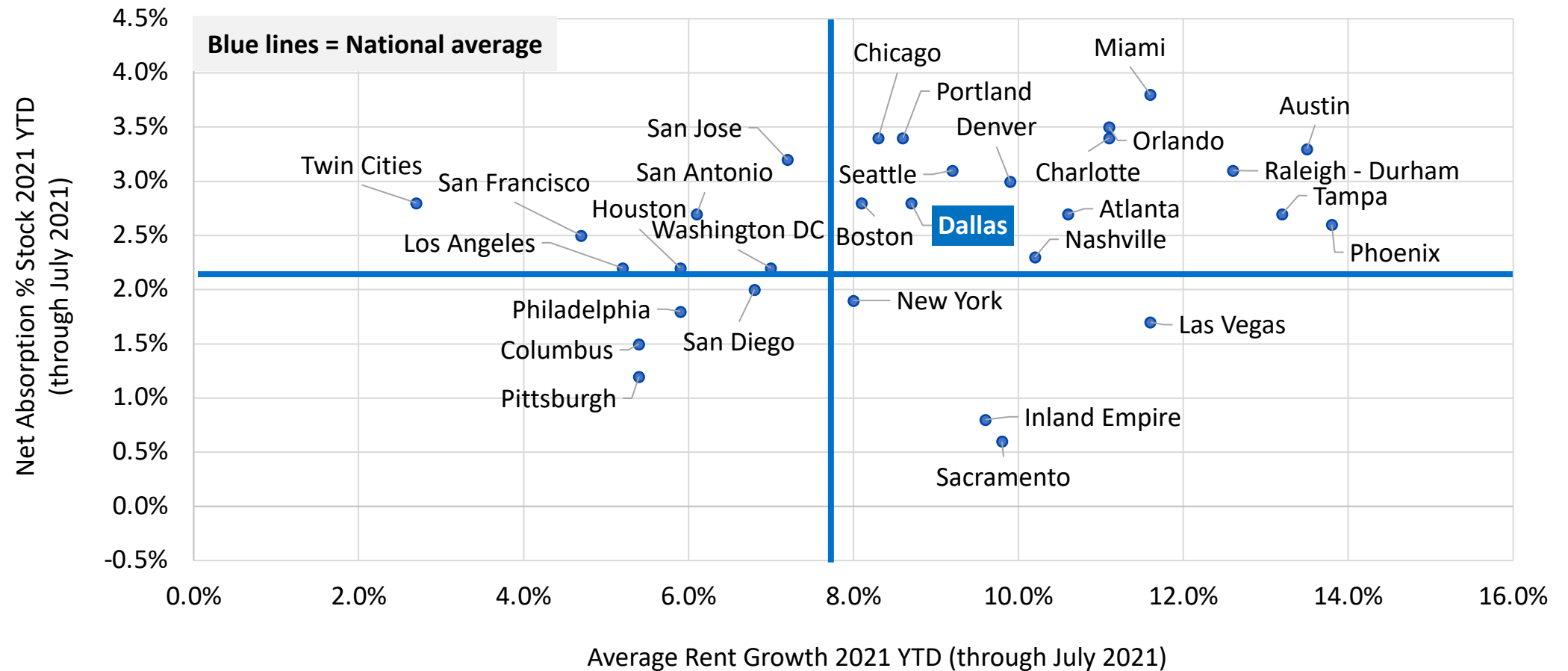


*COVID-19 Impact = (2020 Net Move-Ins – 2019 Net Move-Ins)/Population

Source: Yardi Matrix; USPS; CBRE Research

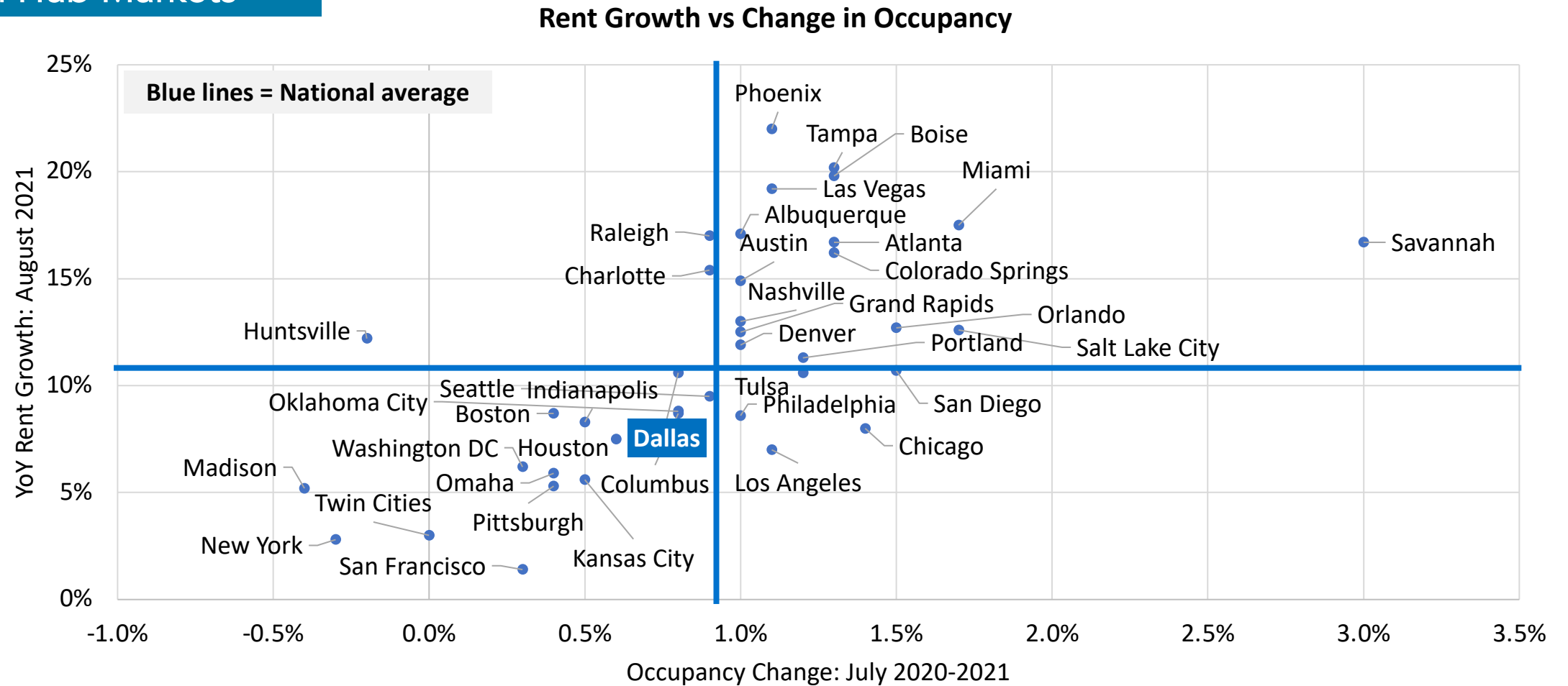
Absorption and Rent Growth Has Been Strongest in Tech Hub Markets

Rent Growth vs Net Absorption % Stock



Source: Yardi Matrix

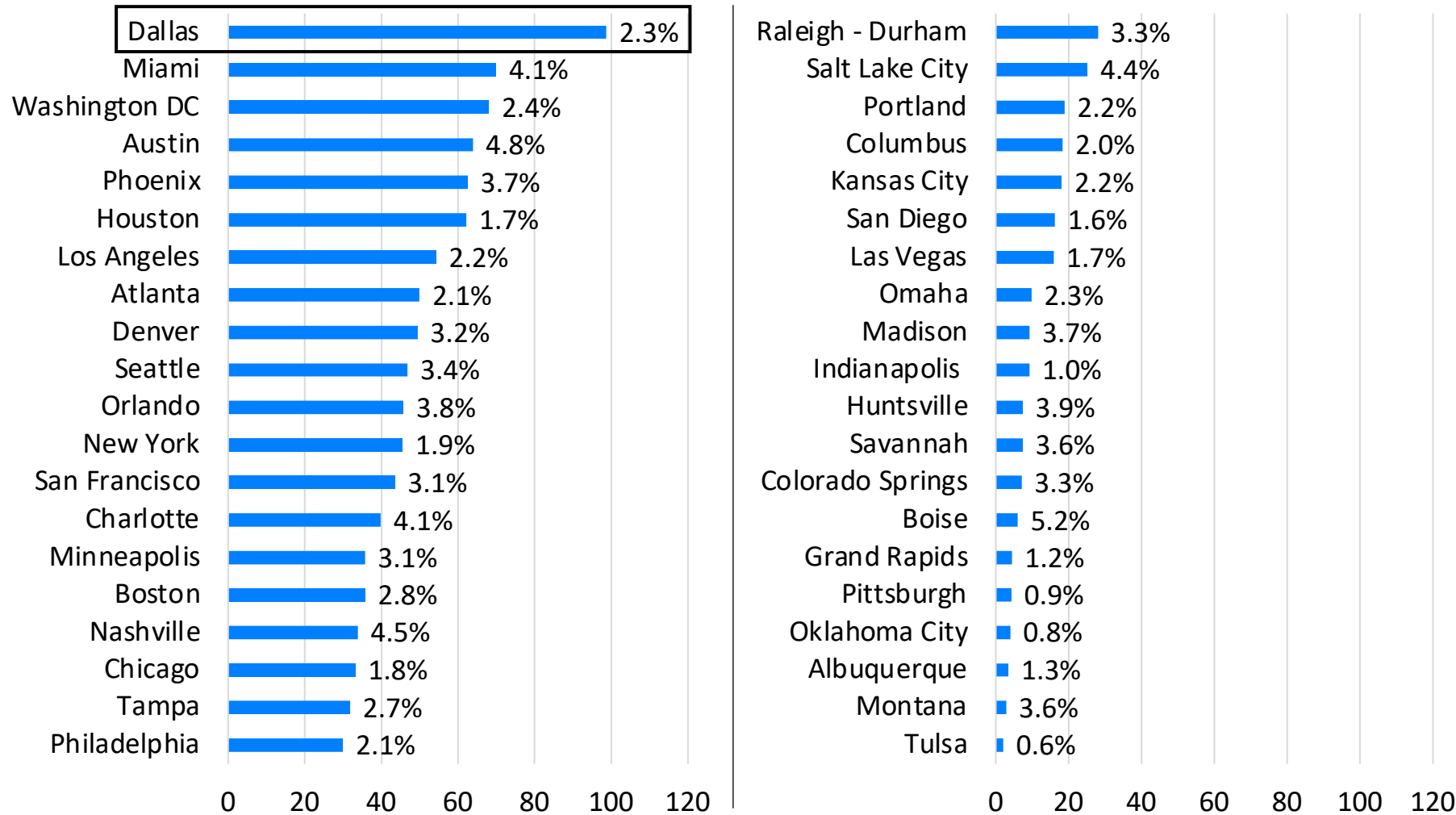
Rent & Occupancy Growth Highest in Emerging Tech Hub Markets



Source: Yardi Matrix

Tech Hubs Are Forecasted to Have the Highest Number of Deliveries on an Absolute & Percent of Stock Basis

Forecasted New Unit Deliveries 2021-2025 (Thousands) – Percentages Denote Avg Annual Growth as a % of Stock



Source: Yardi Matrix

Tech Hub Markets Are Forecasted to Have the Most Rent Growth This Year...

Market	YOY Rent Growth Year-End 2021	Occupancy Year-End 2021	YOY Rent Growth Year-End 2022	Occupancy Year-End 2022	Market	YOY Rent Growth Year-End 2021	Occupancy Year-End 2021	YOY Rent Growth Year-End 2022	Occupancy Year-End 2022
Tampa	23.8%	96.0%	5.9%	96.2%	Albuquerque	18.5%	96.8%	4.5%	96.4%
Las Vegas	22.8%	96.4%	7.8%	96.0%	Orlando	17.8%	95.4%	7.2%	95.1%
Phoenix	21.4%	96.4%	6.8%	96.2%	Austin	17.7%	94.5%	5.4%	94.6%
Miami	20.6%	96.2%	6.6%	96.0%	Colorado Springs	16.6%	96.7%	5.4%	96.3%
Savannah	20.4%	95.7%	4.6%	95.8%	Nashville	15.8%	95.2%	6.4%	95.0%
Raleigh	20.0%	95.1%	5.9%	95.0%	Denver	15.5%	95.2%	5.7%	95.3%
Charlotte	20.0%	95.6%	5.1%	96.0%	Grand Rapids	14.9%	97.0%	3.7%	96.8%
Boise	19.9%	98.0%	5.9%	97.2%	Portland	14.5%	96.1%	5.4%	96.0%
Seattle	19.5%	95.0%	7.0%	96.1%	Oklahoma City	14.5%	93.8%	5.6%	94.0%
Atlanta	18.9%	95.5%	6.6%	95.5%	Salt Lake City	14.2%	96.8%	7.9%	96.4%

Sorted by YOY Rent Growth Year-End 2021.
Source: Yardi Matrix

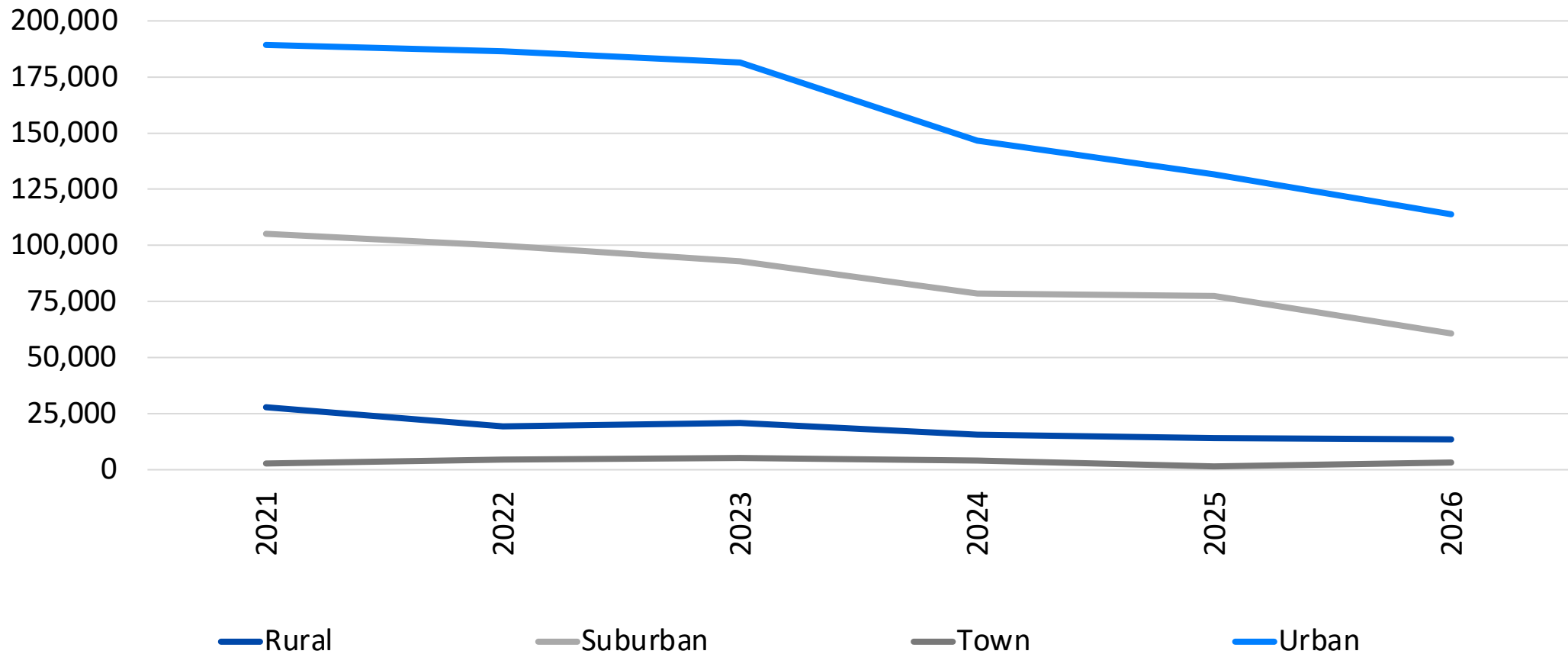
While Gateway Markets Are Forecasted to Have the Least Rent Growth

Market	YOY Rent Growth Year-End 2021	Occupancy Year-End 2021	YOY Rent Growth Year-End 2022	Occupancy Year-End 2022	Market	YOY Rent Growth Year-End 2021	Occupancy Year-End 2021	YOY Rent Growth Year-End 2022	Occupancy Year-End 2022
Manhattan	13.6%	94.6%	4.4%	95.8%	Houston	10.4%	93.0%	5.6%	92.6%
Boston	13.4%	95.5%	3.2%	95.6%	Los Angeles	10.4%	95.3%	6.4%	96.0%
Dallas	13.0%	94.6%	4.3%	95.1%	Indianapolis	9.1%	95.1%	4.2%	95.0%
San Diego	12.7%	97.1%	7.5%	97.1%	Pittsburgh	8.7%	95.9%	5.2%	95.2%
Tulsa	12.4%	94.9%	4.1%	94.7%	Kansas City	7.8%	95.0%	3.7%	95.1%
Huntsville	12.1%	96.8%	6.2%	95.9%	Omaha	7.4%	95.9%	4.9%	96.1%
Chicago	12.0%	93.4%	5.8%	93.7%	San Francisco	6.8%	93.6%	7.3%	96.2%
Washington DC	11.6%	94.5%	4.4%	95.3%	Madison	6.2%	97.2%	4.7%	96.9%
Philadelphia	10.6%	96.5%	4.3%	96.4%	Twin Cities	5.8%	95.4%	3.4%	96.2%
Columbus	10.6%	95.6%	4.1%	95.1%					

Sorted by YOY Rent Growth Year-End 2021.
Source: Yardi Matrix

New Supply
Concentrated in Urban
Areas
for the Time Being

Geographic Distribution of New Supply (Units)



Source: Yardi Matrix

In Summary

- Demographic trends such as: delaying marriage, delaying childbirth, record student debt, and an increase of young people living at home amid the pandemic are fueling strong demand for the multifamily sector
- Tech hub markets continue to have strong rent growth, occupancy and absorption after benefitting from in-migration fueled from the pandemic
- Tech hub markets are forecasted to have the most rent growth this year, while gateway markets will be swimming upstream
- Urban cores are still forecasted to deliver the most supply over the next couple years as projects that were started prior to the pandemic get delivered, but new projects will start to trail down in response to the decline in demand

Source: Yardi Matrix

Deep Dive: Dallas

What Helps a City Reach Its Critical Point to Succeed?

All existing tech markets have these characteristics to some degree

PUBLIC AND PRIVATE
PARTNERSHIPS

FRIENDLY BUSINESS
ENVIRONMENT

COMMUNITY AND AMENITIES
THAT ATTRACT AND
RETAIN TALENT

EDUCATED WORKFORCE

Source: Yardi Matrix

What's Going on in Dallas?

PUBLIC AND PRIVATE PARTNERSHIPS

- A public-partnership has made the \$200M renovation of the **RedBird mall** and overall revitalization of the southwestern Dallas neighborhood possible
 - 94-acre mixed-use redevelopment which includes residential, retail and office space
 - The city of Dallas put \$28M into the project, but city councilors have stated this redevelopment wouldn't work without a public-private partnership

COMMUNITY AND AMENITIES THAT ATTRACT AND RETAIN TALENT

- **The Central Dallas** – De La Vega Development's 27-acre mixed-use project between Uptown and East Dallas
 - In its entirety, project will feature 2,000 residential units, 2.5M SF of office space, 110,000 SF of retail space and a 4-acre centrally located park
 - Phase one is underway, and the next construction phase is planned to begin in Q4 2021

FRIENDLY BUSINESS ENVIRONMENT

- State Rank #2
- The city's Public/Private Partnership (P/PP) Program assists for-profit companies and developers to offset project or operational costs through incentives, such as tax abatements, grants, loans and infrastructure cost-sharing
- The tax increment financing (TIF) program provides funding to support projects that help the city implement the redevelopment plan for a specific under-performing area

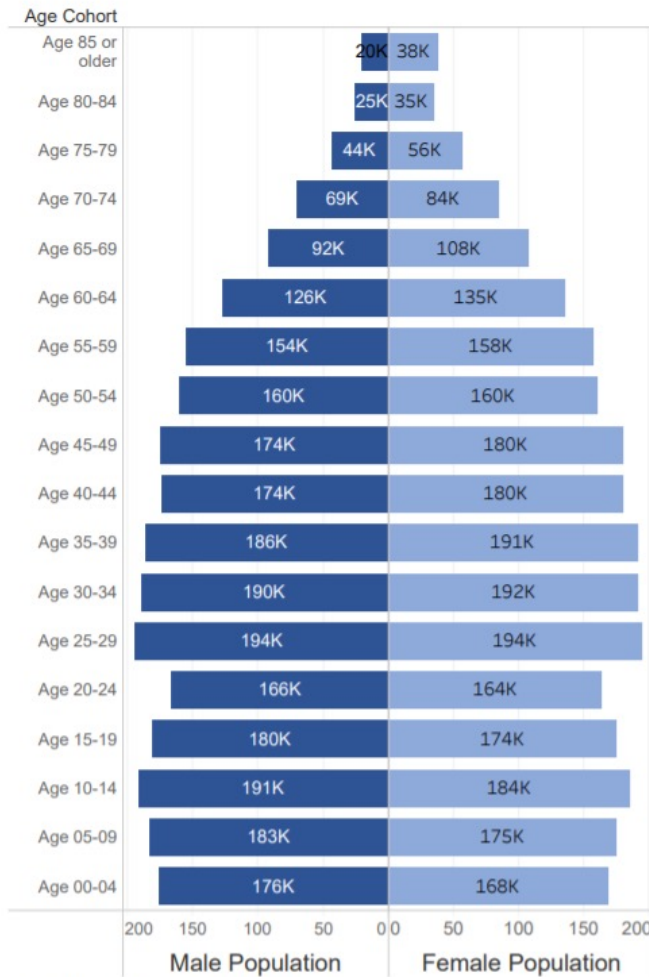
EDUCATED WORKFORCE

- 33% of adults in the city of Dallas have a bachelor's degree or higher

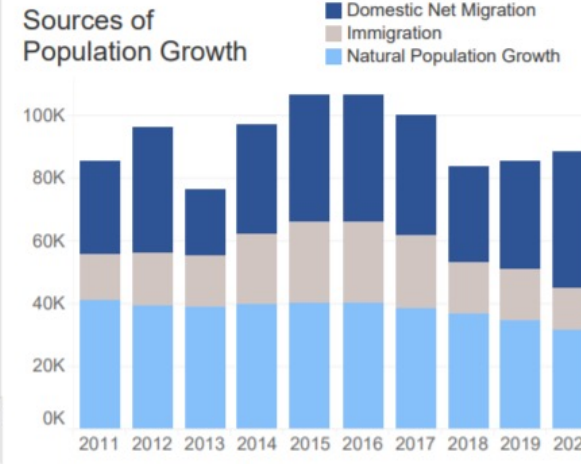
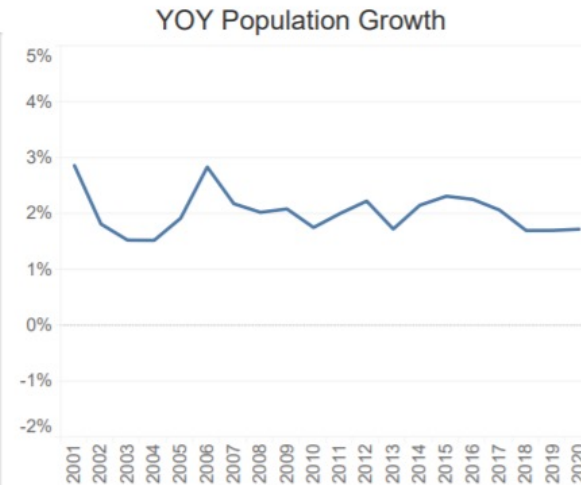
University	Approx. Enrollment 2019
Texas A&M University – College Station	68,726
University of Texas at Dallas	29,543
Southern Methodist University	11,824
University of North Texas at Dallas	4,209

Source: Yardi Matrix; bizjournals.com; iconsofinfrastructure.com; nashvillechamber.com; urbanland.uli.org; forbes.com; census.gov; vanderbilt.edu; belmont.edu; lipscomb.edu; tnstate.edu

Dallas Demographics Overview



Source: U.S. Census Bureau (BOC); Moody's Analytics



Source: U.S. Census Bureau (BOC); Moody's Analytics

IRS Migration Data (2018)

Domestic Migrants Into Dallas

Coming From	
Texas	77,012
California	14,540
Florida	5,201
Illinois	4,607
Louisiana	3,704
Oklahoma	3,146
New York	3,039
Colorado	2,563
Arizona	2,518
New Jersey	2,454

Total Inbound Residents

148,174

Domestic Migrants Leaving Dallas

Heading to	
Texas	81,806
California	7,195
Florida	4,538
Colorado	3,415
Oklahoma	2,493
Washington	2,213
Arizona	2,159
Illinois	1,795
Georgia	1,776
Louisiana	1,605

Total Outbound Residents

127,193

Source: IRS Statistics of Income (SOI); Moody's Analytics

*County-level data; Migration data as of 2018
Source: Yardi Matrix; U.S. Census Bureau (BOC); Moody's Analytics; IRS Statistics of Income (SOI)

Dallas Employment: July 2021

Employment Sector	Current Employment	% Share	Year Change	YOY % Growth	
Educational and Health Services	317.1K	12%	11,207	3.7%	
Financial activities	264.1K	10%	11,161	4.4%	
Government	311.4K	11%	7,735	2.5%	
Information	70.0K	3%	2,807	4.2%	
Leisure & Hospitality	263.2K	10%	53,705	25.6%	
Manufacturing	183.2K	7%	6,032	3.4%	
Mining; Logging; and Construction	143.5K	5%	1,057	0.7%	
Other Services	79.2K	3%	7,078	9.8%	
Professional & Business Services	537.0K	20%	38,354	7.7%	
Trade; Transportation; and Utilities	556.3K	20%	33,164	6.3%	

MSA(s): •Dallas-Plano-Irving, TX

Source: Yardi Matrix; Bureau of Labor Statistics (BLS)

Dallas Intellectual Capital Nodes

DFW Metro

Multifamily
35% Rent Growth
26% Supply Growth
-0.8% Occupancy Change
Office
326,832,720 SF

Fort Worth

Multifamily
18% Rent Growth
88% Supply Growth
-0.9% Occupancy Change
Office
14,678,719 SF
4.5% of total inventory

Irving

Multifamily
34% Rent Growth
1% Supply Growth
-0.9% Occupancy Change
Office
8,691,499 SF
2.7% of total inventory

Frisco

Multifamily
41% Rent Growth
77% Supply Growth
-0.5% Occupancy Change
Office
32,121,952 SF
9.8% of total inventory

Farmers Branch

Multifamily
29% Rent Growth
28% Supply Growth
-1.3% Occupancy Change
Office
14,822,943 SF
4.6% of total inventory

Allen

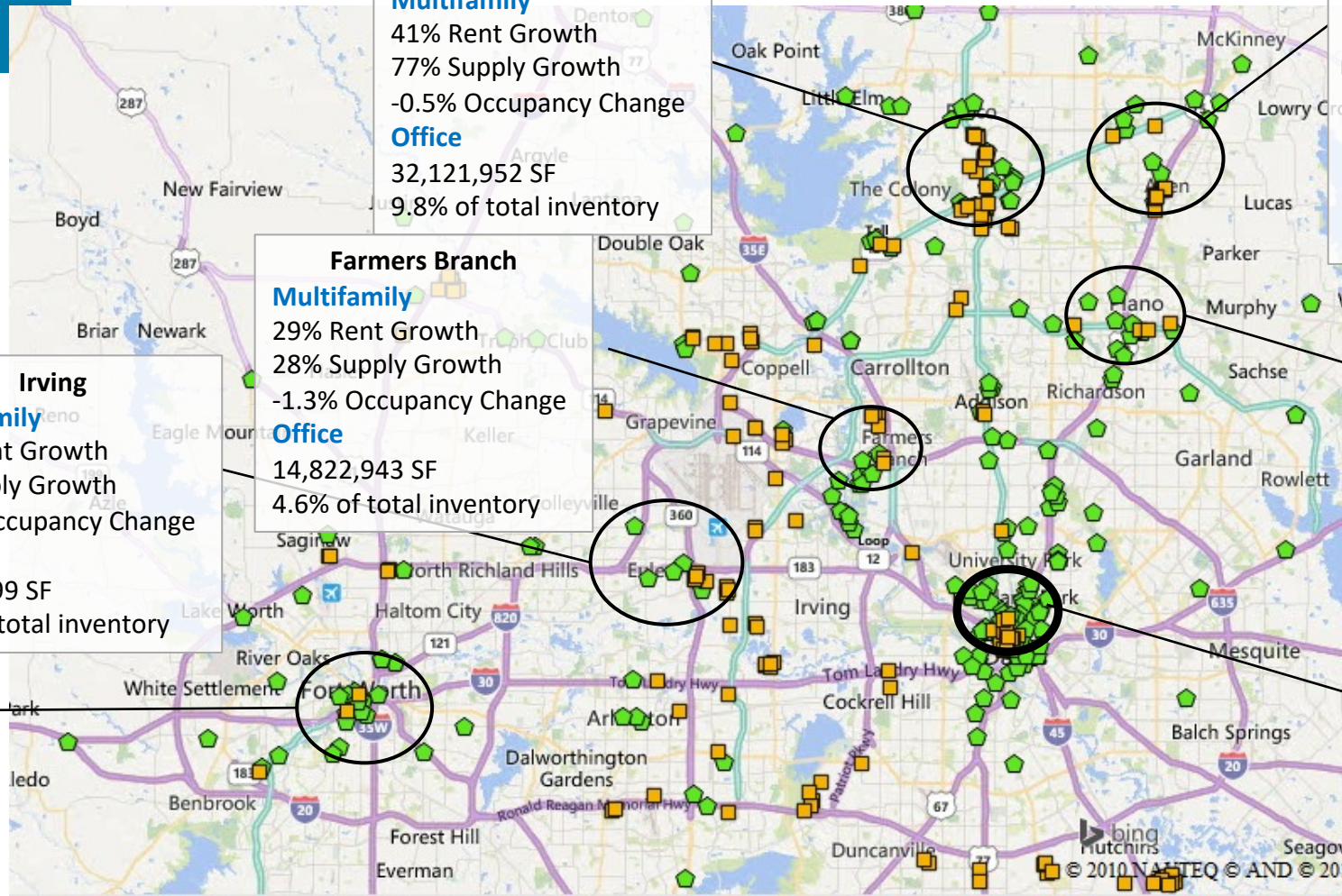
Multifamily
29% Rent Growth
83% Supply Growth
-0.4% Occupancy Change
Office
3,384,661 SF
1.0% of total inventory

Plano

Multifamily
33% Rent Growth
47% Supply Growth
-0.3% Occupancy Change
Office
26,273,130 SF
8.0% of total inventory

Uptown Dallas

Multifamily
22% Rent Growth
37% Supply Growth
-1.2% Occupancy Change
Office
59,569,020 SF
18.2% of total inventory



*Multifamily rent growth, supply growth and change in occupancy July 2015 – July 2021. Office inventory as of September 2021.

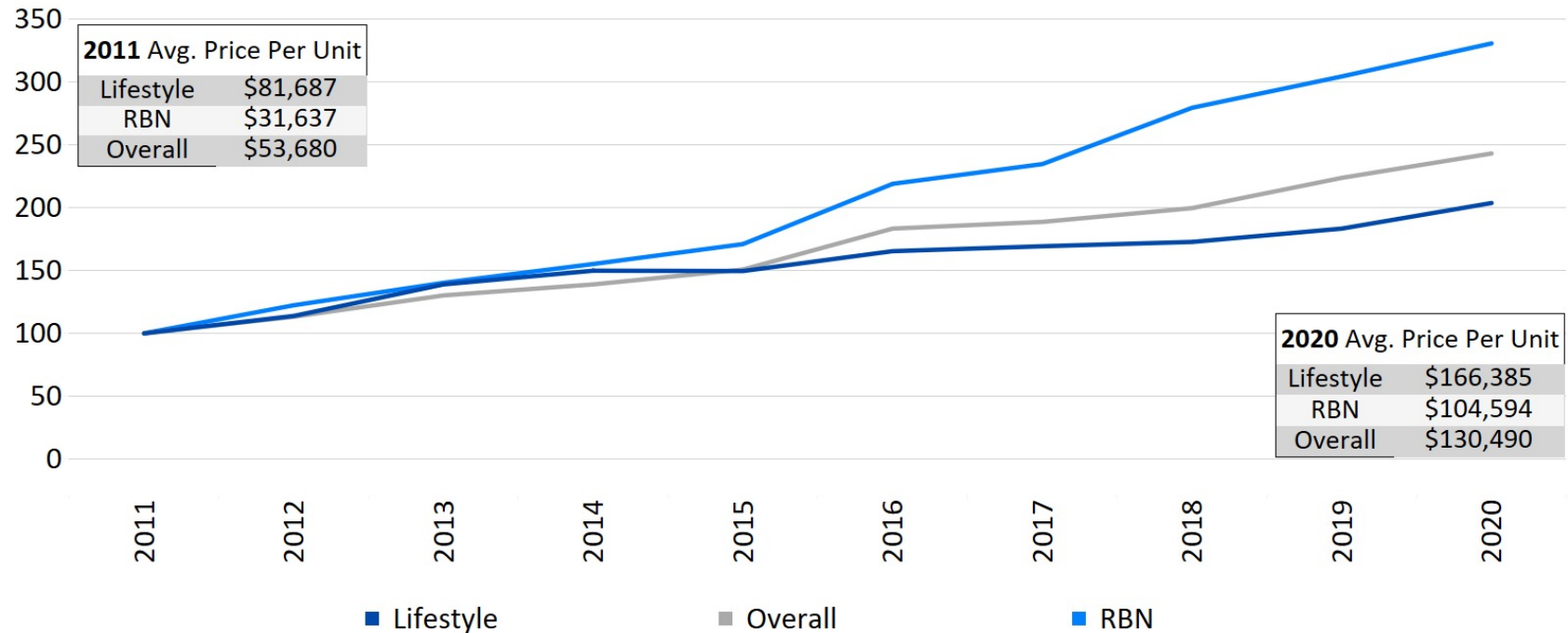
Source: Yardi Matrix

Office Development
Multifamily Development

Dallas Sales Prices

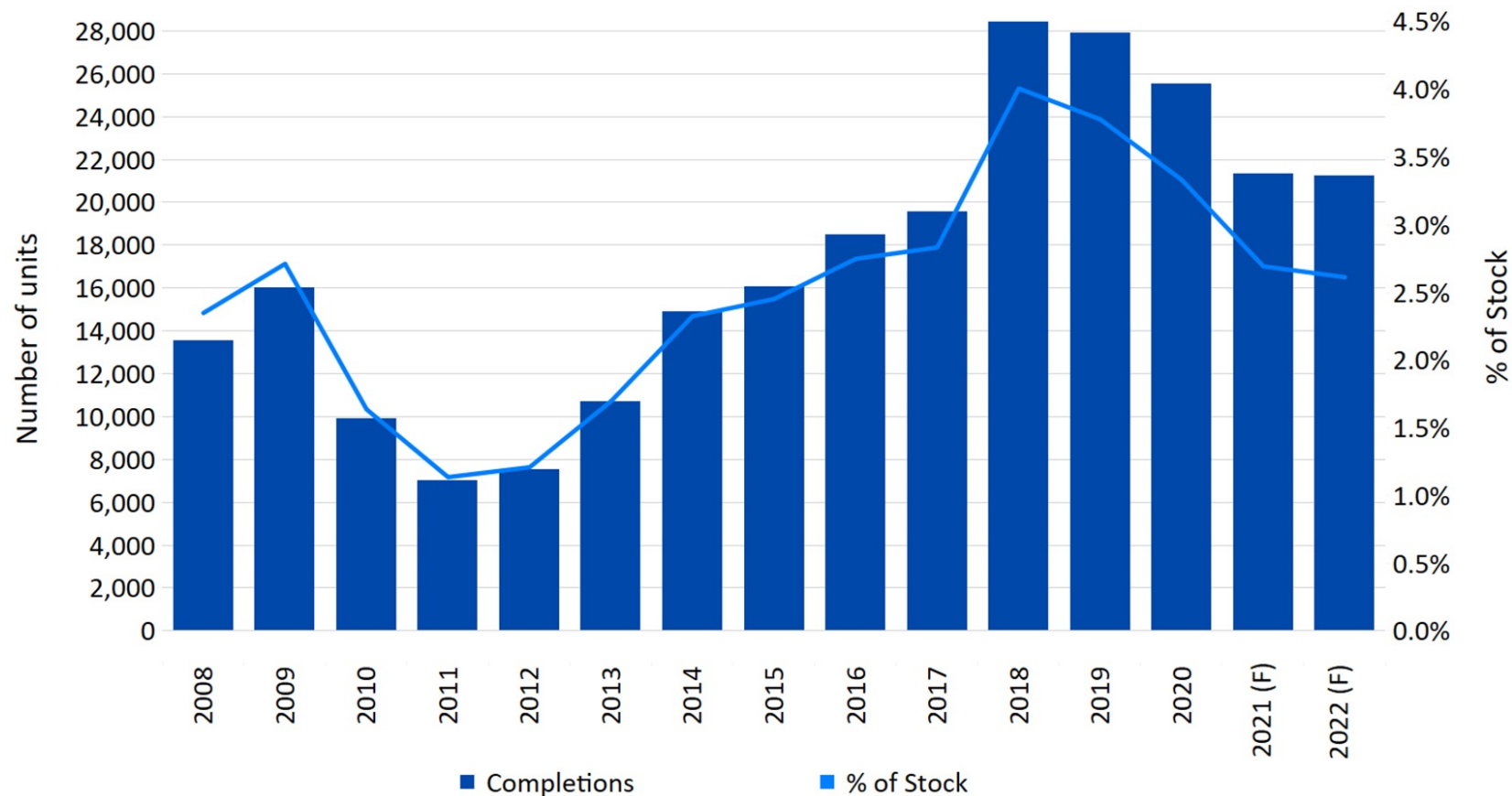
Price Per Unit Index 2011 = 100

Asset Class	10-Year Growth	10-Year CAGR
Lifestyle	103.7%	7.4%
Renter-by-Necessity	230.6%	12.7%
Overall	143.1%	9.3%



Source: Yardi Matrix

Dallas Multifamily Supply Pipeline



Source: Yardi Matrix

Yardi Matrix House View

September 2021

- The U.S. economy is strong, but rising inflation remains a looming concern
- The pandemic has further fueled a general spreading of the population
 - The question for investors is still how much of this is temporary vs permanent?
 - How permanent these demographic changes are is largely dependent on the future of work
- Demographic trends, such as delayed marriage, delayed childbirth, and rising student debt levels are fueling strong demand for multifamily
- Tech hub markets are doing well and will continue to grow, while gateway markets are turning a corner
 - Absorption and rent growth has been the strongest in emerging tech hub markets and most are back to pre-pandemic levels
 - As people get vaccinated and demand picks up in the urban cores, there will be less concessions.
We are already seeing this happening

Source: Yardi Matrix

THANK YOU

Feel free to contact me with any questions

Chris Nebenzahl | (800) 866-1144 x 2200 | Chris.Nebenzahl@Yardi.com

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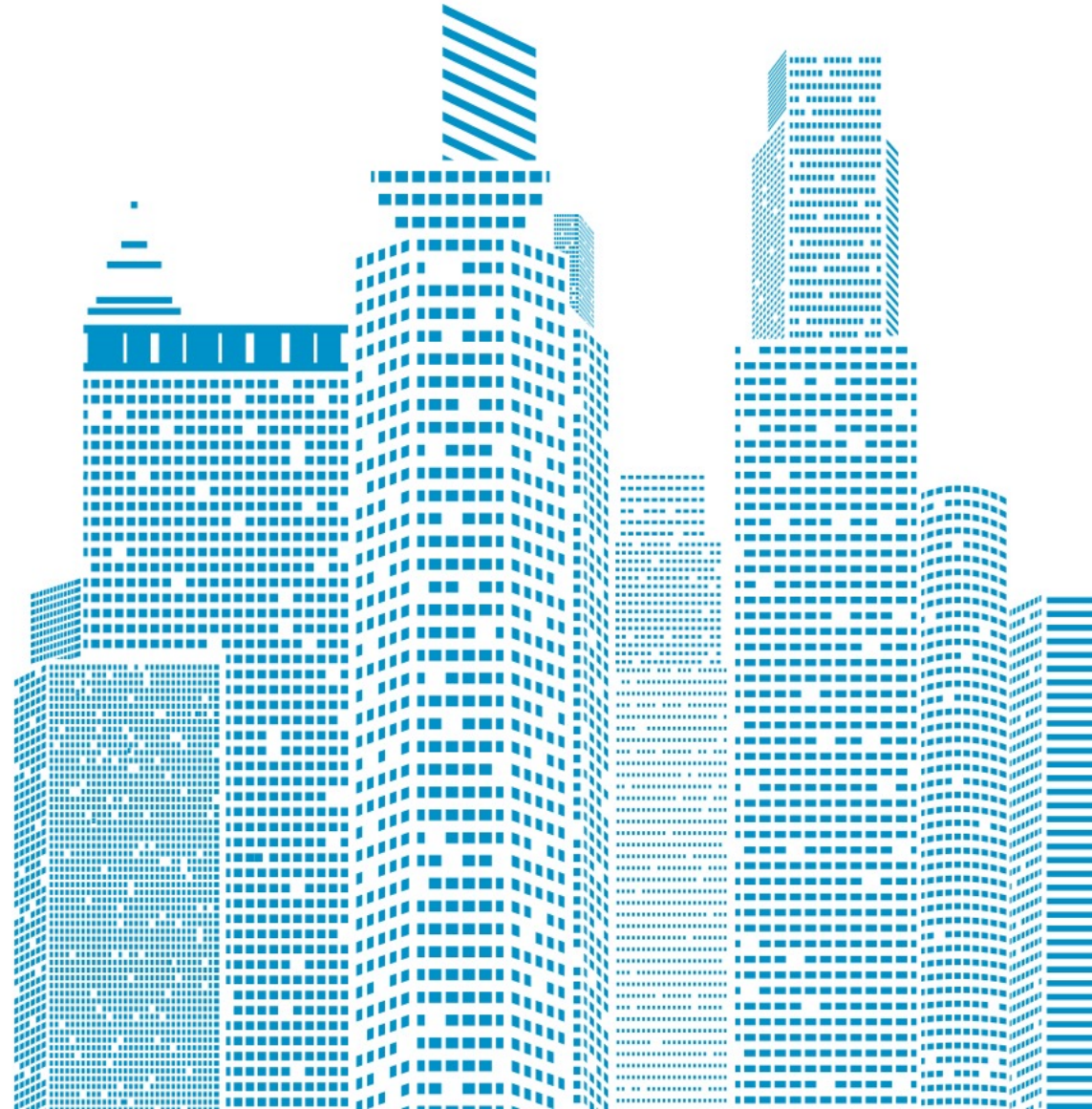
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