MULTIFAMILY NATIONAL OUTLOOK

FALL 2022

PRESENTERS

JEFF ADLER

-

Vice President, Yardi Matrix & Self Storage Industry Principal

PAUL FIORILLA

-

Editorial Director, Yardi Matrix

YARDI

AGENDA

- Opening Remarks
- Macroeconomic Outlook
- Affordability, Demographics and Investment Risk
- Multifamily Fundamentals and Forecasts
- Single-Family Rentals in Build-to-Rent Communities

OPENING REMARKS

Yardi Matrix House View – November 2022

MACROECONOMIC UPDATE

- The pandemic recovery has been rapid (V-shaped), now growth is cooling
- The labor market is tight and not yet signaling a problem given economic conditions
- De-globalization will have long-term, largely inflationary, effects
- Fed is in a tightening cycle after being slow to react to soaring U.S. inflation
- Inflationary pressures starting to ease, just not enough
    - October headline CPI had the smallest YoY increase since Jan 2022
- U.S. economy is slowing, yield curve (10 YR- 3 MTH) is inverted, recession very likely in Q4 2023

MULTIFAMILY INDUSTRY

- U.S. domestic migration has had an impact on demand, but to a lesser degree than household formations
- Demographic trends will tend to keep labor markets tight, supporting housing demand and the multifamily industry
- Multifamily fundamentals have been great, but decelerating
    - CRE Mortgage rates are > 6%, and valuations have adjusted downward ~25% from the 1/22 peak
    - The transaction market is frozen given such a wide bid/ask spread
- Construction financing is in short supply, and pipelines could be significantly reduced in 2025-2026
- The supply shortage of U.S. housing is likely to last 5-10 years, supporting continued rent growth and capital appreciation

YARDI

Source: Yardi Matrix

Yardi Matrix House View – November 2022

SINGLE-FAMILY RENTAL INDUSTRY

- Single-family rental fundamentals are strong, but decelerating, following a similar pattern to multifamily
- Supply has been growing with the sector's popularity, but interest rates will slow some development
- Sales volume is also slowing after a record year in 2021
- Potential headwinds on the rise, including interest rate growth and possible legislation
    - May provide unique investment opportunities

OUTLOOK

- We expect the economy, multifamily and single-family rental markets will moderate
- It will be a bumpy ride until the next recession hits, likely in late 2023, early 2024 – recession likely short
- Declining homeownership may be good for multifamily and SFR, if household formation holds up
- Transactions will slow over the next 18 months until inflation cools and interest rates come down
- U.S. multifamily is the "stand out" sector among all U.S. real estate asset types
- Amid all the noise, the key to success will continue to be thoughtful partner, market and investment strategy selection

YARDI

Source: Yardi Matrix

What Now? Finding Opportunities

The current environment requires increased creativity to find potential investable opportunities, which Yardi Matrix has been designed to do:

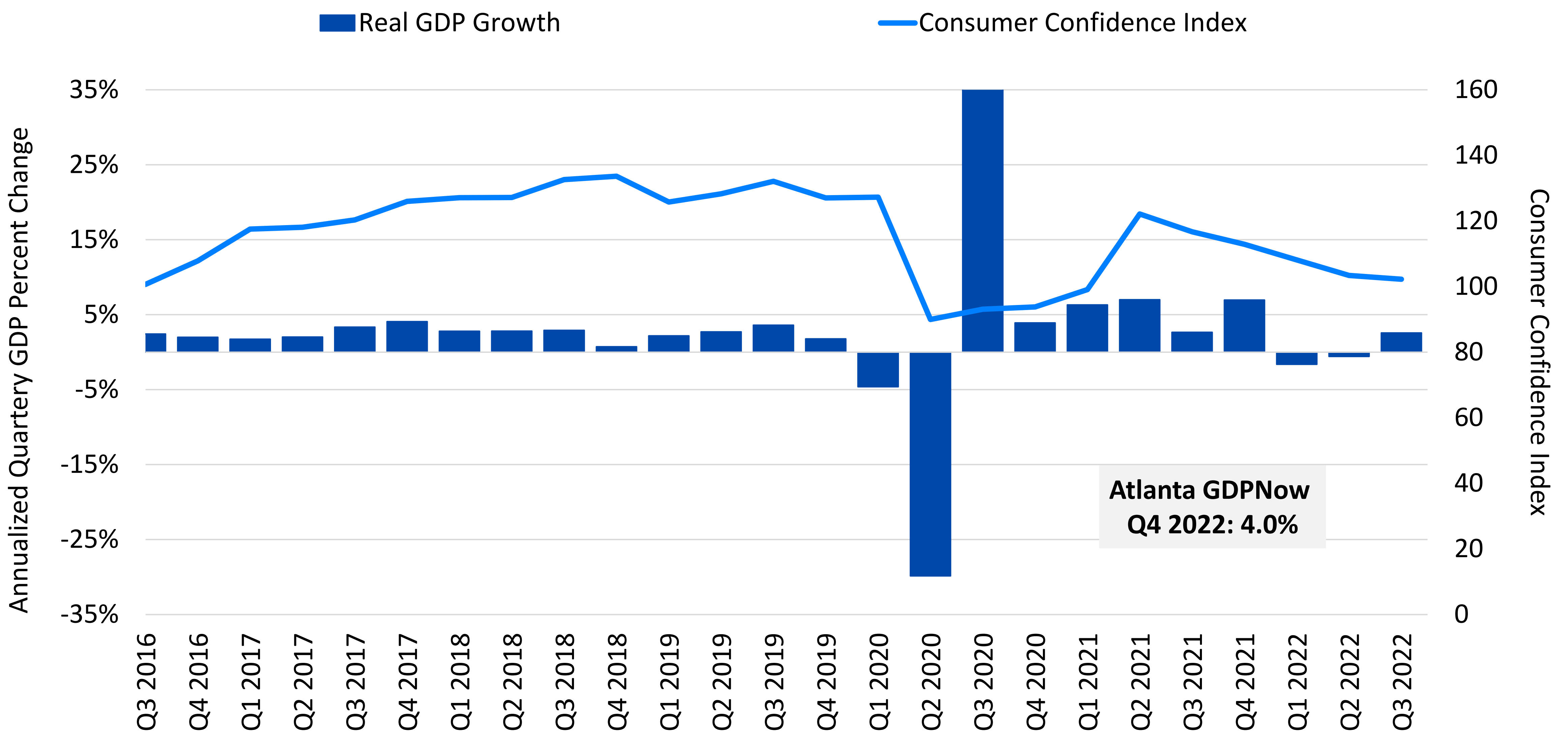
Assumable debt = loans with 5-7 years duration left =	**~3,000**
Acquisitions since 2020 with 2-3 year durations =	**~2,500**
Floating/Variable Rate Loans =	**~3,000**
Construction loans Maturing until 7/24 =	**~400**
Loans of GSE Watch Lists =	**~300**
Low estimated DSCRs (<1.05) =	**~2,500**

YARDI

Source: Yardi Matrix

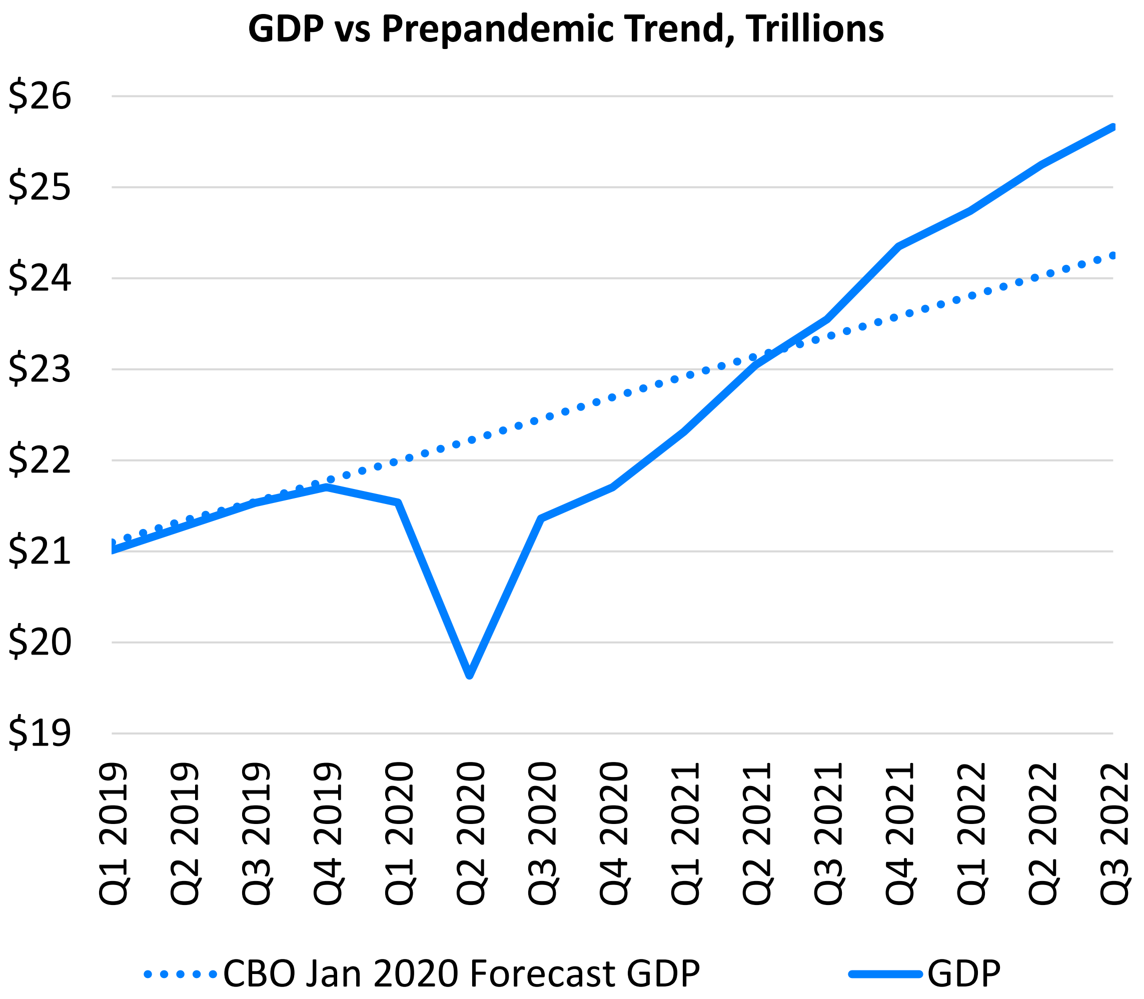
MACROECONOMIC OUTLOOK

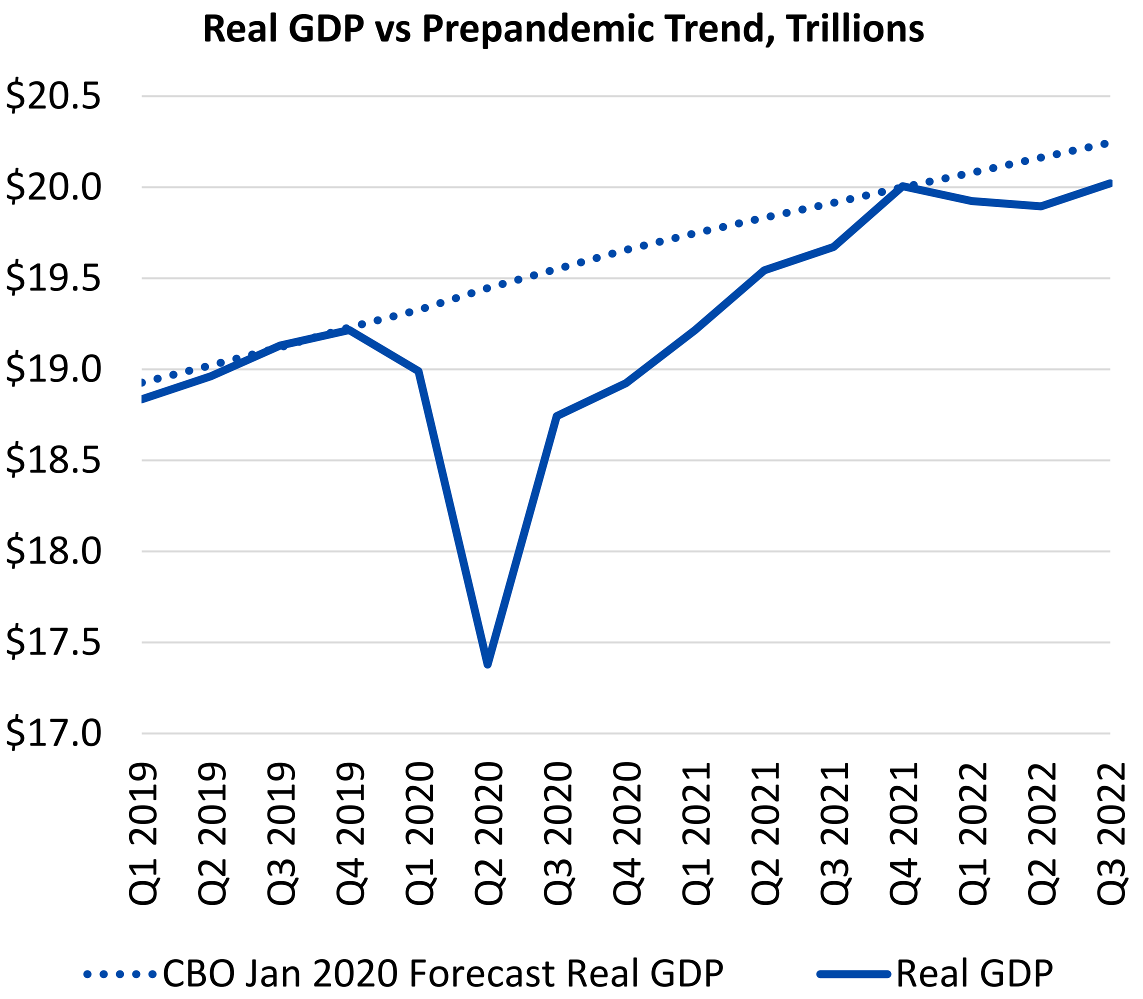
The Fed is Tightening, Inflation Has Been High and Growth is Cooling



Source: Yardi Matrix; Moody's Analytics; U.S. Bureau of Economic Analysis

GDP Has Surpassed Its Pre-Pandemic Trend While Real GDP Has Not



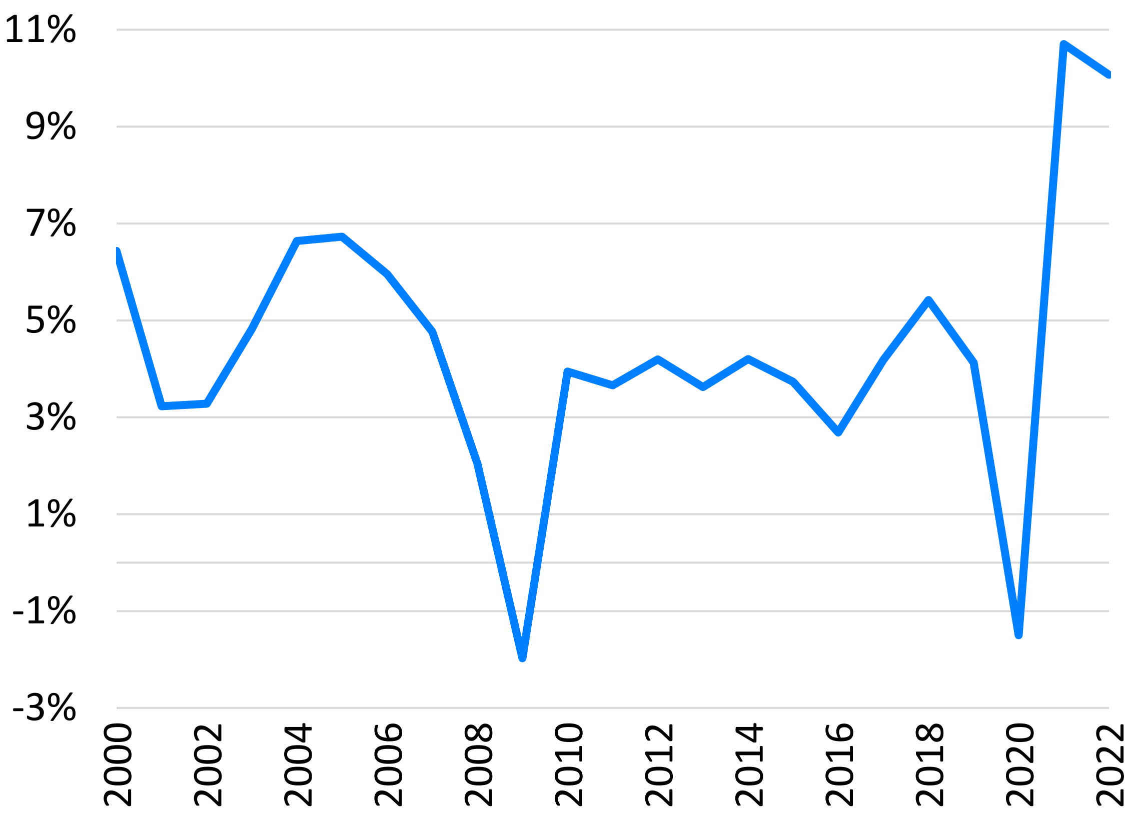


YARDI

Source: Yardi Matrix; Federal Reserve Bank of St. Louis; Congressional Budget Office

The Recovery Out of COVID Has Been Rapid, but Now Comes the Inflationary Hangover, With a Late 2023/Q1 2024 Recession

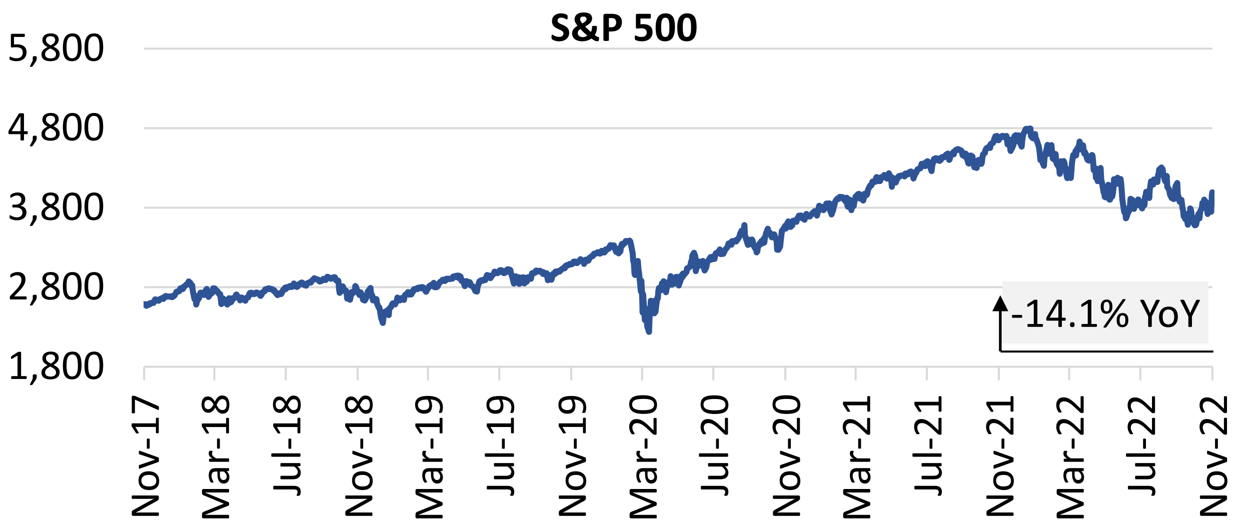
Nominal Annual GDP: YoY % Change

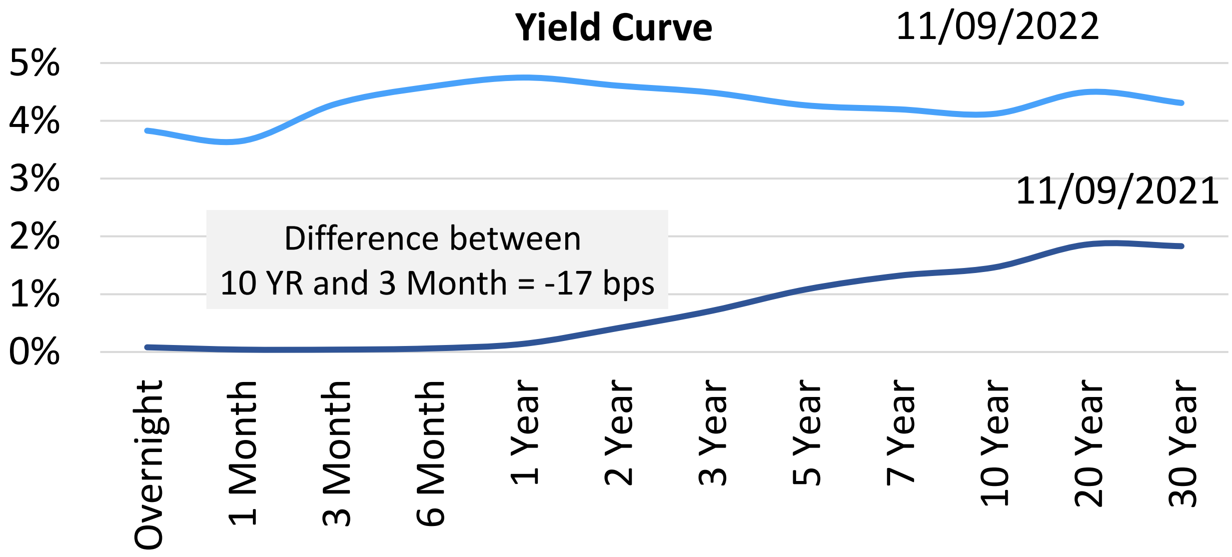


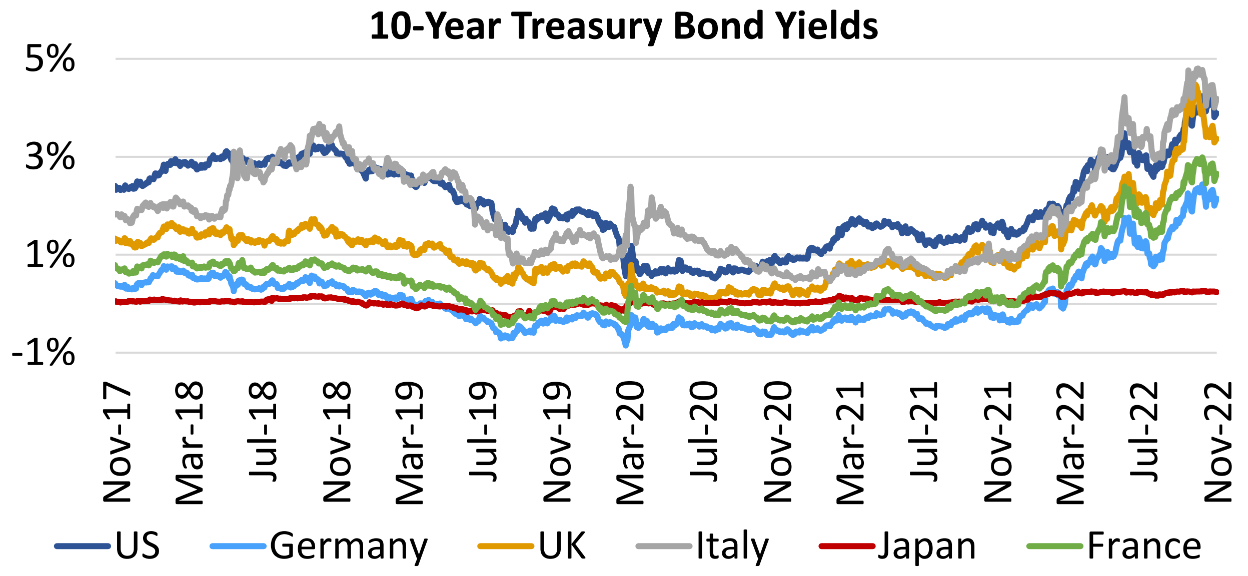
Evercore ISI / Yardi Matrix Economic Forecasts			
	2021	2022 Forecast	2023 Forecast
Real GDP: YoY % Change	5.5%	0.4%	0.0%
Nominal GDP: YoY % Change	11.8%	6.4%	3.0%
GDP Price Deflator: YoY % Change	5.9%	6.0%	3.0%
Fed Funds: End of Year	0.25%	4.75%	4.50%
10 Yr Bond Yields: End of Year	1.50%	4.25%	4.25%

Source: Yardi Matrix; U.S. Department of Commerce Bureau of Evercore ISI, Morning Economic Report

U.S. and International Financial Markets

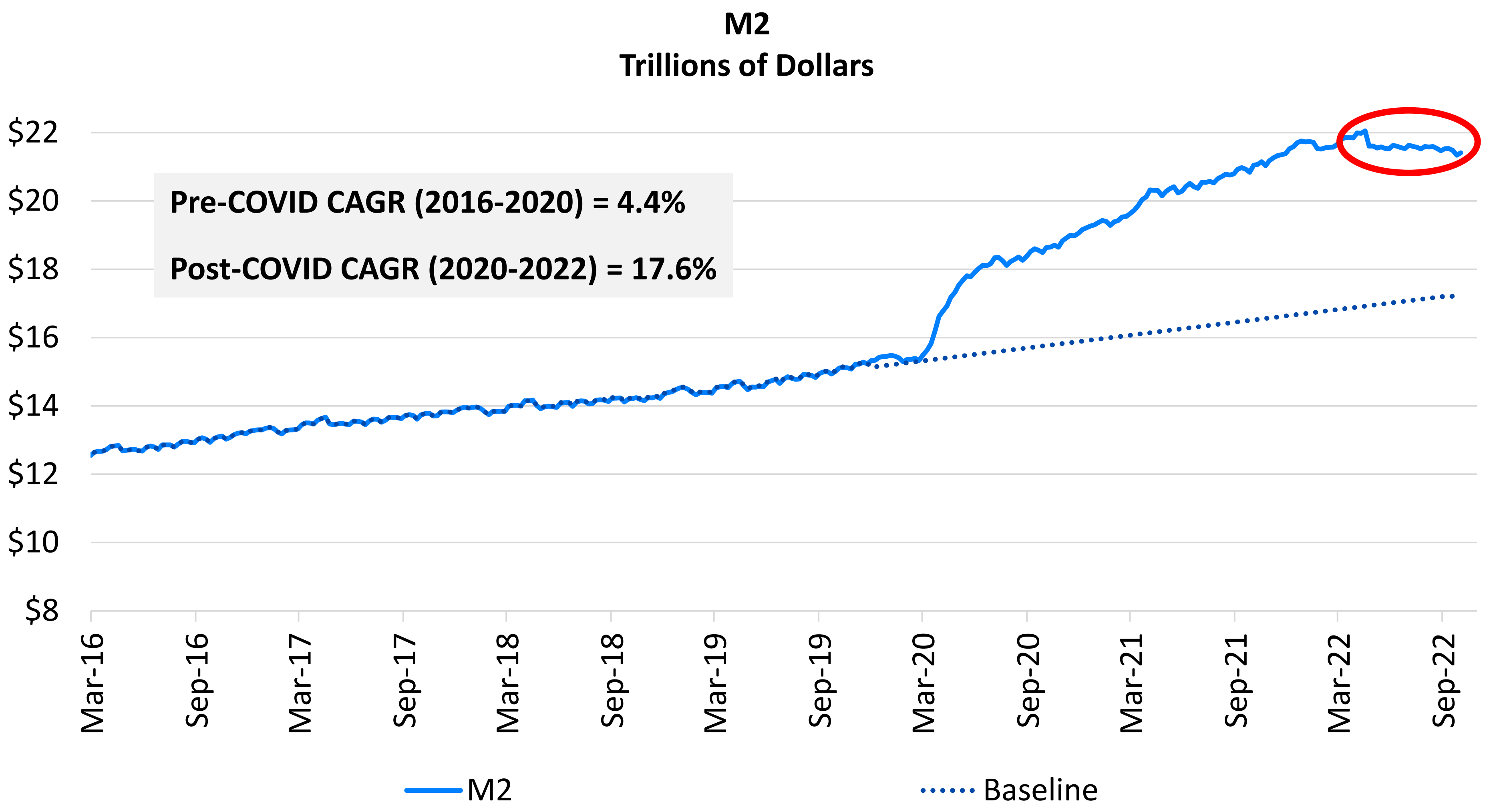






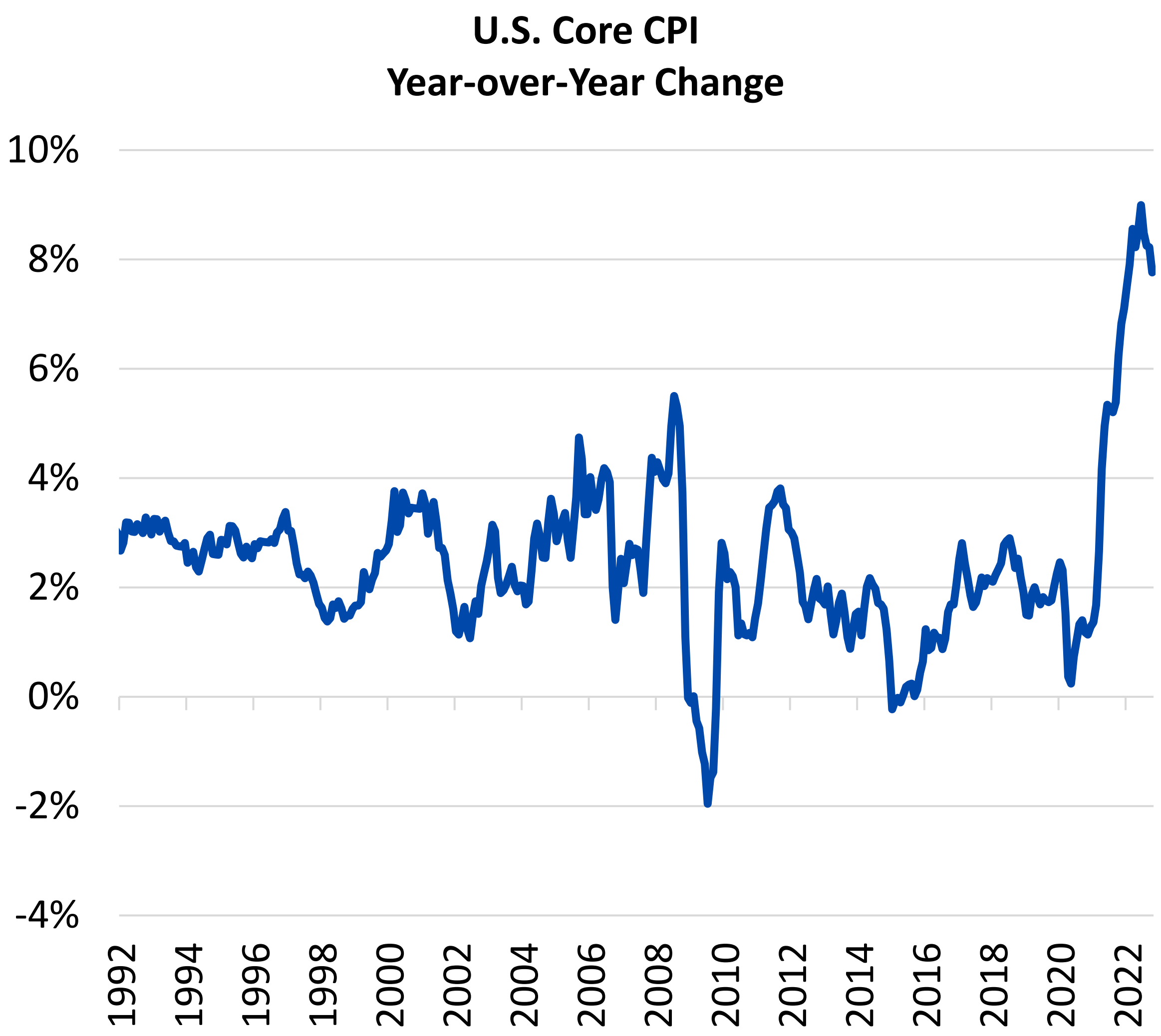
Source: Yardi Matrix; Moody's Analytics; Investing.com [Data updates daily with a 2-3 day lag]

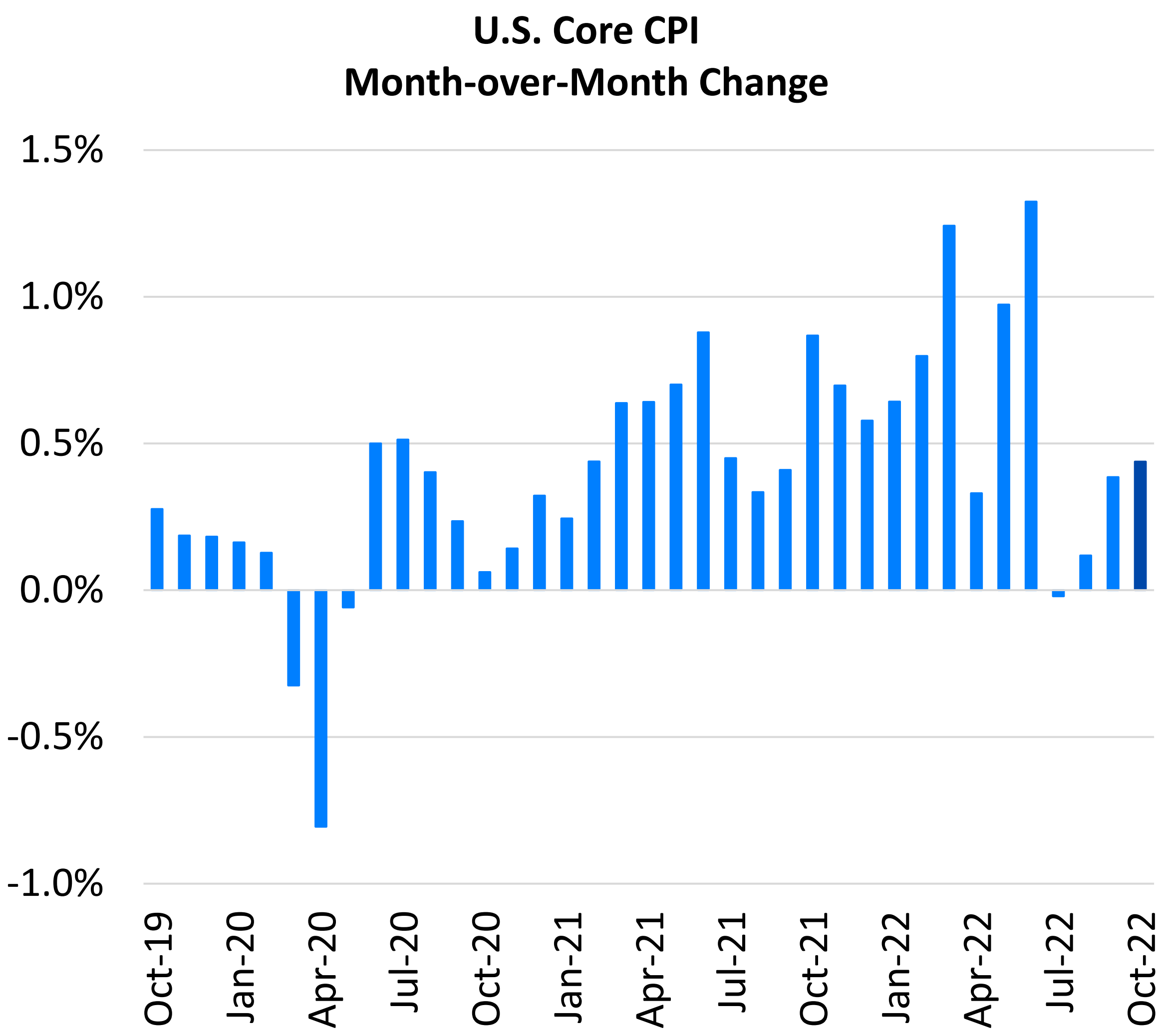
Money Supply Decelerating After Two Years of Significant Expansion



Data through August 2022 | Source: Yardi Matrix; Federal Reserve Bank of St. Louis

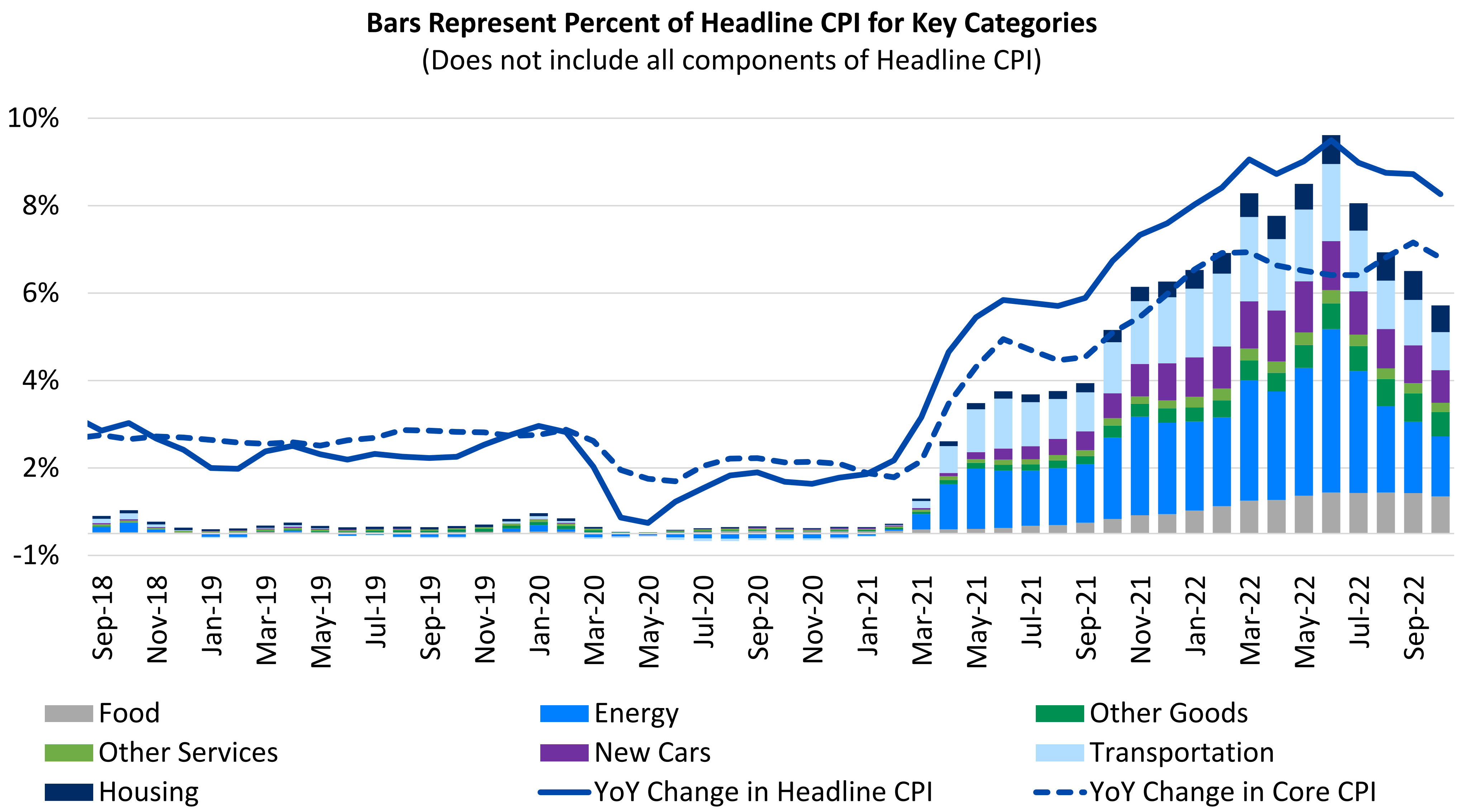
Inflation Slowing, But Not Fast Enough





*Data through October 2022 | Source: Yardi Matrix; Moody's Analytics

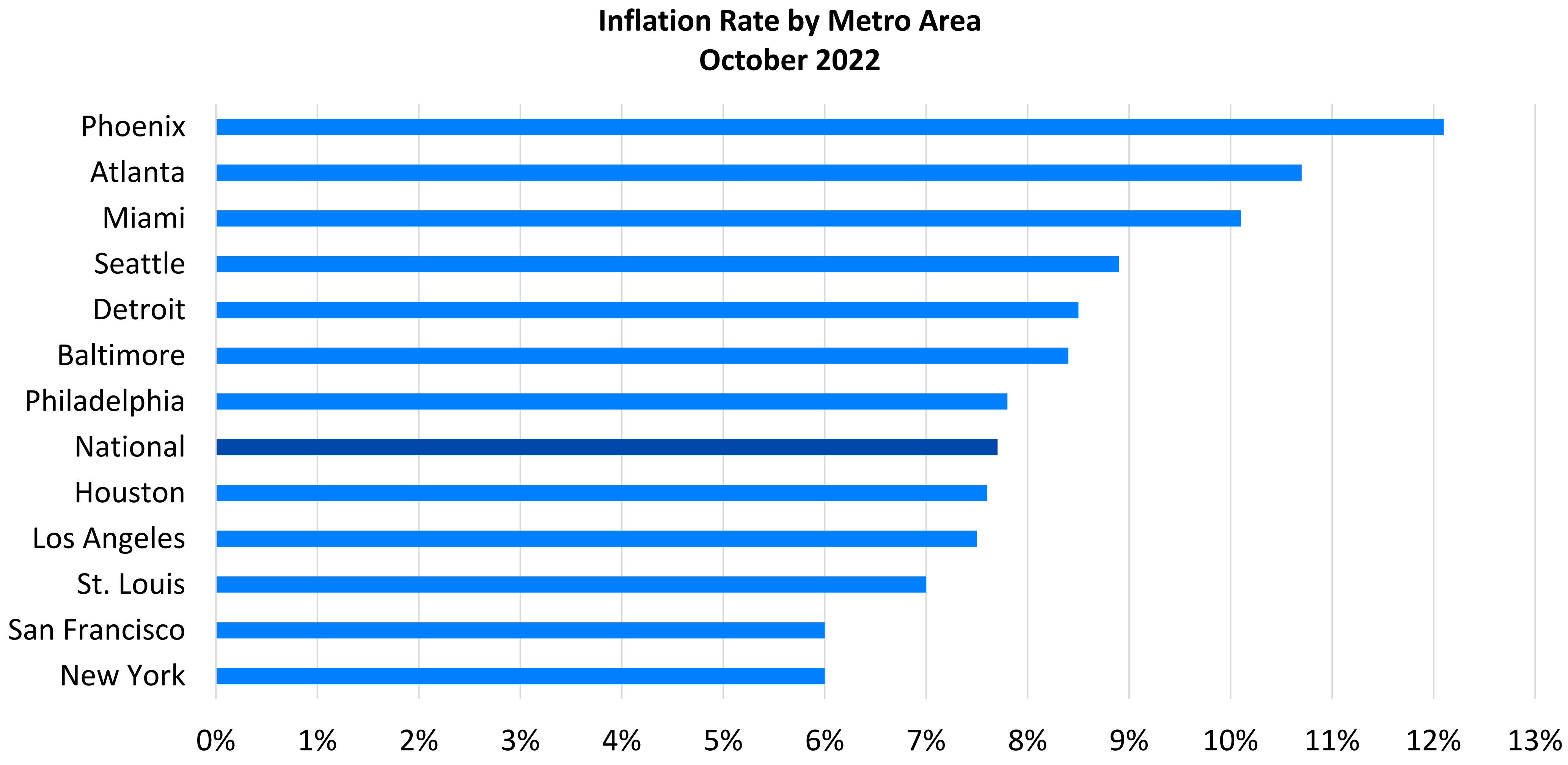
U.S. Inflation is Cresting, With Energy and Food Leading the Way



YARDI

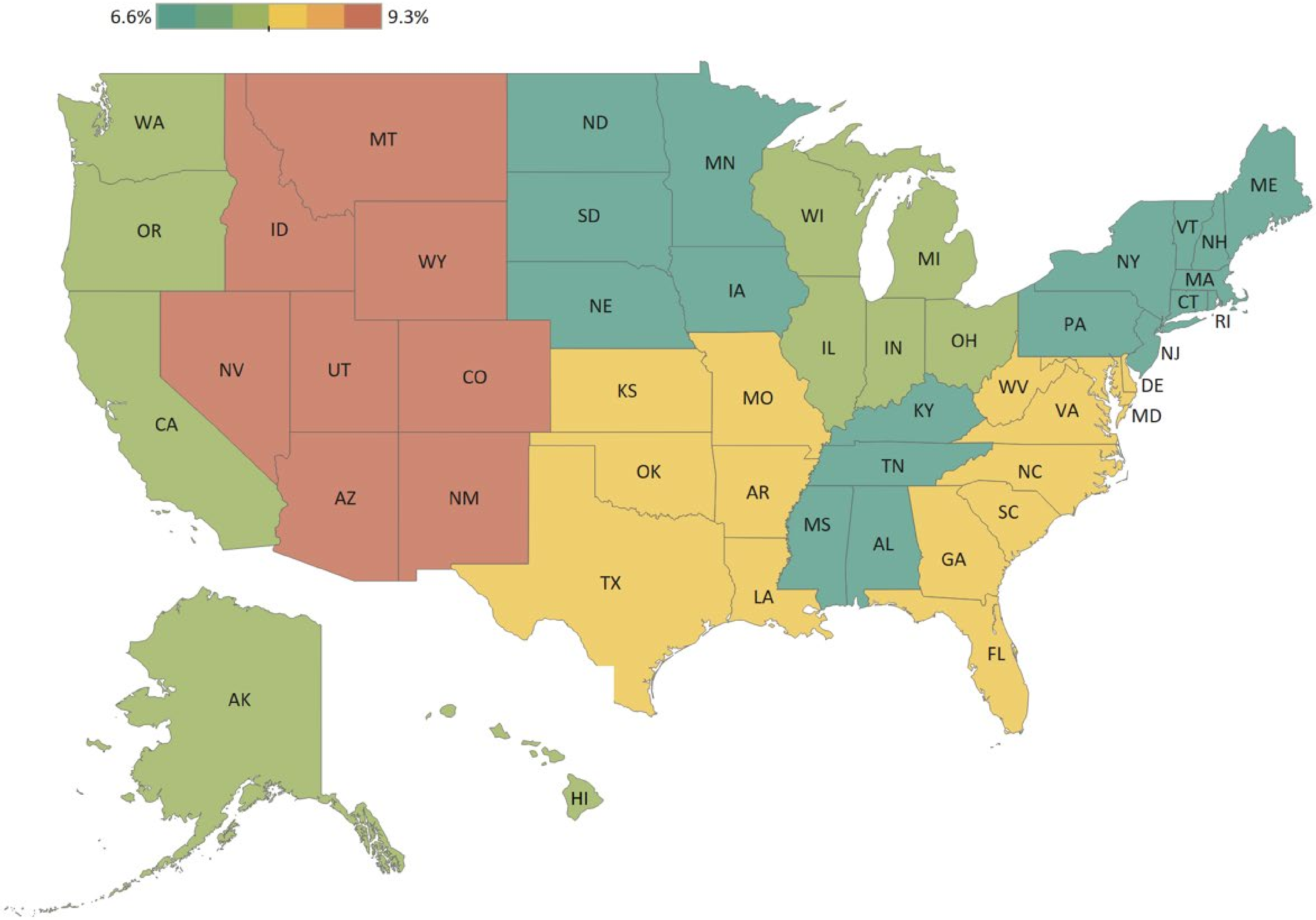
Source: Yardi Matrix; Bureau of Labor Statistics (BLS)

Inflation Cooling, But Still High; Particularly in Sunbelt and Mountain Markets



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

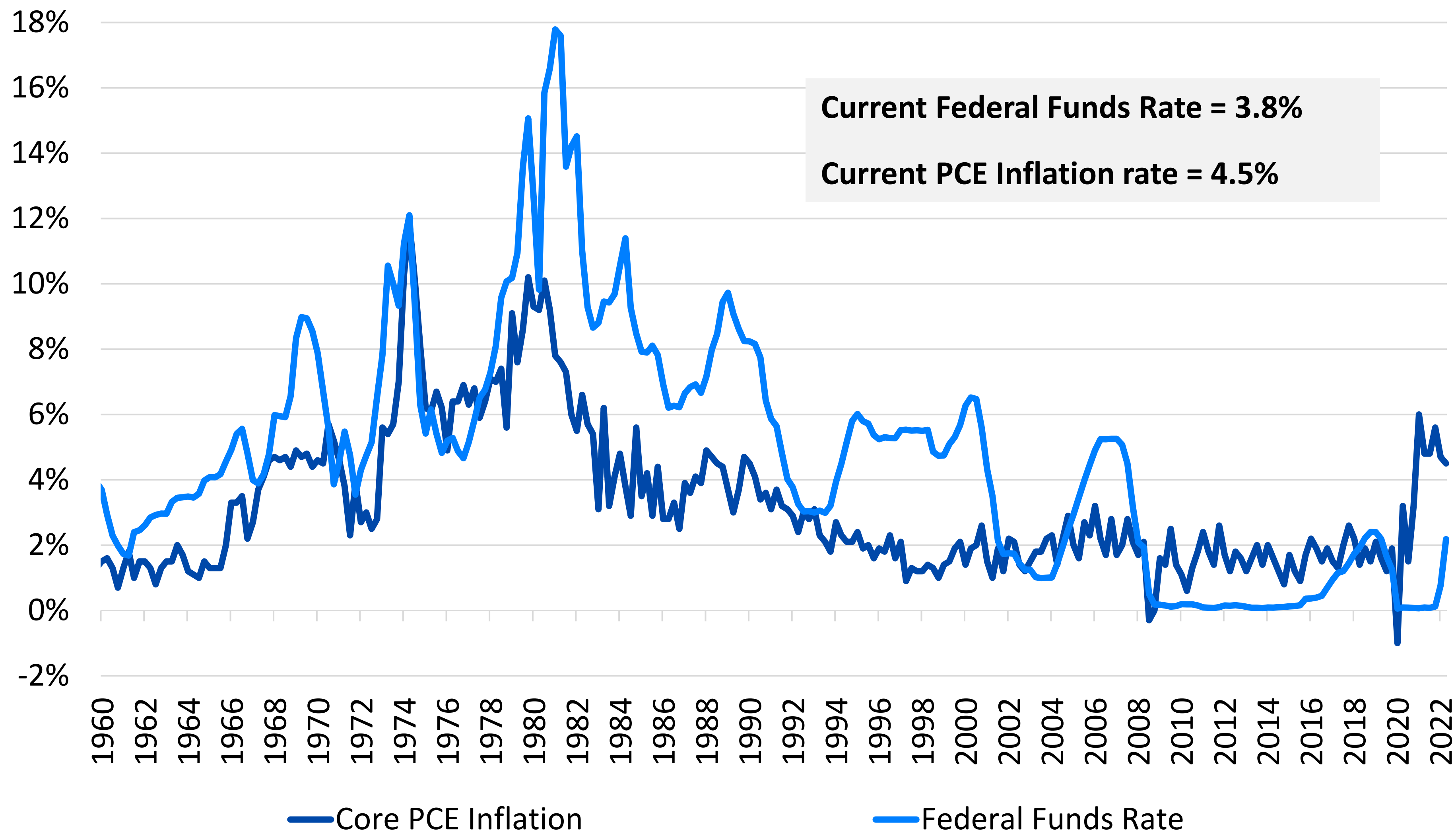
Inflation Geography: Highest in Domestic Migration Favorites



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

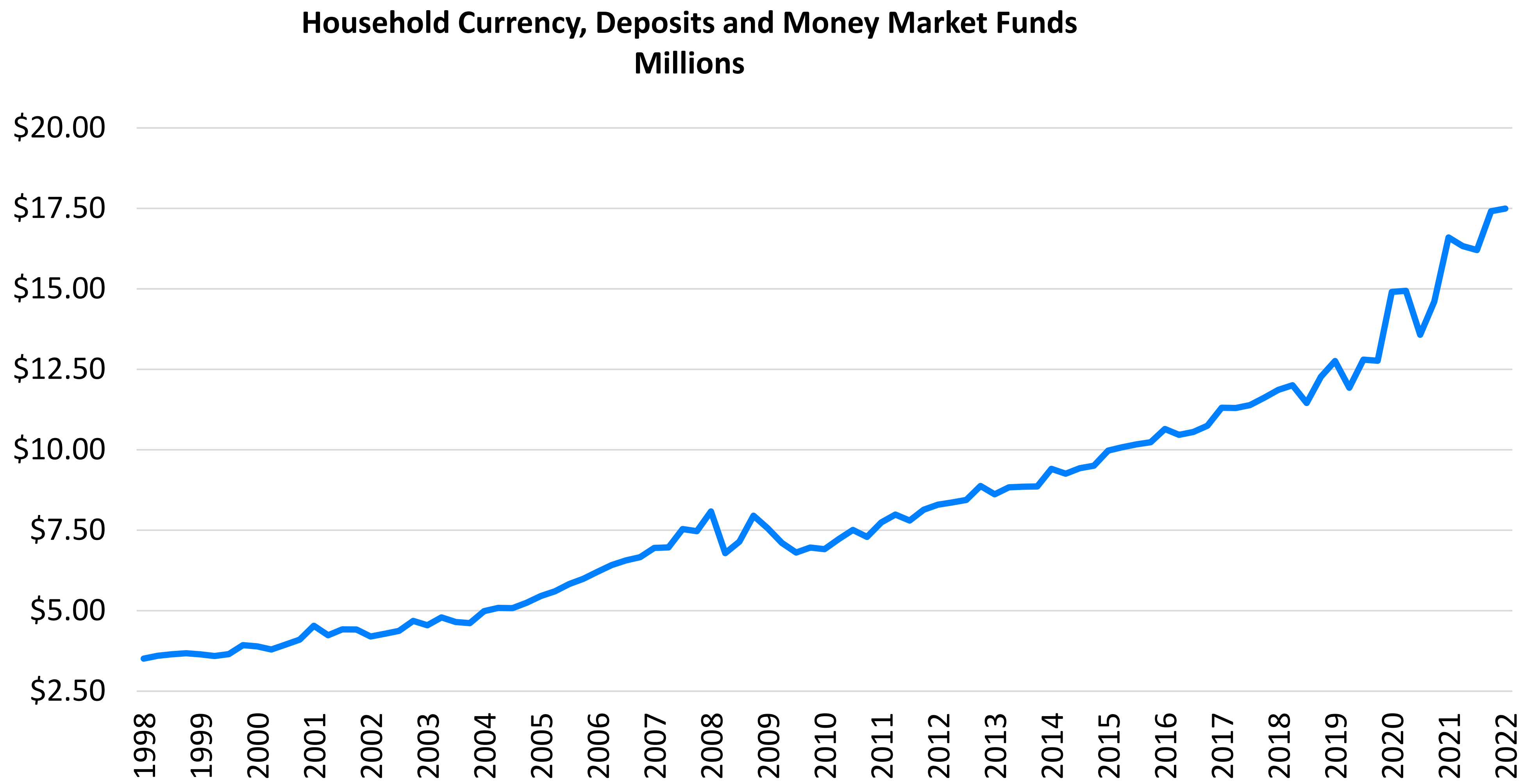
YARDI

The '08-'16 Period is the Only Time the Fed Funds Rate Was Below Core Inflation



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

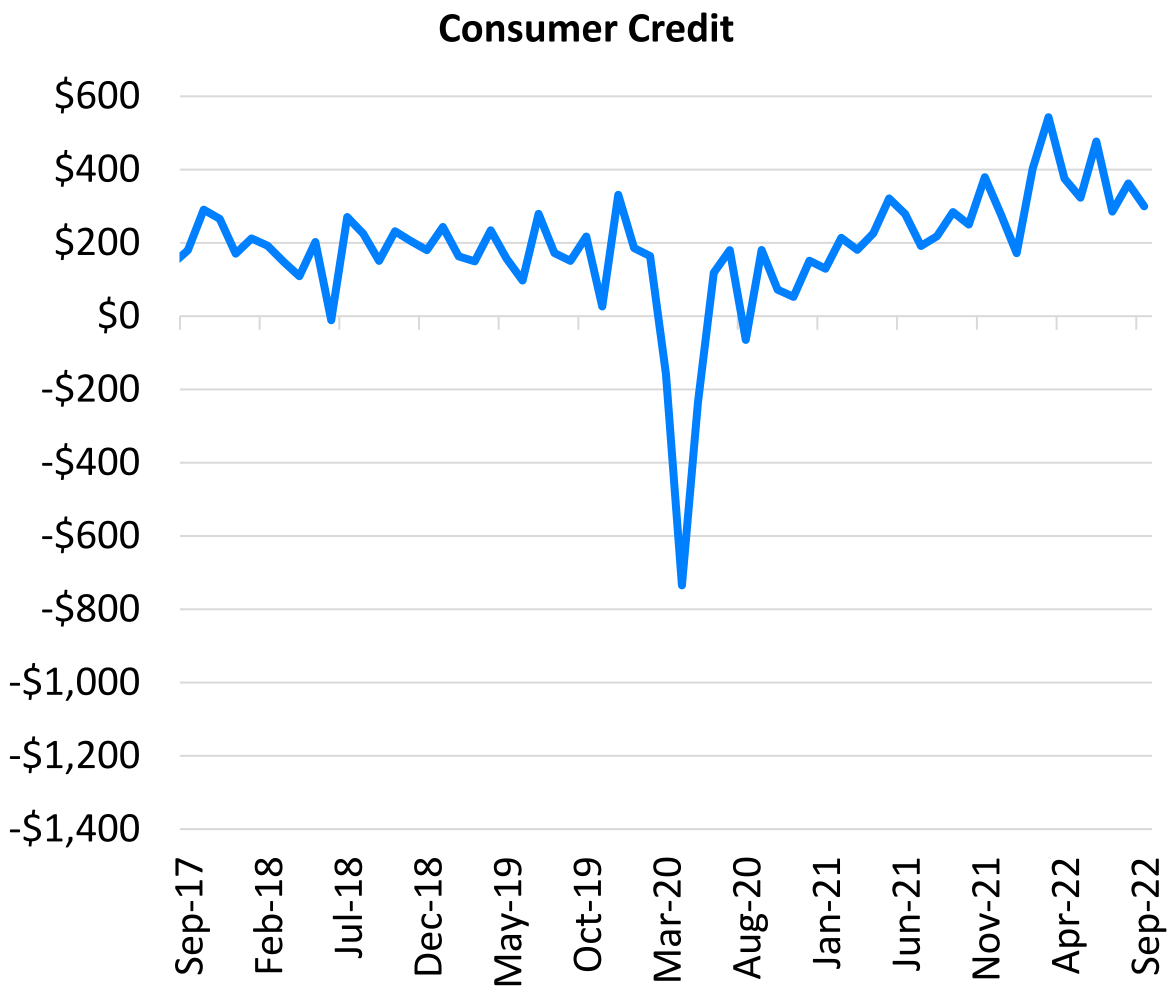
Households Still Have a Cushion From COVID Savings

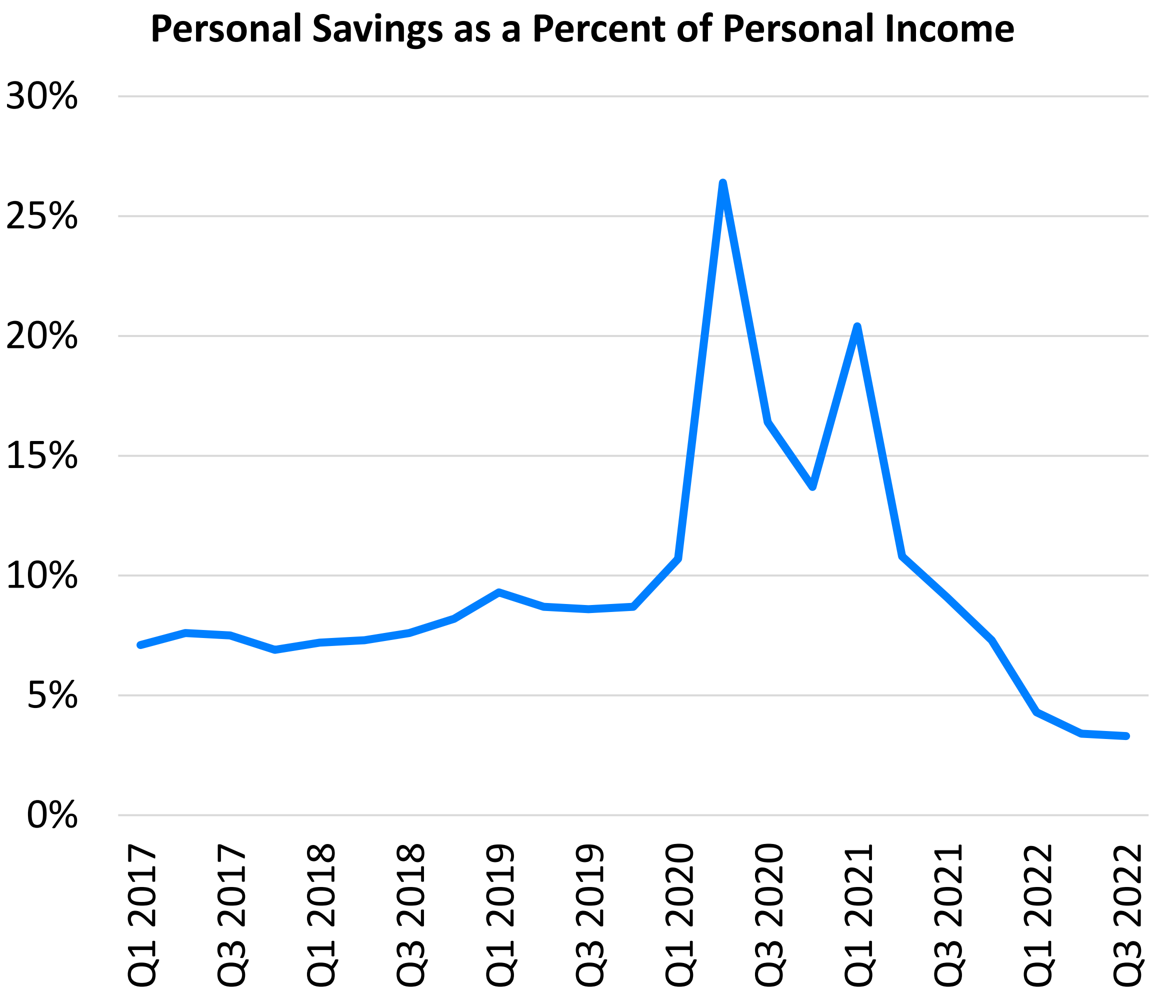


YARDI

*Charts in Billions of Dollars | Source: Yardi Matrix; Moody's Analytics

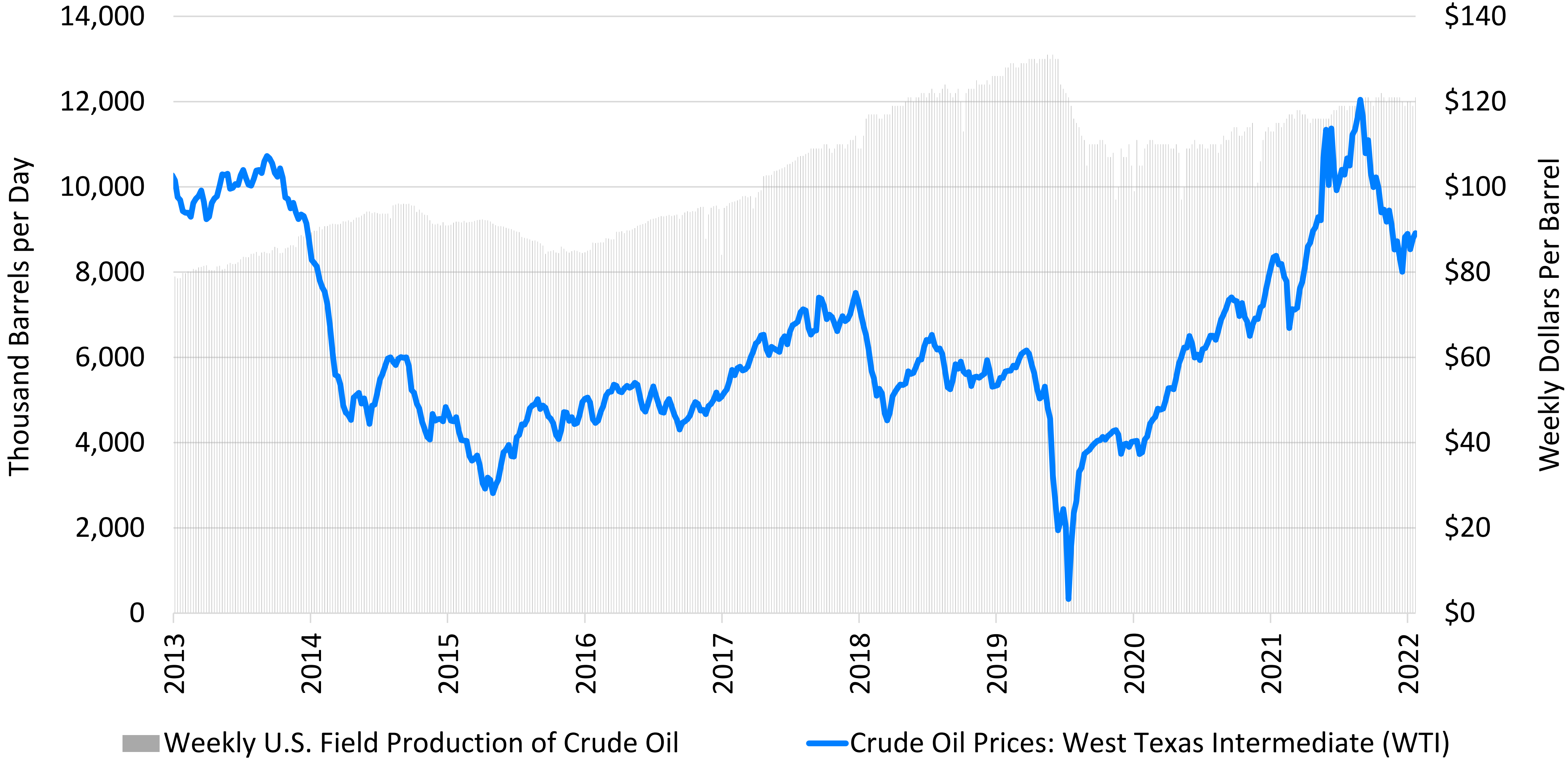
But Savings and Credit is Being Used to Cover Inflationary Pressures





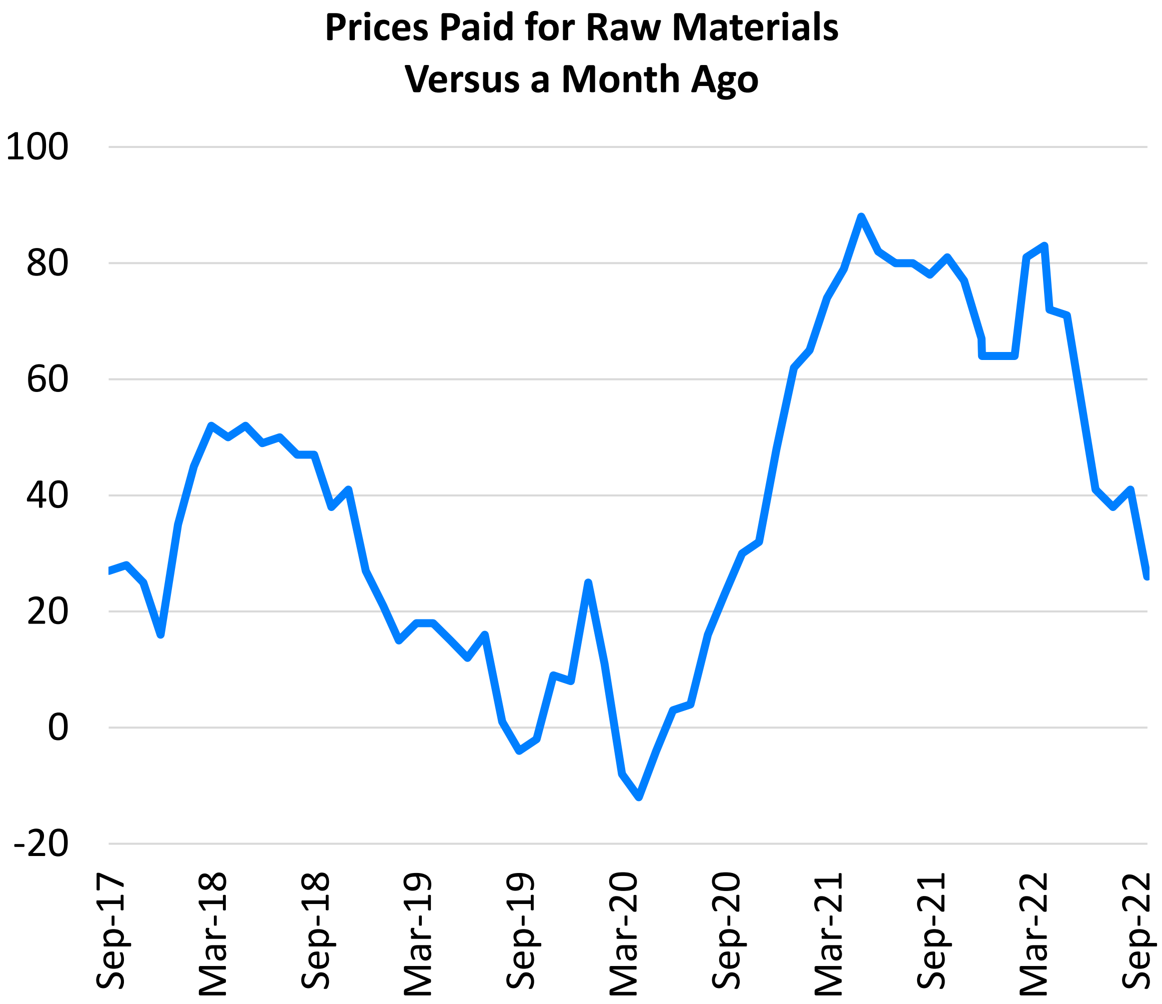
*Charts in Billions of Dollars | Source: Yardi Matrix; Moody's Analytics; Federal Reserve Bank of St. Louis

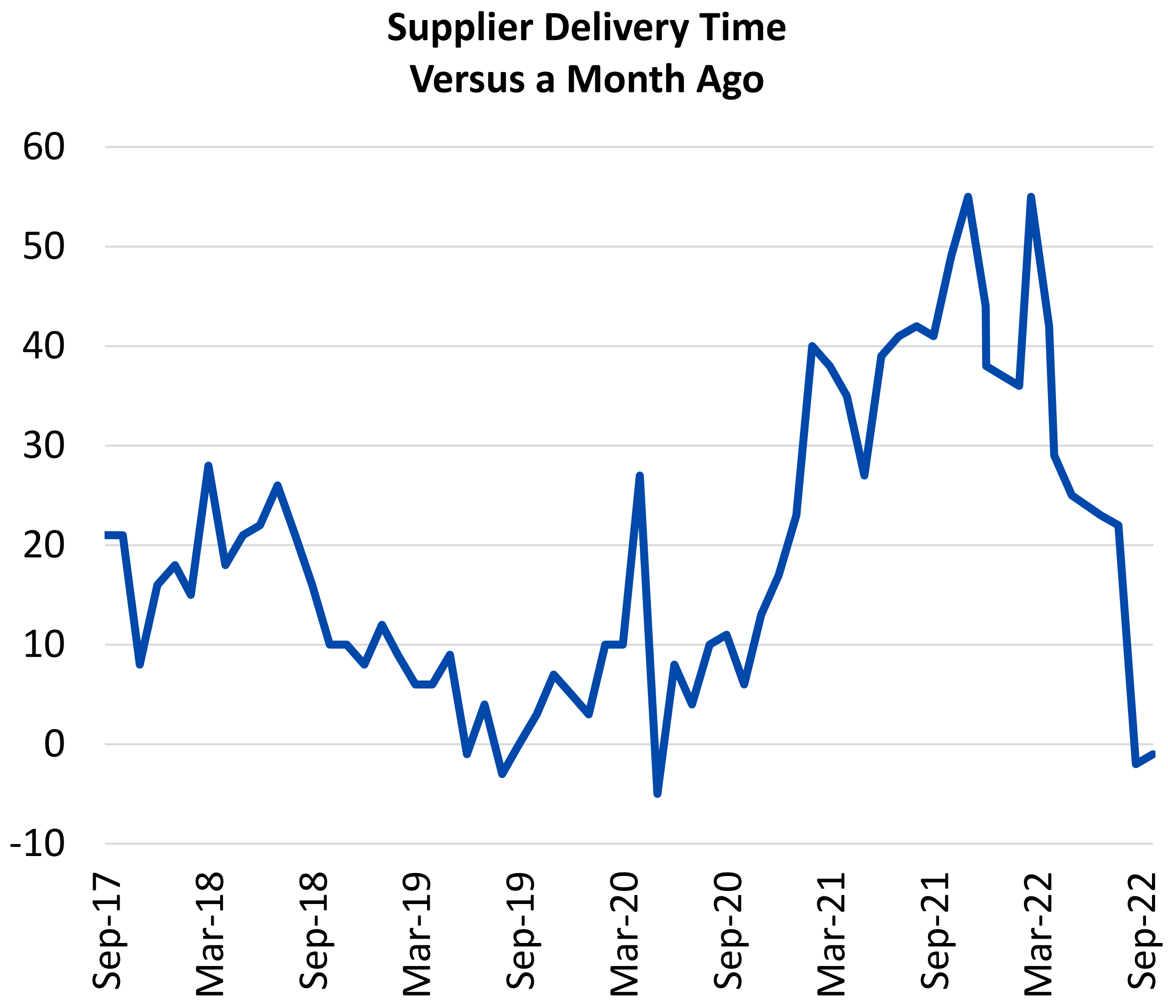
Oil Prices Holding Steady Around $90/Barrel, as U.S. Producers Respond Slowly to Price Increases



*Data through November 4th 2022 | Source: Yardi Matrix; Federal Reserve Bank of St. Louis; U.S. Energy Information Administration

Supply Chain Disruption Easing, But Still Impacting Raw Materials Prices





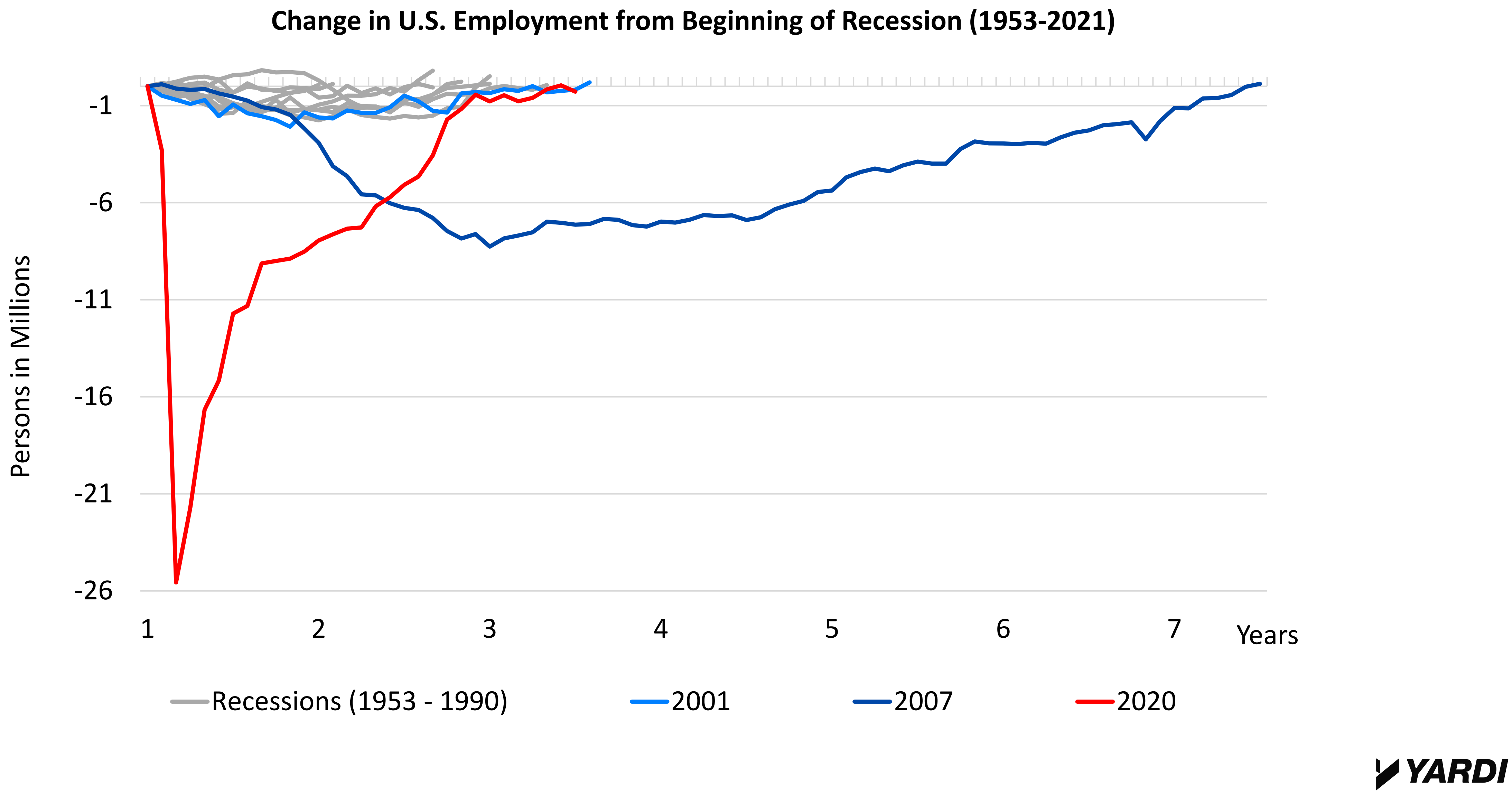
Source: Yardi Matrix; Kansas City Fed Manufacturing Survey

Reshoring Efforts Make the U.S. Less Reliant on the Rest of the World

- A push to reshore has been growing for several years
  - 1.3 million manufacturing jobs brought back to the U.S. since 2010
  - **~350,000 jobs will be reshored in 2022**
  - Onshoring and reshoring diversify supply chains, decreasing the risk of disruptions
- Reshoring has increased due to impacts to supply chains from the following:
  - The pandemic
  - U.S. tensions with China over Taiwan
  - War in Ukraine
  - Climate change's impact on supply chains
- The Inflation Reduction Act has increased reshoring
  - Incentivizes stateside production of renewable energy products
  - $52B CHIPS and Science Act – incentivizes tech companies and **semiconductor industry** which is now **leading the reshoring push**
- Small and mid-sized companies are reshoring to decrease shipping and transportation costs
- **Reshoring is contributing to increased demand in industrial real estate in lower cost areas in the Southeast and Midwest**
- More workers in manufacturing sector than any point since 2008
  - Employment growth exceeded 3% YoY every month in 2022, a pace not reached since 1984
- Reshoring production and supply chains will take years to reshape, continuing throughout this decade
- **Current onshoring and reshoring projects**:
  - Mazda/Toyota manufacturing plant in Alabama adding 100+ jobs
  - Henkel Materials 35K SF expansion in Brandon, North Dakota
  - Winar Connection $5M facility in Spartanburg County, South Carolina
  - Troy Acoustics $40M manufacturing plant in Georgia
  - Anhauser Busch $20M renovation and enhancement of Williamsburg Brewery

Source: Yardi Matrix; GlobeSt.com; Reshoring Initiative; Yahoo! Finance

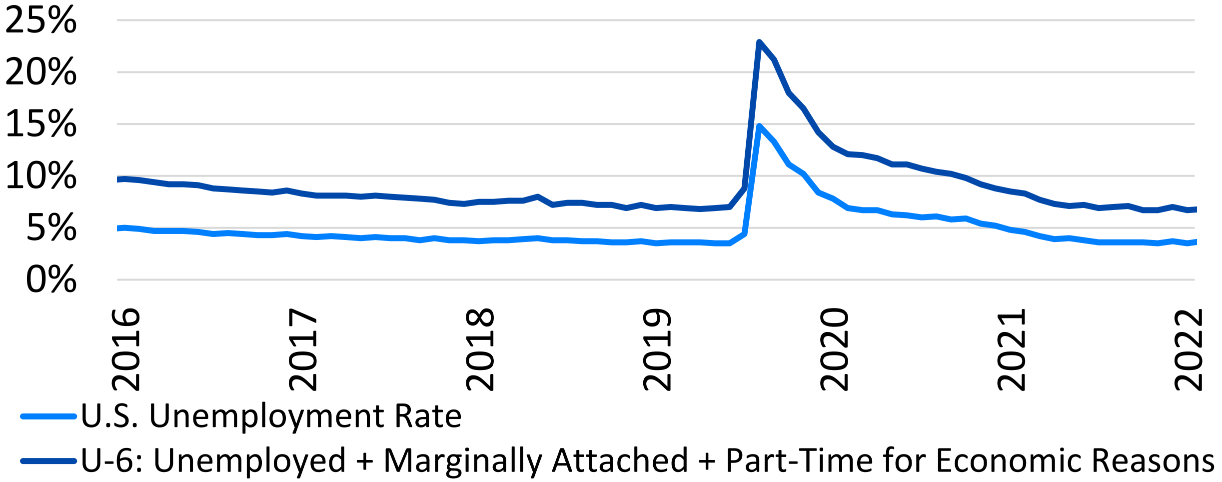
U.S. Employment Back to Pre-COVID Levels; It Was a "V"



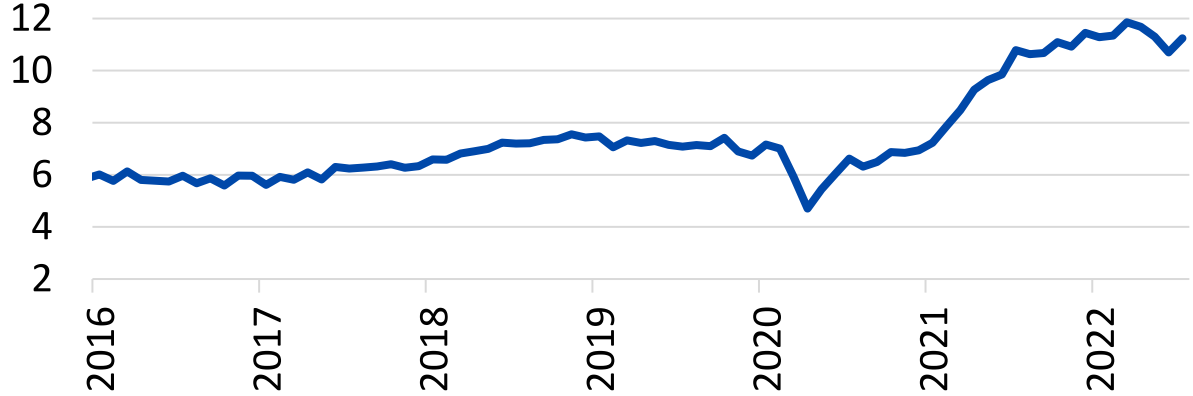
*Data through October 2022 | Source: Yardi Matrix; National Bureau of Economic Research; U.S. Bureau of Labor Statistics

Demand for Workers Remains Elevated, But Potential for Rising Unemployment

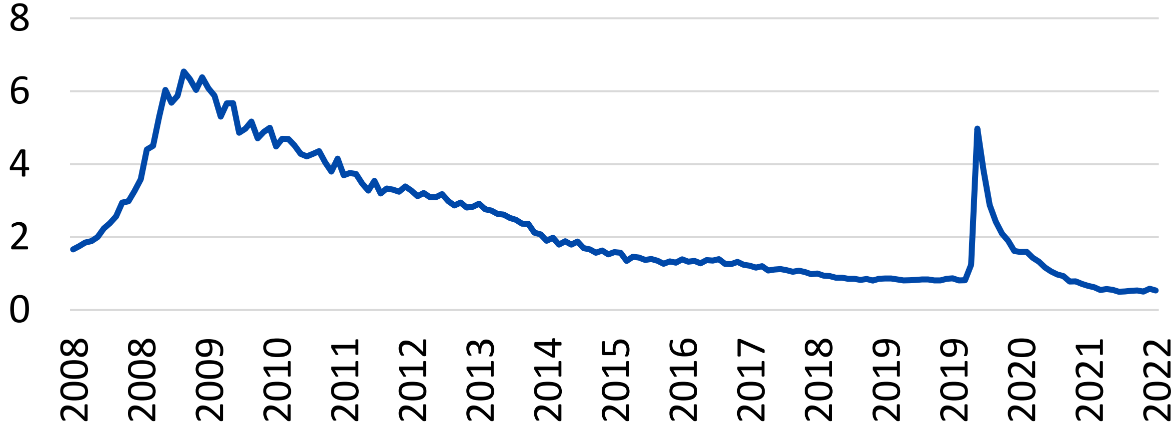
Unemployment and Underemployment



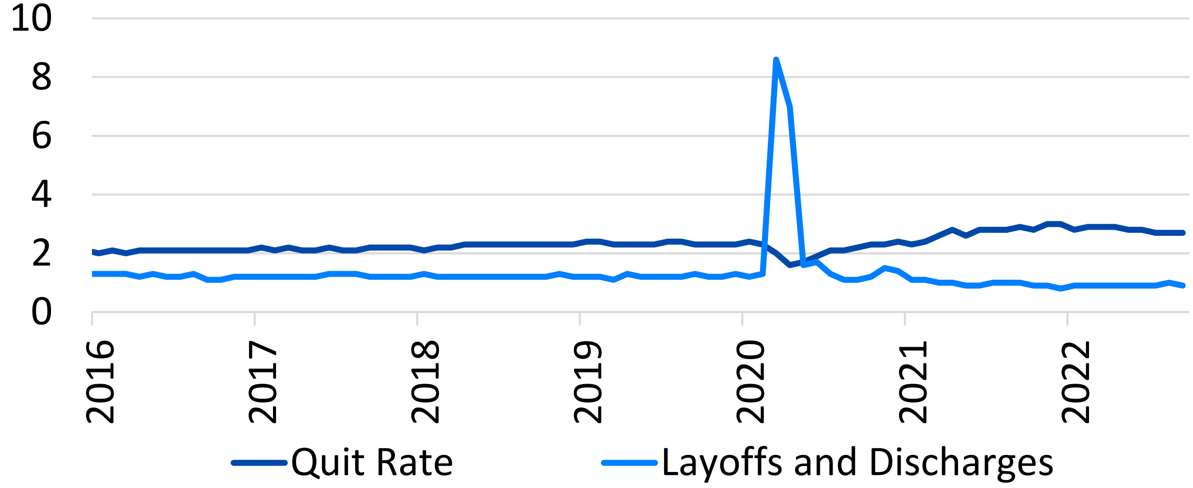
U.S. Job Vacancies, Millions



Unemployed Persons/Job Openings

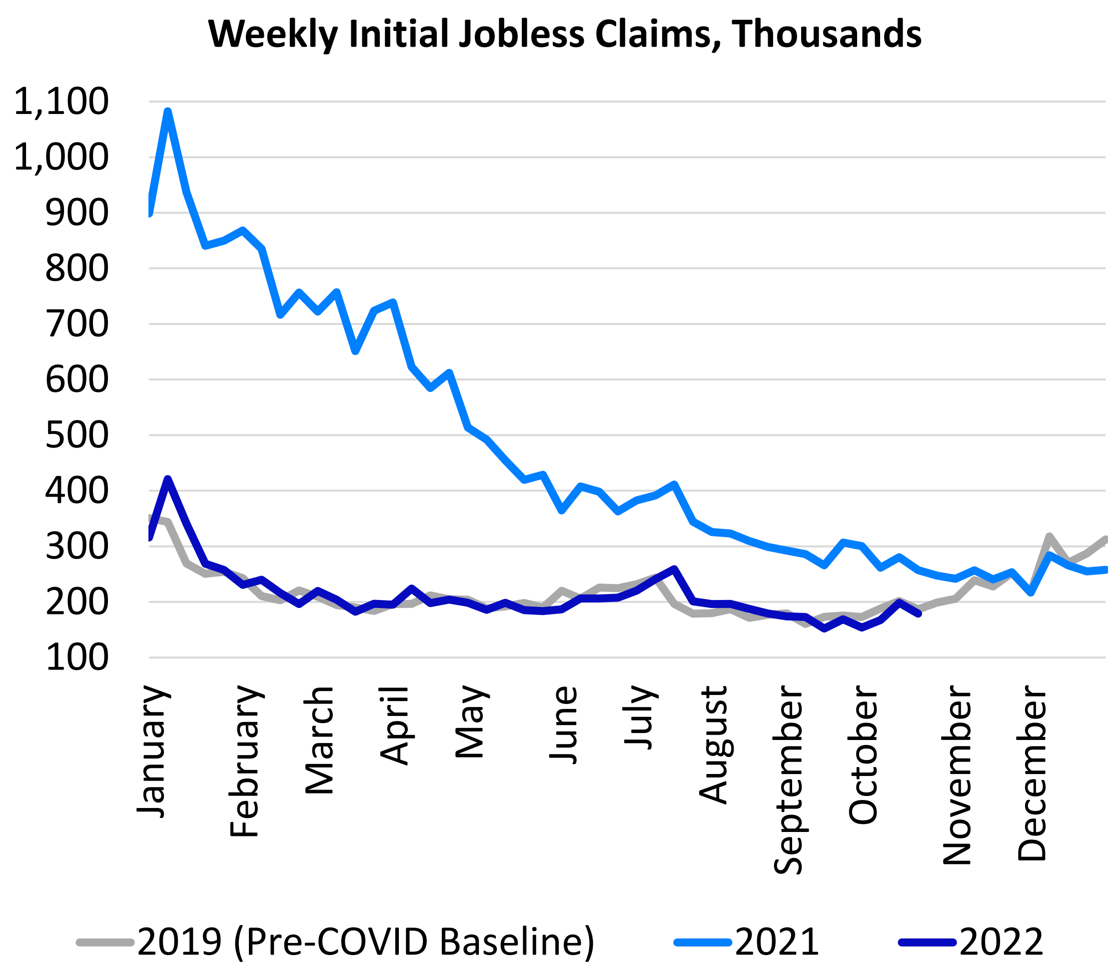


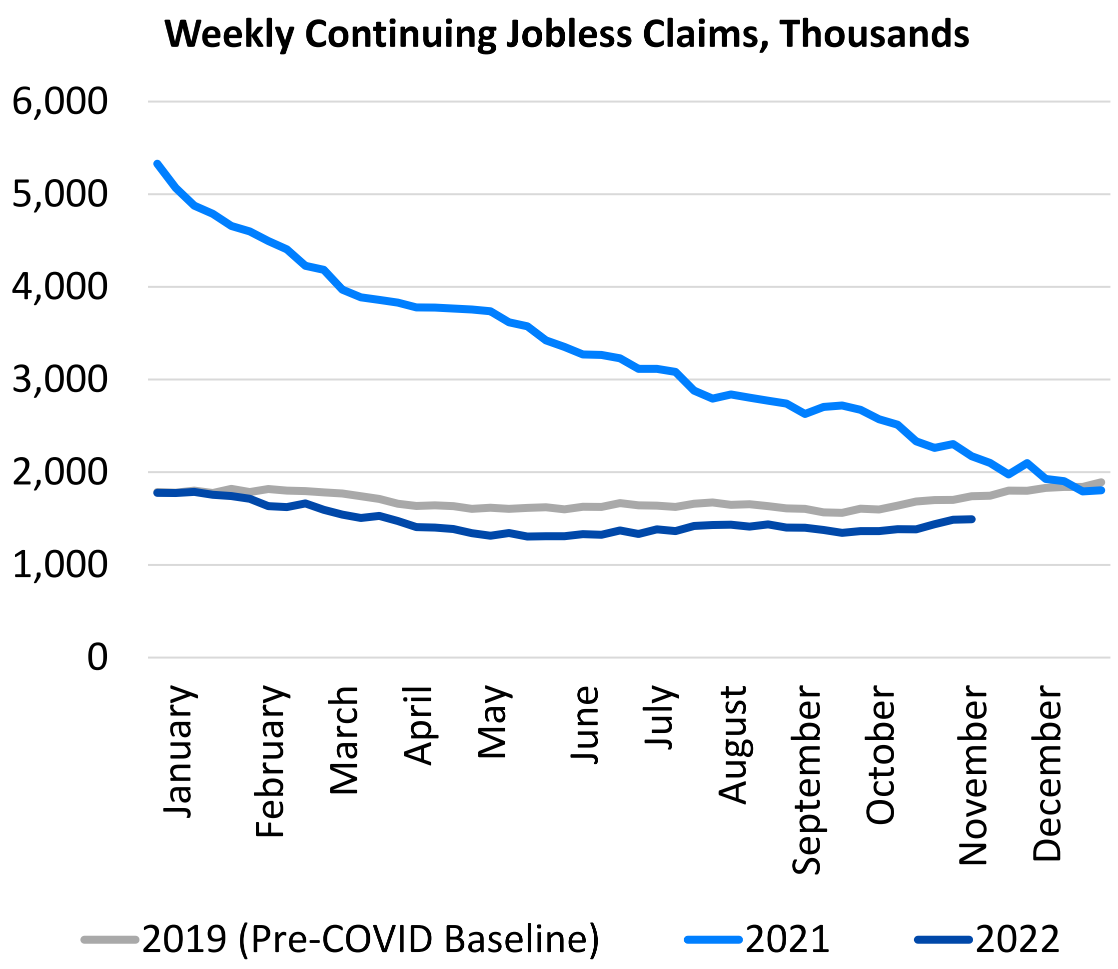
Quits vs. Layoffs



Source: Yardi Matrix; Bureau of Labor Statistics; Federal Reserve Bank of St. Louis

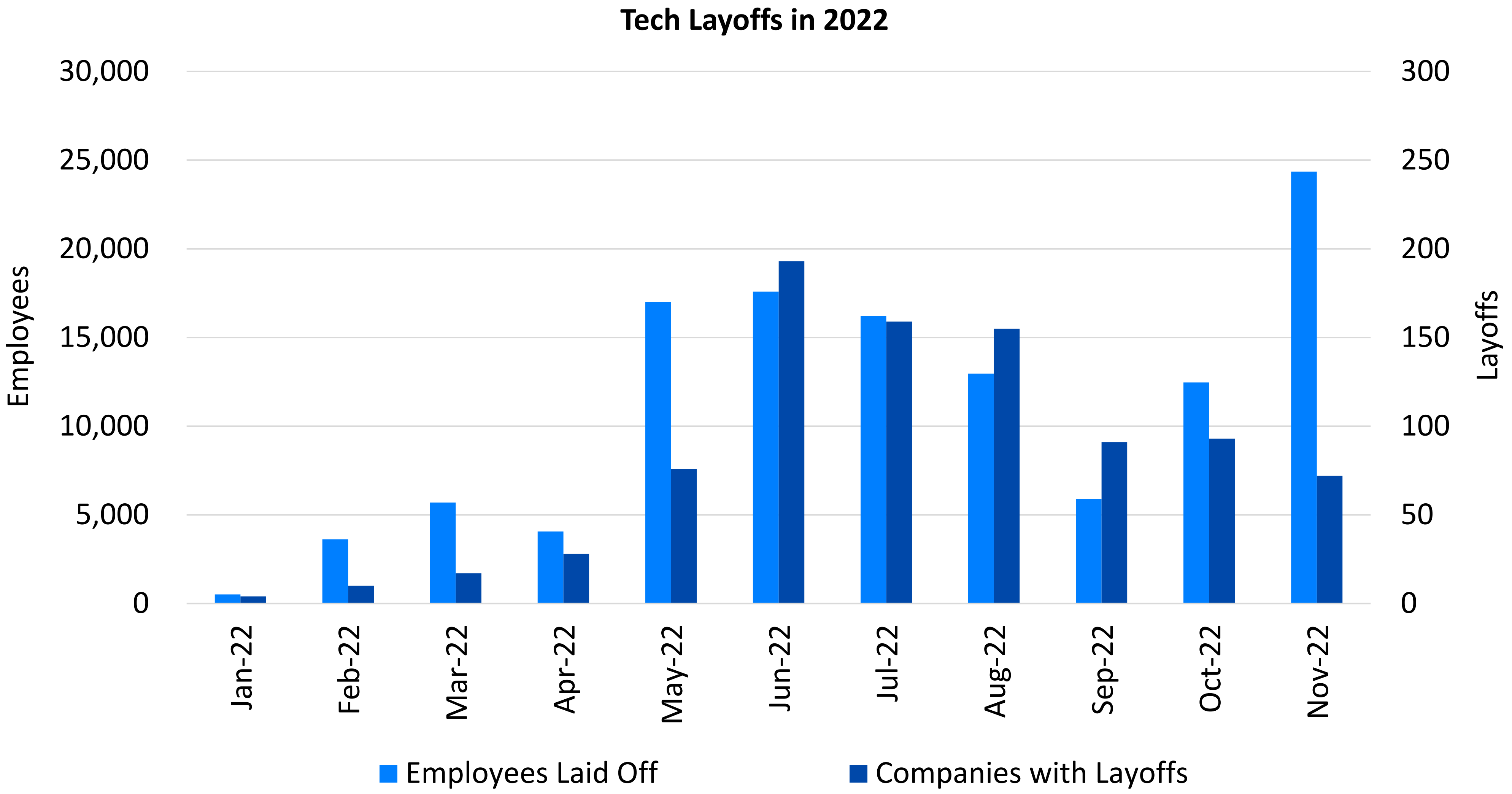
The Job Market is Still Holding Up Well, But...





Source: Yardi Matrix; U.S. Department of Labor; U.S. Bureau of Labor Statistics

Number of Employees Laid Off by Tech Companies Has Surged in November



Source: Yardi Matrix; layoffs.fyi

Tech Job Cuts Are Accelerating

Tech – Job listings down 12% MoM in September

- Amazon – set to layoff thousands to cut costs
- Apple – hiring slowdown, laid off 100 contracted recruiters
- Carvana – 12% of workforce (2,500 employees)
- DocuSign – will lay off 9% of staff (roughly 670 employees)
- Lyft – cutting 13% of staff, or nearly 700 jobs
- Meta – laying off more than 11,000 workers (13% of staff)
- Microsoft – cut <1% of workforce; slowed hiring in Windows, Office and Teams groups
- Netflix – about 500 workers across 4 rounds of layoffs
- Oracle – plan for thousands
- Peloton – 4 sets of layoffs totaling 4,600 employees
- Salesforce – laid off close to 1,000 employees
- Shopify – 10% of jobs (1,000 workers)
- Snap Inc. – >1,200 employees (roughly 20% of its staff)
- Spotify – slowing hiring by 25%
- Stitch Fix – 330 jobs due to widening losses
- Stripe – outlined layoffs that will target 14% of staff
- Twitter – laid off approximately half of its employees, plus terminated 4,400 of its 5,500 contract workers
- Uber – 17% of workforce (3,700 employees)
- Vimeo – 6% of workforce

CRE Tech

- Latch – 28% of full-time employees since April
- LoanDepot – >50% of employees (4,800 workers total)
- Rhino – 20% of staff since February
- Reef – 5% (750 people) in May
- Side – 10% of employees

Auto Makers

- Ford – plans for 8,000 employees
- General Motors – curtailing some hiring
- Tesla – 10% of salaried workers, 229 in Autopilot division , shut down San Mateo, CA office

Banks

- JPMorgan Chase – laid off >1,000 in home lending department
- Wells Fargo – laid off people in home lending department

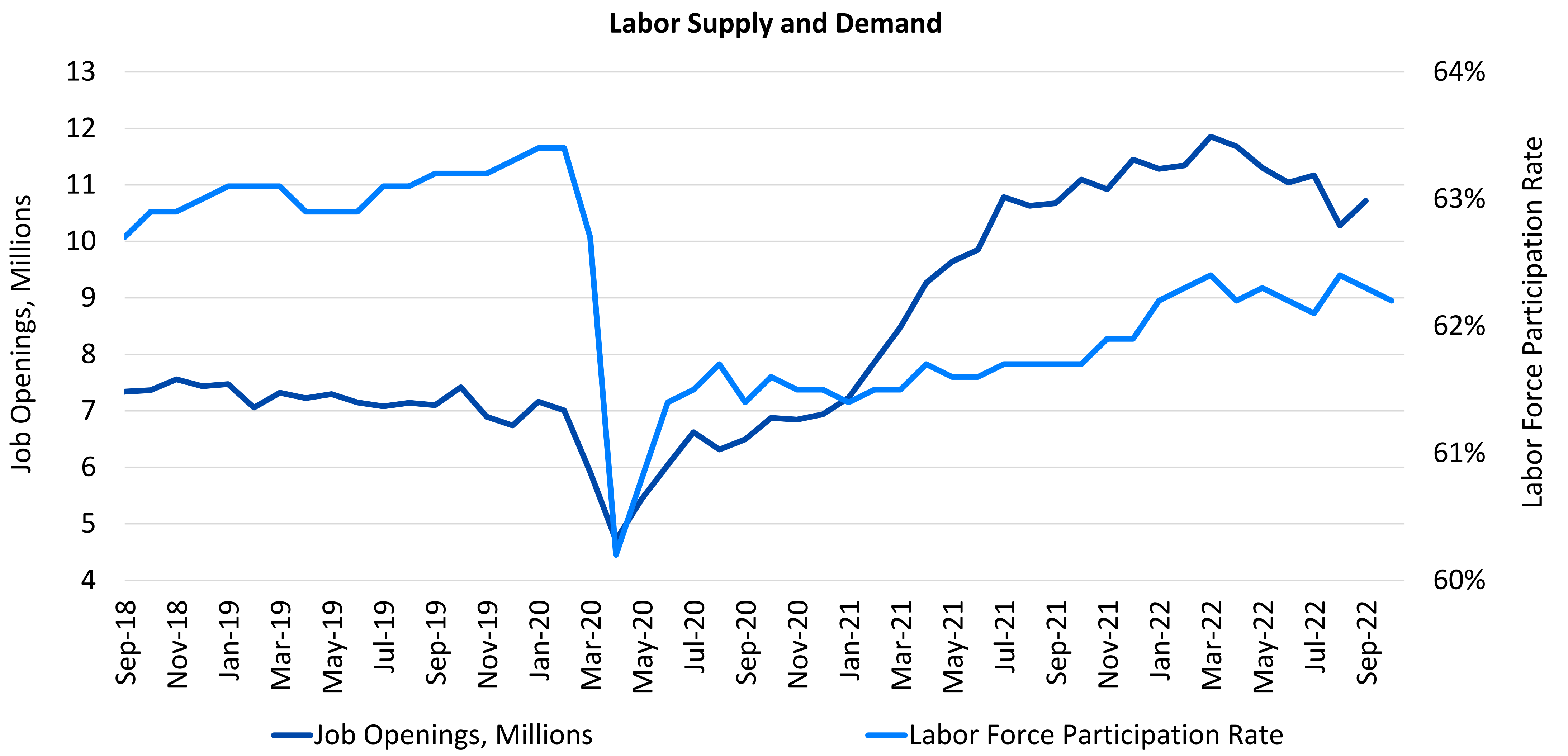
Crypto

- BlockFi – 20% of workforce
- CoinBase Global – 18% staff (1,100 workers), rescinded offers
- Gemini Trust – 10% of staff + 68 employees (7% of staff)
- OpenSea – 20% of employees
- Robinhood – more than 1,000 members of its staff

YARDI

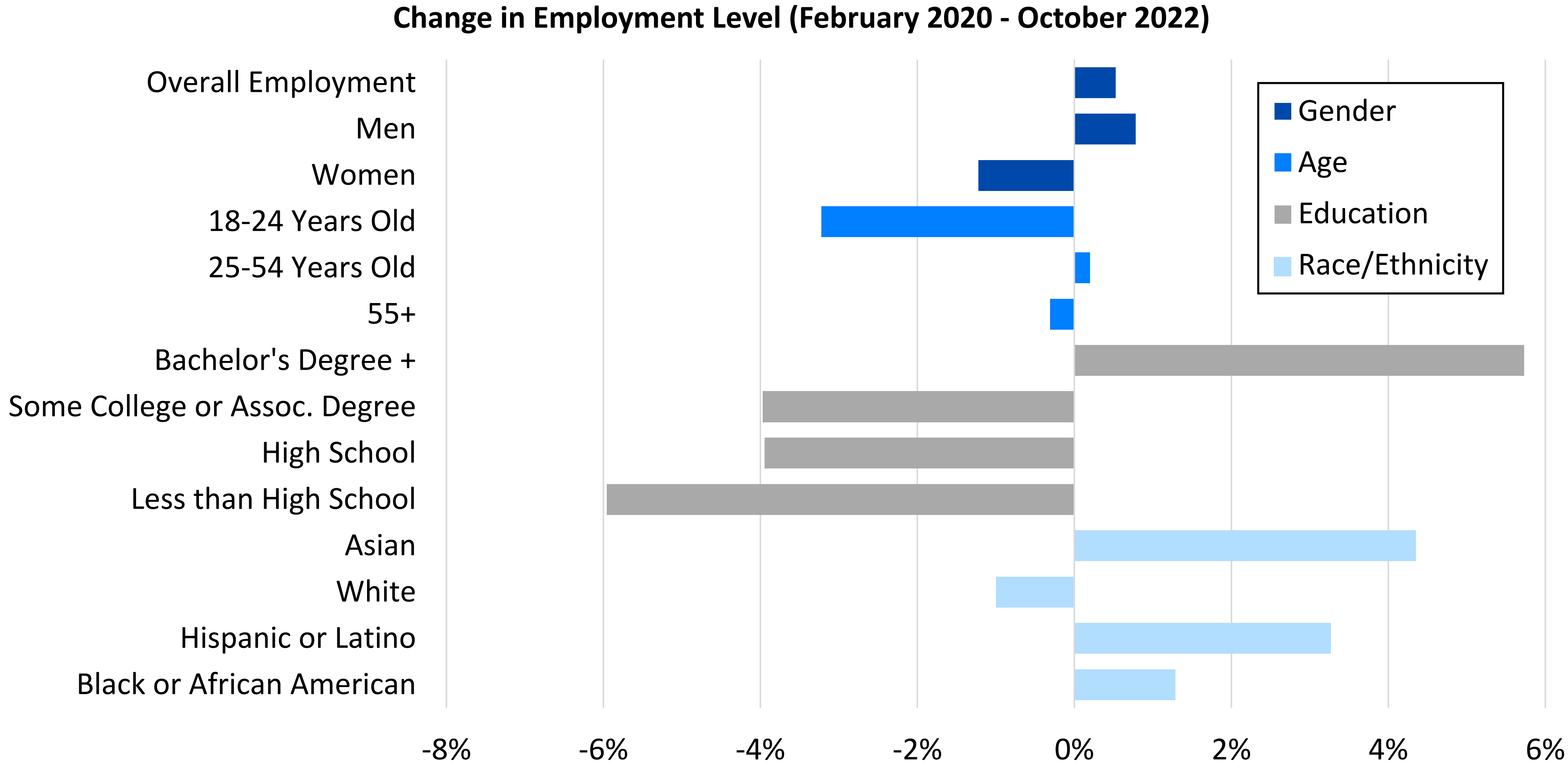
Source: Yardi Matrix; Reuters; Wall Street Journal; GlobeSt.com; Business Insider; Barron’s; Fortune; Forbes; Investorplace.com; CNBC.com; CompTIA.org

The Gap Between Labor Supply and Demand is Decreasing



Source: Yardi Matrix; Federal Reserve Bank of St. Louis; U.S. Bureau of Labor Statistics

Many Demographic Classes Have Left the Workforce

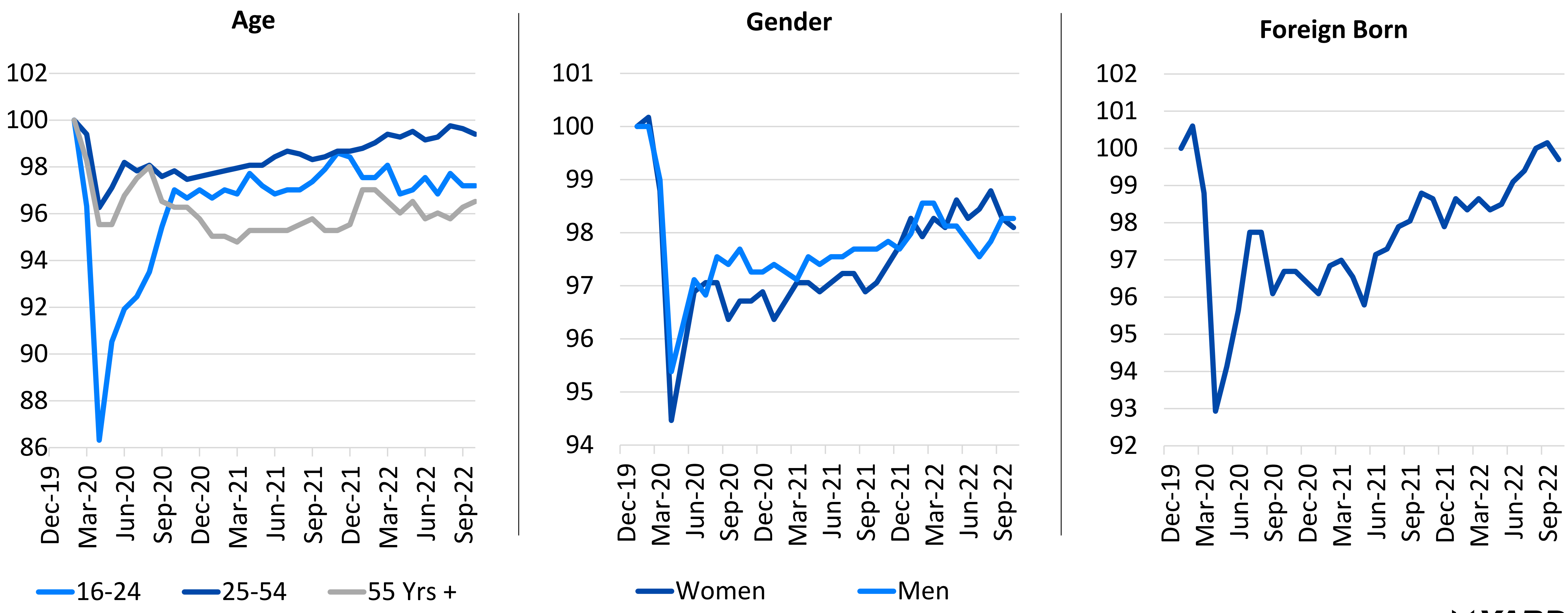


YARDI

Source: Yardi Matrix; Federal Reserve Bank of St. Louis; U.S. Bureau of Labor Statistics

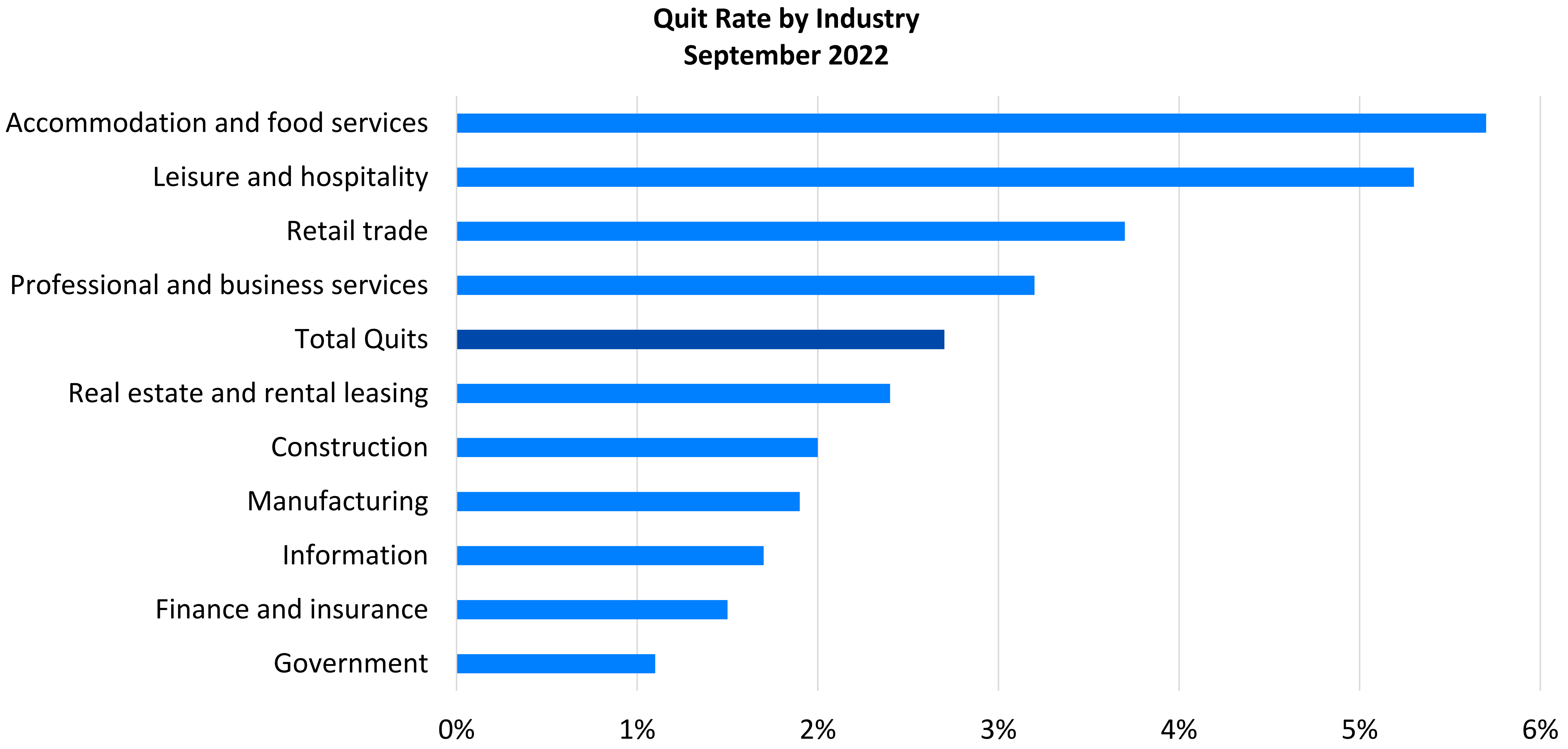
Foreign-Born Workers Have Almost Completely Returned to the Workforce; Workers Ages 16-24 and 55+ Are Taking Time to Return

LABOR FORCE PARTICIPATION RATE, INDEXED JAN 2020 = 100



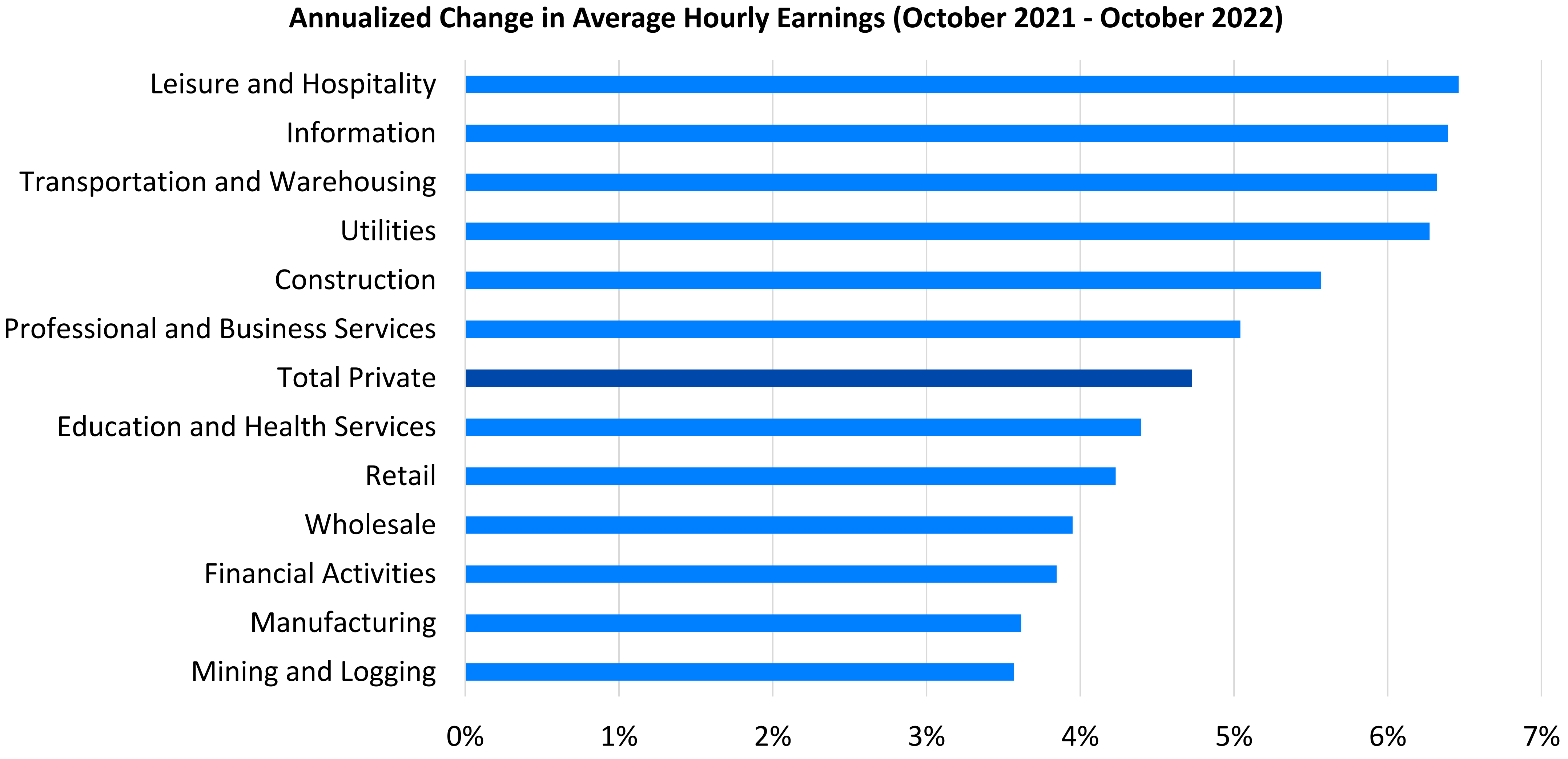
Source: Yardi Matrix; Federal Reserve Bank of St. Louis; U.S. Bureau of Labor Statistics

Quit Rates Higher in Lower Wage Industries



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

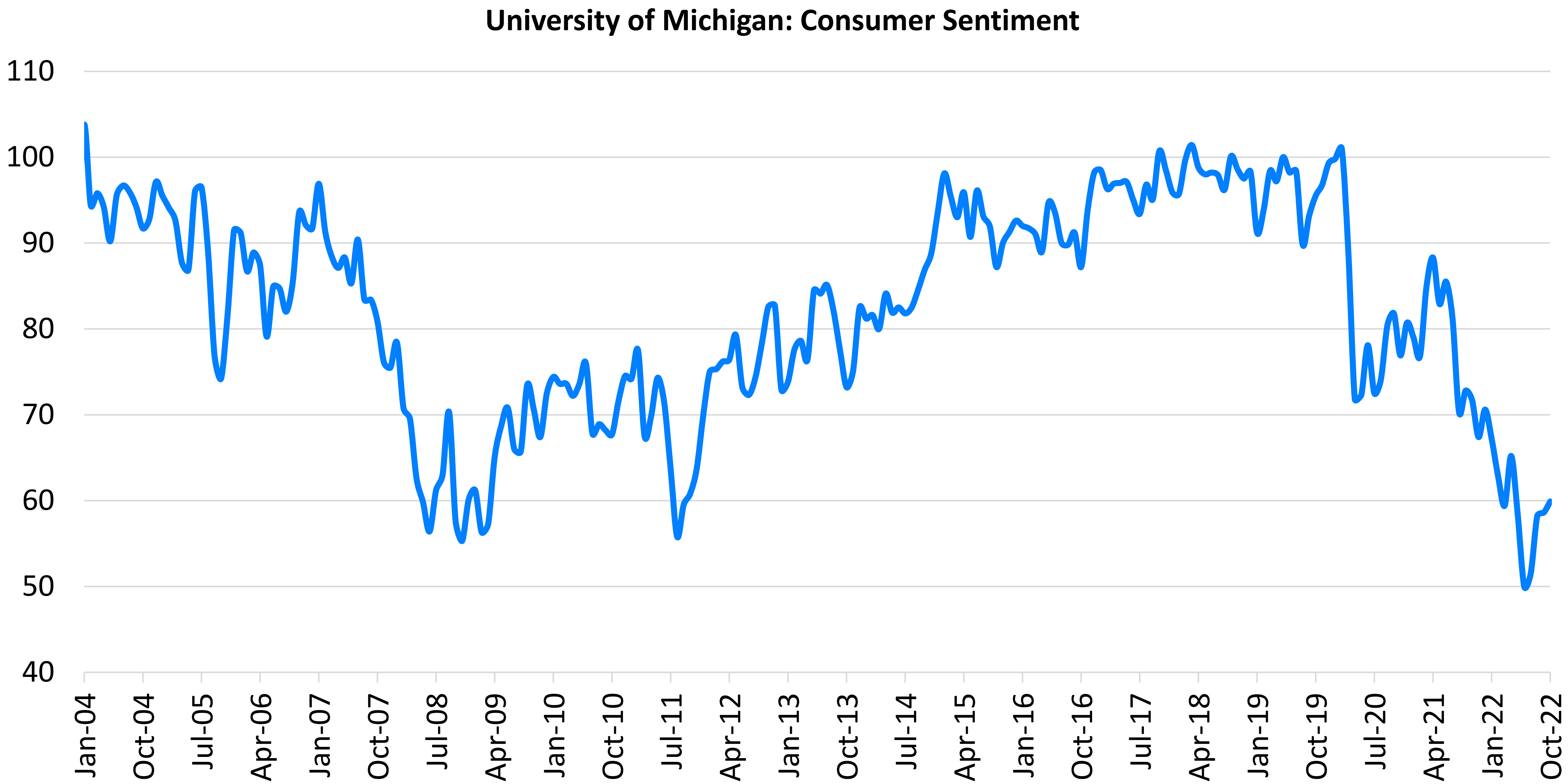
Wage Growth Strongest at the Lower End Since 2021



YARDI

*Average hourly earnings of all employees, seasonally adjusted | Source: Yardi Matrix; U.S. Bureau of Labor Statistics

Consumer Sentiment Slightly Improving as Oil Prices Remain Steady



YARDI

Source: Yardi Matrix; Federal Reserve Bank of St. Louis; University of Michigan Surveys of Consumers

Macroeconomic Summary & Outlook

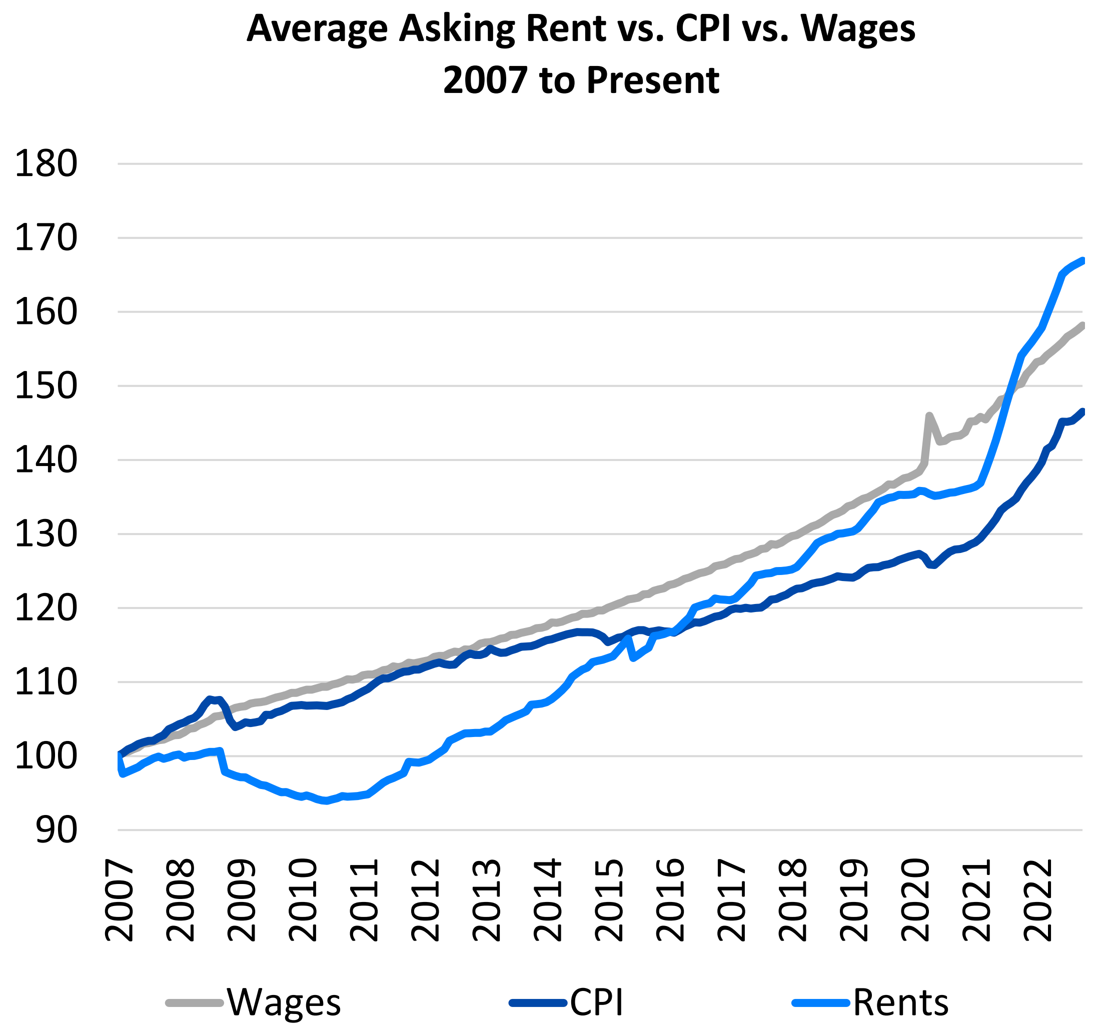
- Fed will continue to increase rates until there is clear evidence of decreasing inflation
- Supply chain disruptions, a tighter-than-ever labor market and other factors have led to growing inflation, and it's not transitory (as we expected)
- The Fed's actions to slow inflation will take a year or two to take effect
- GDP growth will feel the impact of higher interest rates
- Spending is up but consumers are cutting into COVID savings
- Job market is still holding up but hiring freezes and layoffs are on the rise, particularly in tech
- Household formation is decelerating
- Multifamily fundamentals are good but demand is weakening
- Rapid rate increases increasing the likelihood of recession…probably Q4 2023/Q1 2024

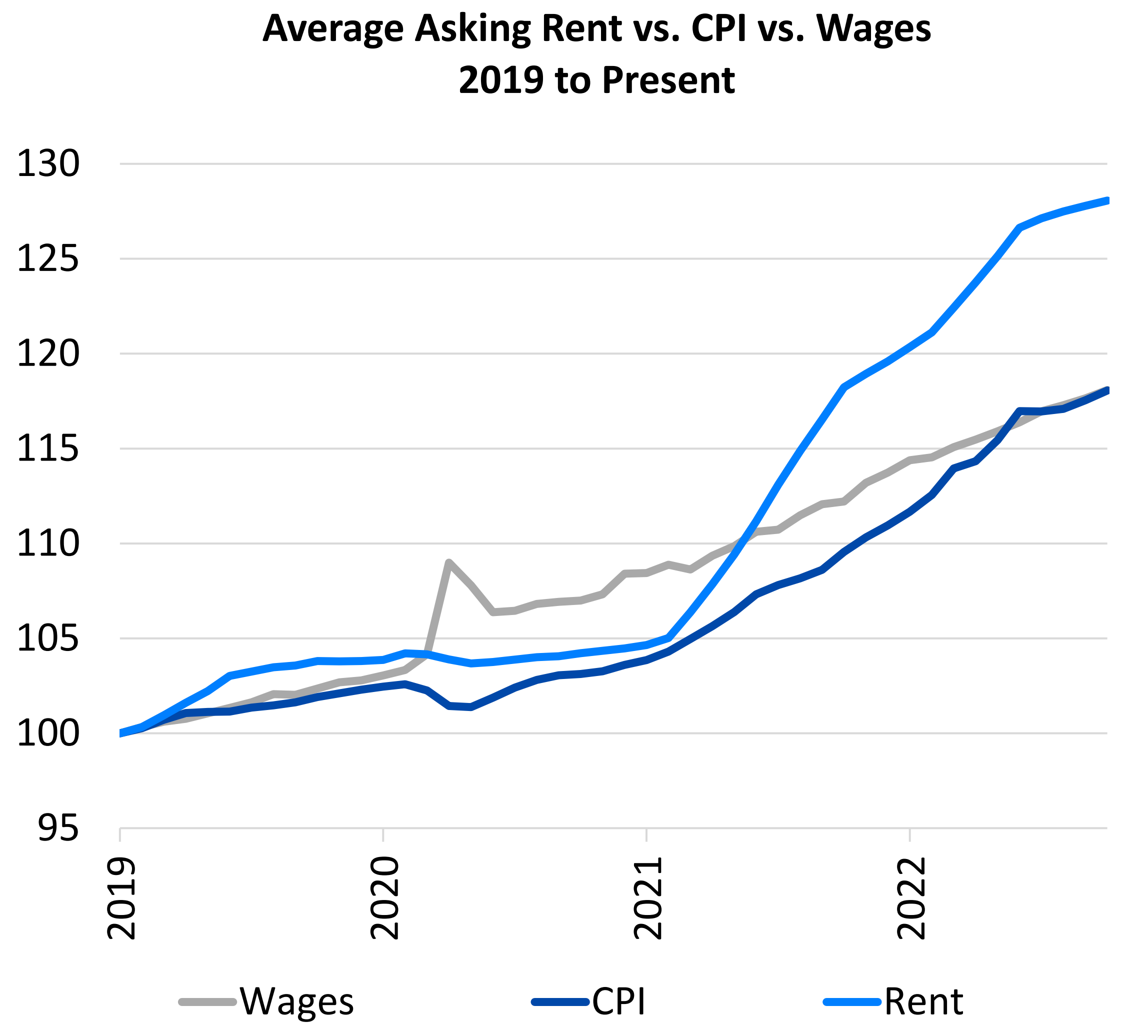
YARDI

Source: Yardi Matrix

DEMOGRAPHICS, AFFORDABILITY AND INVESTMENT RISK

Average Rents Rising Faster Than Inflation and Wage Growth

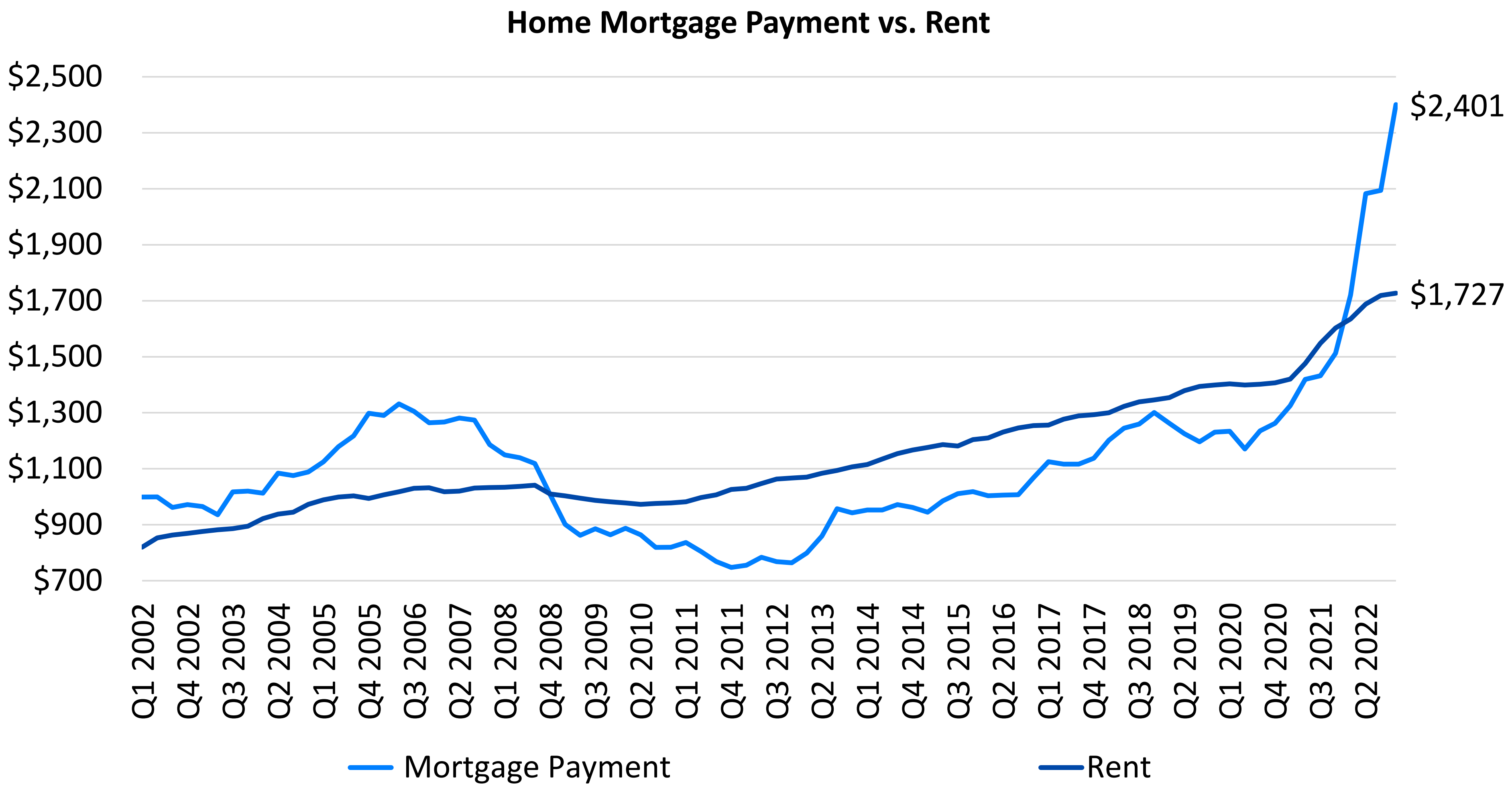




YARDI

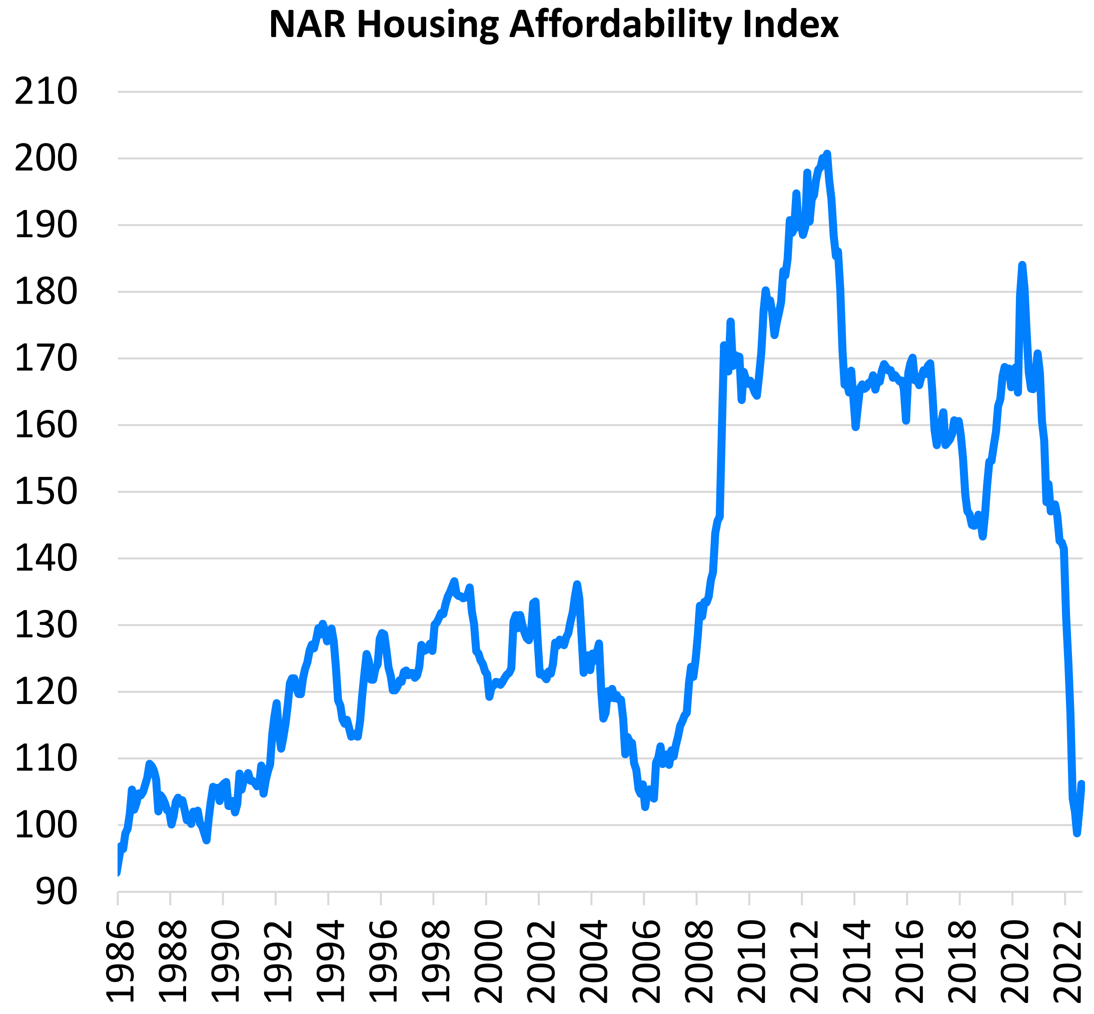
*Data through October 2022 | Source: Yardi Matrix; U.S. Bureau of Labor Statistics (BLS)

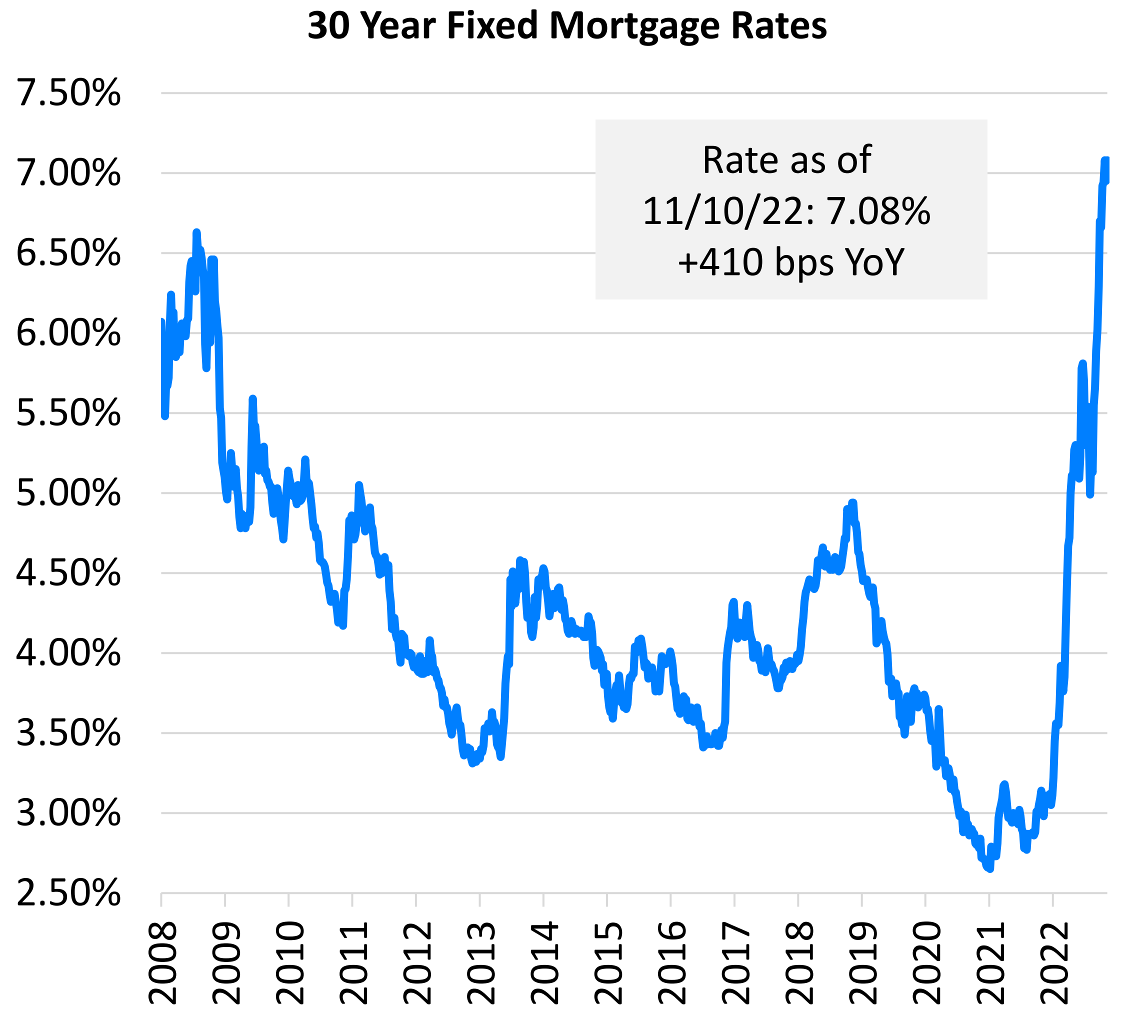
Renting is Still a Good Deal Relative to the Cost of Owning



*Mortgage payments based on median home price for 30-year fixed rate mortgage, 90% LTV
Source: Yardi Matrix; Moody's Analytics

Fastest Decline in Housing Affordability in Decades

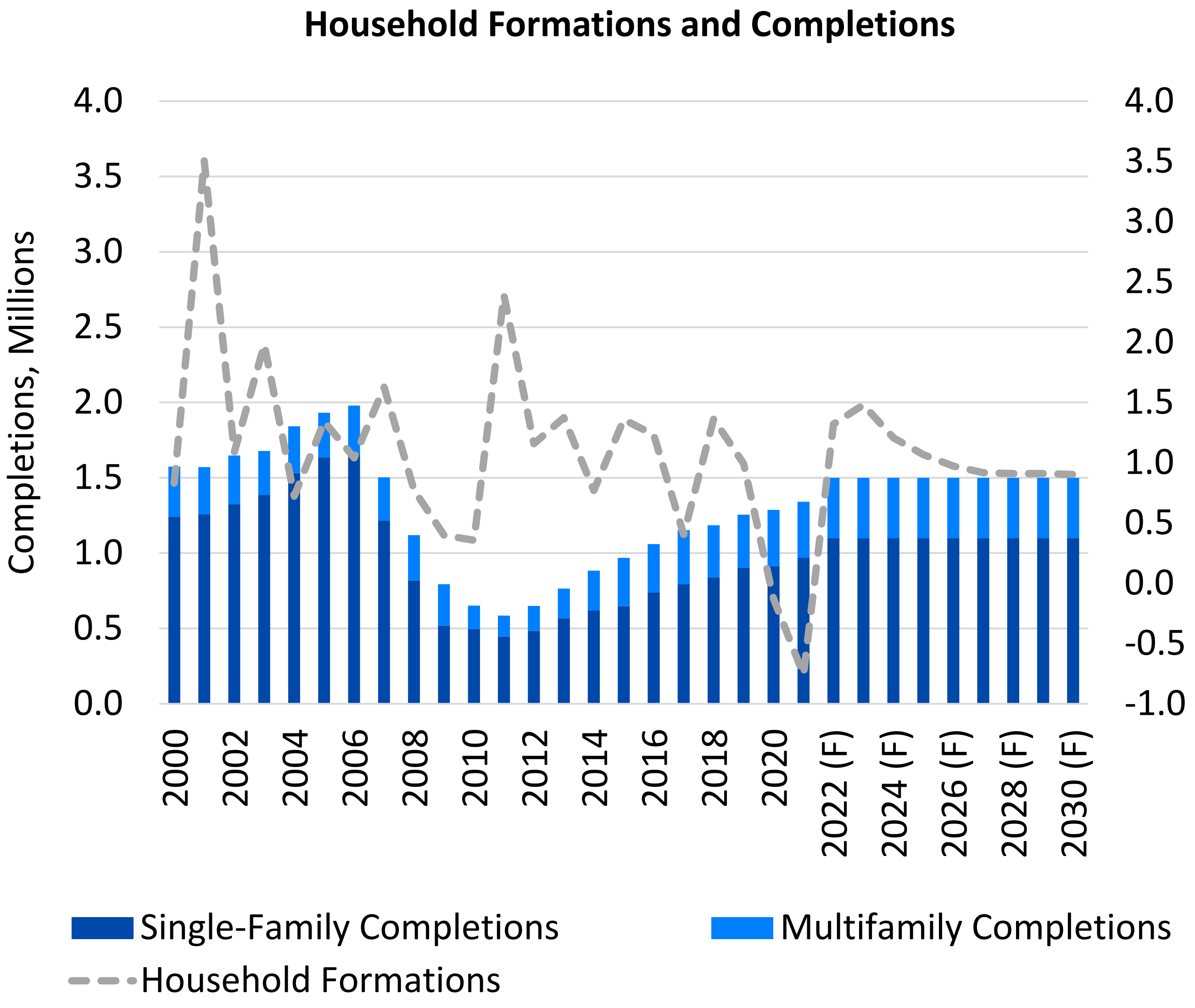




YARDI

Source: Yardi Matrix; Moody’s Analytics

Housing Deficit from the Great Recession is Pushing Prices Up



- Regulatory costs account for 40% of multifamily development costs…high-cost jurisdictions seem oblivious to this
- Supply constraints are growing across markets
- Mortgage rates at highest level in more than 13 years
- First time homebuyers are becoming priced out of the market, encouraging renting
- The political will to address the shortage of housing seems completely absent
- Slowing home sales and multifamily absorptions are signs that household formations may be moderating
- Household formation could stall as renters move in with family or roommates to cut costs

Source: Yardi Matrix; Moody's Analytics; National Association of Realtors (NAR); U.S. Census Bureau (BOC); GlobeSt.com; Wall Street Journal; Marcus and Millichap: National Apartment Association

YARDI

The Regulatory Environment is Heating Up

STATE REGULATIONS

Arizona

- Senate Bill 1099 – would prohibit rent increases >5%, allow localities to establish lower rates; bar landlords from increasing rent > 1x/year – Assigned to Senate Commerce January 11
- Senate Bill 1587 – max rent increases would be the lesser of 10% of the lowest rent charged in the previous 12 months or 5% of lowest rate plus the rate of inflation – Assigned to Senate Commerce February 2

California

- Tenant Protection Act of 2019 – limits annual rent increases to 5%, plus the rate of inflation; requires "just cause" to terminate lease – expires January 1, 2030

New York

- Housing Stability and Protection Act of 2019 – limits security deposits to one month's rent; requires notice for rent increases and evictions

New Jersey

- Over 100 municipalities have rent control policies

Oregon

- Senate Bill 608 – rents can only be changed once per year, limited to 7%, plus the annual change in CPI (9.9% for 2022)

Emergency Rental Assistance Program (ERAP)

- $20.9 billion (84%) of ERA1 funding had been spent as of the final U.S. Department of Treasury report (June 30, 2022)

YARDI

Source: Yardi Matrix; LegiScan; San Francisco Rent Board; New York State Senate; Multifamily NW; iProperty Management; U.S. Department of the Treasury

The Regulatory Environment is Heating Up

CITY REGULATIONS

Beacon, New York

- Good Cause Eviction Law – provides 7 "good causes" that a tenant can be evicted for; landlord cannot evict for expired lease
- Rent increase >5% must be agreed upon with tenant or approved by judge

Boston, Massachusetts

- Rent Stabilization Advisory Committee developing city rent stabilization proposal for the 2023-24 state legislative session

Beverly Hills, California

- Ordinance No. 22-O-2861 – ends eviction moratorium on May 31, 2022, unpaid rent must be repaid by May 31, 2023
- Max rent increase for both Chapter 5 tenants and Chapter 6 tenants for the period of June 1, 2022 - June 30, 2023 is 3.10%

Culver City, California

- Rent Control/Tenant Protections Ordinances – one rent increase per year max 2% if CPI is <2%, max 5% if CPI is >5%
- 50% of the cost of eligible capital improvement projects may be passed-through to tenants

Inglewood, California

- Housing Protection Ordinance 21-09 – max rent increase = 3% or the cost of inflation (whichever is greater), as measured by CPI, not to exceed 10%; property owners must register with the city

Kingston, New York

- Rent Stabilization and Good Cause Eviction Laws
- The Rent Guidelines Board approved a 15% rent reduction that applies to renters of 1,200 apartments in 64 rent-stabilized buildings with leases between August 1, 2022 and September 30, 2023

YARDI

Source: Yardi Matrix; AlbanyNY.gov; Boston.gov; BeverlyHills.org; CulverCity.org; CityofInflewood.org; Kingston-NY.gov; GlobeSt.com

The Regulatory Environment is Heating Up

CITY REGULATIONS

Lake Worth, Florida

- City commissioners passed ordinance in April 2022 requiring landlords to give 60-day notice prior to raising rent
- Commissioners declared a state of emergency over housing crisis in August 2022 – first step to pave the way for rent control

Los Angeles, California

- COVID-19 eviction moratorium now set to expire January 31, 2023, tenants continue to have eviction protections for unpaid pandemic rental debt and until at least August 2023 to repay
- Rent Stabilization Ordinance – defines annual allowable rent increases (0-8%, based on CPI), surcharges, reasons for eviction

Miami, Florida

- Ordinance effective March 25, 2022 – 60 days written notice when increasing rent >5% or terminating month-to-month lease

Newburgh, New York

- Good cause eviction law – provides 10 "good causes" that a tenant can be evicted for; landlord cannot evict for expired lease

Orange County (Orlando), Florida

- On November 8, voters in Orange County approved a proposal to implement a rent control ordinance, however pending litigation will prevent the ordinance from going into effect
- In September, a lawsuit was filed by the Florida Apartment Association and the Florida Association of Realtors, seeking to invalidate the ballot measure, but a judge ruled that the suit could not proceed until after the election
- The ordinance aimed at limiting rent increases to 9.8% over the next year

Source: Yardi Matrix; WLFX.com; MSN.com; County of Los Angeles; Los Angeles Housing Department; MiamiDade.gov; Orlandoweekly.com; Orlandosentinel.com; Clickorlando.com; Hudsonvalleypress.com; GlobeSt.com; Therealdeal.com

Resources to Keep Up to Date with the Evolving Regulatory Landscape

National Apartment Association (NAA)

NAA State Legislative Tracker

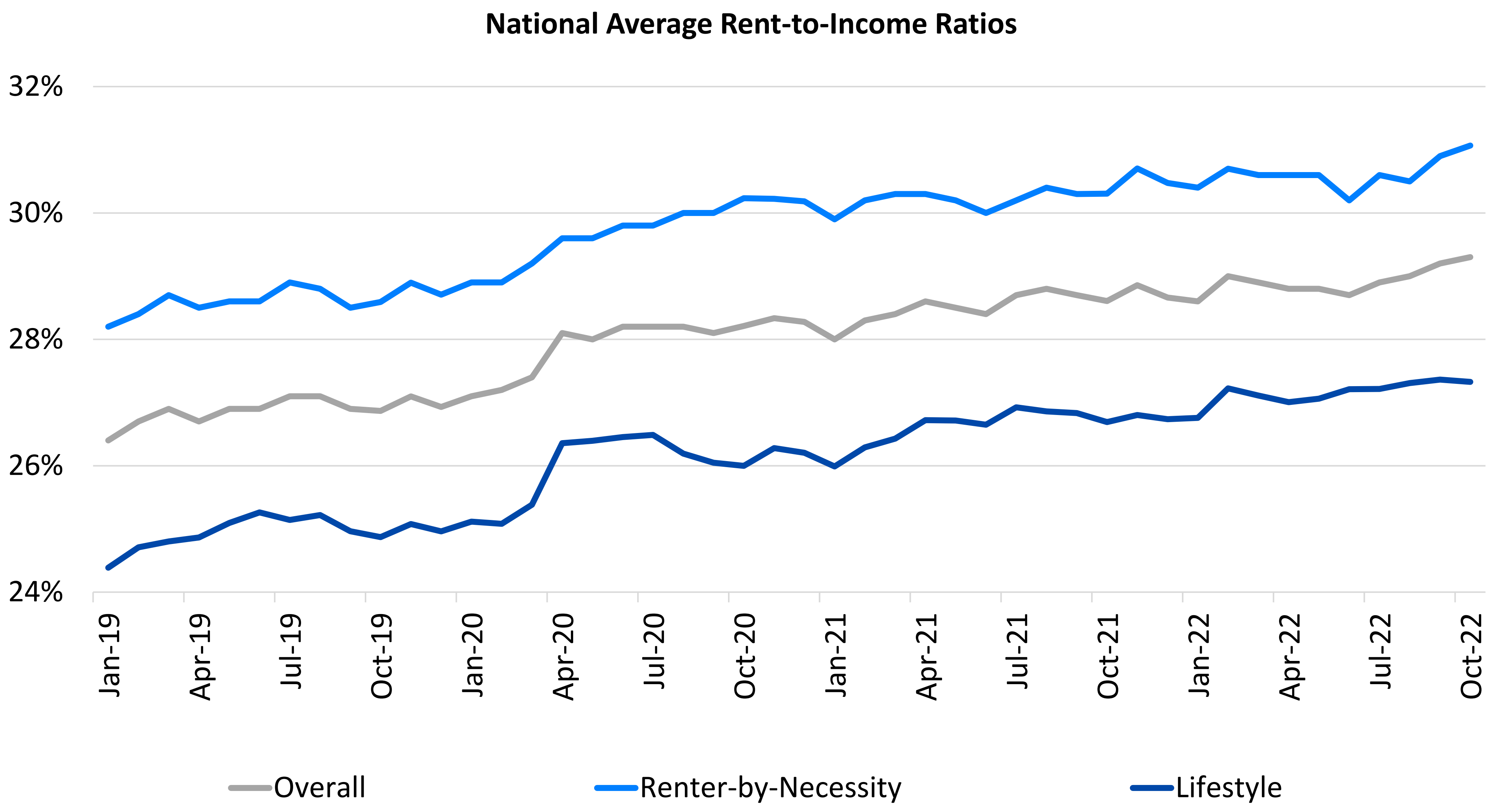
National Multifamily Housing Council (NMHC)

Ben Kelly (Consultant)

Please reach out to us for contact information

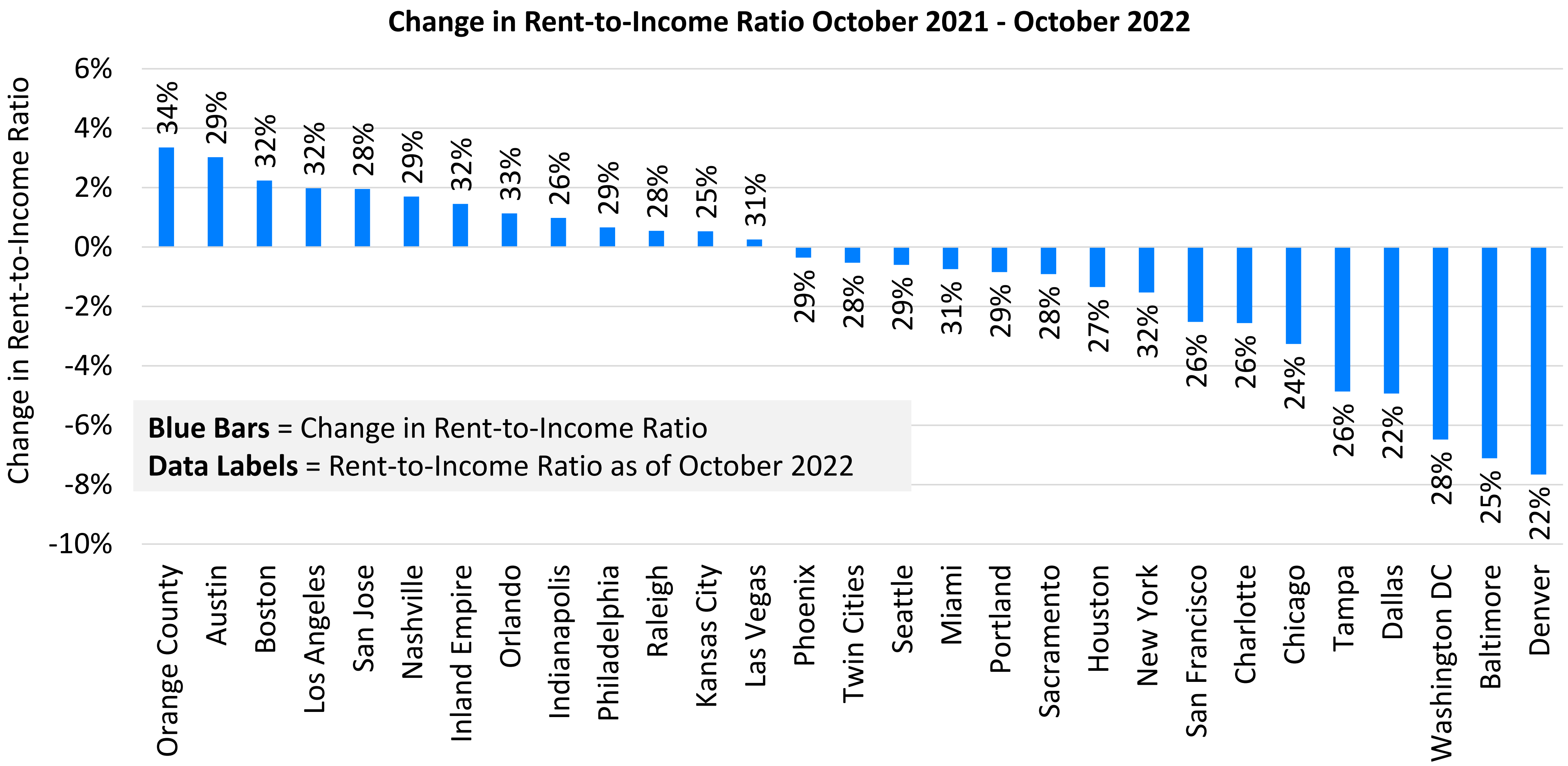
Yardi Matrix

Rent-to-Income Ratios Highest in Renter-by-Necessity Class



Source: Yardi Systems Screening Data

Overall Changes in Rent-to-Income Ratios Indicate Ability to Absorb Moderate Increases in Rents



Source: Yardi Systems Screening Data

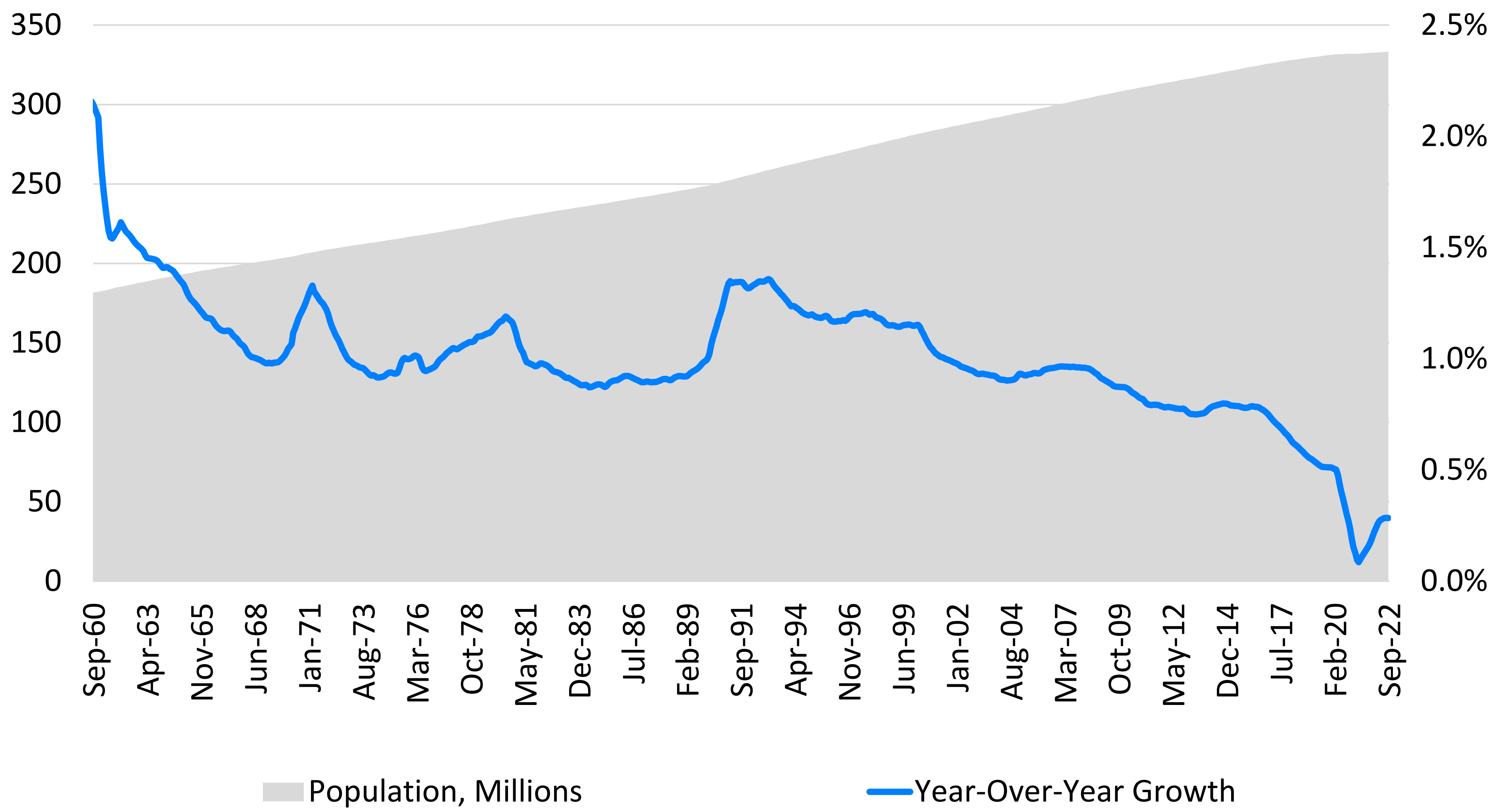
Significant Increases in Rent-to-Income Ratios at the Lower-End May Put Pressure On Those Already Cost Burdened

	Lifestyle Units			Renter-by-Necessity Units		
Market	**Oct 2021**	**Oct 2022**	**Change**	**Oct 2021**	**Oct 2022**	**Change**
Long Island	35.8%	36.0%	0.2%	35.0%	*54.0%*	19.0%
Knoxville	22.6%	24.3%	1.8%	26.7%	38.7%	12.0%
Wichita	21.7%	22.0%	0.3%	25.0%	36.5%	11.5%
Savannah - Hilton Head	26.6%	27.4%	0.8%	25.7%	34.7%	9.0%
San Antonio	25.2%	32.0%	6.8%	26.8%	35.4%	8.7%
St. Louis	23.1%	27.7%	4.6%	26.7%	34.8%	8.1%
Memphis	25.2%	27.8%	2.6%	28.8%	36.6%	7.9%
Toledo	22.9%	29.2%	6.3%	24.5%	31.7%	7.2%
Corpus Christi	24.4%	34.6%	10.2%	31.4%	38.3%	6.8%
Tallahassee	25.2%	29.4%	4.2%	26.4%	32.8%	6.4%
Tucson	23.5%	30.5%	7.0%	27.2%	32.8%	5.6%
Madison	24.1%	29.4%	5.3%	27.9%	32.8%	5.0%
Boston	27.5%	31.7%	4.2%	27.7%	32.5%	4.8%
Richmond - Tidewater	29.0%	29.1%	0.1%	29.7%	34.3%	4.5%
Eugene	26.2%	35.6%	9.4%	23.0%	27.3%	4.3%

YARDI

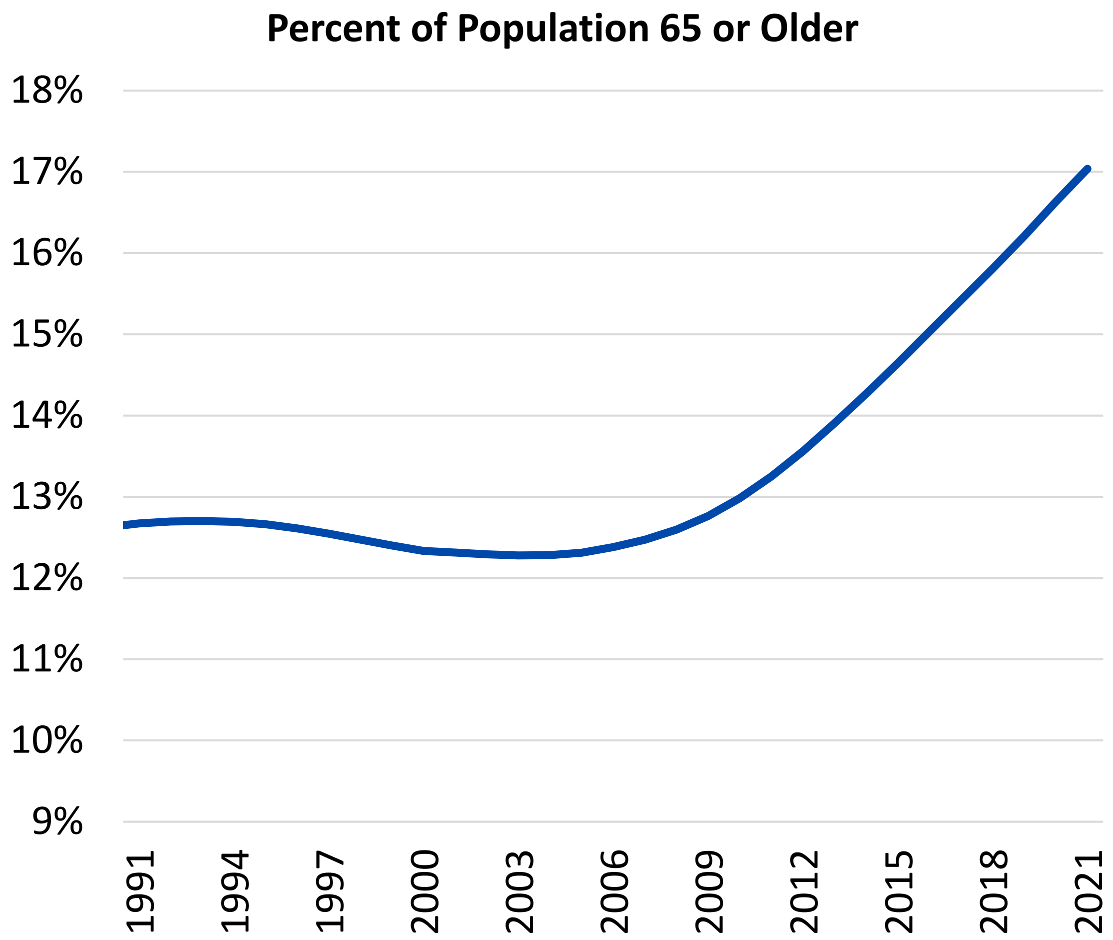
Source: Yardi Systems Screening Data

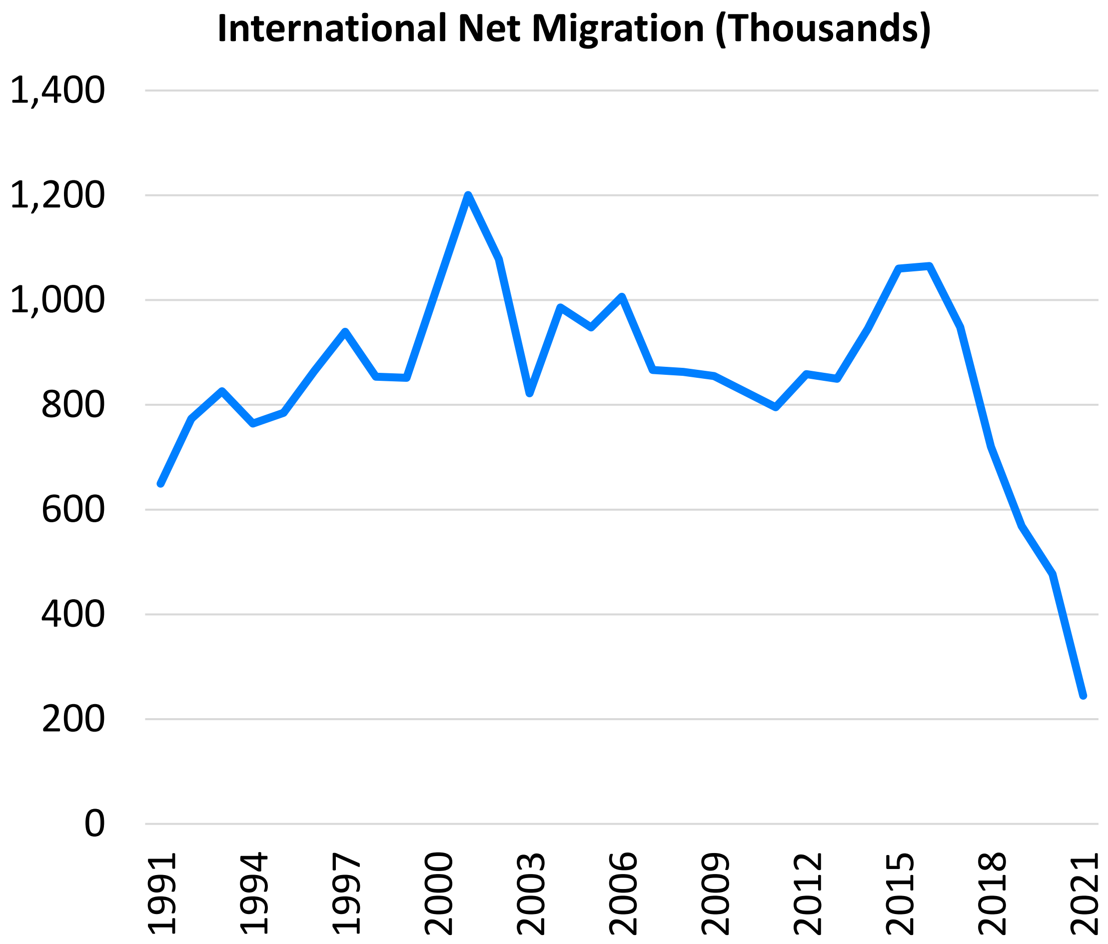
Overall U.S. Population Growth is Declining



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

The U.S. Population is Aging and International Immigration is Falling; Further Impacting the Labor Shortage





YARDI

Source: Yardi Matrix; Federal Reserve Bank of St. Louis; World Bank; Moody's Analytics; U.S. Census Bureau

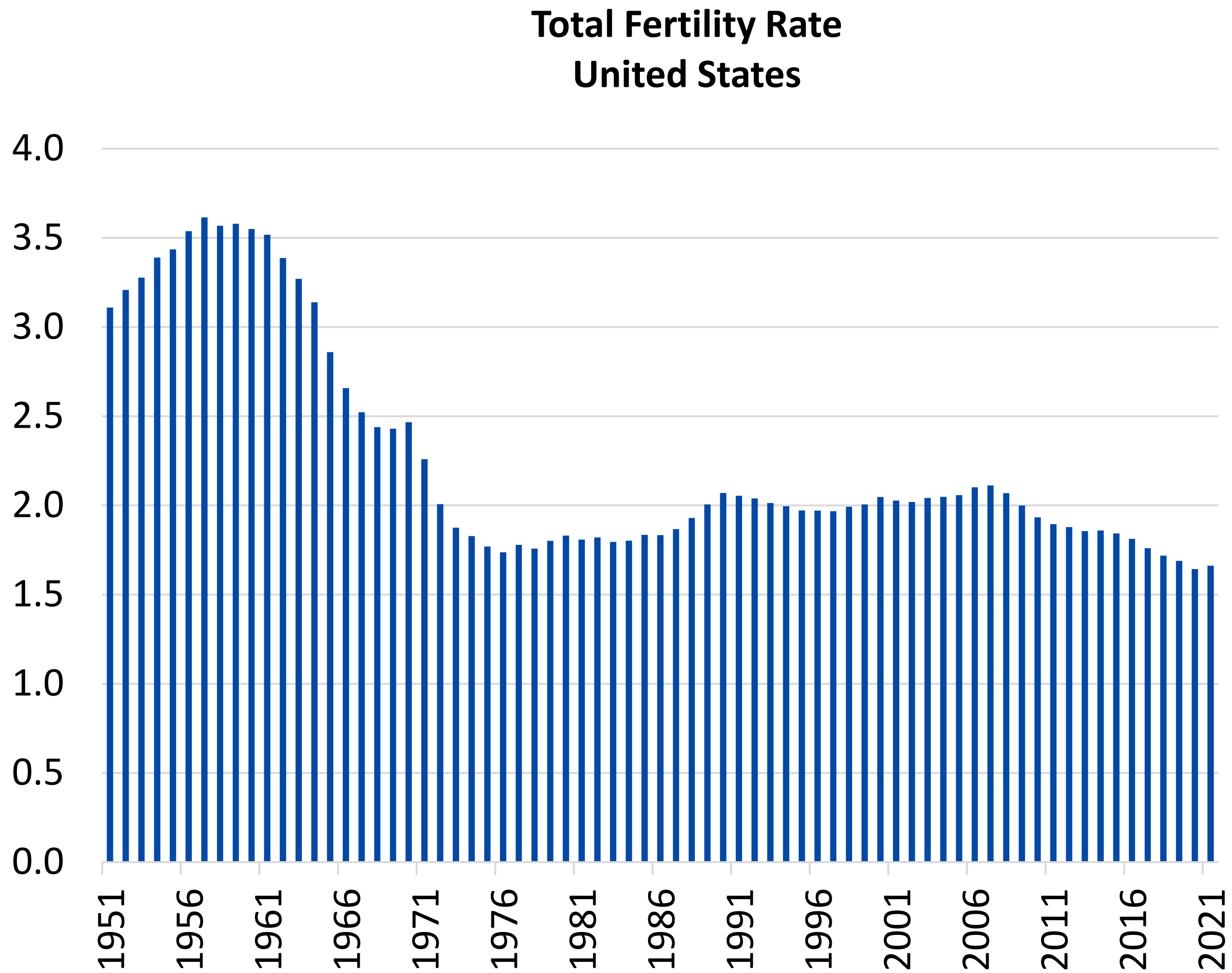
Fertility in the U.S. Has Been Declining For Years, But Remote Work May Turn That Around

WHY?

- Record student debt; childcare is too expensive
- Teen birth rate has declined to around a third of what it was in 1990
- Changing marital patterns, delaying marriage
- Changing social and cultural expectations of parenting

POTENTIAL SHIFT?

- Mini baby boom (6.2% increase relative to 2015-2019 trend) in 2021 contributed to remote work
- Increase was more pronounced for U.S. born first-time mothers and college-educated women
- The widely publicized drop in fertility rates over this same time was due to the lack of immigration dropping foreign-born women's fertility rates in the U.S.
- Preliminary 2022 data confirms continued increase



YARDI

Source: Yardi Matrix; Our World Data; UN Population Division; Axios

Latest on Work From Anywhere Trend

- **77%** of companies are using a **hybrid approach** (Colliers)
  - Remote workforce increased 12% from 2019 to 2021
    - 2019 – 9 million workers (6% of workforce)
    - 2021 – 27.6 million workers (18% of workforce)
  - **52% of office workers prefer a hybrid work model**
  - **Emerging trend is 3 days per week in office**
    - 40% less time in office

- Markets with the largest increase in WFH Workers
  - San Jose – 550%
  - Boston– 545%
  - Washington, D.C. – 499%
  - Seattle – 463%
  - Baltimore – 415%

- Companies could lose out on tax incentives if they do not have enough in-office workers
  - Texas Enterprise Zone program credits at risk of being cancelled for companies that did not have employees working on-site at least 50% of the time

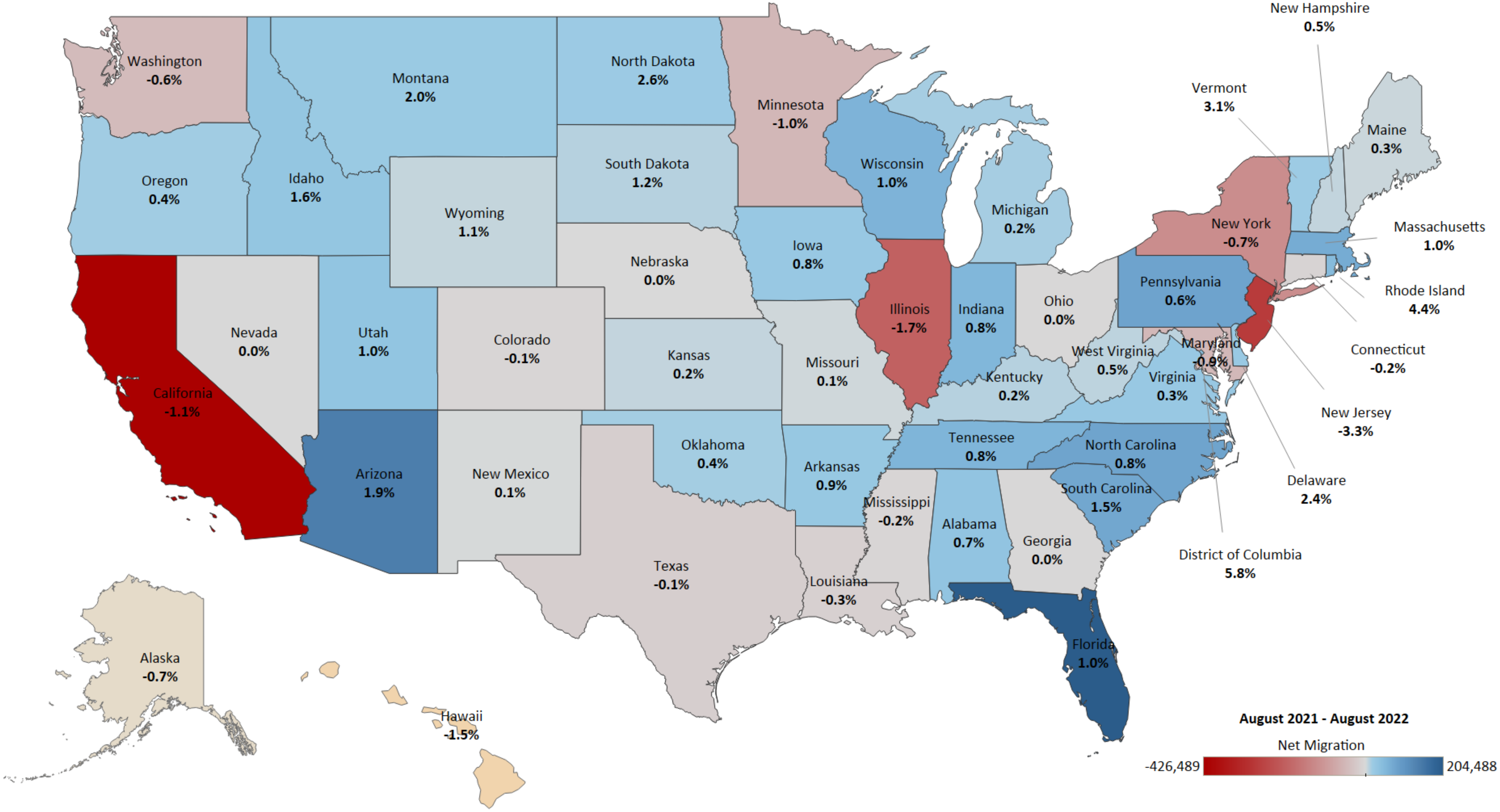
- There has been an absolute decline in the aggregate size of the nation's major metros
  - The shift to remote work has given smaller cities and communities the opportunity to compete with coastal hubs for residents
  - Cities that have appealing lifestyle elements but have historically lacked access to great professional jobs have started to see in-migration

- Transformational effect of remote work
  - Remote-friendly work environment in high demand with younger generations
  - Respects workers' time
  - Allows people to tap into patterns of best productivity
  - Wider adoption of technology
  - **Office is still necessary for training, collaboration and mentorship**

YARDI

Source: Yardi Matrix; Commercial Café; The Business Journals; GlobeSt.com; Bisnow

Net Migration Over the Past Year Was Hottest in the Sunbelt and Mountain States



Migration data for August 2021 – August 2022. Percentages denote net migration as a % of total starting population | Source: Yardi Matrix; Placer.ai

Only 6 of the Top 30 Multifamily Markets Had Positive Net Migration Over the Last Six Months, And Rent Growth Was Strong Despite a Loss in Occupancy

Market	Net Migration 6 Months Mar '22 – Aug '22	Change in Net Migration 2021-2022	Rent Growth 6 Months Mar '22 – Aug '22	Occupancy Growth 6 Months Mar '22 – Aug '22
Indianapolis	25,775	10,294	5.8%	-0.4%
Austin	20,756	(7,753)	3.7%	-0.4%
Denver	14,601	13,686	4.6%	-0.3%
Nashville	12,237	3,205	5.7%	-0.6%
Raleigh - Durham	11,805	(10,851)	6.1%	-0.4%
Portland	4,493	6,791	5.2%	-0.1%
Boston	(4,654)	(28,360)	4.9%	-0.6%
Kansas City	(5,326)	1,607	5.4%	-0.1%
Orlando	(6,427)	(910)	5.1%	-0.7%
Twin Cities	(8,541)	322	2.3%	0.0%
Charlotte	(10,811)	1,058	5.4%	-0.4%
Baltimore	(16,467)	4,422	3.0%	-0.5%
Las Vegas	(16,924)	(11,435)	1.7%	-0.8%
Sacramento	(17,150)	(2,965)	2.6%	-0.6%
San Jose	(19,674)	13,455	7.5%	0.3%

Top 30 Matrix markets sorted by total net migration for the 6 months ending 8/31/22. Change in net migration is for the same 6 months the year prior.
Positive and negative values depicted in blue and gray. Gateway markets are bolded | Source: Yardi Matrix

YARDI

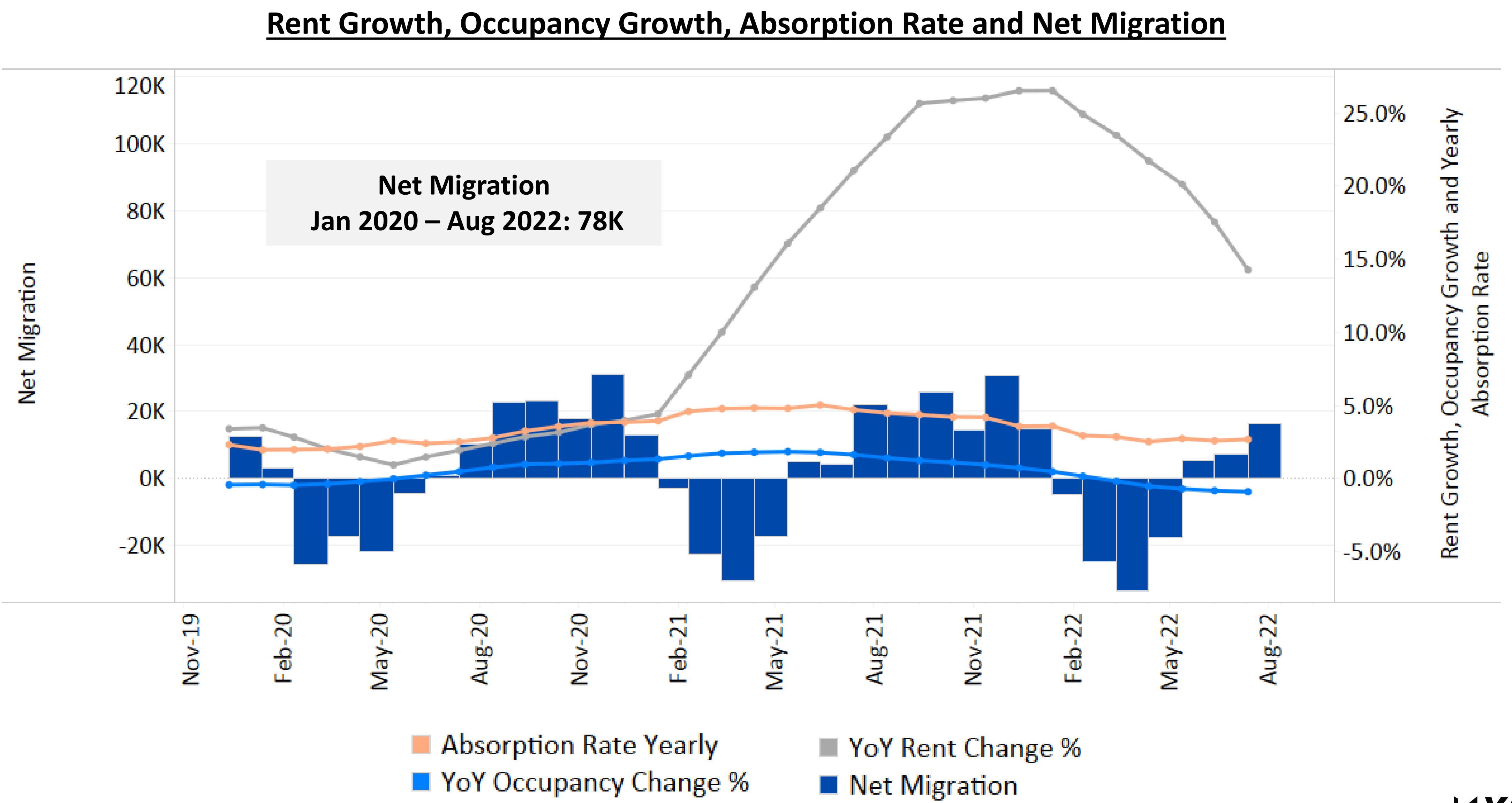
Some of the Top 30 Markets That Had Significant Negative Net Migration Still Had Strong Rent Growth: **Dallas, Seattle, Chicago, New York and Tampa**

Market	Net Migration 6 Months Mar '22 – Aug '22	Change in Net Migration 2021-2022	Rent Growth 6 Months Mar '22 – Aug '22	Occupancy Growth 6 Months Mar '22 – Aug '22
San Francisco	(22,327)	49,636	3.9%	-0.1%
Orange County	(27,846)	14,417	3.5%	-0.4%
Philadelphia	(28,611)	(7,589)	3.9%	-0.3%
Dallas	(29,581)	(11,972)	5.2%	-0.4%
Seattle	(30,807)	(1,933)	5.2%	-0.1%
New York	(32,566)	(34,229)	4.5%	0.0%
Los Angeles	(44,508)	13,689	3.8%	-0.2%
Tampa	(47,201)	(8,195)	4.2%	-0.9%
Atlanta	(49,997)	(23,981)	2.7%	-0.4%
Washington DC	(58,662)	(14,043)	3.8%	-0.1%
Houston	(58,730)	1,493	3.5%	-0.5%
Inland Empire	(66,027)	(17,869)	3.3%	-0.6%
Phoenix	(71,507)	(1,483)	1.3%	-0.9%
Chicago	(83,302)	(9,670)	4.6%	-0.2%
Miami Metro	(130,636)	8,974	3.7%	-0.6%

Top 30 Matrix markets sorted by total net migration for the 6 months ending 8/31/22. Change in net migration is for the same 6 months the year prior.
Positive and negative values depicted in red and blue. Gateway markets are bolded | Source: Yardi Matrix

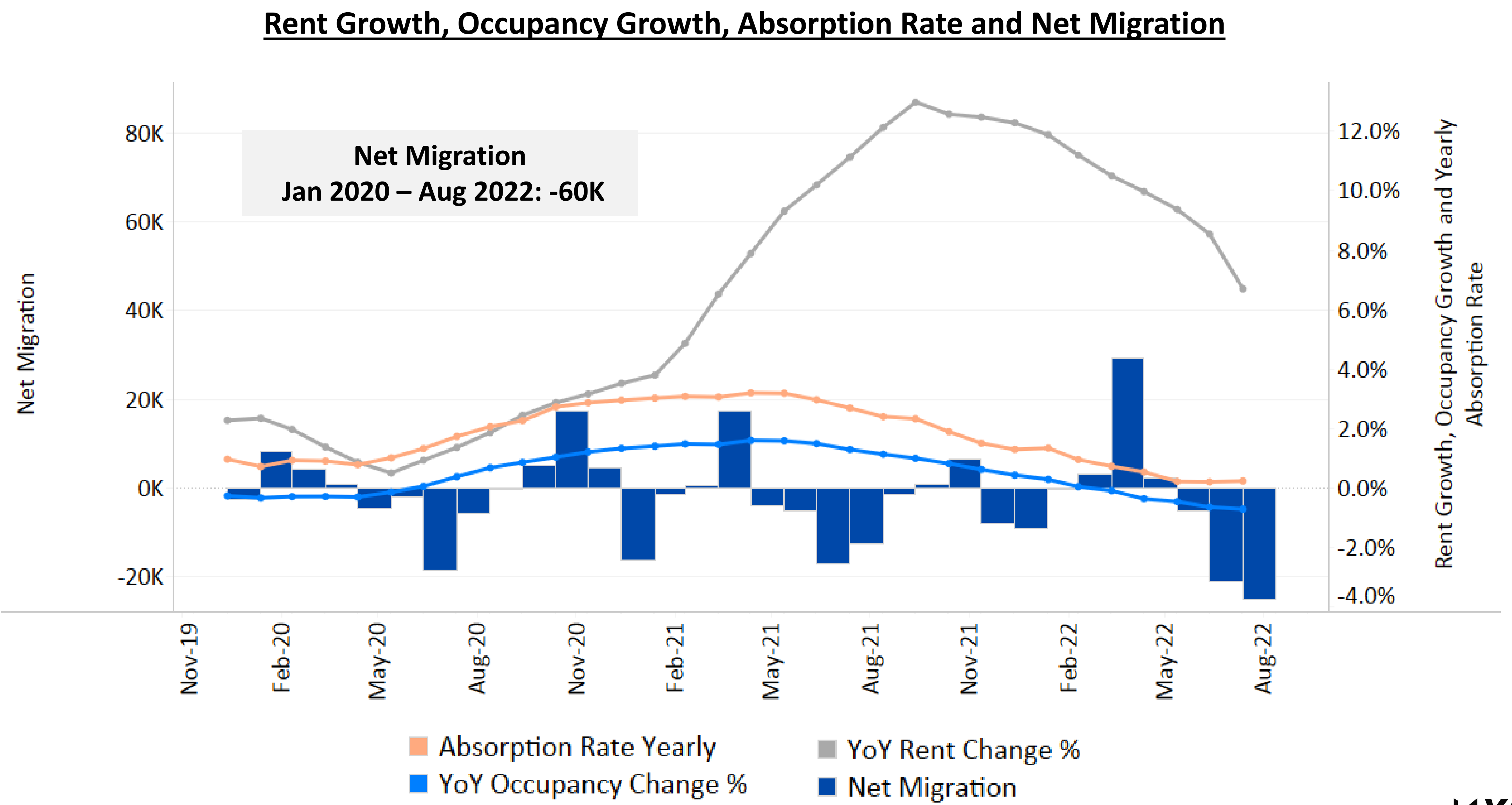
YARDI

Migration Seems to Have an Impact on Rents: **Tampa, FL**



Source: Yardi Matrix; Placer.ai

However, Some Markets Had Rent Growth Without Migration: **Baltimore, MD**



YARDI

Source: Yardi Matrix; Placer.ai

Even Limited Migration Can Have a Big Impact on Multifamily Rents

San Francisco losing 2% of its population doesn't have a huge impact on the SF rental market, however that same 2% has a significant impact on the smaller markets where those out-migrants are moving to

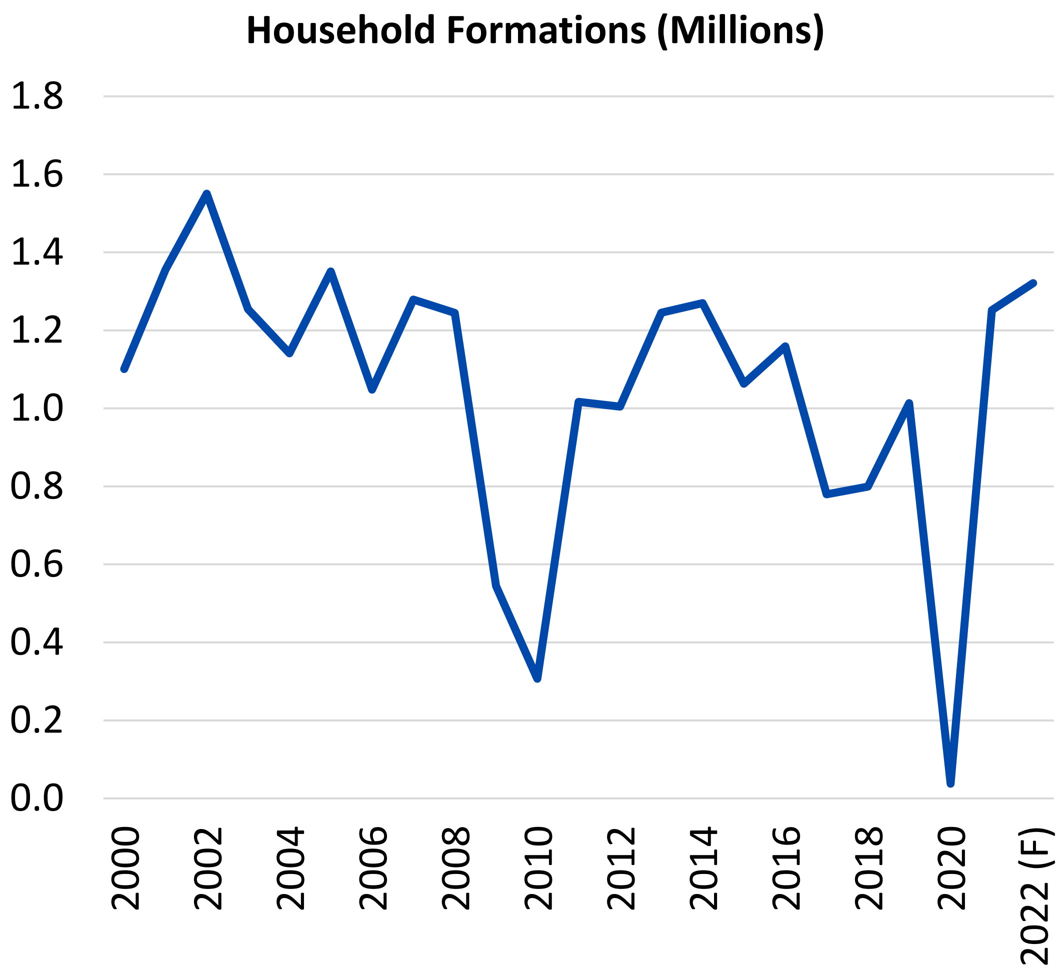
Market	2021 Population	0.4% of San Francisco 2021 Population	23K as a % of Each Market's Population
Las Vegas	2,292,476	23,000	1.0%
Austin	2,352,426	23,000	1.0%
Salt Lake City	2,818,981	23,000	0.8%
Phoenix	4,946,145	23,000	0.5%
Dallas	7,833,306	23,000	0.3%
San Francisco (Total)	**5,697,074**	**115,000**	**2.0%**

Source: Yardi Matrix

The Pandemic Only Amplified Existing Migration Trends…
The Bigger Impact on Multifamily Seems to Have Been **Household Formations**

- The pandemic has only intensified the country's existing migration patterns
  - 8.4% of the total population moved in 2021, lower than 2017's 11%
  - Popular migration states including Florida, Texas and Arizona saw additional migration since the pandemic, while states losing population such as New York and California saw further population declines

- The surge in household formations coming out of the pandemic can better explain the historic levels of rent growth
  - There was a dramatic decline in headship rates during the pandemic as people moved back in with relatives or delayed moving out
  - As of recent, there are fewer adults living with family members, and fewer adults living with roommates, boosting the headship rate and contributing to additional multifamily demand



Source: Yardi Matrix; U.S. Census Bureau; The Federal Reserve

Yardi Matrix Investment Risk Analysis

These demographic trends impact markets in different ways, and should be considered when making investment decisions

The Investment Risk Analysis combines our previously released national analyses of **political risk**, **infrastructure** and **environmental risk**

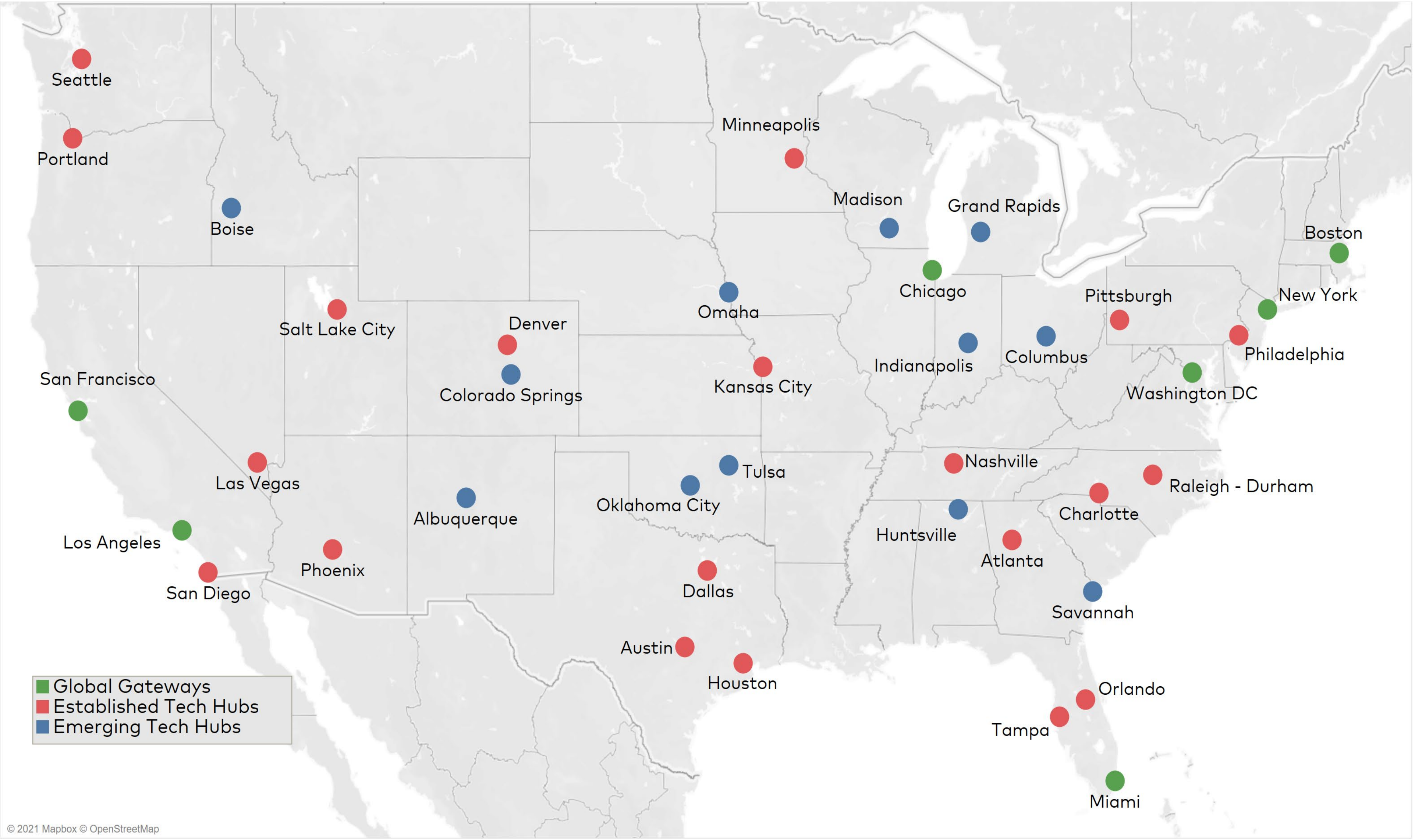
Interactive workbook available for subscribers

2022 Update Just Released!

Source: Yardi Matrix

YARDI

Our Market Universe for Investment Strategy Analysis



YARDI

Source: Yardi Matrix

Investment Risk Ranked by Score

Weighting	40%				40%				10%			10%			100%
	FUNDAMENTALS				INFRASTRUCTURE				POLITICAL RISK			ENVIRONMENTAL RISK			
Weighting	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	
MARKET	Forecasted Population Growth	Forecasted Rent Growth	Quality of Tech Labor Market	Affordability	Water	Energy	Transportation	Schools	Philosophy Toward Affordability	Urban Policing/ Security	Tax Burden/ Pension Liability	Natural Disasters	Pollution (Air & Water)	State & Local Government	OVERALL RATING
Philadelphia	1	1	1	2	1	1	1	2	1	2	1	2	2	3	1.37
Tulsa	1	1	1	3	2	2	1	1	3	1	2	2	1	1	1.53
Pittsburgh	1	1	1	2	1	2	2	2	2	2	1	2	2	2	1.57
San Francisco	2	3	2	1	1	1	1	2	0.5	1	1	1	3	3	1.62
Los Angeles	1	2	3	1	1	1	3	1	0.5	2	2	1	2	2	1.62
Chicago	1	1	1	2	3	3	1	1	2	1	1	3	2	2	1.67
New York	1	1	3	1	3	1	2	1	1	1	2	1	3	3	1.67
San Diego	2	2	2	1	2	1	2	1	1	2	1	1	3	3	1.67
Grand Rapids	1	1	2	2	2	1	1	3	2	2	2	3	3	2	1.77
Orlando	3	2	1	1	1	1	3	1	3	3	3	2	3	1	1.80
Albuquerque	1	3	2	3	1	3	1	1	3	1	1	3	1	2	1.87
Kansas City	1	1	1	3	2	1	3	3	3	1	2	3	1	2	1.90
Oklahoma City	1	1	1	3	3	1	2	3	3	1	2	2	2	2	1.90
Tampa	2	2	2	1	3	1	2	2	2	2	3	1	3	1	1.90
Washington DC	2	1	2	3	3	2	2	1	0.5	2	2	1	1	3	1.92
Houston	3	1	2	3	1	1	3	2	3	2	3	1	1	1	1.97
Miami	3	2	2	1	1	1	3	3	2	1	2	1	3	2	1.97
Columbus	2	2	1	3	3	2	1	1	3	2	2	3	1	3	1.97
Boston	1	2	3	1	3	3	2	2	1	2	1	1	2	3	2.03
Atlanta	2	2	2	2	2	3	3	1	2	2	2	2	1	2	2.07
Huntsville	1	3	3	3	3	2	1	1	3	1	1	2	2	2	2.07
Omaha	2	2	2	3	2	3	1	2	3	2	1	3	1	1	2.07
Colorado Springs	2	3	3	2	1	3	1	2	3	1	2	2	3	2	2.13
Savannah	2	3	3	2	2	2	2	2	3	2	2	1	2	1	2.17
Seattle	3	2	3	2	3	2	2	1	1	1	3	2	2	3	2.20
Las Vegas	3	3	1	2	2	3	2	2	2	2	2	3	1	2	2.20
Twin Cities	2	1	1	2	3	3	3	3	1	1	2	3	2	3	2.20
Indianapolis	2	1	2	2	3	3	2	3	3	1	3	2	2	2	2.23
Dallas	3	2	3	3	2	1	2	3	2	2	2	2	1	1	2.23
Nashville	2	3	2	2	3	3	2	2	2	2	3	2	1	1	2.27
Denver	3	3	3	2	2	2	1	3	2	1	2	2	2	3	2.30
Portland	3	3	3	2	2	2	3	2	0.5	1	1	3	2	2	2.32
Phoenix	3	2	2	2	1	3	3	3	3	2	1	3	2	2	2.33
Madison	1	1	3	3	3	3	1	3	3	3	3	3	3	3	2.40
Charlotte	3	3	1	2	3	3	3	3	2	1	2	2	1	1	2.40
Austin	3	2	3	3	2	2	3	3	2	1	2	1	3	1	2.43
Raleigh - Durham	3	3	3	2	3	3	2	2	3	1	3	2	2	2	2.53
Salt Lake City	2	3	3	3	2	2	3	3	3	3	3	3	1	2	2.60
Boise	3	3	2	2	3	3	3	3	3	3	3	3	2	2	2.73

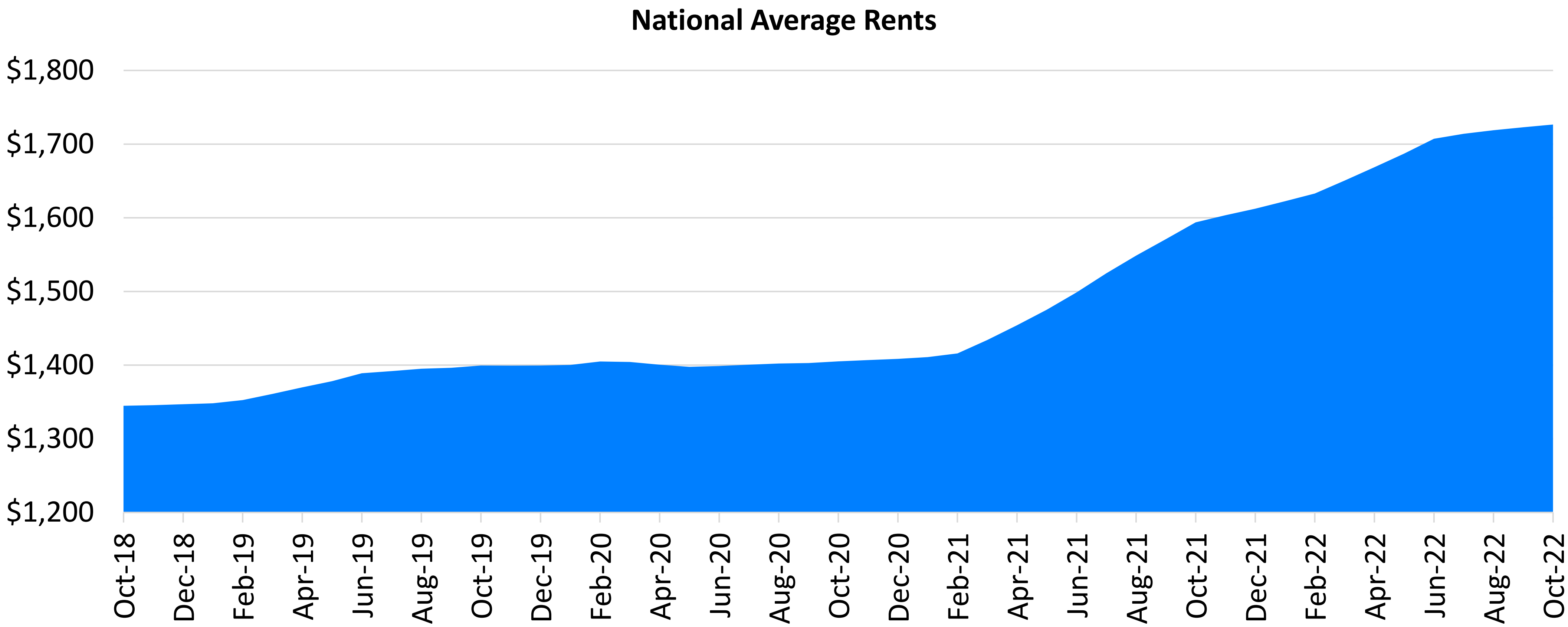
LEGEND
Red Icon = High Investment Risk
Yellow Icon = Mild Investment Risk
Green Icon = Low Investment Risk

Source: Yardi Matrix

YARDI

MULTIFAMILY FUNDAMENTALS

National Multifamily Rent Growth is Strong but Decelerating

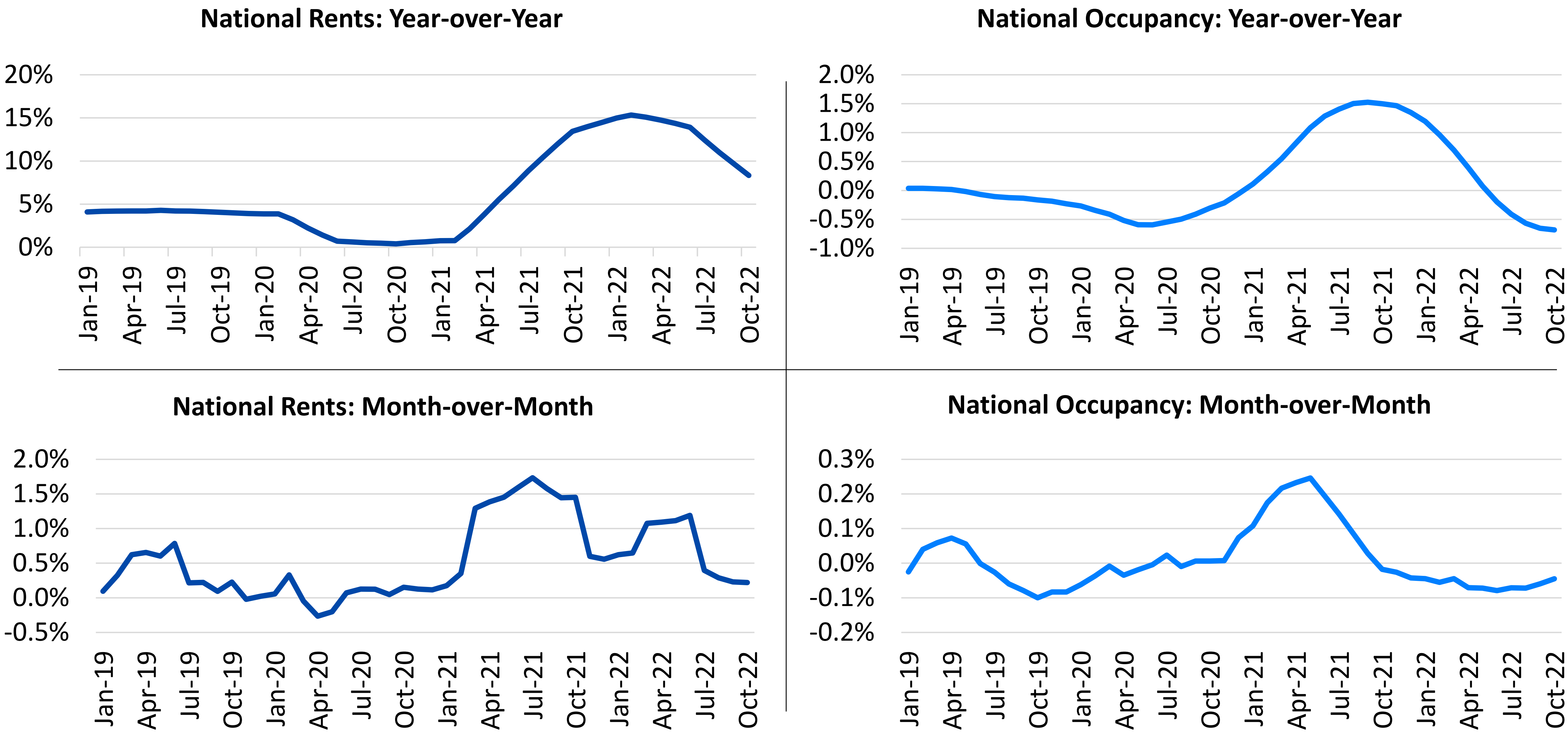


	% Change	$ Change
Year-over-Year: Oct ‘21 – Oct ’22	8.2%	$131
Month-over-Month: Sep ‘22 – Oct ’22	0.2%	$3
Pre-pandemic to Current: Mar ‘20 – Oct ‘22	22.0%	$312

YARDI

Source: Yardi Matrix

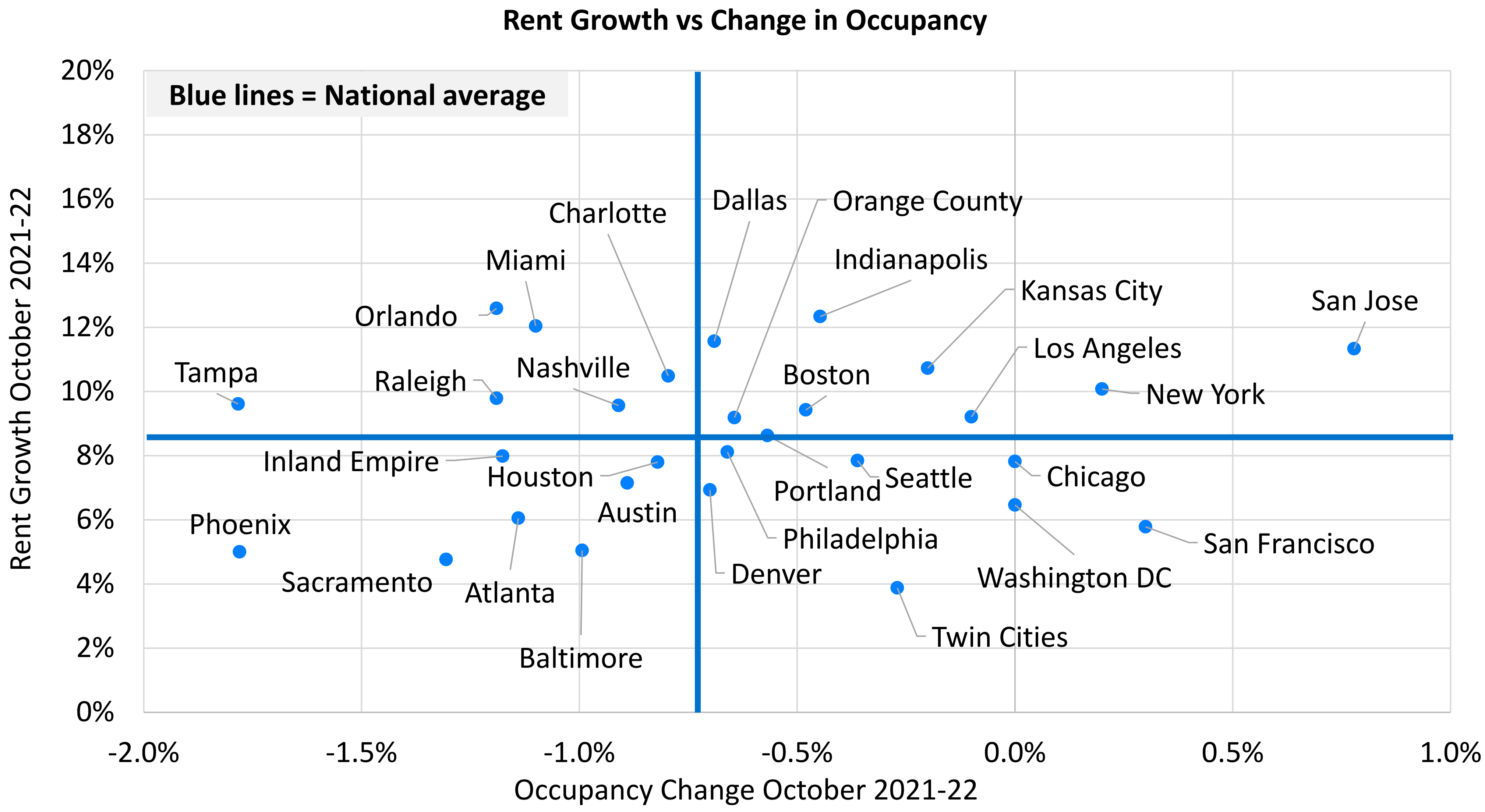
Rent Continues to Decelerate While Occupancy Appears to be Leveling



Source: Yardi Matrix

YARDI

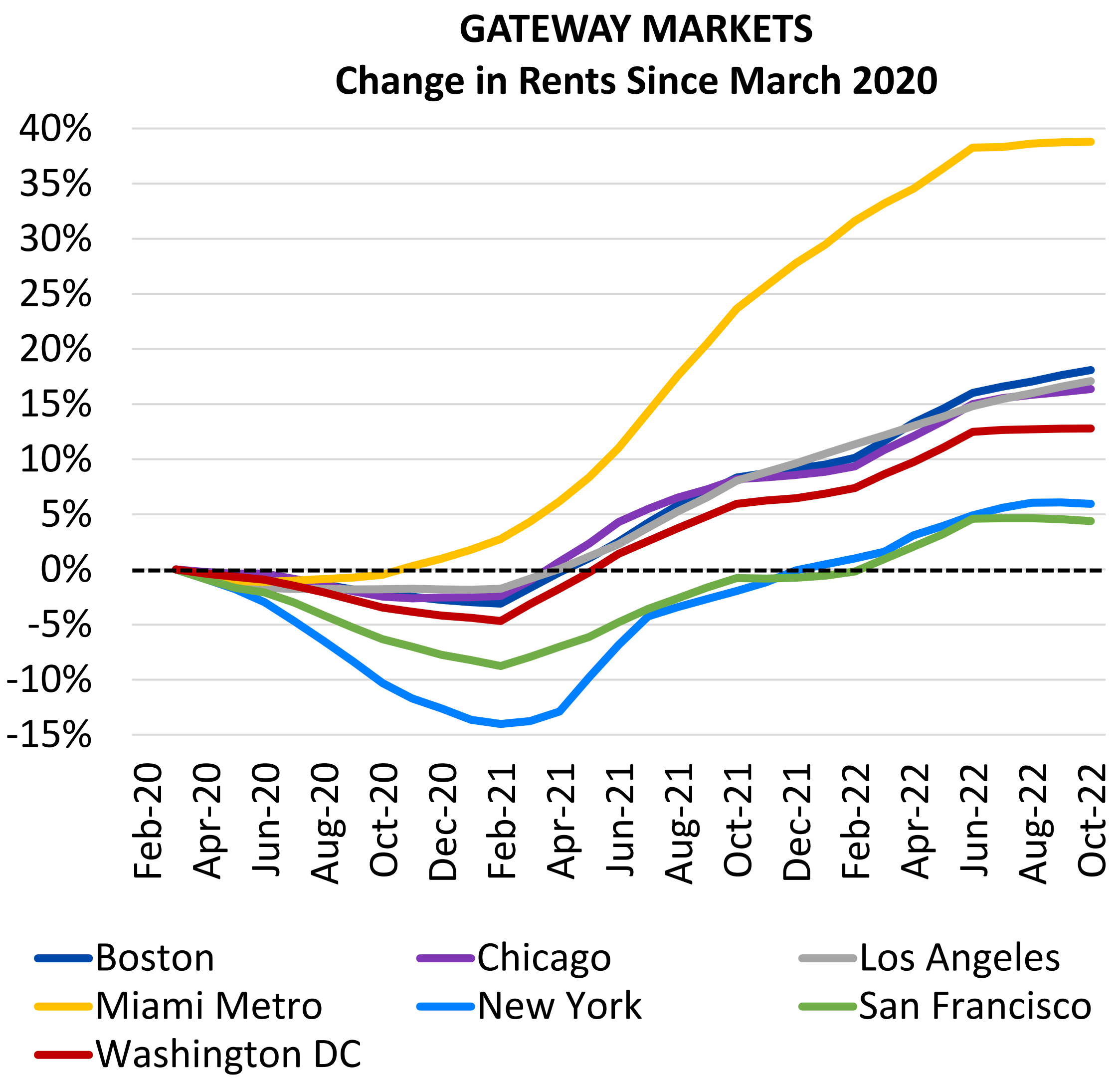
Occupancy Growth Highest in Gateway Markets, While Rent Growth Was Strongest in Florida

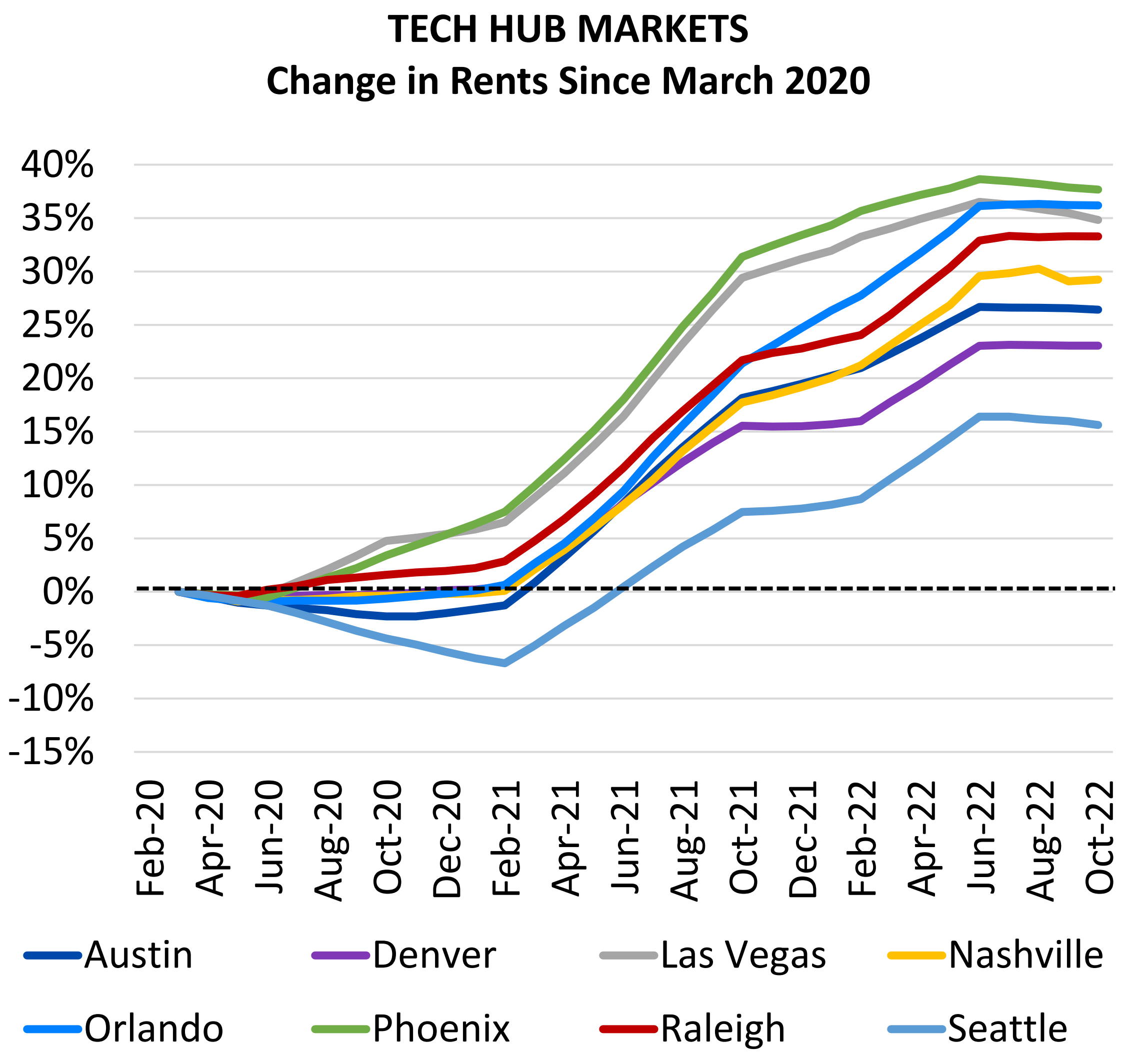


YARDI

Source: Yardi Matrix

Rent Growth Recovered Quicker in Tech Hubs than Gateway Markets

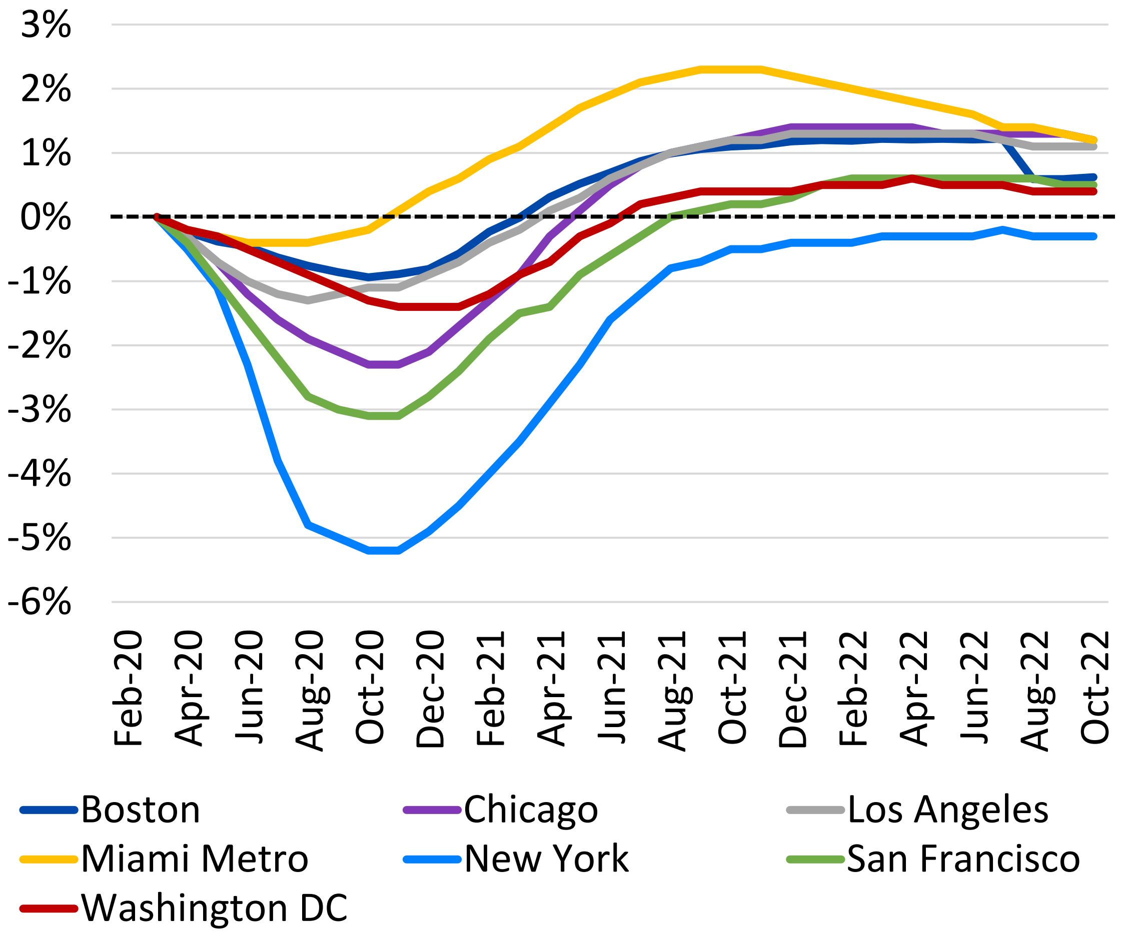




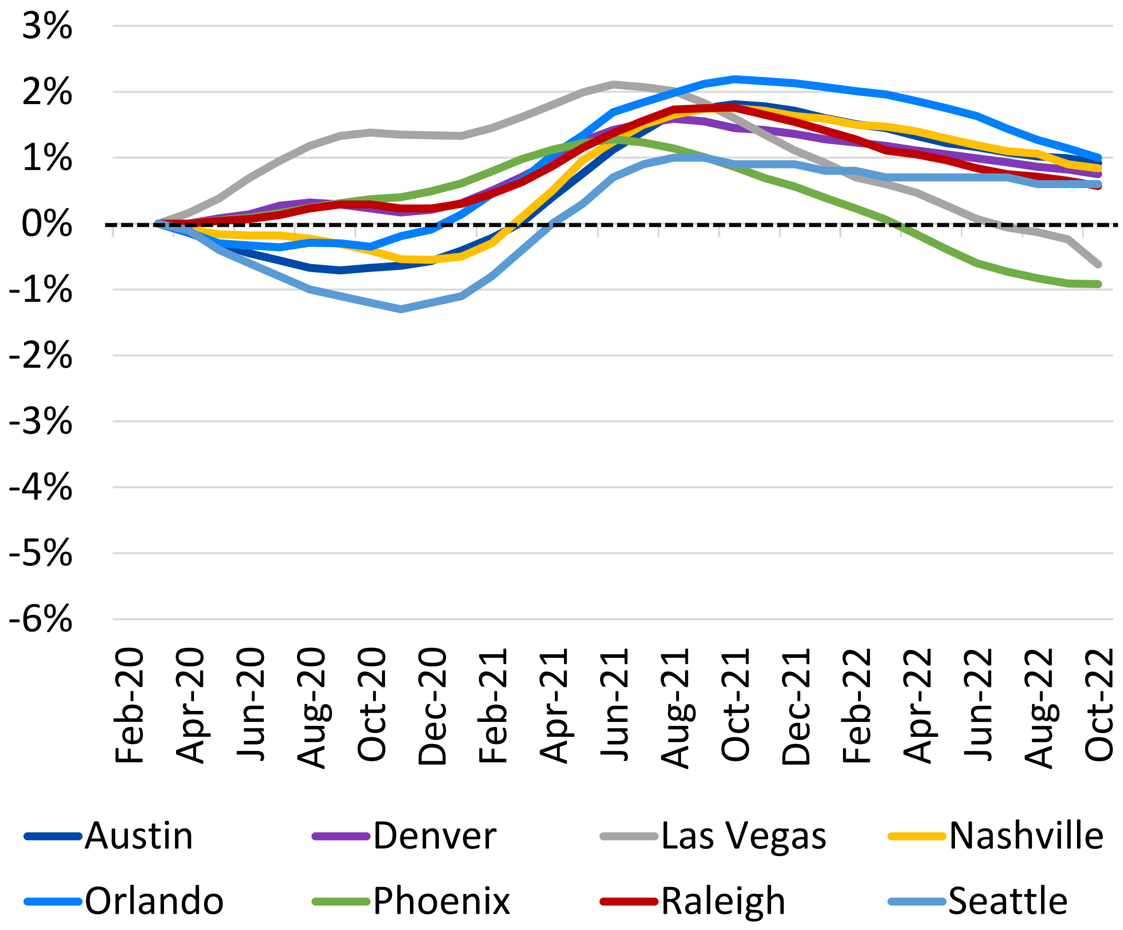
Source: Yardi Matrix

Occupancy is Starting to Dip in Both Gateway and Tech Hub Markets

GATEWAY MARKETS
Change in Occupancy Since March 2020



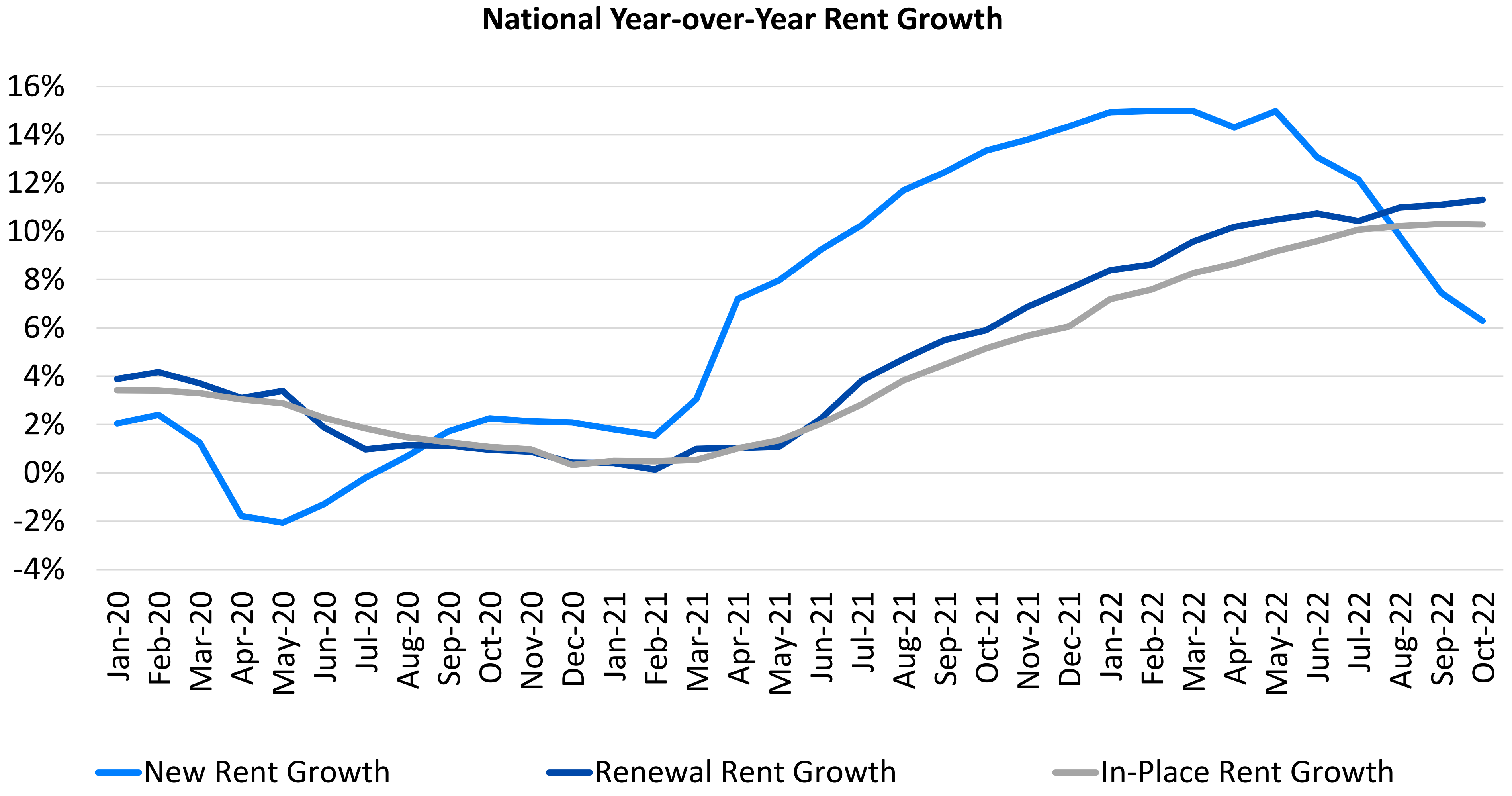
TECH HUB MARKETS
Change in Occupancy Since March 2020



YARDI

Source: Yardi Matrix

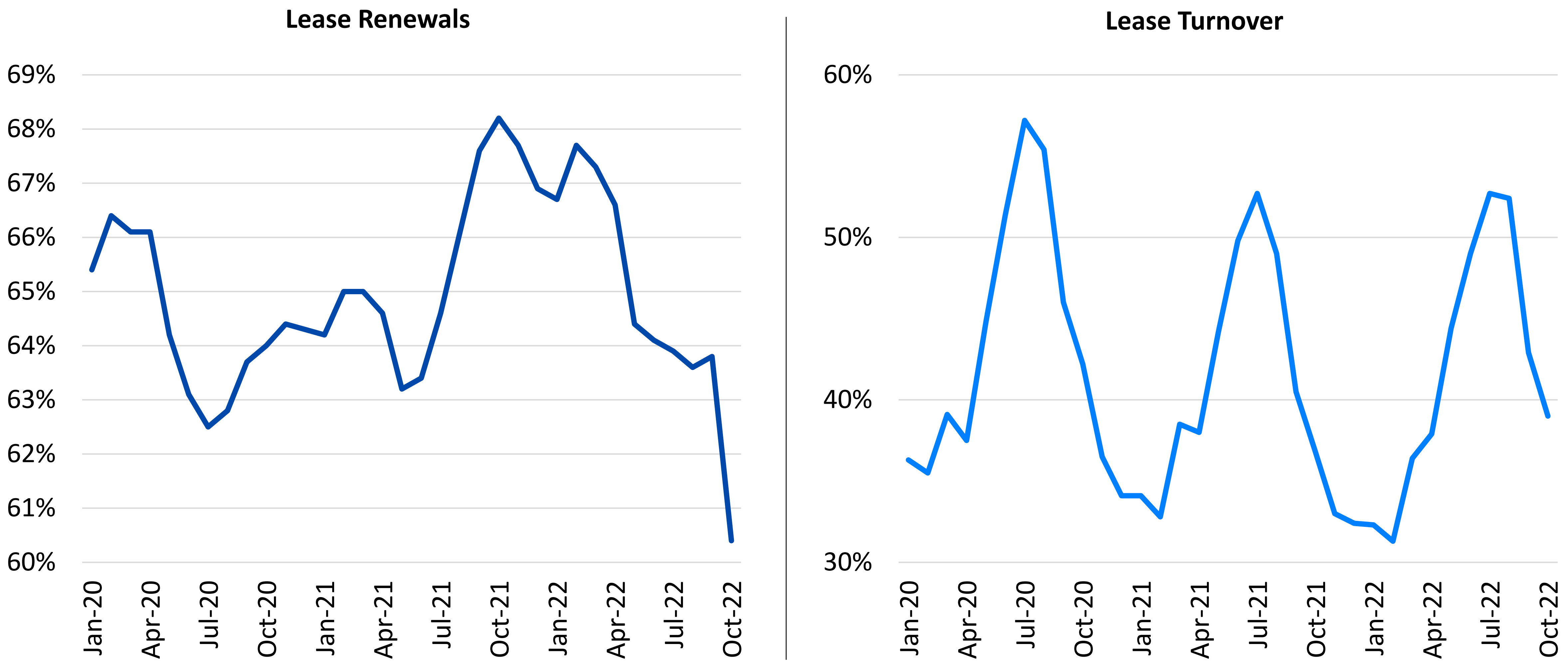
Rents on New Leases Are Falling After a Period of Substantial Growth, Renewal and In-Place Rent Growth Will Soon Follow



YARDI

Source: Yardi Matrix Expert

Lease Renewals are Way Down, While Turnover is Displaying a Normal Seasonal Pattern…Possibly Indicating an Effect of Rent Increases



Source: Yardi Matrix Expert

New Rents Continue to Outpace Renewal Rents in Most Markets

Tampa, FL Example

Rental Rates

Current Month | Annual Average

12-month period ending October 2022

Unit Type	In-Place	Renewal	New Leases
Studio	$1,101	$1,099	$1,341
Year Change (%)	+ 12.4%	+ 14.9%	+ 28.6%
1 Bed / 1 Bath	$1,317	$1,342	$1,568
Year Change (%)	+ 16.2%	+ 16.9%	+ 20.9%
2 Bed / 1 Bath	$1,358	$1,415	$1,633
Year Change (%)	+ 15.6%	+ 17.9%	+ 23.1%
2 Bed / 2 Bath	$1,656	$1,686	$1,971
Year Change (%)	+ 15.9%	+ 15.9%	+ 21.0%
3 Bed / 2 Bath	$1,828	$1,877	$2,197
Year Change (%)	+ 15.1%	+ 16.9%	+ 21.5%
Total Average	**$1,497**	**$1,532**	**$1,779**
Year Change (%)	**+ 15.8%**	**+ 16.6%**	**+ 21.1%**

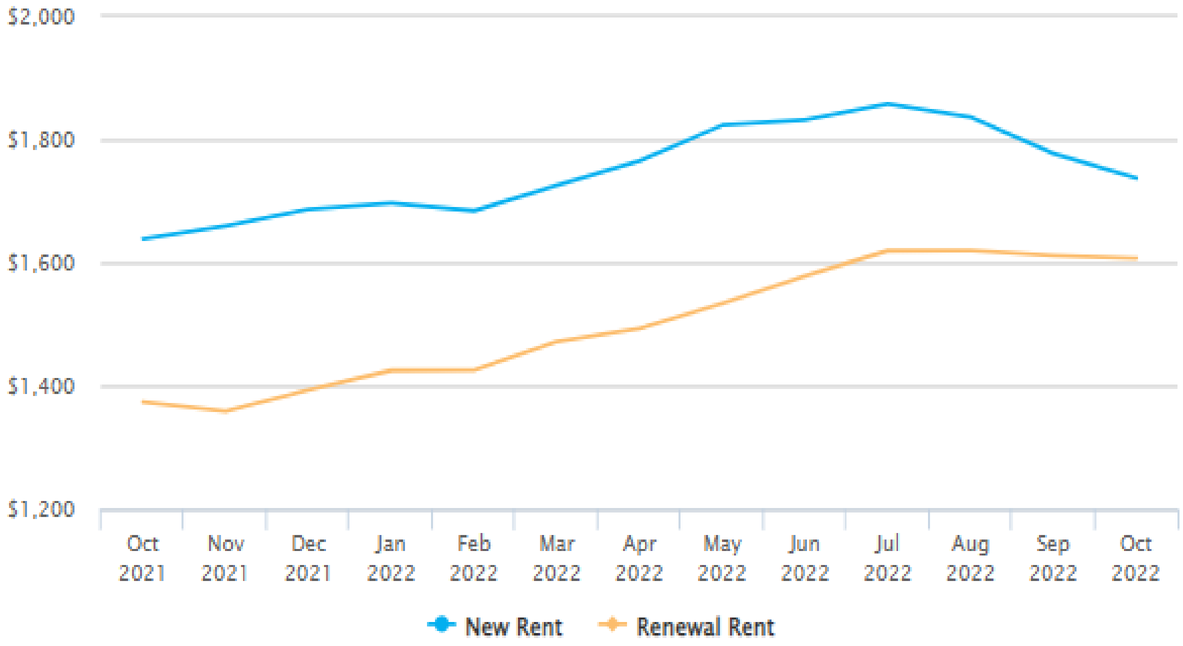
Rental Rate Trends

Average Rent $/Unit for the last 13 months

Latest Year - Monthly | History - Quarterly

Unit Type: All

Rent Type: New Rent × Renewal Rent ×



YARDI

Source: Yardi Matrix

Retention Rates are Declining

Tampa, FL Example

Operational Metrics

12-month period ending October 2022

Current Month | Annual Average

Unit Type	Renewal (%)	Turnover (%)	Avg Lease Term New (mo.)	Avg Lease Term Renewal (mo.)	Resident Length of Stay (mo.)
Studio	66.2 %	44.4 %	12.4	11.8	19.5
Year Change (%)	+ 5.6%	- 3.7%	- 1.1%	- 0.3%	- 10.4%
1 Bed / 1 Bath	64.6 %	44.4 %	12.2	12.0	22.4
Year Change (%)	- 3.0%	+ 1.4%	+ 0.1%	+ 1.2%	+ 3.2%
2 Bed / 1 Bath	67.0 %	40.8 %	12.1	12.0	26.5
Year Change (%)	- 1.2%	- 3.5%	+ 0.1%	+ 1.2%	+ 7.9%
2 Bed / 2 Bath	66.7 %	42.0 %	12.2	12.1	22.2
Year Change (%)	+ 0.2%	- 3.6%	- 0.4%	+ 1.4%	+ 3.8%
3 Bed / 2 Bath	66.7 %	40.8 %	12.1	12.0	21.5
Year Change (%)	+ 1.6%	- 9.1%	+ 0.3%	+ 1.7%	- 0.8%
Total Average	**65.8 %**	**43.2 %**	**12.2**	**12.0**	**22.5**
Year Change (%)	- 0.8%	- 2.1%	- 0.1%	+ 1.3%	+ 3.3%

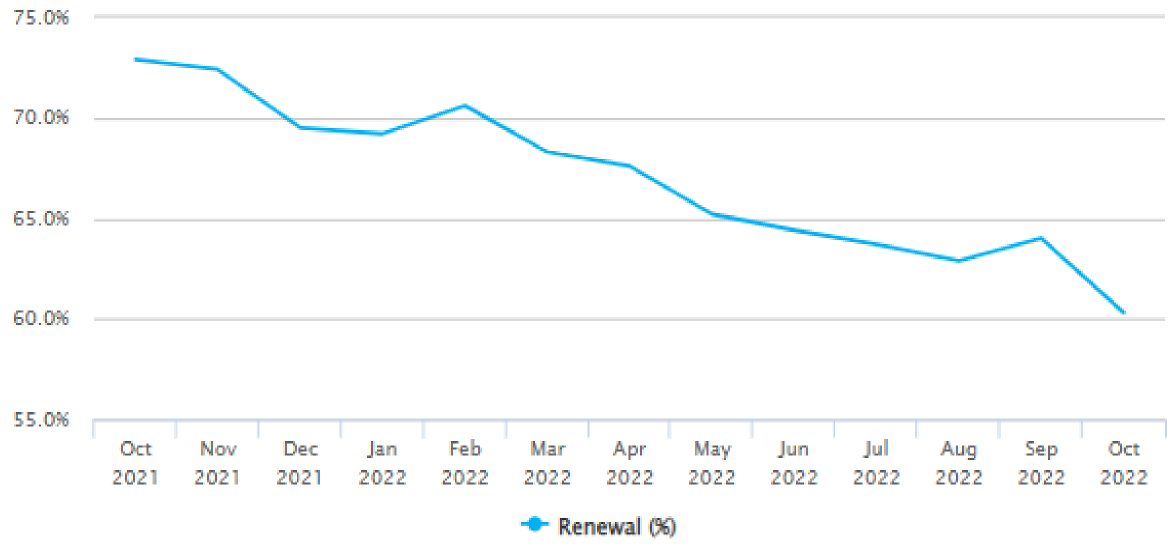
Operational Metric Trends

Previous 13 months

Latest Year - Monthly | History - Quarterly

Unit Type: All

Metric: Renewal (%)



YARDI

Source: Yardi Matrix

Tertiary Markets Are Still Performing Exceptionally Well

Market	Oct 2021 Rent	Oct 2022 Rent	YOY Rent Growth
Savannah - Hilton Head	$1,428	$1,624	13.7%
Cincinnati	$1,137	$1,278	12.4%
Central East Texas	$1,118	$1,251	11.9%
Southwest Florida Coast	$1,824	$2,040	11.8%
El Paso	$927	$1,033	11.4%
Louisville	$1,044	$1,153	10.5%
Pensacola	$1,459	$1,602	9.8%
Dayton	$953	$1,045	9.7%
Madison	$1,317	$1,440	9.3%
Tulsa	$870	$952	9.3%
Richmond - Tidewater	$1,364	$1,487	9.0%
Tucson	$1,177	$1,280	8.8%
Lansing - Ann Arbor	$1,158	$1,259	8.7%
Central Valley	$1,424	$1,545	8.5%

Market	Oct 2021 Rent	Oct 2022 Rent	YOY Rent Growth
Cleveland - Akron	$1,054	$1,144	8.5%
Huntsville	$1,068	$1,158	8.4%
New Orleans	$1,125	$1,220	8.4%
Grand Rapids	$1,188	$1,287	8.3%
Jacksonville	$1,447	$1,565	8.2%
Bridgeport - New Haven	$1,713	$1,845	7.7%
Baton Rouge	$1,108	$1,191	7.5%
Spokane	$1,299	$1,390	7.0%
Little Rock	$885	$946	6.9%
Tacoma	$1,653	$1,762	6.6%
Birmingham	$1,180	$1,252	6.1%
Colorado Springs	$1,482	$1,572	6.1%
Milwaukee	$1,283	$1,354	5.5%
Reno	$1,556	$1,614	3.8%

YARDI

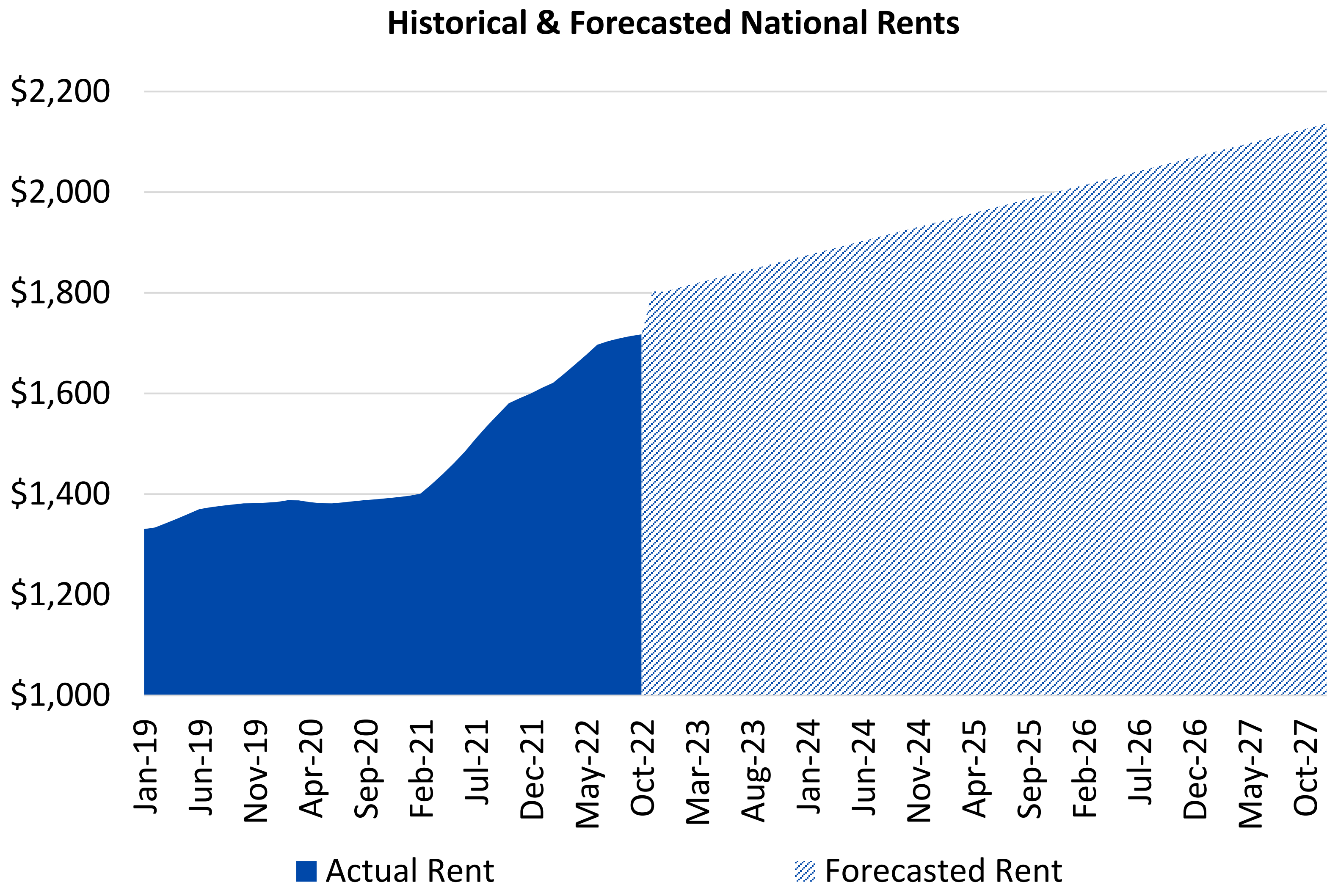
Source: Yardi Matrix

Takeaways from Our November 2022 Multifamily Rent and Occupancy Forecast

- Recession is becoming increasingly likely within the next year
- After approx. 18 months of record-breaking rent increases in nearly all markets, national rent growth has come to a halt
    - Asking rents nationally decreased 0.2% month-over-month in October
    - Year-over-year asking rents decelerated from 9.2% in September to 8.2% in October
- Our forecasts for the end of 2022 and for 2023 have been revised downward, as the usual seasonal deceleration has been exacerbated by a more uncertain economic horizon in the medium-term
- End-of-year growth for 2022 will still be significantly elevated from the long-term average, but almost all of that growth has already occurred
- Moving into 2023, we do not expect to see rents accelerate again nearly as much as they did in the first half of 2021 and 2022

Source: Yardi Matrix

Rents Forecasted to Keep Increasing, Albeit at More Moderate Pace



Year	Rent Growth Forecast	Occupancy Forecast
2022	7.6%	95.9%
2023	3.5%	95.9%
2024	3.3%	95.9%
2025	3.2%	95.9%
2026	3.1%	95.9%
2027	3.0%	95.8%

YARDI

Source: Yardi Matrix

Tech Hub and Gateway Markets Alike Forecasted For Another Year of Strong Multifamily Rent Growth

Market	YoY Rent Growth Year-End 2022	Occupancy Year-End 2022	YoY Rent Growth Year-End 2023	Occupancy Year-End 2023
Indianapolis	11.5%	95.7%	3.4%	94.9%
San Jose	10.7%	95.9%	5.2%	96.4%
Orlando	10.1%	96.2%	3.3%	96.1%
Dallas - Ft Worth	9.6%	95.3%	3.5%	95.4%
Portland	9.4%	96.0%	3.6%	95.6%
Miami Metro	**9.1%**	**96.6%**	**3.9%**	**96.2%**
Kansas City	9.1%	95.7%	3.1%	95.9%
Charlotte	8.9%	95.4%	4.1%	95.0%
Nashville	8.9%	95.8%	3.9%	95.8%
Boston	**8.8%**	**96.7%**	**3.4%**	**97.4%**
Raleigh	8.6%	95.3%	3.9%	95.4%
Tampa	8.3%	95.8%	3.6%	96.0%
Orange County	7.6%	97.3%	3.3%	97.4%
Los Angeles	**7.5%**	**96.8%**	**3.2%**	**96.9%**
Philadelphia	7.5%	96.5%	3.0%	96.4%
Chicago	**7.4%**	**95.4%**	**2.9%**	**95.2%**
Seattle	6.9%	95.9%	3.8%	96.1%
Denver	6.8%	95.3%	3.5%	95.9%
Austin	6.3%	95.4%	4.1%	95.2%
Washington DC	**6.2%**	**95.6%**	**3.1%**	**95.8%**
New York	**6.0%**	**98.1%**	**3.7%**	**98.7%**
Houston	6.0%	93.7%	3.0%	93.6%
Inland Empire	5.8%	97.2%	3.5%	97.6%
San Francisco	**5.7%**	**95.7%**	**4.2%**	**95.8%**
Atlanta	5.2%	94.8%	3.2%	95.1%
Baltimore	5.0%	95.9%	3.1%	95.6%
Sacramento	4.4%	96.3%	3.4%	96.4%
Twin Cities	3.9%	95.9%	2.7%	96.5%
Phoenix	3.3%	95.0%	3.3%	94.8%
Las Vegas	3.2%	94.8%	2.9%	95.2%

YARDI

Top 30 Matrix markets, sorted by YOY Rent Growth Year-End 2022. Gateway markets are bolded | Source: Yardi Matrix

Multifamily Capital Markets Have Been Disrupted, Impacting Transaction Volume and Construction Financing

- Property sales and new construction are set to slow given high debt costs that are still rising and the expectation of weakening rent growth

- The transaction market is frozen given widening bid/ask spreads
  - Mortgage rates now above 6% and valuations are down about 25% from the January 2022 peak

- Financing for new construction has seized up
  - Construction costs have not come down enough yet to offset increasing capital costs
  - As a result…new construction deliveries may be significantly reduced in 2025-2026
  - Increased SFR/BTR pipeline may offset this

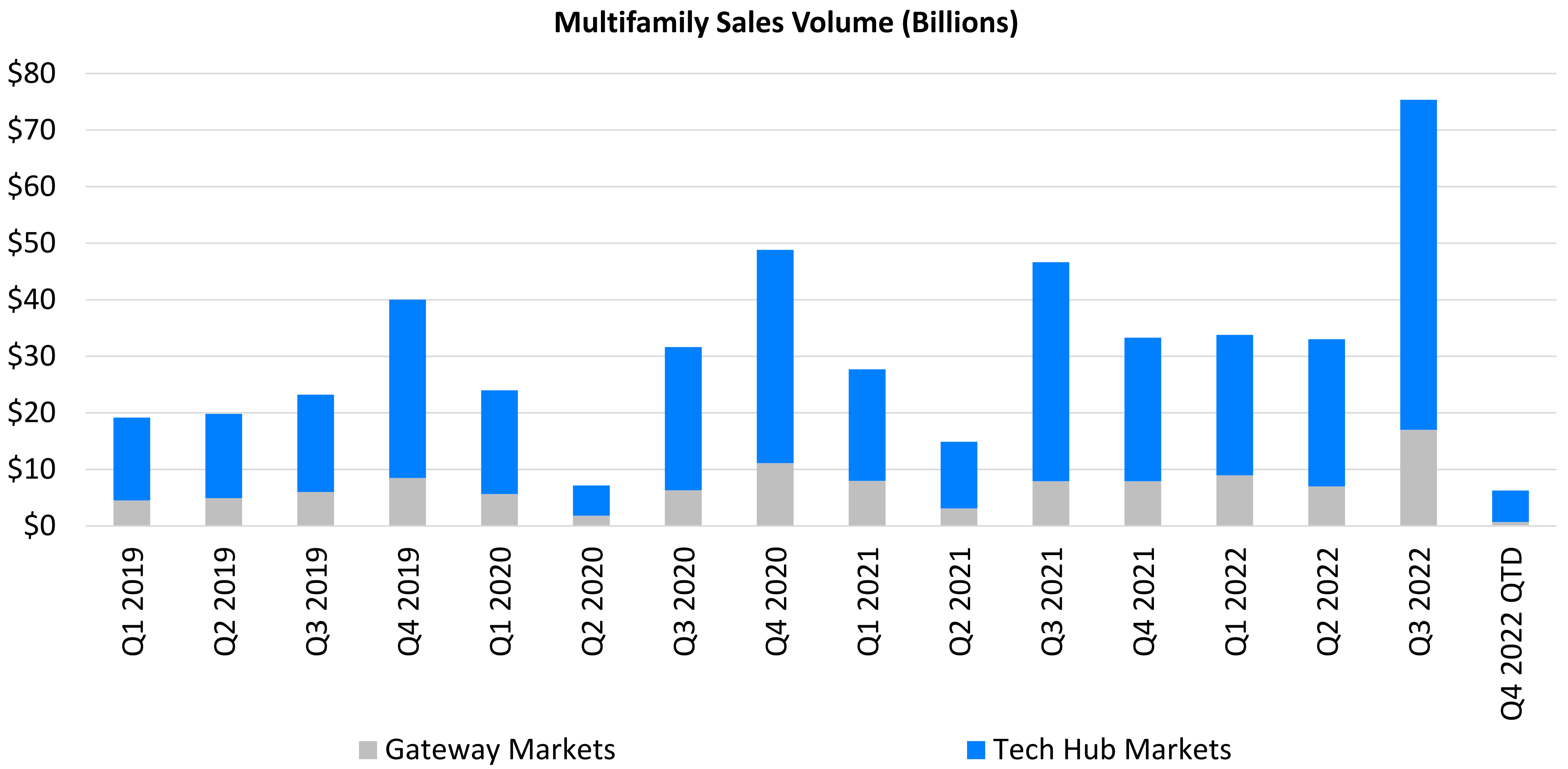
- The next 18 months will show a continued slowdown of capital markets until inflation slows and interest rates come down
  - Major brokerage firms are reducing costs
  - FHFA has reduced the GSE debt cap limits with increased affordability goals

- Still, high rates create a sliver of good news for multifamily
  - With home mortgage rates at 7.3% as of early Nov, first-time homebuyers are being frozen out of the market and will be forced to remain in apartments or single-family rentals (National Association of Realtors)

YARDI

Source: Yardi Matrix

Transactions Surged in the Third Quarter, But Activity Will Slow Over the Next 18 Months Until Inflation Slows and Interest Rates Come Down



YARDI

Source: Yardi Matrix

There is Currently a Significant Multifamily Housing Deficit, But It Could Get Resolved in the Next Decade

U.S. Apartment Demand Report by NMHC & NAA

- There is currently a 600,000-unit shortfall of apartments in the U.S. due to underbuilding after the 2008 financial crisis
- The study predicts an additional 3.7 million units will be needed by 2035 to meet demand
- A total of 4.3 million units (307,000 units per year) are needed by 2035 when accounting for the current shortfall and projected demand
- Yardi Matrix projects annual multifamily unit deliveries between 420,000 to 435,000 per year until 2026, then approximately 411,000 units thereafter
- **At the current rate of deliveries, Yardi Matrix predicts the multifamily housing deficit will not be resolved for approximately 10.5 years**
- The issue will resolve more quickly if proposed solutions from the NMHC and NAA are implemented:
    - Streamlining entitlement process
    - Expediting approvals for affordable units
    - Providing density bonuses for projects with affordable components
    - Passing tax abatements to rehab older housing
    - Adopting strategies to leverage use of underused land

Source: Yardi Matrix; National Multifamily Housing Council; National Apartment Association

Apartment Conversion Opportunities Are Growing, Specifically From Office Space, But Won't Be Sufficient to Fill the Gap

- There were about 28,000 apartment unit conversions during 2020-2021, a 25% jump compared to the prior two-year period
  - This includes conversions from office buildings, warehouses, hotels and health care buildings
  - Conversions from office buildings jumped the most (43%) to 11,090 units

- The office sector is currently ~20% overbuilt due to the surge in remote work coming out of the pandemic
  - The full impact has yet to be felt given the long-term nature of office leases

- Conversions, however, aren't that easy:
  - Expensive, sometimes costing more than new buildings
  - Often run into regulatory and zoning red tape

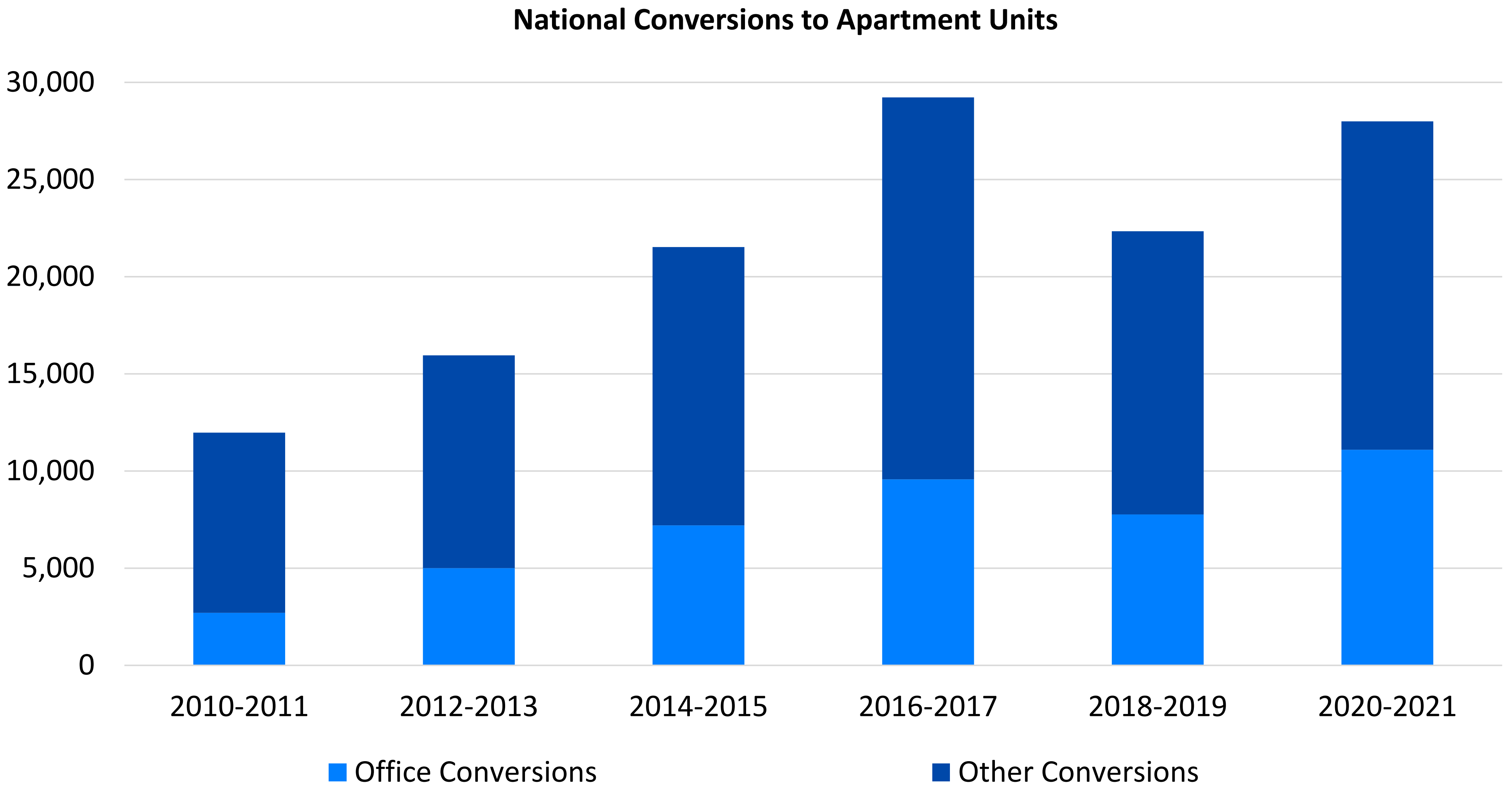
- 77,000 apartment conversions are now in the works, setting the stage for a boom in the next few years
  - Some cities (NY, LA, CHI) are proposing plans to relax building rules and create tax breaks to incentivize conversions
  - If these pass, conversion numbers could go higher

- Despite the surge in conversions, it is not enough to solve the housing shortage

YARDI

Source: Yardi Matrix; RentCafe

Conversions to Multifamily Have Increased, Particularly From Office



Source: Yardi Matrix

Conversion Opportunities High In High-Cost Cities With A Lot of Office Space

Top 10 Cities by Most Converted Apartments		
City	**Total Apartment Conversions 2020-2021**	**Share of Total Apartment Deliveries 2020-2021**
Washington DC	1,565	5.7%
Philadelphia	1,552	11.0%
Chicago	1,139	6.9%
Cleveland	837	23.4%
Pittsburgh	814	42.6%
Richmond	797	7.1%
New York	614	5.6%
Greenville, SC	571	10.5%
Kansas City	568	5.9%
Salt Lake City	544	4.6%

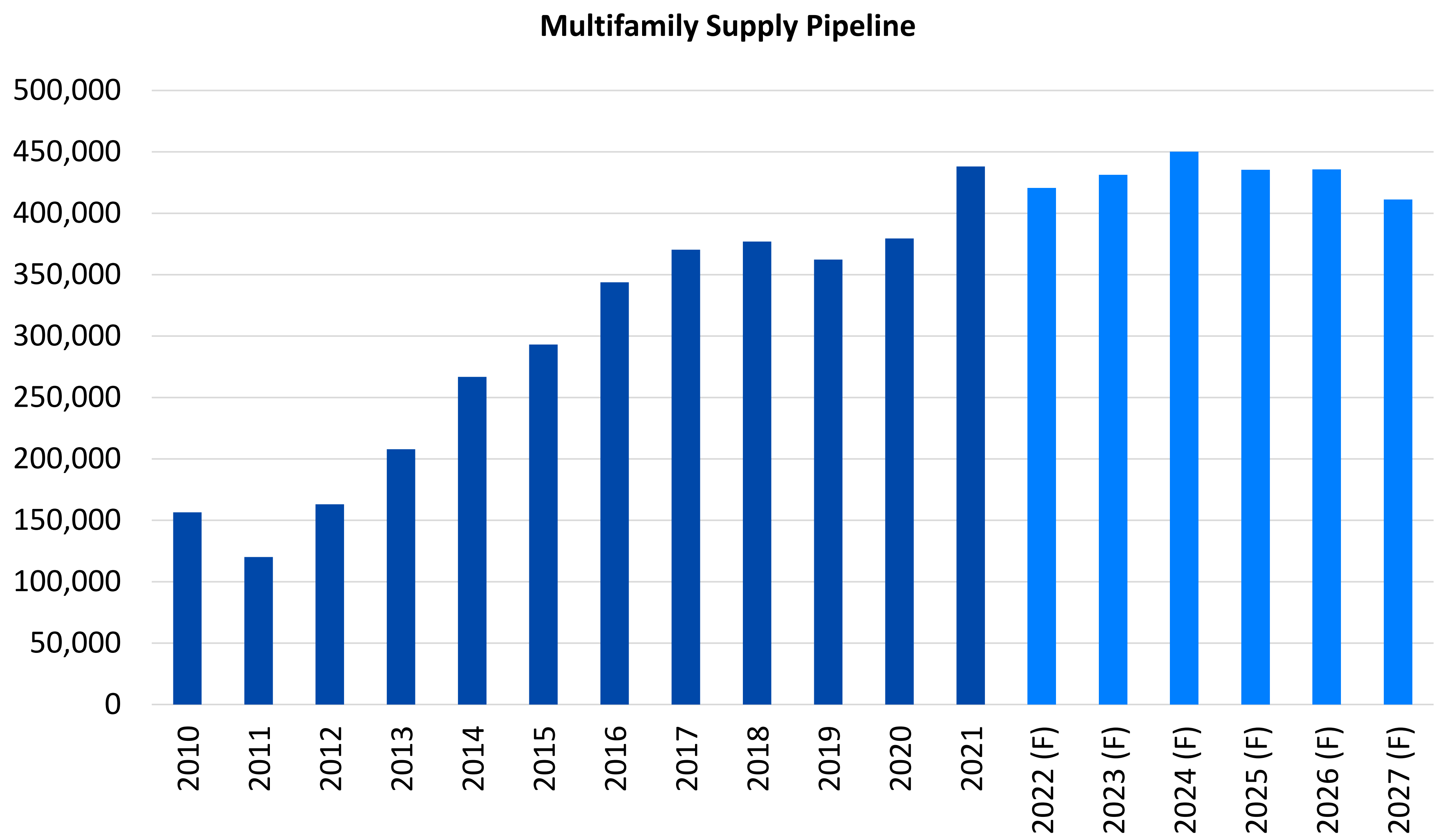
Source: Yardi Matrix; RentCafe

Takeaways from Our Q4 2022 Multifamily Supply Forecast

- The Q4 Multifamily Supply Forecast update has decreased compared to the previous quarter's forecast
- For full year 2022, a little over 420,000 multifamily units will be delivered
- The 2022-2027 forecast has declined by 0.3% compared to last quarter, primarily in the later years of the forecast
- We anticipate forecasted deliveries to drop further with our next update
- With the current interest rate environment, projects in the planned / prospective phases don't pencil
- Given these economic conditions, we anticipate a reduction in new supply starting in 2024-2027

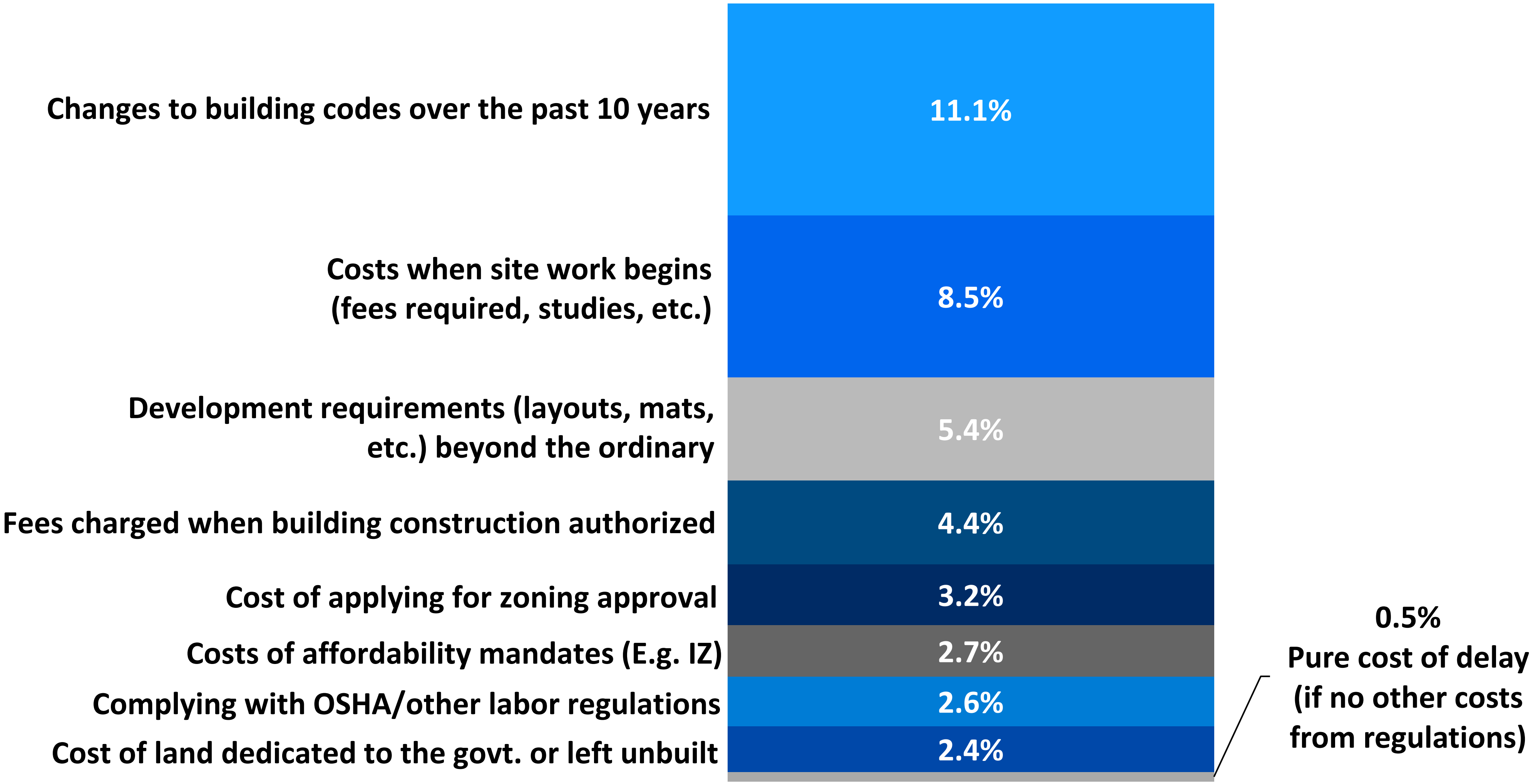
Source: Yardi Matrix

New Multifamily Supply is Expected to Stabilize



Source: Yardi Matrix

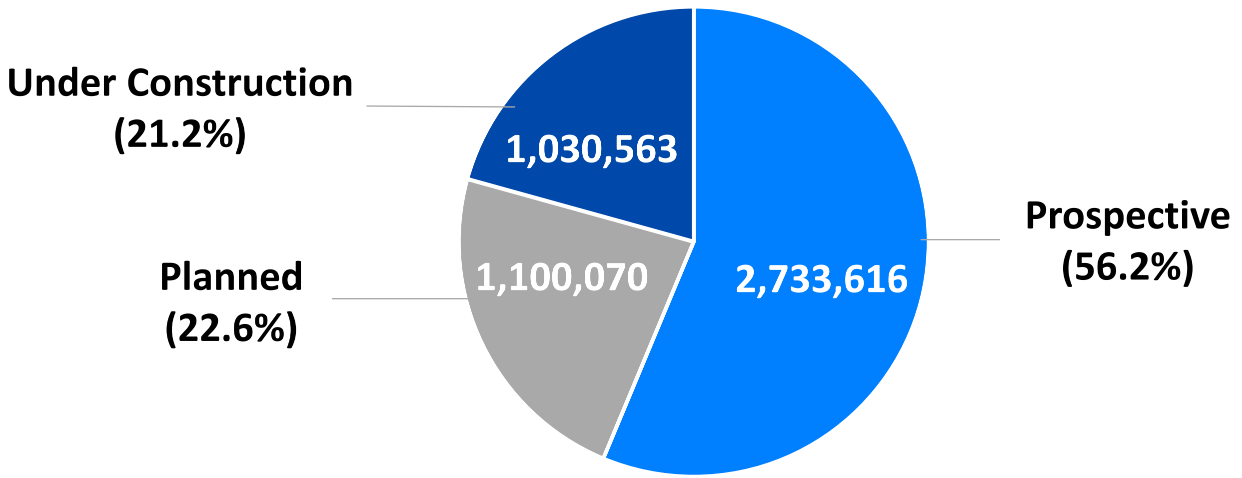
Regulations Account For 40% Of Multifamily Development Costs, Inhibiting Sufficient New Supply Growth



YARDI

Source: Yardi Matrix; NMHC, NAHB, “NMHC-NAHB Cost of Regulations Report”

New Supply Pipeline: Where is New Supply Concentrated?



Top 10 Markets	Units	UC as a % of Existing Stock
Austin	54,625	19.5%
Salt Lake City	21,126	18.0%
Huntsville	7,036	17.9%
Boise	4,385	17.7%
Montana	2,704	16.4%
Miami	24,349	15.9%
Colorado Springs	6,553	15.2%
NW Arkansas	5,748	14.3%
Madison	7,350	13.7%
South Dakota	3,815	13.4%

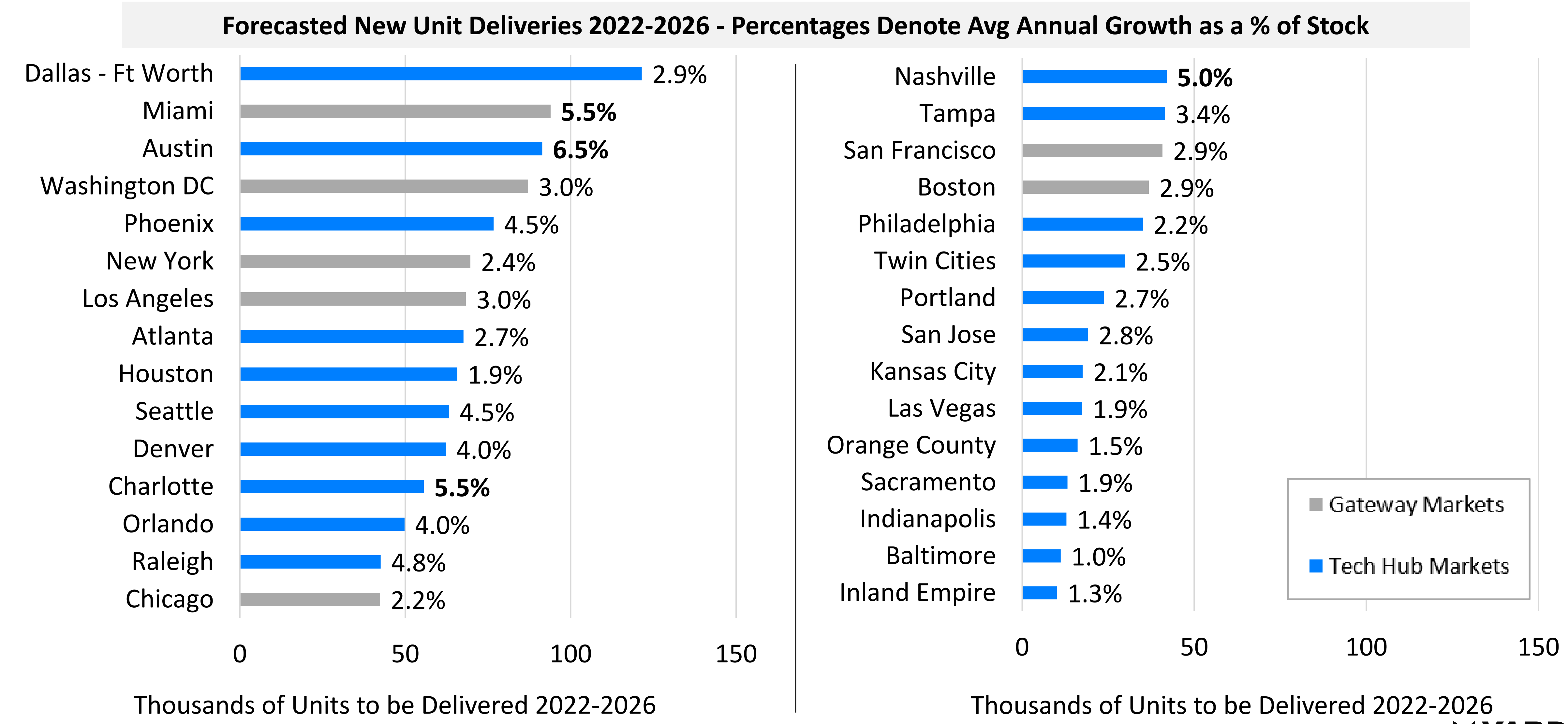
Top 10 Markets	Units	Planned as a % of Existing Stock
Asheville	5,600	26.8%
Boise	5,685	23.0%
Miami	35,010	22.8%
Portland ME	2,902	19.9%
Fort Lauderdale	19,008	16.7%
N. New Jersey	40,603	16.2%
Raleigh - Durham	27,436	15.6%
Los Angeles Metro	30,986	15.5%
Chicago - Urban	29,807	15.1%
Charlotte	29,309	14.4%

Top 10 Markets	Units	Prospective as a % of Existing Stock
Miami	113,137	73.7%
Boise	17,278	69.9%
Wilmington	12,189	50.8%
Raleigh - Durham	74,478	42.3%
SW Florida Coast	33,874	40.8%
San Francisco	49,854	37.4%
Pensacola	14,531	36.9%
Orlando	89,058	35.6%
Fort Lauderdale	37,874	33.2%
Nashville	55,376	32.6%

YARDI

Source: Yardi Matrix

A Handful of Markets Still Have a Lot of Supply Coming Despite Decelerating Rents and Occupancies



YARDI

*Gateway markets have gray bars | Source: Yardi Matrix

Multifamily Industry Summary & Outlook

- U.S. domestic migration has had an impact on demand, but to a lesser degree than household formations
- Demographic trends will support housing demand and the multifamily industry
- Multifamily fundamentals have been great, but decelerating
- Multifamily capital markets have been disrupted, impacting transaction volume and construction financing
- The shortage of housing is likely to last 5-10 years, supporting continued rent growth and capital appreciation
- Declining homeownership may be good for multifamily and SFR, if household formation holds up
- Transactions will slow over the next 18 months until inflation cools and interest rates come down
- U.S. multifamily is the “stand out” sector among all U.S. real estate asset types
- The key to success will continue to be thoughtful partner, market and investment strategy selection

YARDI

Source: Yardi Matrix

SINGLE-FAMILY RENTALS IN BUILD-TO-RENT COMMUNITIES

National Housing Snapshot

Total U.S. Housing Units	142.5	MILLION UNITS
Total Occupied Households	127.4	MILLION UNITS
Renter Occupied Households *~20MM Professionally Managed Multifamily*	44.0	MILLION UNITS
Single Family Rentals *~500K Institutional Owned SFR* *~165K SFR in Built-to-Rent Communities*	17.0	MILLION UNITS

YARDI

Source: Yardi Matrix; BMO Capital Markets; U.S. Census Bureau, INVH, John Burns

$60+ Billion in Capital Flooded the Sector Since 2020; More Waiting to be Invested

SFR & BTR ANNOUNCEMENTS IN 2022:

Date	Action	Companies	Value
Jan-22	SFR Partnership	Heitman, Sylvan Road	$640,000,000
Jan-22	Joint Venture	Harrison Street, CORE Spaces	$1,500,000,000
Jan-22	Add 3,500 New Homes	Transcendent Investment Management, Electra America	$1,250,000,000
Jan-22	Choice Lease Program to Reduce Rents	Home Partners of America, Blackstone	$1,000,000,000
Jan-22	Joint Venture	Pretium, Onyx East	$600,000,000
Jan-22	Debt Facility	The Promise Homes Company	$200,000,000
Mar-22	Joint Venture	InvitationHomes, Rockpoint Group	$300,000,000
May-22	Joint Venture	SVN, SFR Capital Management, Linesight Development LLC	$1,500,000,000
Jun-22	Acquisitions	Inland Real Estate Acquisitions	$185,900,000
Jun-22	Joint Venture	Walton Global, Rockpoint	$1,000,000,000
Jul-22	BTR Partnership	Haven Realty, Apollo Global Management Inc.	$22,800,000
Aug-22	Building 2,000 New Homes	Curve Development, JEN Partners Inc.	$500,000,000
Sep-22	Joint Venture	Tricon Residential, Arizona State Retirement System	$500,000,000
Oct-22	BTR Joint Venture	Landmark Properties, Principal Real Estate Investors	$38,000,000
Oct-22	Groundbreaking	Crescent Communities, Pretium	$23,200,000

YARDI

Source: Yardi Matrix; John Burns Real Estate Consulting; Multi-Housing News; Globe Street.com

The Four Types of Single-Family Built-to-Rent

HORIZONTAL MULTIFAMILY

- 1,500 sq ft
- 1-3 bedrooms
- $1,300-$1,900 rents
- Single-level cottage homes, enclosed small backyards
- NextMetro & Lennar in Phoenix and Denver pioneered concept
- Fully amenitized community-pool/clubhouse

TWO-STORY TOWNHOMES AND/OR ATTACHED ROW HOUSES

- 1,700 sq ft
- 2-3 bedrooms
- $1,300-$1,900 rents
- Western U.S.
- Partial to no amenities

LUXURY SINGLE-FAMILY

- 2,000-3,000 sq ft
- >4 bedrooms
- $4,500-$7,000 monthly rents
- California + Nevada
- No community amenities

TRADITIONAL SINGLE-FAMILY

- 1,800-2,500 sq ft
- 3-4 bedrooms
- Southeastern U.S. (Nashville, TN)
- Larger lot sizes

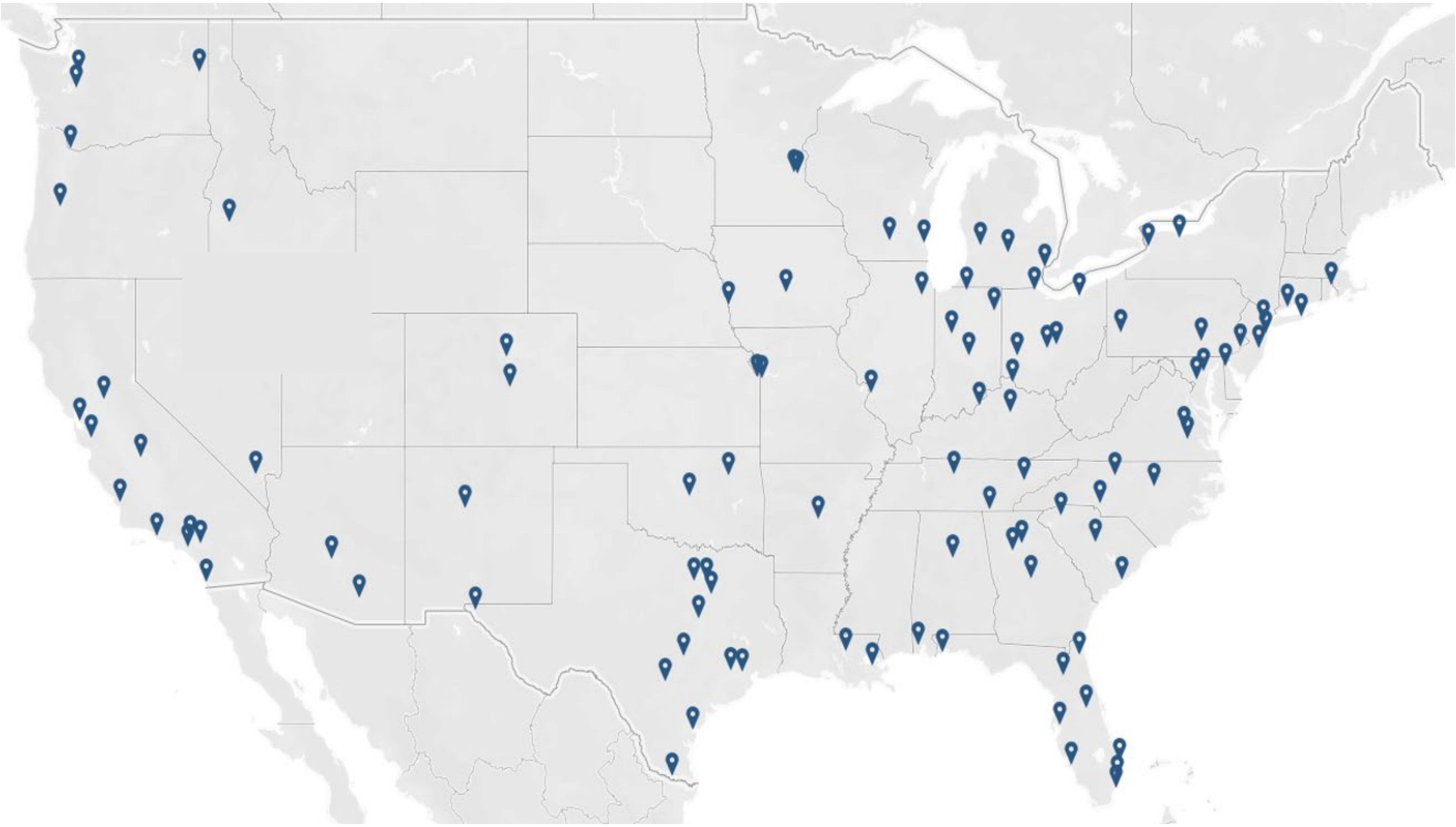
YARDI

Source: Yardi Matrix; Walker & Dunlop

Single-Family Rentals in Build-to-Rent Communities Are *now a Part of the Yardi Matrix Data Service!*

Status	Properties	Units
Completed	929	118,817
Under Construction	233	34,046
Planned	130	24,363
Prospective	116	21,756
TOTALS	**1,408**	**198,982**

Yardi Matrix Single-Family Rental Coverage Map



***Yardi Matrix coverage include single-family rentals and built-to-rent over 50 units. Complete explanation of our definition is available upon request**

Source: Yardi Matrix

SFR Demand Strong Among Millennials and Blue-Collar Workers

Single-Family Rental Demand Drivers:

- **Work from home**
  - **Only 47.3% of workers are back to the office** – hybrid work is becoming the norm
  - More conducive to work than noisy apartments
  - Offers more space for multiple workspaces
- **Household formation growth** during the pandemic as a result of:
  - Employment/wage growth
  - Stimulus payments
  - Increased savings
- **Declining affordability of homeownership**
  - 61% of renters in the largest metros are priced out of homebuying
  - SFR is prime for millennials and blue-collar workers who would like to buy a house but are priced out
- **Demographics**
  - Millennials and blue-collar workers
  - Ages 24 to 40
  - Salaries averaging $60,000 to $70,000 a year

YARDI

Source: Yardi Matrix; John Burns Real Estate Consulting; Kastle Systems; GlobeSt.com; Multi-Housing News

SFR/BTR Development Trends

- Amenities
  - Most popular: on-site maintenance and a community
  - Highly desired: better parking, privacy and a yard
  - Bonus: apartment-like amenities such as a pool, clubhouse and trails

- **Smart home technology is a MUST** – will likely become standard
  - Plan for future demand – EV charging in garages

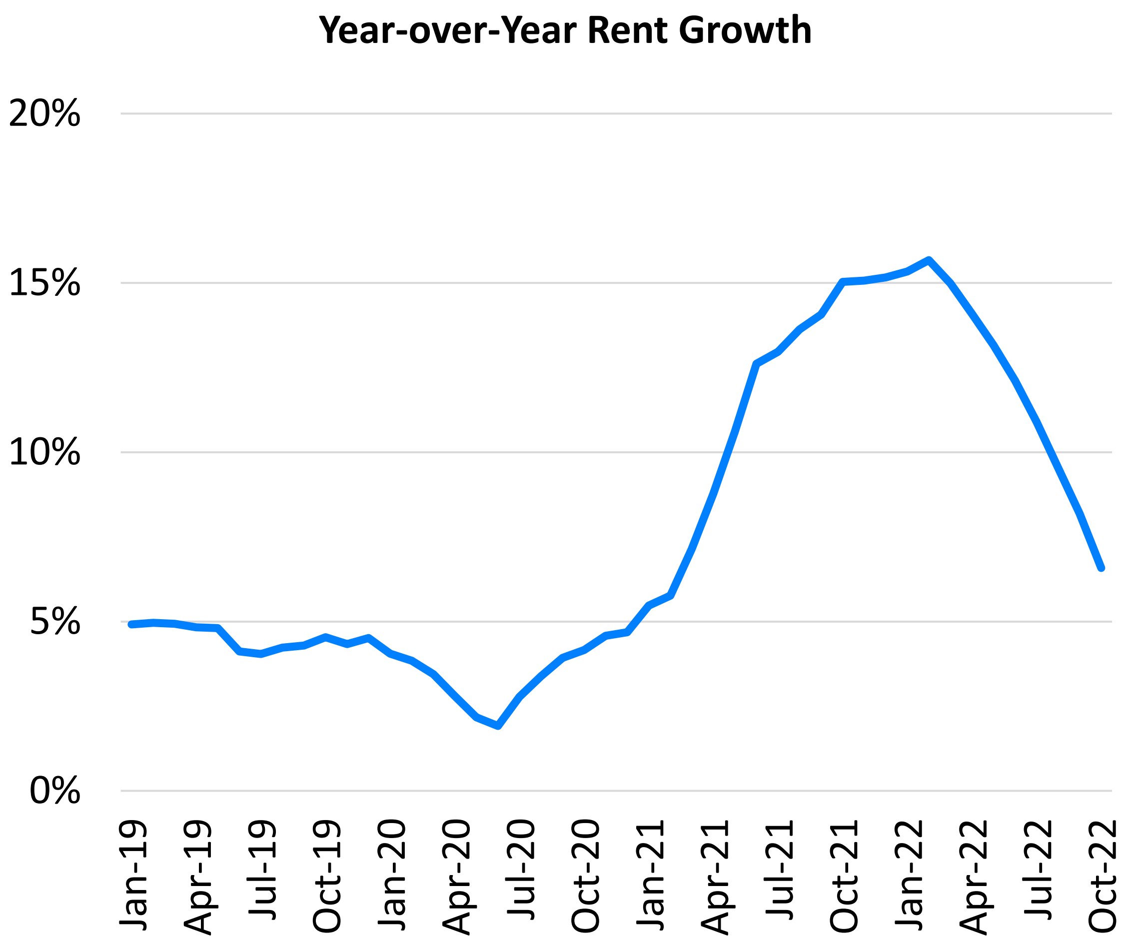
- Design homes to accommodate frequent moving
  - Resilient materials (e.g., laminate faux wood flooring, granite/quartz countertops)
  - Wider hallways
  - Standardized appliances

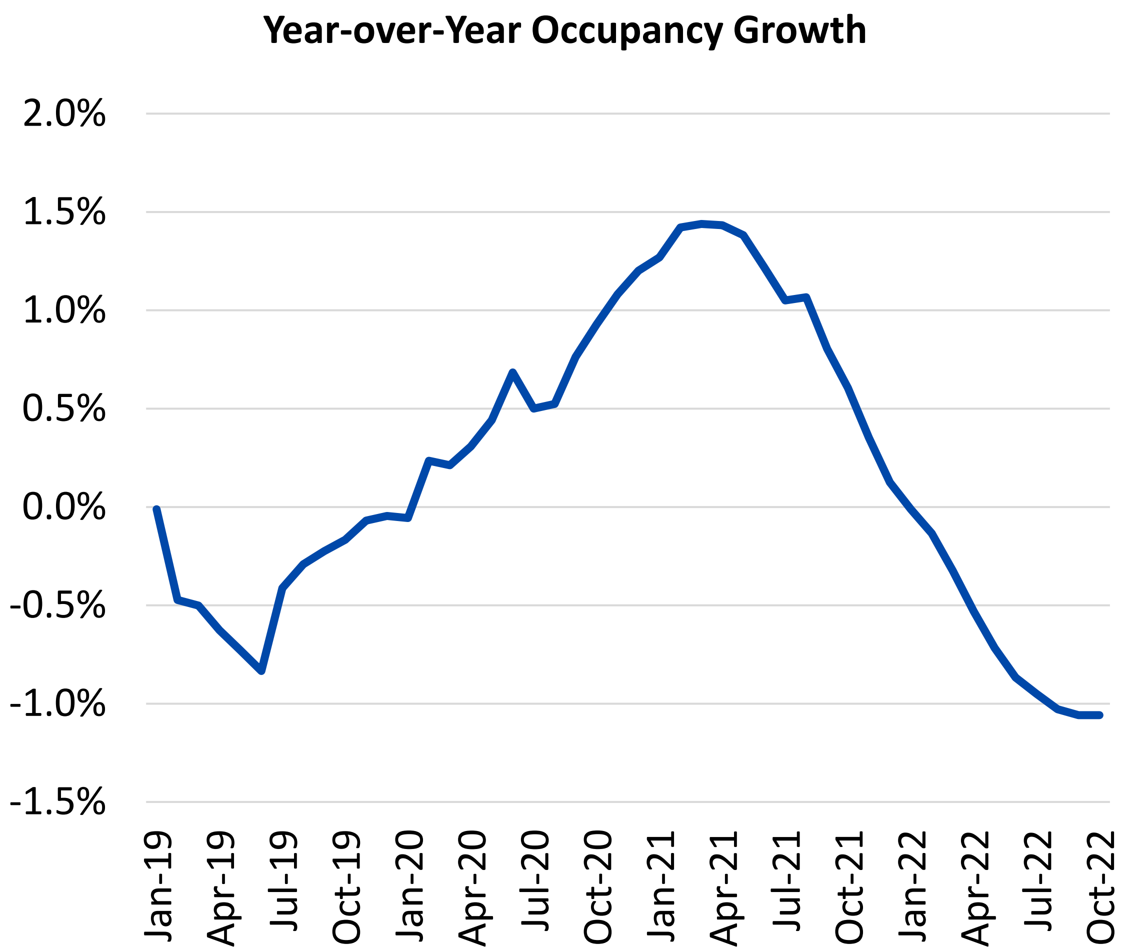
- Flex SF and lot size by location based on consumer demand
  - Young singles and couples prefer pet-friendly units
  - Young families prefer large common areas
  - Singles and couples want an attached garage

YARDI

Source: Yardi Matrix; John Burns Real Estate Consulting; Multifamily Real Estate News

Single-Family Rental Fundamentals Are Strong, But Decelerating

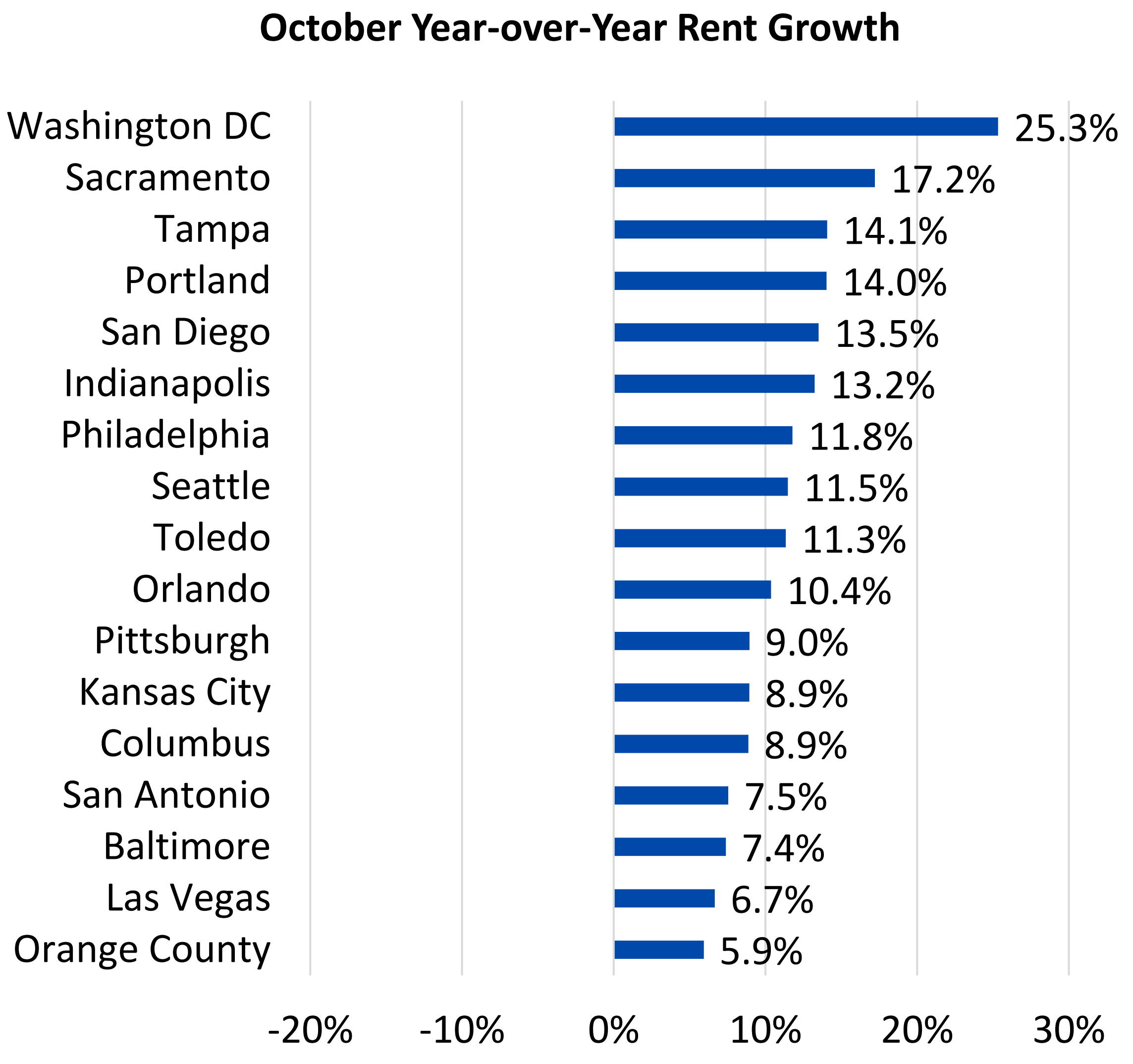


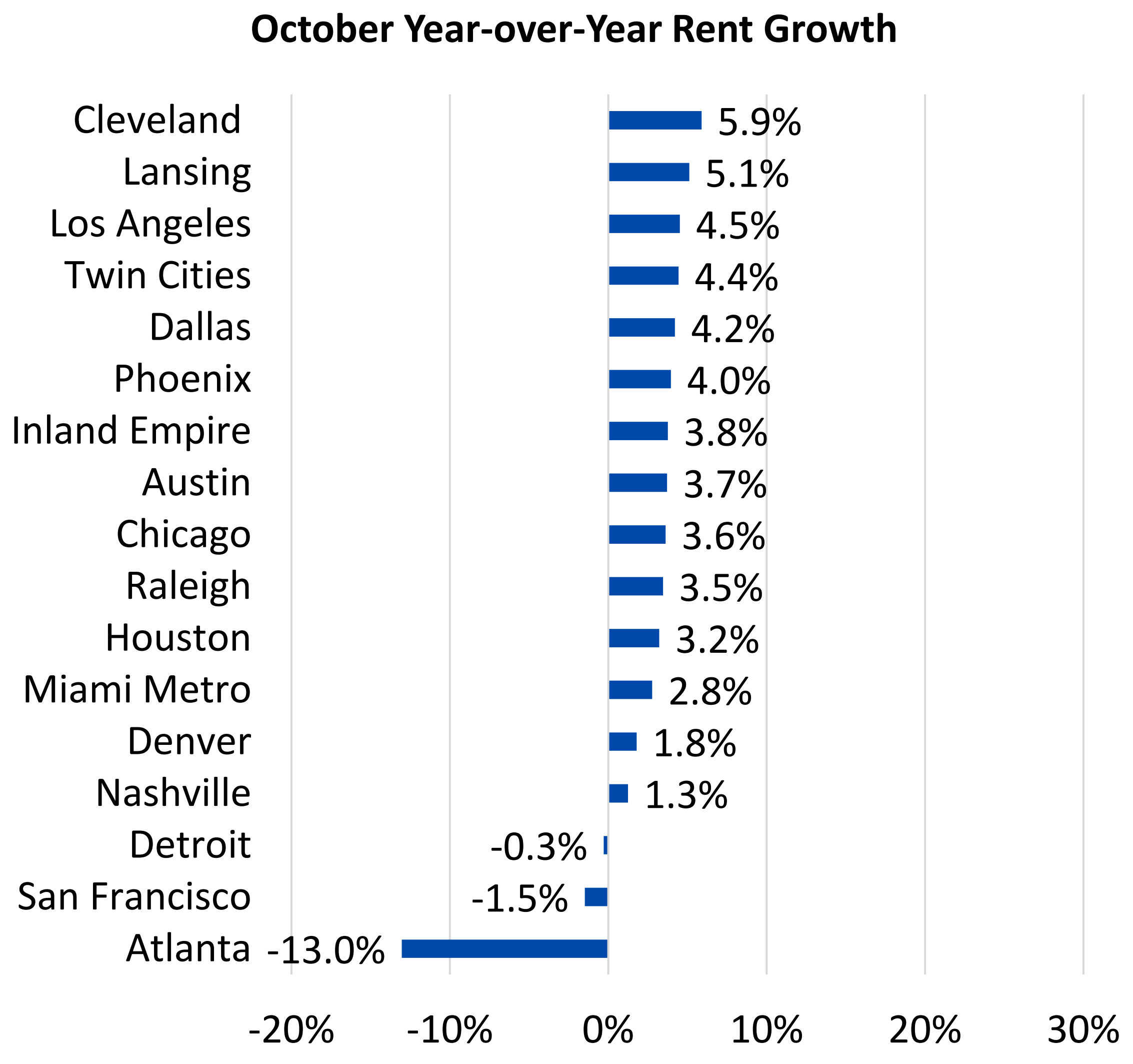


YARDI

Source: Yardi Matrix

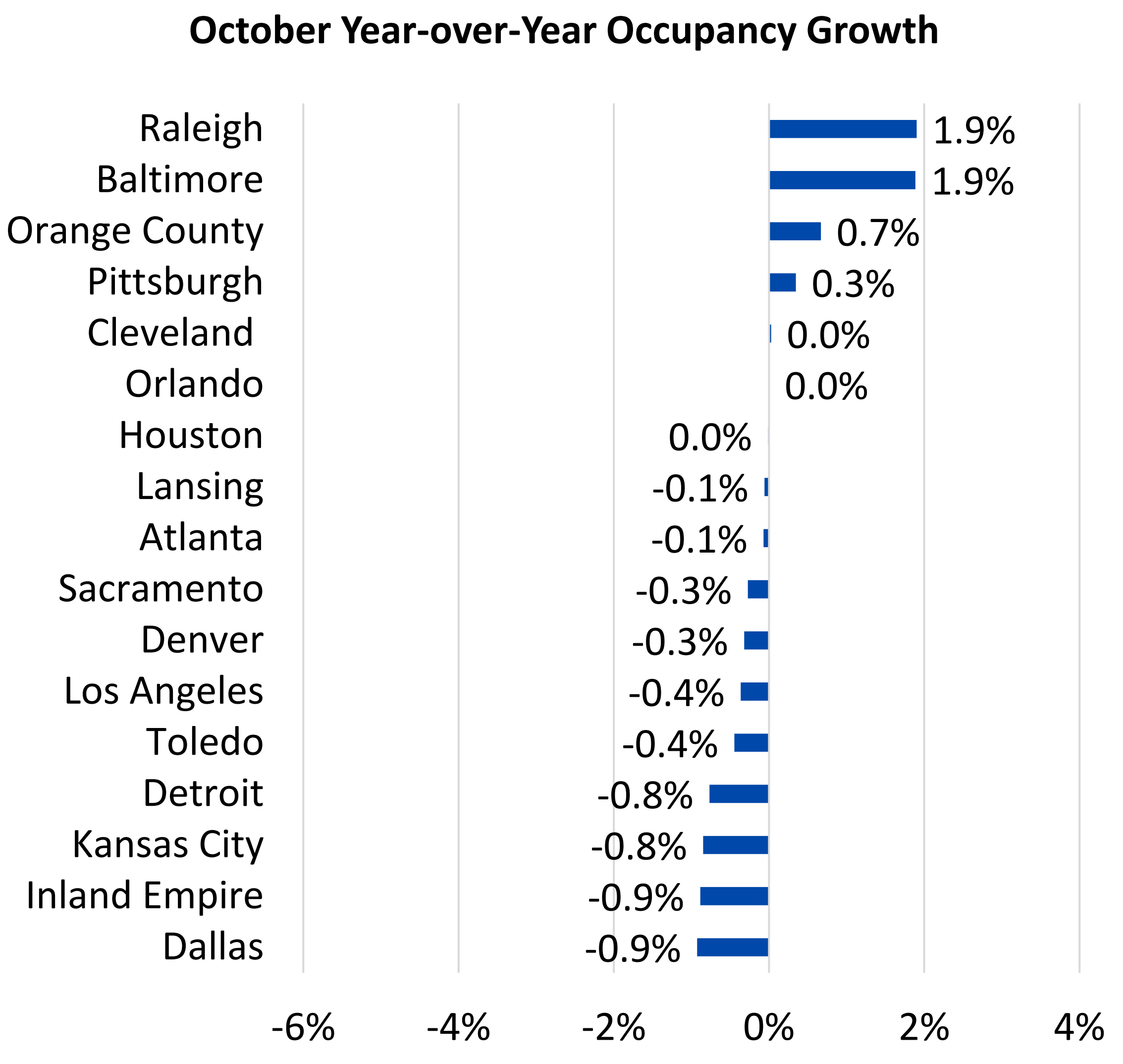
Single-Family Rent Growth Remains Strong, With a Few Exceptions

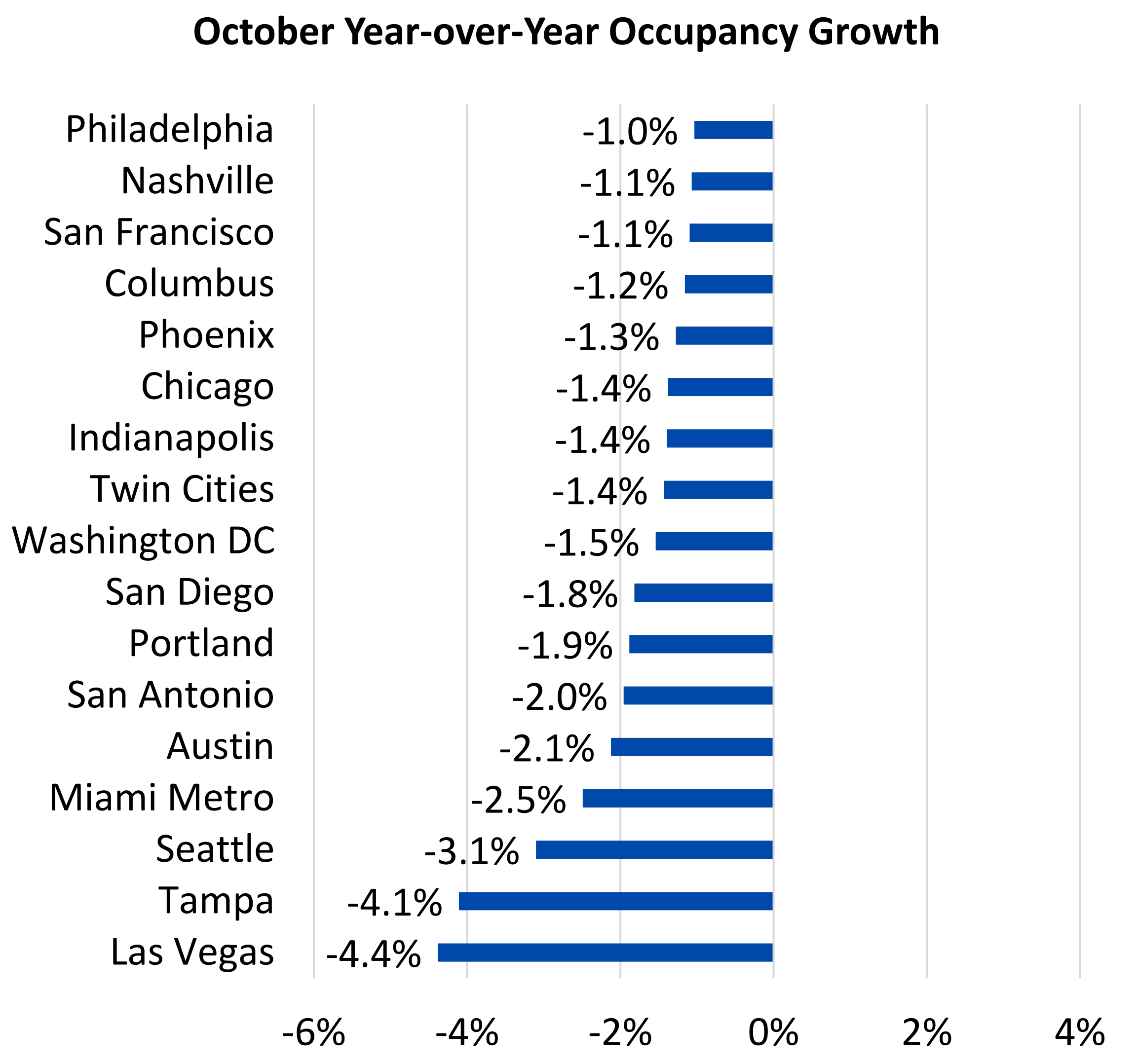




Source: Yardi Matrix

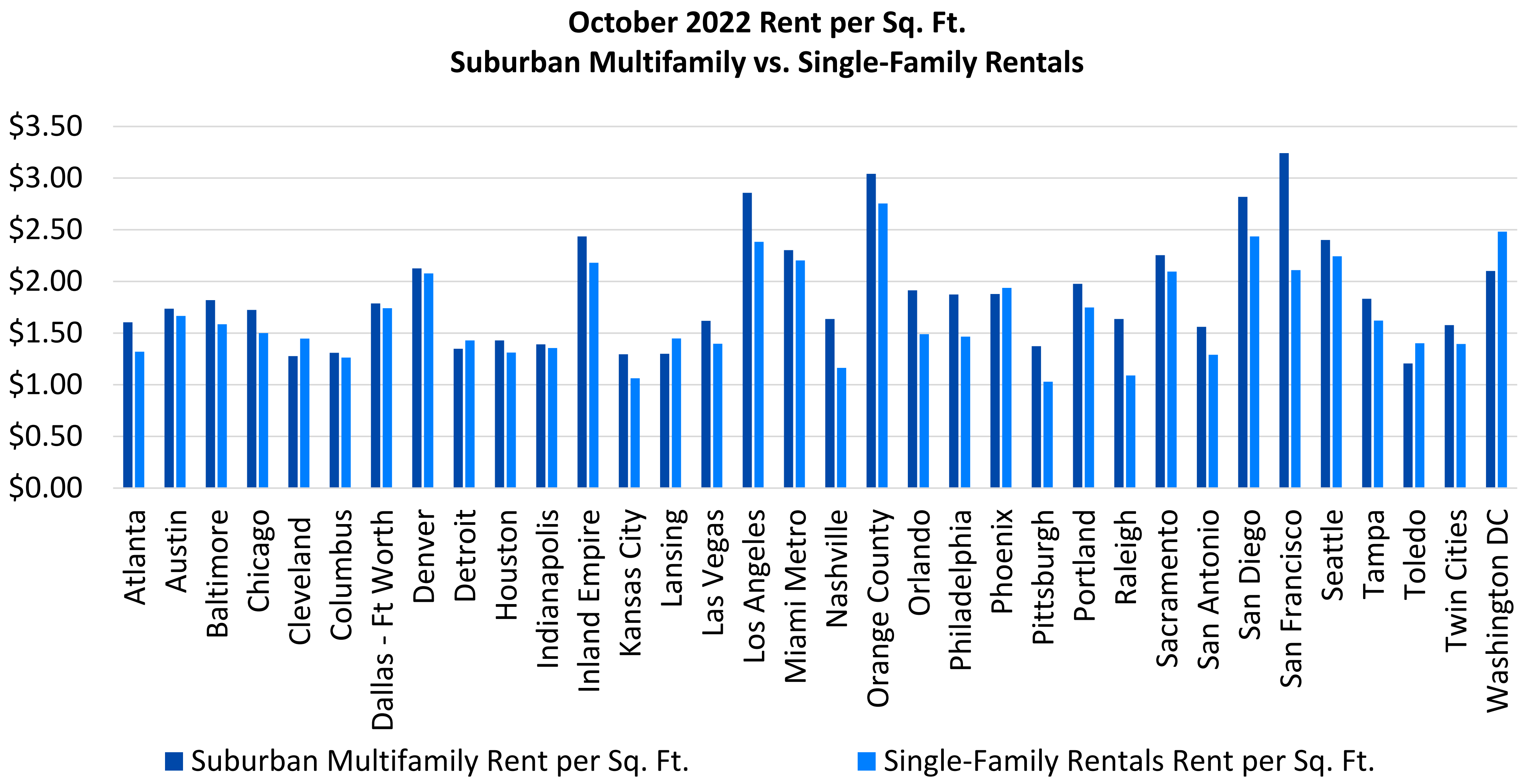
There is More Volatility in Occupancy Due to the Small Number of Units





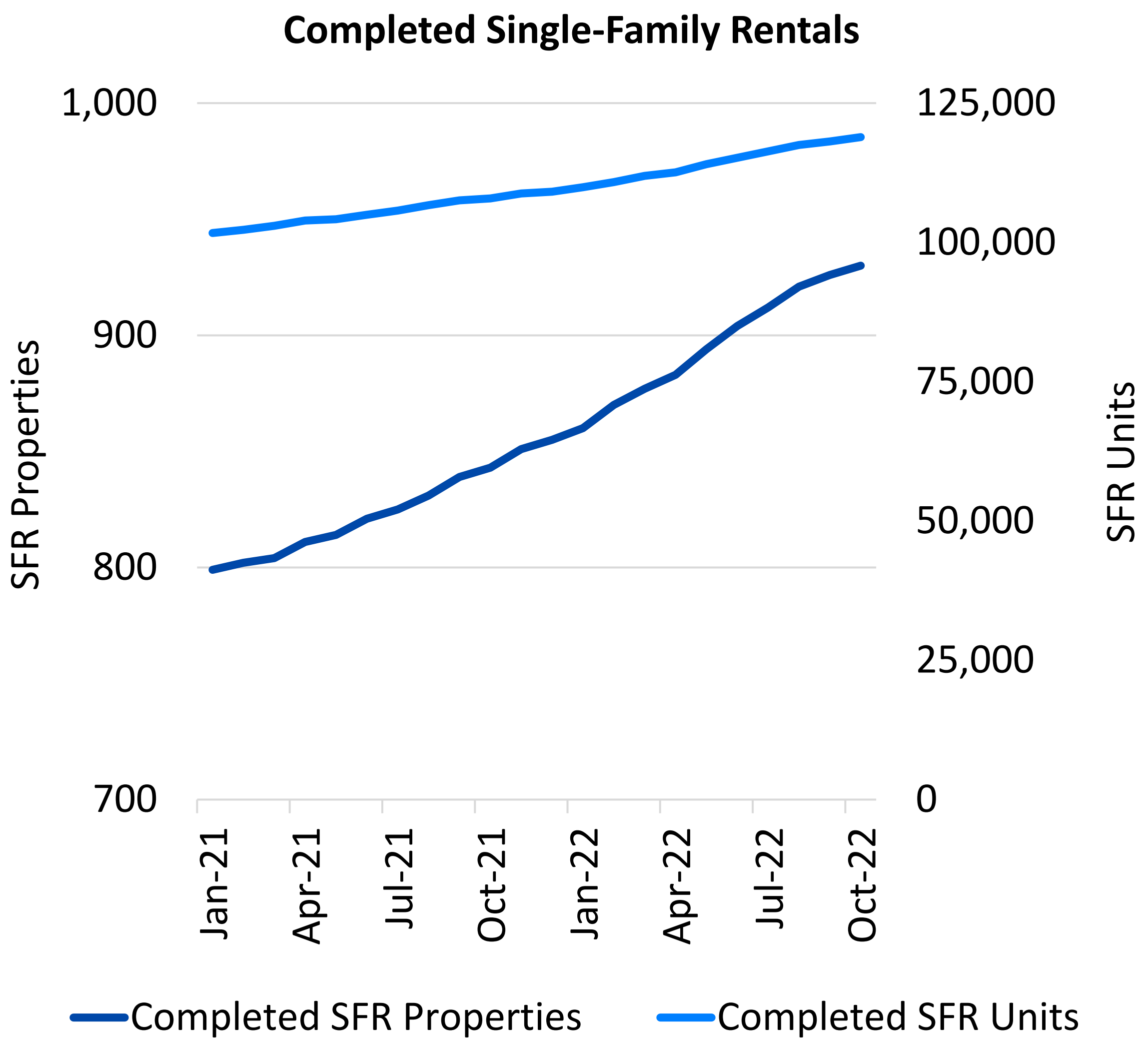
Source: Yardi Matrix

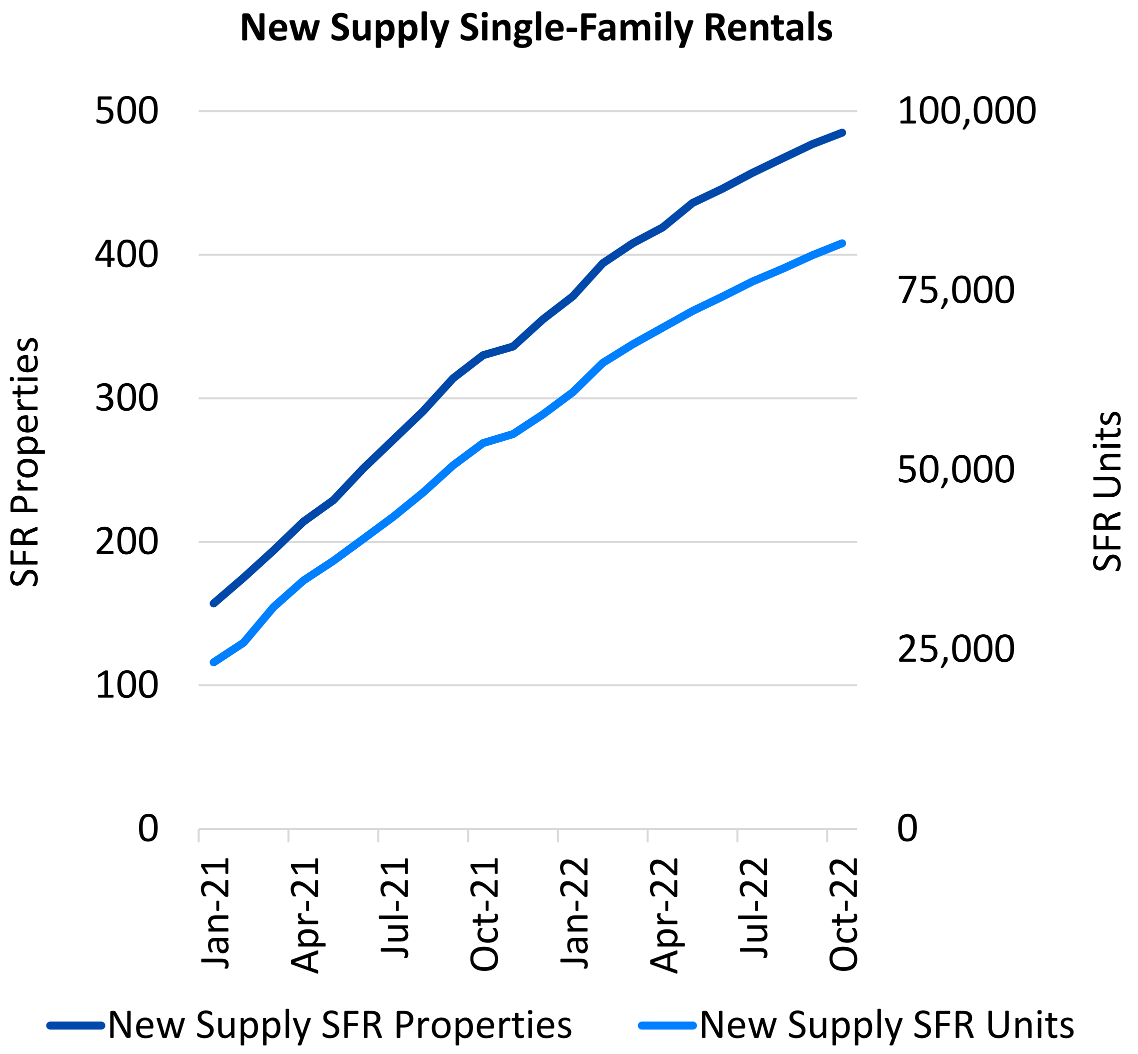
Rents per Sq. Ft. Are Higher for Suburban Multifamily Rentals Than Single-Family Rentals in Most Markets



Source: Yardi Matrix

Single-Family Rental Supply is Growing With the Sector's Popularity





Source: Yardi Matrix

New Single-Family Rental Supply Pipeline: Where is New Supply Concentrated?

Status	Properties	Units
Under Construction	233	34,046
Planned	130	24,363
Prospective	116	21,756
TOTAL NEW SUPPLY	**479**	**80,165**
Completed	929	118,817
NEW SUPPLY AS A % OF EXISTING STOCK	**51.6%**	**67.5%**

Top 10 Markets	Units	UC as a % of Existing Stock
Chattanooga	252	393.8%
Colorado Springs	194	269.4%
Bay Area - East Bay	160	258.1%
Orlando	773	230.7%
Winston	190	158.3%
N. New Jersey	97	156.5%
Charlotte	1431	127.4%
Providence	119	120.2%
N. Central Florida	430	114.4%
SW Florida Coast	505	113.5%

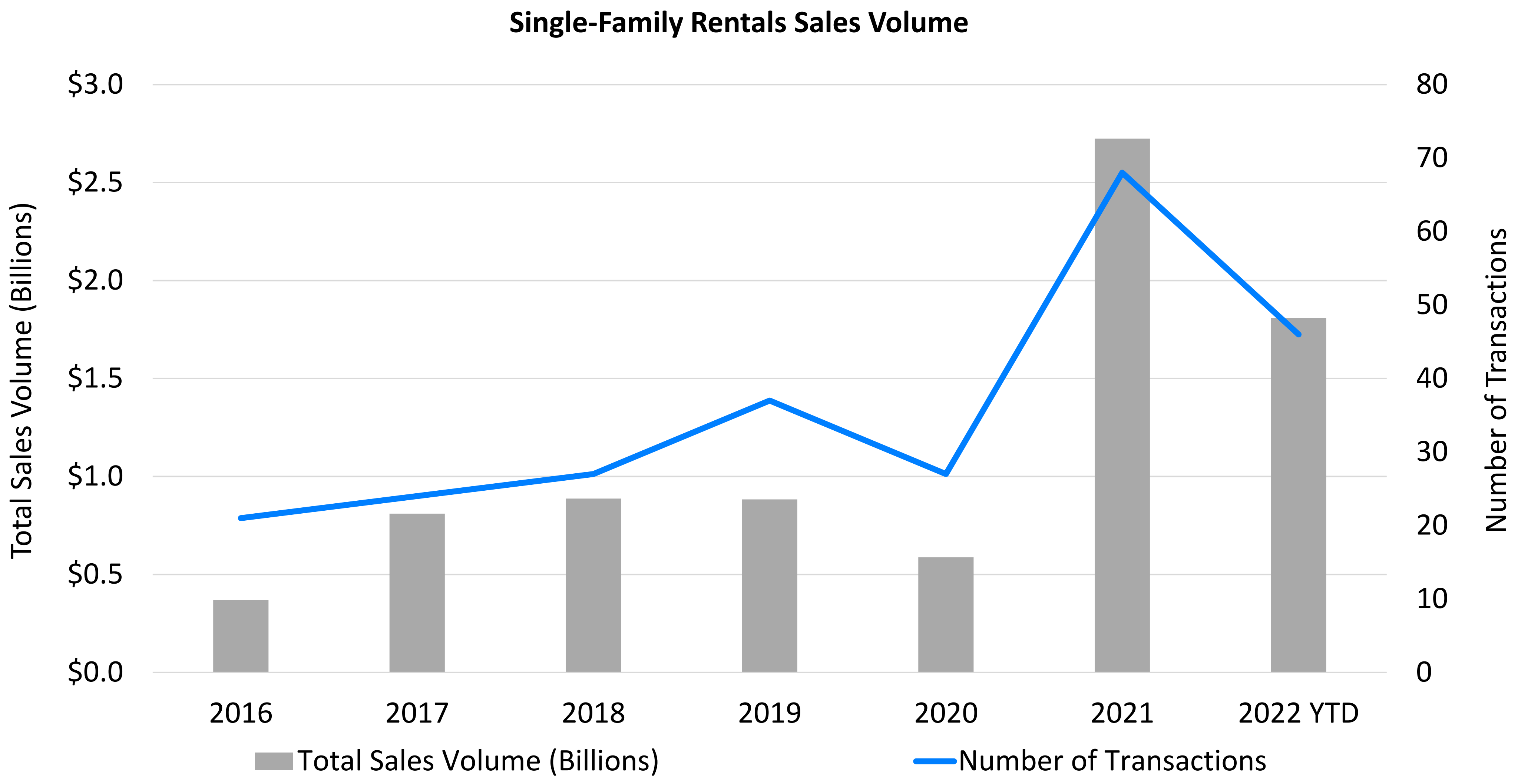
Top 10 Markets	Units	Planned as a % of Existing Stock
Colorado Springs	247	343.1%
SW Florida Coast	1040	233.7%
North Central Florida	848	225.5%
Fort Worth	2166	167.3%
Central East Texas	200	158.7%
Orlando	380	113.4%
Wichita	300	106.4%
Austin	1551	98.9%
Albany	260	74.9%
Dallas - North	2071	70.3%

Top 10 Markets	Units	Prospective as a % of Existing Stock
Bay Area - East Bay	160	258.1%
Bay Area - South Bay	114	228.0%
Omaha	108	216.0%
Boston	164	170.8%
SW Florida Coast	612	137.5%
Orlando	444	132.5%
Charlotte	1446	128.8%
Athens	646	118.3%
Fort Worth	1462	112.9%
Nashville	800	93.9%

YARDI

Source: Yardi Matrix

Single-Family Rental Sales Volume is Slowing After a Record Year in 2021



*2022 YTD as of October 2022 | Source: Yardi Matrix

Potential Headwinds: Interest Rates and Possible Legislation

- **Interest Rates**
  - Increasing interest rates will have a negative impact on development
    - Increasing costs
    - Decreasing supply
    - Declining availability of construction financing

- **Potential Legislation** presented at the House Financial Services Subcommittee on Oversight and Investigations
  - Rental Housing Registry Ordinance
    - Rental property databases
    - Landlord registries
  - Just Cause Eviction legislation
  - Anti-competitive legislation
    - Rent control

- **More competition** as more developers look to purchasing rental properties as their near-term strategy

YARDI

Source: Yardi Matrix; Multi-Housing News; Library of Congress; Globe Street.com

However, This May Mean SFR/BTR Investment Opportunities Are on the Rise

- Due to rising interest rates, an increasing number of traditional home buyers are pulling out of the market

- **Builders are stuck with more homes than they can sell**
  - **Offering to sell to landlords at 15%-20% discounts**

- **14% more homes under construction August 2022 than previous year**
  - Selling to landlords is cheaper - involves less customizations

- Major homebuilders reportedly walking away from building projects
  - Lennar Corp., KB Home

- Investor focus is still primarily existing homes
  - New home purchases still only around 2% of investor home purchases (John Burns RE Consulting)
  - Empty lots or communities can help build margins in any market

- Home builders selling to investors means fewer options for home buyers but also protects current homeowners by keeping home prices from falling further than they may otherwise

YARDI

Source: Yardi Matrix; Wall Street Journal

Yardi Matrix House View – November 2022

MACROECONOMIC UPDATE

- The pandemic recovery has been rapid (V-shaped), now growth is cooling
- The labor market is tight and not yet signaling a problem given economic conditions
- De-globalization will have long-term, largely inflationary, effects
- Fed is in a tightening cycle after being slow to react to soaring U.S. inflation
- Inflationary pressures starting to ease, just not enough
  - October headline CPI had the smallest YoY increase since Jan 2022
- U.S. economy is slowing, yield curve (10 YR- 3 MTH) is inverted, recession very likely in Q4 2023

MULTIFAMILY INDUSTRY

- U.S. domestic migration has had an impact on demand, but to a lesser degree than household formations
- Demographic trends will tend to keep labor markets tight, supporting housing demand and the multifamily industry
- Multifamily fundamentals have been great, but decelerating
  - CRE Mortgage rates are > 6%, and valuations have adjusted downward ~25% from the 1/22 peak
  - The transaction market is frozen given such a wide bid/ask spread
- Construction financing is in short supply, and pipelines could be significantly reduced in 2025-2026
- The supply shortage of U.S. housing is likely to last 5-10 years, supporting continued rent growth and capital appreciation

YARDI

Source: Yardi Matrix

Yardi Matrix House View – November 2022

SINGLE-FAMILY RENTAL INDUSTRY

- Single-family rental fundamentals are strong, but decelerating, following a similar pattern to multifamily
- Supply has been growing with the sector's popularity, but interest rates will slow some development
- Sales volume is also slowing after a record year in 2021
- Potential headwinds on the rise, including interest rate growth and possible legislation
    - May provide unique investment opportunities

OUTLOOK

- We expect the economy, multifamily and single-family rental markets will moderate
- It will be a bumpy ride until the next recession hits, likely in late 2023, early 2024 – recession likely short
- Declining homeownership may be good for multifamily and SFR, if household formation holds up
- Transactions will slow over the next 18 months until inflation cools and interest rates come down
- U.S. multifamily is the "stand out" sector among all U.S. real estate asset types
- Amid all the noise, the key to success will continue to be thoughtful partner, market and investment strategy selection

YARDI

Source: Yardi Matrix

THANK YOU

Feel free to contact me with any questions

Jeff Adler | (800) 866-1144 x 2403 | Jeff.Adler@Yardi.com

D I S C L A I M E R

YARDI