



Economic Club of Phoenix

Economic Outlook

May 2, 2023

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School of Business
Arizona State University

Economic Club
of Phoenix



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US Economic Update



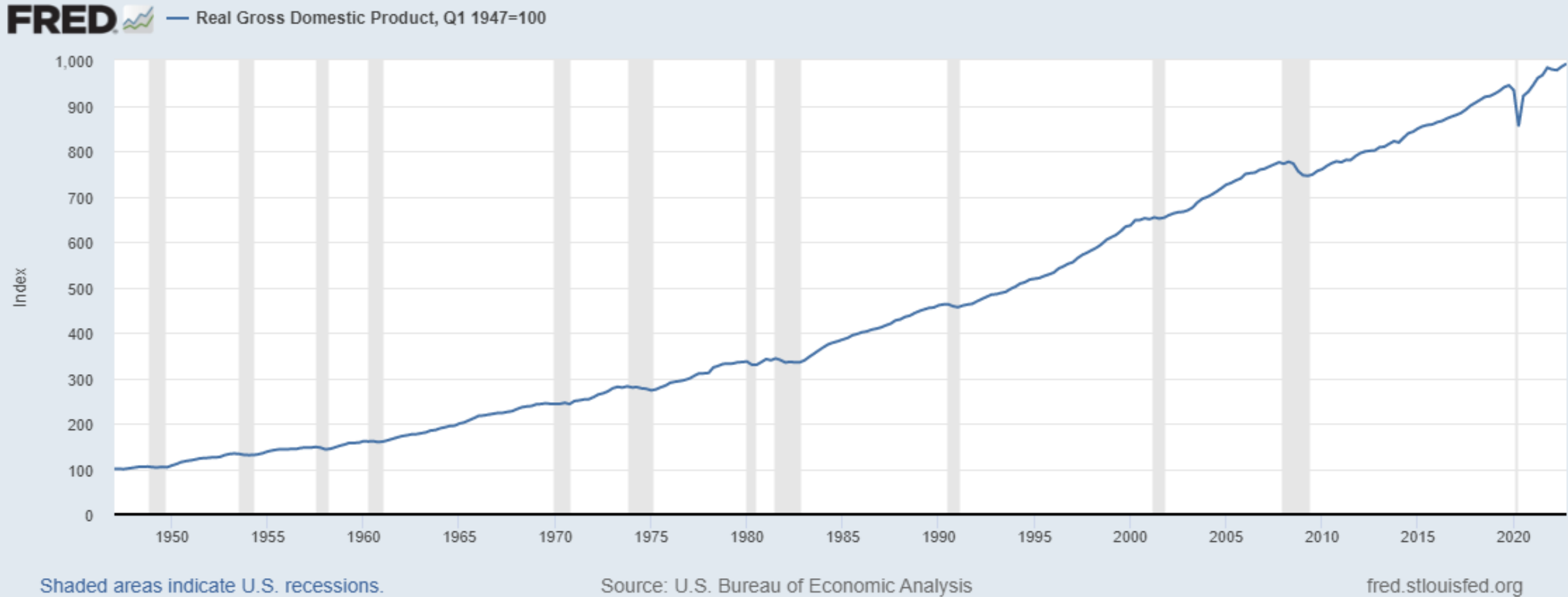
A Hard Landing, Soft Landing, or No Landing

Dennis Hoffman

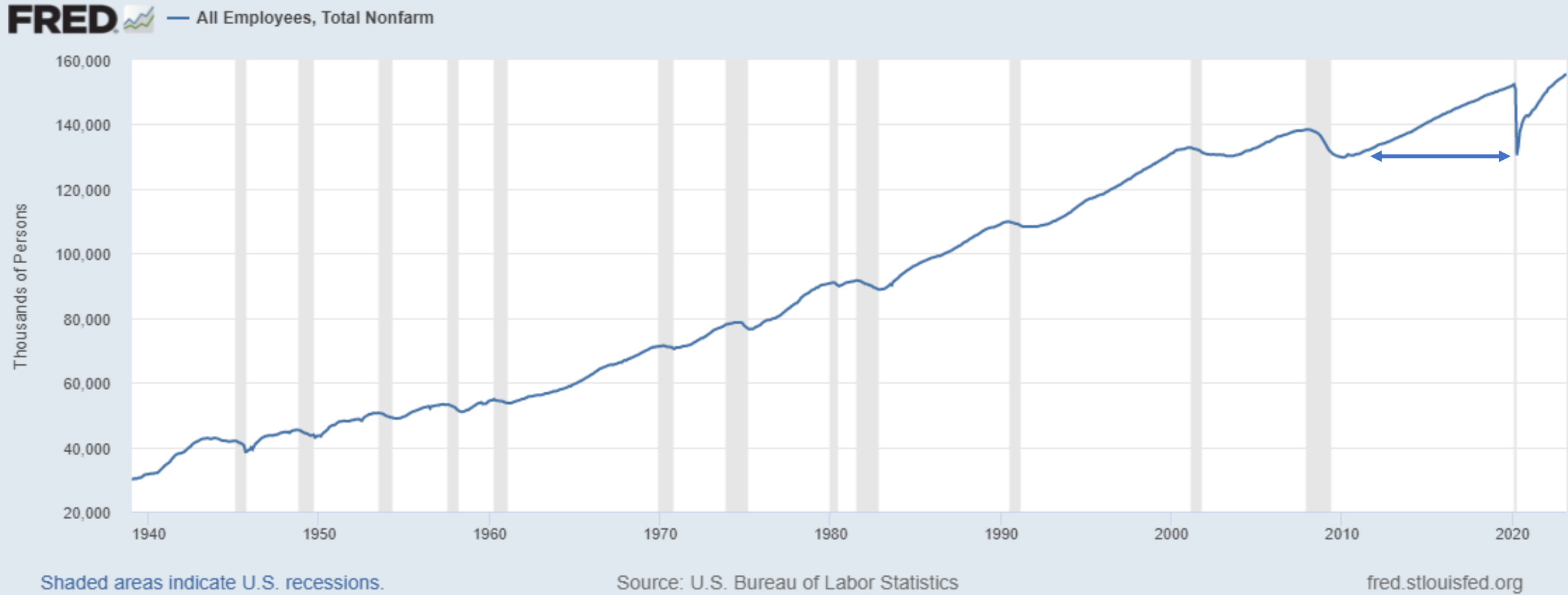
University Economist and Director Seidman Research Inst.

May 2023

Pandemic Impact on GDP



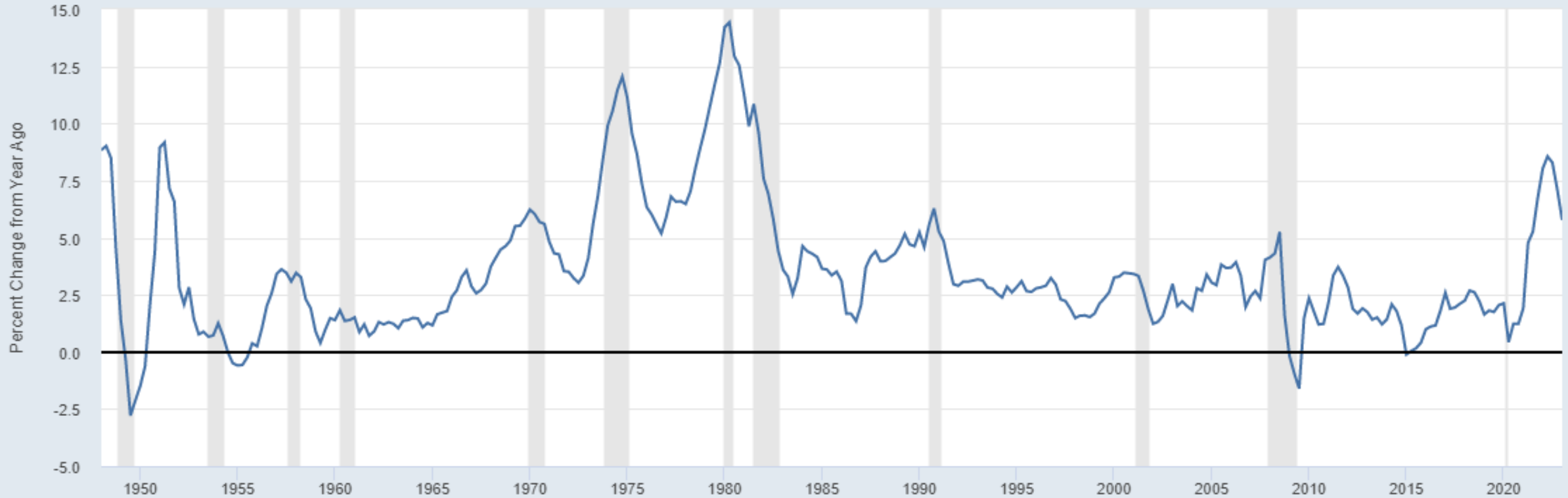
Pandemic Impact on Employment



Recent CPI Inflation



FRED — Consumer Price Index for All Urban Consumers: All Items in U.S. City Average



Shaded areas indicate U.S. recessions.

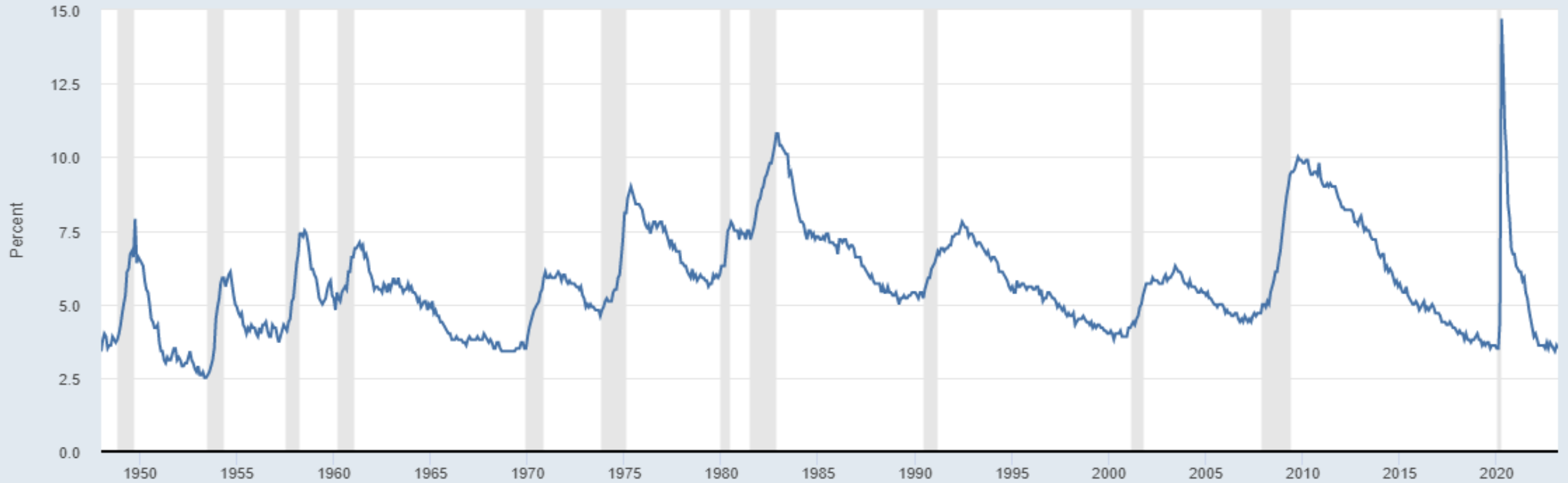
Source: U.S. Bureau of Labor Statistics

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Pandemic and Unemployment



FRED — Unemployment Rate

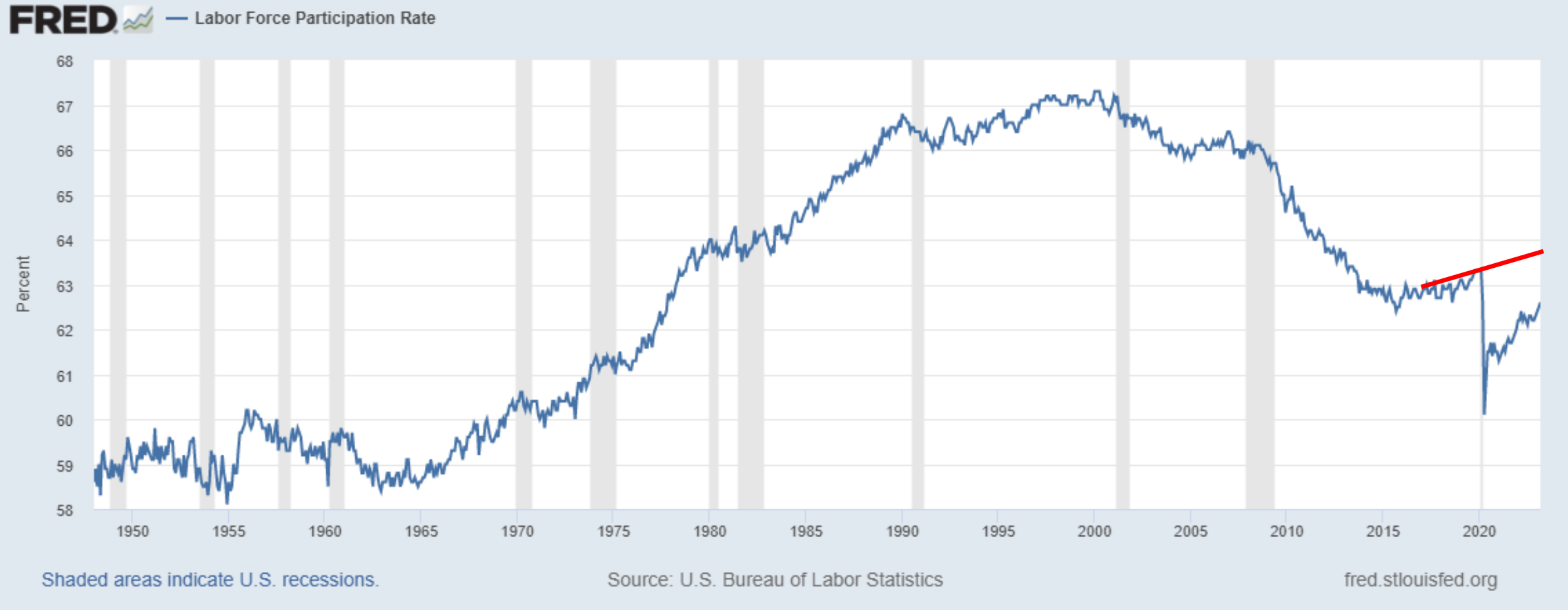


Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

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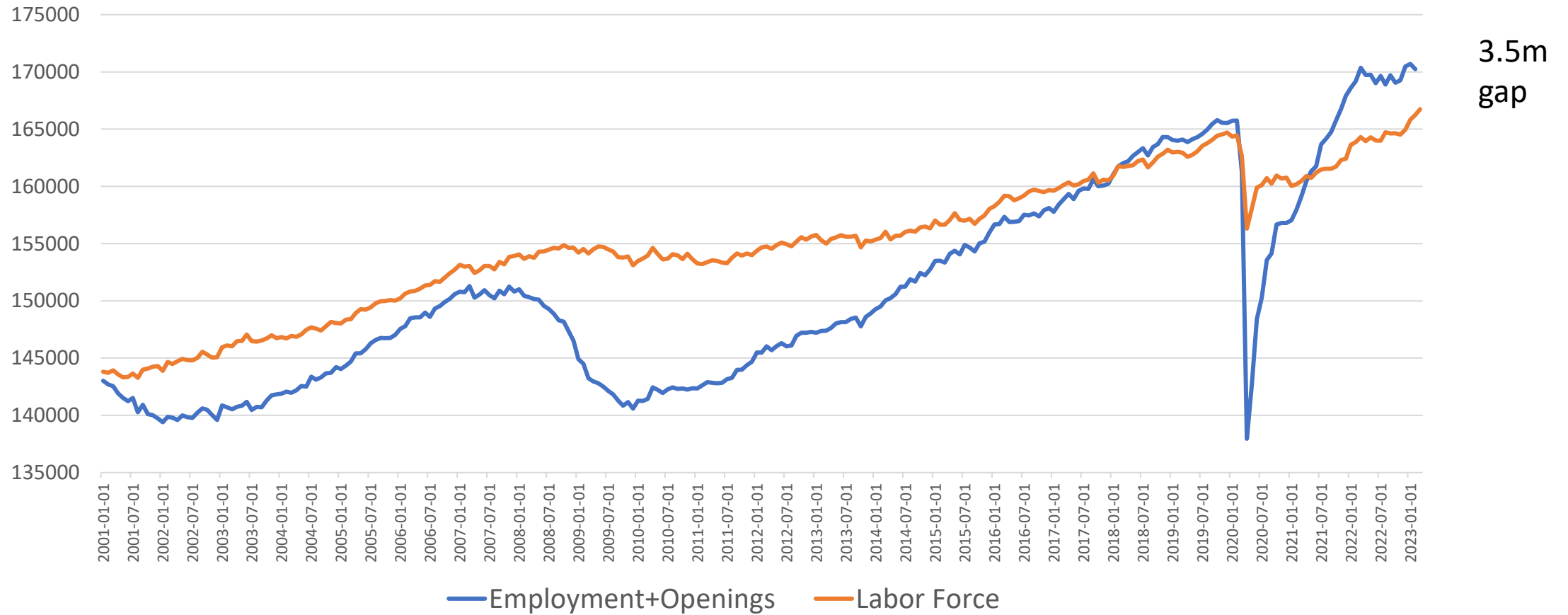
Pandemic and Labor Force PTR



Demand and Supply of Labor



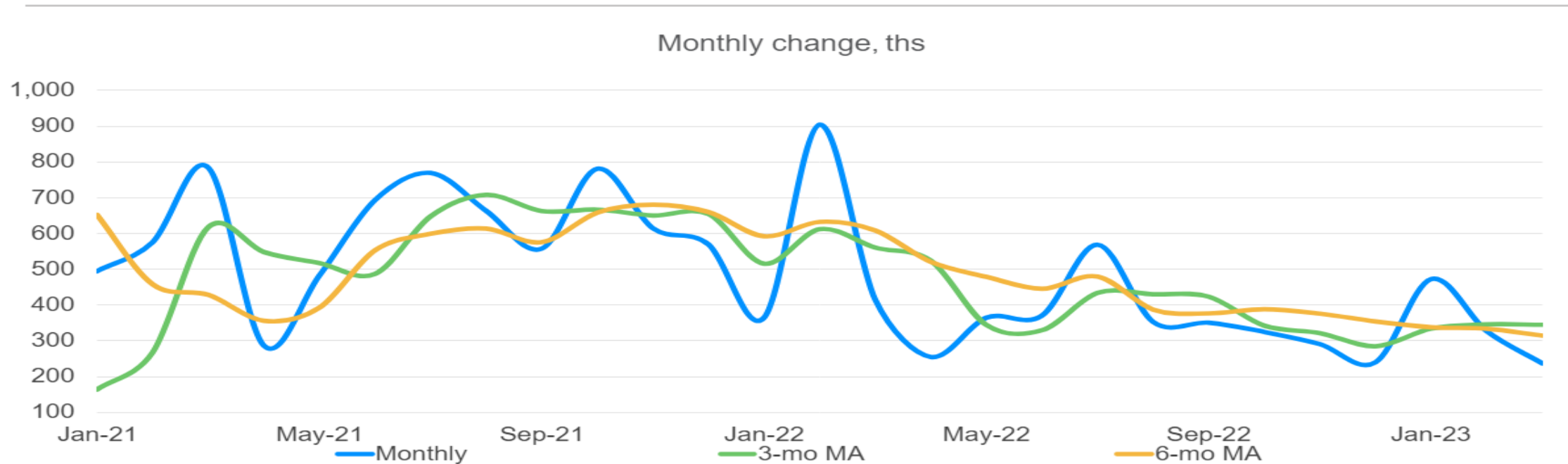
Job Market Tightness



Rate of Job Creation Slowing



Tapping the Brakes



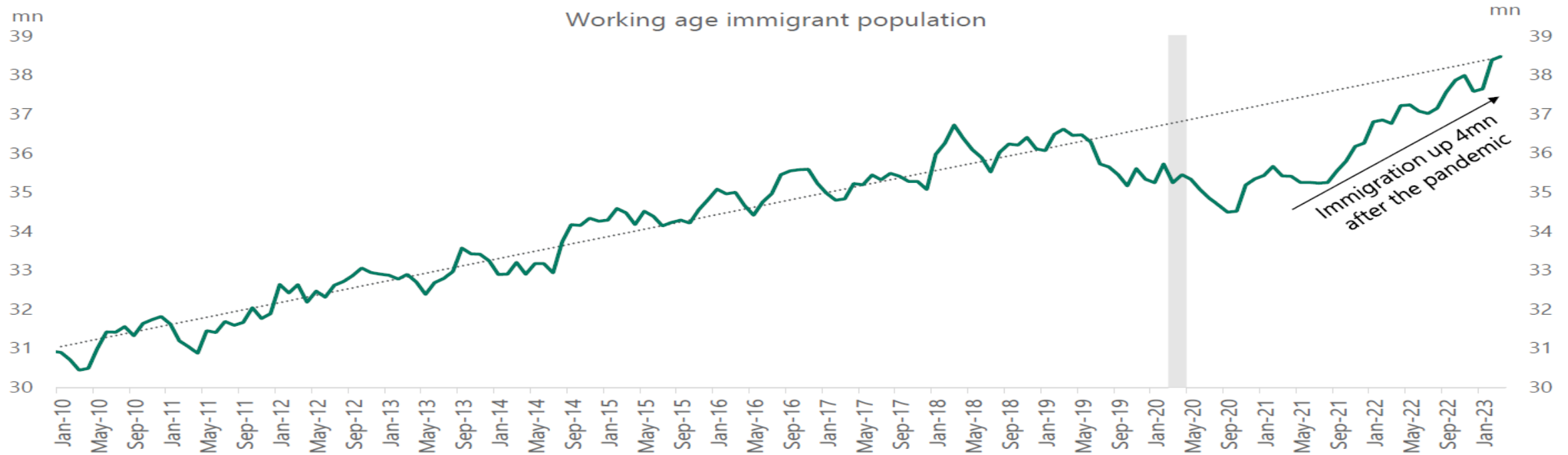
Sources: BLS, Moody's Analytics

Immigrants and Labor Supply



APOLLO

Working age immigrant population is up 4 million over the past 2½ years



Source: BLS, Haver Analytics, Apollo Chief Economist

18

Where Do We Go From Here? Blue Chip Forecast

Blue Chip Forecasts (pct)							
	2023			2024			
	high 10	consensus	low 10		high 10	consensus	low 10
GDP	1.7	1.2	.7		1.7	.9	0
CPI	4.6	4.0	3.3		3.0	2.5	2.0
Unemp	4.3	3.9	3.6		5.2	4.5	3.9
10 Yr Note	4.0	3.6	3.1		3.9	3.3	2.7

Source: *Blue Chip Economic Indicators*,

10, 2023

Latest CPI Release



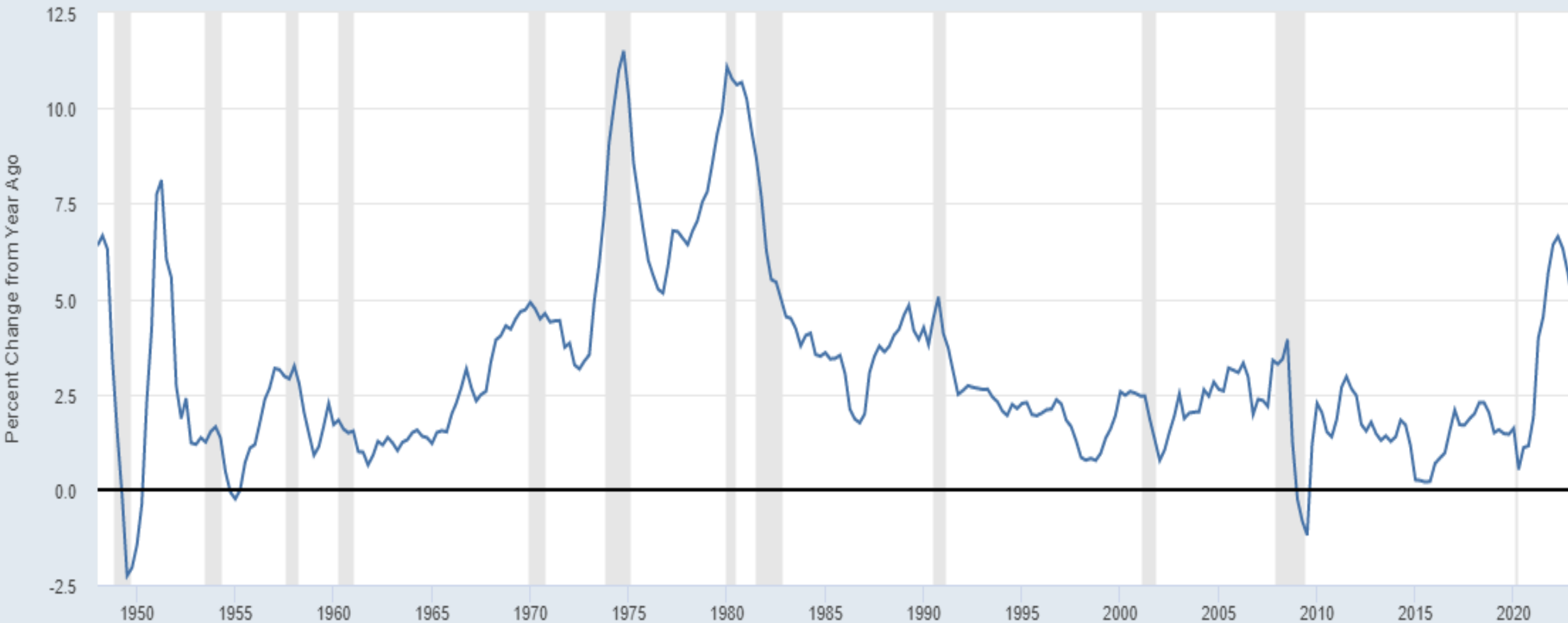
U.S. Consumer Price Index, % change yr ago, SA

	Mar 23	Feb 23	Jan 23	Dec 22	Nov 22	Oct 22	Sep 22	Aug 22
CPI	5.0	6.0	6.3	6.4	7.1	7.8	8.2	8.2
Food	8.5	9.5	10.1	10.5	10.7	10.9	11.2	11.3
Energy	-6.4	5.0	8.4	7.1	13.1	17.7	19.9	23.8
Core CPI	5.6	5.5	5.5	5.7	6.0	6.3	6.6	6.3
Goods	1.6	1.0	1.3	2.2	3.7	5.1	6.6	7.0
Services	7.1	7.3	7.2	7.0	6.8	6.7	6.7	6.1

Inflation Clearly Slowing



FRED — Personal consumption expenditures (implicit price deflator)



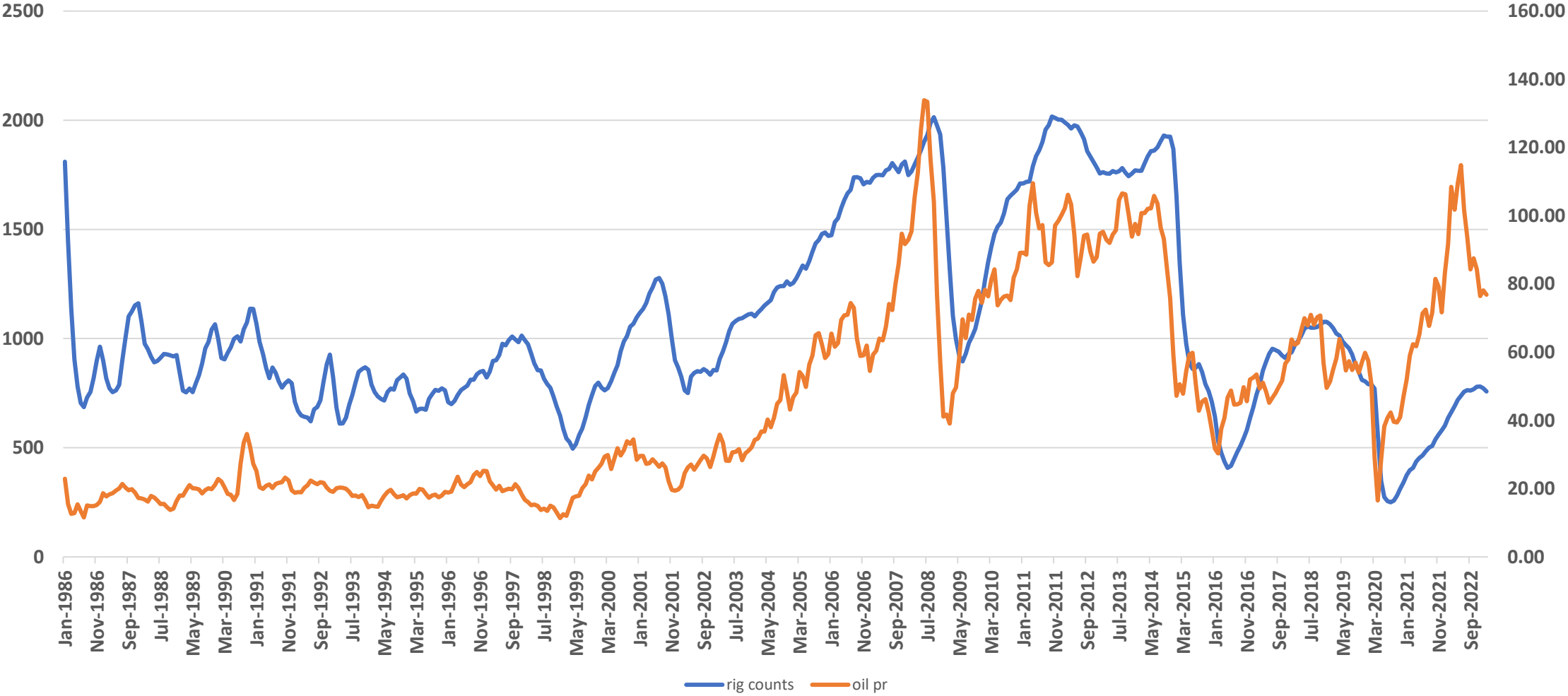
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

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Investment In The Oil Patch Remains Low

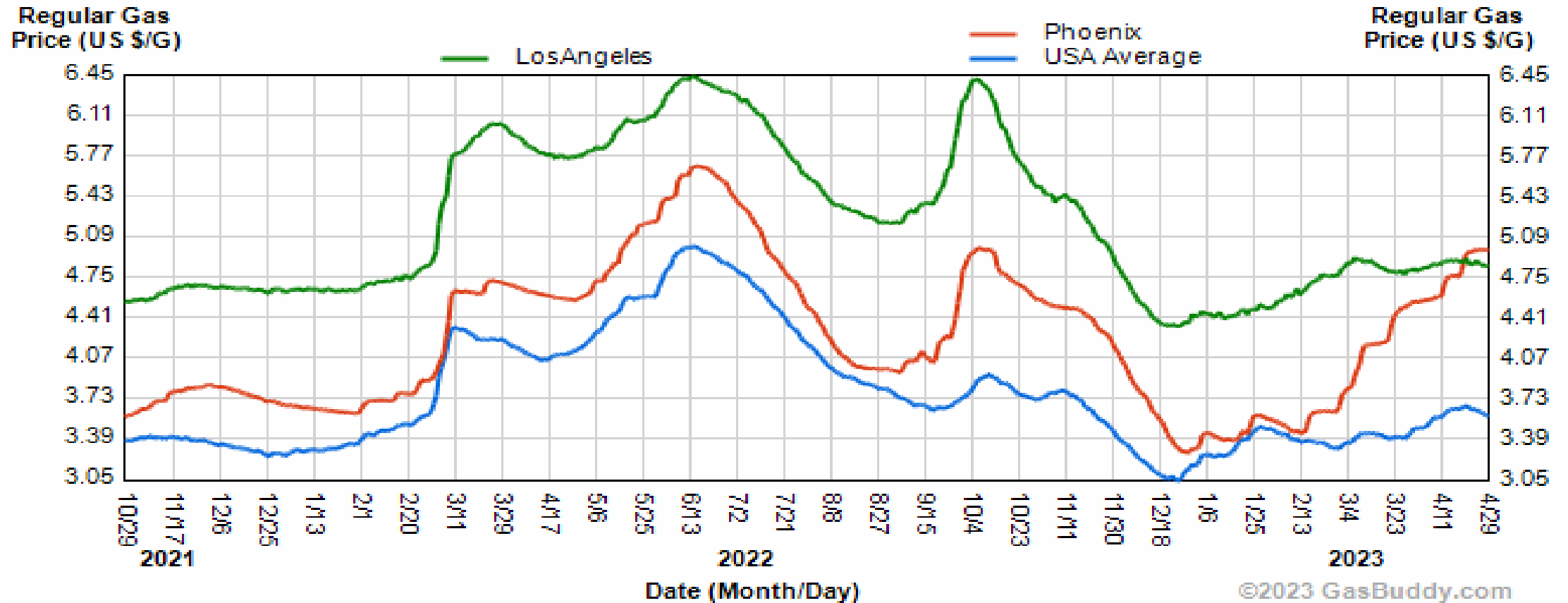
Rig Counts and Oil Prices



Beat LA! Beat LA! Beat LA!

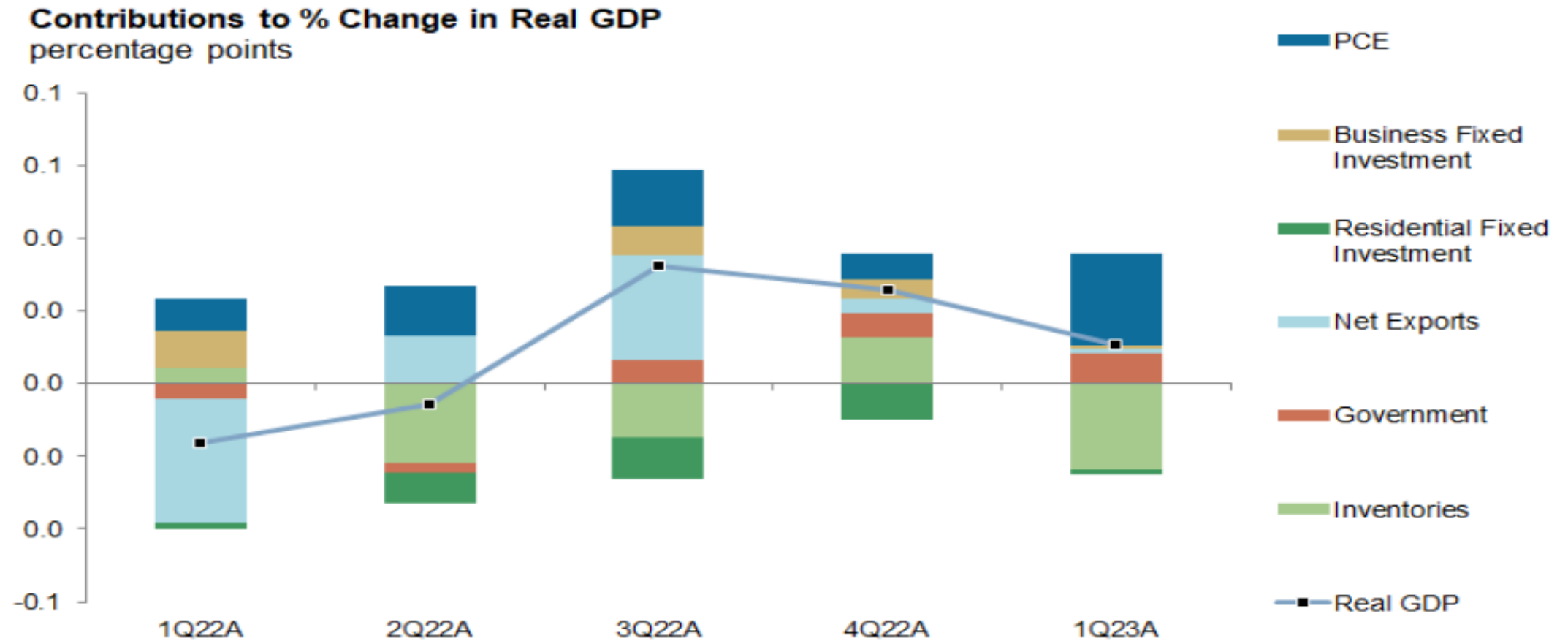


18 Month Average Retail Price Chart



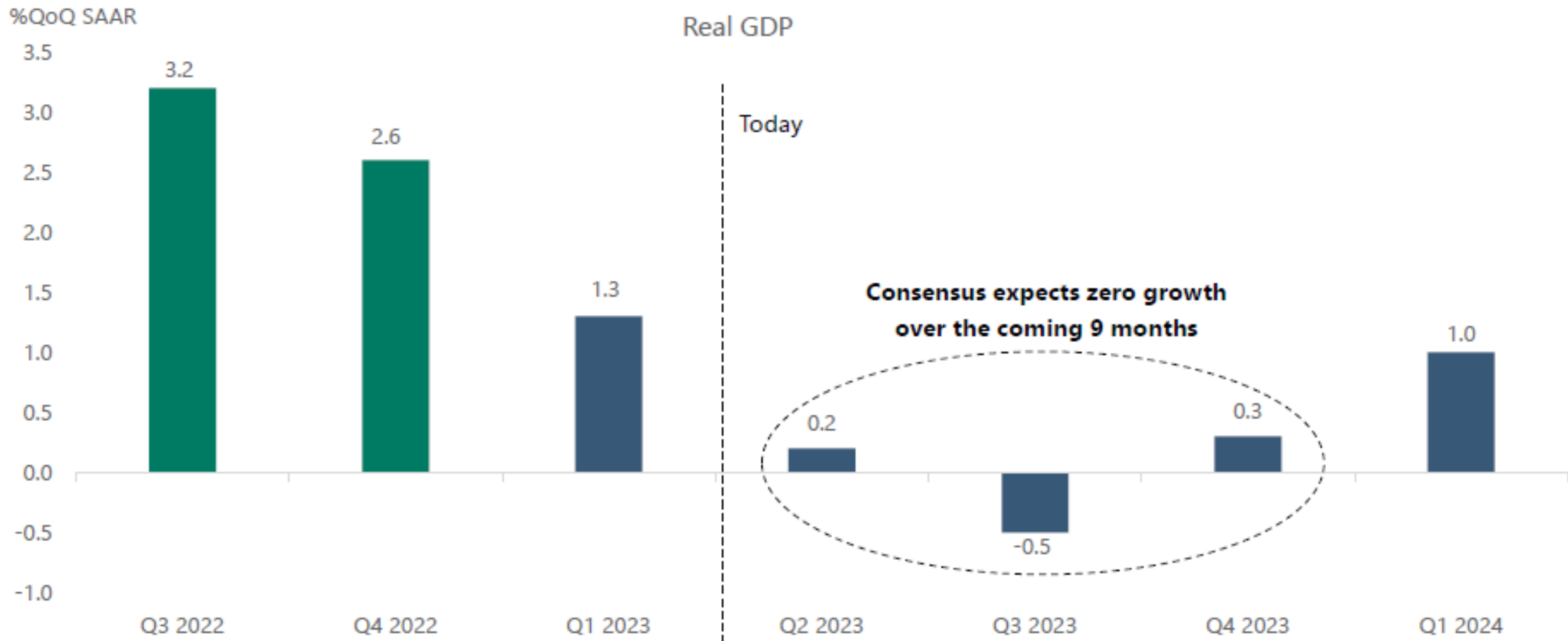
Q1 GDP Grew Just 1%

Exhibit 1: Contributions to GDP Growth



Source: Bureau of Economic Analysis, Morgan Stanley Research

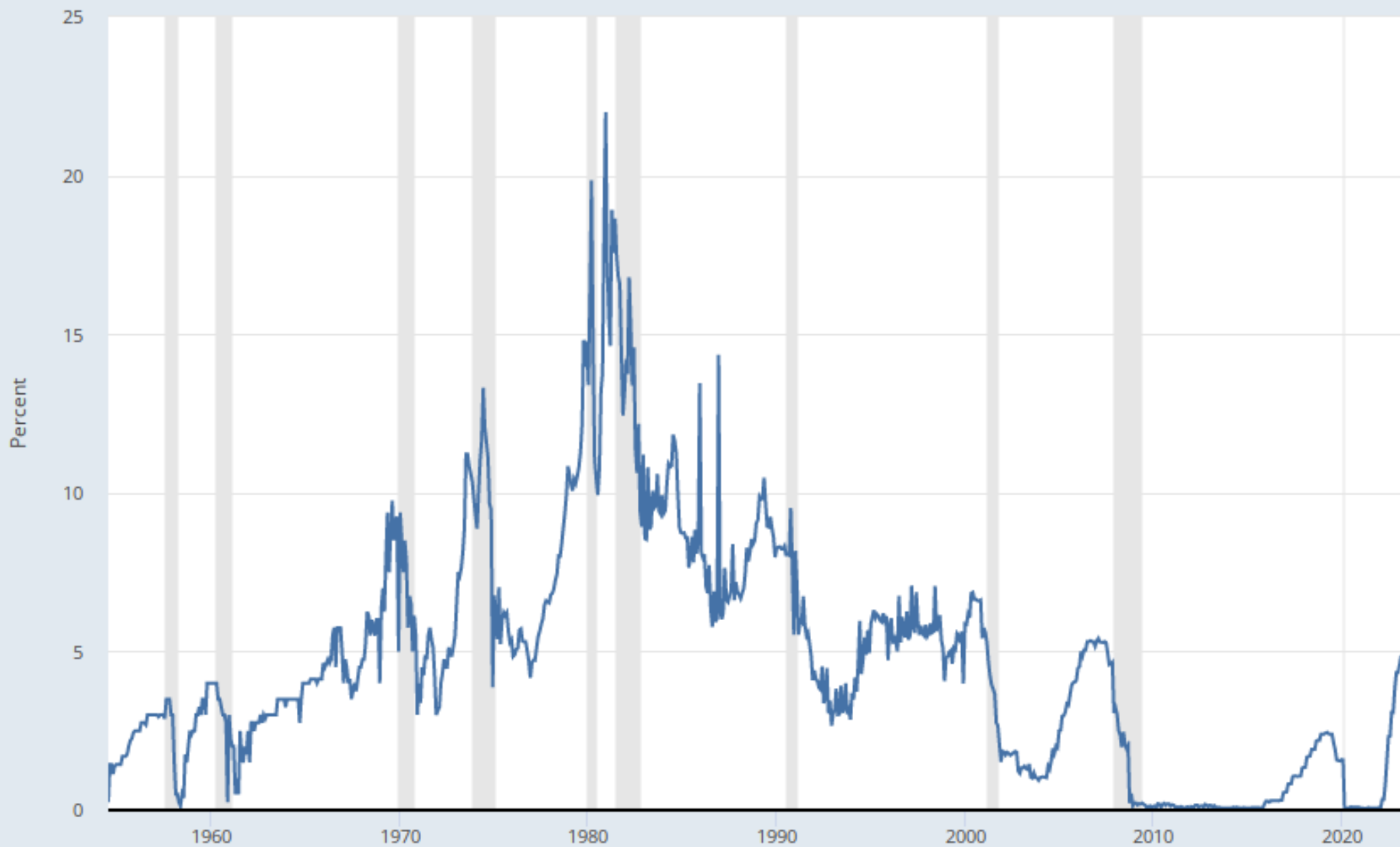
The consensus expects essentially zero percent growth for the coming three quarters



What will determine the severity of the downturn ?



- Length of Fed tightening
- Health of Consumer & Housing
- SVB and Republic Bank Contagion
- Other Shocks

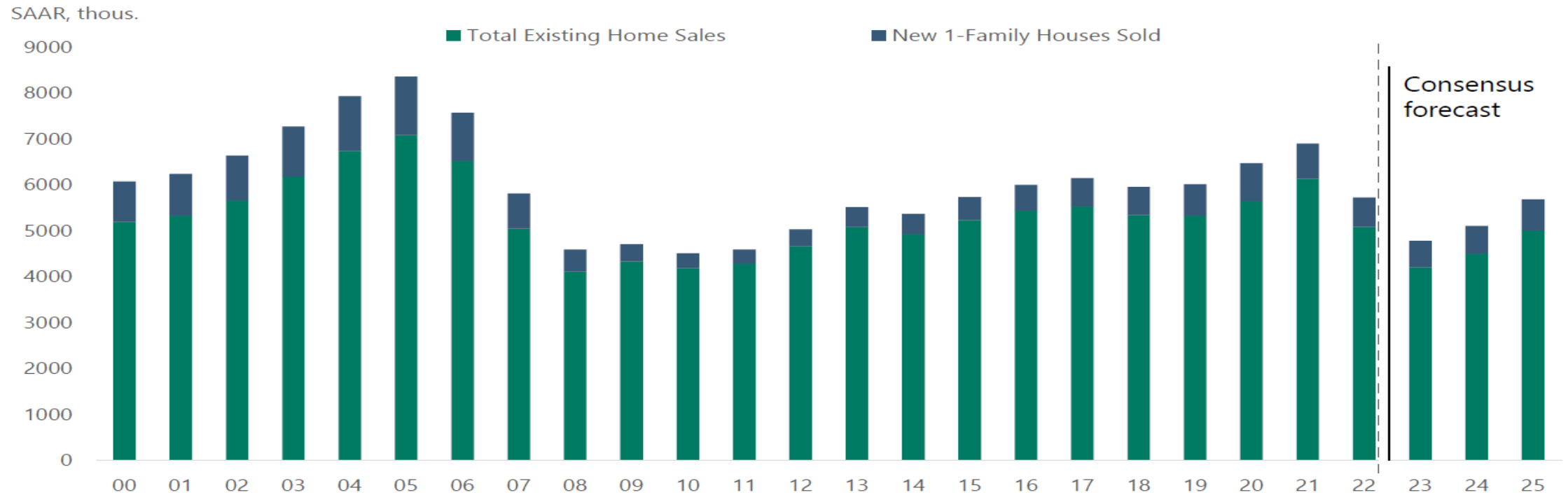


How will Housing Hold Up?



APOLLO

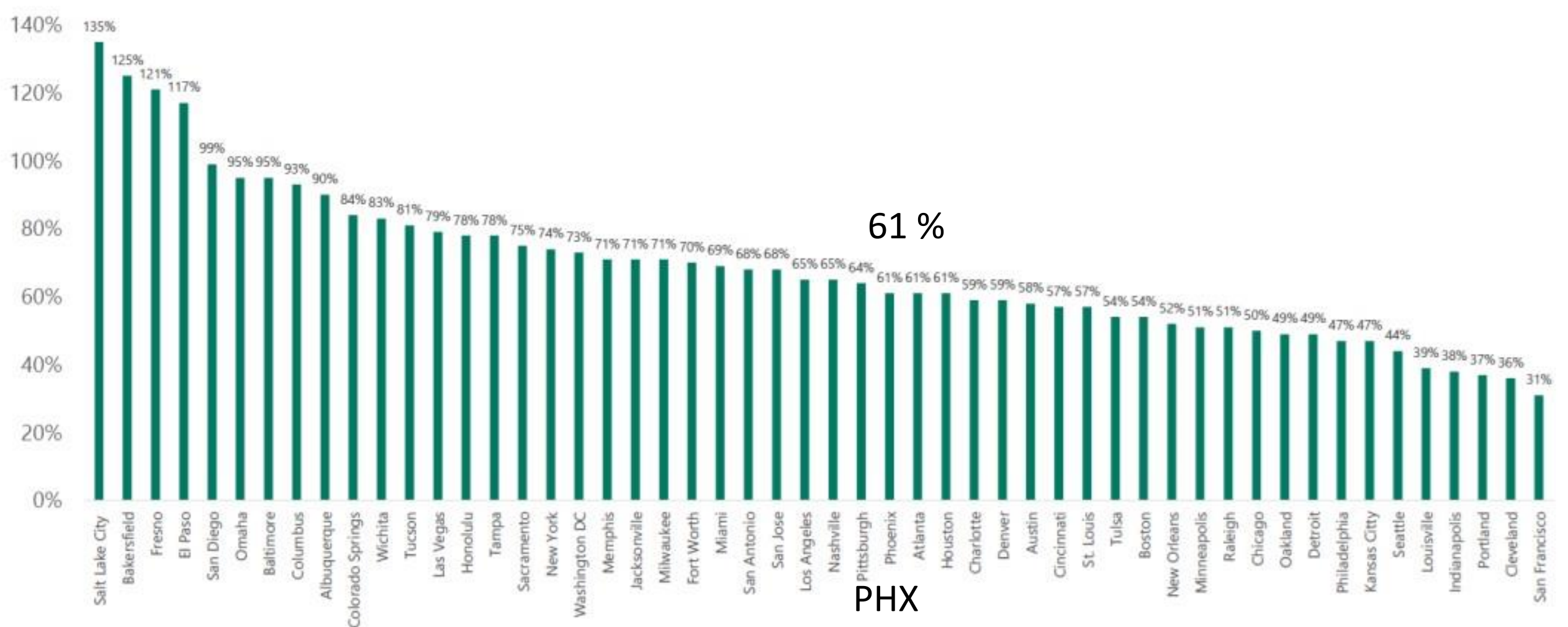
Consensus is forecasting a soft landing in home sales



Source: Census Bureau, NAR, Haver, Apollo Chief Economist; Forecast is Bloomberg consensus

Cellphone activity in downtown San Francisco is currently 31% of pre-pandemic levels.

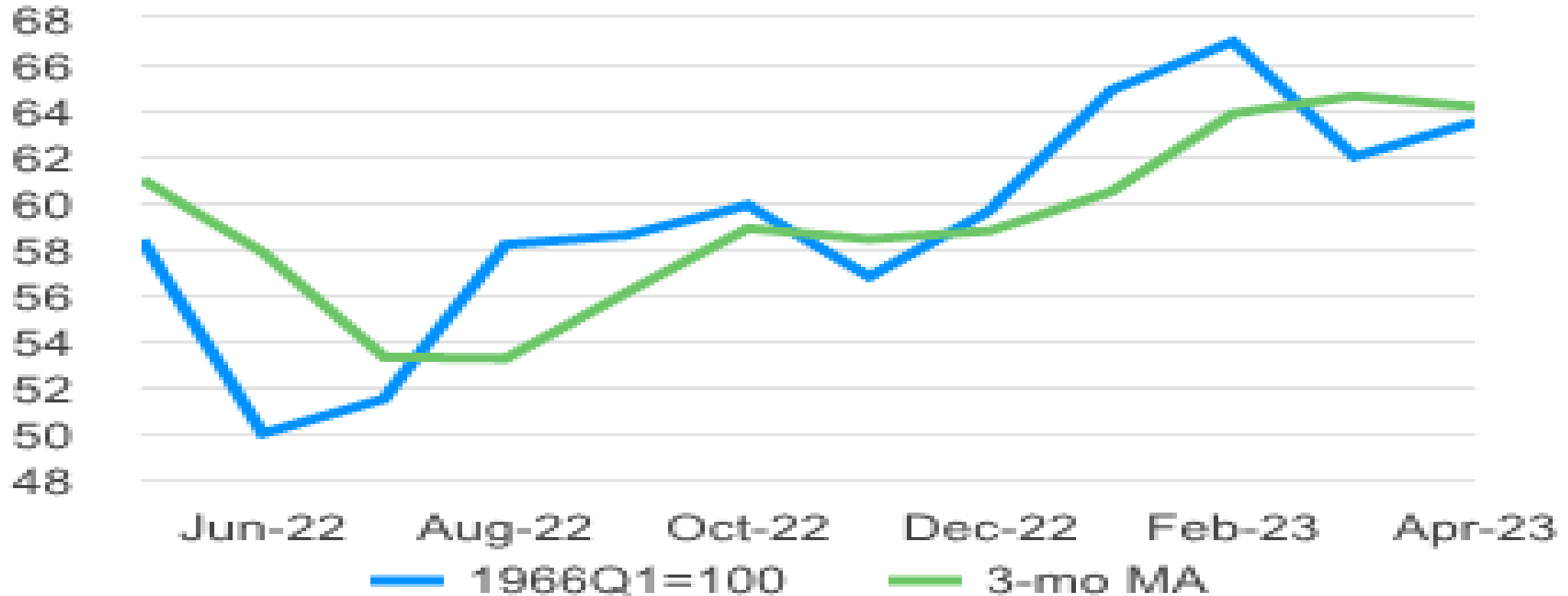
2022 (% of 2019)



University of Michigan Sentiment



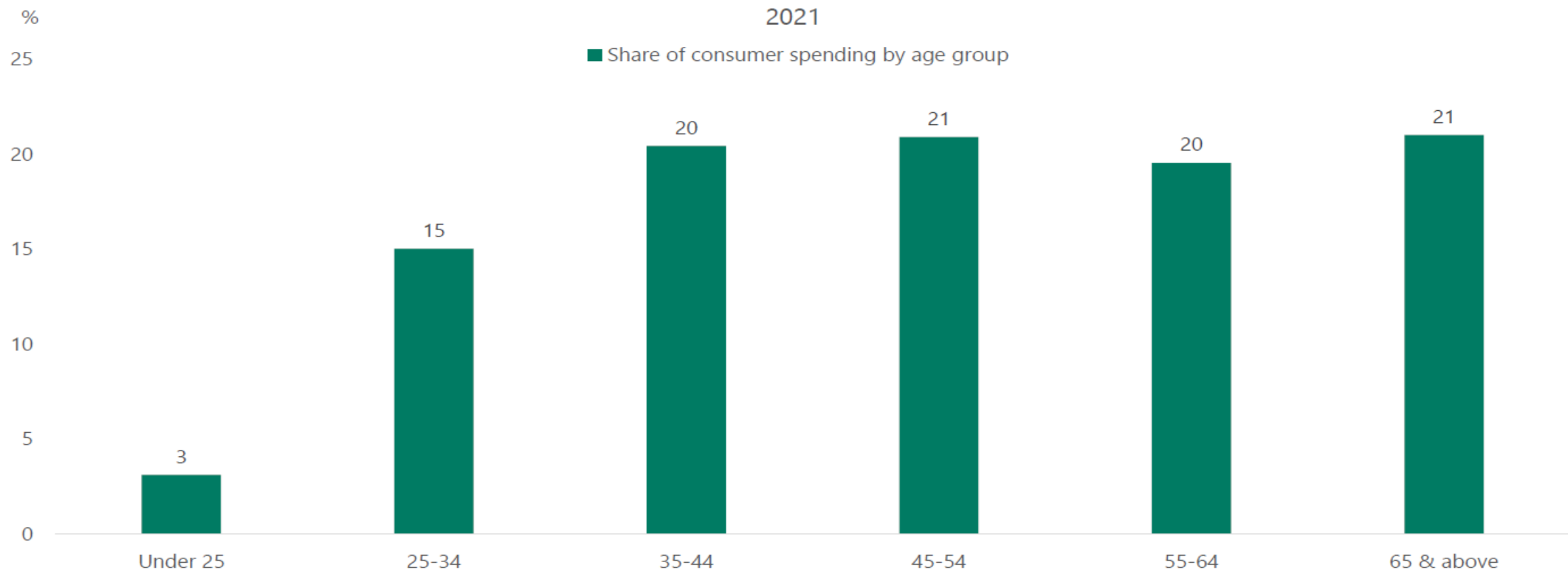
Consumer Sentiment



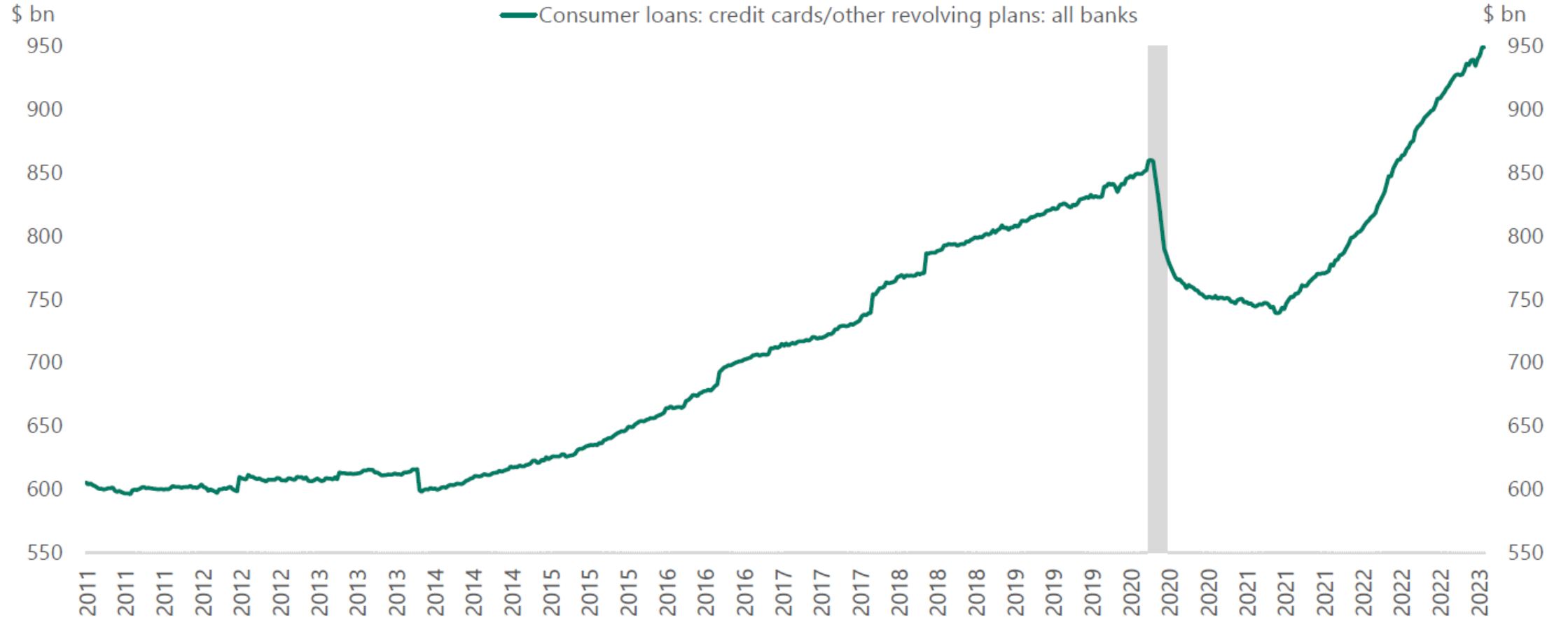
Need to monitor Senior Consumption Trends

APOLLO

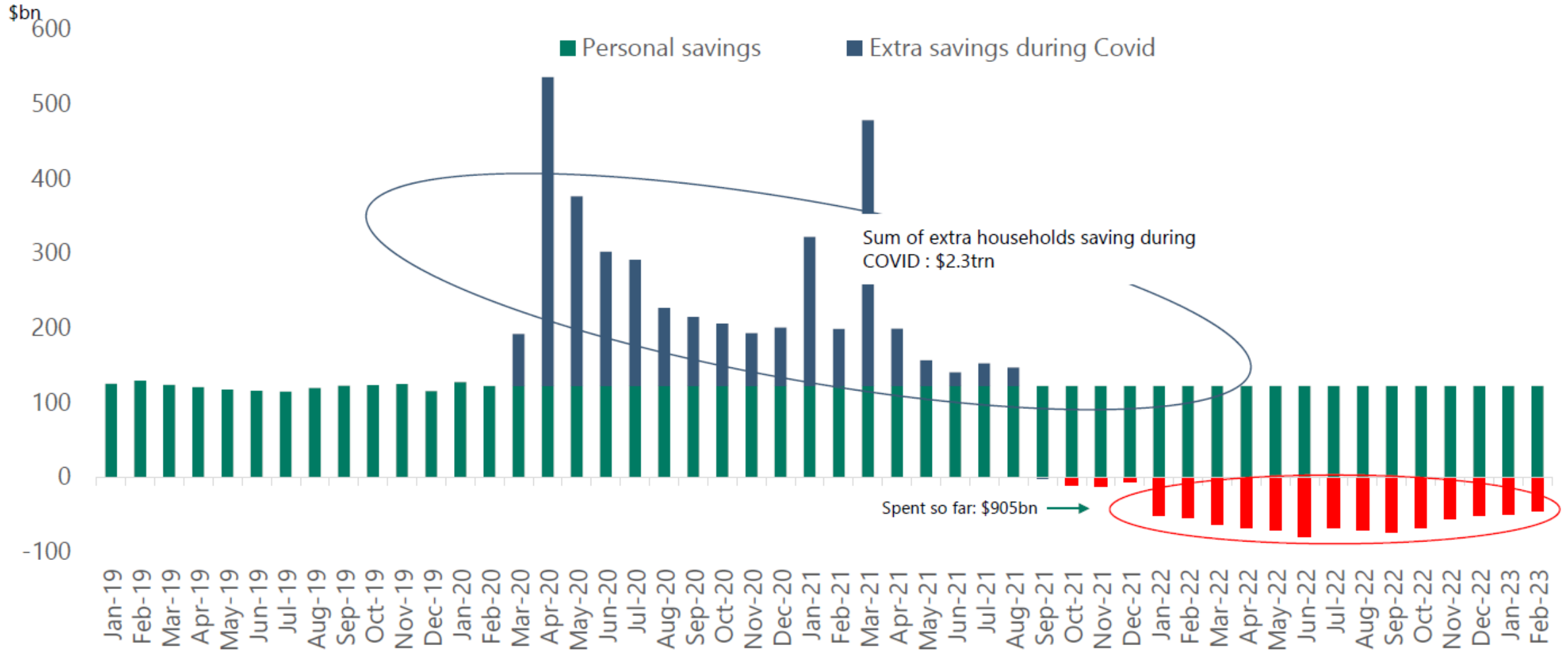
People age 55 and above account for 41% of total consumer spending



Weekly credit card debt is rising as the economy re-opens



Households are running down their savings, but still about \$1.7trn left



What are the implications of SVB/Republic Failures

- Disintermediation from Community Banks
- More Bank Regulation
- Less lending especially in the Commercial Real Estate Sector
- Credit Crunch?
- More Likely slowdown in the next few months as lending slows for autos, homes, commercial real estate

OK but will we have a recession?



- If so mild, especially for Arizona but that will be up to Lee to Confirm or Deny
- Strength of the Labor Market may be determining factor. Not likely to have an official recession if UN rates stay below 5%
- Housing will also be important as will be the pace of Fed tight money policy
- Fallout from recent bank failures still pending.
- So ask me again in the fall..

What about other Shocks

- China invades Taiwan
- Ukraine escalation
- Oil? Gas? Energy
- Weather or Earthquake?

Arizona Economic Update



Lee McPheters

**Research Professor of Economics and Director
JPMorgan Chase Economic Outlook Center
W. P. Carey School of Business,
Arizona State University**

Arizona Forecast – Reality Check



Indicators	2022 Forecast	2022 Actual
Employment (% change)	3.6%	4.2%
Job Creation	106,500	124,700
Population (% change)	1.5%	1.3%
Population Increase	109,100	94,320
Net Migration	96,000	93,200

Arizona Economic Highlights 2022



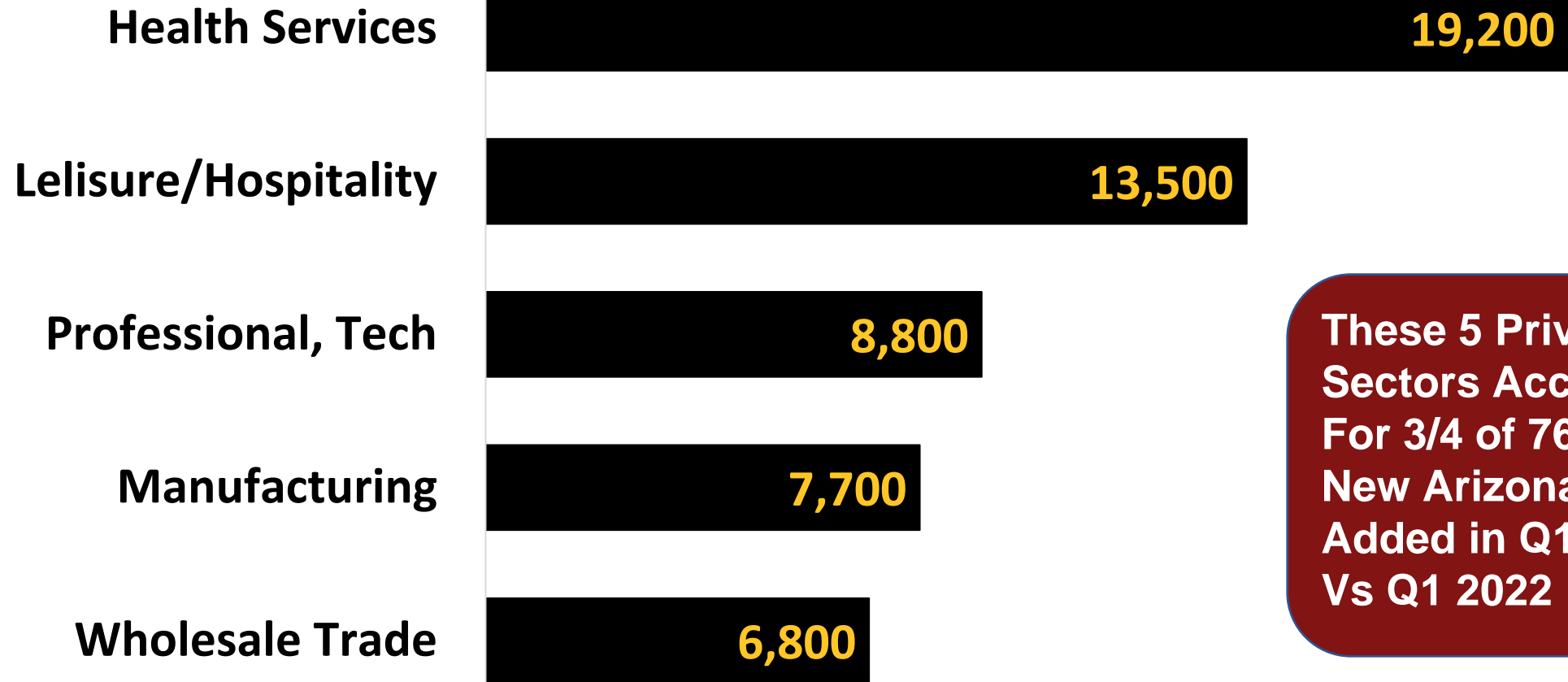
- Arizona added 124,700 jobs, the most since 2005 – 2006
- Overall, Arizona ranked 12th for rate of job growth (4.2%)
- Manufacturing increased by 9,900 jobs, most in 30 years
- Arizona manufacturing ranked 3rd for rate of job growth (5.4%)
- The most new jobs (28,280) were in leisure and hospitality
- Low births and covid deaths slowed natural population growth
- But net migration was robust (93,000 and 8th among all states)

Arizona Economic Outlook



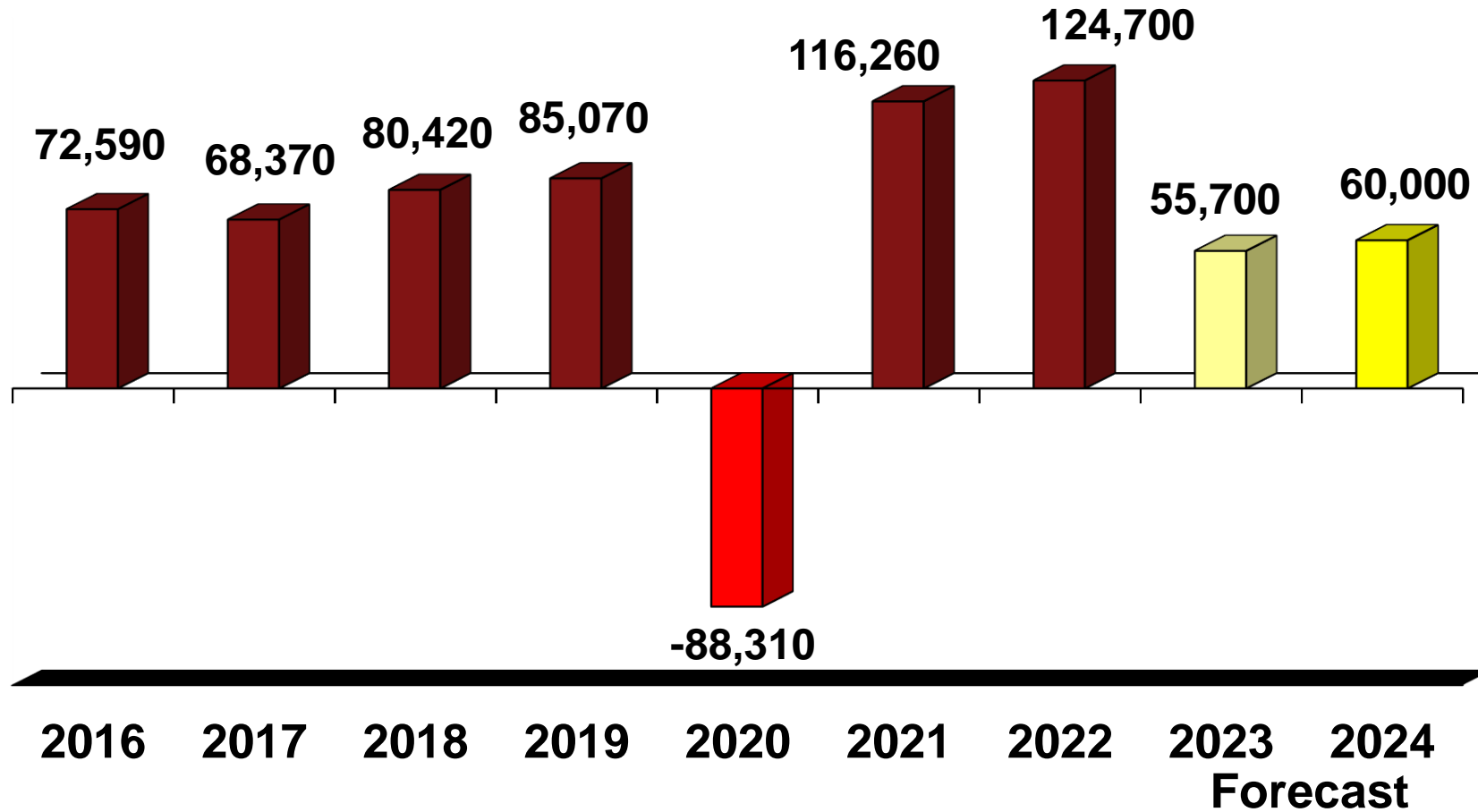
Indicators	2022	2023	2024
Employment Growth	4.2%	1.8%	1.9%
Job Creation	124,700	55,700	60,000
Unemployment (Q4)	4.0%	4.5%	4.0%
Population Increase	94,320	103,000	105,000
Single Family Permits	37,348	26,120	31,350

Services & Tech Adding Q1 2023 Jobs



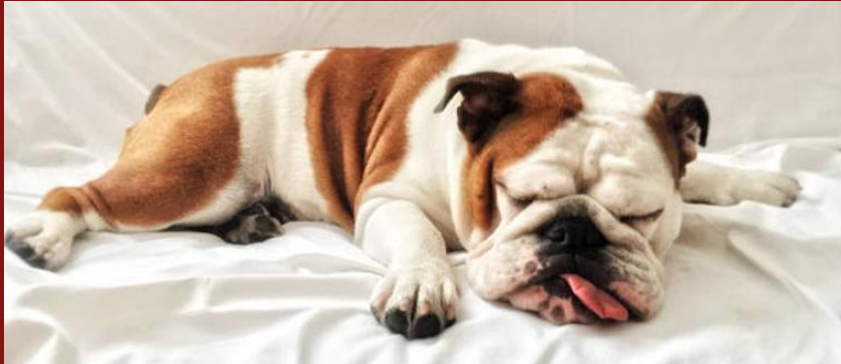
These 5 Private Sectors Account For 3/4 of 76,000 New Arizona Jobs Added in Q1 2023 Vs Q1 2022

Fed Policy Slows Arizona Job Growth



Annual Change
In Arizona
Nonfarm Jobs
2016 - 2024

Unemployment –The Dog That Didn't Bark

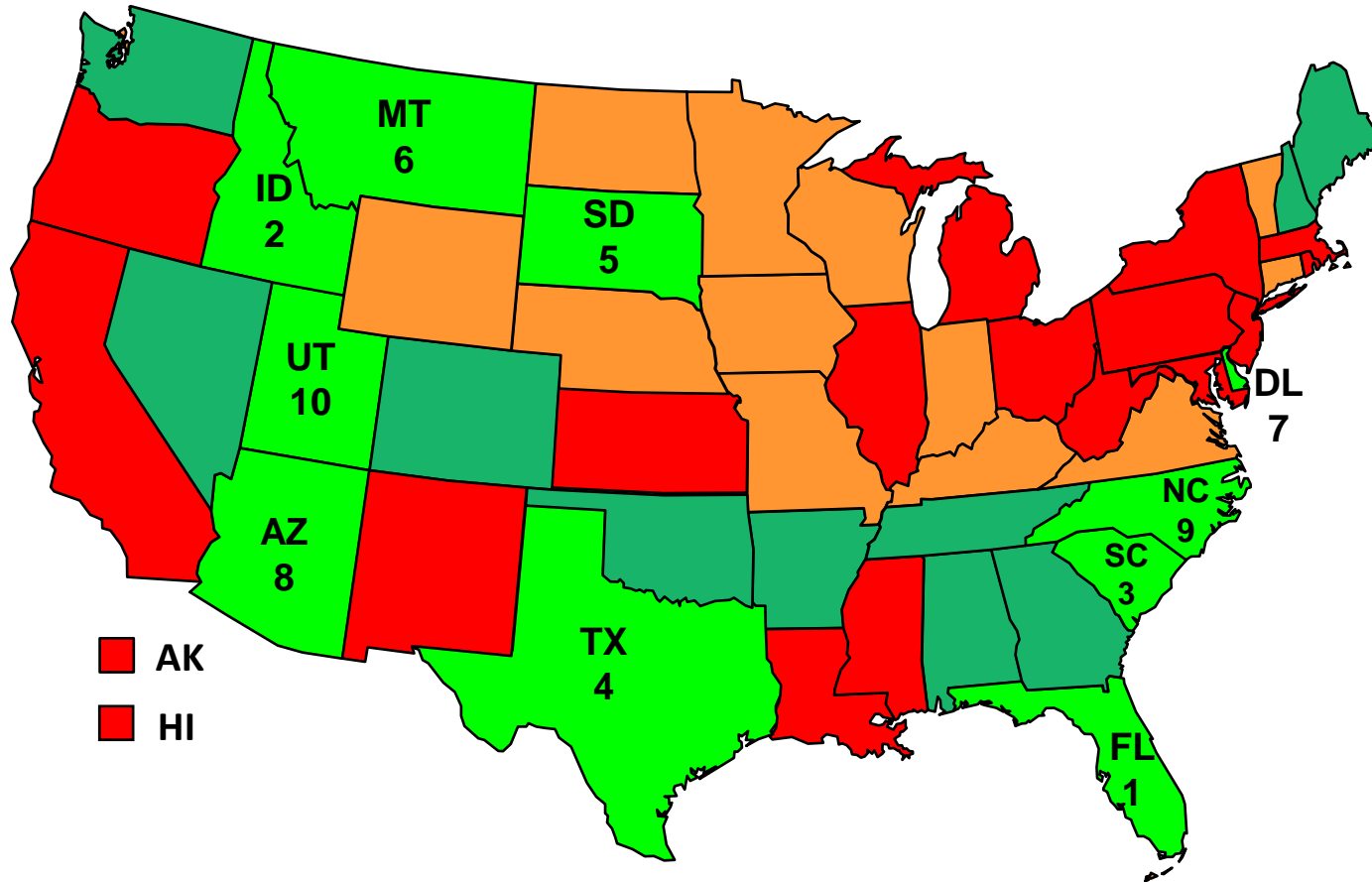


The 3.5% U. S. unemployment rate in Q3 2022 and again in Q1 2023 is the lowest quarterly average unemployment in over 50 years



The 3.5% Arizona unemployment rate in March 2023 ties a record low, matching previous 3.5% levels in summer of 2007

Arizona Population Growth 8th Fastest



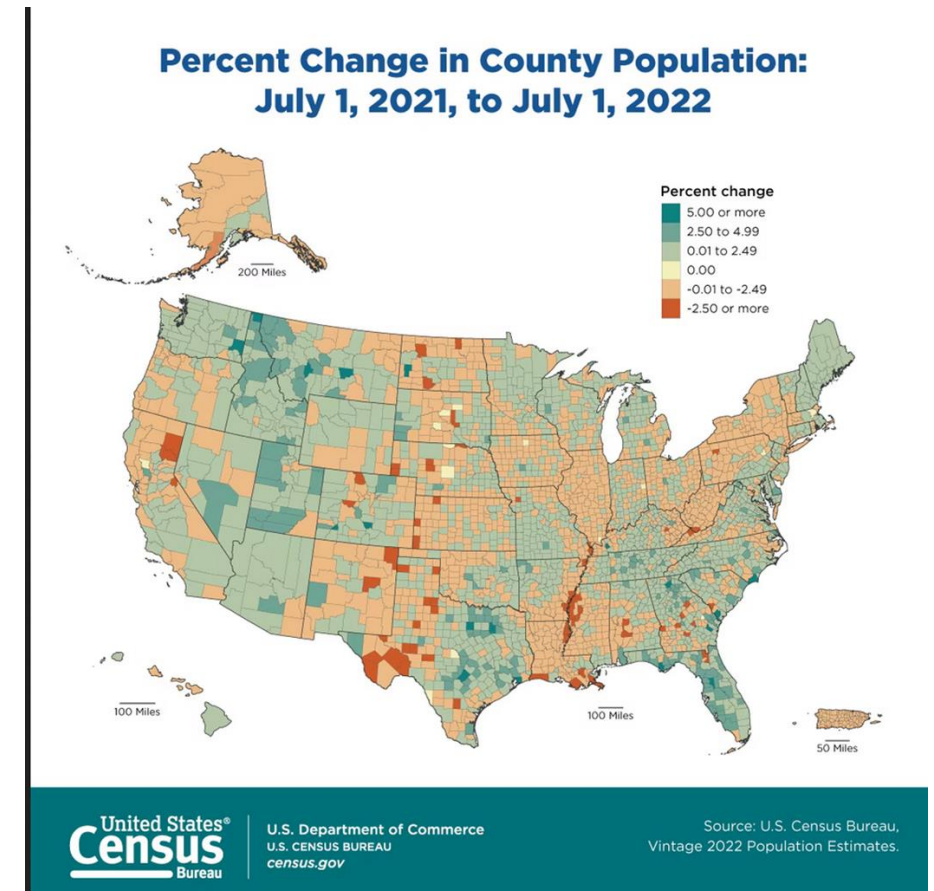
States Ranked by Percent Change: 2022 over 2021

Color Code	
Top 10	10
Others Faster Than U.S.	10
Slower Than U.S.	12
Lost Population	18
US = 0.4%	

Largest Population Growth by County



Rank	County	State	Growth
1	Maricopa	Arizona	56,831
2	Harris	Texas	45,626
3	Collin	Texas	44,246
4	Denton	Texas	33,424
5	Polk	Florida	32,225
6	Lee	Florida	31,777
7	Fort Bend	Texas	29,022
8	Hillsborough	Florida	28,846
9	Bexar	Texas	28,635
10	Montgomery	Texas	28,229



Metro Phoenix Economic Outlook

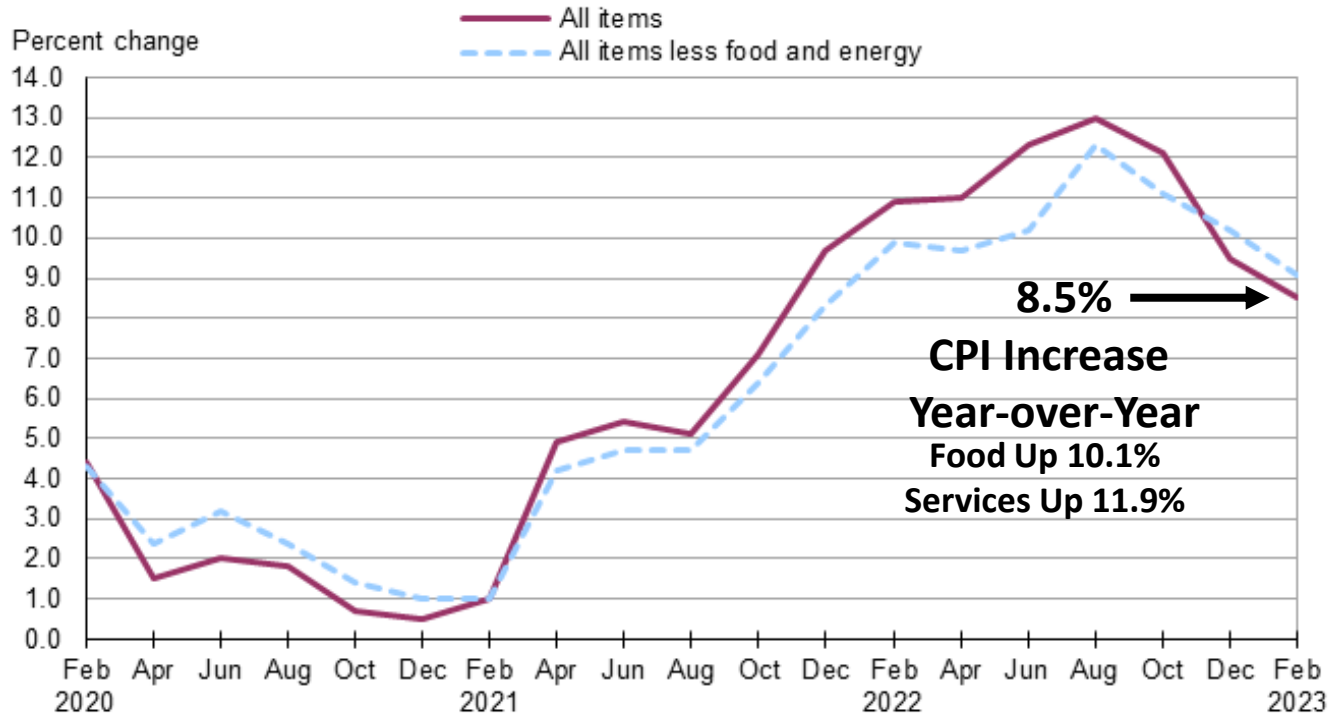


Indicators	2022	2023	2024
Employment Growth	4.4%	1.9%	2.0%
Job Creation	98,300	44,000	47,300
Population Growth	1.5%	1.6%	1.6%
Single Family Permits	26,830	19,000	22,750
Multi-Family Permits	20,540	18,400	15,000

Phoenix CPI Rise Outpaces Wage Gains



Over-the-Year Percent Change in Phoenix CPI Feb. 2023



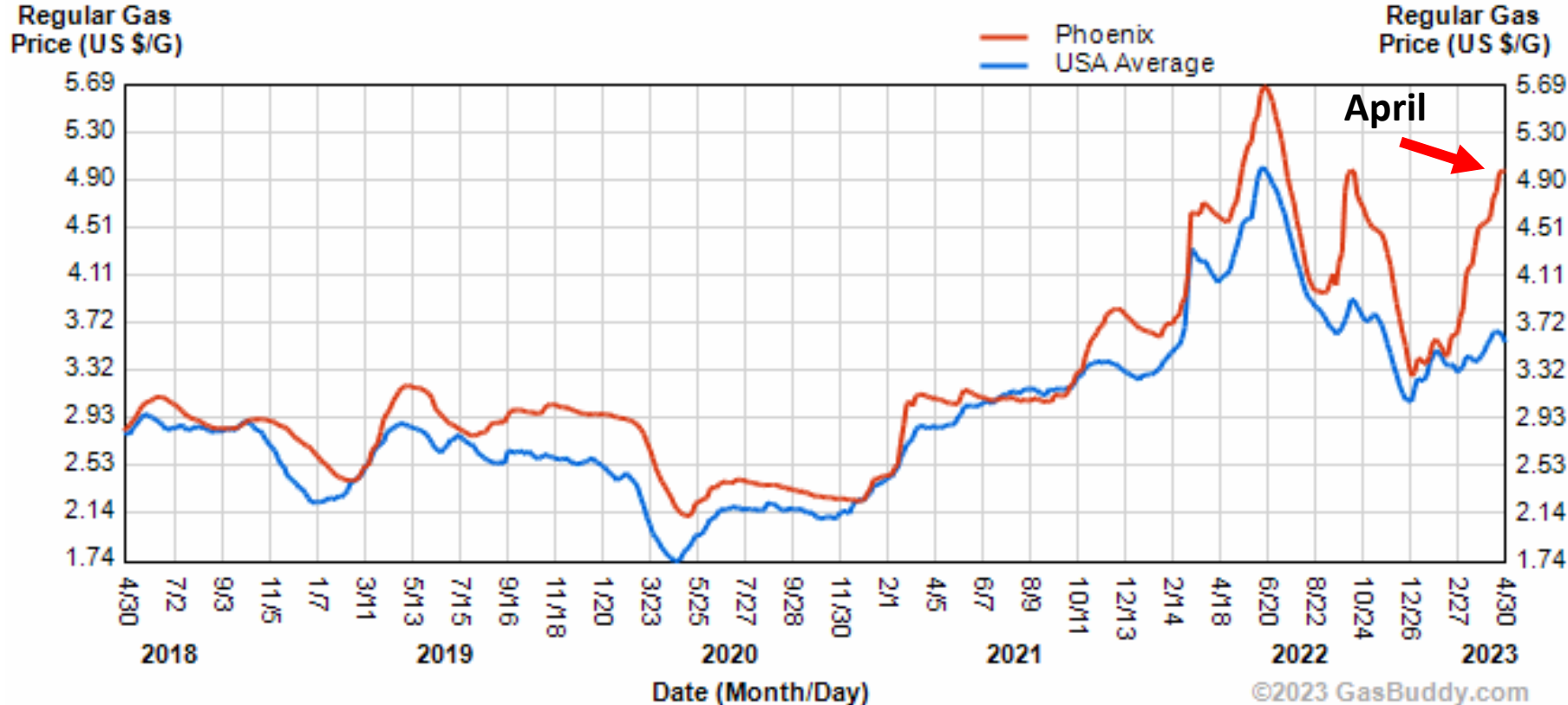
12 Mo. Wage Change March 2023

Philadelphia	6.5%
Miami	6.0%
Seattle	5.9%
Phoenix	5.2%
Boston	4.0%
Los Angeles	4.9%
Dallas	5.1%
Houston	3.4%
Detroit	3.8%
Minneapolis	4.3%
United States	5.0%

High Gas Prices to Drive Phoenix CPI



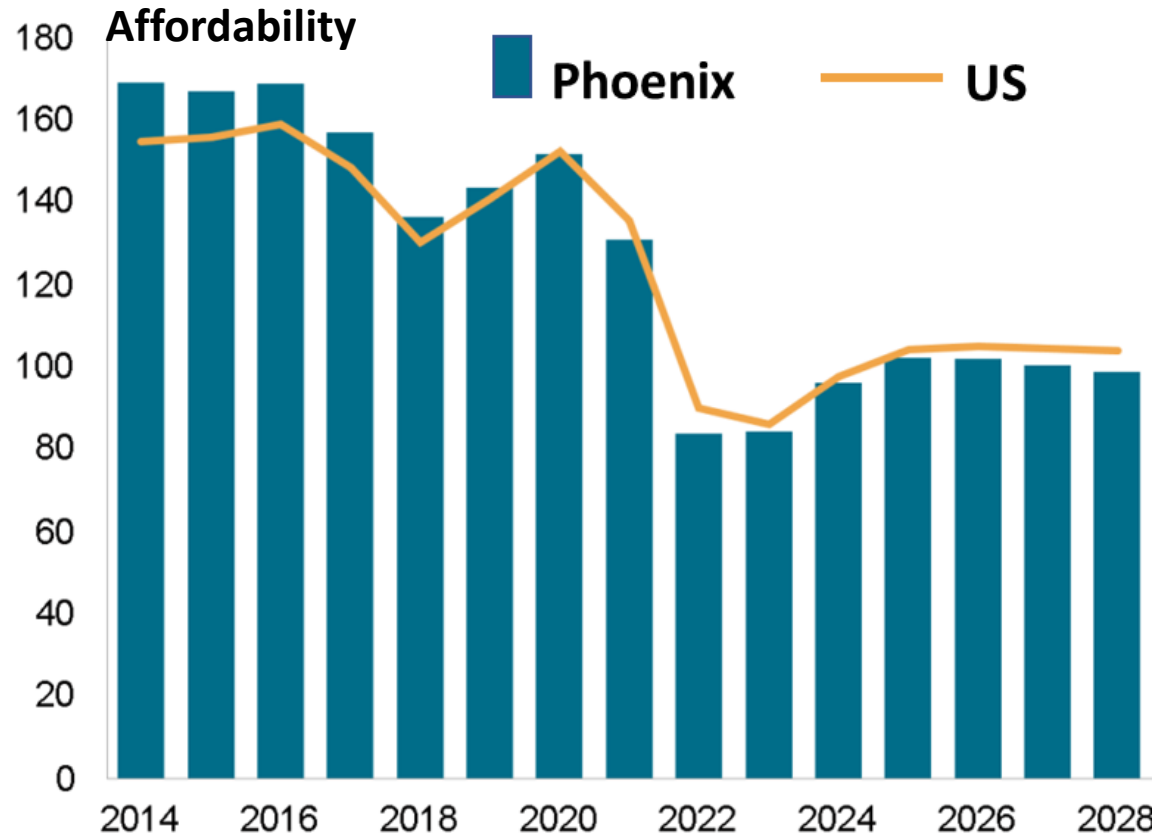
60 Month Average Retail Price Chart



Why Are Phoenix Gasoline Prices So High?

1. Dependent on long distance pipe lines from West and Gulf region
2. Special mixtures vary by locality and season

Will Phoenix Lose Affordability Label?



Data compiled March 2023.

Source: S&P Global Market Intelligence.

Housing Analysts Predict Phoenix Affordability Issues Will Persist into the Future

1. Continuing strong population growth and pent up demand will keep home prices higher than in the past
2. Growth in higher paying jobs leads to stronger purchasing power for housing - "Silicon Valley Syndrome"

Affordability is Now a Social Issue



The U.S. Cities With the Most Homeless People

CoCs* with the largest numbers of people experiencing homelessness in 2022

Los Angeles City & County	CA	65,111
New York City	NY	61,840
Seattle/King County	WA	13,368
San Jose/Santa Clara City & County	CA	10,028
Oakland, Berkeley/Alameda County	CA	9,747
Sacramento City & County	CA	9,278
Phoenix, Mesa/Maricopa County	AZ	9,026
San Diego City & County	CA	8,427
San Francisco	CA	7,754
Metropolitan Denver	CO	6,884

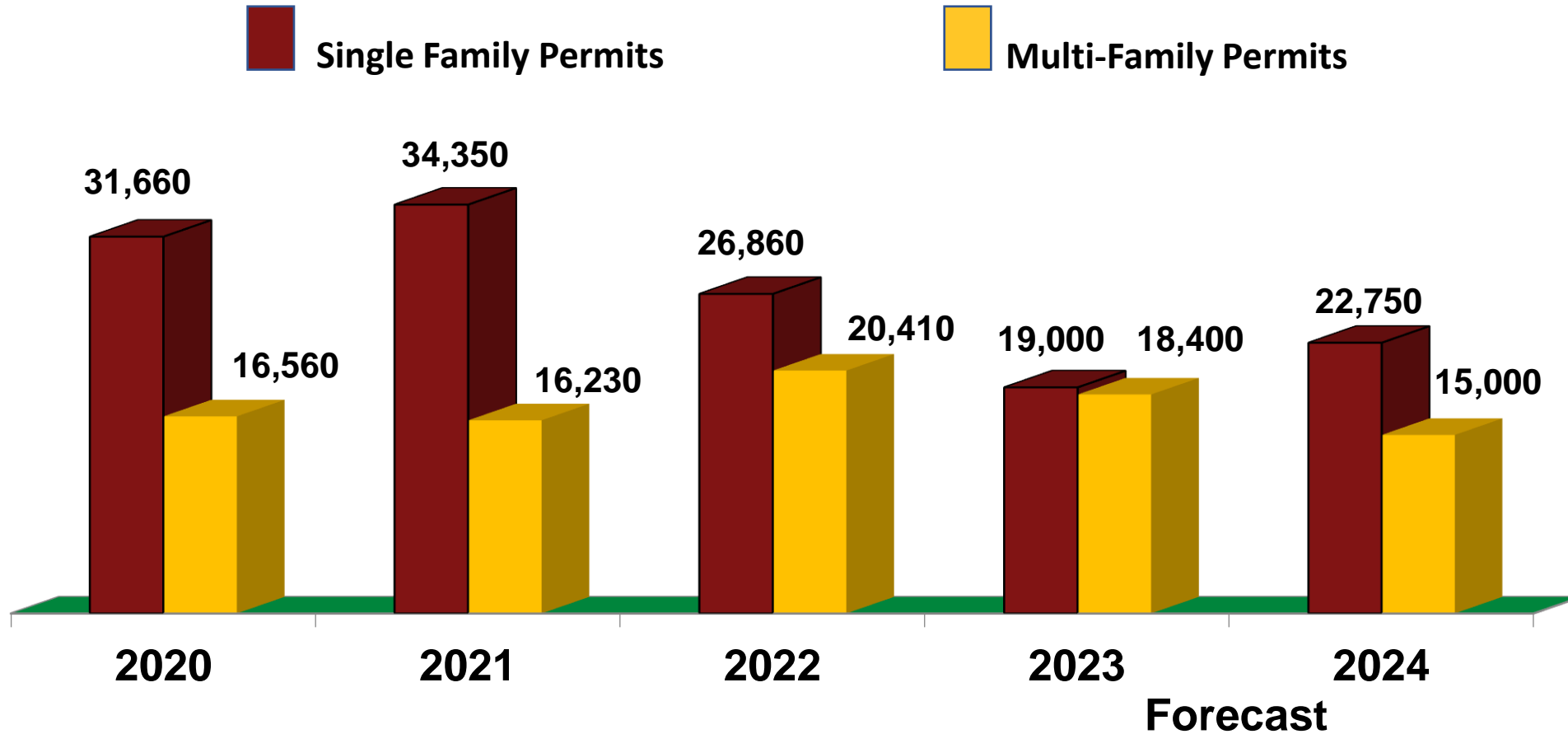


Total number of homeless Americans in Jan. 2022 (single-night count)
582,462

* CoC - Continuums of Care
(local planning bodies coordinating homelessness services)
Source: U.S. Department of Housing and Urban Development



Metro Phoenix Housing Outlook



Outlook Summary – Big Picture



- **Short term outlook uncertain, long term positive**
- **Job growth slows in second half 2023, unemployment up**
- **Population growth is tailwind to Arizona economy**
- **Domestic migration driven by job growth & affordability**
- **Affordability issues: average worker/average home; need workforce housing; low income housing; no income shelters**
- **Water use stable for decades; now a management issue**
- **Greatest economic threat: national business cycle**

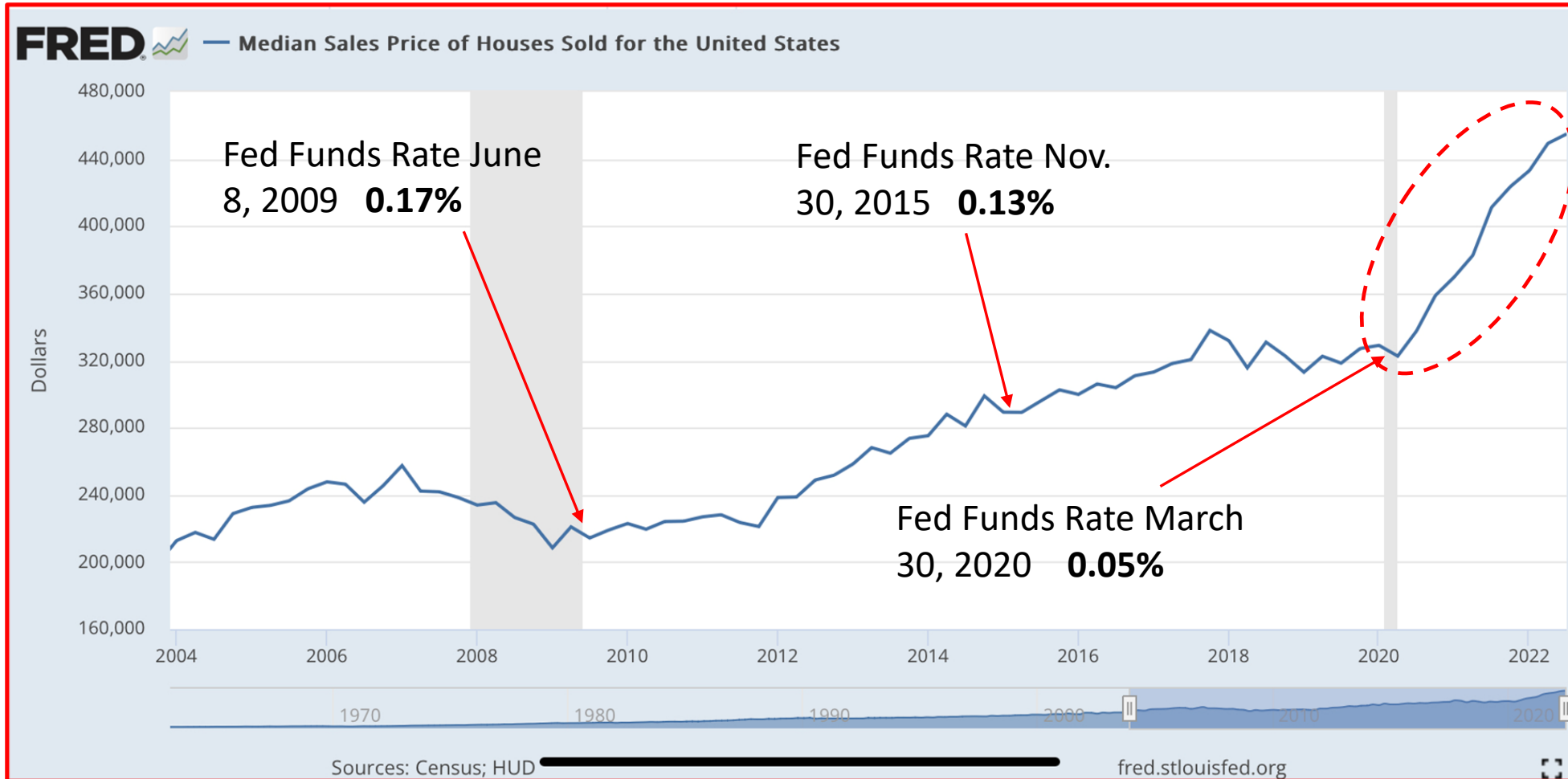


Real Estate Market: What a Difference a Year Makes

Mark Stapp

Fred E. Taylor Professor of Real Estate

Single Family Housing – Median Sales Price



Not just low interest rates driving price increases

Why Rapid Rise in Home Prices?



Median Sales Price Metro Phoenix

February 2020

\$295,000

Months Inventory - 2.14

June 2022 (17 months)

\$475,000

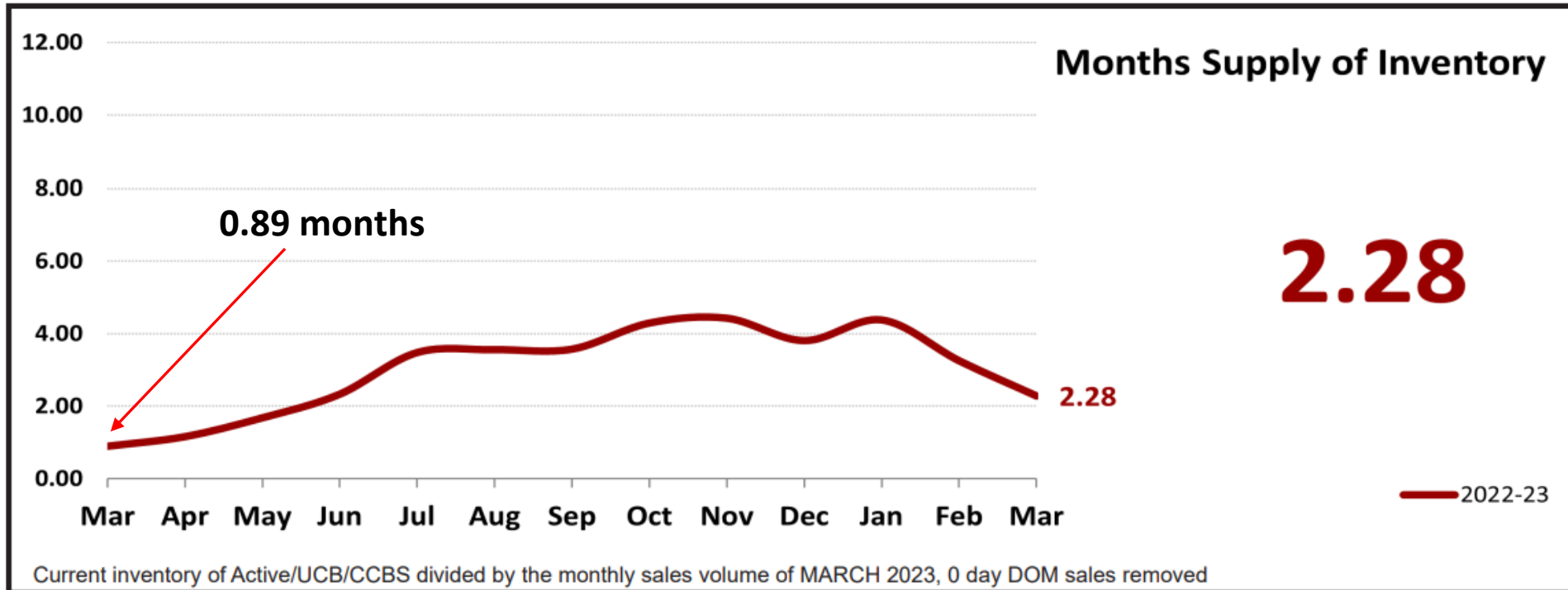
(61% increase in 17 months)

Months Inventory 2.33

Note: Lowest Inventory March 2022 - 0.89 months

Source: Arizona MLS

Phoenix Metro Existing Homes Inventory



Months supply of inventory for February was **3.25** with March at **2.28**.

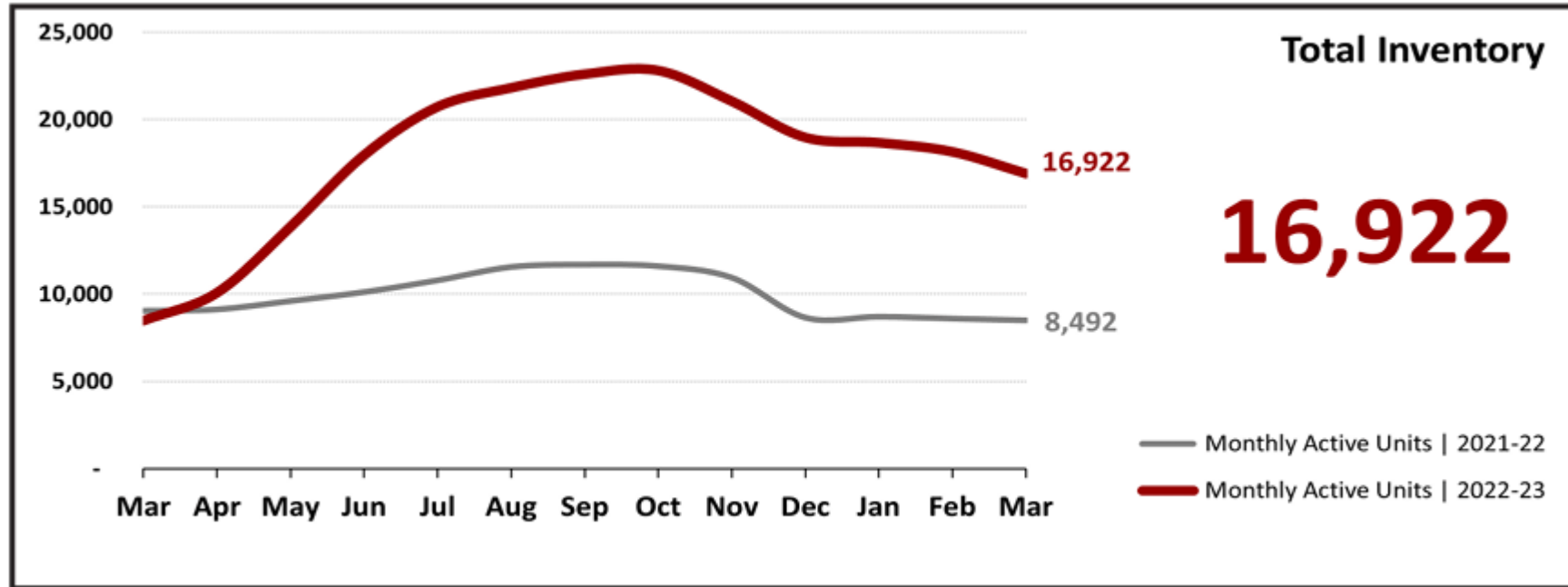
March 2020

Source: ARMLS March, 2023

Total Existing Homes Inventory

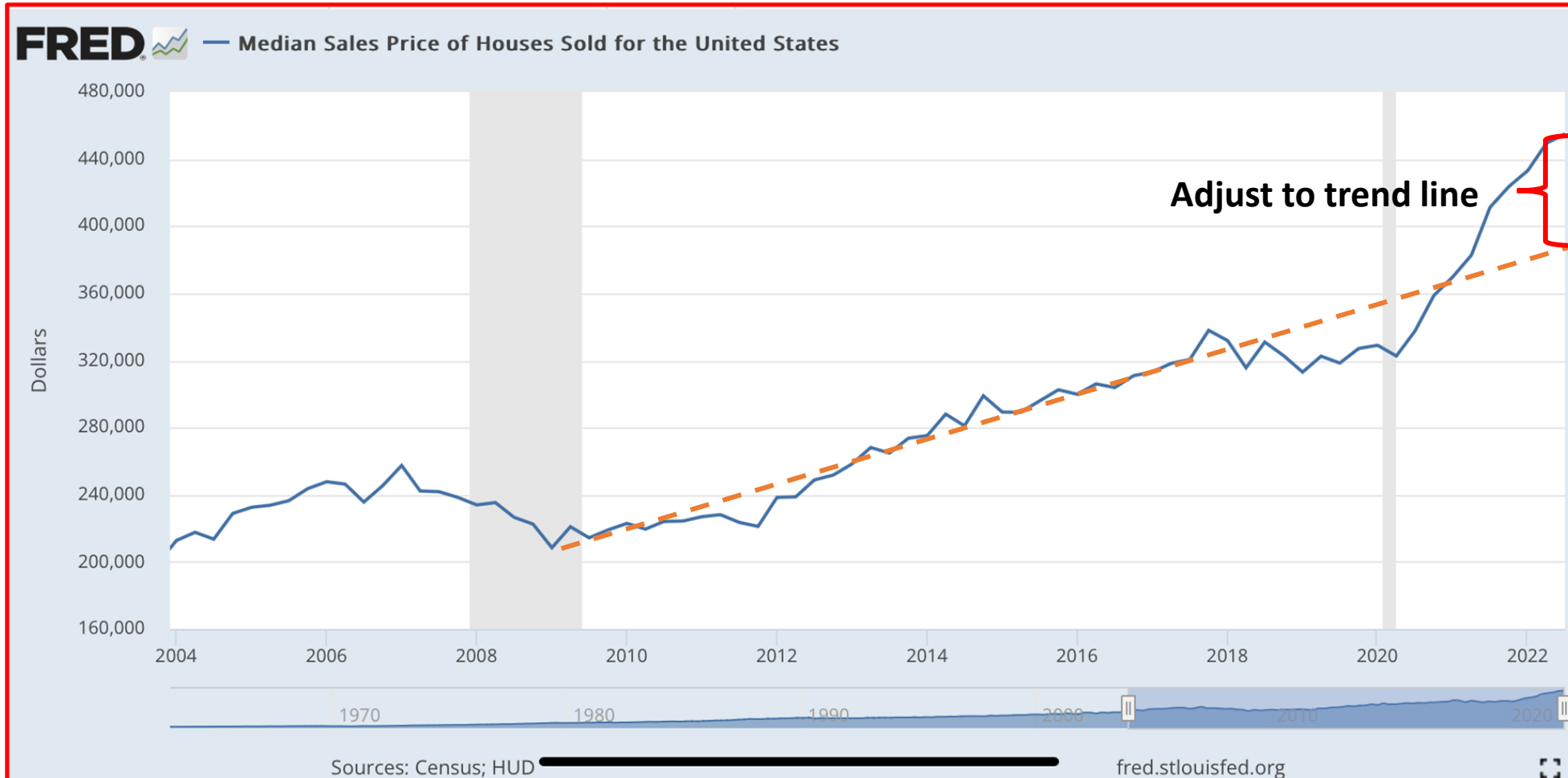


Population
Growth
Est. = 93,800

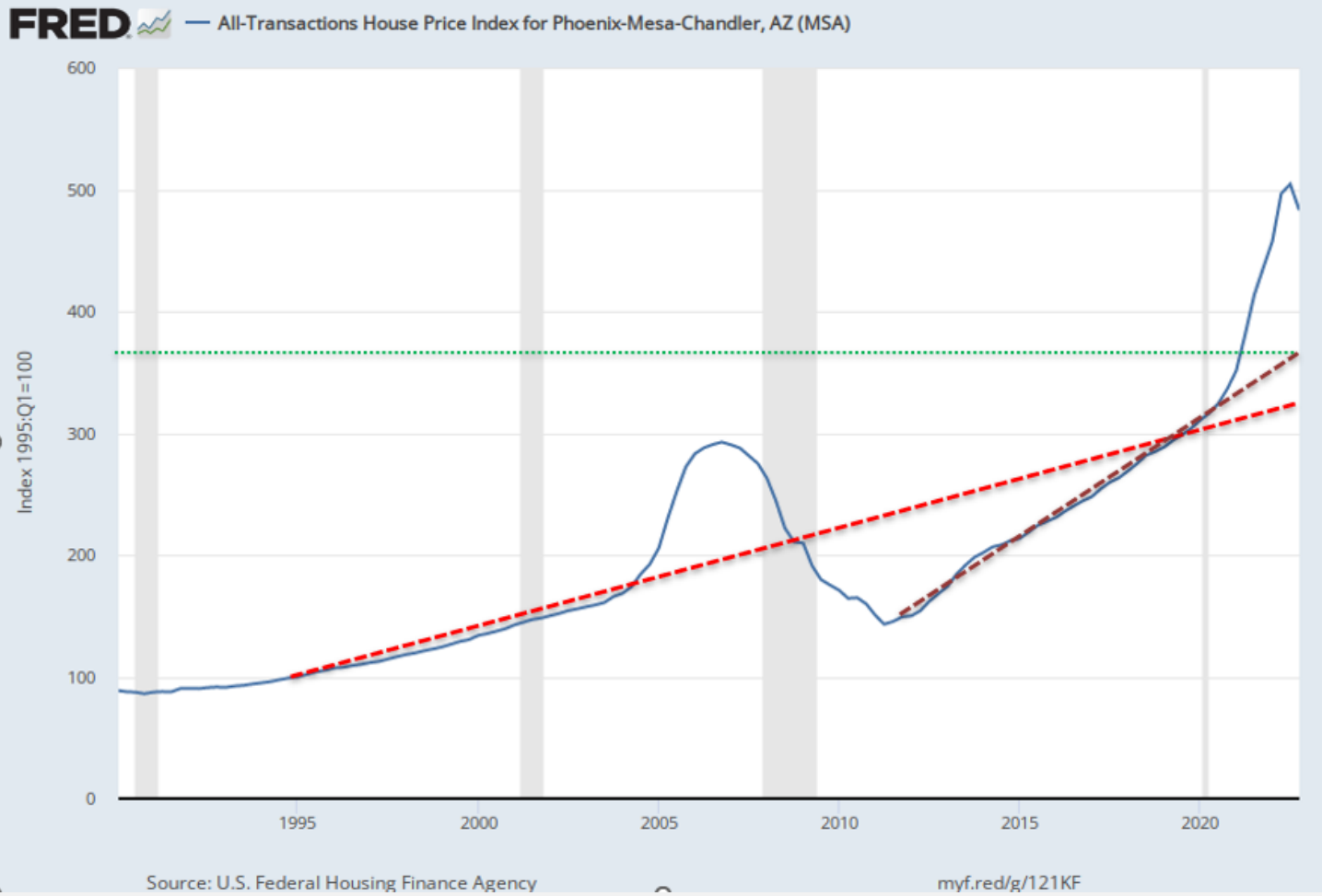


Source: ARMLS March, 2023

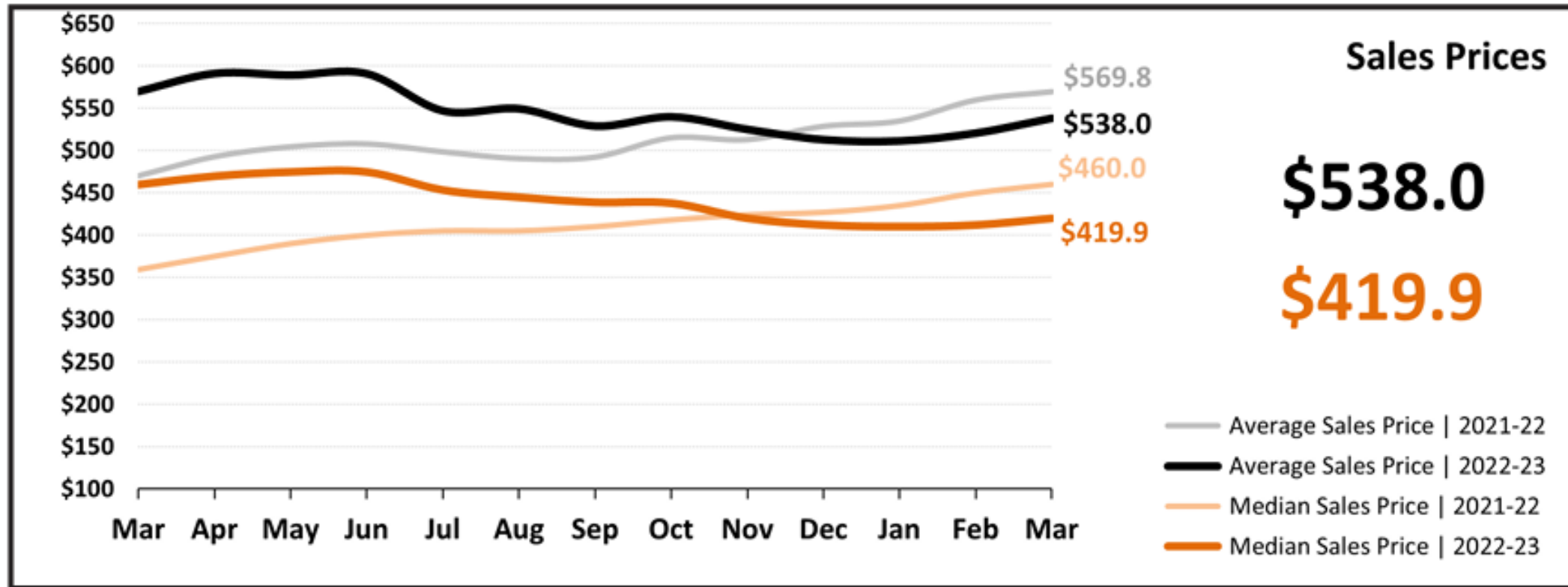
Single Family Housing – Median Sales Price



Median Sales Price of Houses Sold in US 1985 - 2023



Avg and Median Sales Price March 2023



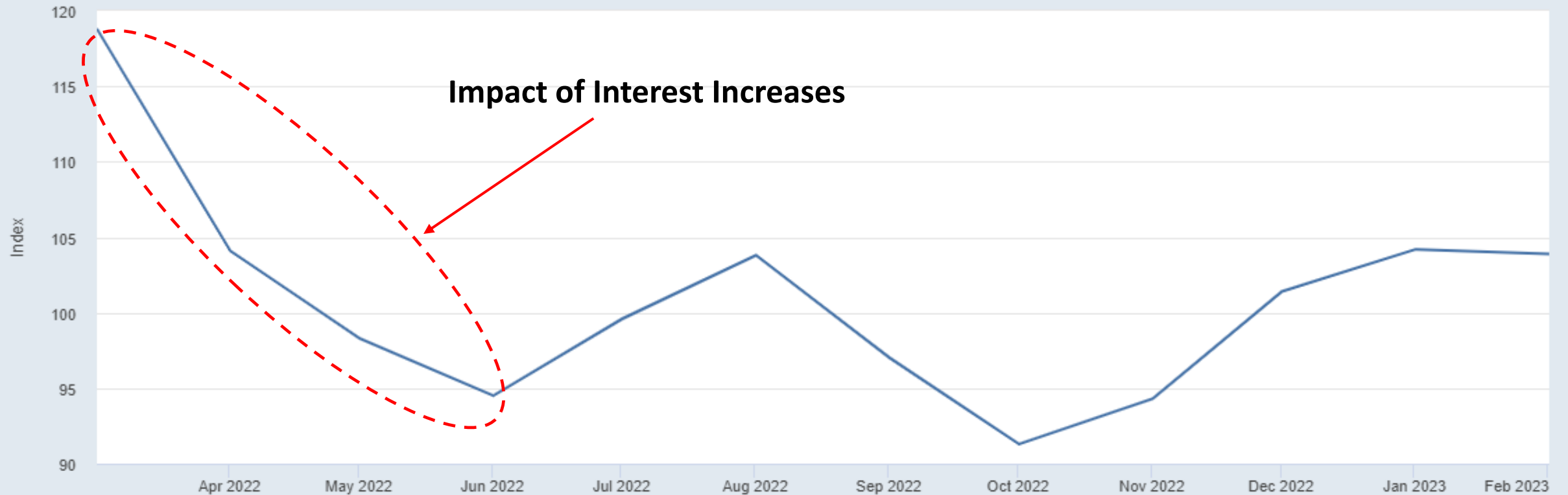
MLS sales prices for closed listings with a close of escrow date from 3/1/23 to 3/31/23, 0 day DOM sales removed

Housing Affordability Index



FRED

— Housing Affordability Index (Fixed)



Shaded areas indicate U.S. recessions.

Source: National Association of Realtors

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% Population able to Afford Median Price Home



18.3%

Medford, OR	18.9	81.4	399	186	22
Salt Lake City, UT	18.7	102.4	493	187	23
Prescott Valley-Prescott, AZ	18.6	76.2	429	188	24
Fort Collins, CO	18.3	111.3	525	190	25
Phoenix-Mesa-Chandler, AZ	18.3	88.8	441	190	25
Eugene-Springfield, OR	18.1	84.0	417	192	27
Colorado Springs, CO	18.0	96.1	440	193	28
Seattle-Bellevue-Kent, WA ^^^	18.0	134.6	720	193	28
El Centro, CA	17.6	63.9	325	195	30
Hanford-Corcoran, CA	17.4	68.0	352	196	31
Las Vegas-Henderson-Paradise, NV	17.2	81.7	425	197	32
Salem, OR	17.0	89.1	404	198	33
Mount Vernon-Anacortes, WA	16.5	86.1	470	199	34
St. George, UT	16.3	83.9	500	200	35
Olympia-Lacey-Tumwater, WA	16.2	103.5	474	201	36
Provo-Orem, UT	16.1	96.0	483	202	37
Portland-Vancouver-Hillsboro, OR-WA	15.7	106.5	518	204	38
Flagstaff, AZ	15.6	85.2	530	205	39
Fresno, CA	15.4	72.9	395	206	40
Tacoma-Lakewood, WA ^^^	15.3	101.8	495	207	41
Bremerton-Silverdale-Port Orchard, WA	15.0	102.5	491	208	42

Source: Census Bureau

Existing Home Inventory Below Median Sales



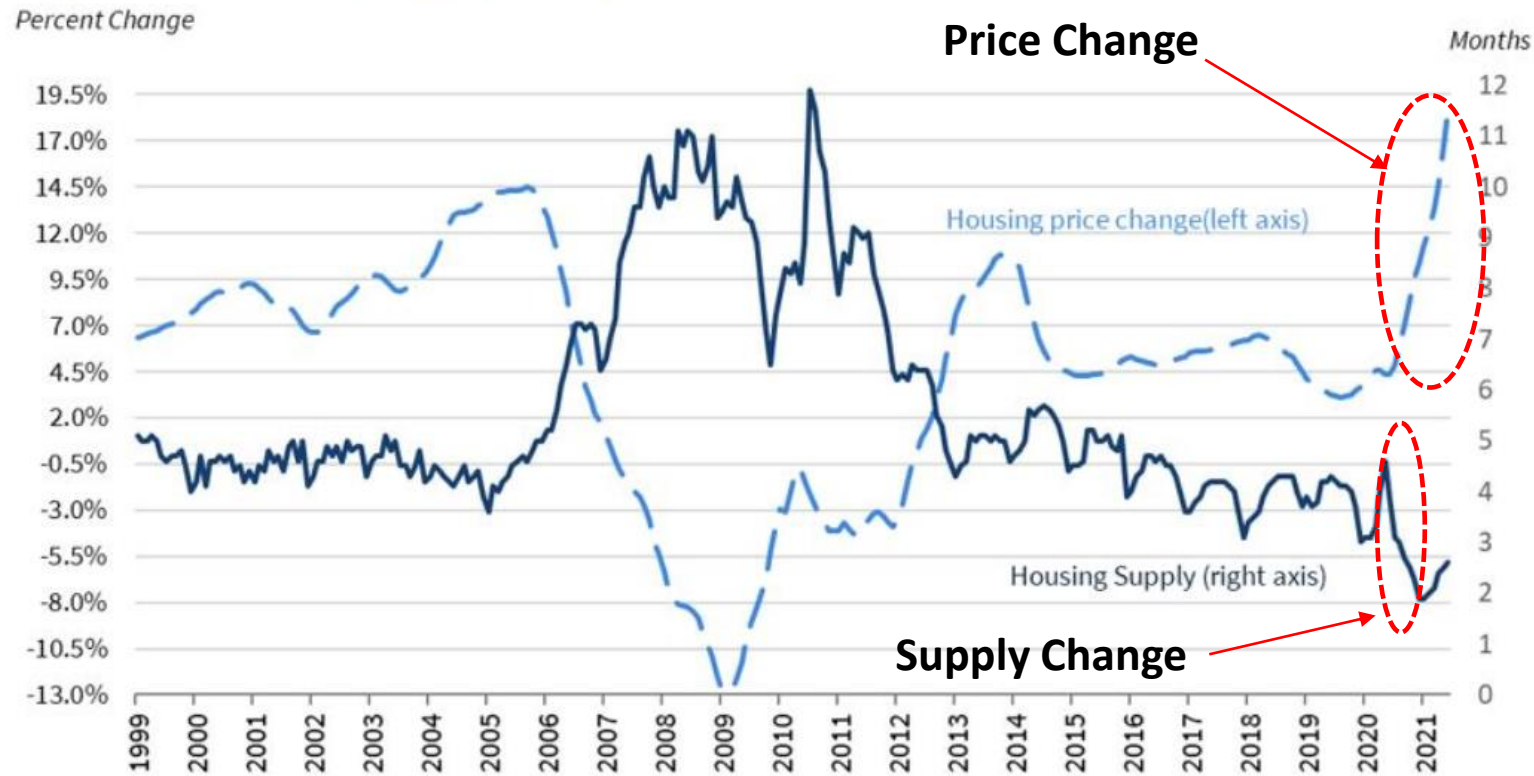
Maricopa & Pinal Total Listings	12,024
Listings at/or Below Median Sales Price	4,202 (38%)
Listings at/or Below \$350,000	2,408 (20%)
Listings at/or Below \$300,000	1,469 (12%)

Source: ARMLS April 29, 2023

U.S. Housing Supply v. Prices



Figure 1: Housing supply and prices



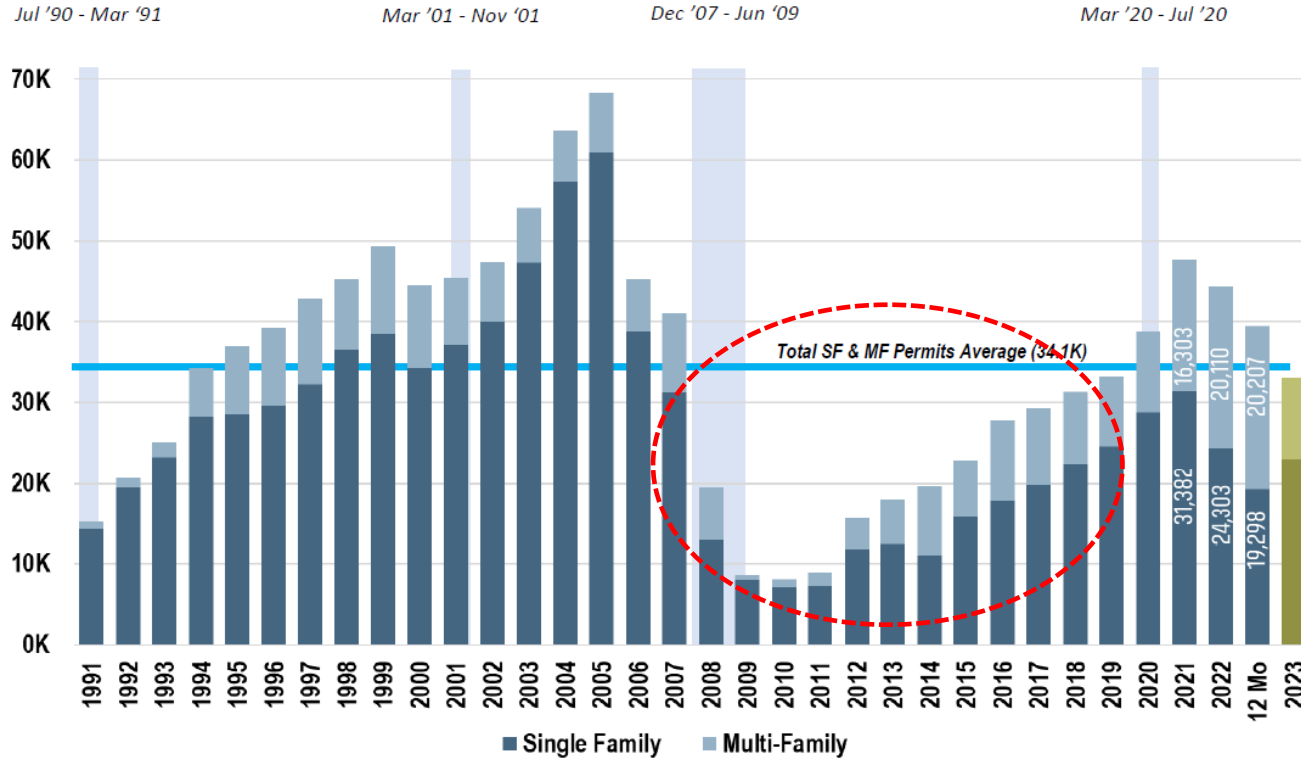
Source: Federal Reserve Economic Data; National Association of Realtors Monthly Supply Data

Single & Multi-Family Building Permits



Total Permits

Single & Multifamily - March 2023



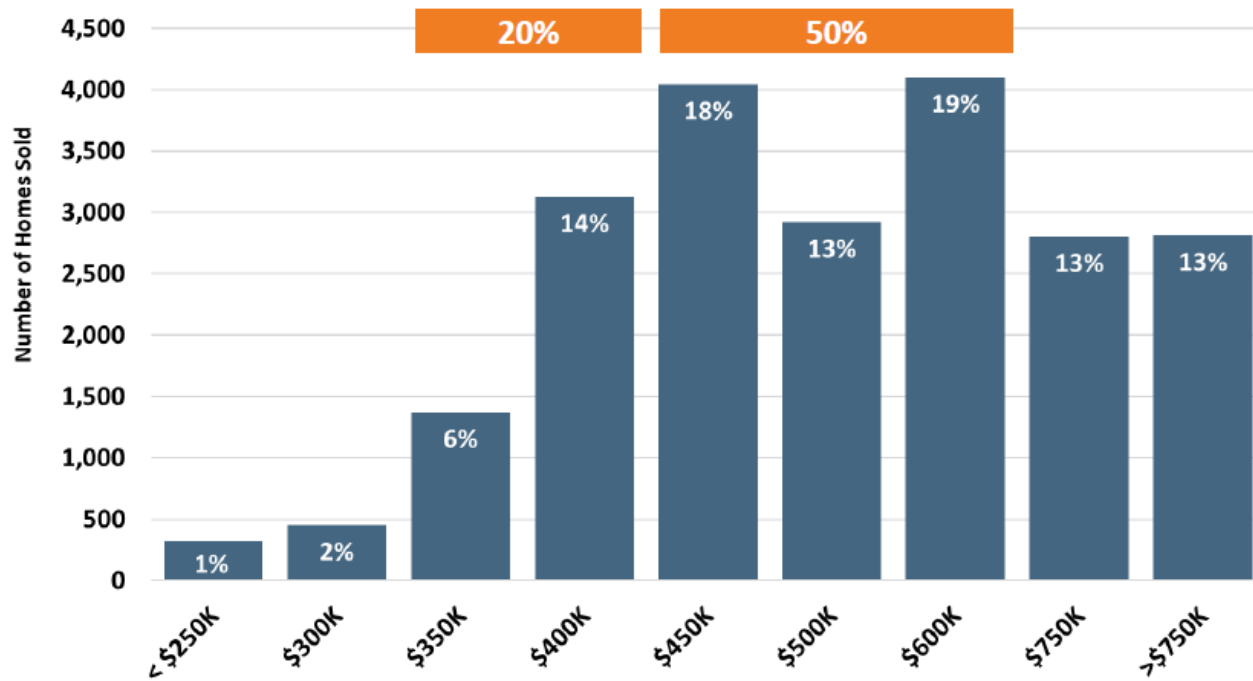
12 years of under-building Housing

Source: HBACA, US Census Bureau, Greater Phoenix Blue Chip Forecast, AxioMetrics, Land Advisors Organization

New Home Sales by Price Metro Phoenix



New Home Sales by Price Range



Phoenix 1st Qtr 2023

2023 FHA Loan Maximum
\$530,150 + 5% Down
or \$556,658

Only 23% New Homes
Below Median Price

Source: RL Brown, Land Advisors Organization



New & Existing Homes Sales



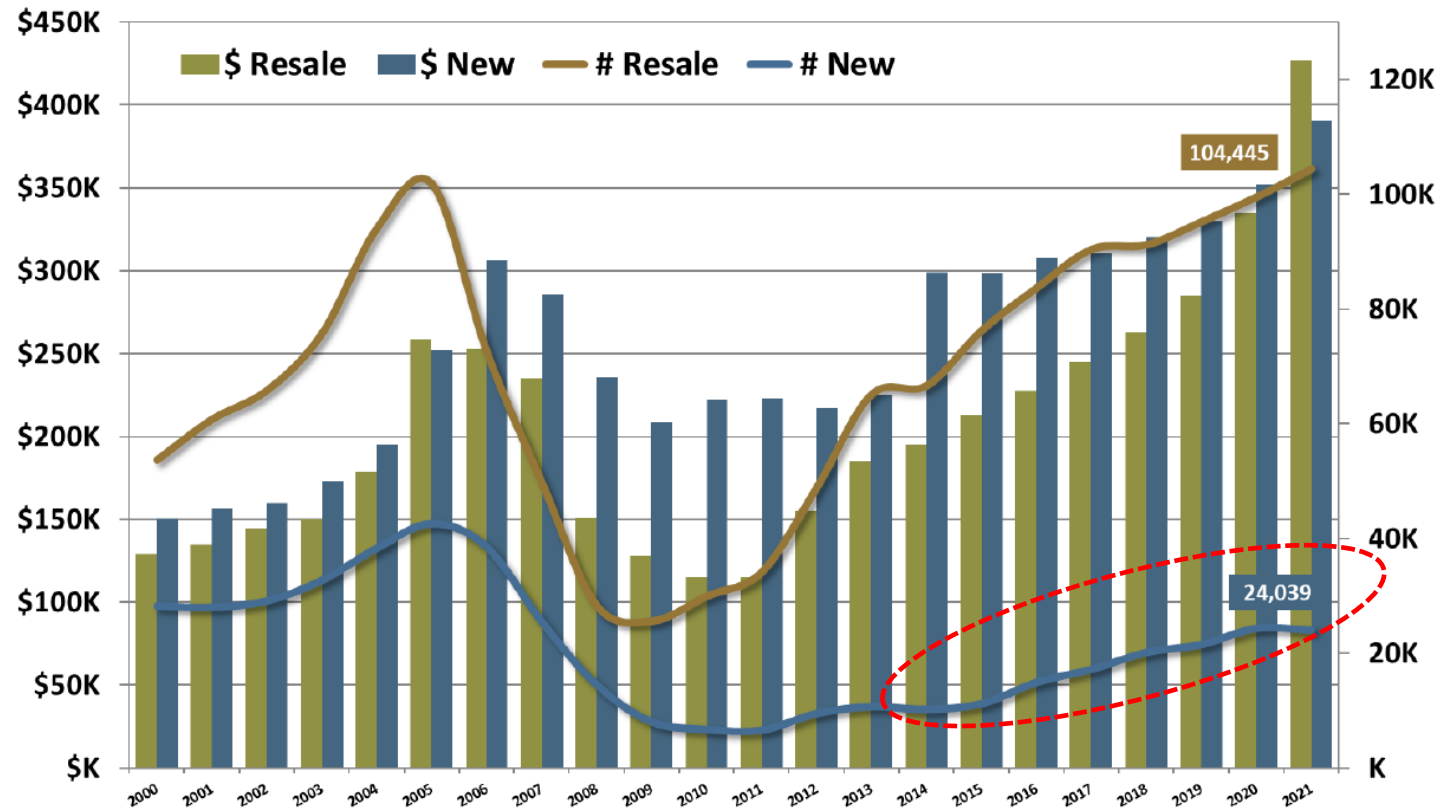
35% of New Home Sales
\$350K to \$400K

47% \geq \$450K

Difficult to add inventory

New & Resale Home Sales & Median Prices

2021



Phoenix 4th Qtr 2021

Resale Homes
Median Price \$427,000
Median Size 1,826 sqft
\$233/sqft
12 Mo Volume 126,612

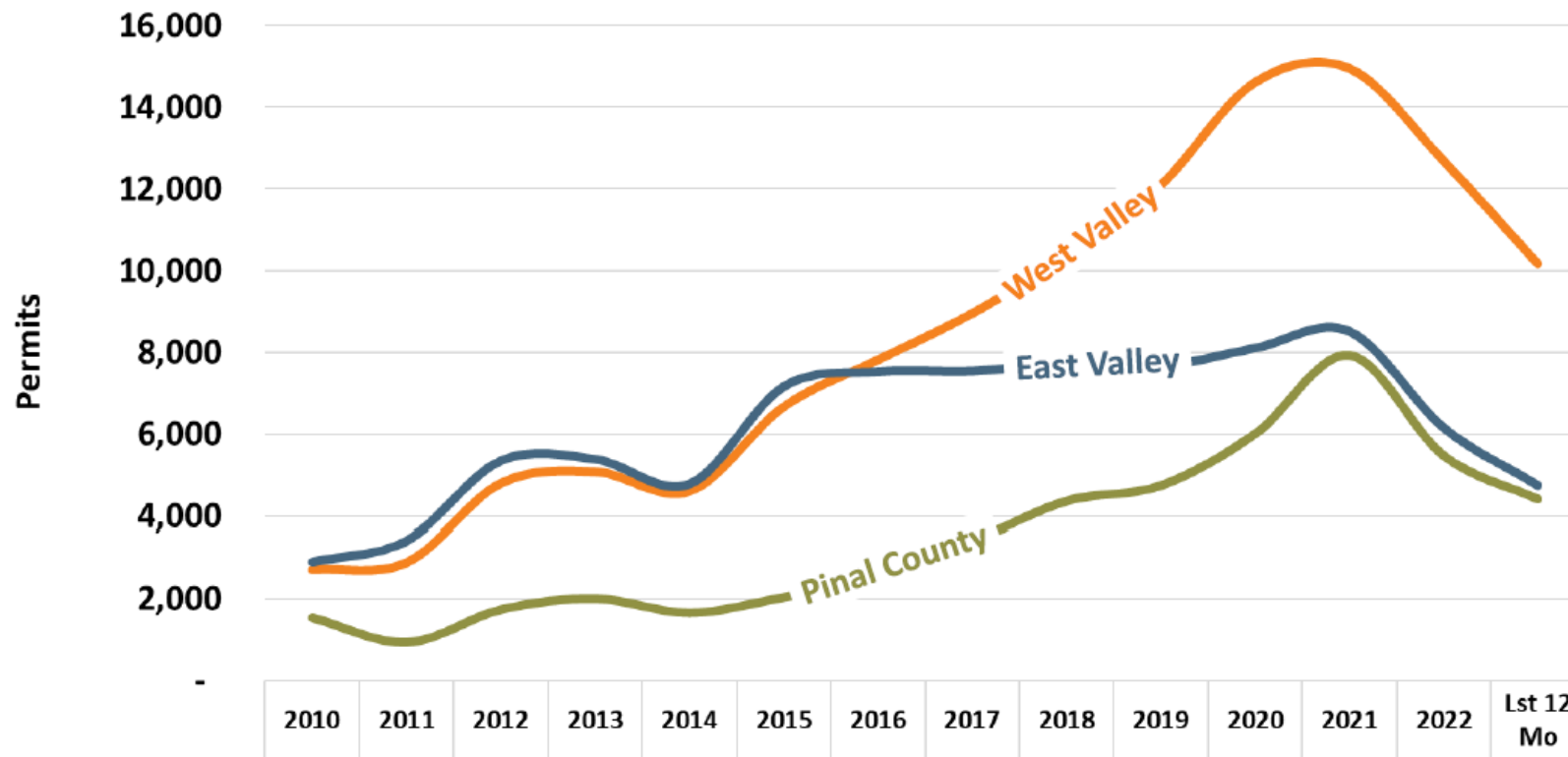
New Home
Median Price \$420,505
Median Size 2,260 sqft
\$186/sqft
12 Mo Volume 24,039

Development Pattern - Single Family Housing



Metro Phoenix Single-Family Permits by Region

March 2023



**Shifting
Development
Pattern**

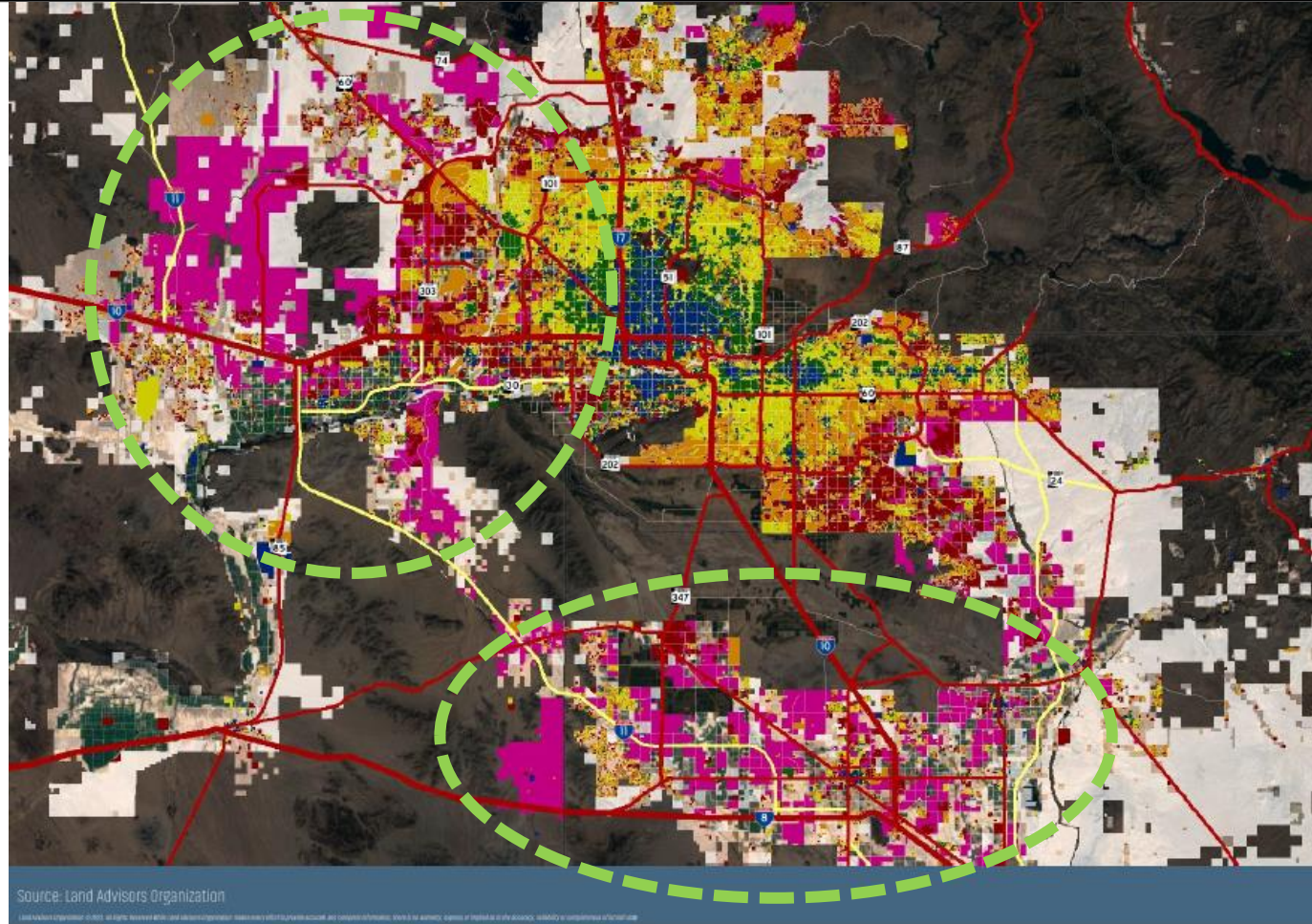
Growth Pattern



2023-2040

**Growth -
West and South**

**West Valley - 52%
Pinal County - 22%**



Phoenix 1st Qtr 2023

Metro Phoenix Developed Land

Year Built	Population
Before 1955	550K
1955 - 1969	1.04M
1970 - 1984	1.92M
1985 - 1999	3.25M
2000 - 2023	5.00M
2023 - 2040	6.77M
State Land	
Fed/BIA	

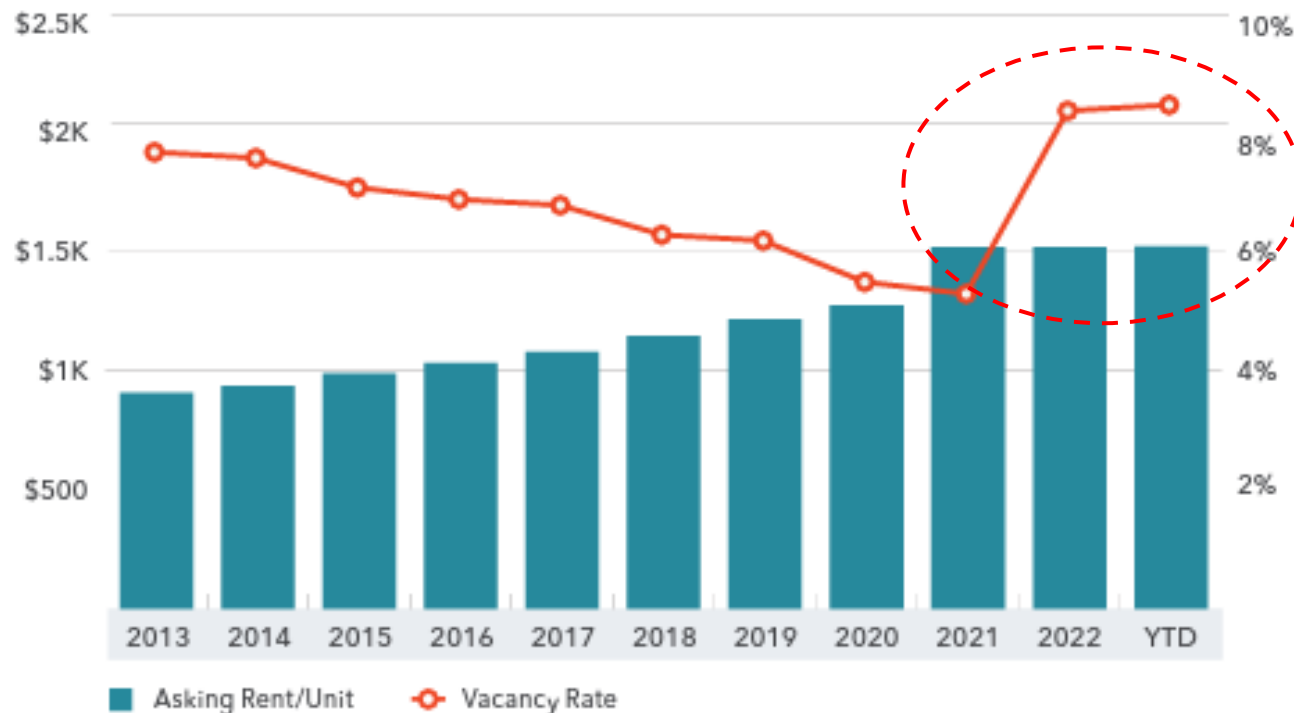
Source: Land Advisors Organization



Multi-Family Market



AVERAGE ASKING RENT/UNIT & VACANCY RATE



Avg. Asking Rents

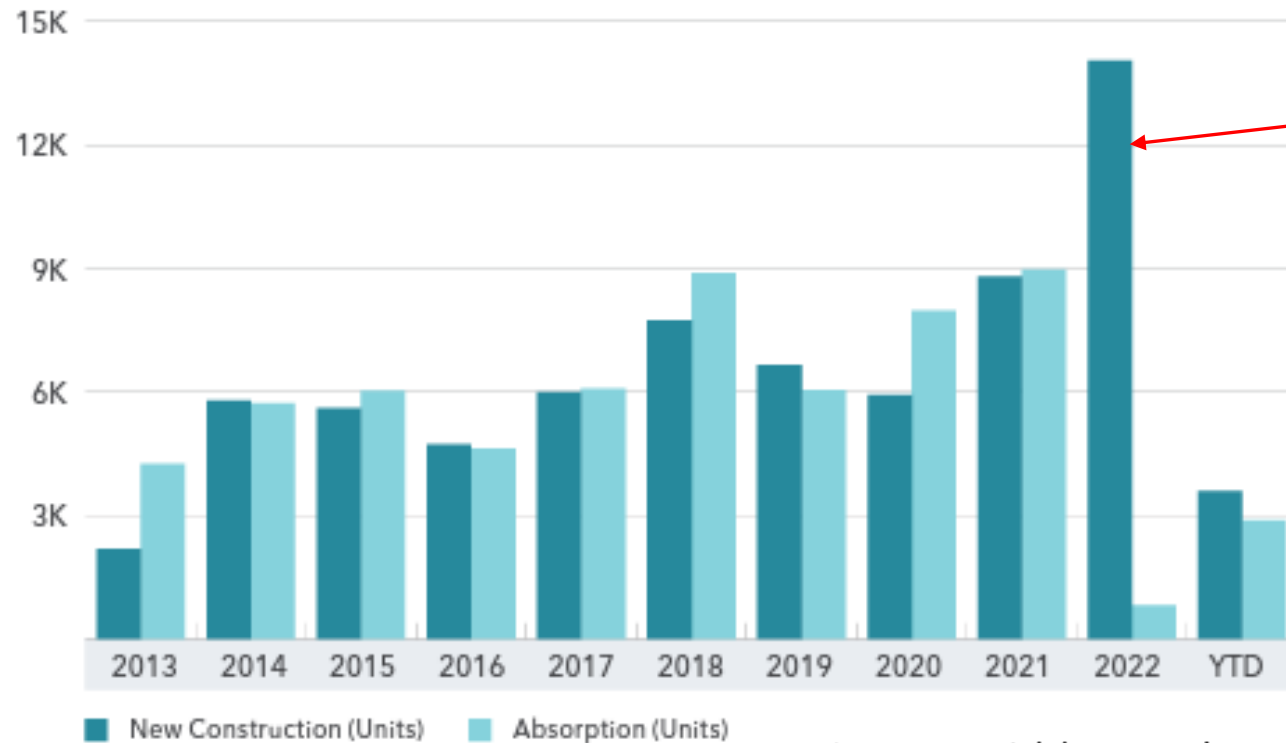
1Q/2022 \$1,544
4Q/2022 \$1,522
1Q/2023 \$1,525

Source: Kidder Mathews

Multi-Family Market



NEW CONSTRUCTION & ABSORPTION



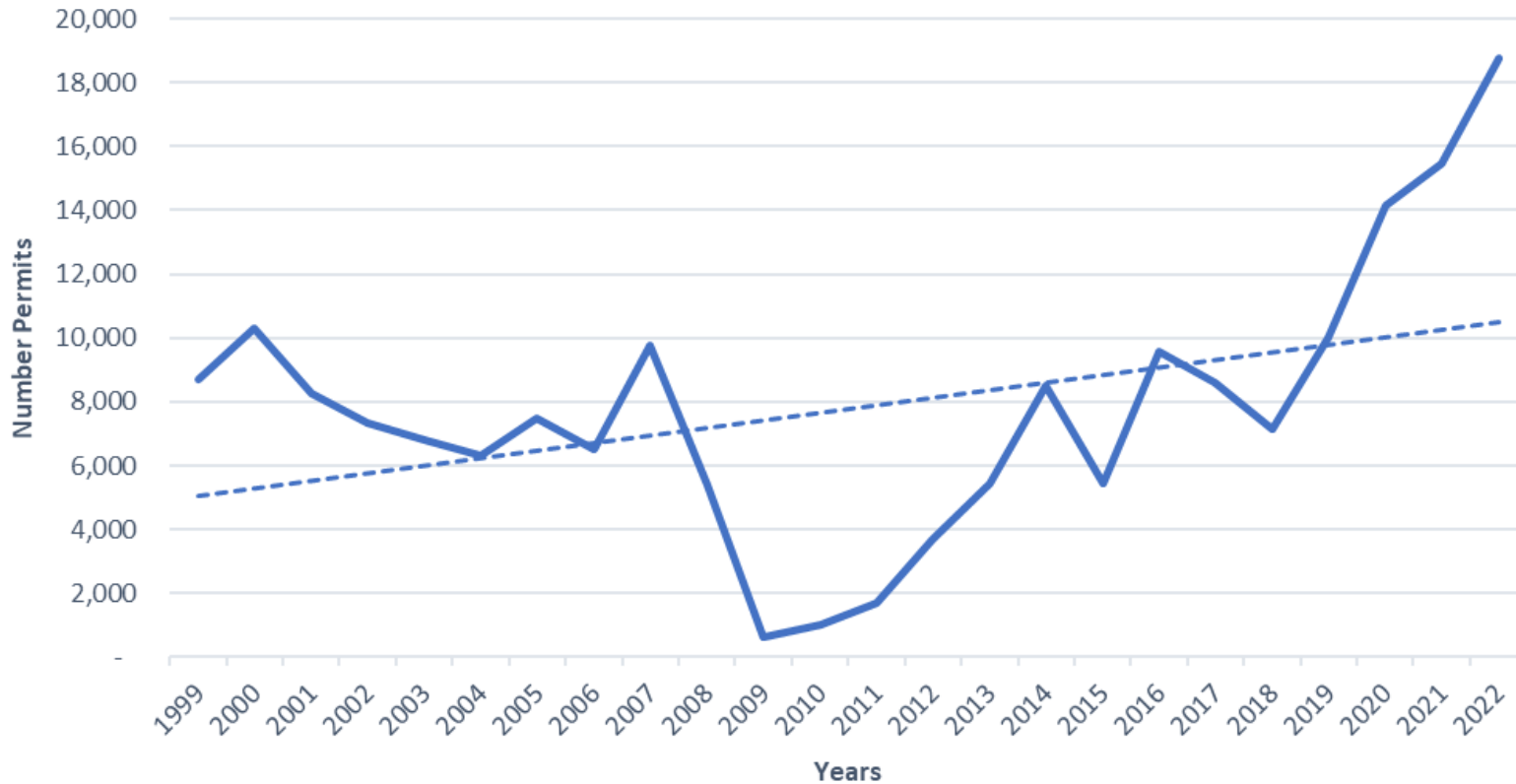
New Construction far exceeded absorption

Source: Kidder Mathews

Multi-Family Market



Multi-Family Building Permits Metro Phoenix



Avg. 1999-2018

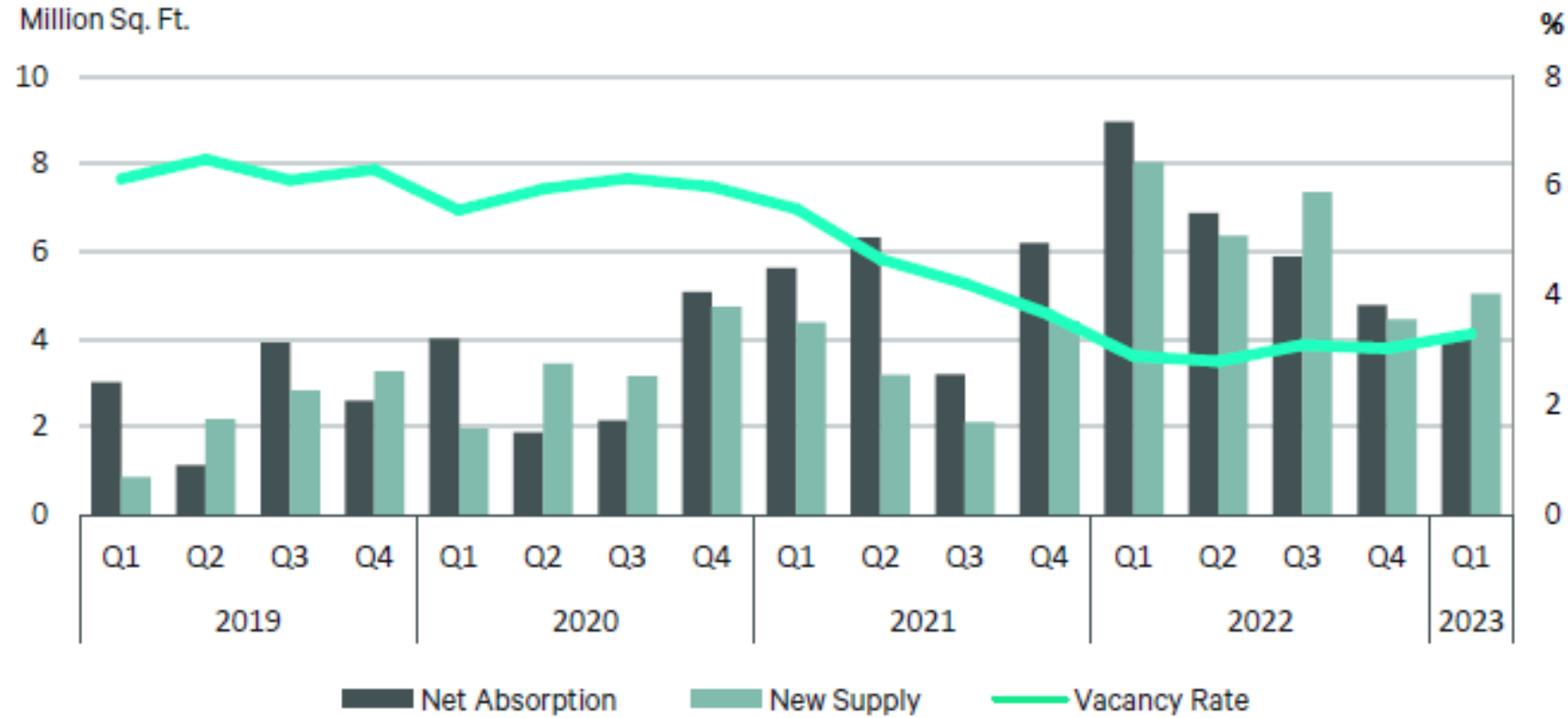
6,424

Avg. 2019-2022

14,585

Source: Northmarq Capital

Industrial Market



Source: CBRE Research, Q1 2023.

Industrial Market



332,158,428 s.f. Total existing supply

2022 record metro net absorption @ 27MSF - 4.0 million sq. ft. in Q1 2023

2.7% Total vacancy

The 45.8M SF UC will be delivered over next 18-24 months

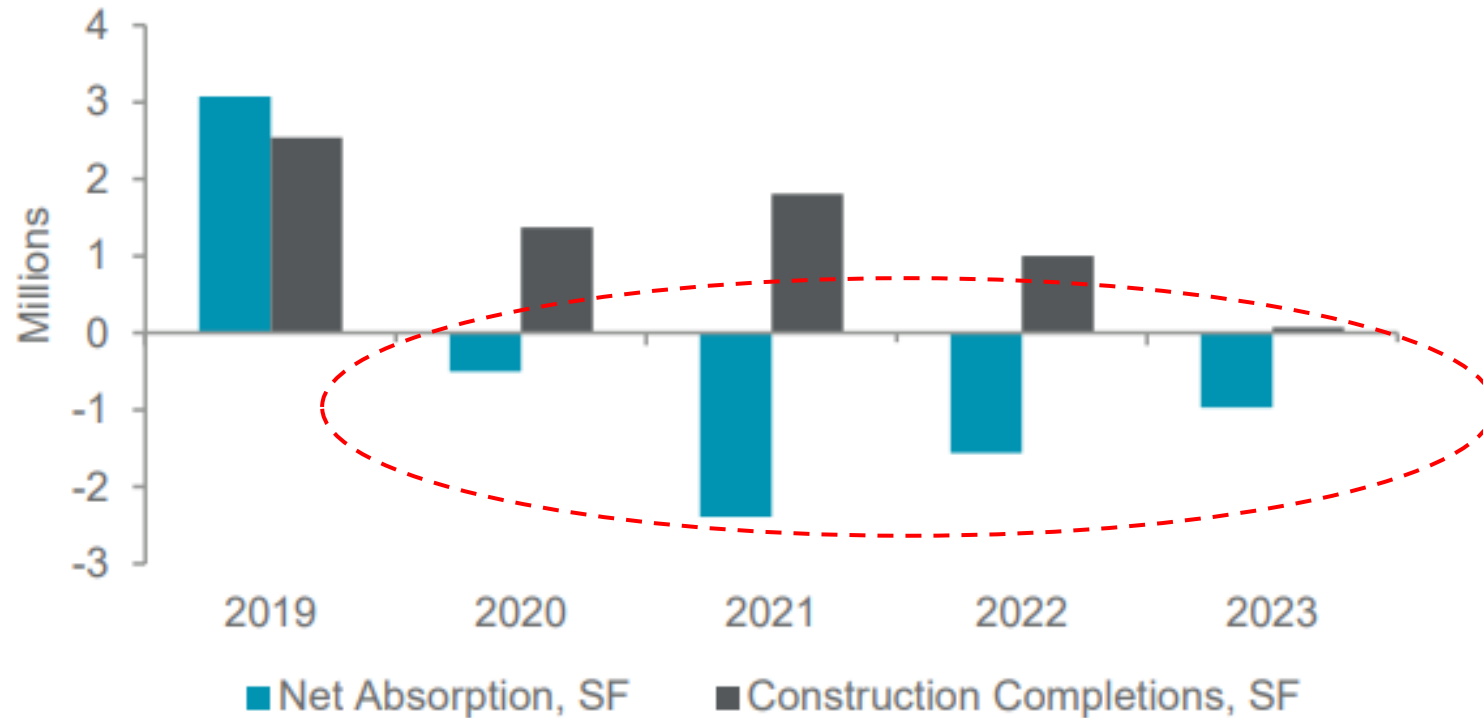
Entitled/Improved industrial land - \$12-\$15psf (Vegas/SLC @ \$30psf....SoCal @ \$60 to \$150psf)

Source: JLL Tony Lydon

Office Market



SPACE DEMAND / DELIVERIES



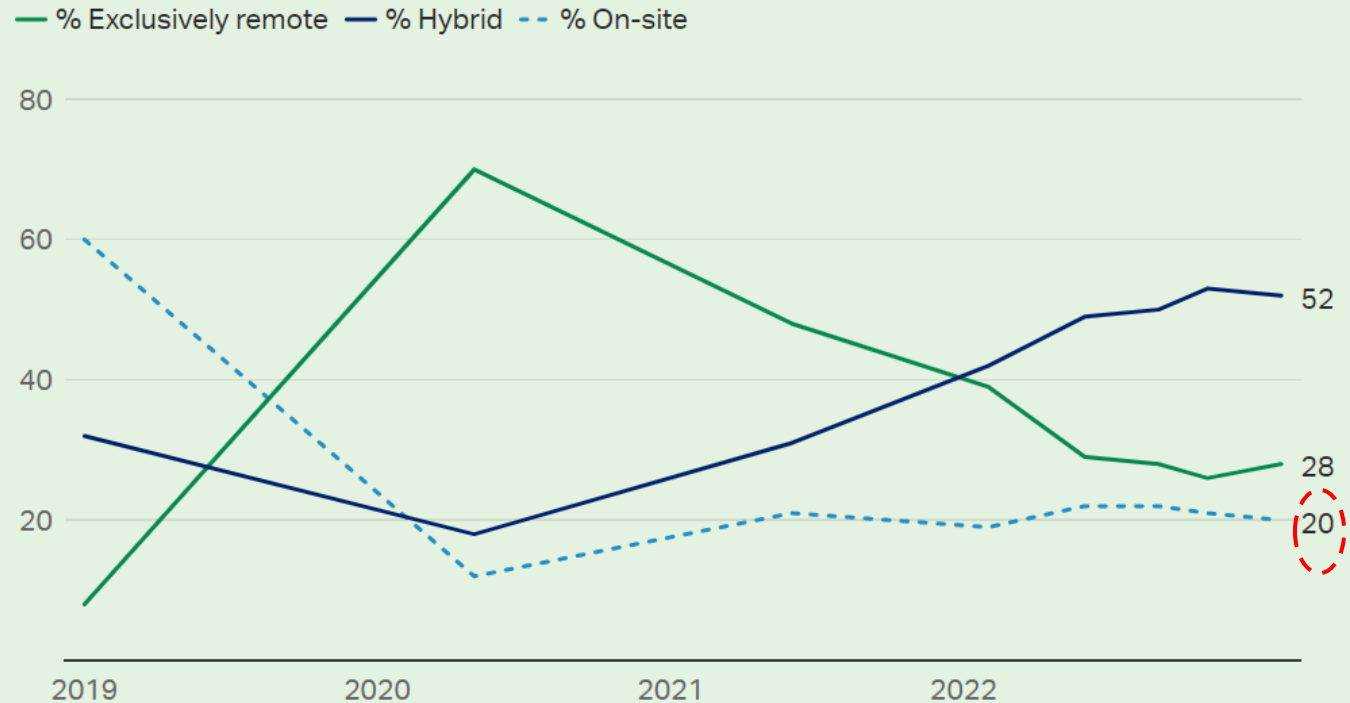
Source: Cushman Wakefield

Office Market



Work Locations for U.S. Employees With Remote-Capable Jobs

Employees are returning to the office — but with more remote work flexibility than ever.



[Get the data](#) • [Download image](#)

GALLUP

20% In Office all the time

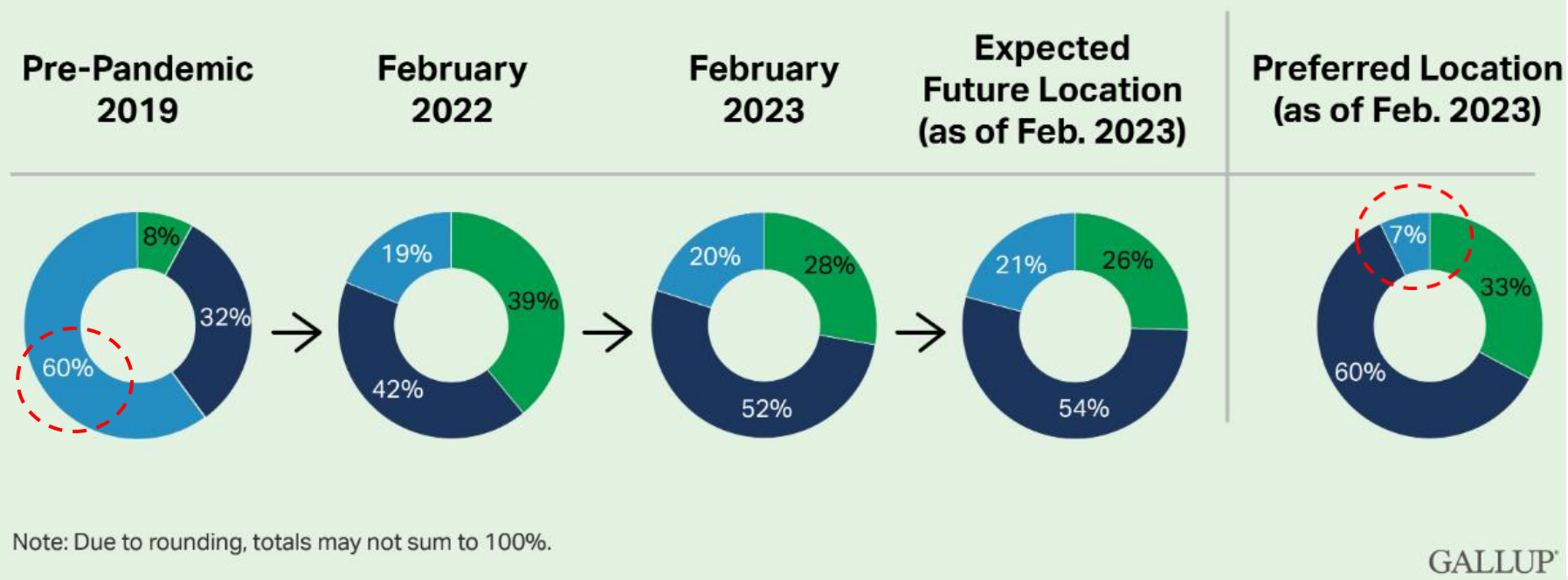
Office Market



Work Locations for Remote-Capable Jobs

Among U.S. employees

■ Exclusively remote ■ Hybrid (≥10% to <100% remote) ■ On-site



60% Prefer Hybrid

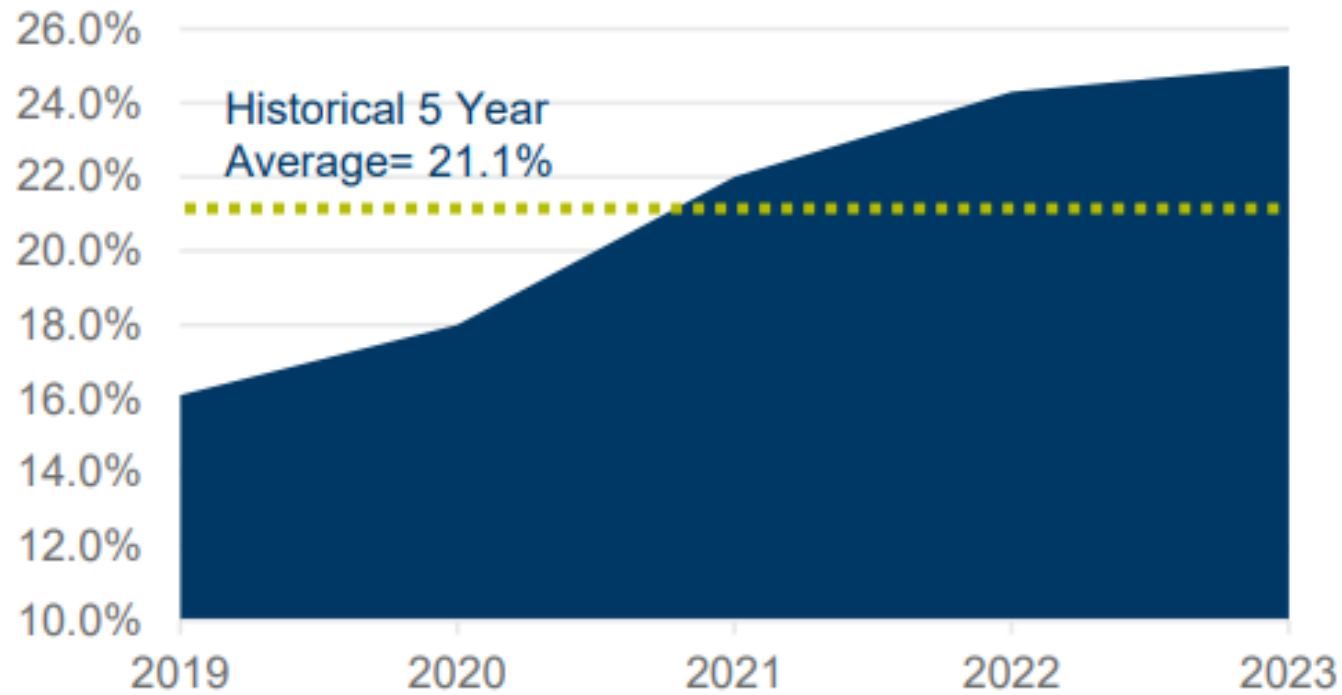
33% Prefer Remote

-53% Decline in Preference for on-site

Office Market



VACANCY RATE

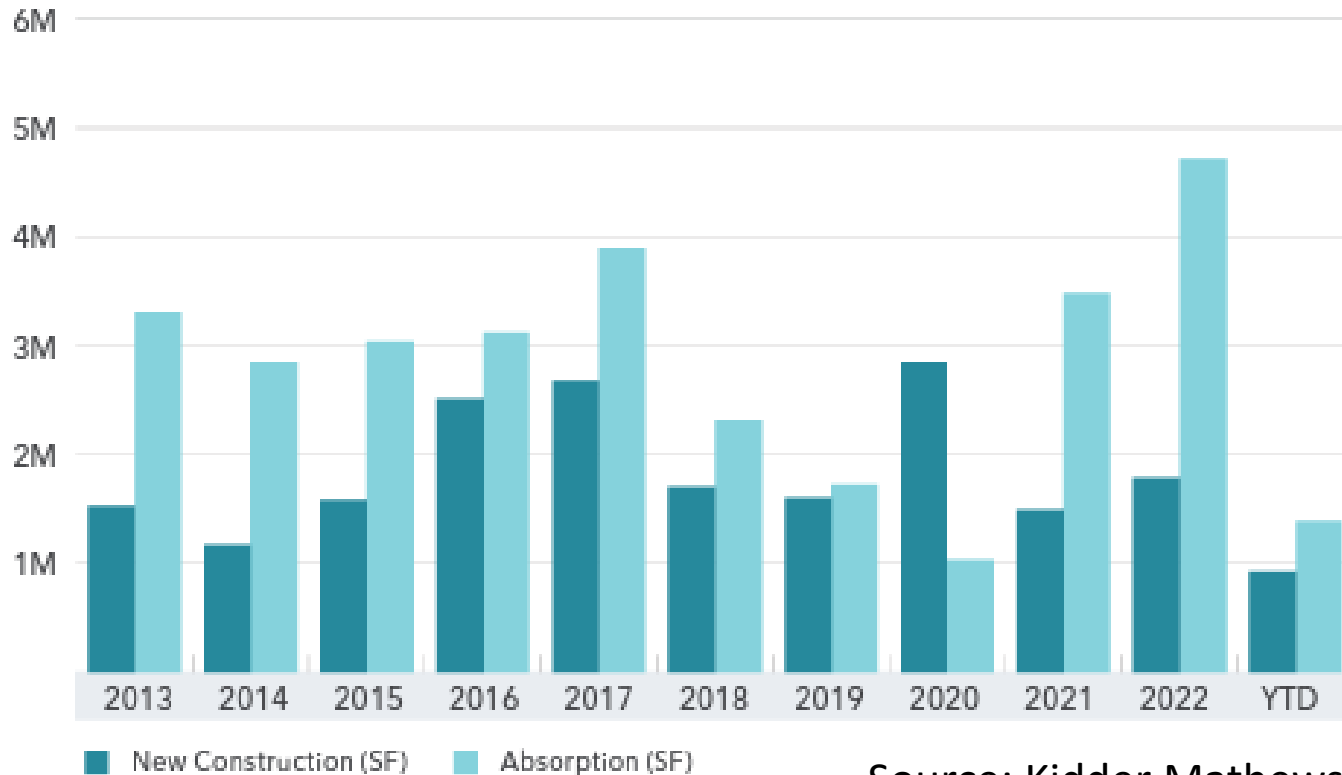


Source: Cushman Wakefield

Retail



NEW CONSTRUCTION & ABSORPTION



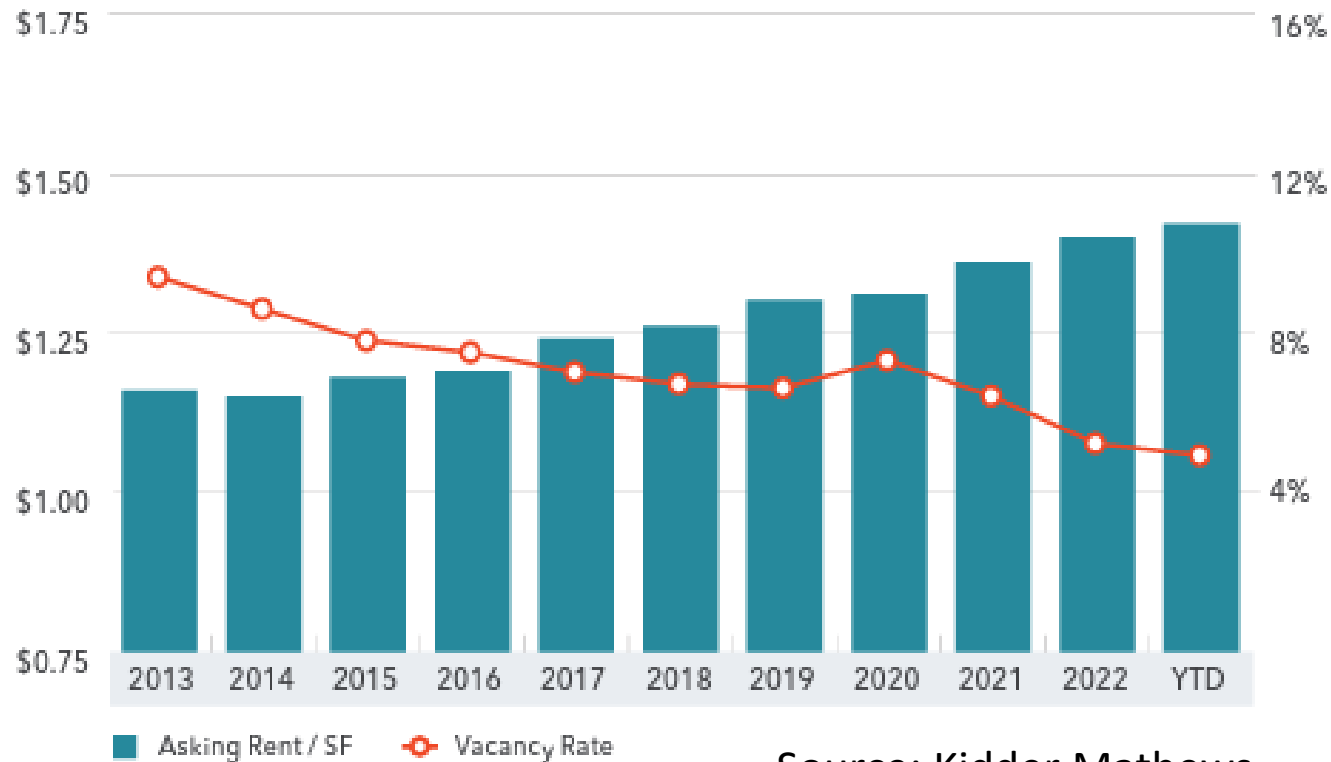
Source: Kidder Mathews

**8 of last 9 years
absorption far
exceeded new
construction**

Retail



AVERAGE ASKING RENT/SF & VACANCY RATE



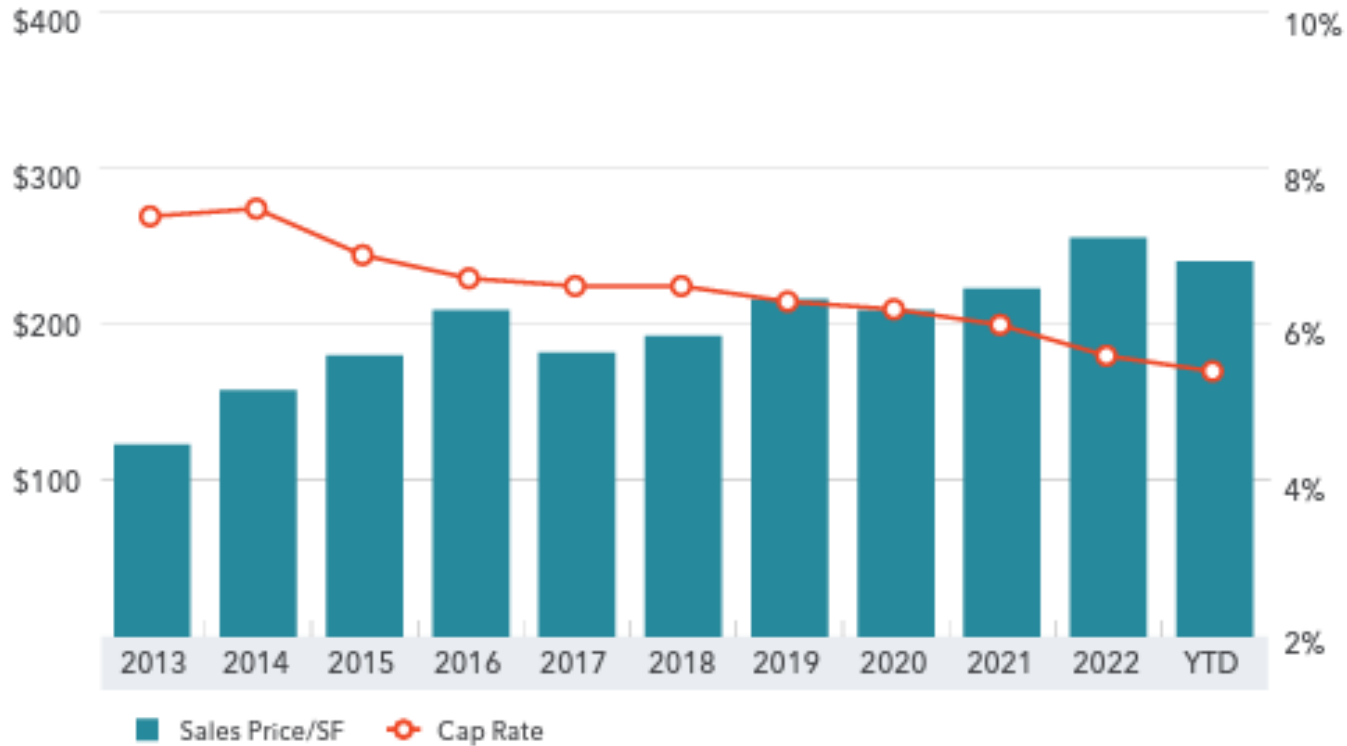
**Vacancy Rates
dropped and
rents increased**

Source: Kidder Mathews

Retail



AVERAGE SALES PRICE/SF & CAP RATES



**Cap Rates
dropped and
Values increased**

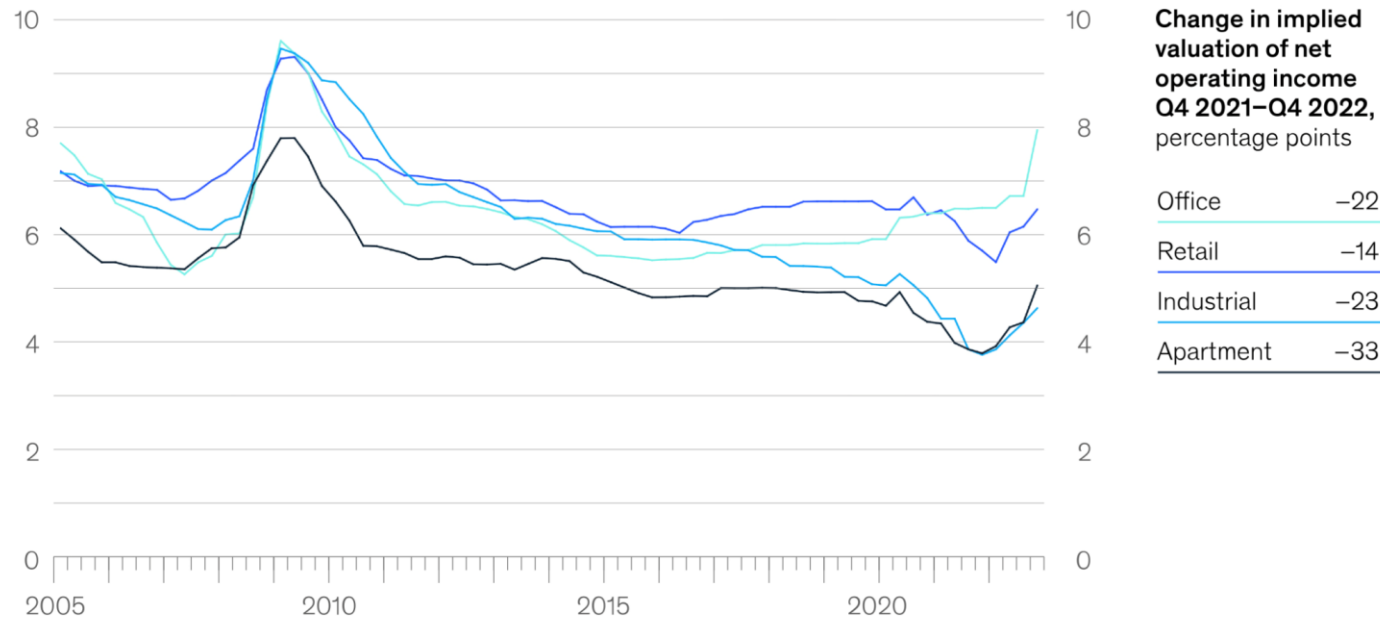
Source: Kidder Mathews

CAP Rates All Commercial Property Types



In early 2022, capitalization rates across all asset types started to increase.

Capitalization rates¹ and vacancy rates for major property types in the US, % (quarterly)



¹Green Street data include all historical transaction data for asset purchases >\$25 million across all asset classes in the top 50 metropolitan statistical areas.
Source: Green Street Cap Rate Observer

McKinsey & Company

**Interest Rates go up,
CAP Rates go up =
values go down**

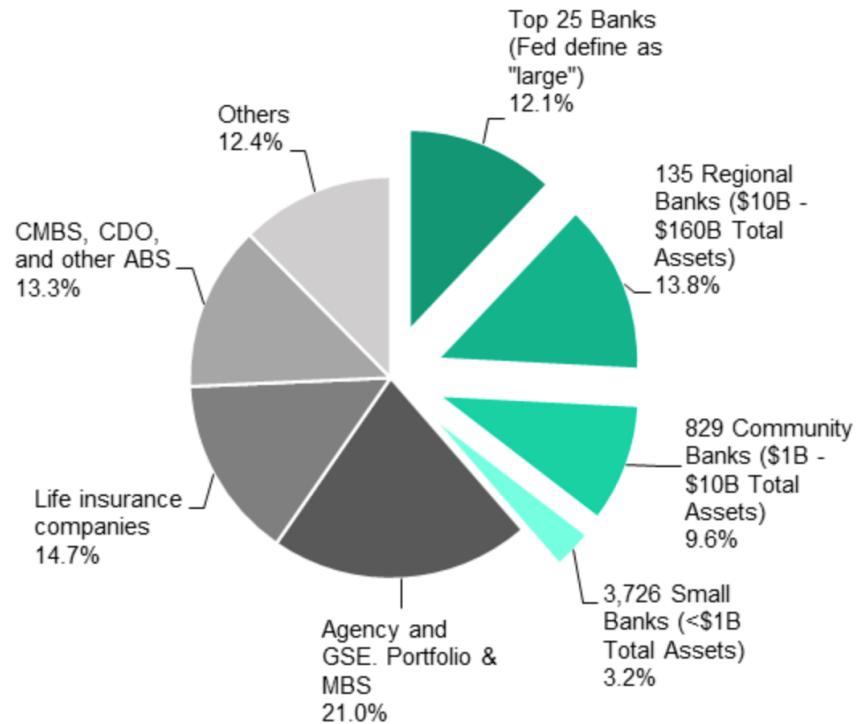
**New projects &
refinance don't
pencil**

Credit Crunch

Bank Exposure to Commercial RE Loans



Figure 1 – Share of Outstanding \$4.5 Trillion US Debt Backed by Income-producing Multifamily and Commercial Real Estate, by Lender Type



Sources: MBA, FDIC, Moody's Analytics

- Loans originated 2018 – 2020 Mature
- Diverse Exposure – 38.7% Banks
- Concern is Community Banks
- Credit issues nation wide Republic Bank didn't help)

CMBS Origination Volume



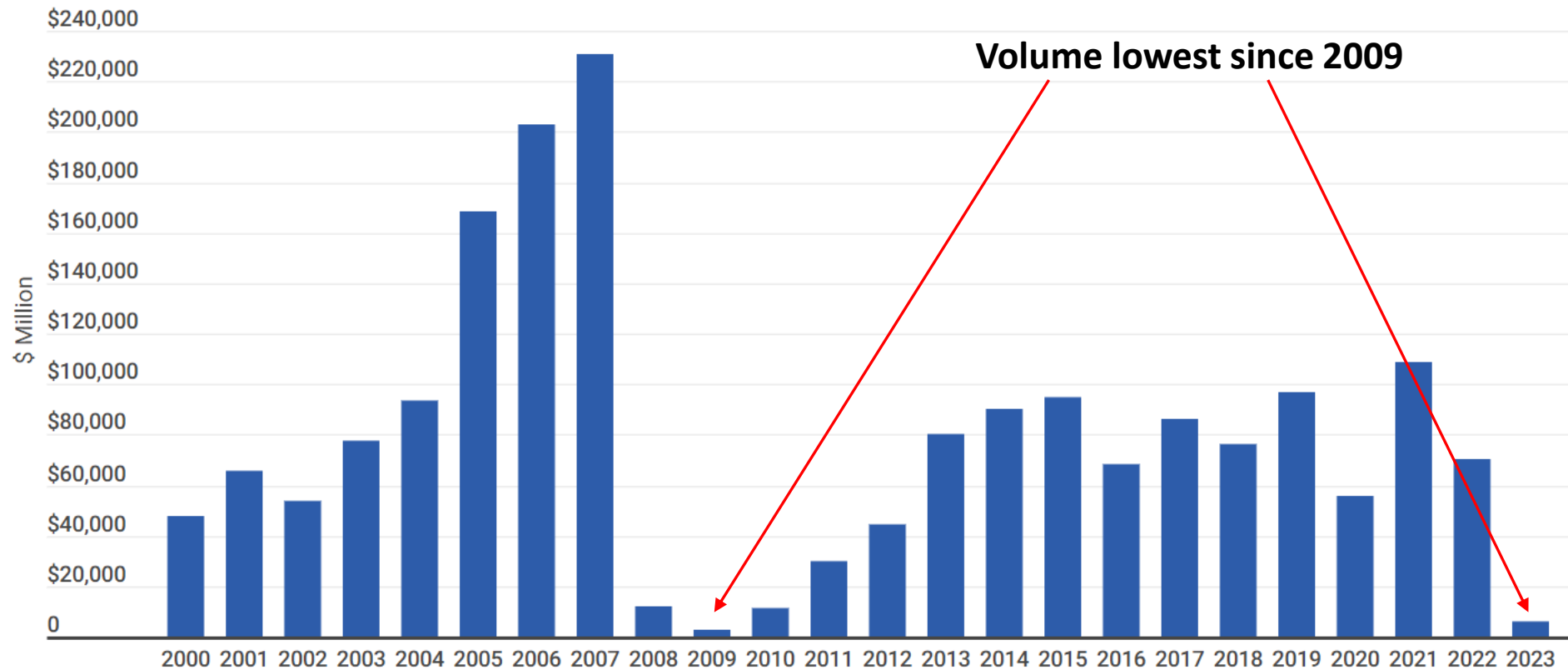
CMBS Originations Have Dried Up for All Asset Classes

Monthly CMBS Origination Volume, USD Bn.



Source: CoStar, Nov. 2022

CMBS Origination Volume



Commercial Property



Rate hikes, fears of a recession, make it challenging to finance new projects and refinance existing debt – ***adding new space to meet demand challenging***

Rate hikes have also led to a decline in property sales

Investors and lenders are being more cautious

Default risk increased could be very problematic if rates increase more and the economy slows.

Forecast



- **COVID impacts continue to affect market**
- **Employment Growth continues to drive population growth** = Demand/Supply imbalance.
- **Industrial development very strong** slows toward year-end 2023 – **expect +/-20M SF delivered.**
- **Still hard to add new housing - supply remains very low** - Millennials push household formation.
- **Home prices continue rise** – Inventory remains very low – “lock in” effect helps keep inventory of existing homes tight – new construction a must but has its own issues.
- **Homebuilding** - single family new construction continues but rate of price growth slows - land costs, supply chain issues and labor costs issues – **expect +/-23,000 new units.**
- **Retail follows roof-tops** – slow and steady growth
- **Multi-family underwriting slows dramatically** – Valuations and credit concerns, land supply & material cost – slow delivery of units. Rents soften then pick-up continue to grow but slightly slower due to affordability.
- **Office** – We’re not Chicago, NYC, SF - Still demand for best located, quality office due to employment growth.

Commercial Brokers Survey



5 Is uncertainty in the Federal Government affecting the commercial real estate market and hindering our local growth potential?

	10/13	04/14	10/14	04/15	10/15	04/16	10/16	04/17	10/17	04/18	10/18	04/19	10/19	04/20	10/20	04/21	10/21	04/22	10/22	04/23	Trends
Yes		100%	100%	83%	82%	71%	57%	37%	46%	43%	22%	16%	36%	59%	59%	32%	48%	38%	10%	84%	
No		0%	0%	17%	18%	29%	43%	63%	54%	57%	78%	84%	64%	41%	41%	68%	52%	62%	90%	16%	
		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

8 Where are Investor Returns headed in the next three months?

	10/13	04/14	10/14	04/15	10/15	04/16	10/16	04/17	10/17	04/18	10/18	04/19	10/19	04/20	10/20	04/21	10/21	04/22	10/22	04/23	Trends
Up	20%	7%	0%	6%	55%	36%	26%	19%	21%	20%	19%	30%	24%	23%	15%	20%	40%	12%	20%	10%	
Down	47%	14%	8%	13%	9%	14%	23%	29%	22%	33%	24%	16%	22%	57%	35%	38%	24%	26%	60%	74%	
Stationary	33%	79%	92%	81%	36%	50%	51%	52%	57%	46%	57%	54%	54%	20%	50%	42%	36%	62%	20%	16%	
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

1 In what direction is the Metro Phoenix Investment Market heading?

	10/13	04/14	10/14	04/15	10/15	04/16	10/16	04/17	10/17	04/18	10/18	04/19	10/19	04/20	10/20	04/21	10/21	04/22	10/22	04/23	Trends
Up															59%	100%	93%	67%	18%	0%	
Down															6%	0%	0%	11%	82%	83%	
Stationary															35%	0%	7%	22%	0%	17%	
															100%	100%	100%	100%	100%	100%	

Concerns



- **Just as supply is increasing, softening pricing, credit slows new growth –** Makes tight market worse. Underwriting for all segments impacted.
- **Affordability/Homelessness remains issue –** Market can't fix need policy. Need more housing – bad time to constrain.
- **Conflict with growth pattern and water –** Water policy may cause change in development patterns long term.
- **Capital markets slow all underwriting –** constrains inventory, keeps prices up.



**Thank you for and have a great
summer!**