



Reality of Real Estate Market

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Fred E. Taylor Professor of Real Estate



Why so many apartments?
Why so many Build-to-Rent projects?
Why is housing unaffordable?
Why so much warehouse space?
Why can't developers build Kierland Commons here?

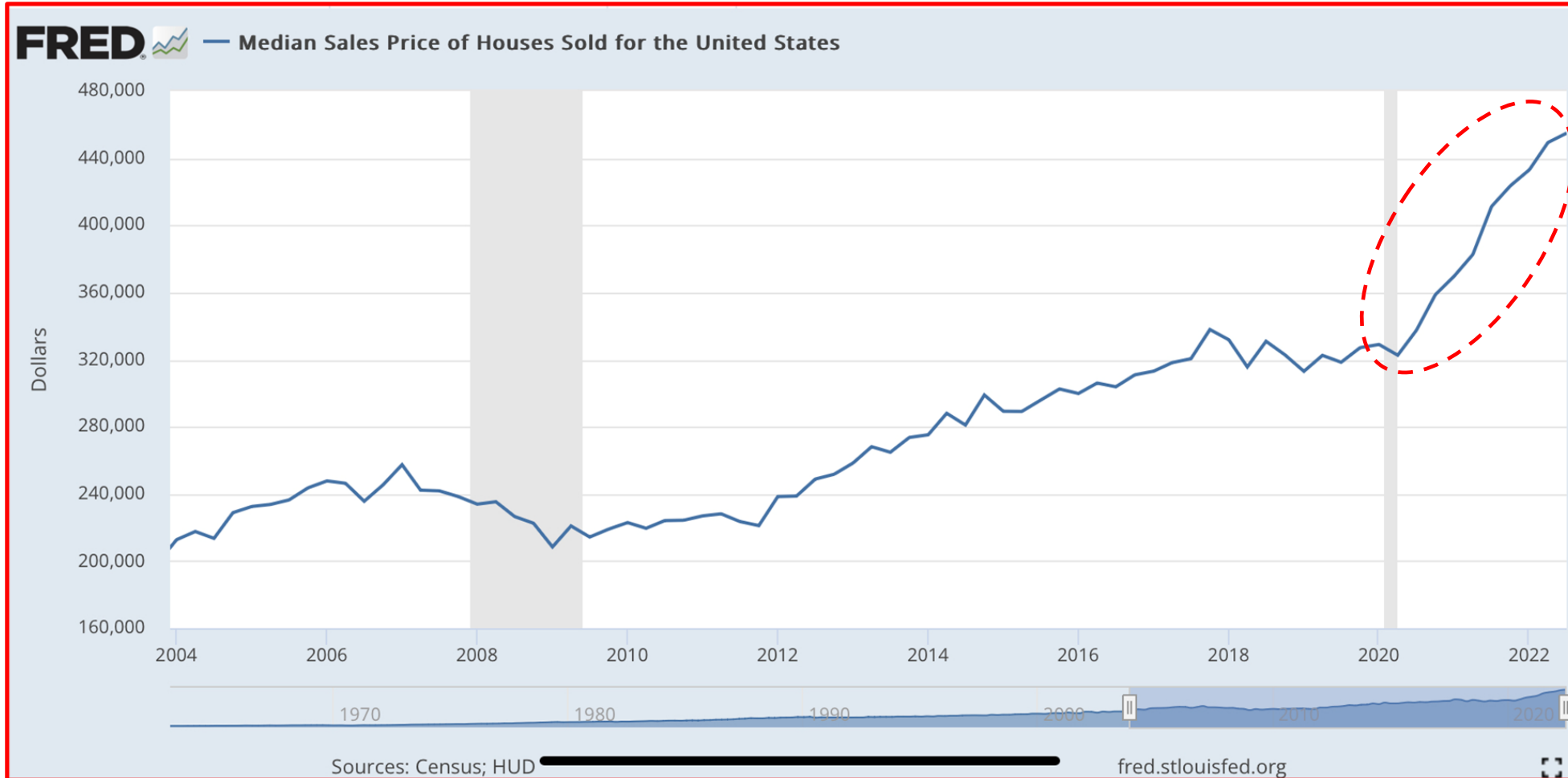


**Real estate is a service to society.
It services “actionable” demand (market).
It requires lots of financing – debt & equity.
Private property rights can’t be ignored.
Goodyear is part of a region – the market is
the region.**

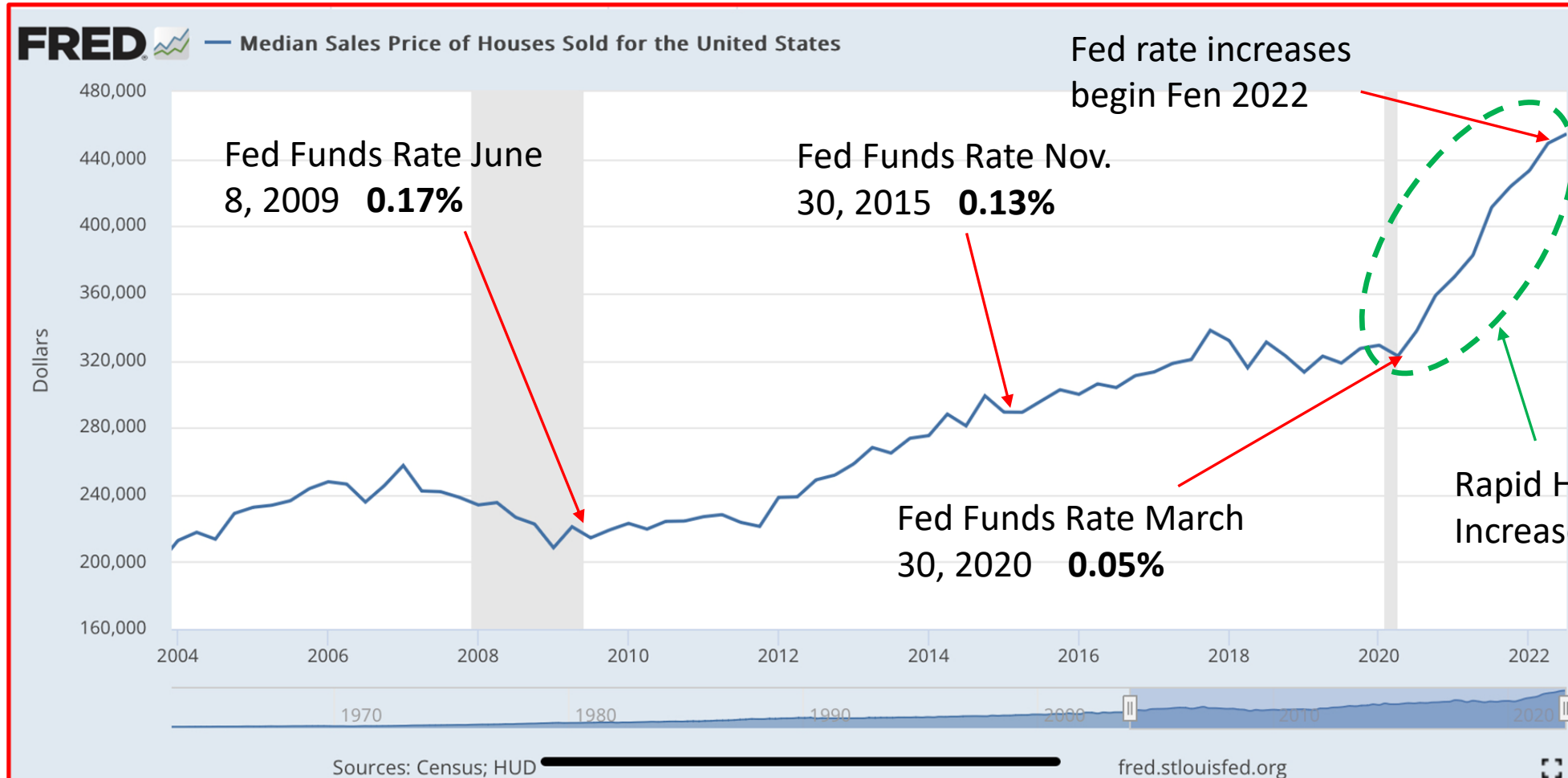


Here is the story of the market – why developers are acting like they are.

Single Family Housing – Median Sales Price



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

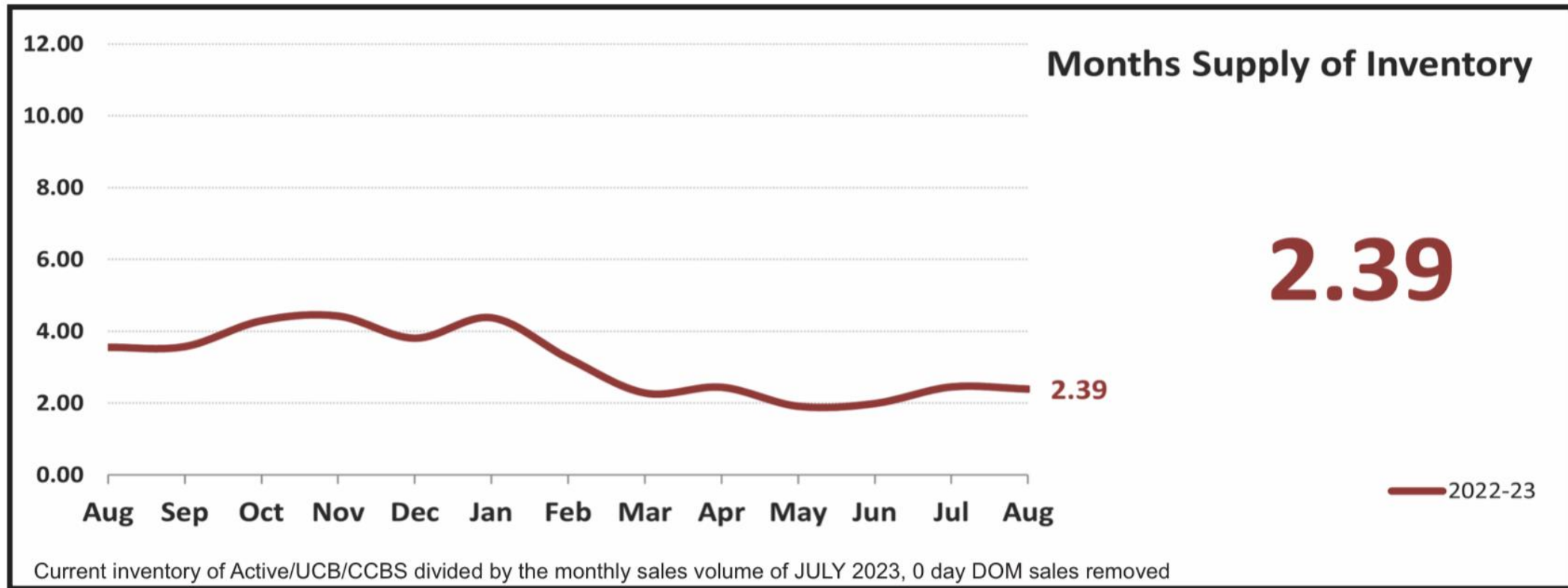
(61% increase in 17 months)

Months Inventory 2.33

Note: Lowest Inventory March 2022 - 0.89 months

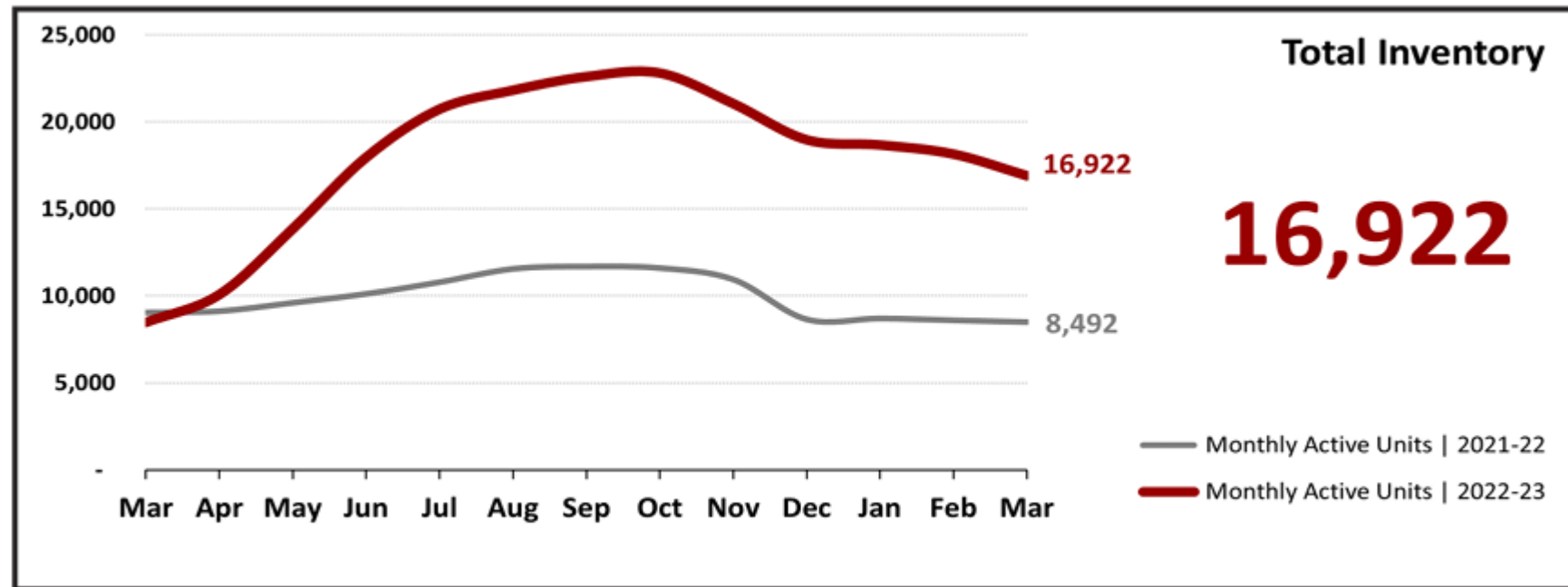
Source: Arizona MLS

Phoenix Metro Existing Homes Inventory



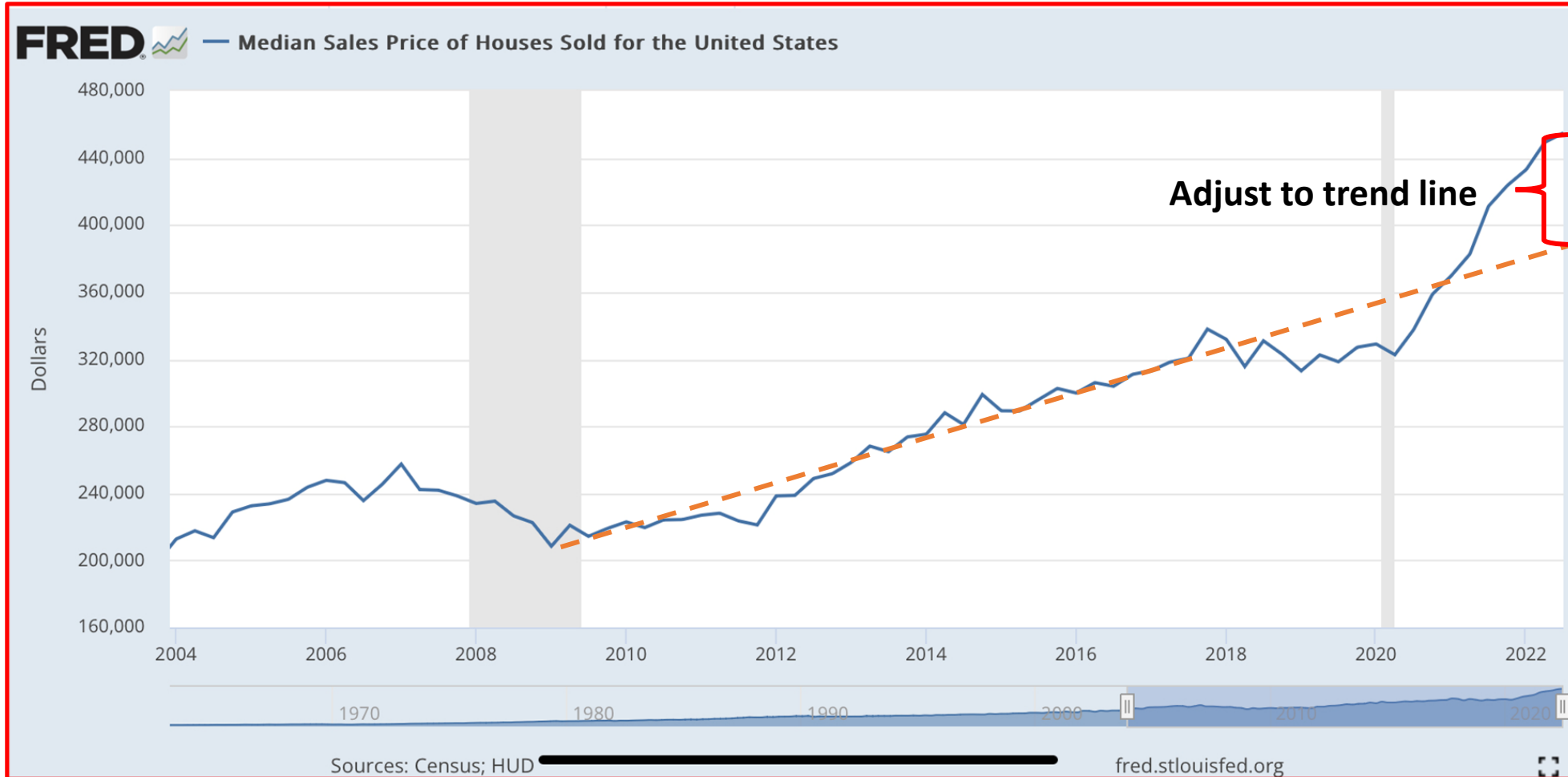
Source: ARMLS Sept, 2023

Total Existing Homes Inventory

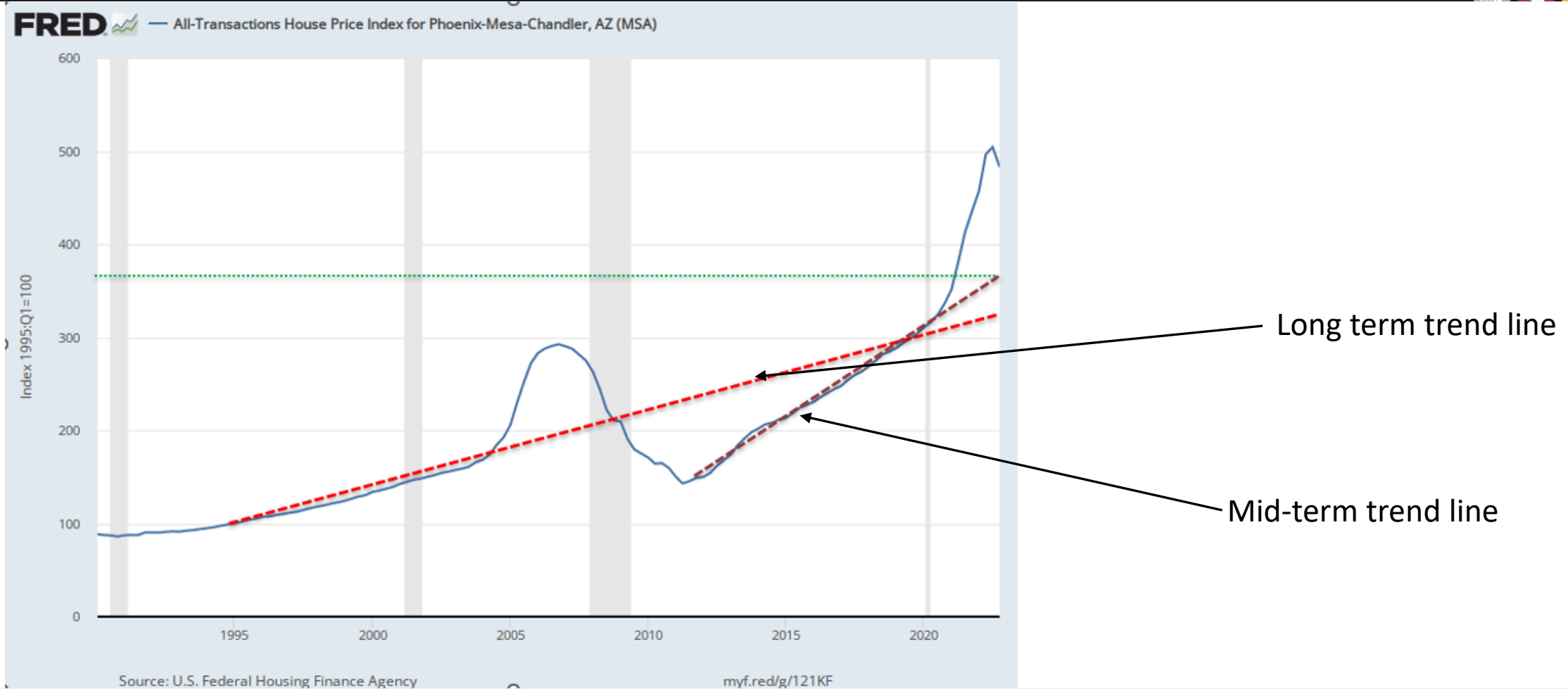


Source: ARMLS March, 2023

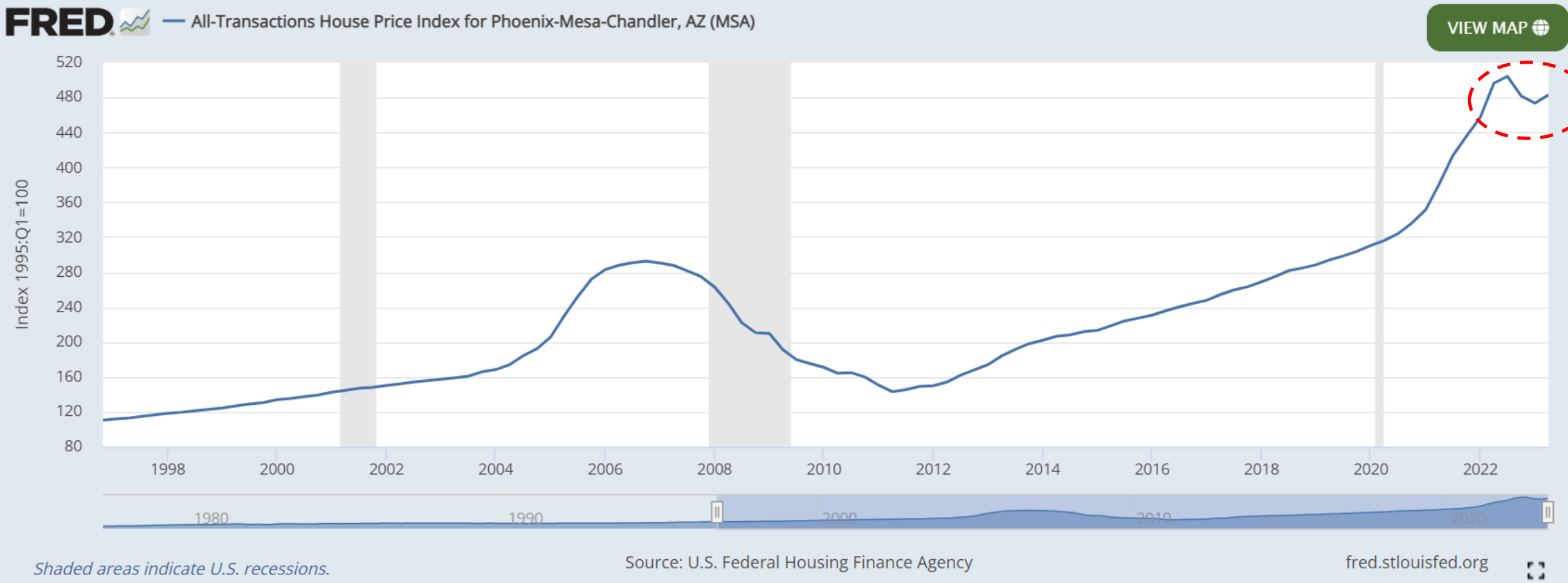
Single Family Housing – Median Sales Price



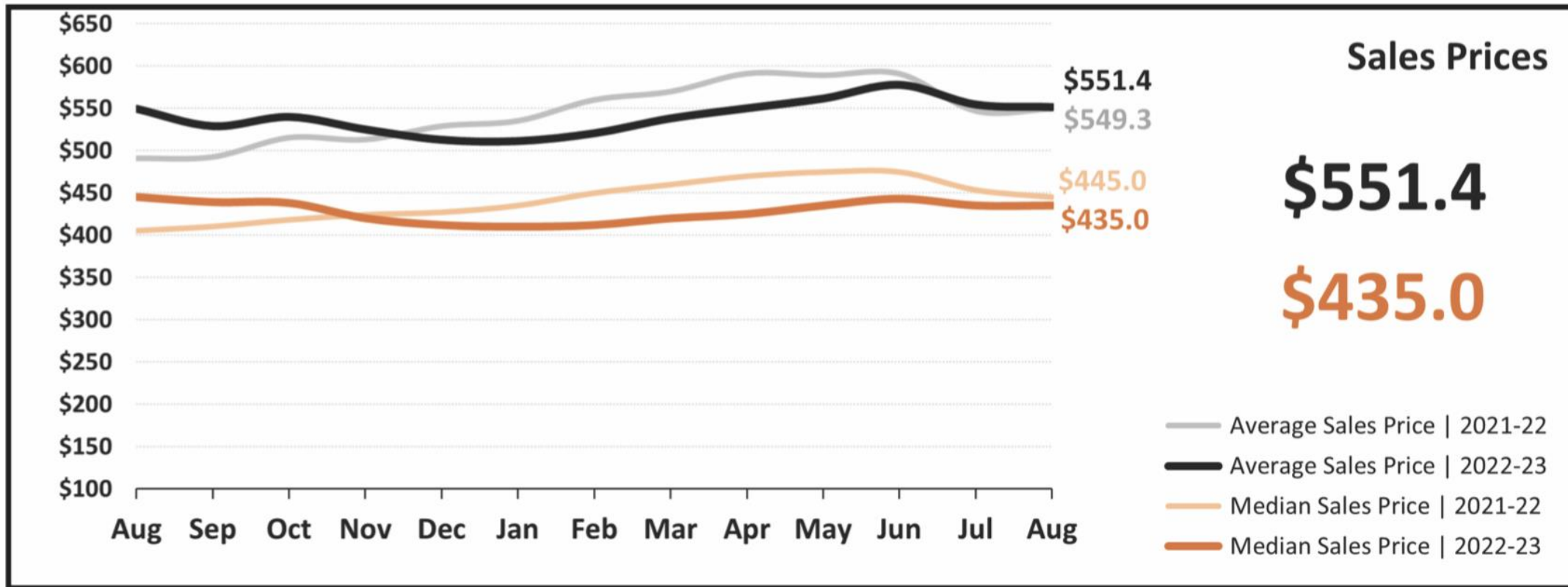
All Transactions House Price Phx 1985 – January 2023



All Transactions House Price Phx 1985 – Sept 2023

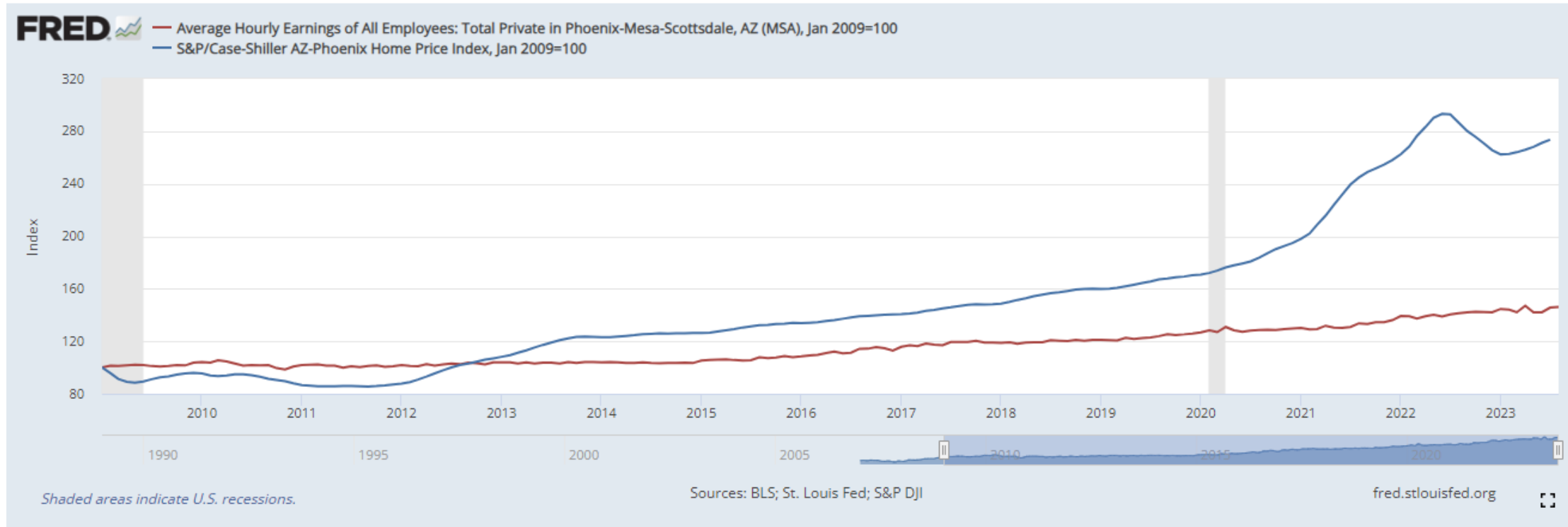


Avg and Median Sales Price August 2023



MLS sales prices for closed listings with a close of escrow date from 8/1/23 to 8/31/23, 0 day DOM sales removed

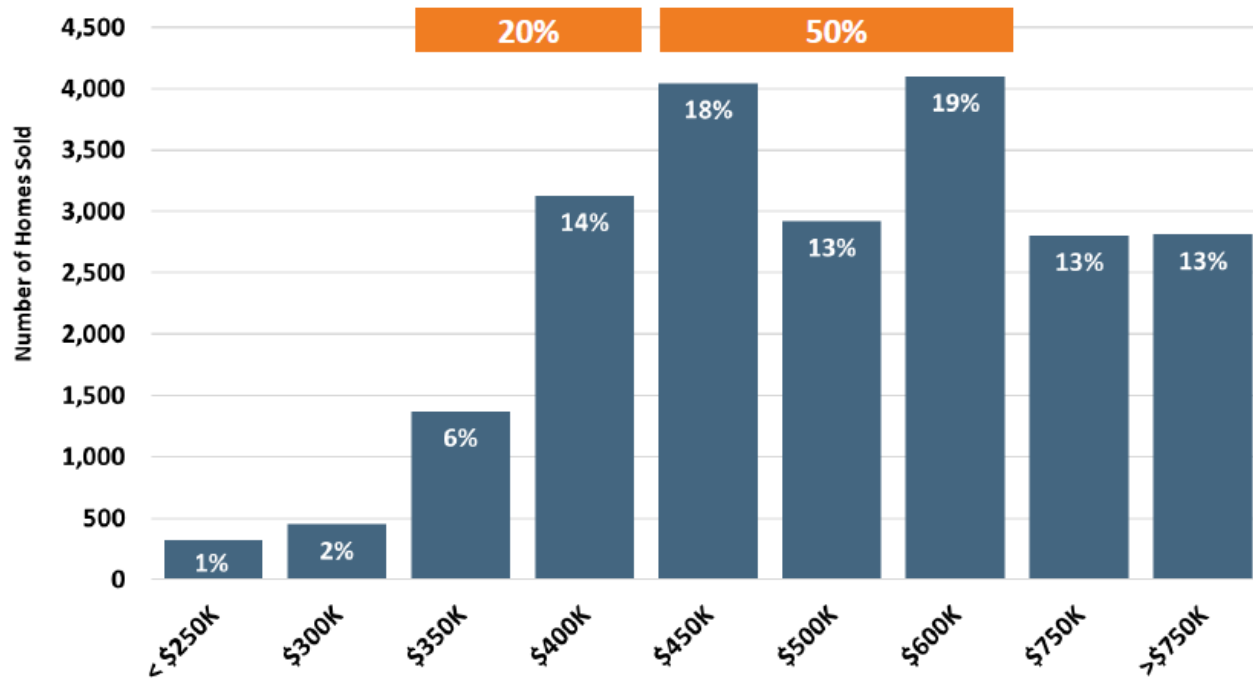
Average Earnings to Home Price Index



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

Land Advisors
ORGANIZATION

% 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



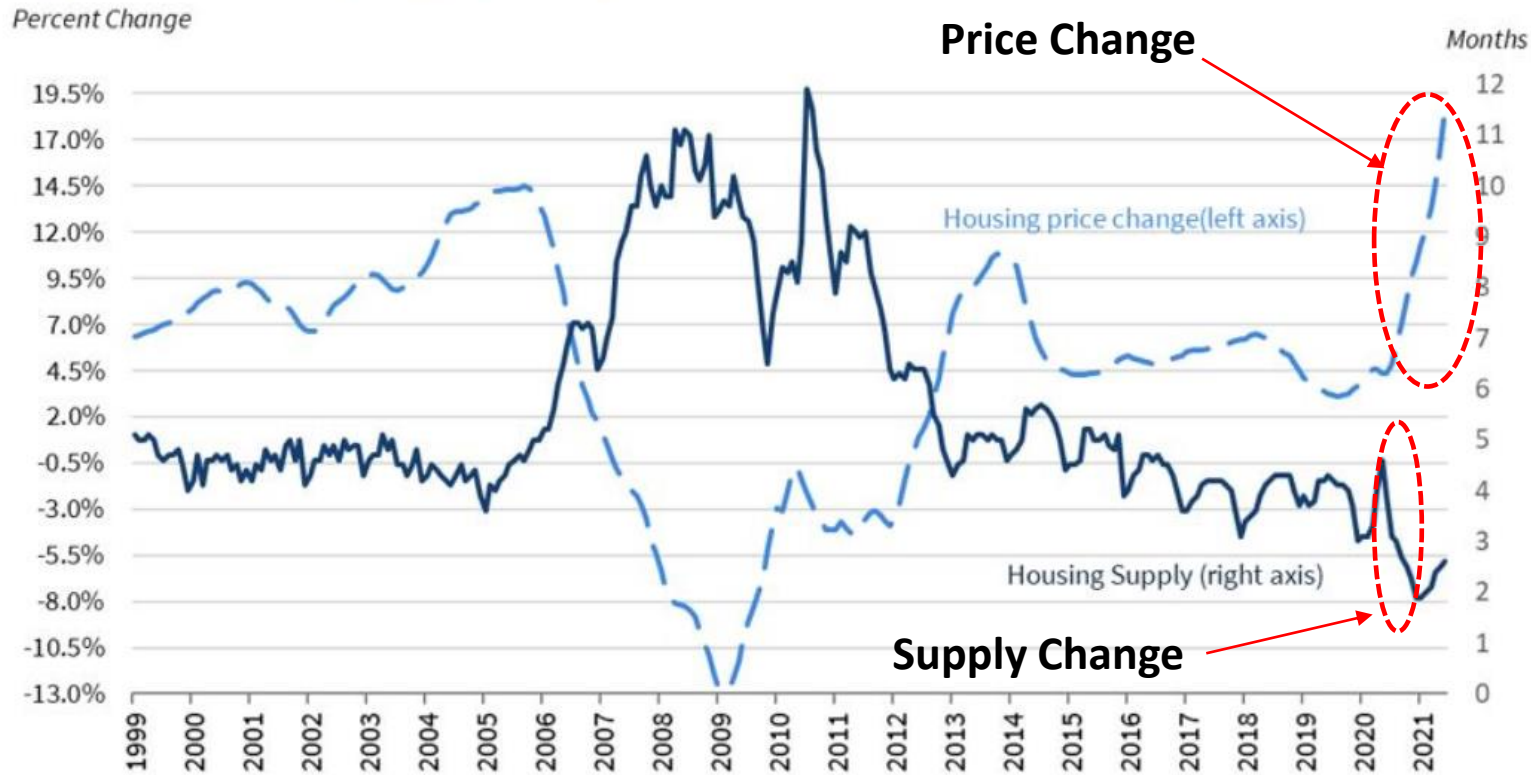
Maricopa & Pinal Total Listings	12,024
Listings at/or Below Median Sales Price	4,202 (38%)
Listings at/or Below \$350,000	2,408 (20%)
Listings at/or Below \$300,000	1,469 (12%)

Source: ARMLS April 29, 2023

U.S. Housing Supply v. Prices



Figure 1: Housing supply and prices



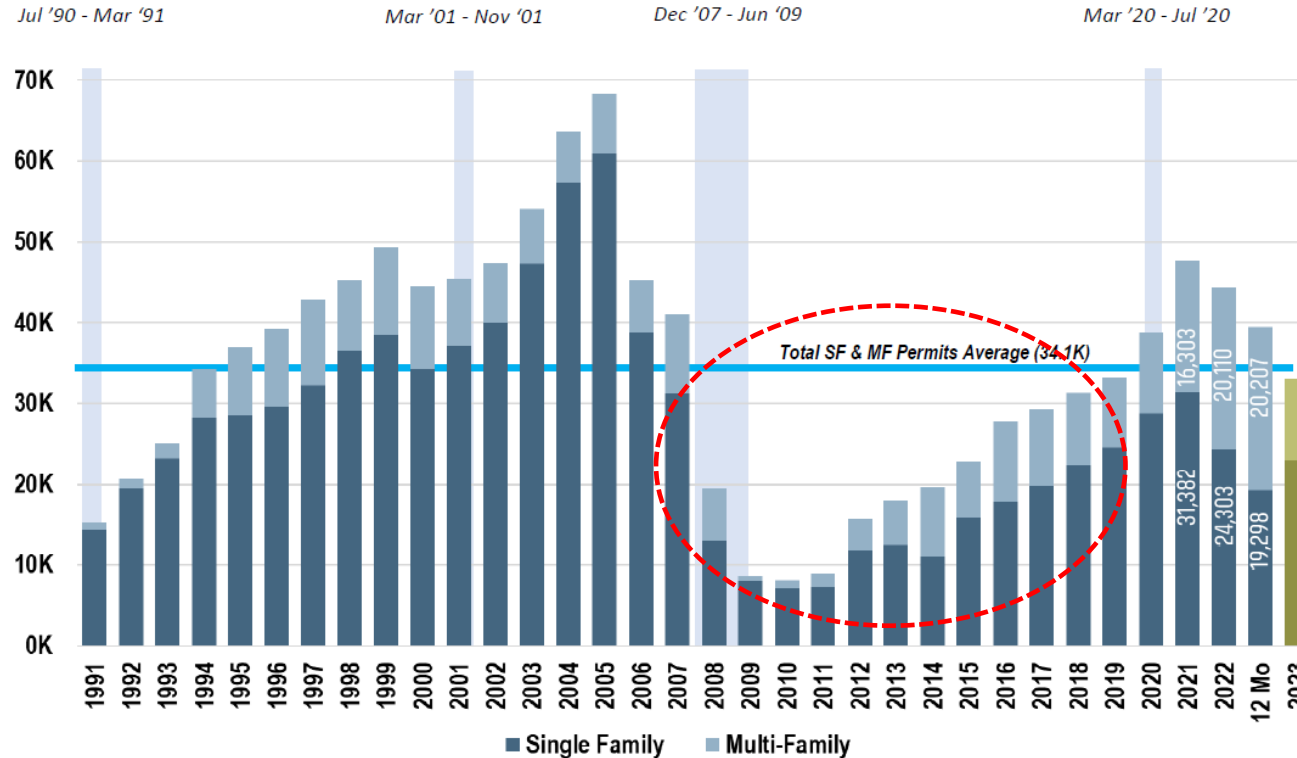
Source: Federal Reserve Economic Data; National Association of Realtors Monthly Supply Data

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

Single & Multi-Family Building Permits 2022-23



Phoenix MSA Permit Data

Type	Aug-23	Aug-22	YOY Change (M)	YTD Aug 23*	YTD Aug 22*	YOY Change (YTD)
Single-Family	2,633	2,060	28%	15,889	21,886	-27.4%
Multifamily (5+)	934	1,197	-22%	11,326	10,855	4.3%
Total**	3,759	3,368	12%	28,577	34,040	-16.0%

* YTD data comparisons through August

** Total also includes 2,3,4-plex

New Inventory YOY



New & Existing Homes Sales



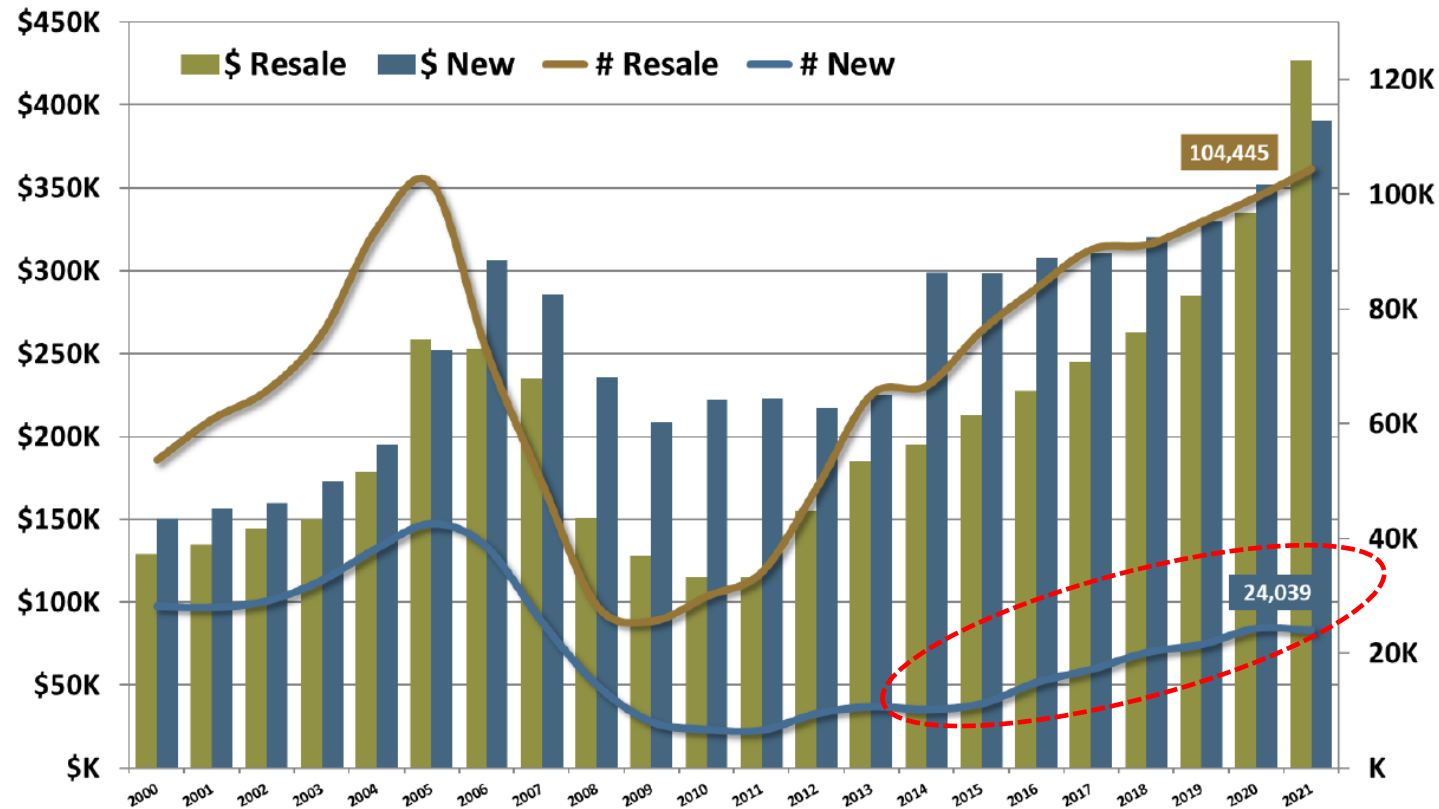
35% of New Home Sales
\$350K to \$400K

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

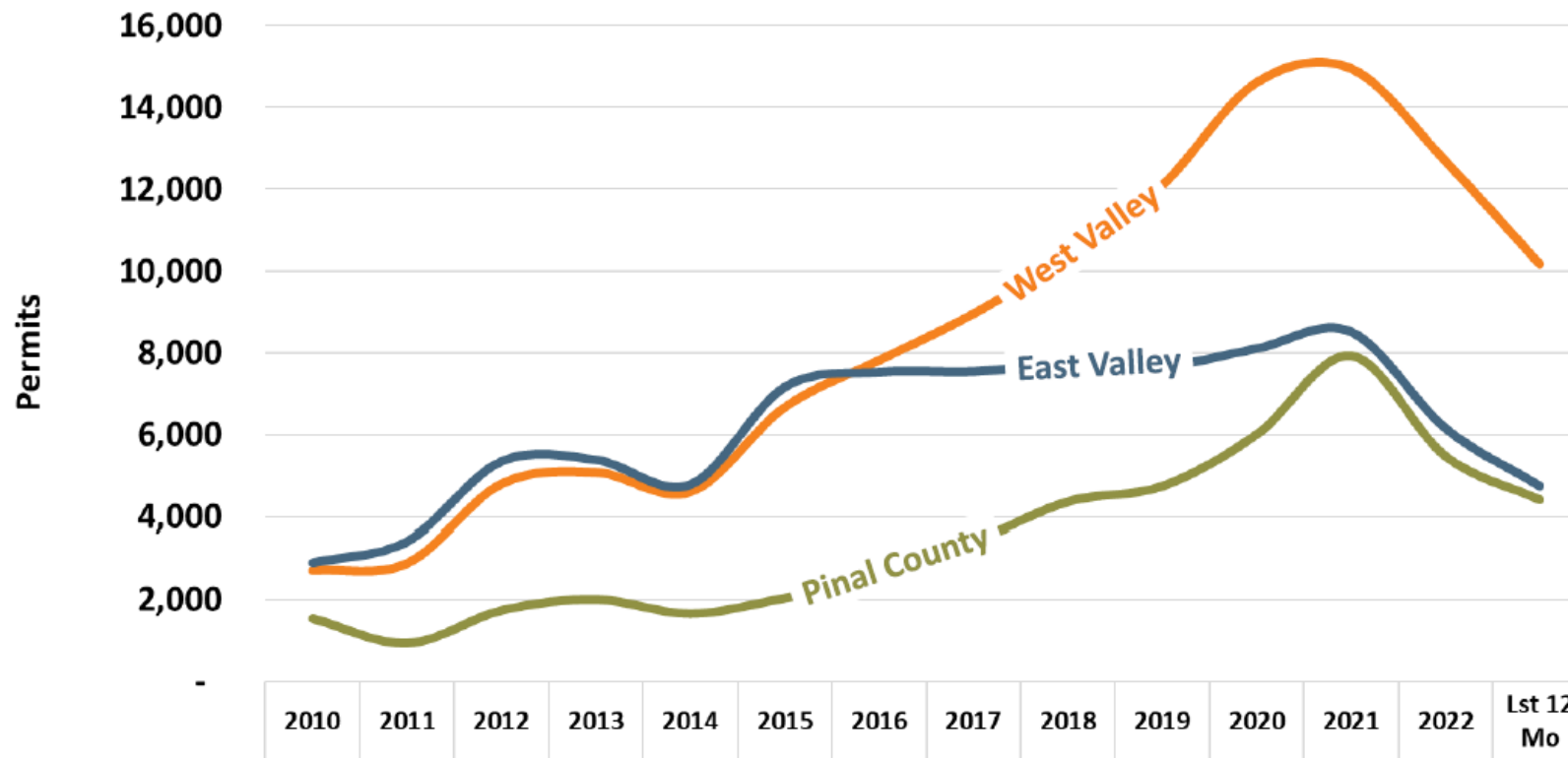
New Home
Median Price \$420,505
Median Size 2,260 sqft
\$186/sqft
12 Mo Volume 24,039

Development Pattern - Single Family Housing



Metro Phoenix Single-Family Permits by Region

March 2023



**Shifting
Development
Pattern**

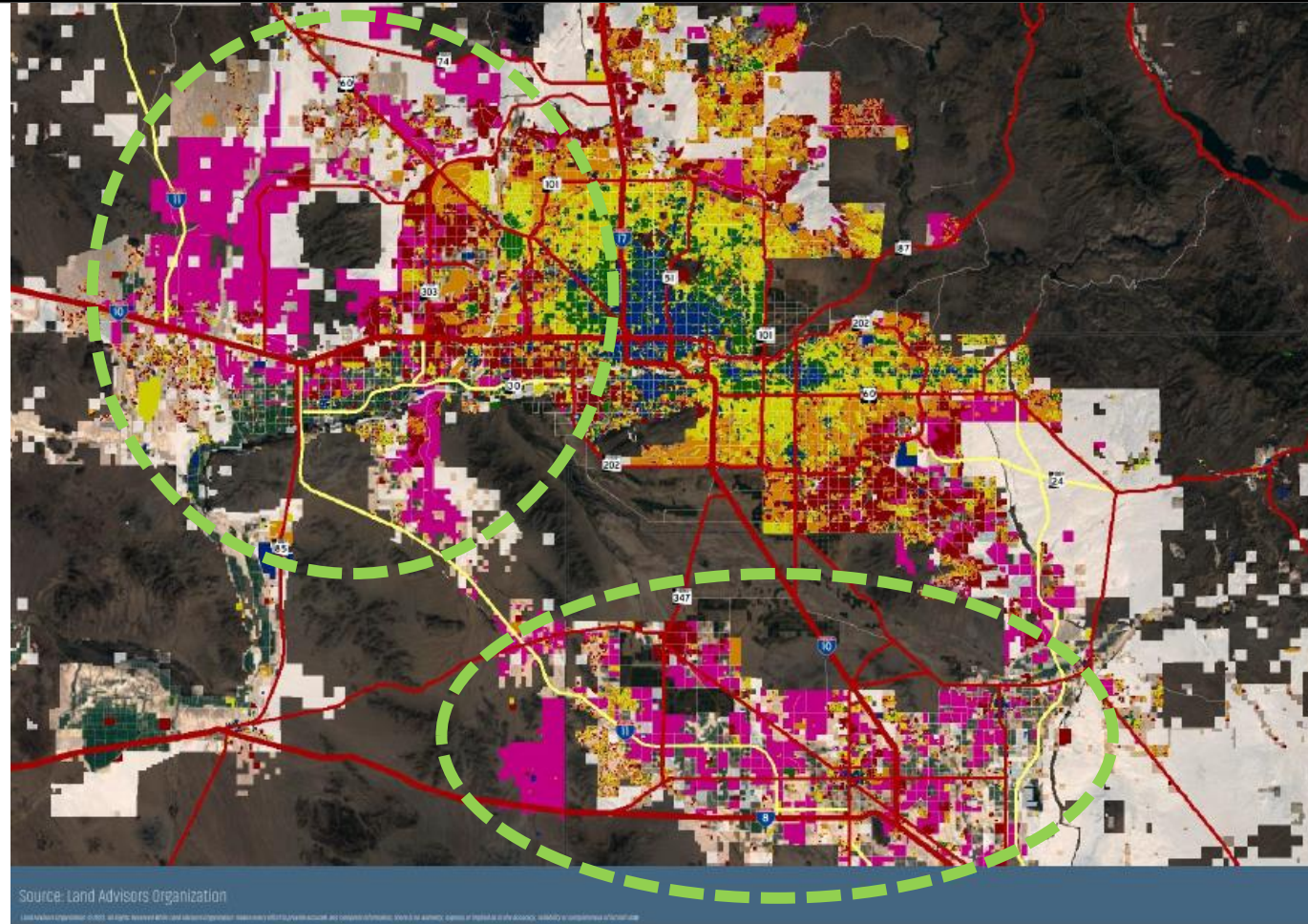
Growth Pattern



2023-2040

**Growth -
West and South**

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



Phoenix 1st Qtr 2023

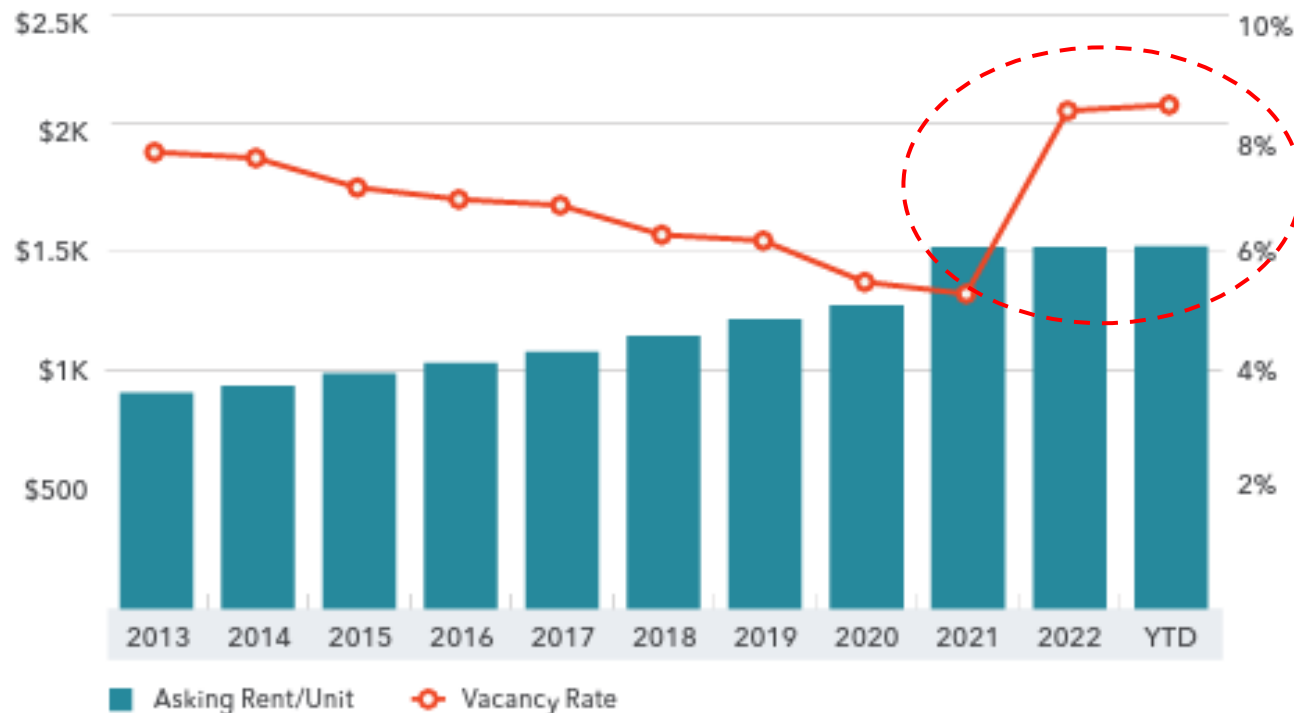
Metro Phoenix Developed Land

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	

Multi-Family Market



AVERAGE ASKING RENT/UNIT & VACANCY RATE



Avg. Asking Rents

1Q/2022 \$1,544

4Q/2022 \$1,522

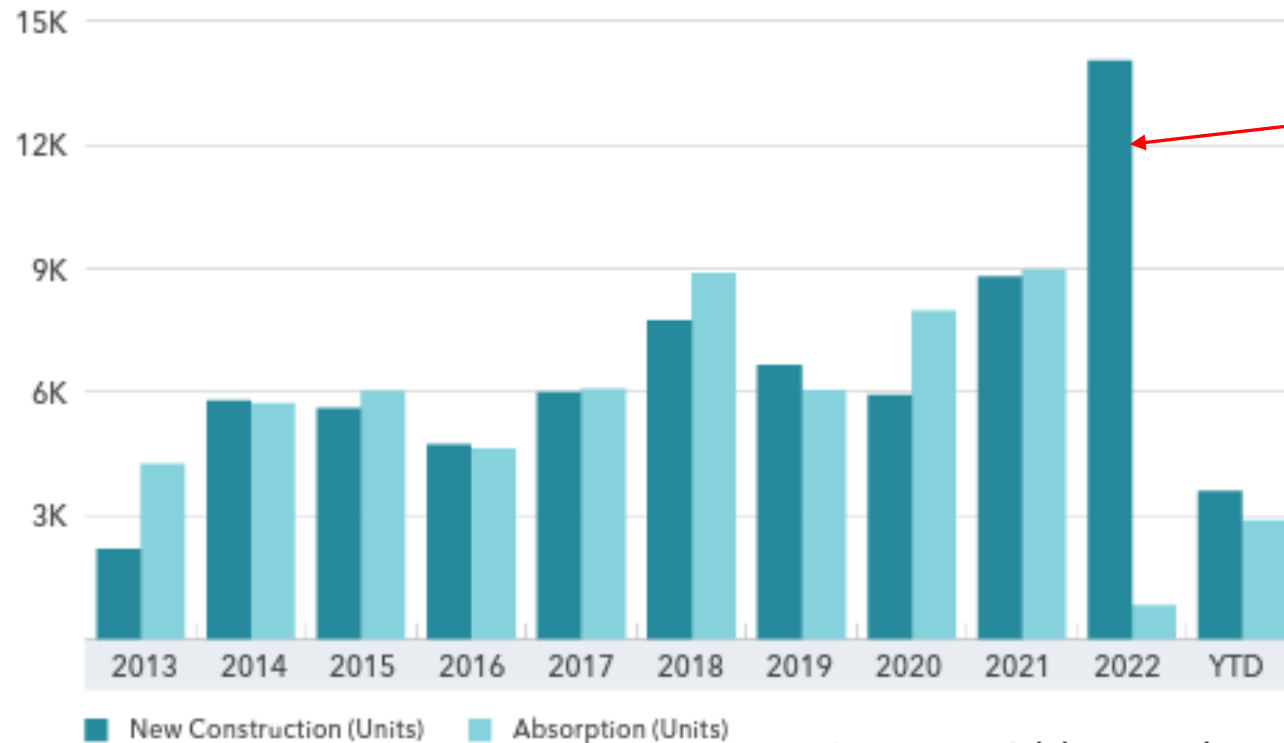
1Q/2023 \$1,525

Source: Kidder Mathews

Multi-Family Market



NEW CONSTRUCTION & ABSORPTION



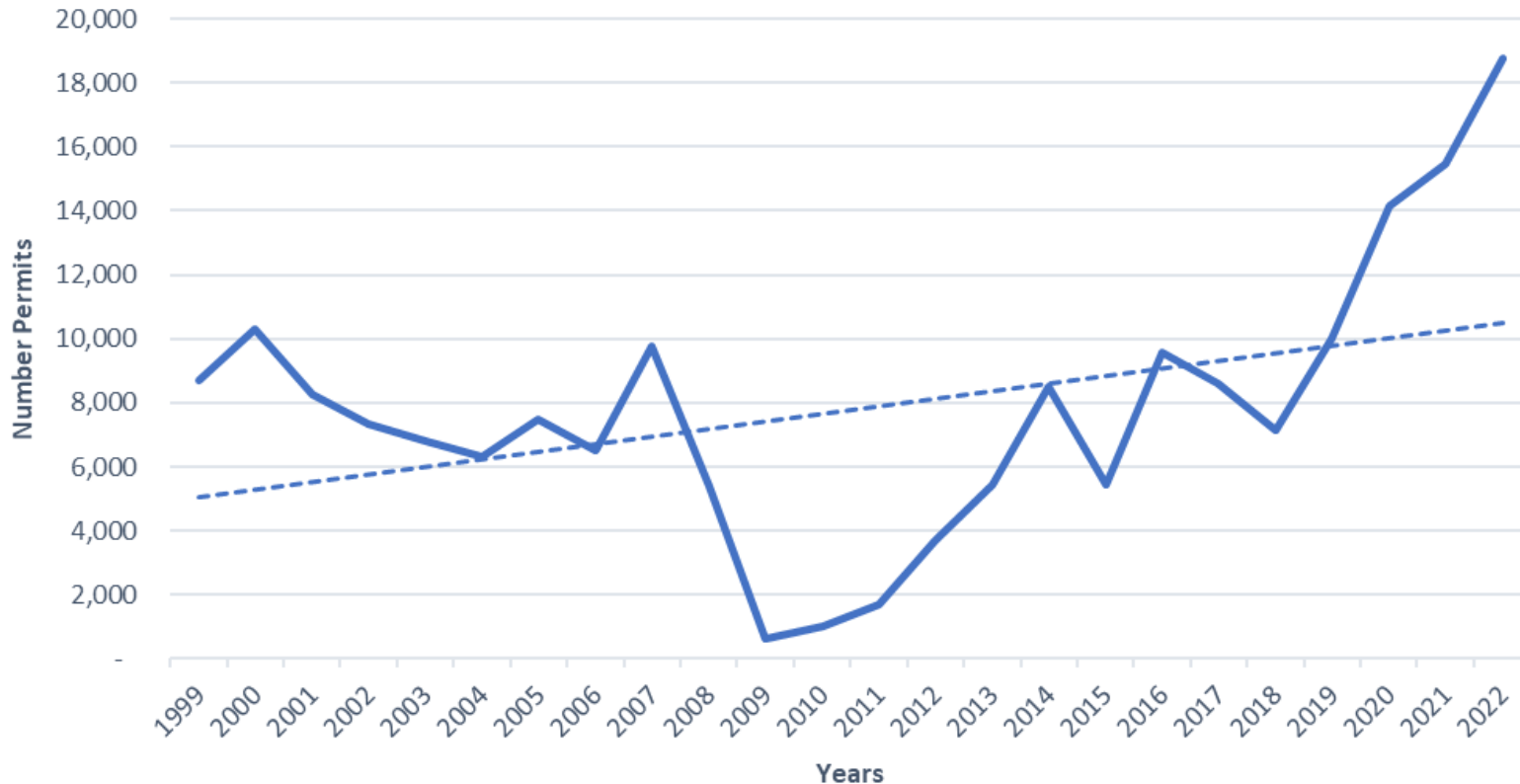
New Construction
far exceeded
absorption

Source: Kidder Mathews

Multi-Family Market



Multi-Family Building Permits Metro Phoenix



Avg. 1999-2018

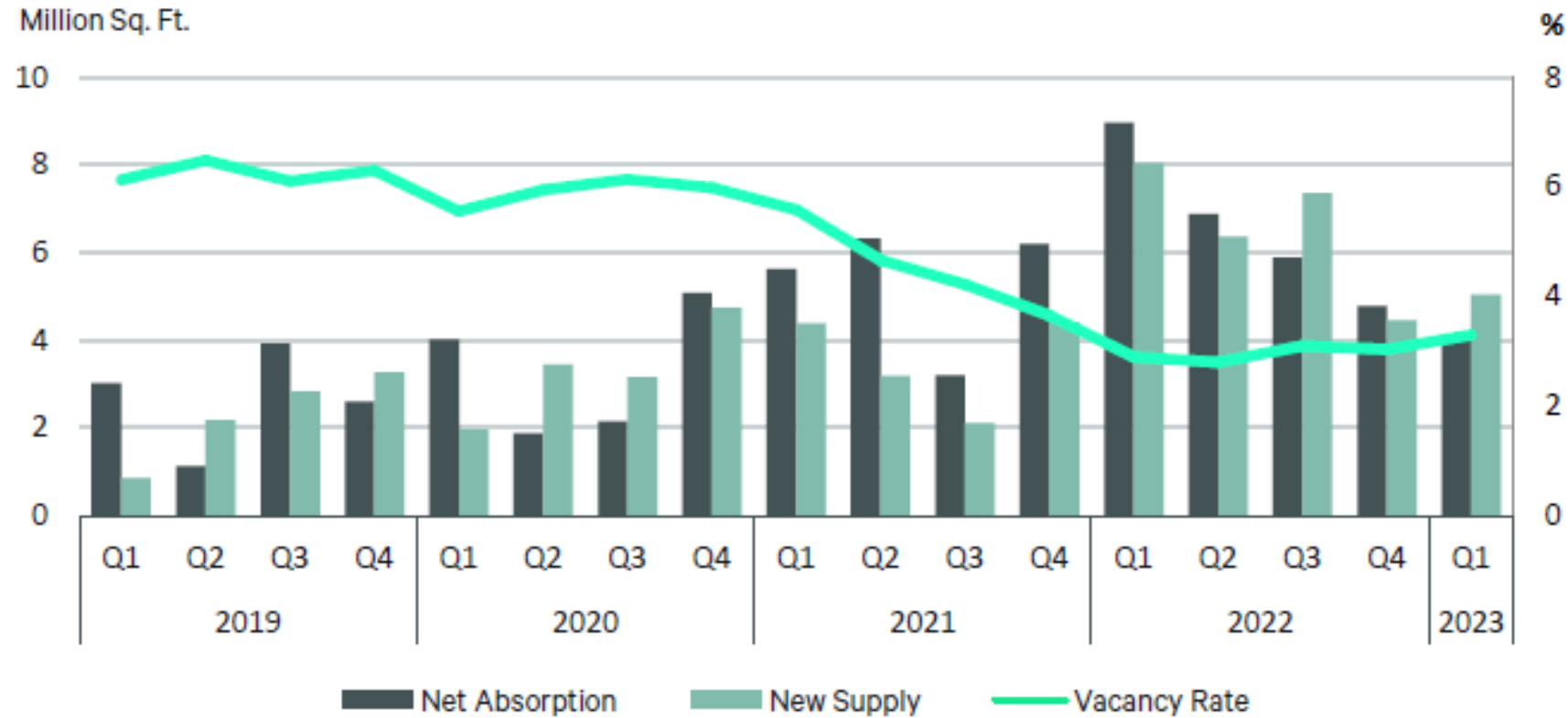
6,424

Avg. 2019-2022

14,585

Source: Northmarq Capital

Industrial Market



Source: CBRE Research, Q1 2023.

Industrial Market



Past two years, demand outpaced construction led to historically low vacancy rates.

This will shift in 2023 with new supply greater than absorption, resulting in rise in vacancy rates.

Slower construction will help stabilize the market.

Phoenix's strong economic fundamentals remain in demand and will continue to attract users from across the globe.

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

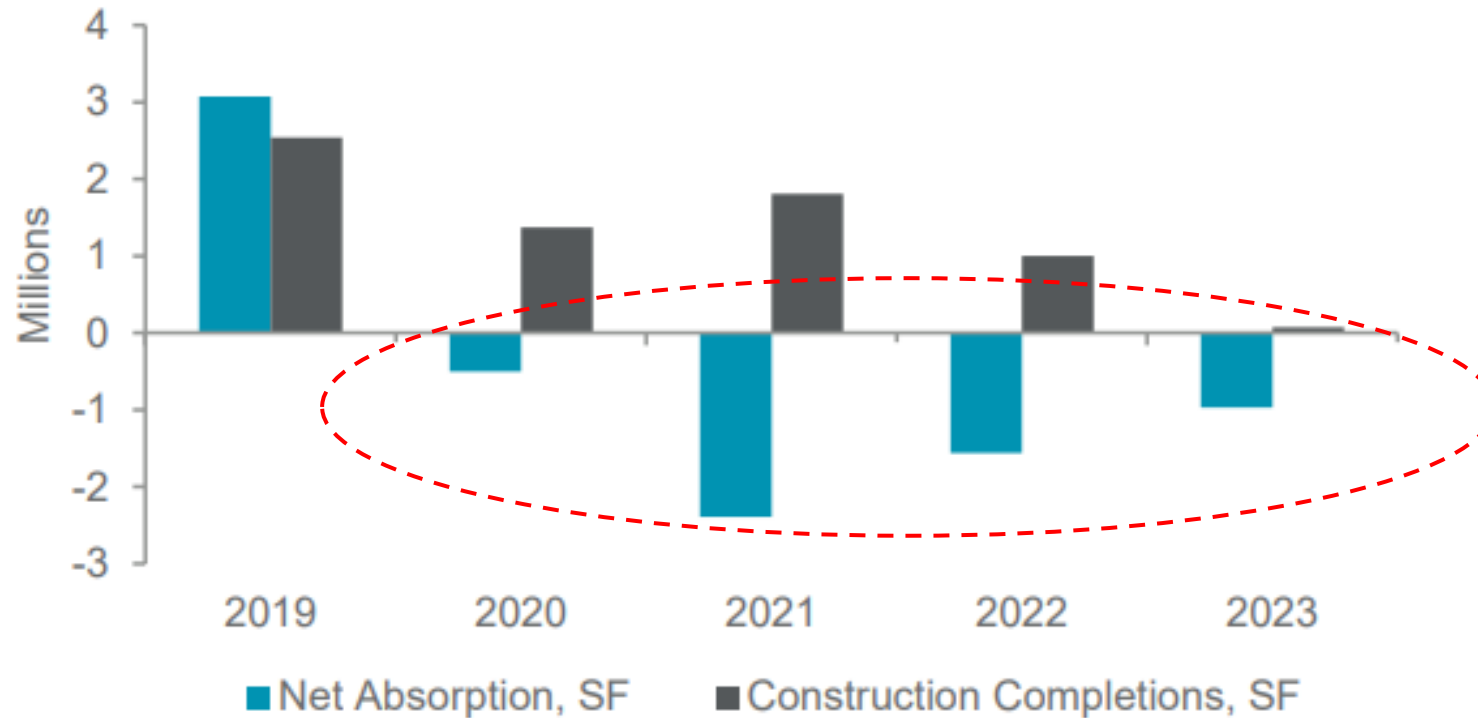
Entitled/Improved industrial land - \$12-\$15psf (Vegas/SLC @ \$30psf....SoCal @ \$60 to \$150psf)

Source: JLL Tony Lydon

Office Market



SPACE DEMAND / DELIVERIES



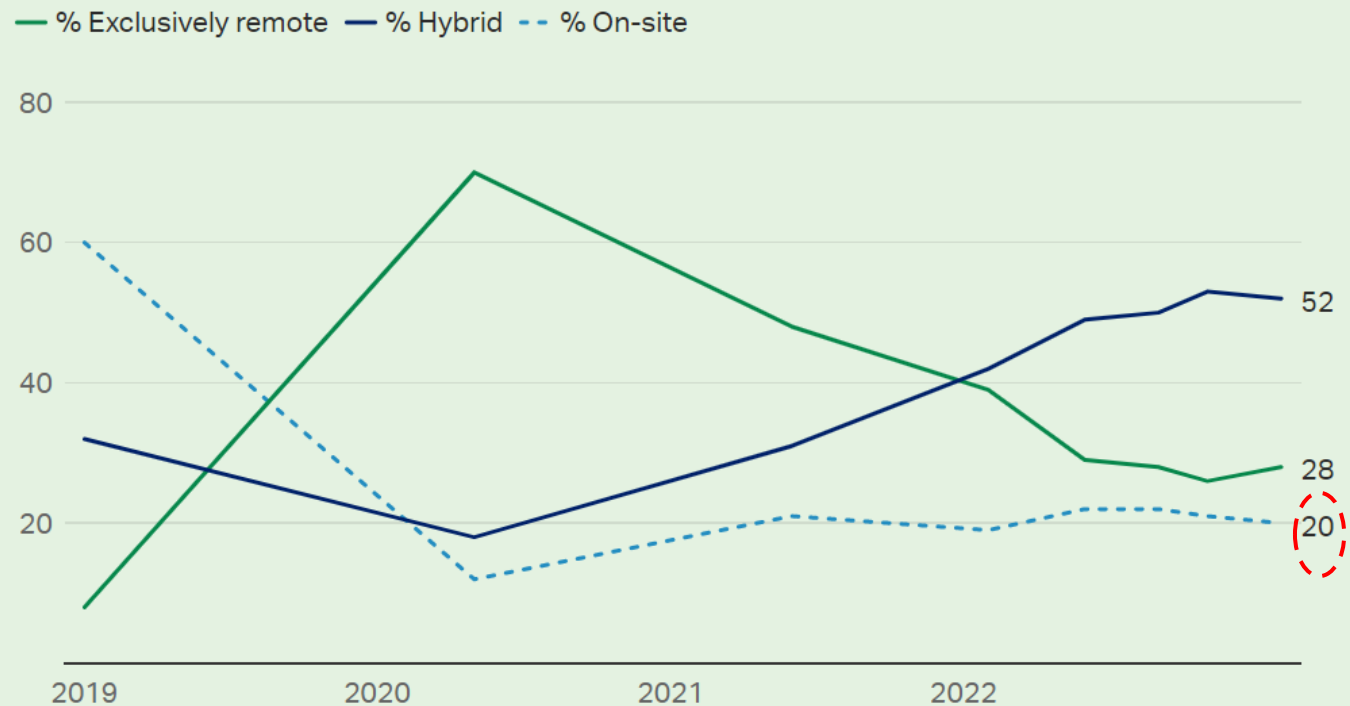
Source: Cushman Wakefield

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

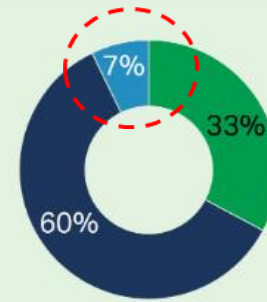
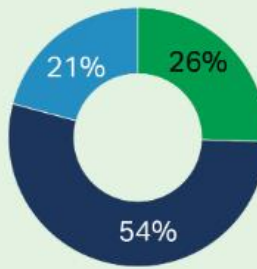
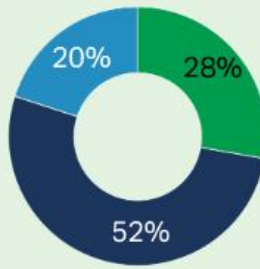
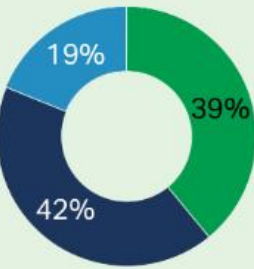
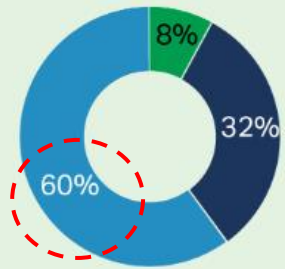
Pre-Pandemic
2019

February
2022

February
2023

Expected
Future Location
(as of Feb. 2023)

Preferred Location
(as of Feb. 2023)



Note: Due to rounding, totals may not sum to 100%.

GALLUP®

60% Prefer Hybrid

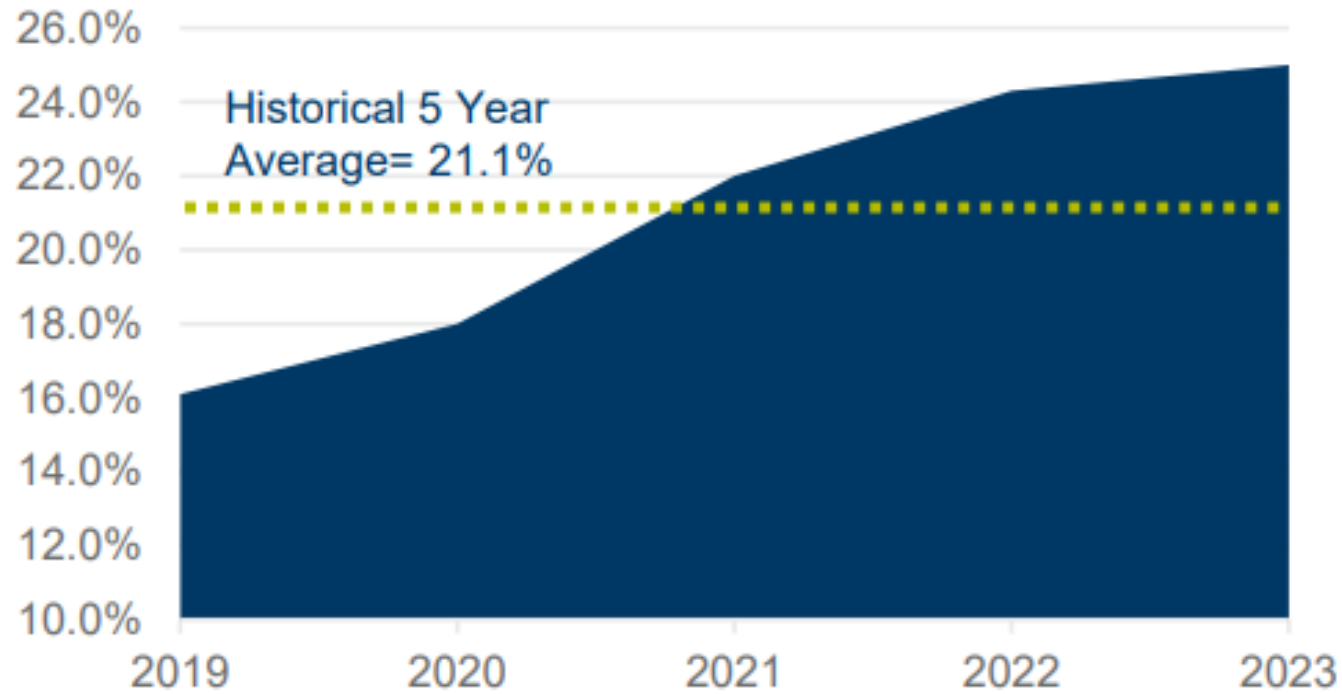
33% Prefer Remote

-53% Decline in Preference for on-site

Office Market



VACANCY RATE

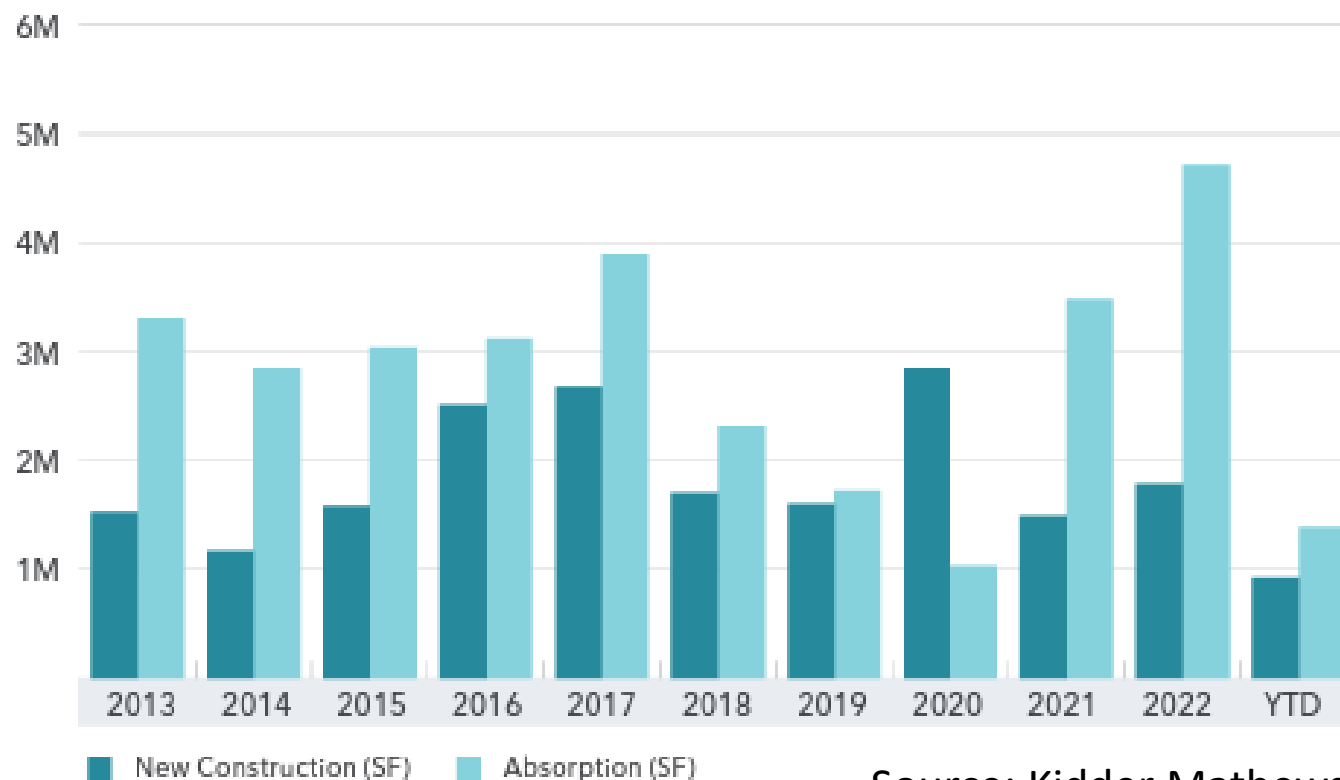


Source: Cushman Wakefield

Retail



NEW CONSTRUCTION & ABSORPTION



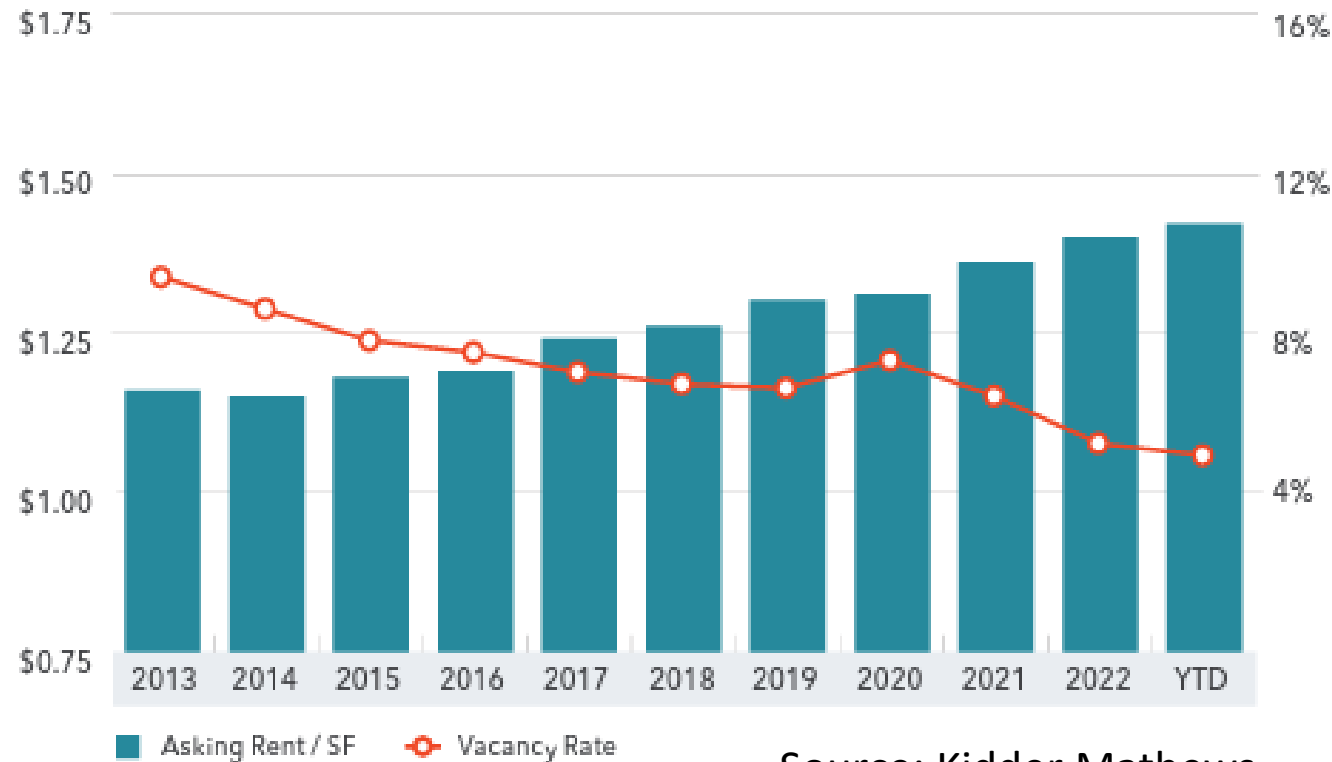
Source: Kidder Mathews

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

Retail



AVERAGE ASKING RENT/SF & VACANCY RATE



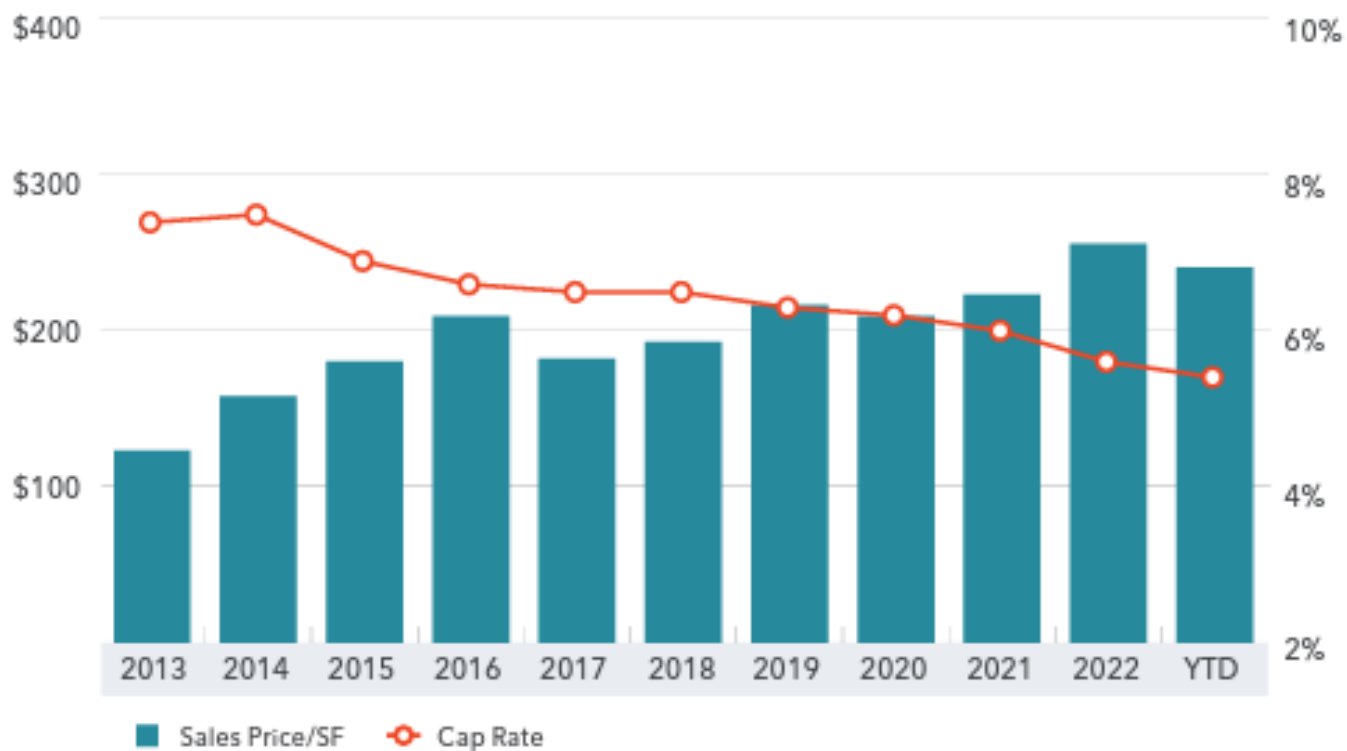
Source: Kidder Mathews

**Vacancy Rates
dropped and
rents increased**

Retail



AVERAGE SALES PRICE/SF & CAP RATES



**Cap Rates
dropped and
Values increased**

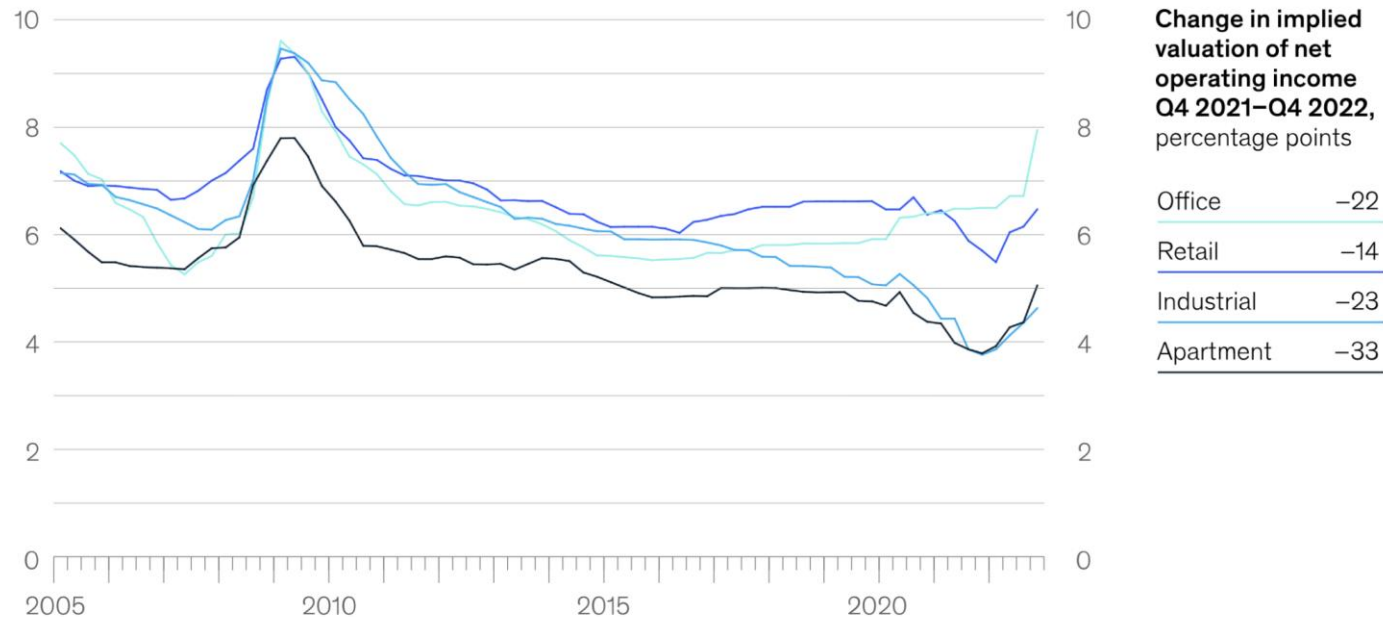
Source: Kidder Mathews

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**

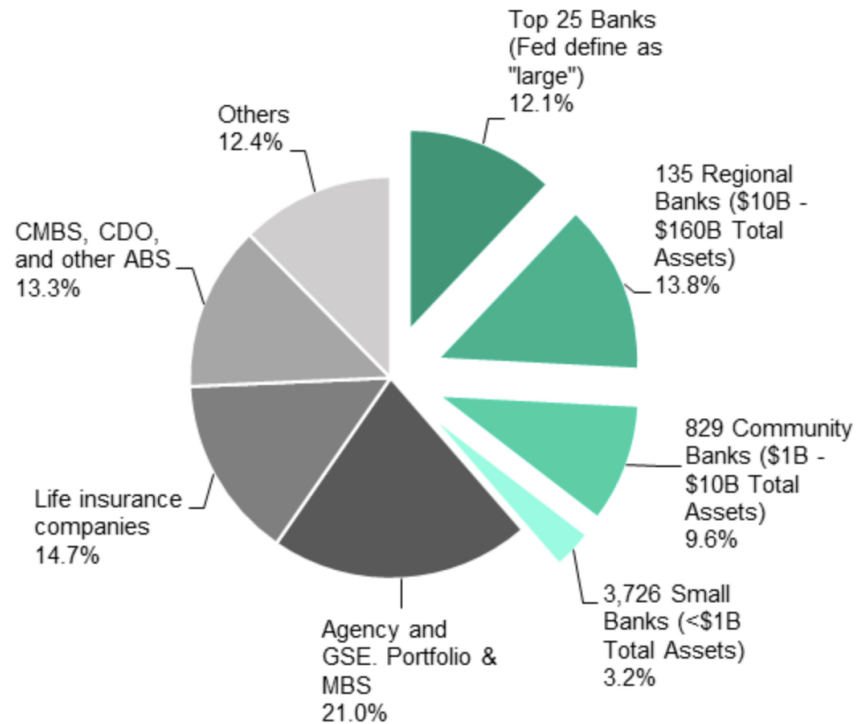
**New projects &
refinance don't
pencil**

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

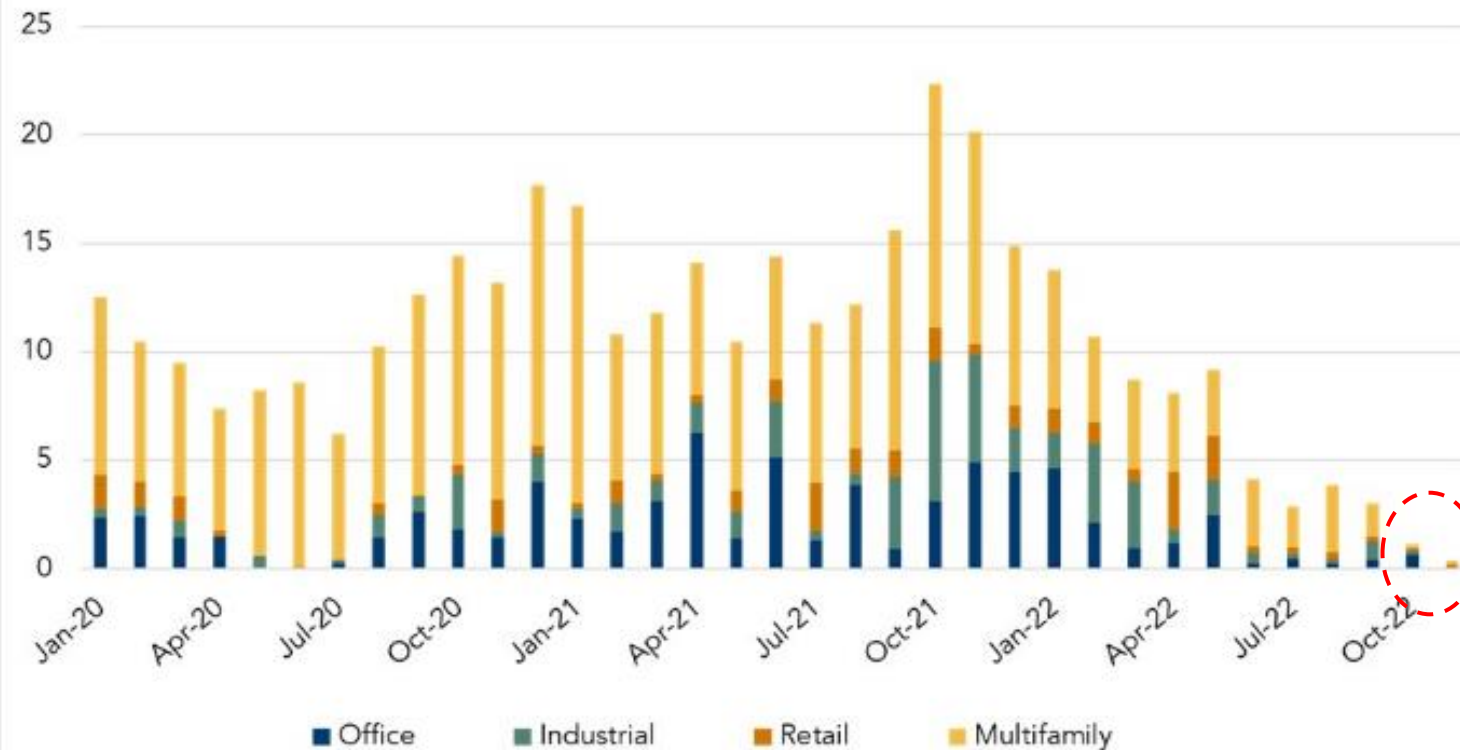
- Loans originated 2018 – 2020 Mature
- Diverse Exposure – 38.7% Banks
- Concern is Community Banks
- Credit issues nation wide Republic Bank didn't help)

CMBS Origination Volume



CMBS Originations Have Dried Up for All Asset Classes

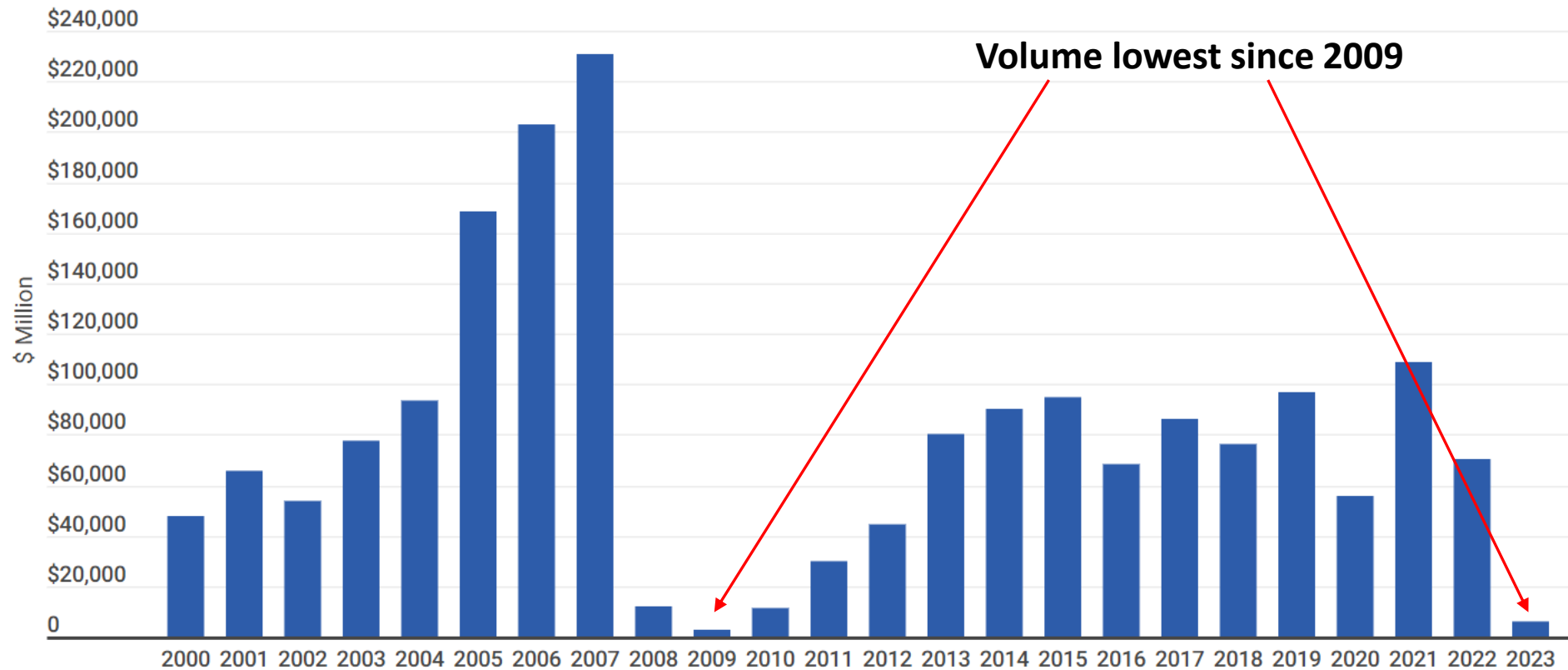
Monthly CMBS Origination Volume, USD Bn.



Source: CoStar, Nov. 2022

CMBS conduit lending shrank to 3.8 percent of non-agency loan volume in Q2 2023, down from 15.7 percent in Q1 2023. Industry-wide CMBS origination reached \$16.5 billion in H1 2023, down from \$49.9 billion in H1 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.

Industrial Q2/23



Net absorption hit 1.5 million sq. ft. in Q2 2023.

Year-over-year, the vacancy rate increased 10 basis points (bps) to 3.4%.

Fifteen buildings were delivered for a total of 1.7 million sq. ft. in Q2 2023 - primarily speculative distribution in the Southwest and Southeast Valleys.

Construction activity increased in Q2 2023 with 52.4 million sq. ft. under construction, which reached a new high for construction product underway.

Commercial Lending Q2/23



CBRE Lending Momentum Index, tracks pace of CBRE-originated commercial loan closings in the United States, declined by 5.4 percent from Q1 2023 *and* 52.2 percent when YOY.

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.

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.