Taking Away the Punch Bowl…

Greater Phoenix Chamber's Economic Outlook 2023

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Presented By:
Elliott Pollack
CEO, Elliott D. Pollack & Company

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"The Federal Reserve…is in the position of the chaperone who has order the punch bowl removed just when the party was really warming up."

William McChesney Martin, Chairman, Federal Reserve System

October 1955

The Fed is now removing the punch bowl because of high inflation.

It will take a while and it will be painful.

More on this later.

The Party is Over

Where do we stand?

In an environment such as the one we are currently in where the economy is in under great stress and with fiscal and monetary policies in relatively uncharted waters the probability of something going wrong increases considerably.

This period can be summed up in one word

<u>stagflation</u>

Stagflation

- **STAGFLATION** – inflation and stagnant growth.
- This is where we are now.
- Think 1970's and early 1980's in the U.S. (as well as banana republics when inflation was left unchecked).
- High inflation is a tax on economic growth. So, growth slows.
- Real incomes decline. So, growth slows.
- Impact generally falls on all but mainly on lower and middle income households. So, growth slows.
- Latest tax increases will push impacts onto upper middle class as well. So, growth slows.
- Hampers ability of consumers and businesses to plan and/or invest long term. So, growth slows.

Are we in a Recession?

NOT YET BUT PROBABLY SOON

- NBER's Definition – A recession involves a significant decline in economic activity that is spread across the economy and lasts more than a few months.
- It is normally visible in real GDP, real income, employment, industrial production and wholesale/retail trade and there are other signs/indicators as well.

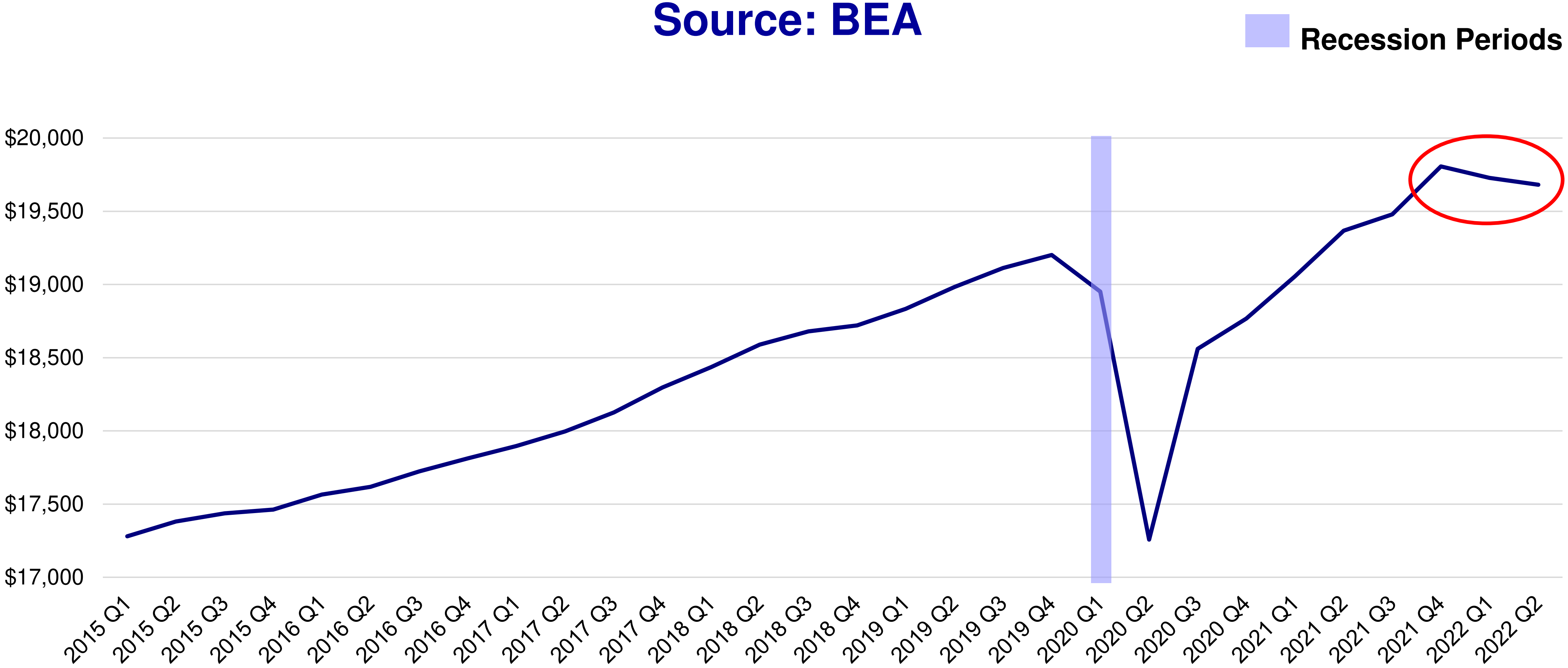
High Interest Rates

- High interest rates affect interest sensitive sectors the most. Other sectors are affected by the ripple effects of what goes on in interest sensitive sectors.
- The most interest sensitive sectors include:
  - Housing – especially for-sale housing
  - Commercial construction
  - Consumer durables spending such as autos
  - Business spending on plant and equipment as demand goes down and hurdle rates of return go up.
- High interest rates incent savings and less spending.
- Low Interest rates incent lending and spending.


WRONG
WAY

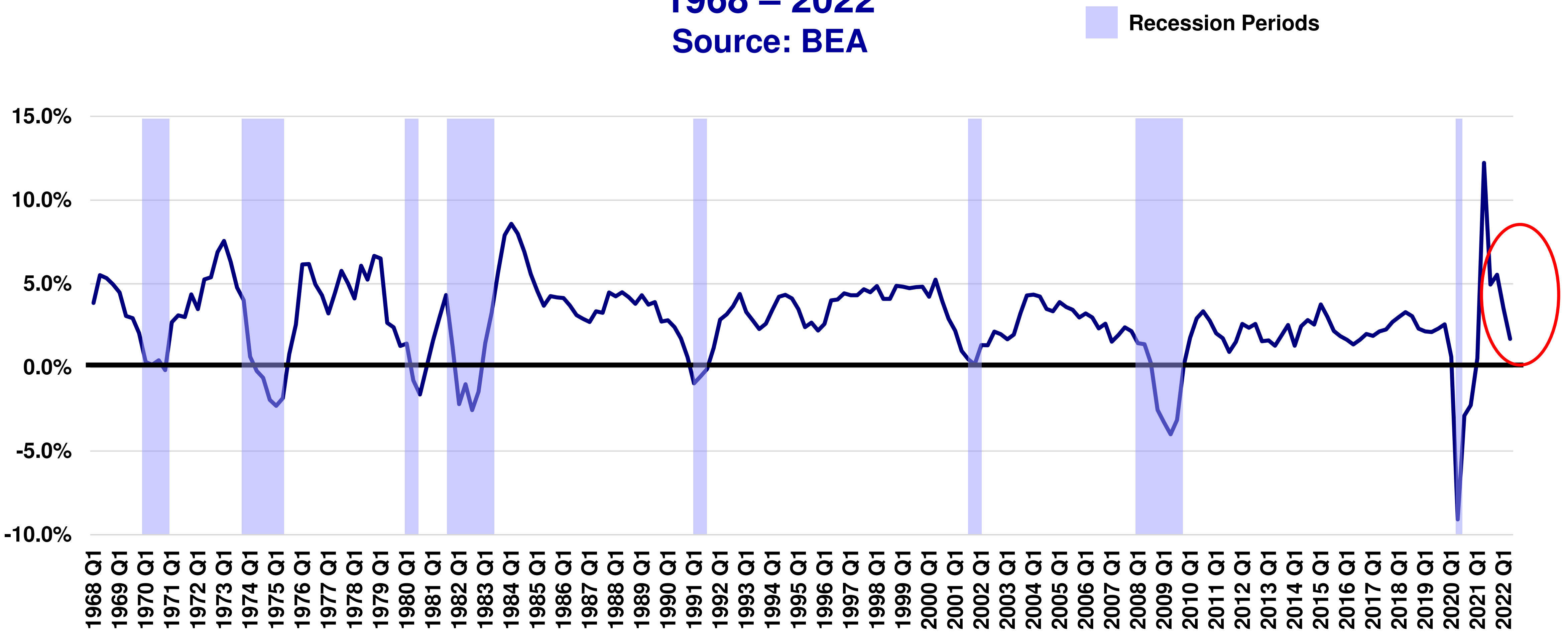
Real GDP (billions)

Source: BEA



Real GDP

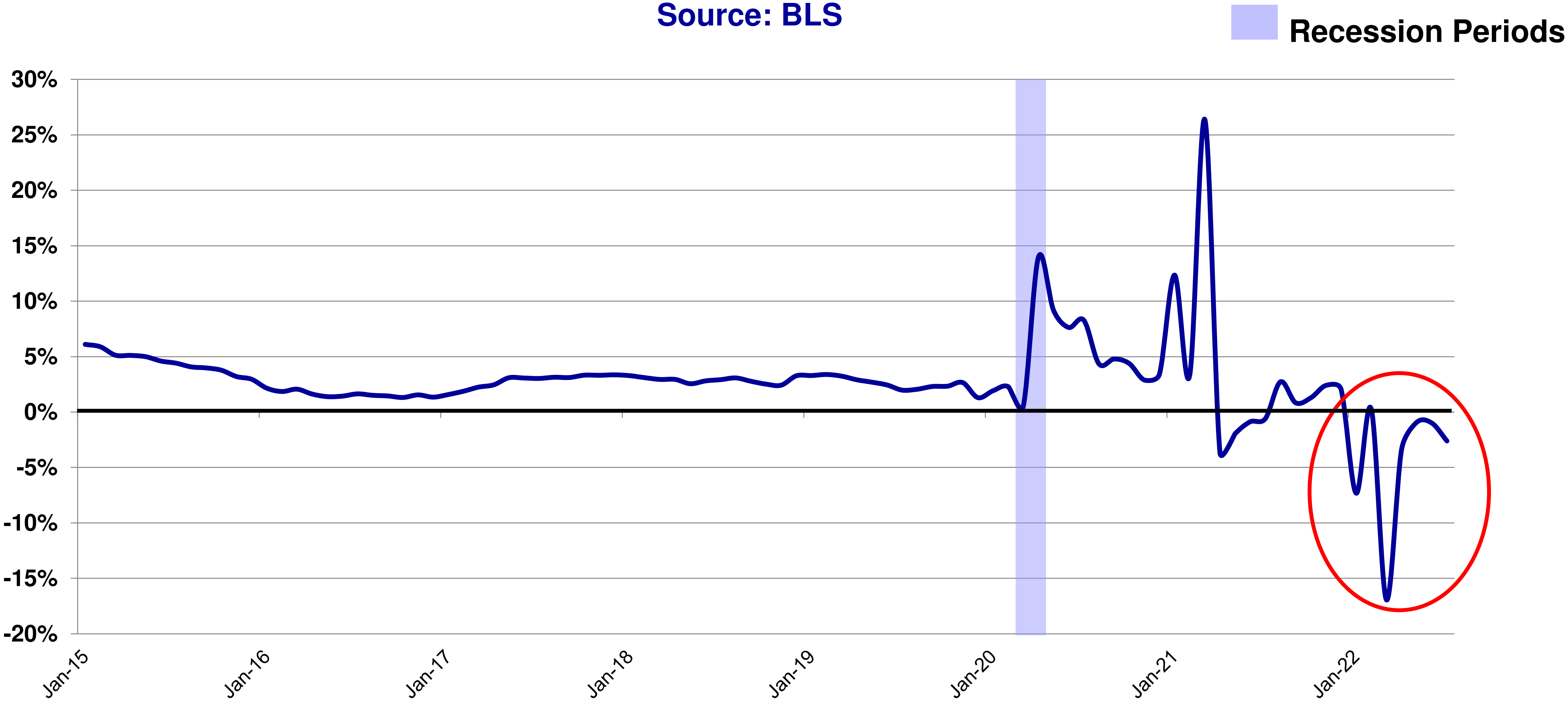
% Change Y/Y
1968 – 2022
Source: BEA



Real Personal Income

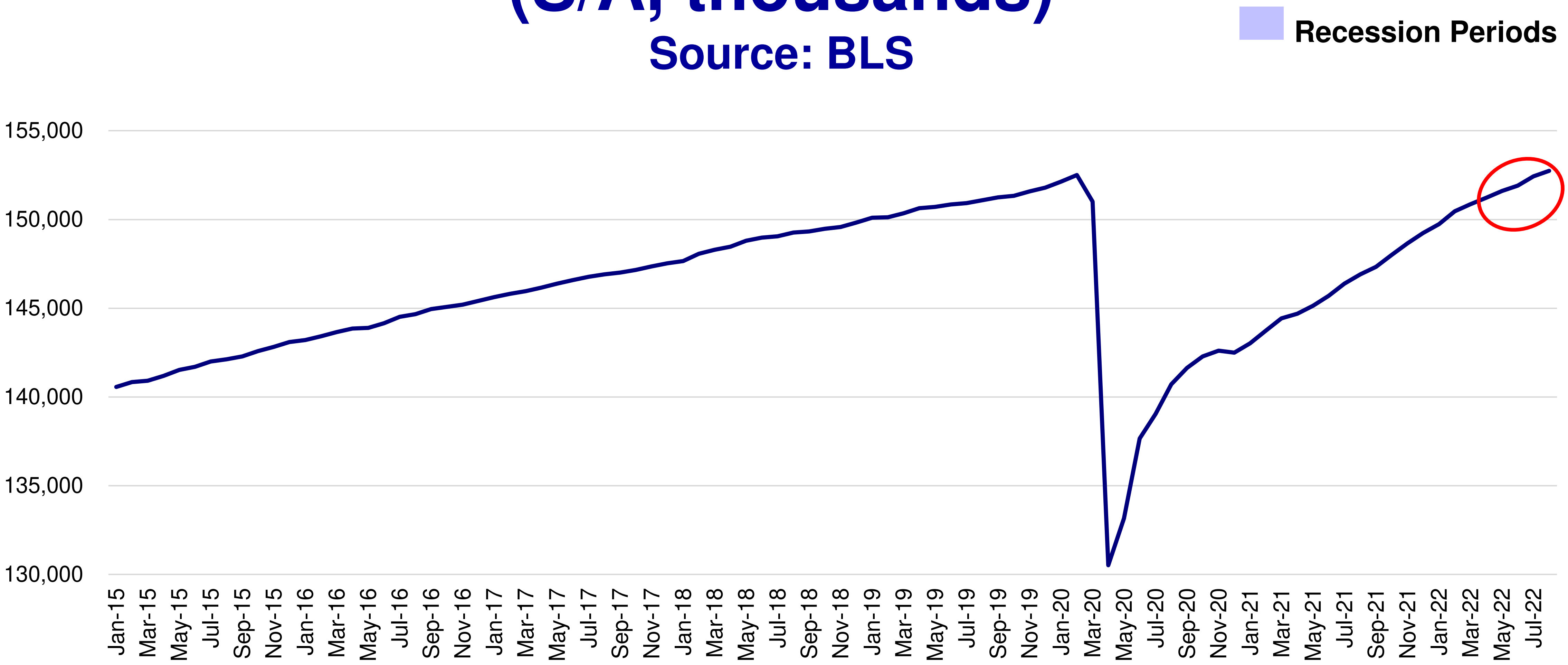
% Change Y/Y

Source: BLS



Total Non-farm Jobs (S/A, thousands)

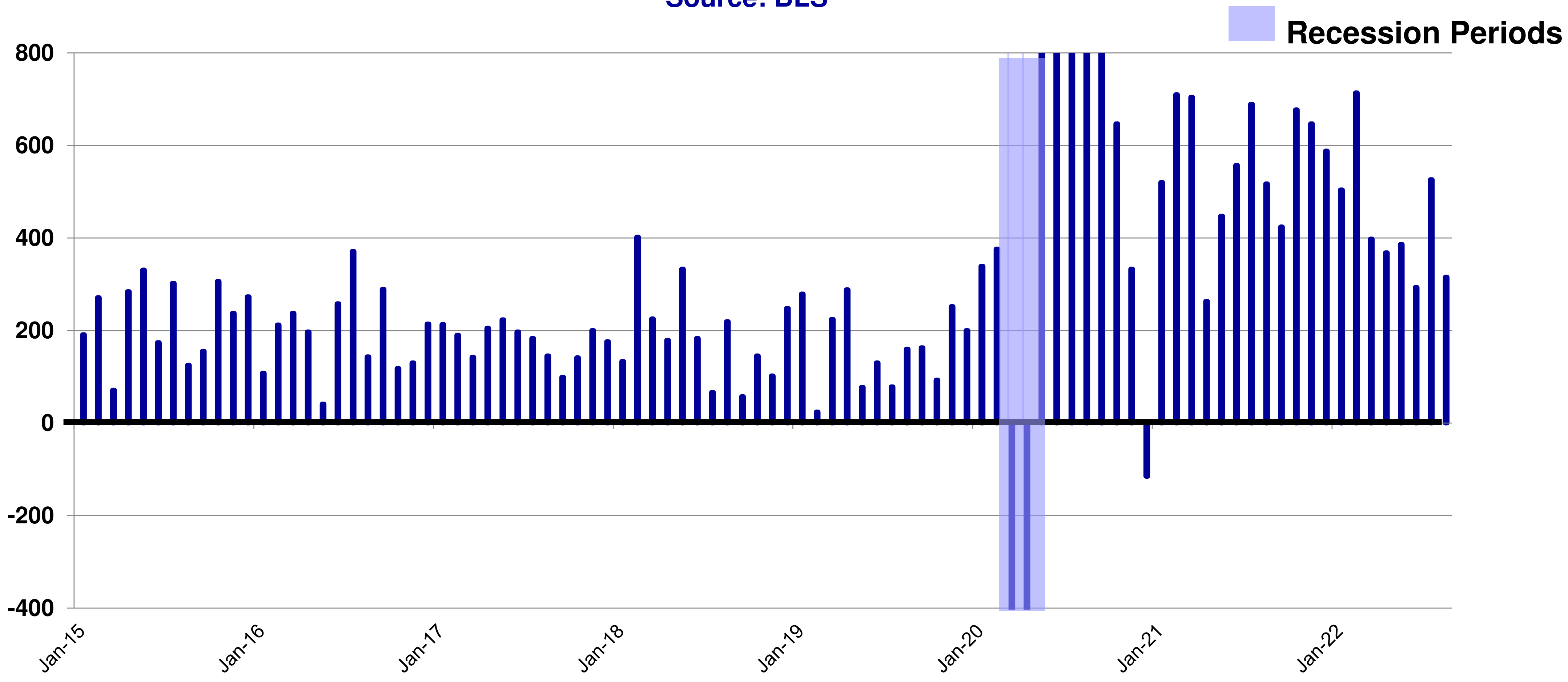
Source: BLS



Total Non-farm Employment

Net Change

Source: BLS



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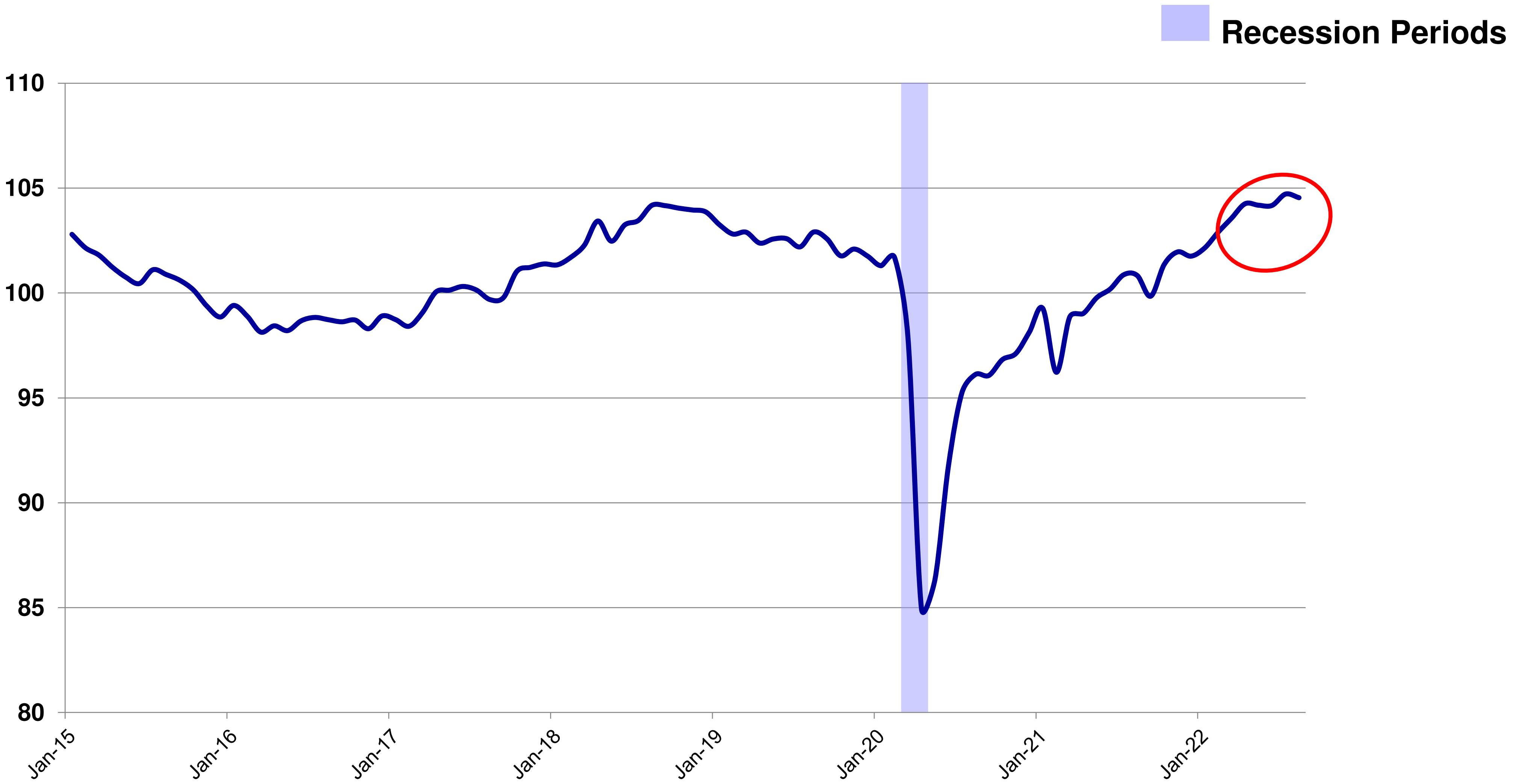
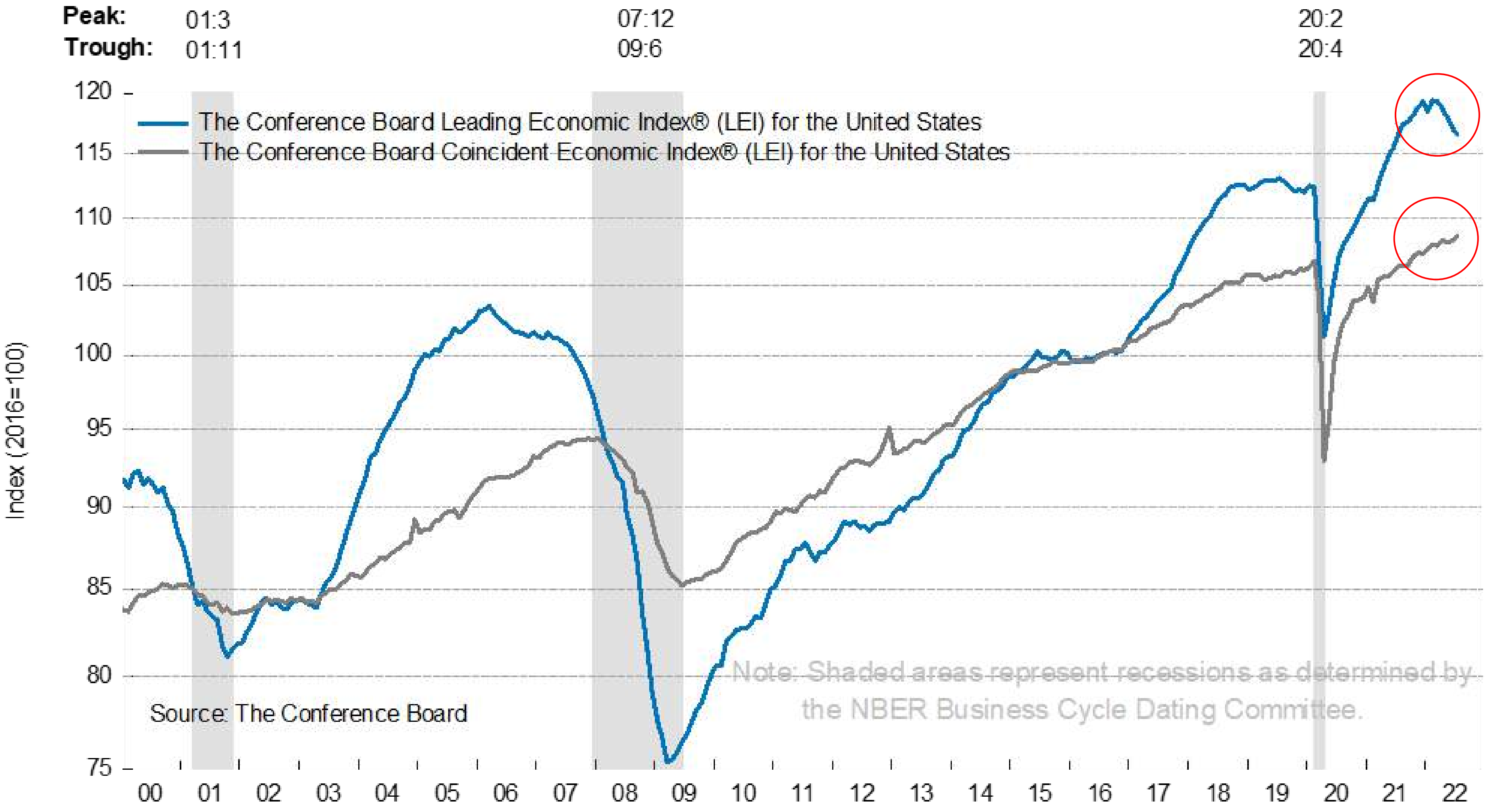
Industrial Production

2015 – 2022*

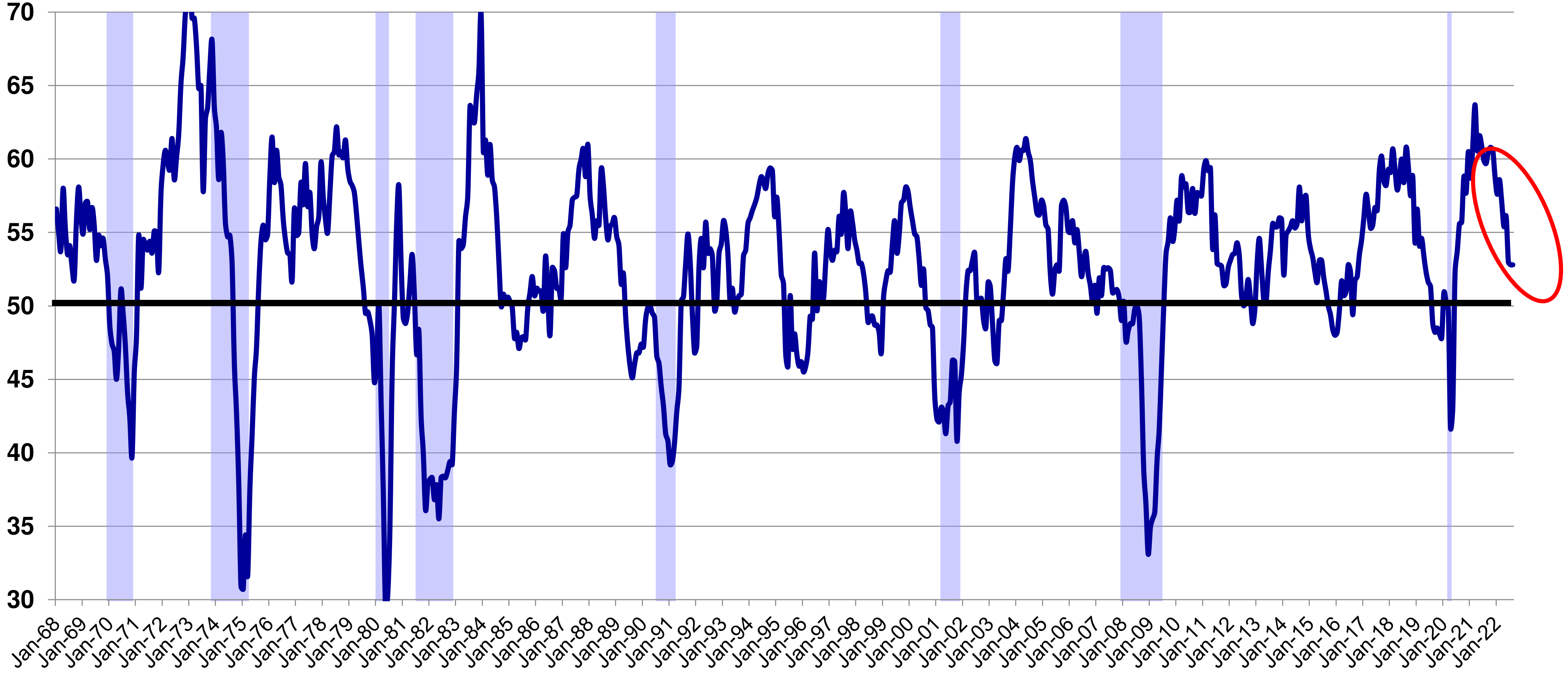
Source: Board of Governors of the Federal Reserve System (US)



Leading Indicators



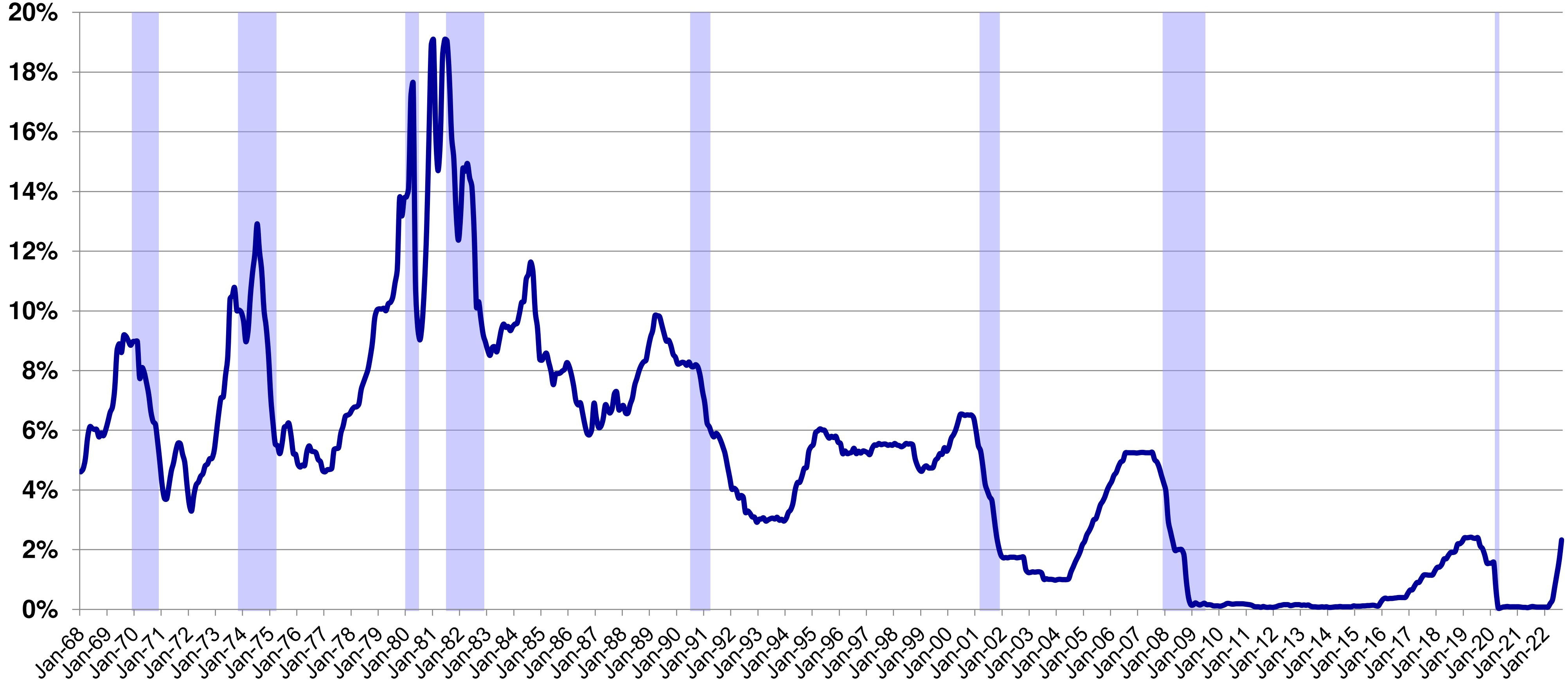
ISM's Manufacturing PMI
1968 – 2022*
Source: ISM



*Data as released

Federal Funds Effective Rate
1968-2022

Source: BLS



Where We Stand?

- In this cycle, housing has taken the brunt of the hit despite the fact that there is a significant shortage of housing throughout the country.
- We have never tried to induce a recession when there 11 million unfilled jobs and only 6 million unemployed.
- We have never tried to induce a recession when the federal government created a situation where consumer have $2.5 trillion dollars more in cash than normal.
- **These things combined with supply chain issues will make the economy more difficult to slow than under normal circumstances.**
- **In addition, current Fed policy is not yet nearly as restrictive as the Fed is making out to be and fiscal policy is still too stimulative.**

Real GDP Forecast
Blue Chip Economic Indicators

Year	2022	2023
Average	1.6%	0.6%
Top 10	1.8%	1.8%
Bottom 10	1.1%	-0.9%

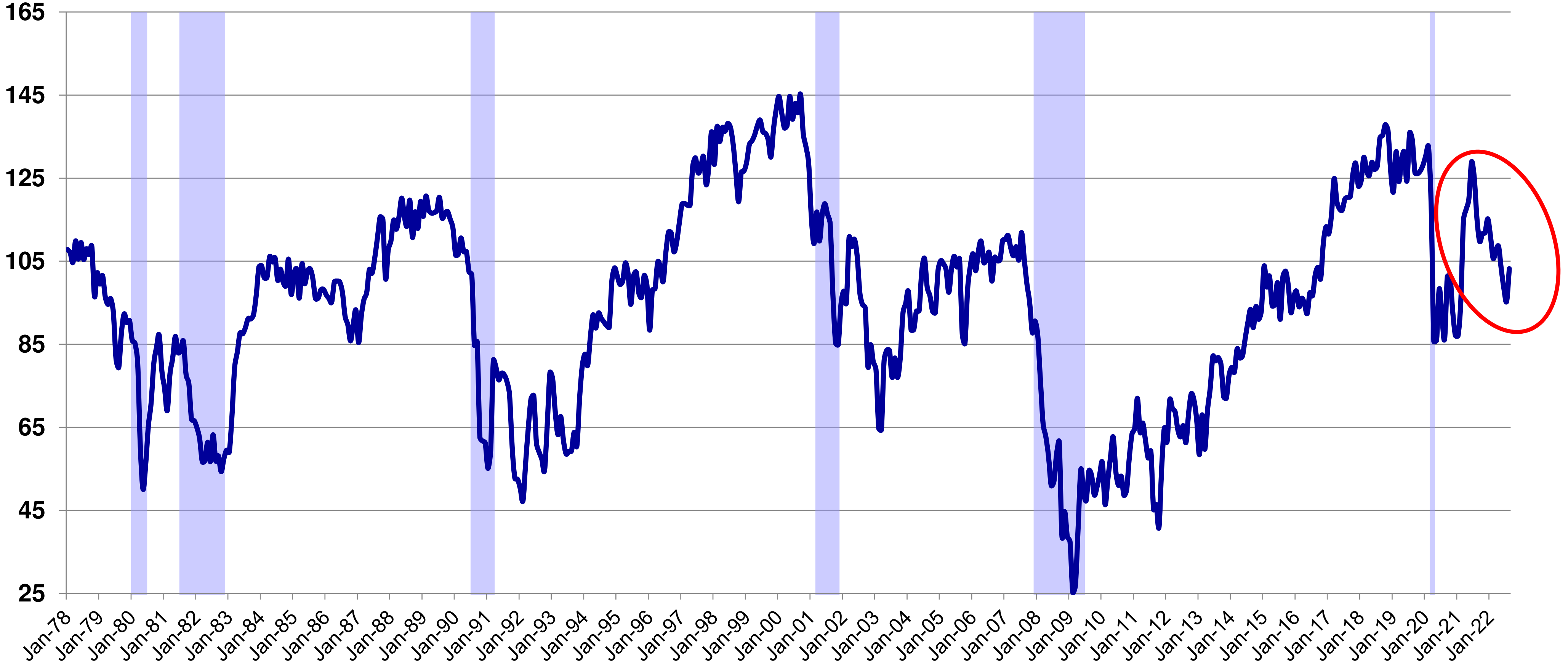
The average annual growth rate between 2010-2019 was 2.3%

Consumers

U.S. Consumer Confidence Index

1978 – 2022*

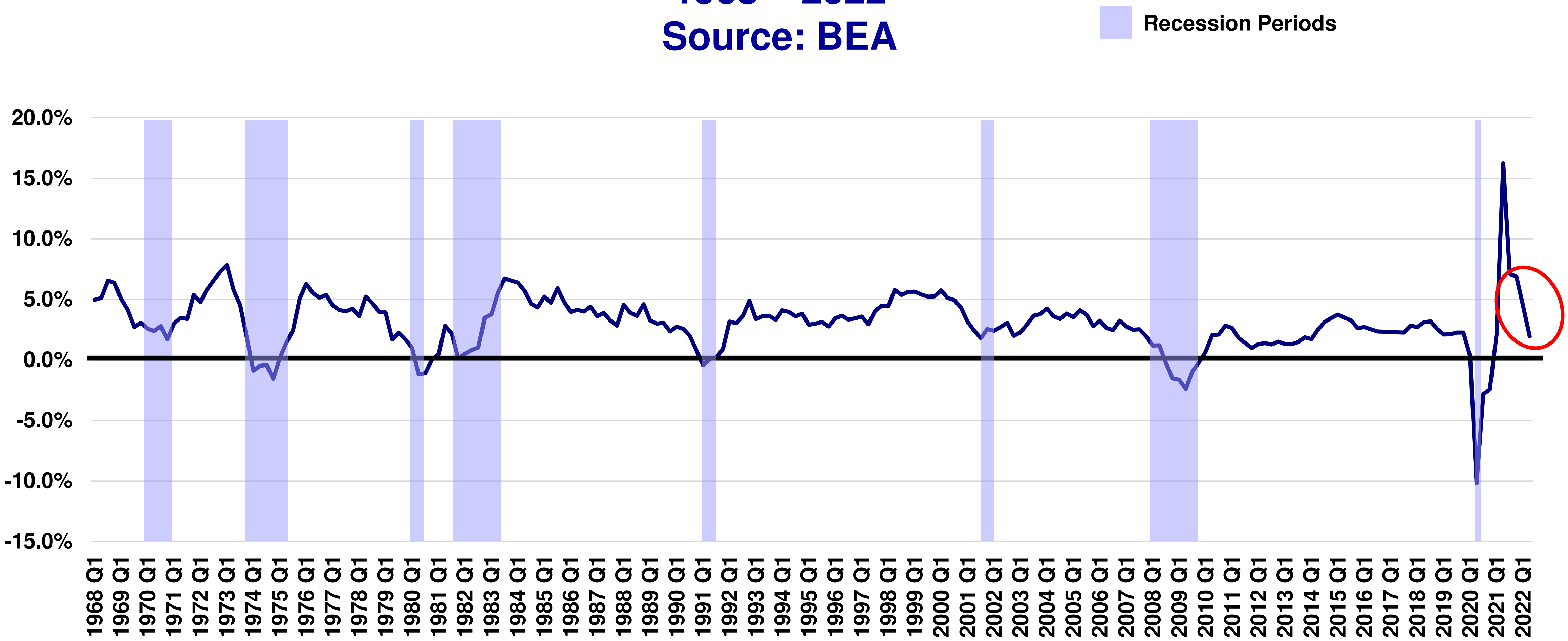
Source: The Conference Board



How are we doing?

- People are nervous because they see a significant decline in purchasing power.
- They see real wages declining.
- They are pummeled by negative economic headlines everyday.
- They are concerned about housing and stock prices going down.
- **Overall, people are nervous. When people are nervous, they pull back.**
- **The pull back has been muted by high levels of cash and a continued strong job market.**

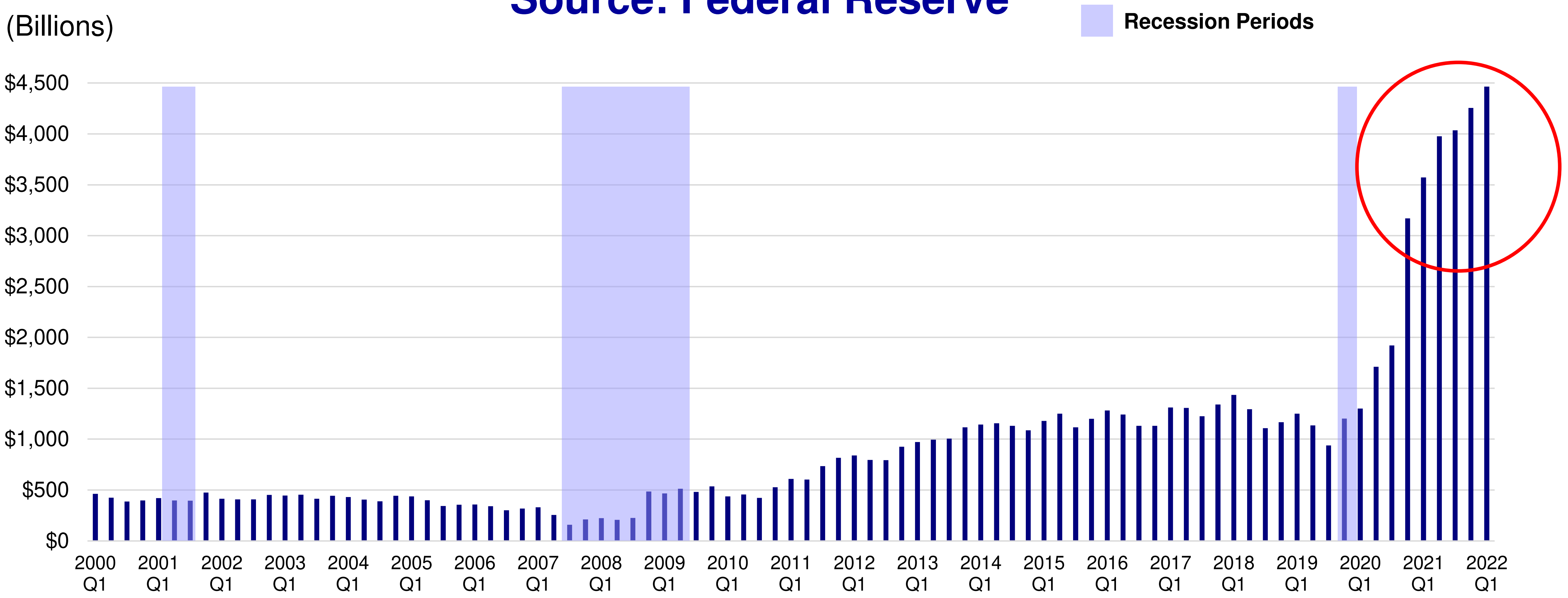
Real Personal Consumption Expenditures
% Change Y/Y
1968 – 2022
Source: BEA



Includes: Goods and Services

Checkable Deposits and Currency of Households and Nonprofit Organizations

Source: Federal Reserve



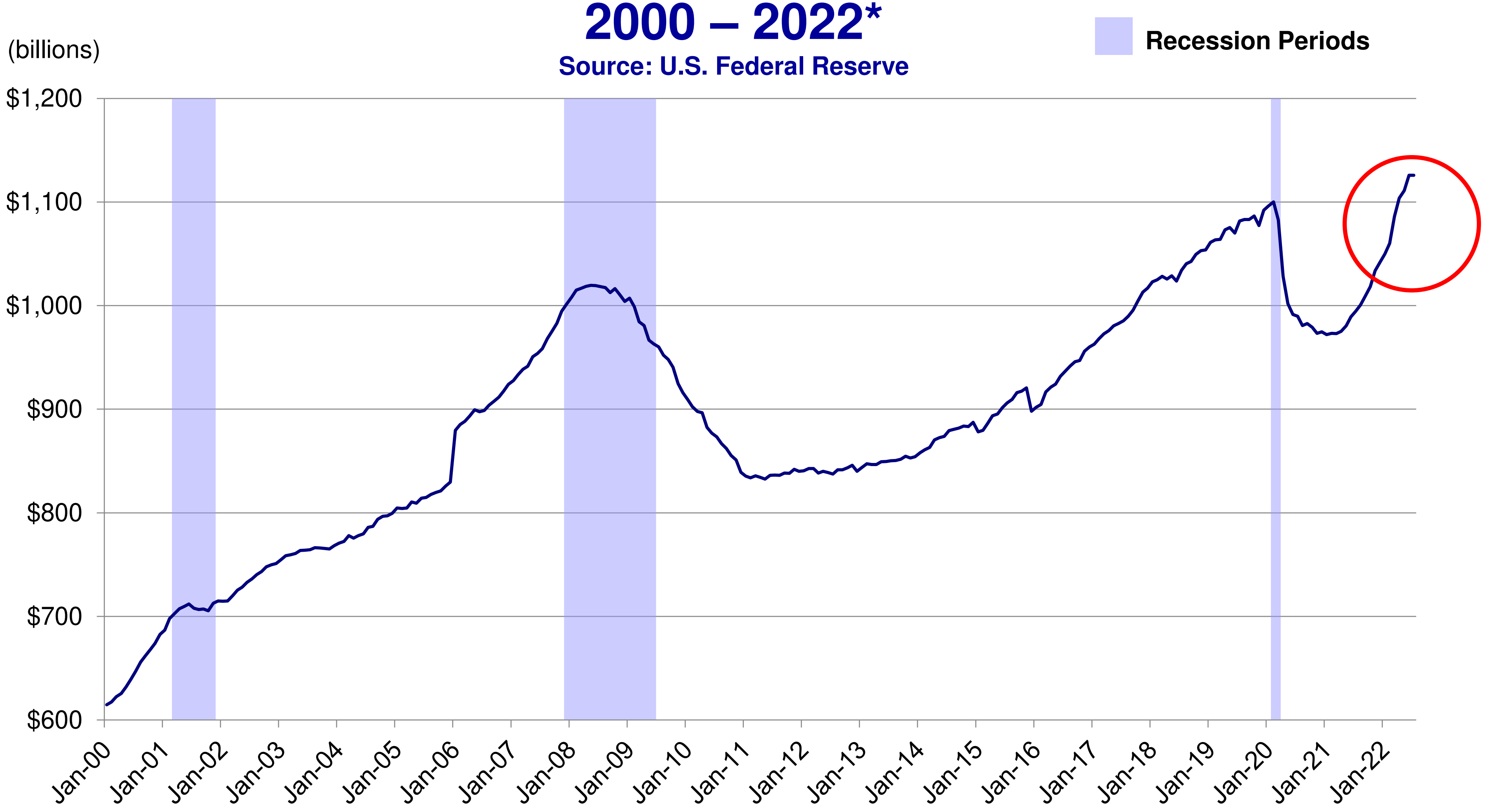
Households are an estimated 94% of total

What will Consumers do with Excess Cash?

- This excess cash will dissipate as the cost of necessities continues to rise.
- As the cash dissipate, consumer will cut back on discretionary spending and non-discretionary spending to extent possible.
- The lower the income, the more your you will be affected.

U.S. Consumer Credit
Total Revolving Credit Outstanding
2000 – 2022*

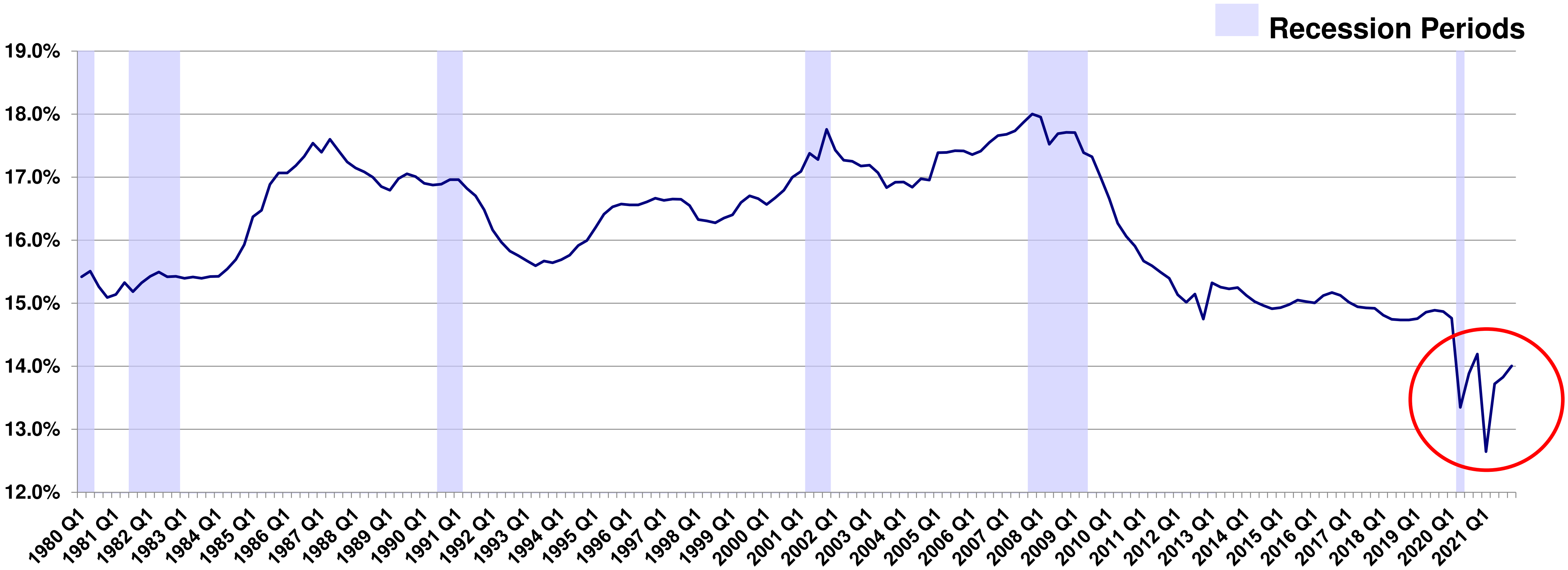
Source: U.S. Federal Reserve



Revolving Credit Plans – may be unsecured or secured by collateral and allow a consumer to borrow up to a prearranged limit and repay the debt in one or more installments.

*Data through July 2022

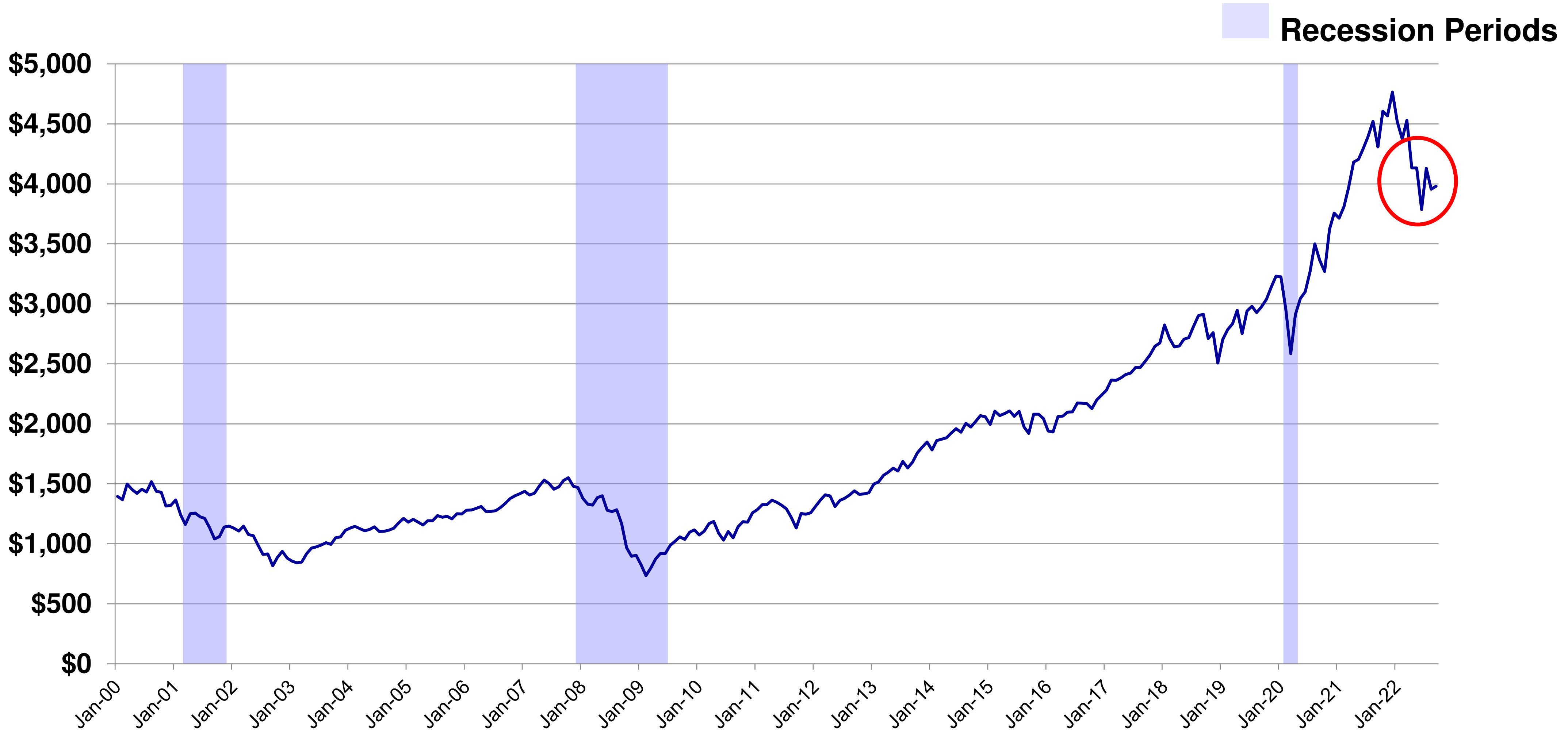
Financial Obligation's Ratio*
1980 – 2022**
Source: Federal Reserve



* of mortgage and consumer debt (including auto, rent and tax payments) to disposable income.

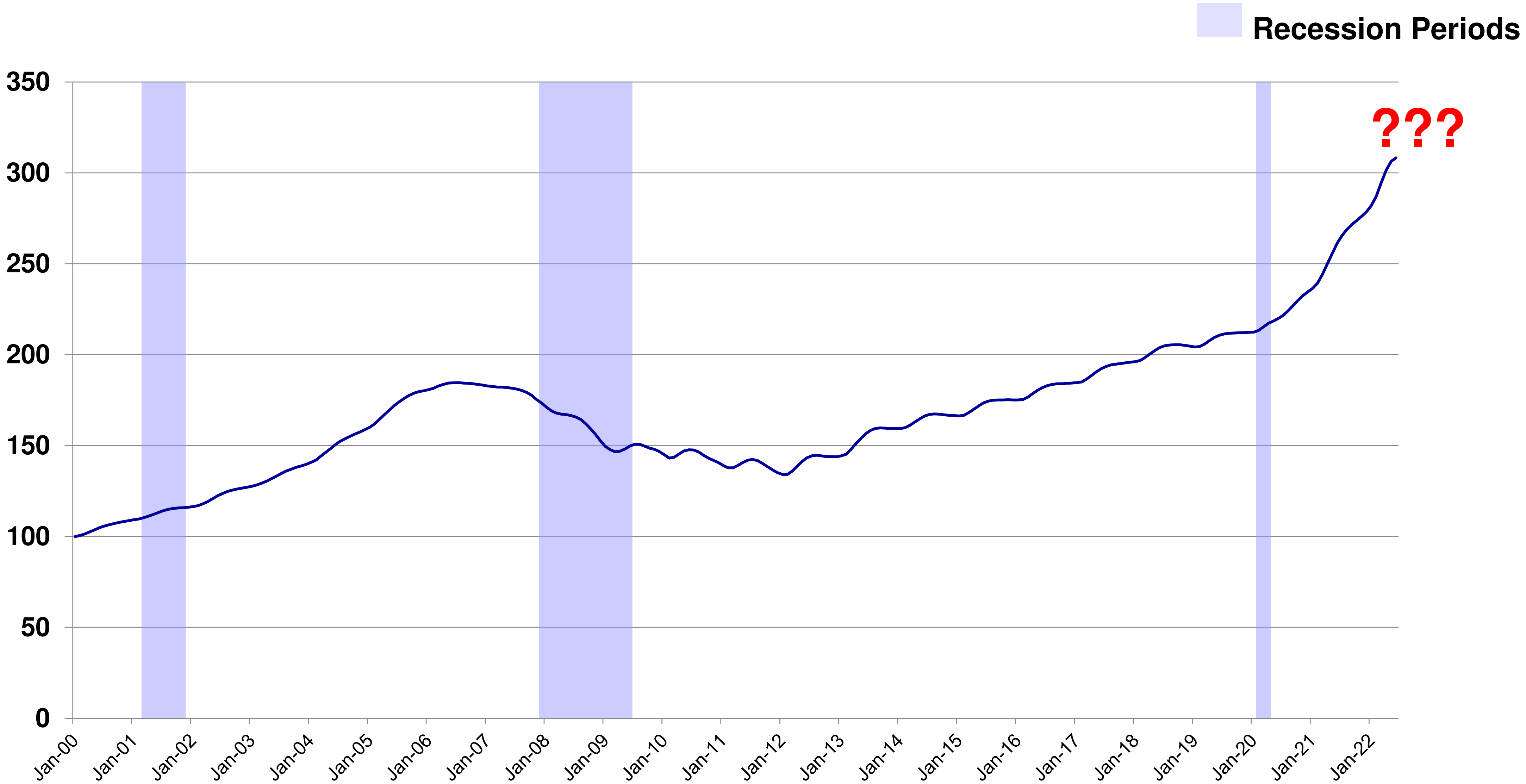
**Data through the first quarter 2022

S&P 500
2000 – 2022*



*Data through September 2022

U.S. S&P/Case-Shiller Home Price Indices 2000 – 2022*

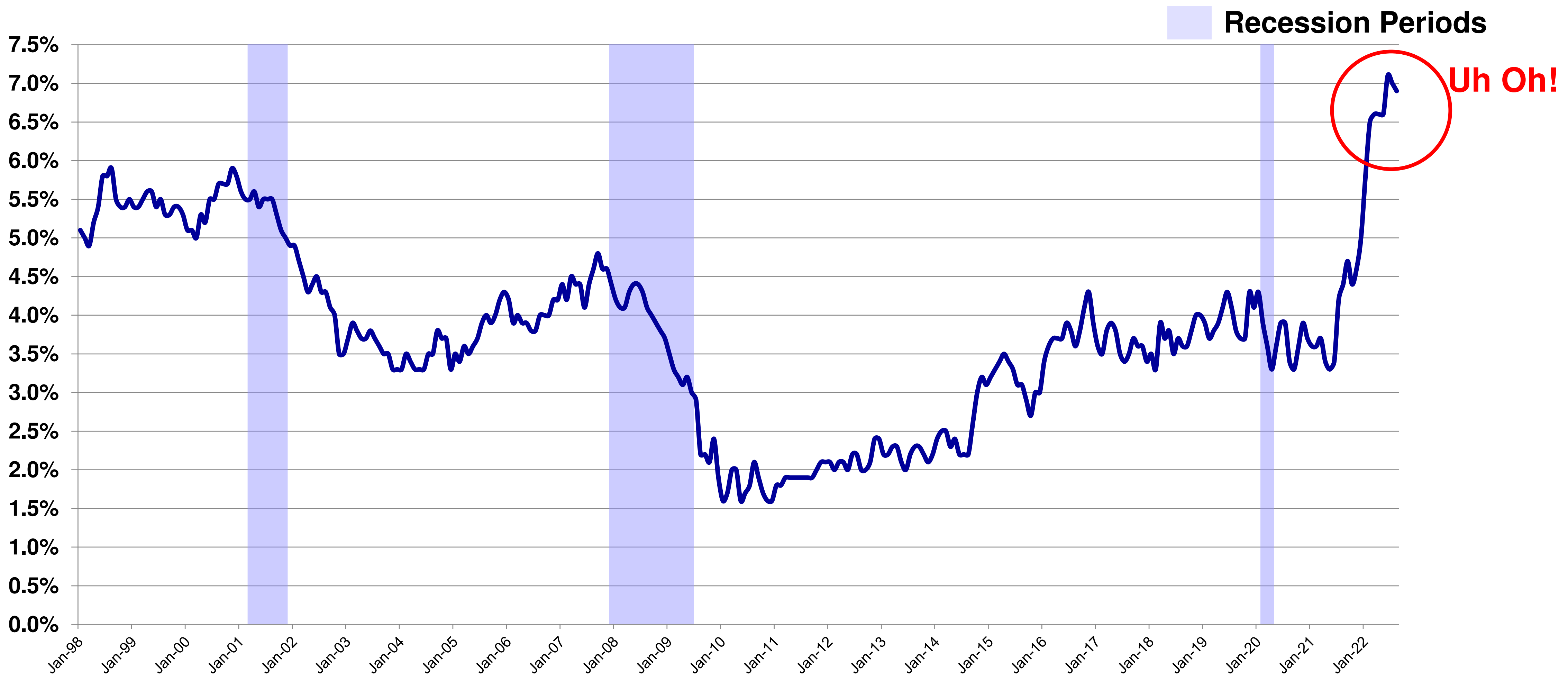


*Data through June 2022

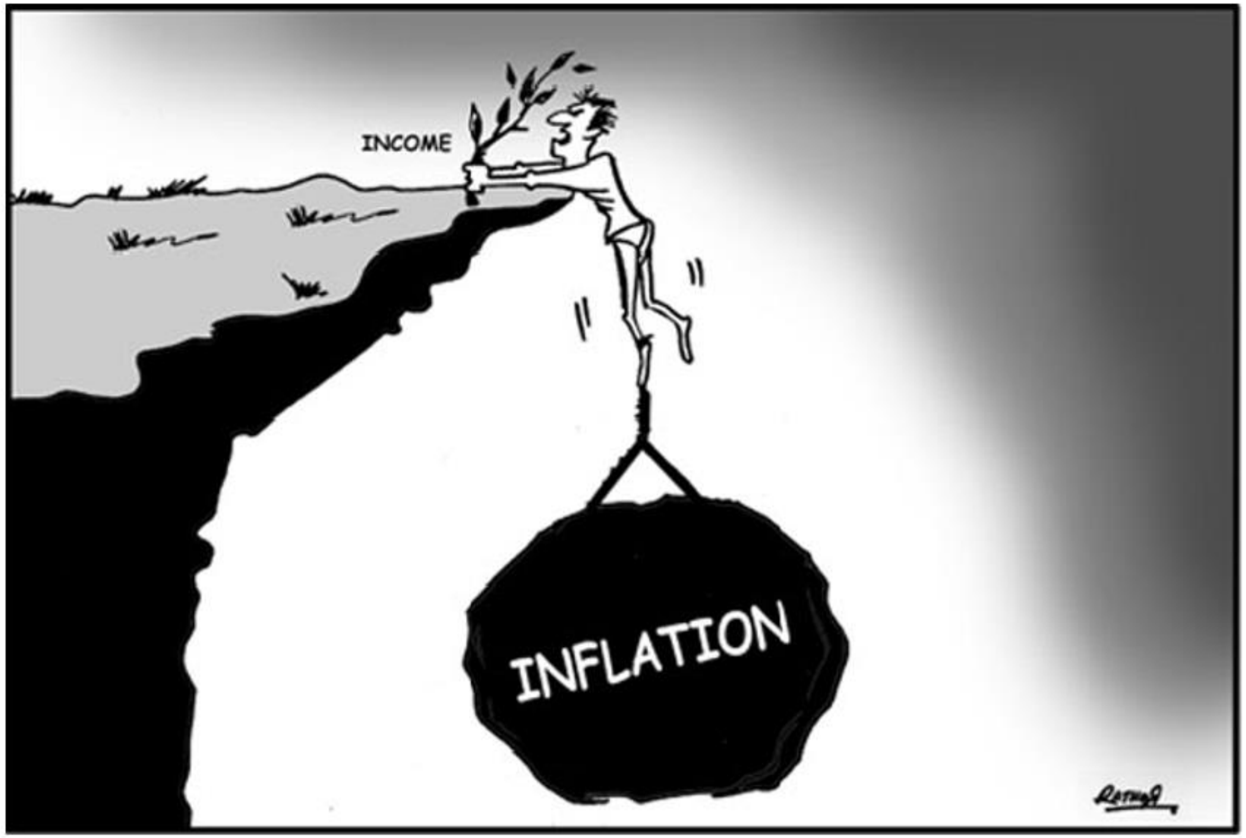
Weighted Overall Wage Growth Tracker, 3-Month Moving Average

1998 - 2022

Source: Sources: Current Population Survey, Bureau of Labor Statistics, and Federal Reserve Bank of Atlanta Calculations.



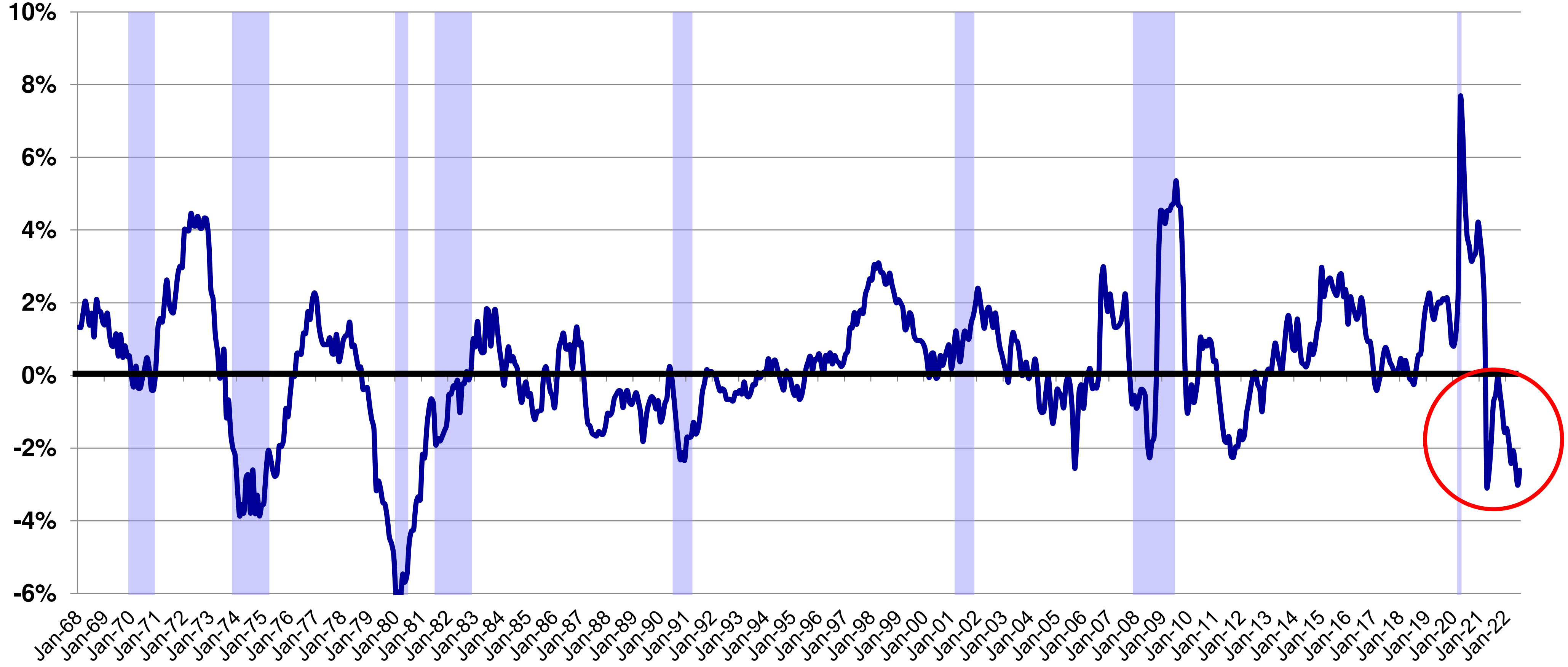
*Data through August 2022


INCOME
INFLATION

Real Hourly Earnings Growth

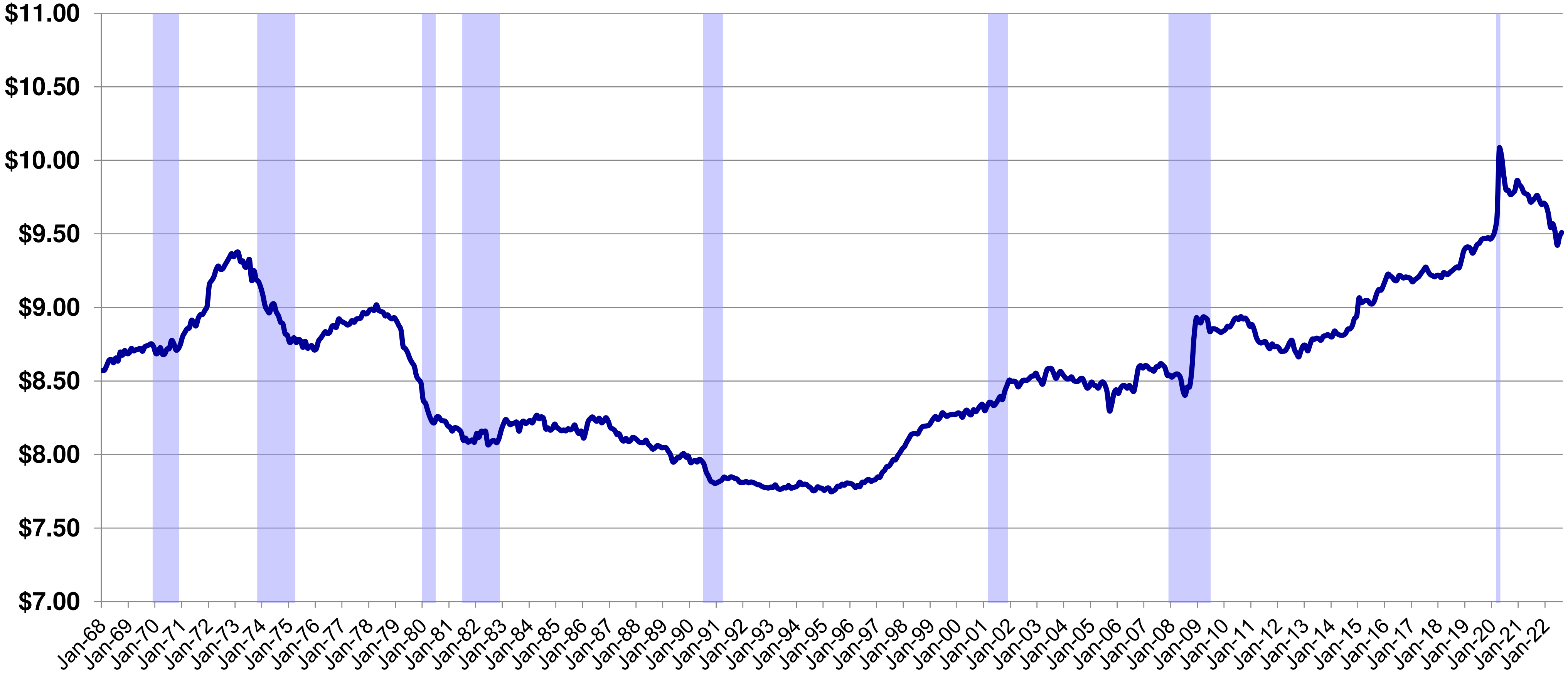
% Change Y/Y

Source: BLS



Real Hourly Earnings

Source: BLS



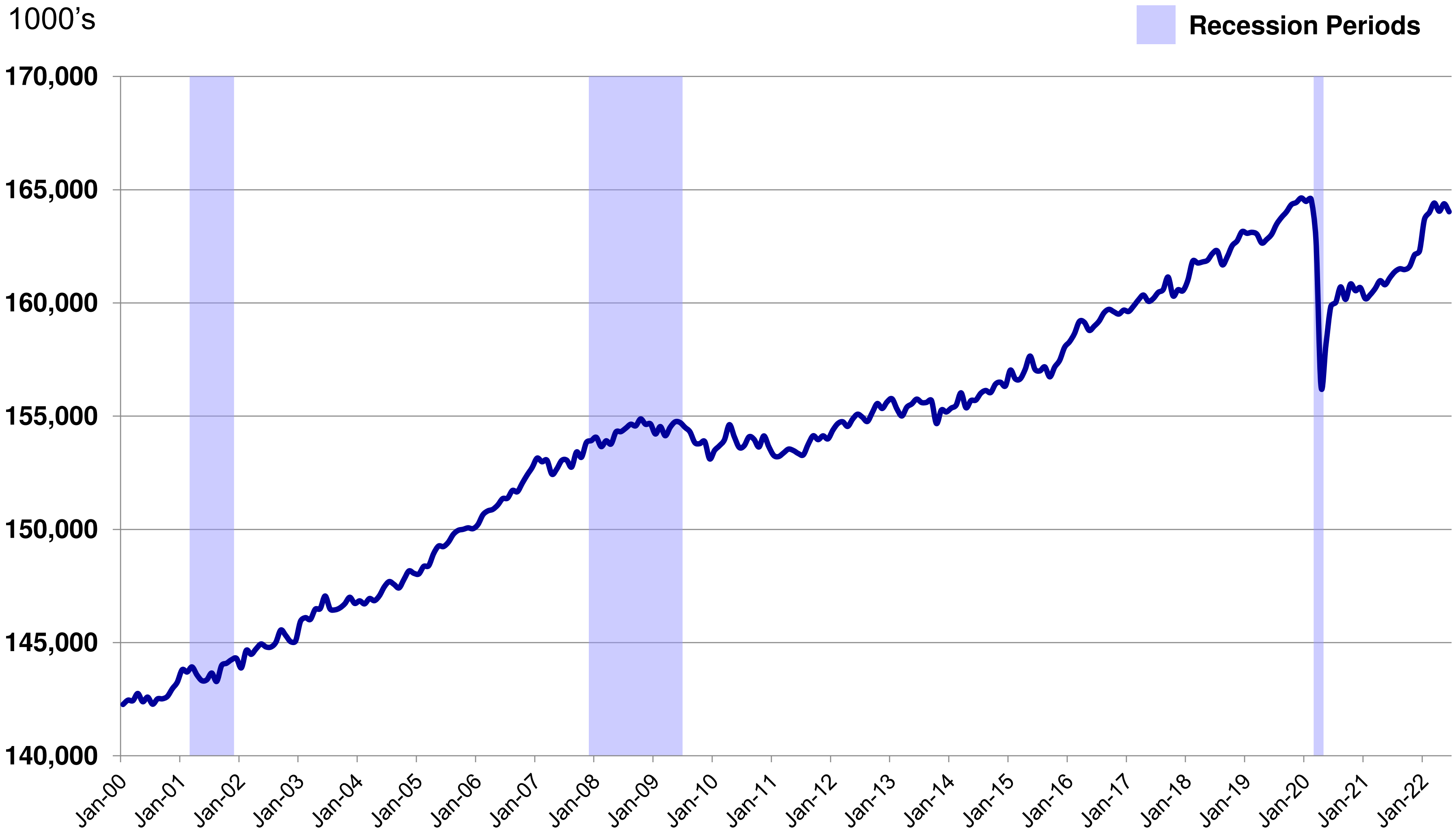
Jobs

We are at the beginning of the disruptions.

Labor Force (S/A)

2000 – 2022*

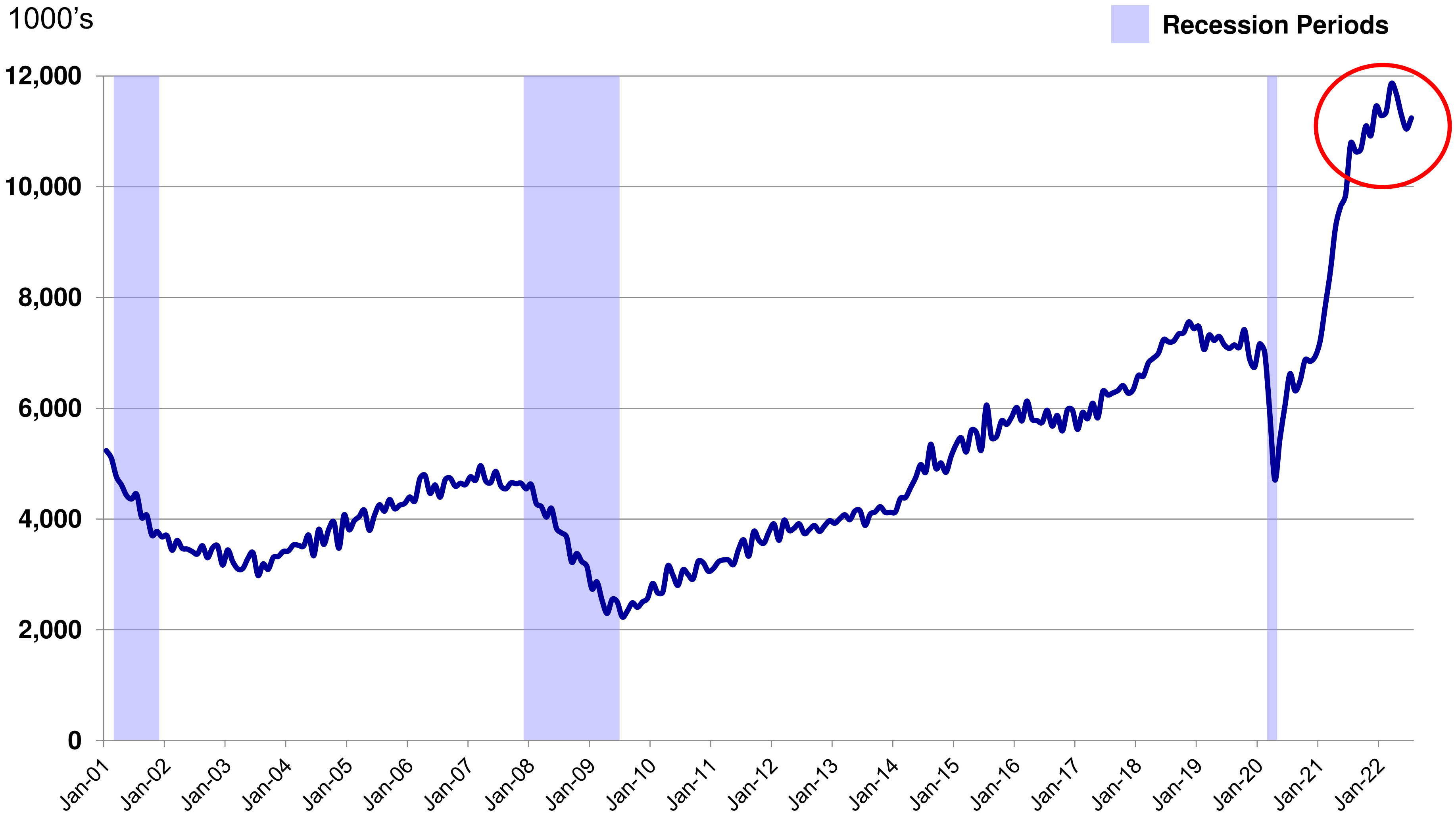
Source: U.S. Bureau of Labor Statistics



*Data through July 2022.


Help Wanted
NOW HIRING
PEOPLE THAT
SHOW UP

Job Openings
2001 – 2022*
Source: U.S. Bureau of Labor Statistics



5,670,000 unemployed people in July 2022

*Data through July 2022.

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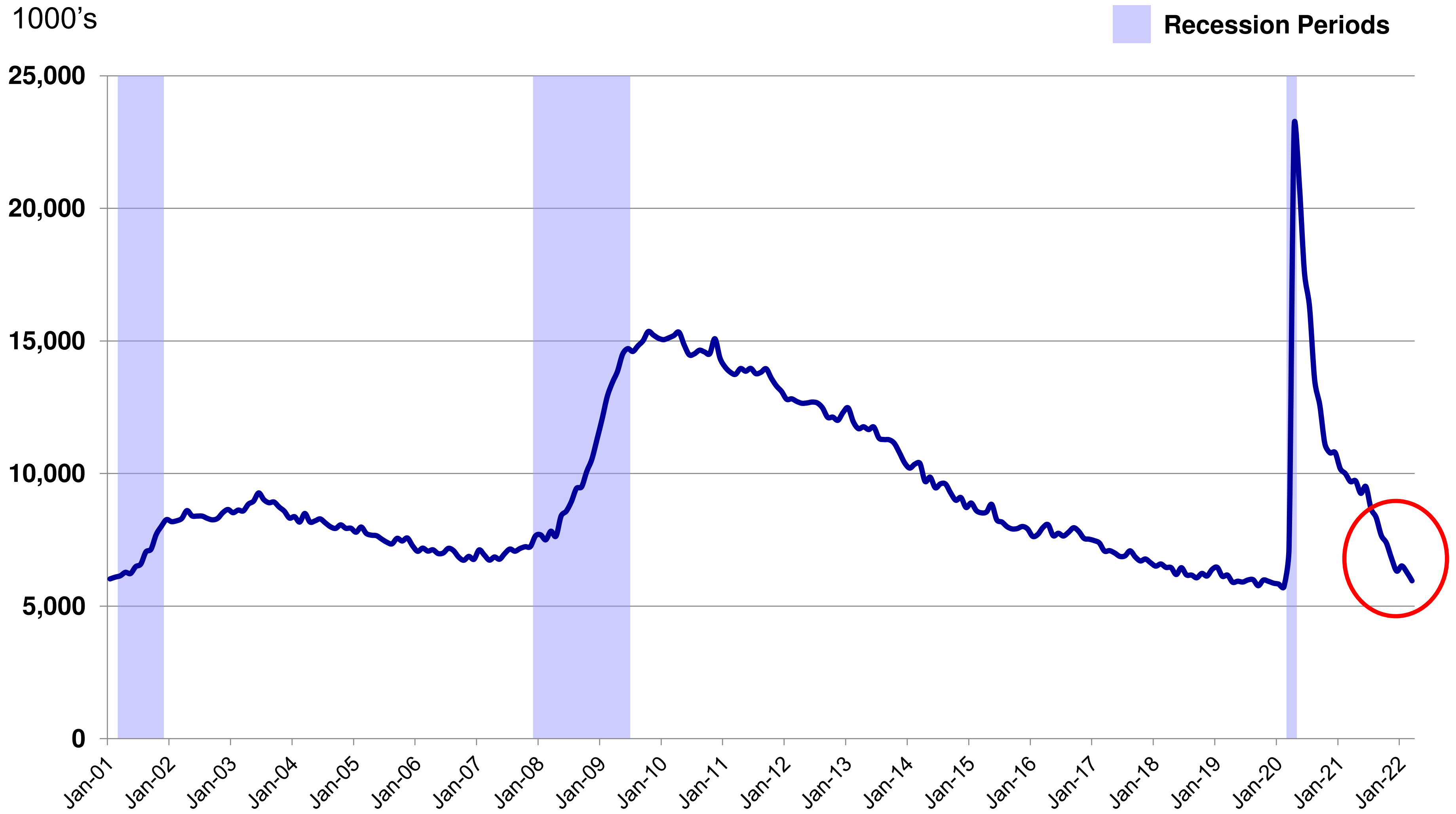
Number of People Unemployment (U-3)

2001 – 2022*

Source: U.S. Bureau of Labor Statistics



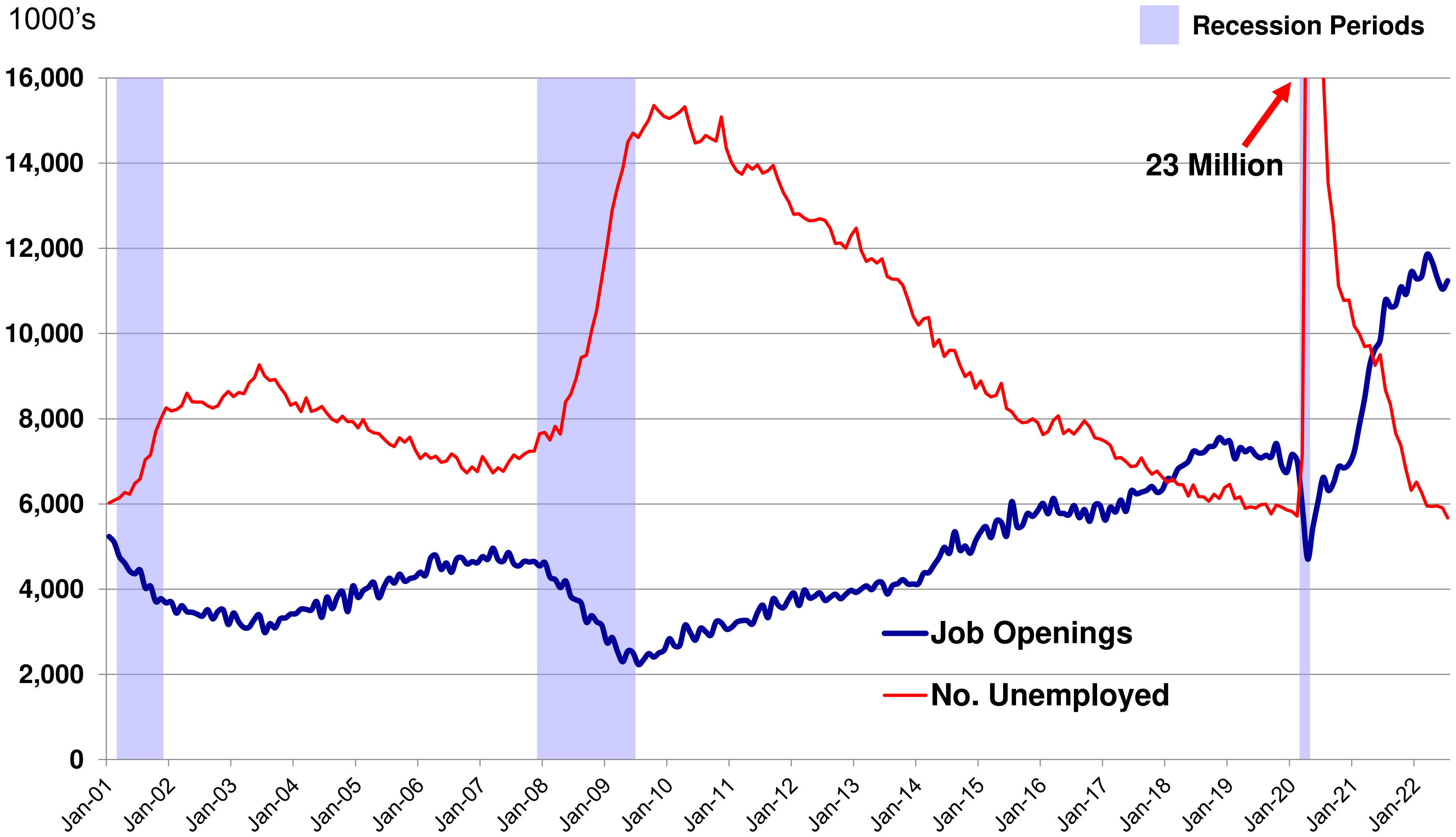
5,670,000 unemployed people in July 2022

*Data through July 2022.

Job Openings and No. Unemployed

2001 – 2022*

Source: U.S. Bureau of Labor Statistics



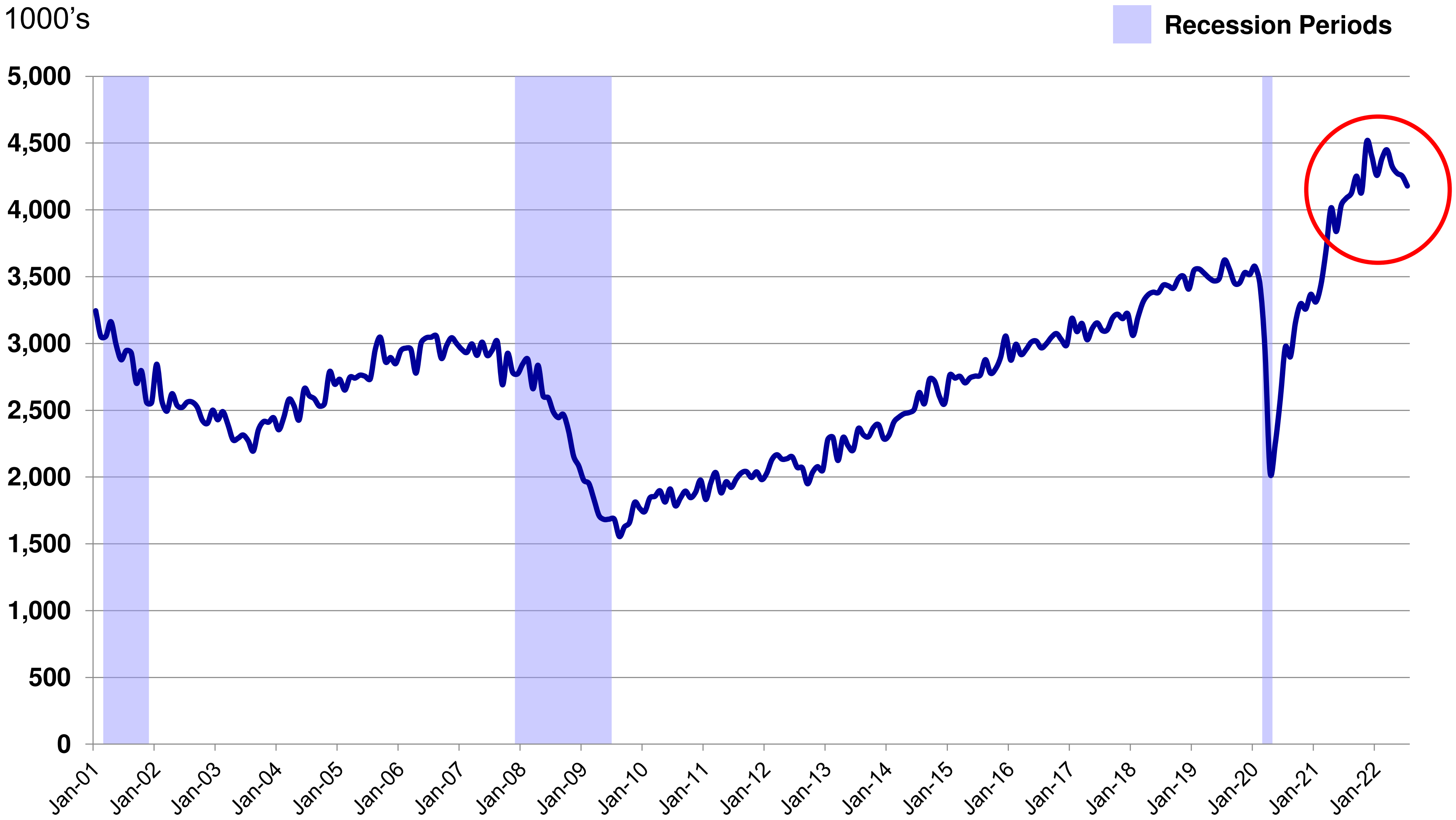
More Jobs Available than people unemployed

*Data through July 2022.

Quits

2001 – 2022*

Source: U.S. Bureau of Labor Statistics



5,670,000 unemployed people in July 2022

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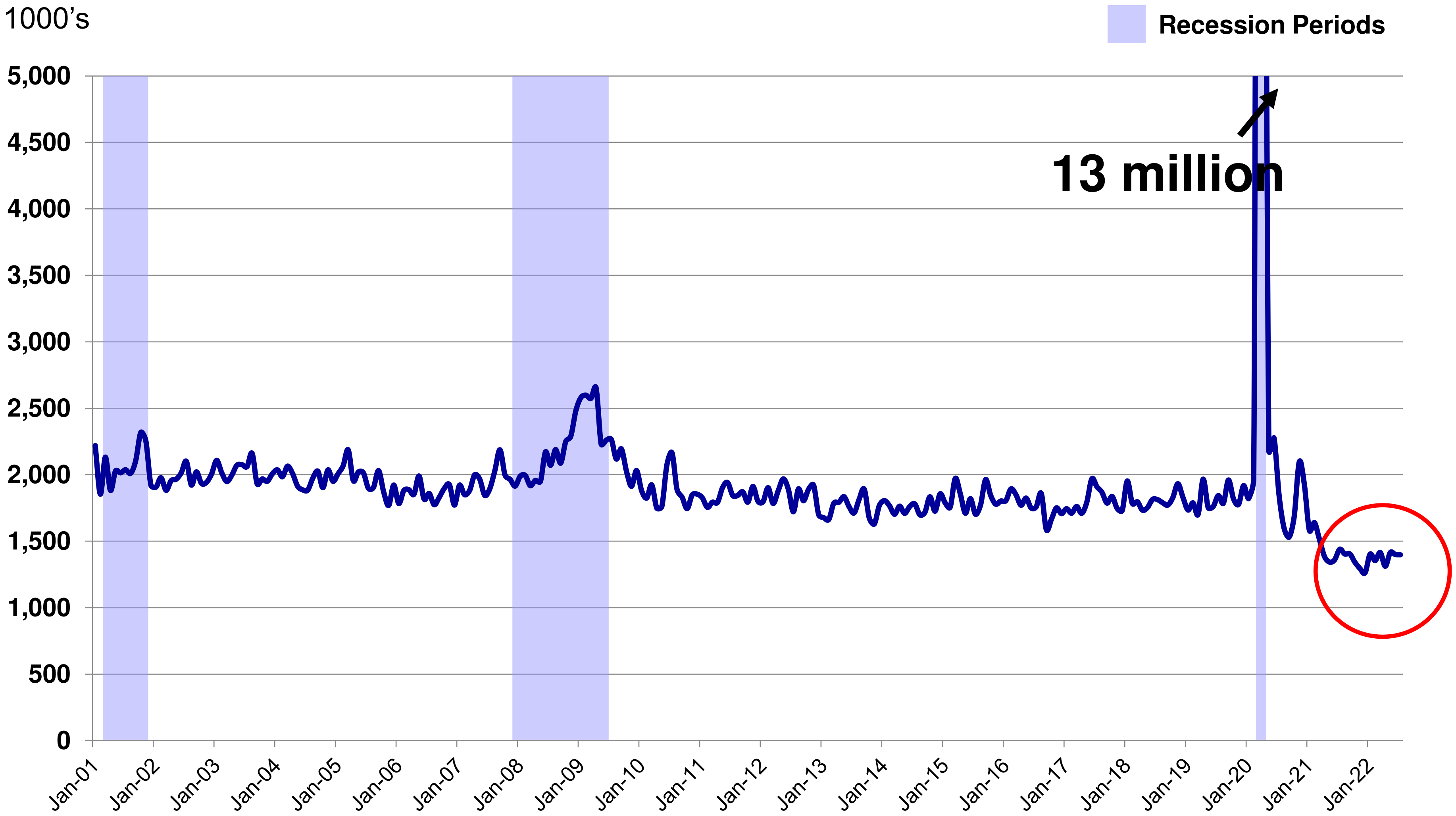
Layoffs
2001 – 2021*
Source: U.S. Bureau of Labor Statistics



5,670,000 unemployed people in July 2022

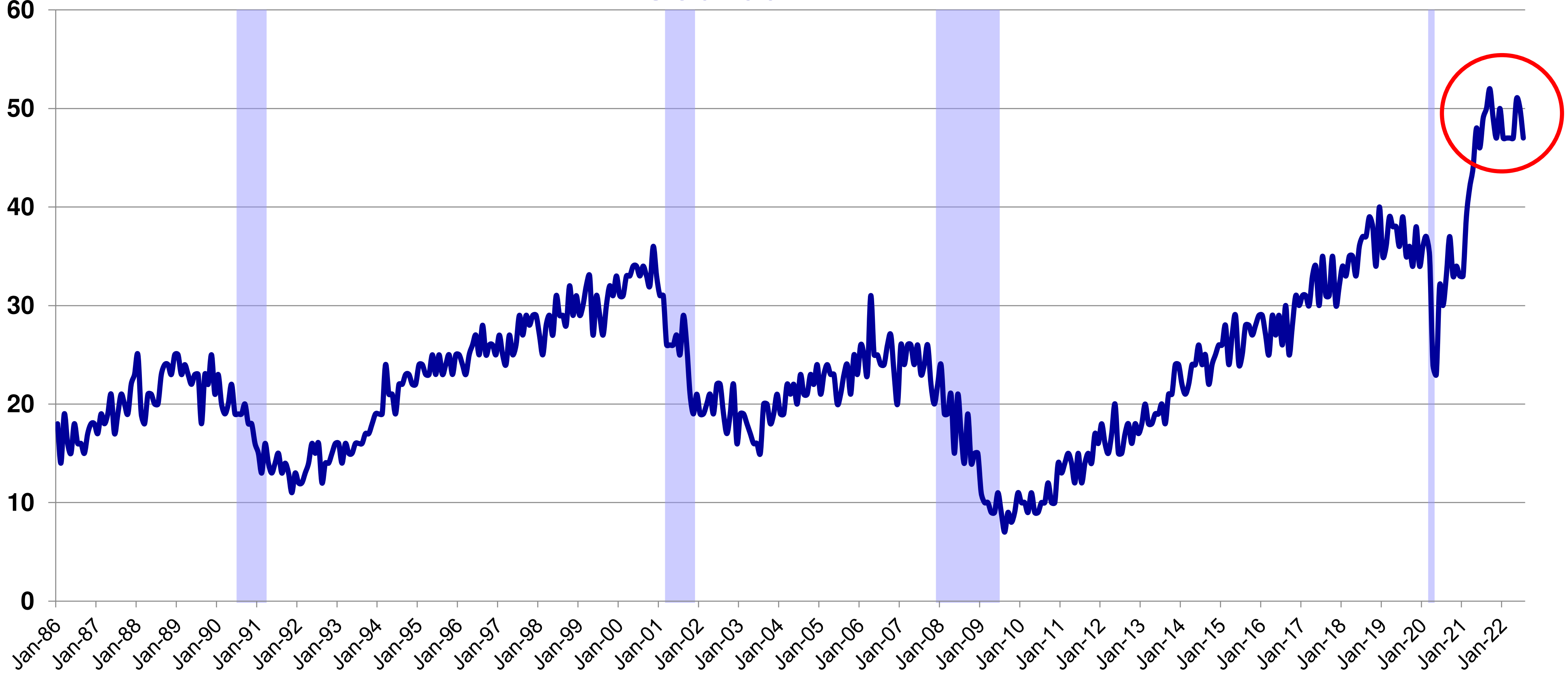
*Data through July 2022.

NFIB

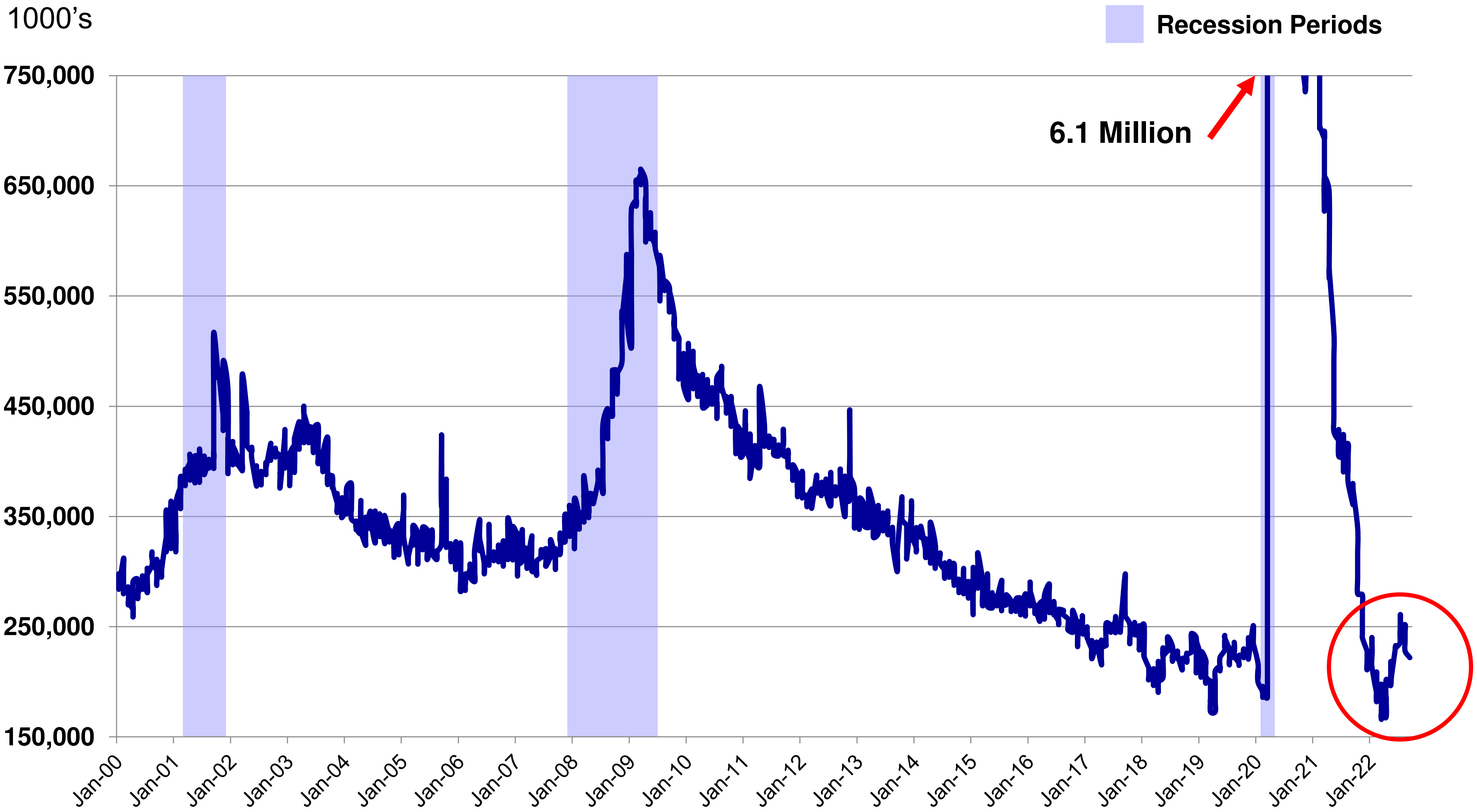
Percentage of small businesses with unfilled job openings

1986-2022

Source: NFIB



Initial claims
2000 – 2022*
Source: U.S. Department of Labor



*Data through September 2022.

This bright employment picture could quickly deteriorate as consumers and business are forced to cut back.

Business

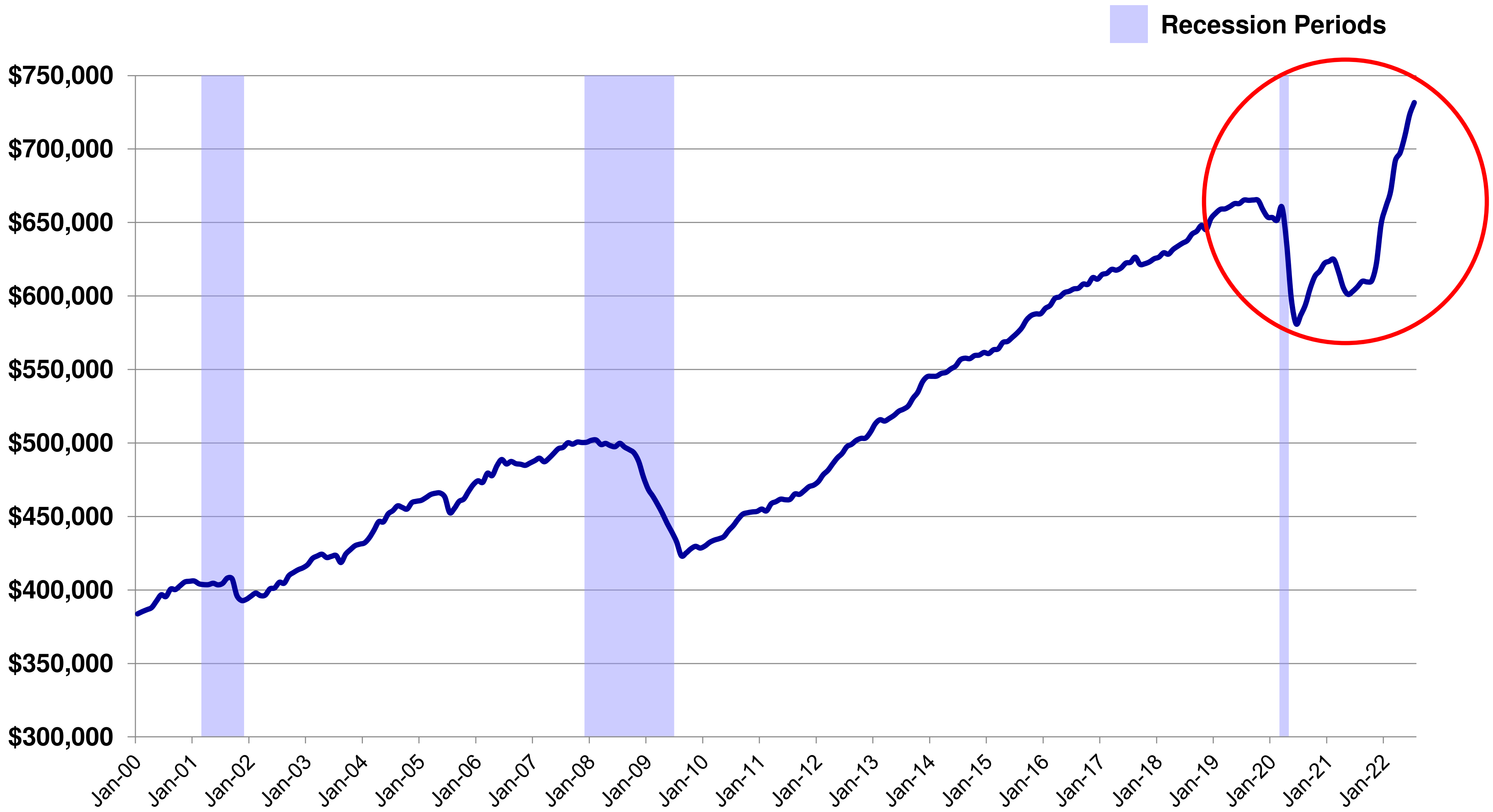
Total Business Inventories

- 6/30/19 $2.0 trillion dollars
- 6/30/20 $1.9 trillion dollars
- 6/30/21 $2.0 trillion dollars
- 6/30/22 $2.4 trillion dollars

U.S. Retailers Inventories (millions)

2000 – 2022*

Source: U.S. Census Bureau



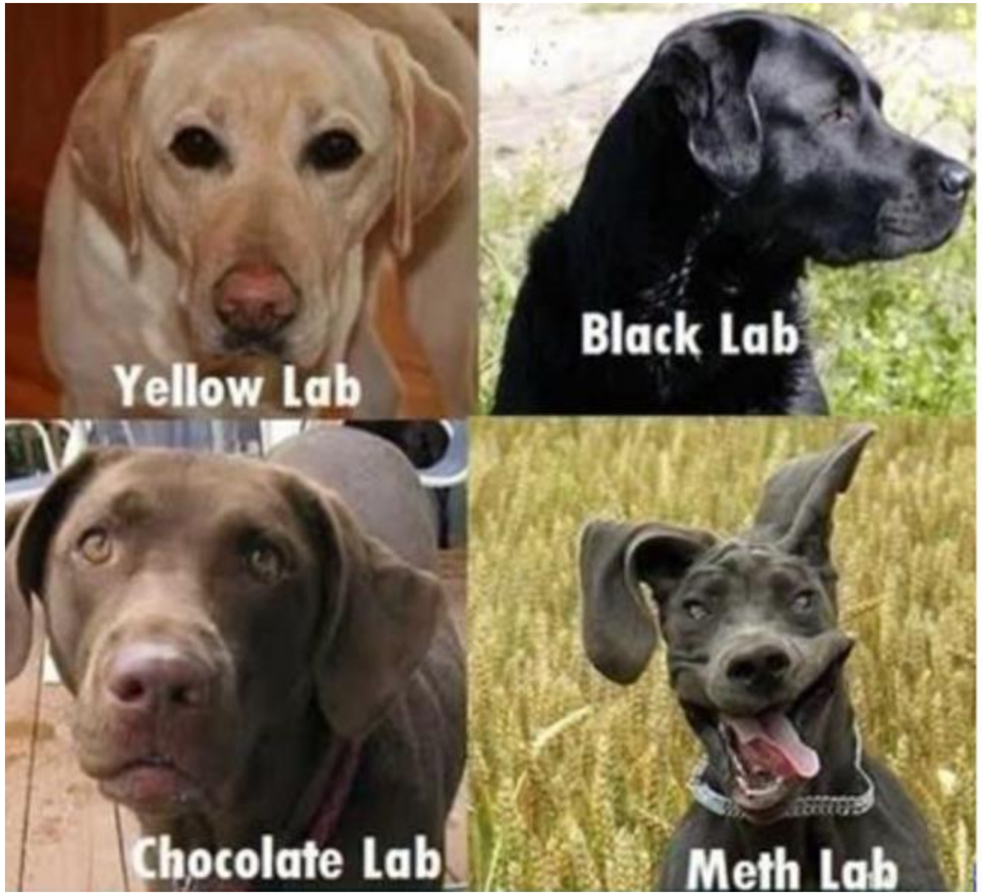
Monetary Policy

Arthur Burns
Did Not Finish The Job

Paul Volcker
Finished the Job

Jerome Powell
To-be-determined

Results can vary depending on what the Fed chooses

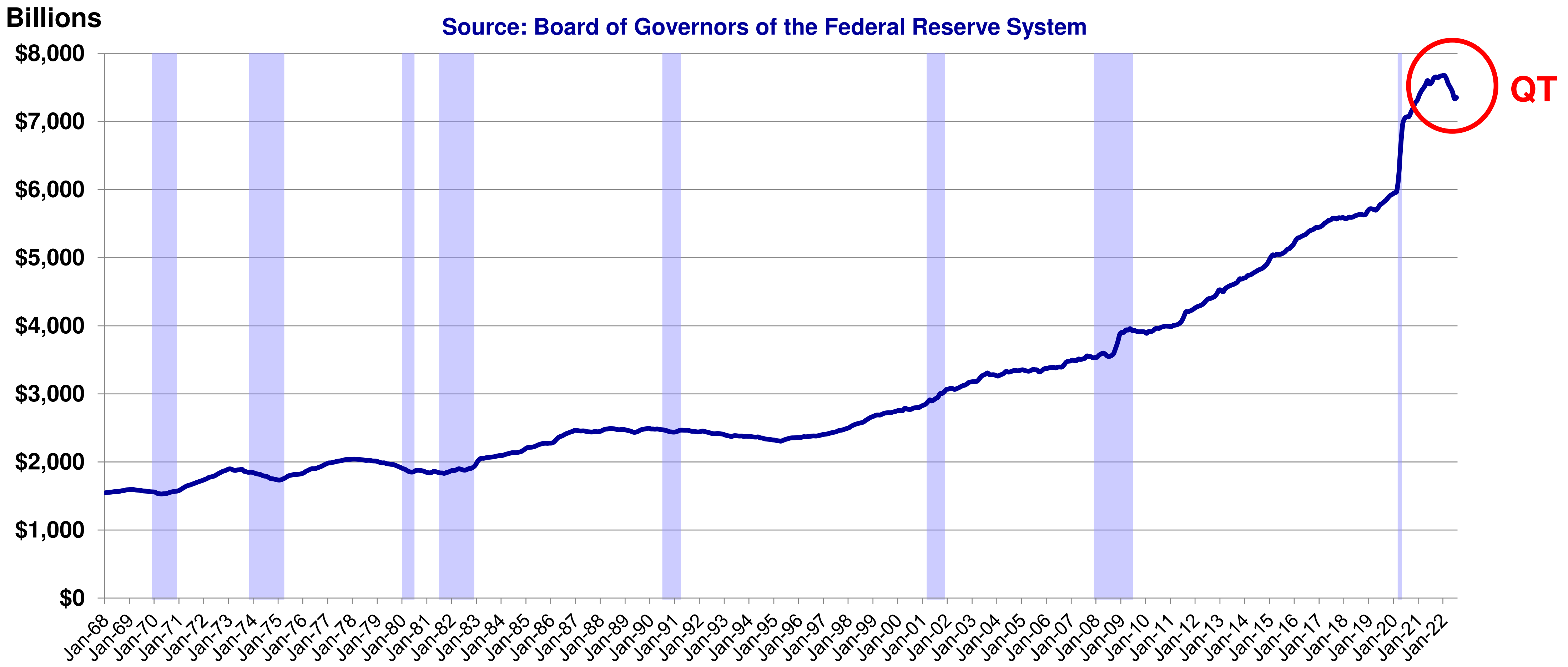


What's different 70's-80's and Now?

- We have not been in a period of high inflation for forty years.
- In the 1970's, the Fed let inflation get out of control.
- Inflation was high and intermittingly rising (mostly well above 6%) from 1973 through 1982.
- Inflation declined but stayed high by today's standards throughout the 80's.
- Inflation this time around has been high for only the last six quarters.
- Therefore, it was much more ingrained in the economy last time around than this time.
- Therefore, it should be a "quicker" fix.
- Yet, despite the fact that M2 growth has slowed, real interest rates are still at levels that historically are very stimulative and fiscal policy remains too stimulative.
- To have experienced high extended inflation as an adult, you have to be 70 years old today. That's why its unfamiliar to most people.

The Last People at the Fed to Fight Inflation

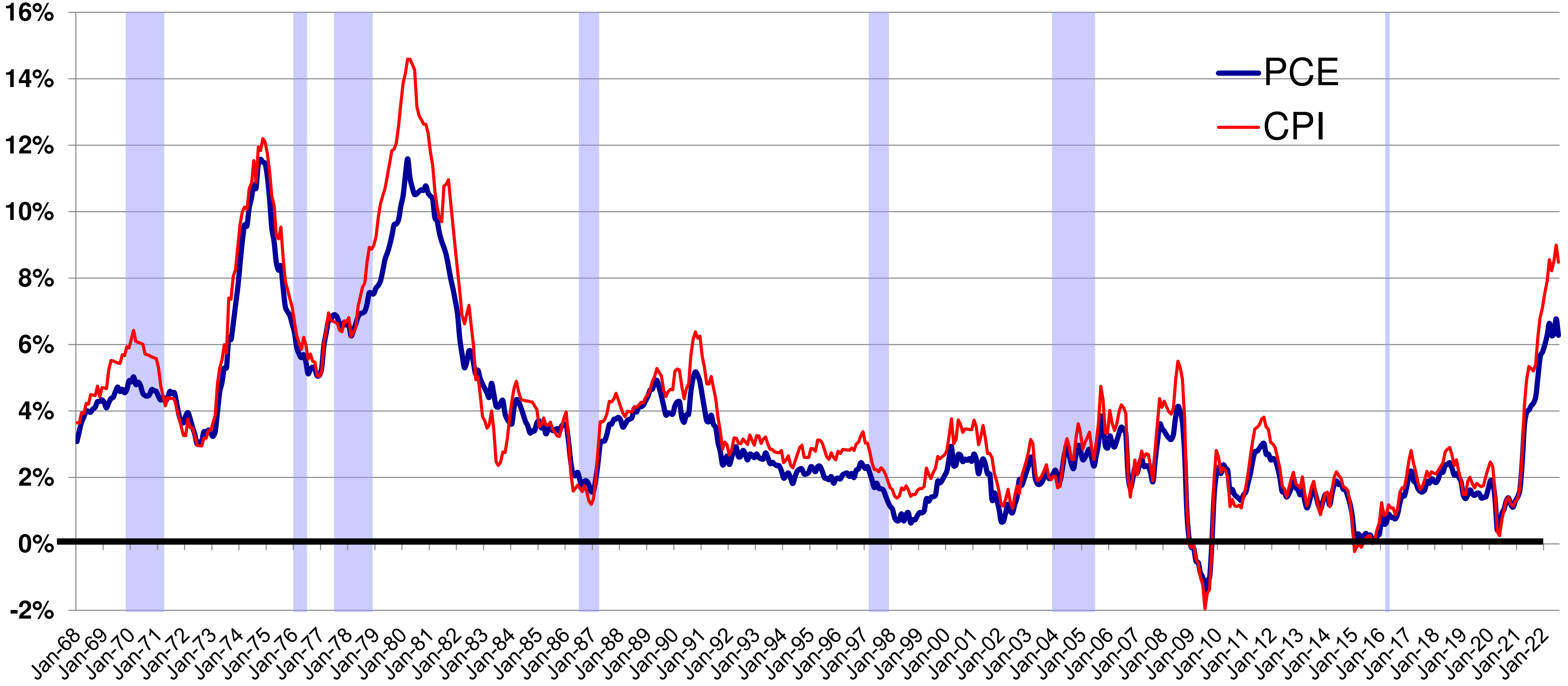
Real M2 Level



PCE and CPI

% Change Y/Y

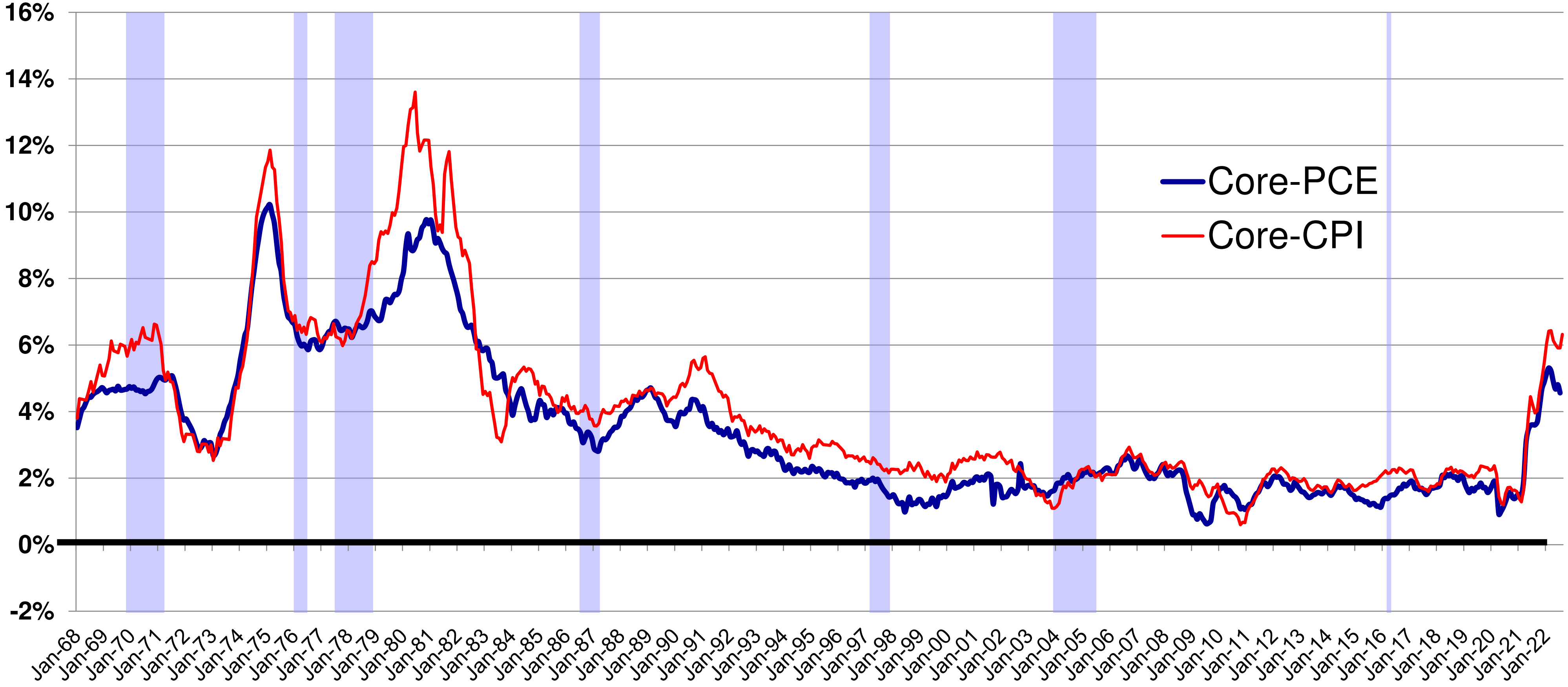
Source: BEA; BLS



Core-PCE and Core-CPI

% Change Y/Y

Source: BEA; BLS



Core inflation is total inflation less food and energy

Miscellaneous Thoughts on Inflation

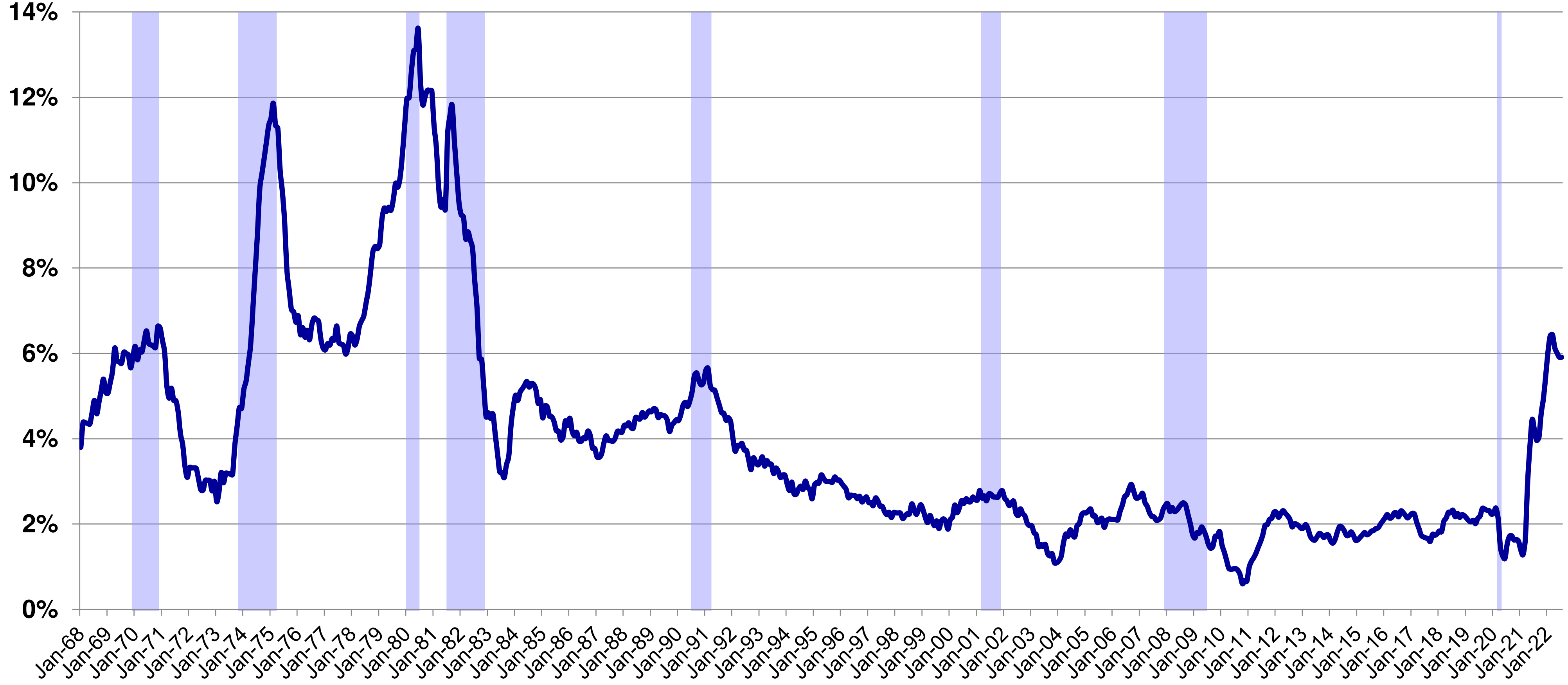
- In 2012 the Fed chose 2% as the target rate for inflation.
- 2% inflation was the exception not the rule until 1994.
- Is the current rate of inflation overstated?
  - Yes, but determining by how much is difficult.

Core-CPI

% Change Y/Y

1968-2022

Source: BLS

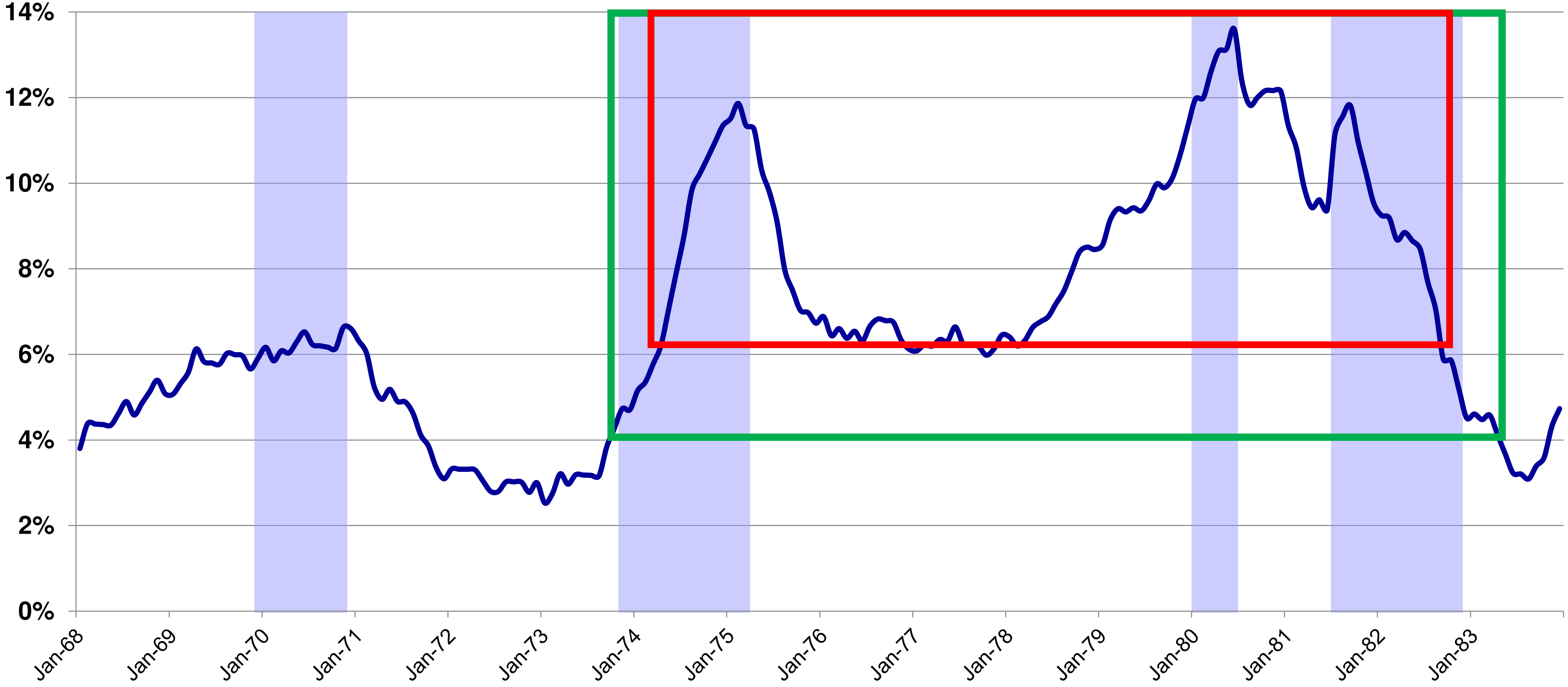


Core-CPI

% Change Y/Y

1968-1983

Source: BLS



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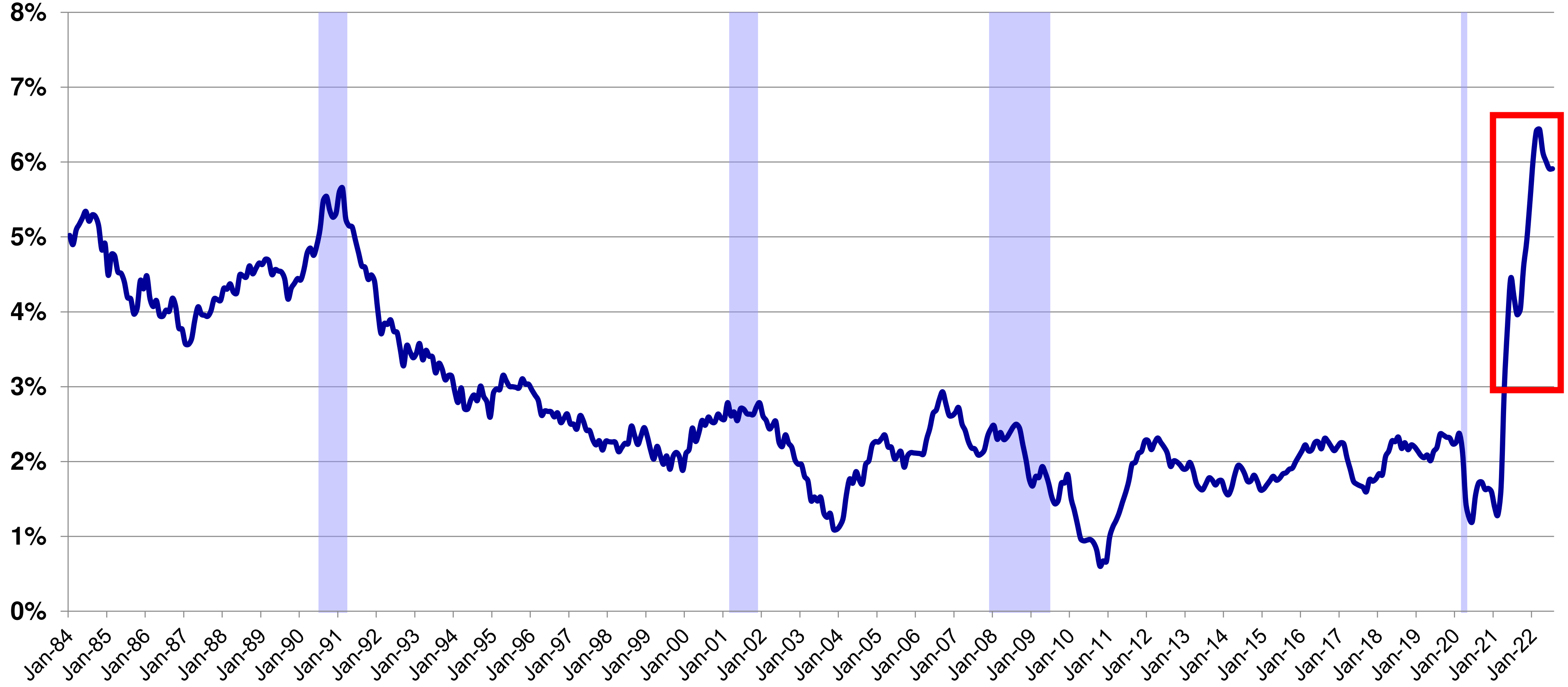
Core-CPI

% Change Y/Y

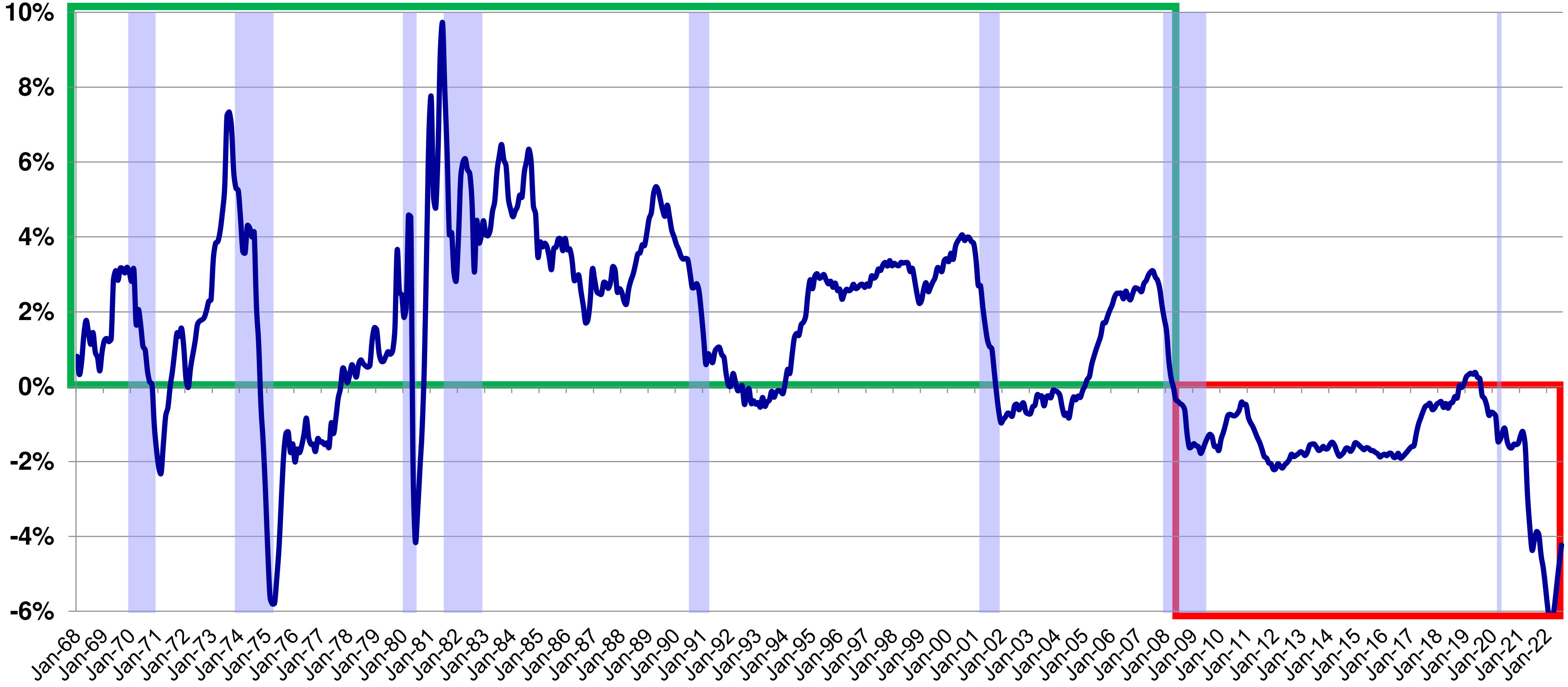
1984-2022

Source: BLS



Fed Funds Rate Less Core-CPI

Source: Federal Reserve; BLS



What will the Fed Do?

Current Policy

History suggests that real interest rates as measured by Fed Funds Rate less Core-CPI/Core-PCE have to be considerably higher if they are to correct our current problem.


ATTENTION
PLEASE MAKE
SURE
ELEVATOR IS
THERE BEFORE
STEPPING IN

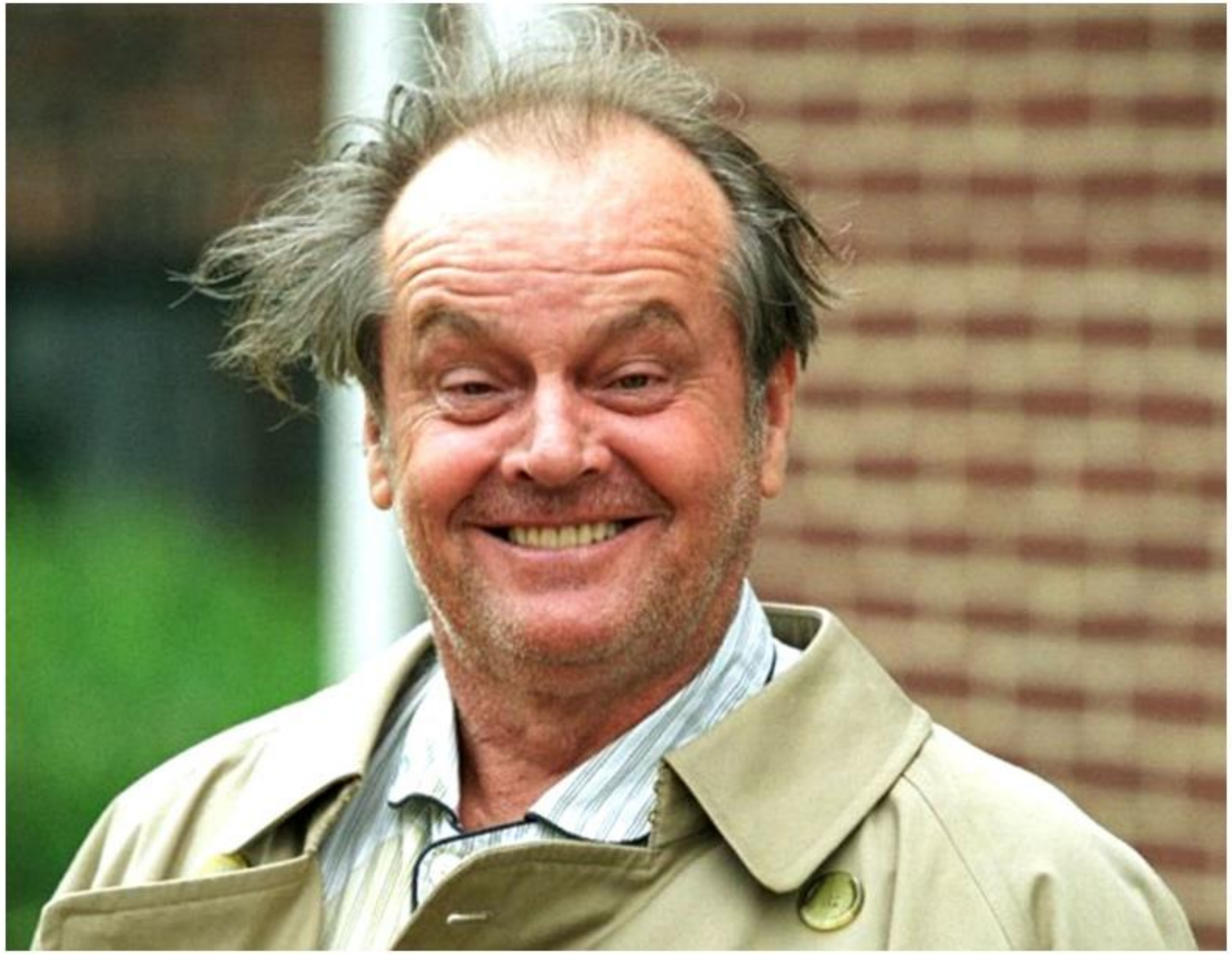
Negative Interest Rates

- Interest rates are the cost of borrowing.
- Interest rates tend to move in the same direction as inflation but with a lag.
- Higher interest rates are a normal policy response to high and/or rising inflation.
- Low or negative interest rates incentivize lending and borrowing by businesses and consumers.
- High real interest rates incentivize savings and hoarding and, therefore, slow economic activity. Hurdle rates of return have to go up.
- When the Fed wanted to incentivize lending and borrowing to spur economic activity it kept real interest rates low or negative.
- Historically when the Fed wanted to de-incentivize lending and borrowing it kept real interest rates high.

Negative Interest Rates

- The Fed kept real interest rates low for a long time following the Great Recession (2007 on) in order to incent economic activity.
- Finally, the economy became stable enough so that real interest rates rose. But, then the Covid economic lockdown occurred and real rates became negative again.
- We are now in a period when the Fed needs to slow economic activity.
- Thus, real interest rates will need to be higher. Indeed, the Fed is likely to continue raising rates in 2022 and into 2023 to curb inflation.
- This suggests that the fed funds rate has a way to go on the upside to get the real fed funds rate to levels historically associated with slowing the economy.
- So, real rates are likely to go higher. **PROBABLY MUCH HIGHER**.

Have a nice day!



What happens when the Fed tightens?

Change in Fed's Policy

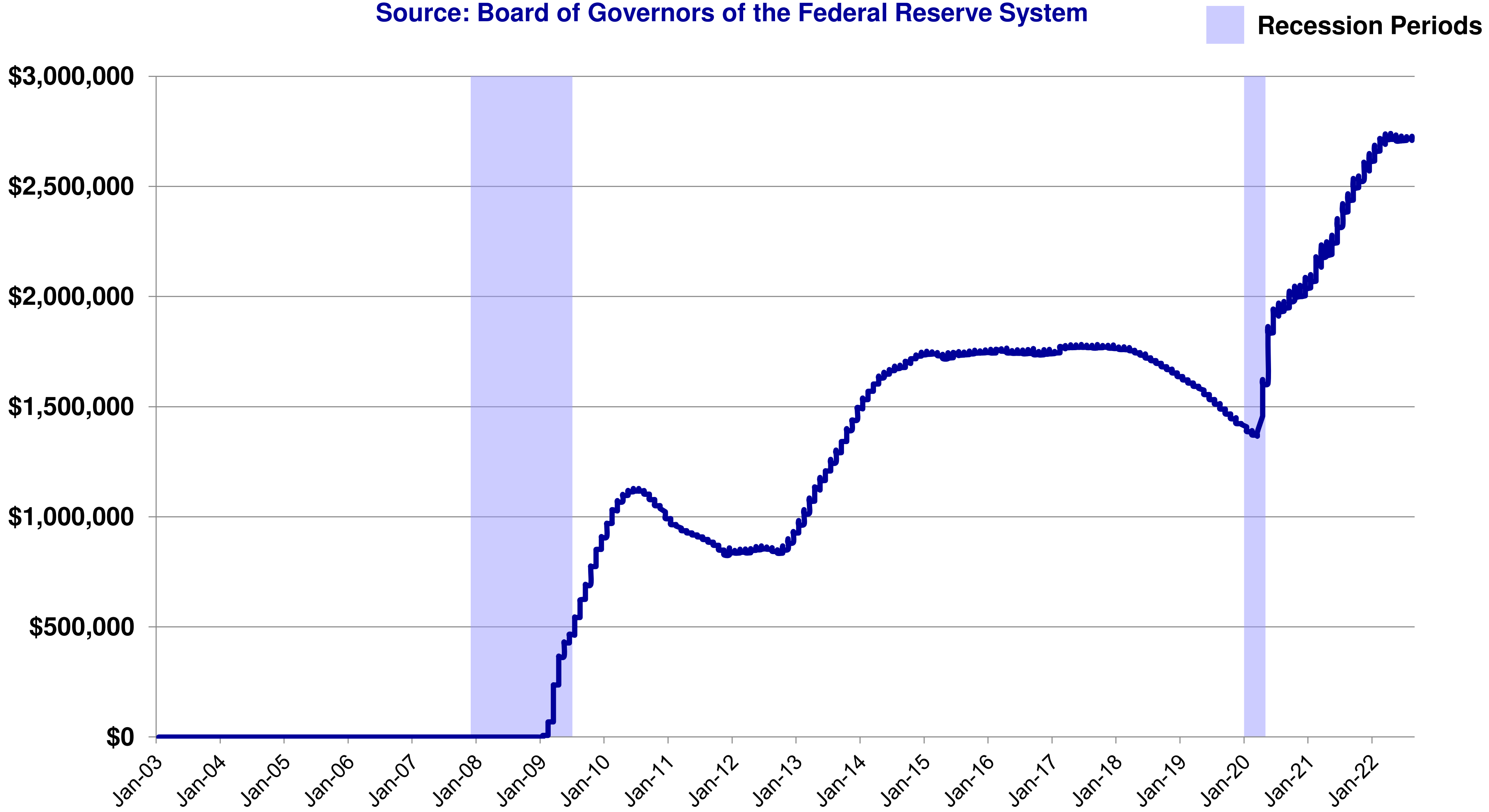
- **Quantitative Easing (QE)**
  - The Fed purchases securities from the open market to reduce interest rates and increase money supply.
  - This provides banks with more liquidity and encourages lending and investment.

- **Quantitative Tightening (QT)**
  - The Fed shrinks its reserves by selling treasuries, other instruments or by letting treasuries mature thereby removing liquidity or money from financial markets.

Securities Held Outright: Mortgage-Backed Securities: Wednesday Level

2002 – 2022*

Source: Board of Governors of the Federal Reserve System



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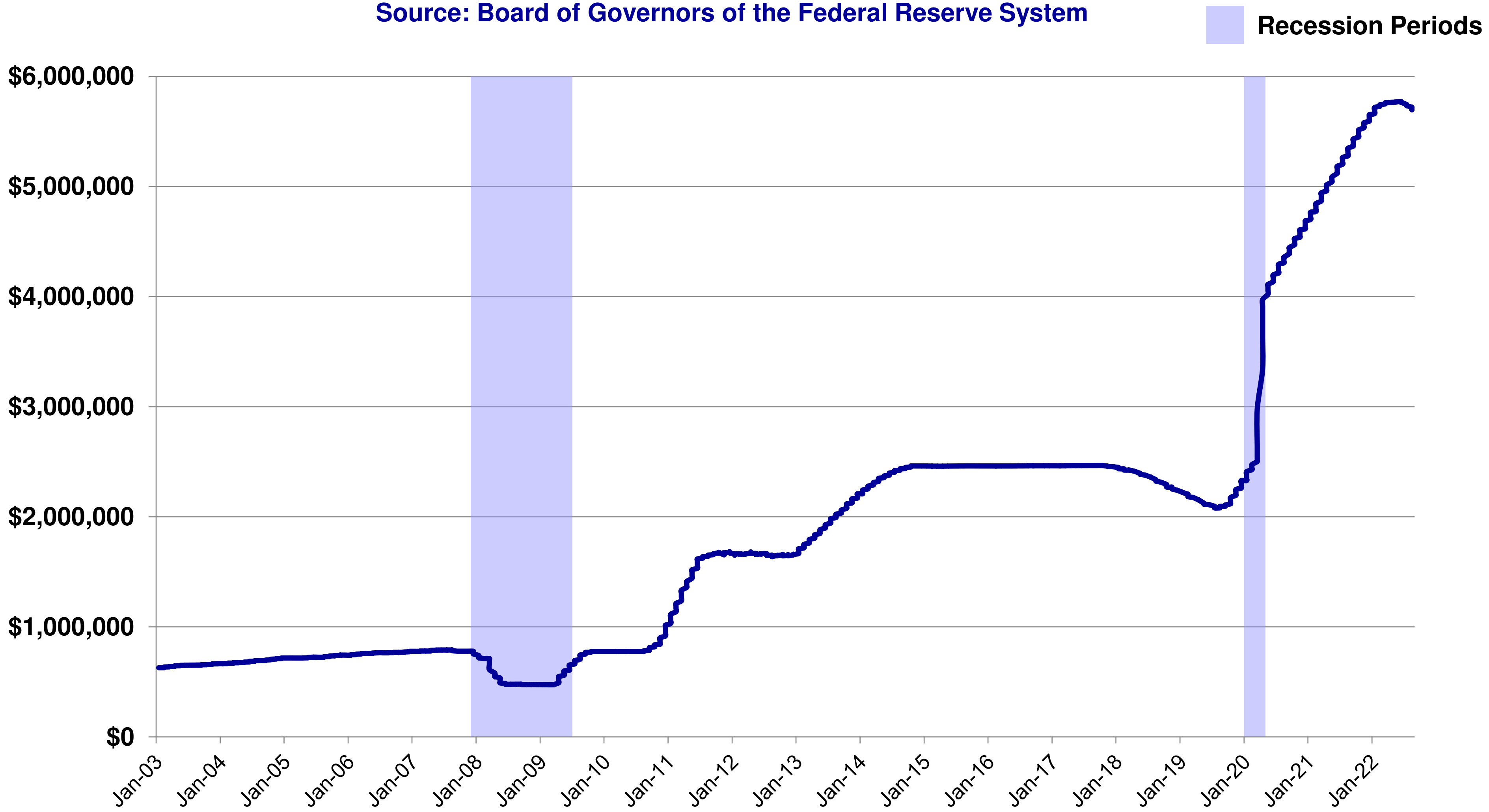
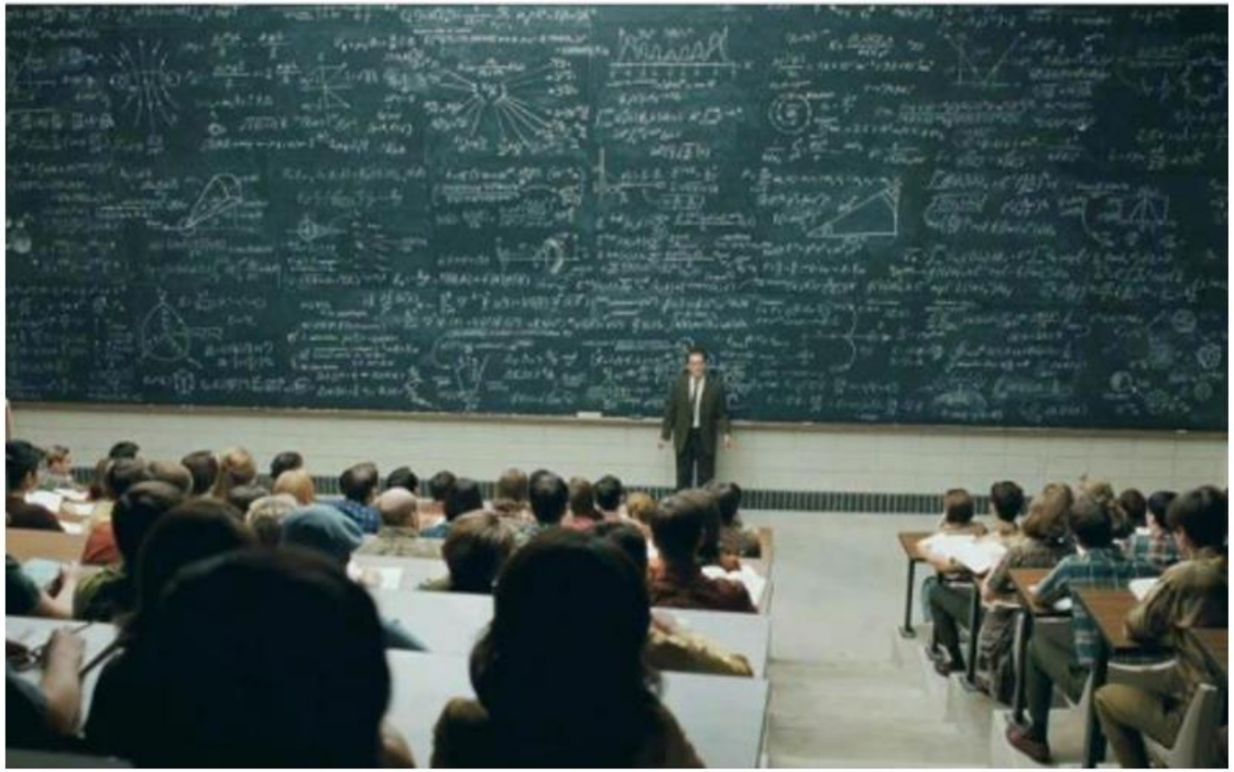
*Data through August 2022.

Securities Held Outright: U.S. Treasury Securities
Wednesday Level
2002 – 2022*
Source: Board of Governors of the Federal Reserve System



*Data through August 2022.

Recent Discussion on Fed's Policy



Quantitative Tightening

- The Fed just doubled the pace of Treasuries runoff to $60 bil per month and mortgage backed securities run of is at $35 bil per month.
- Will it work? It will work until it doesn't.
- Will a liquidity issue occur as the Fed tightens? No one knows….including the Fed.
- We are in uncharted waters. This creates significant risk.

Quantitative Tightening

- The last 3 Fed Chairs did an excellent job in preventing any major financial disasters. 2008 and 2020 could have turned out a lot worse than they did.
- The Fed has now gone from a long period of QE to a period of QT.
- So, now the Fed is doing two things at once:
- One that it hasn't done to the extent necessary in 40 years. (raising rates to slow the rate of inflation)
- The other has only been done in a limited basis. (significant quantitative tightening)

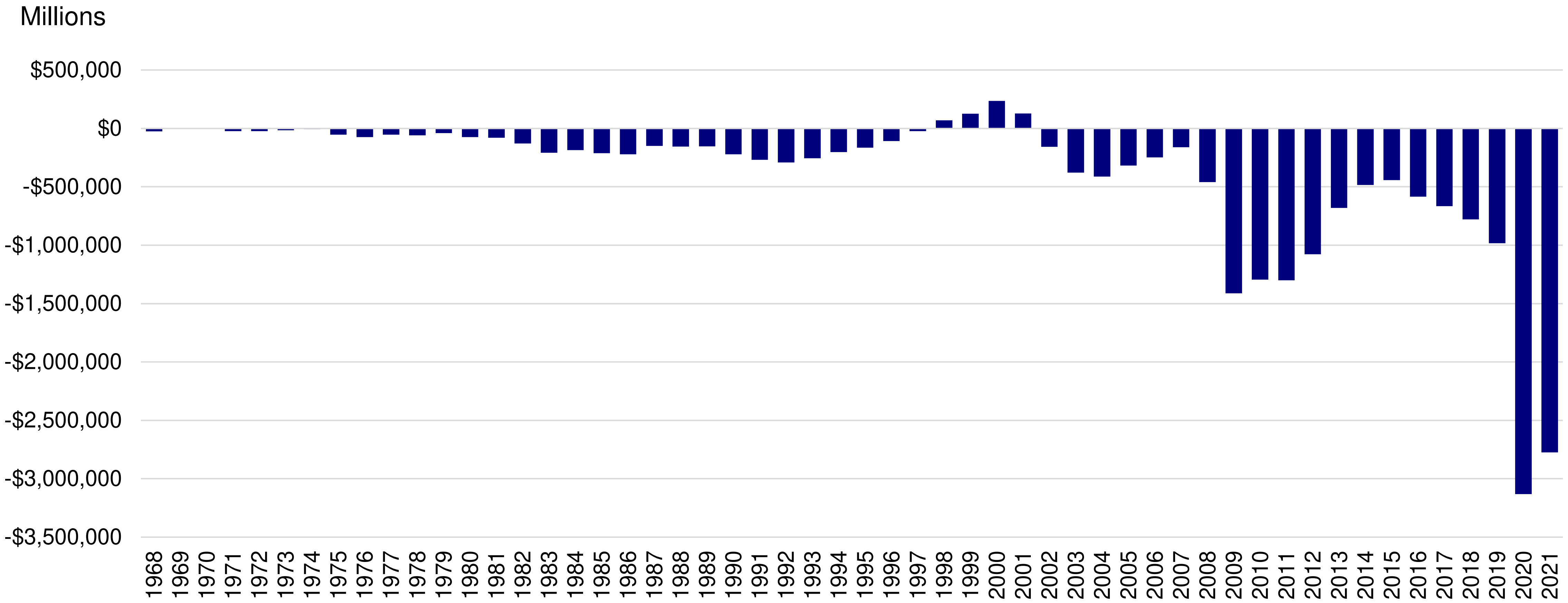
What Can Possibly Go Wrong?

Fiscal Policy is Counter Productive

- Incentives matter.
- Increased taxes and tougher regulation will clearly result in slower long-term growth.
- President Biden and congress have approved the student-loan forgiveness program and the Inflation Reduction Act. Regardless of how you feel about those programs, they are design to expand consumer's spending power. Thus, the programs increase demand.
- The increase in demand comes at a time the Fed is trying to slow demand to reduce upward pressure on prices.
- These and other moves by the Biden administration make it tougher for the Fed to accomplish its goal.

FY Federal Surplus or Deficit [-]

U.S. Office of Management and Budget



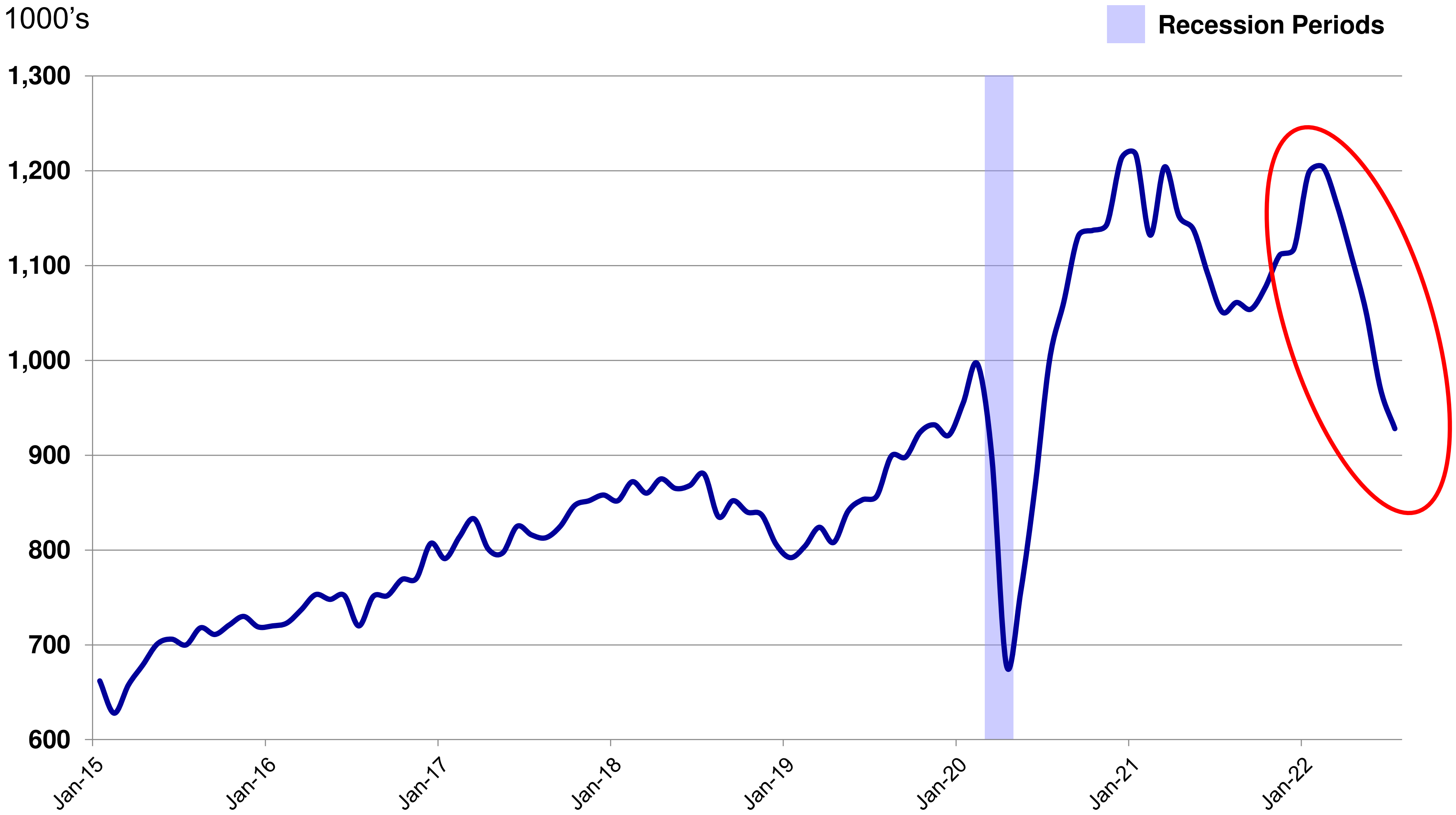

STIHL

Housing

You seeing what I am seeing?

How the Fed's changes have affected housing?

Single Family Permits (SAAR)
2015 – 2022*
Source: U.S. Bureau of Labor Statistics



*Data through July 2022.

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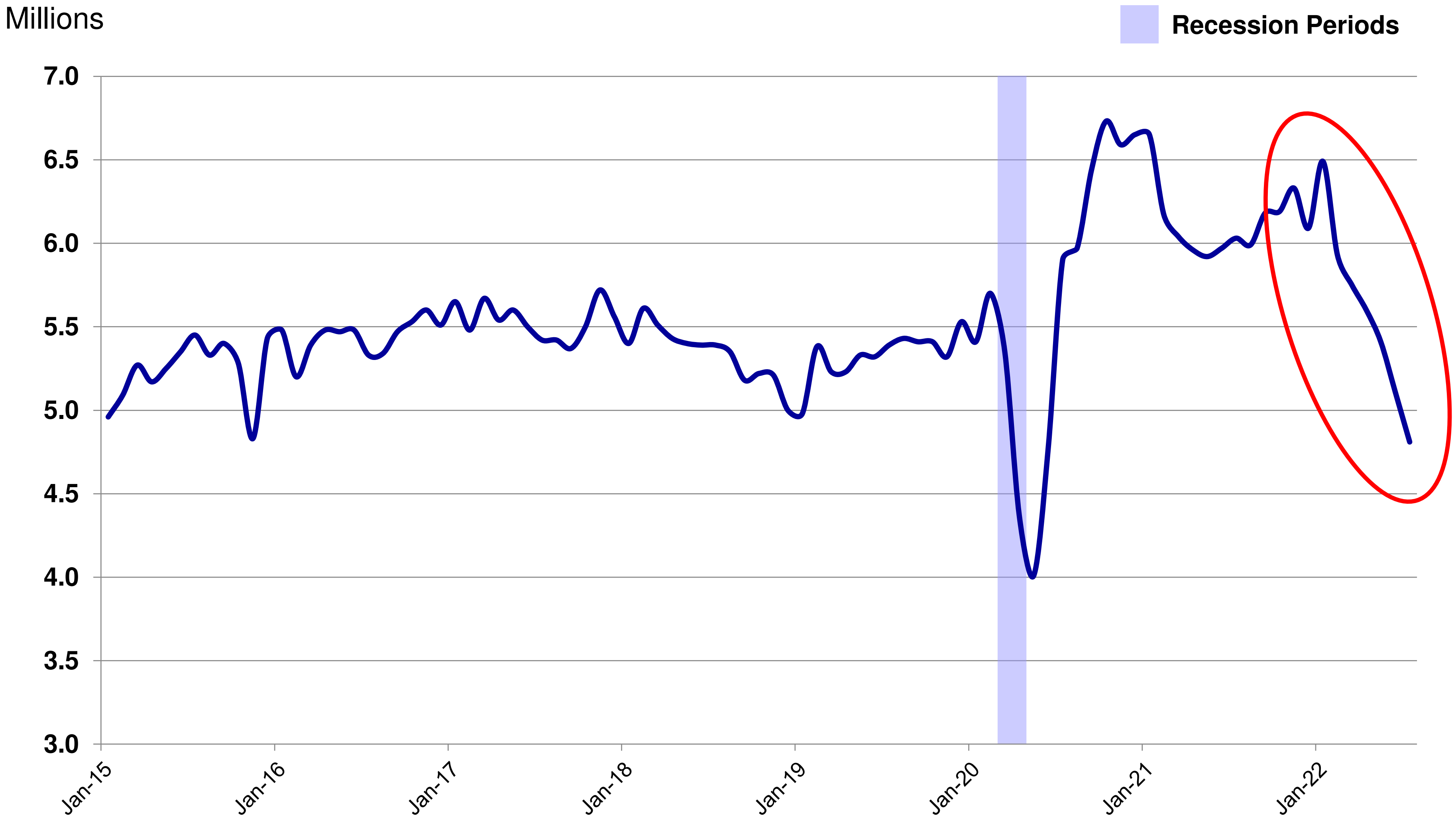
Existing Home Sales (SAAR)
2015 – 2022*
Source: NAR



*Data through July 2022.

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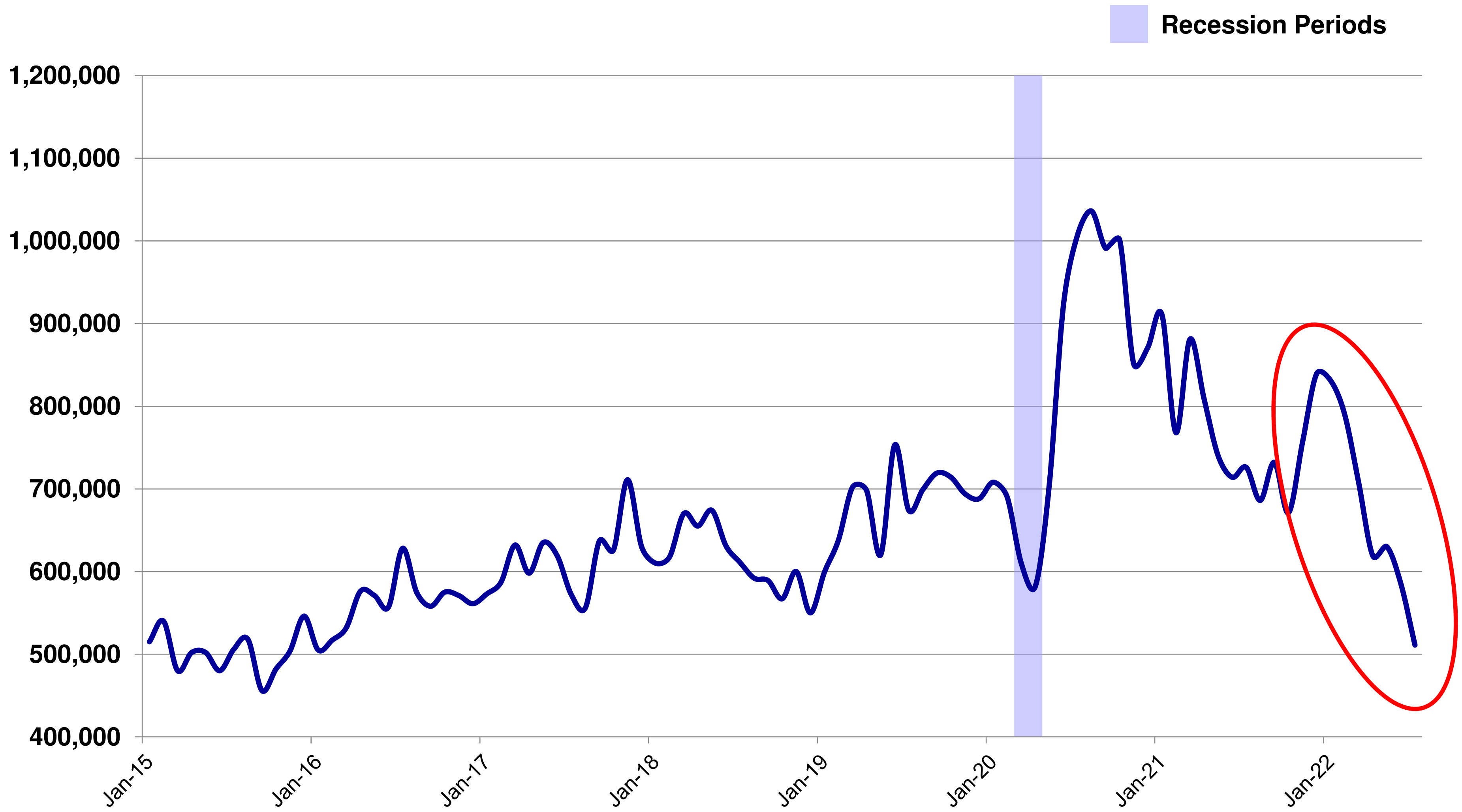
New Home Sales (SAAR)
2015 – 2022*
Source: U.S. Census Bureau



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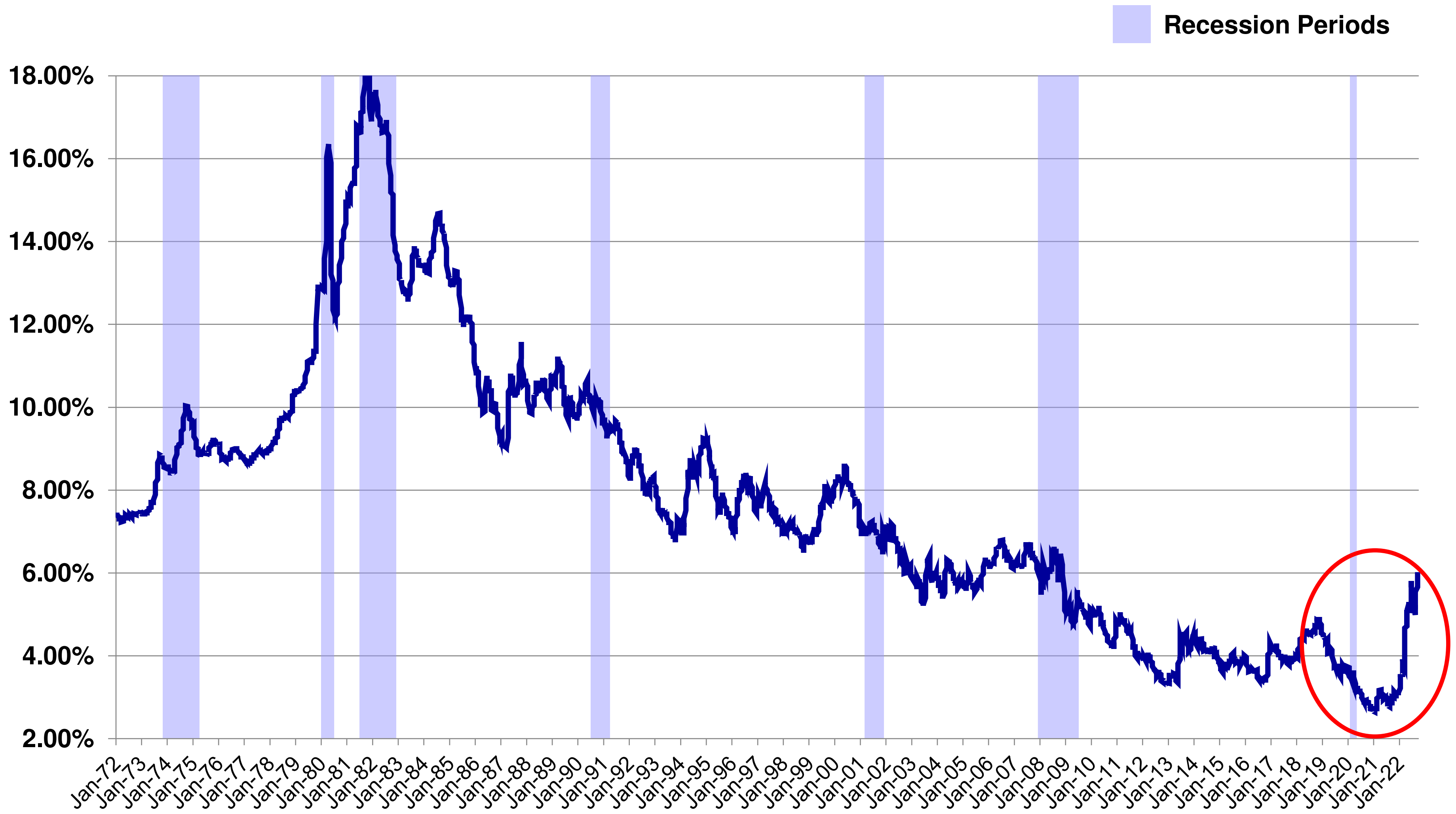
*Data through July 2022.

30-year Mortgage

1972 – 2022*

Source: Freddie



*Data through September 2022.

Mortgage Payment Change

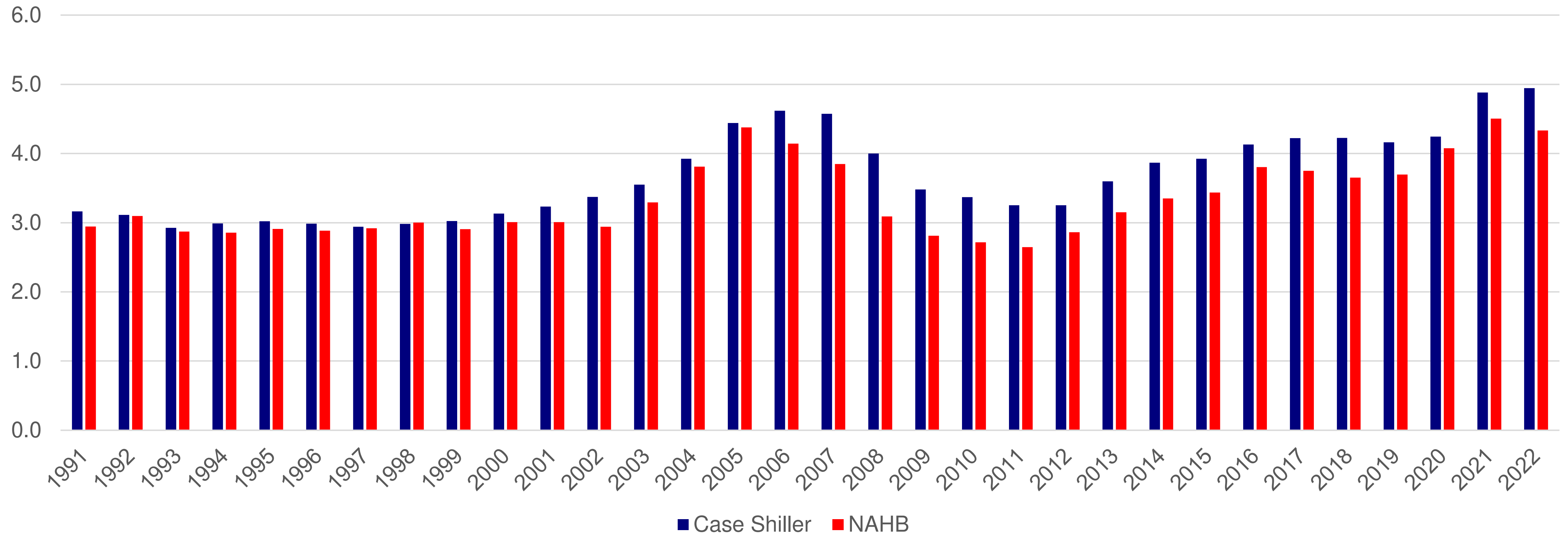
Source: Freddie; U.S. Census; NAR

10% down payment

	July 2010	July 2015	July 2020	July 2021	July 2022
Median Sales Price - New	$212,100	$292,300	$329,800	$406,000	$439,400
Median Sales Price - Existing	$177,800	$231,800	$305,600	$364,600	$403,800
Mortgage Rate Only	4.56%	4.05%	3.02%	2.87%	5.41%
Interest & Principal - New	**$974**	**$1,264**	**$1,255**	**$1,515**	**$2,223**
Interest & Principal - Existing	**$817**	**$1,002**	**$1,163**	**$1,361**	**$2,043**

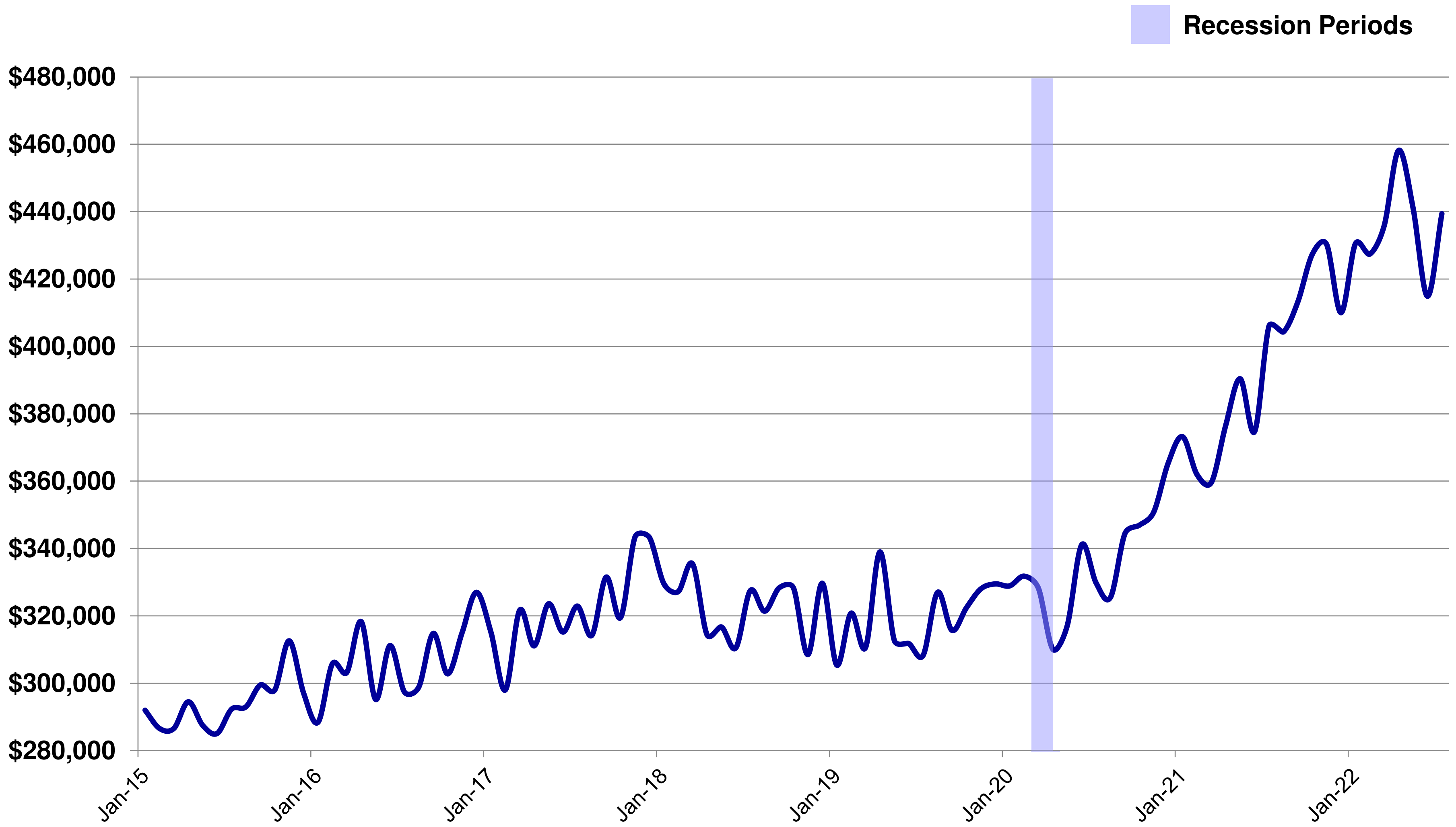
The monthly payment for the same house increased 40% for new home and 50% for an existing home between July 2021 and July 2022

U.S.
Ratio of Housing Price to Family Income



HUD: annual median family income estimates

New Home Median Sales Price
2015 – 2022*
Source: U.S. Census



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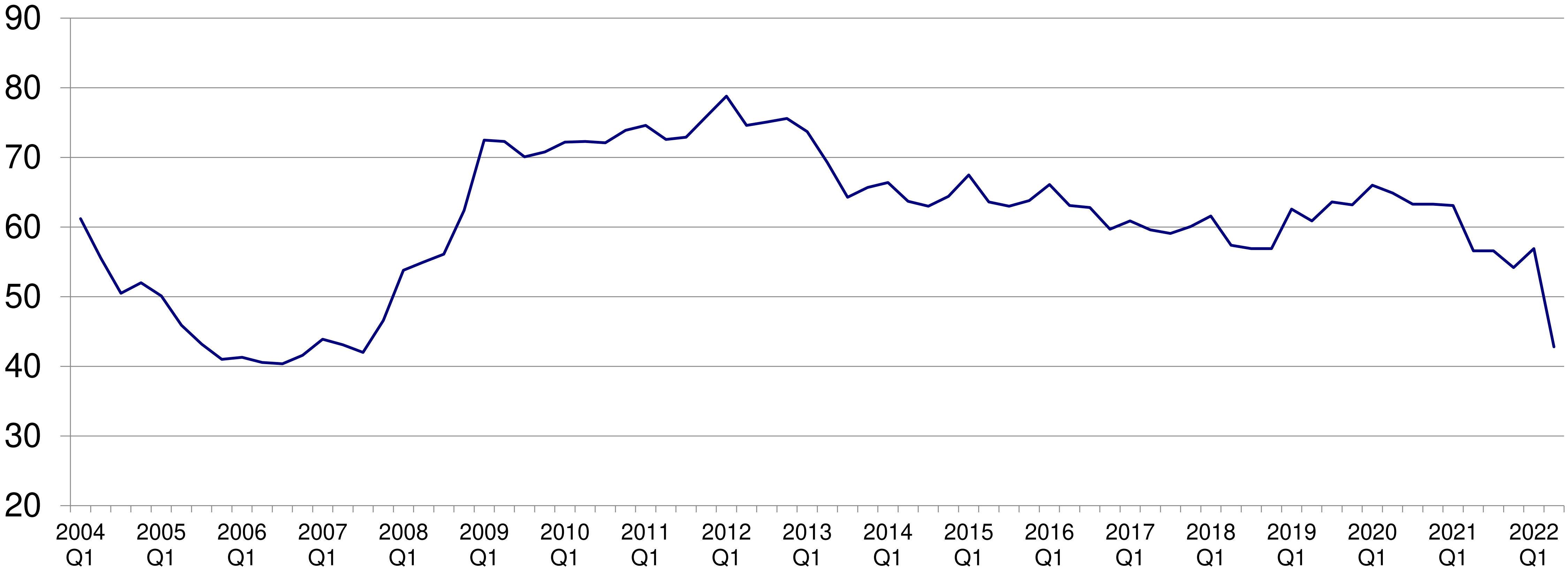
*Data through July 2022.

Housing Opportunity Index 2004-2022*

All tracked transactions
Source: NAHB/Wells Fargo

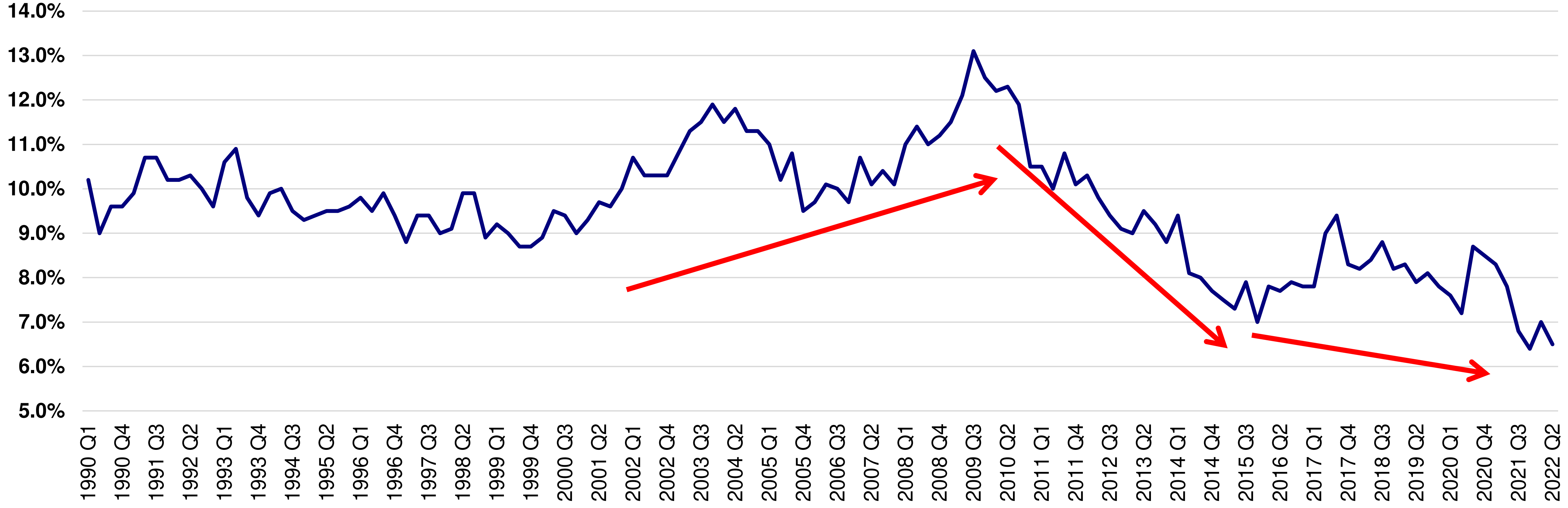


Elliott D. Pollack & Company
Court, Merritt, Pollack, & Stevenson

*Data through Q2 2022

U.S. Rental Multi-family Vacancy Rate

Source: U.S. Census Bureau



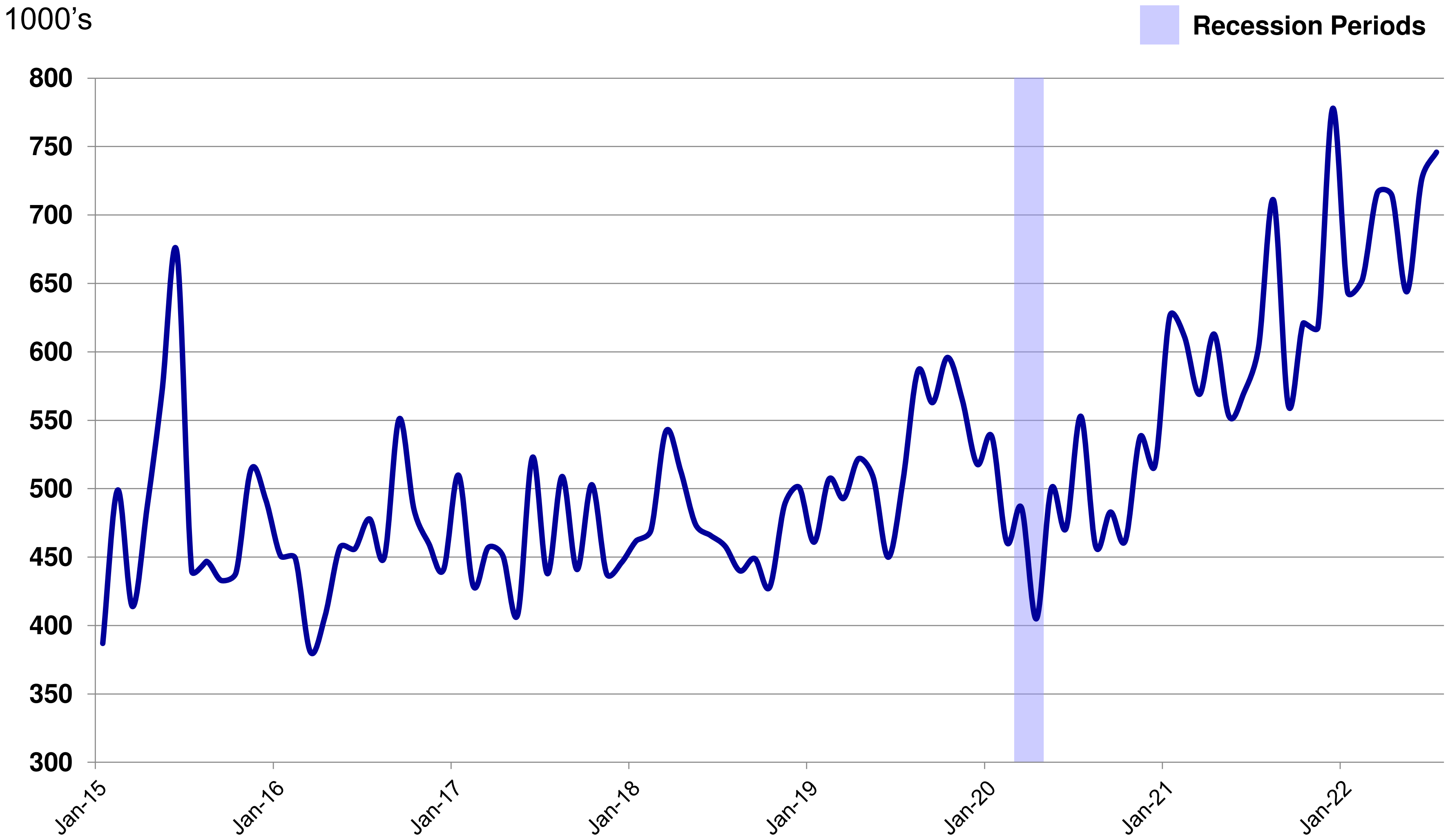
5 or more units

Good News for Apartments

Multi-Family Permits (SAAR)

2015 – 2022*

Source: U.S. Bureau of Labor Statistics



*Data through July 2022.

Are the Lights Going out?

Summary

- Consumers are getting nervous despite lots of cash and a strong job market. The nervousness comes from the decline of real incomes and inflation in the price of necessities.
- Businesses are in good shape but will affected by the slowdown, interest sensitive sectors and a tougher Fed policy.
- Housing demand will take the brunt of the hit delivered by the Fed.
- Fed is in uncharted waters
- Fiscal policy is still stimulative.
- The risks of the Fed quitting too early is there. The result would be very negative
- Overall, it could be a tough year. But dealing with inflation now beats all alternatives.

Fixing the Supply Chain, Fixes Inflation

- Not entirely.
- The supply chain has suffered repeated supply shocks. COVID, COVID waves, Chinese factories shutdowns (goods), Russian Invasion (agricultural goods, gas and oil).
- Consumer demand remained strong in part due to fiscal and monetary policies.
- The inability of producers to meet demand due labor force shortages has led to a bidding war for employees, driving up wages.
- What is so worrisome is that inflation has gotten into wage demands. This makes things more difficult.

It’s More Than Just Gravel

Overall Conclusions:

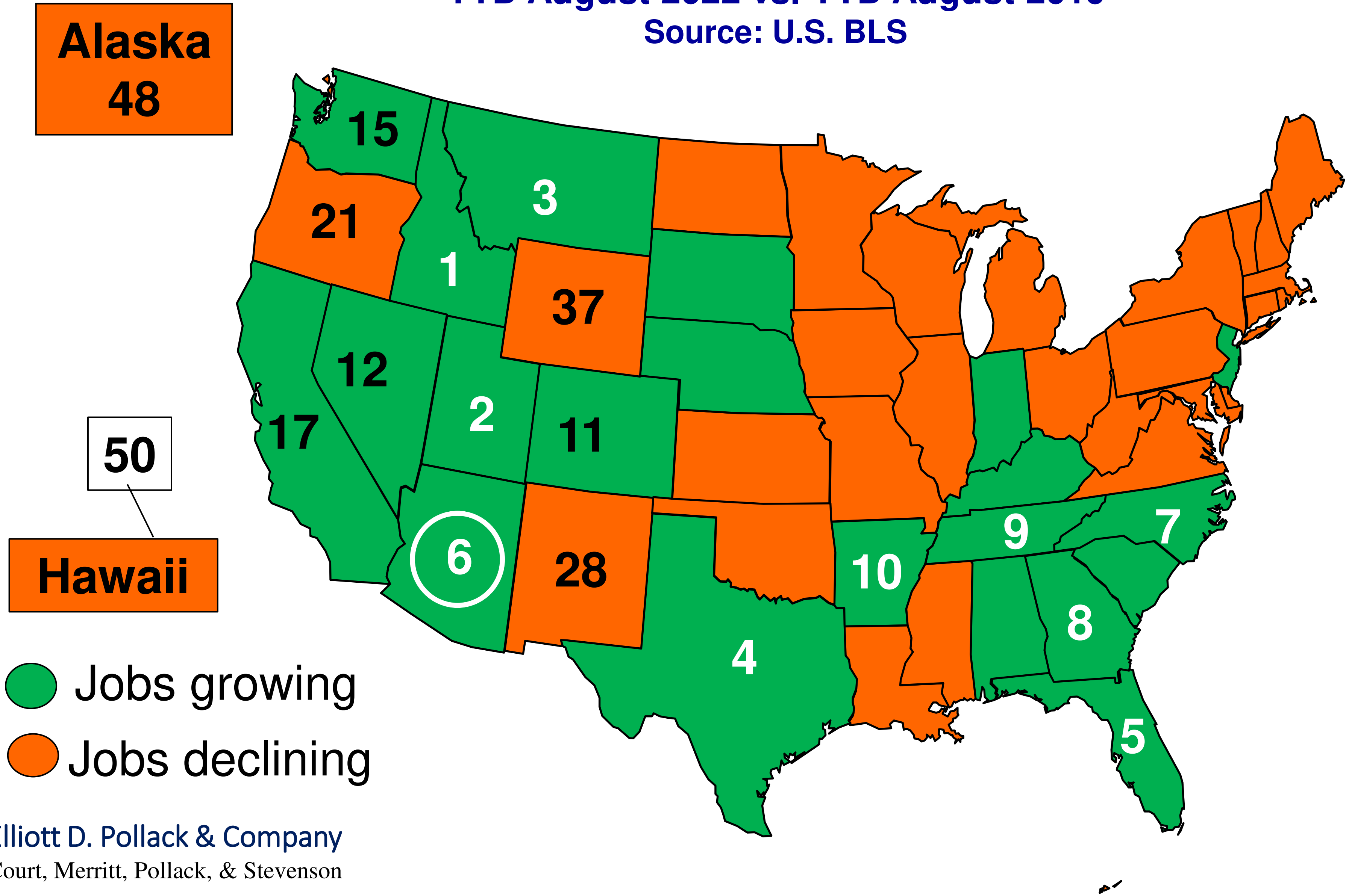
- The extent of the malaise we are now in will be determined by Fed policy and hopefully better fiscal policy.
- Expect the Fed to raise rates aggressively.
- The likelihood of a recession is high. Probably in 2023.
- If the Fed stays the course and deals with inflation now, the outlook for the economy becomes considerably better than if the Fed backs down and has to face the problem again later.
- Inflation is being dealt after 6 quarters of high inflation


GOOD LUCK
45
M.P.H.

State of Arizona

Job Growth 2022 versus 2019

YTD August 2022 vs. YTD August 2019
Source: U.S. BLS



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Greater Phoenix Employment Ranking

- When comparing Y-T-D 2022 versus Y-T-D 2019 Greater Phoenix is sixth.

Metro	YTD 2022	YTD 2019	Growth	Rank
Austin-Round Rock	1,109.0	1,228.6	10.8%	1
Dallas-Fort Worth-Arlington	3,759.2	4,063.8	8.1%	2
Riverside-San Bernardino-Ontario	1,536.8	1,641.8	6.8%	3
Nashville-Davidson--Murfreesboro--Franklin	1,038.3	1,102.8	6.2%	4
Tampa-St. Petersburg-Clearwater	1,375.7	1,451.6	5.5%	5
Phoenix-Mesa-Scottsdale	**2,156.1**	**2,271.1**	**5.3%**	**6**
Charlotte-Concord-Gastonia	1,230.2	1,287.1	4.6%	7
Atlanta-Sandy Springs-Roswell	2,835.6	2,952.1	4.1%	8
San Antonio-New Braunfels	1,071.9	1,101.9	2.8%	9
Sacramento--Roseville--Arden-Arcade	1,017.1	1,043.3	2.6%	10

Source: Bureau of Labor Statistics

Note: Metro areas with over 1,000,000 jobs

YTD through August

Jobs Recovered

(thousands)

Source: BLS; AOEO

Area	Jobs Lost Feb-20 to Apr-20	Jobs Recovered Apr-20 to Current*	% of Jobs Recovered
U.S.	-21,991.0	22,231.0	101.1%
Arizona	-338.7	433.0	127.8%
Greater Phoenix	-249.7	342.0	137.0%

*Note: Revised U.S. data through August;
Data for Arizona and Greater Phoenix through August

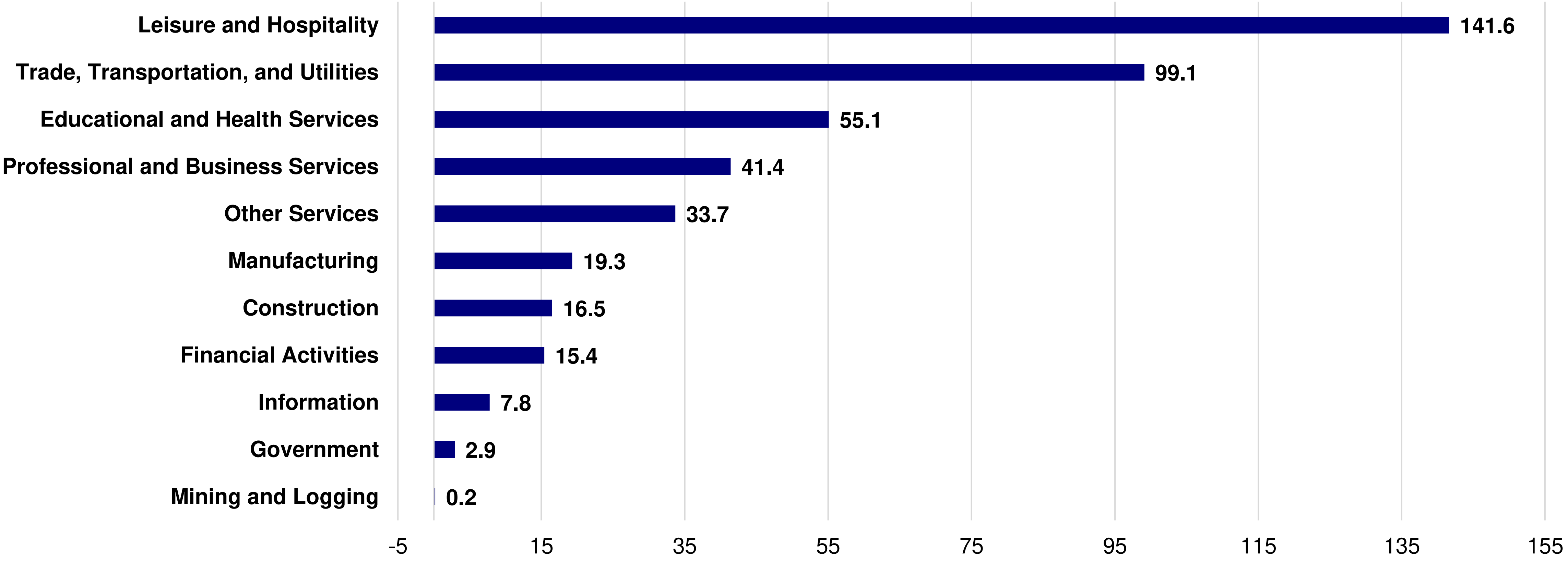
Arizona & Greater Phoenix

- Most of the growth is in Greater Phoenix
- Strong job growth
- Economic development successes (semiconductors, electrical car manufactures and suppliers)
- Strong industrial growth
- Single family housing is under lots of pressure.
- Rental housing still positive.
- Continued but slower population growth

Arizona

Jobs Regained/Lost (Apr-20 to Aug-22)

Source: BLS; OEOA

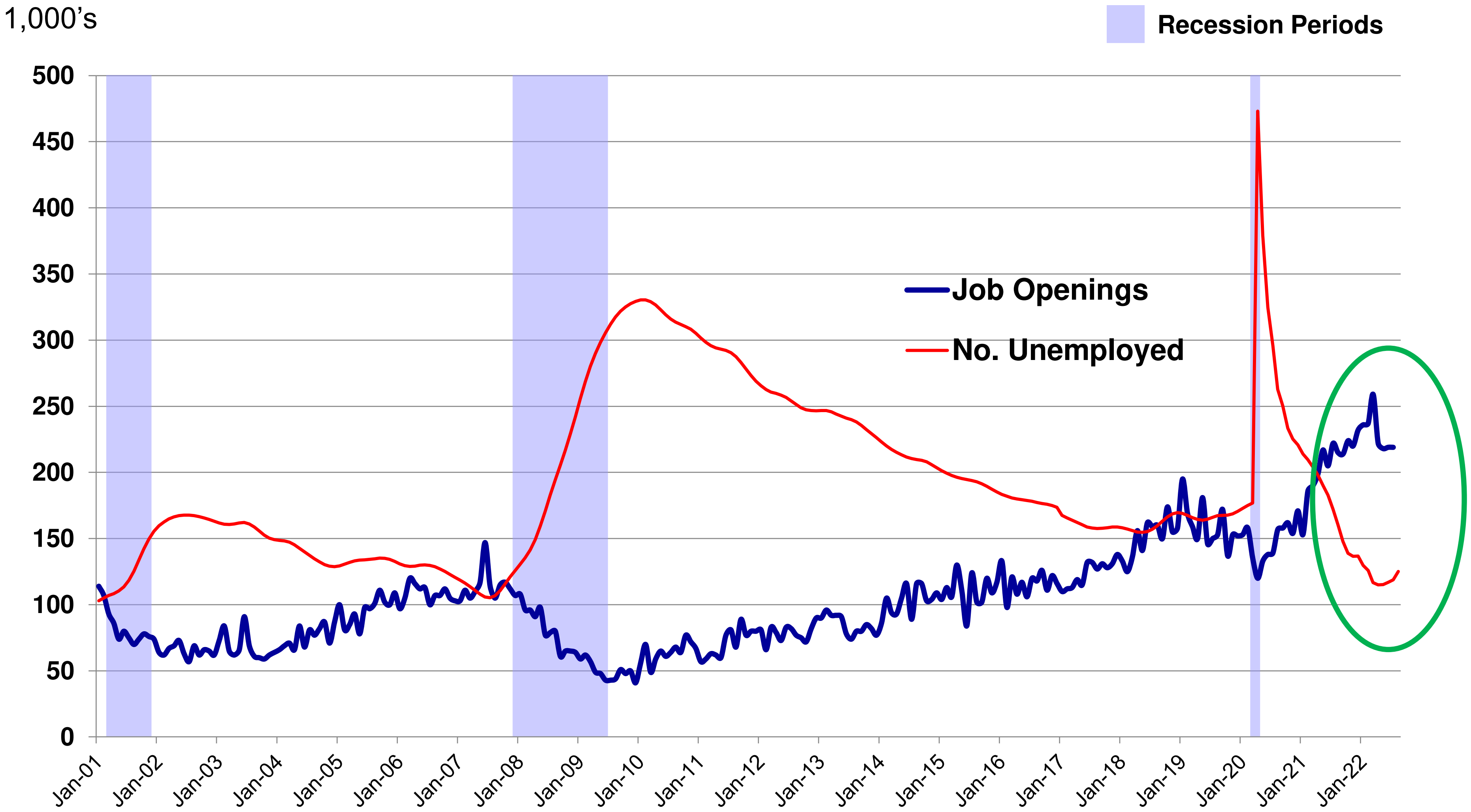


Jobs gained 433,00

Arizona Job Openings and No. Unemployed

2001 – 2022*

Source: U.S. Bureau of Labor Statistics



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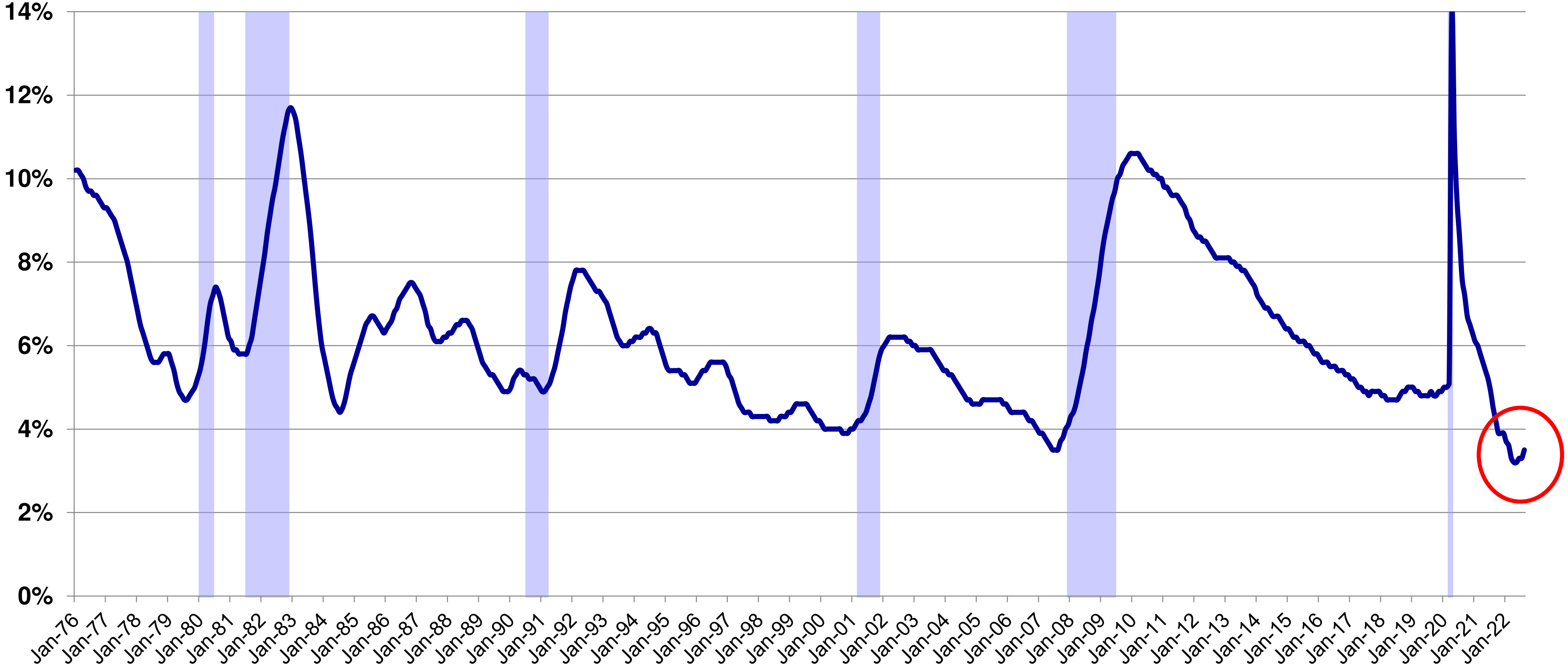
*Data through July 2022.

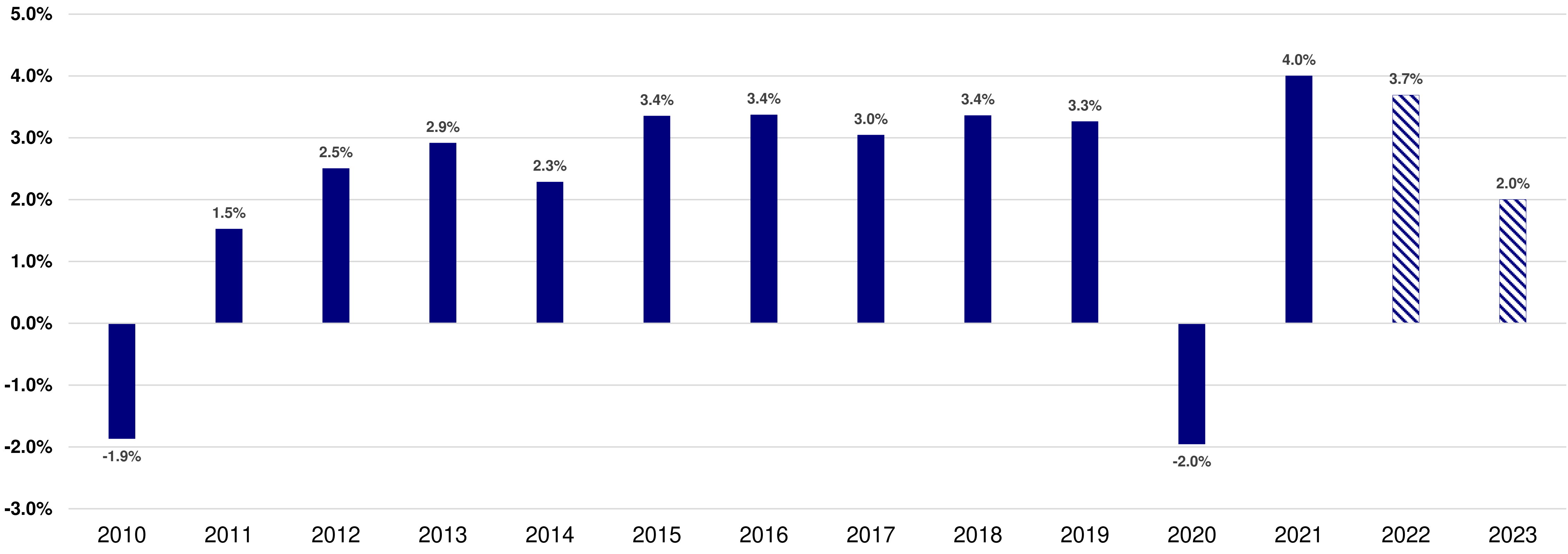
Arizona Unemployment Rate
1976-2022
Source: BLS; AOEO



Greater Phoenix

Employment

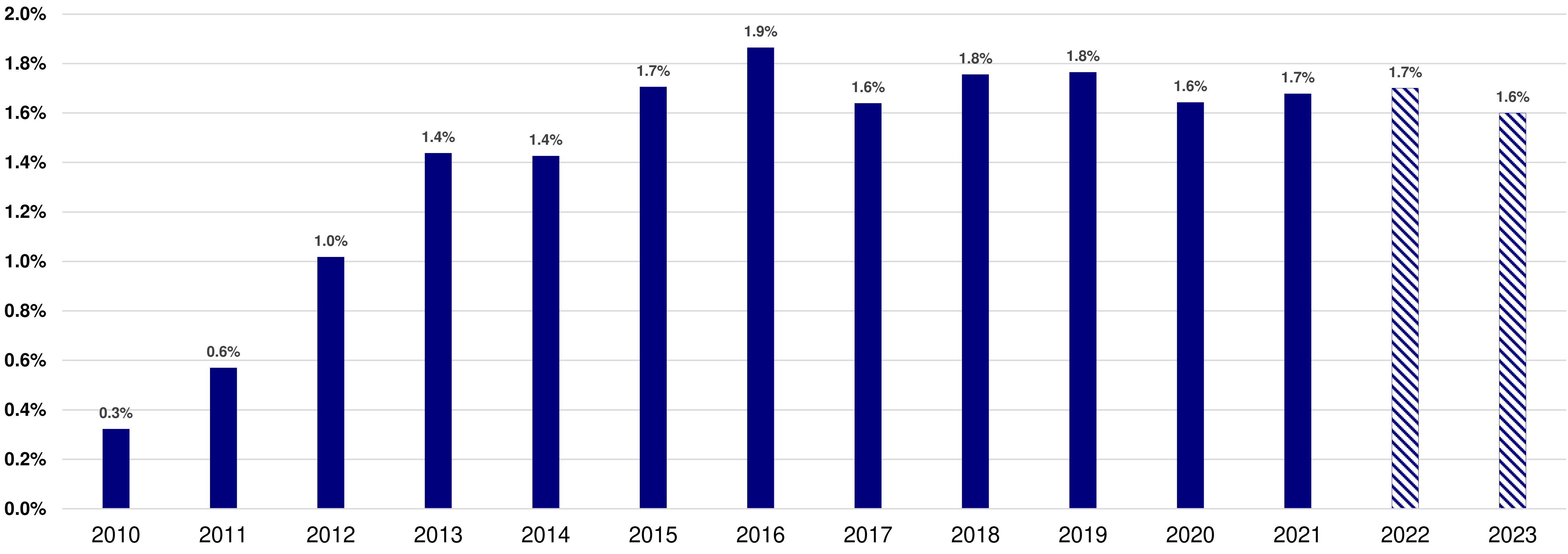
Source: AOEO; EDPCo



Greater Phoenix

Population

Source: AOEO; EDPCo



One-way 26-Ft. Truck Rental Rates

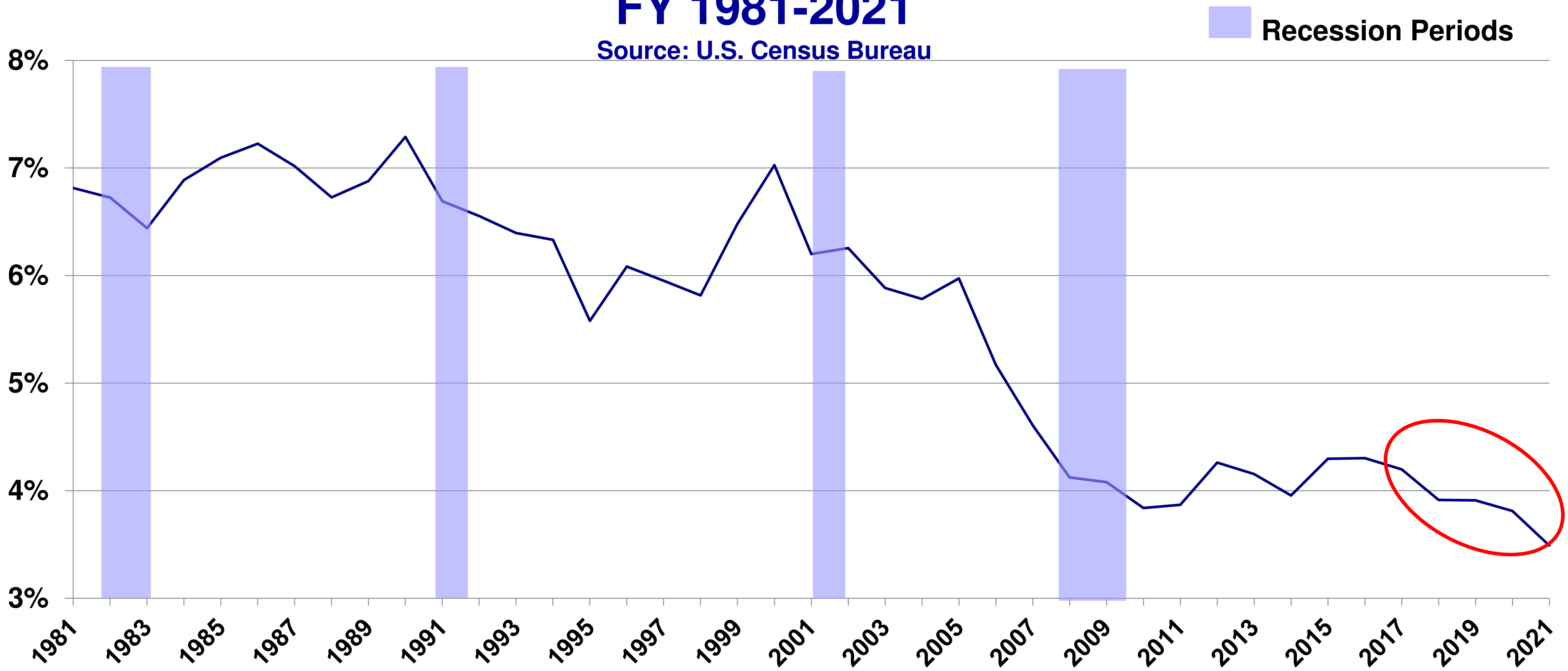
Source: Uhaul.com

From	To	U-Haul Cost
Los Angeles	Phoenix	$1,223
Phoenix	Los Angeles	$249
San Francisco	Phoenix	$2,500
Phoenix	San Francisco	$374

Arizona ranked 5th in U-Haul's 2021 Growth States

Total Movers as a % of Total U.S. Population FY 1981-2021

Source: U.S. Census Bureau



Note: Includes all movers except movers within same county

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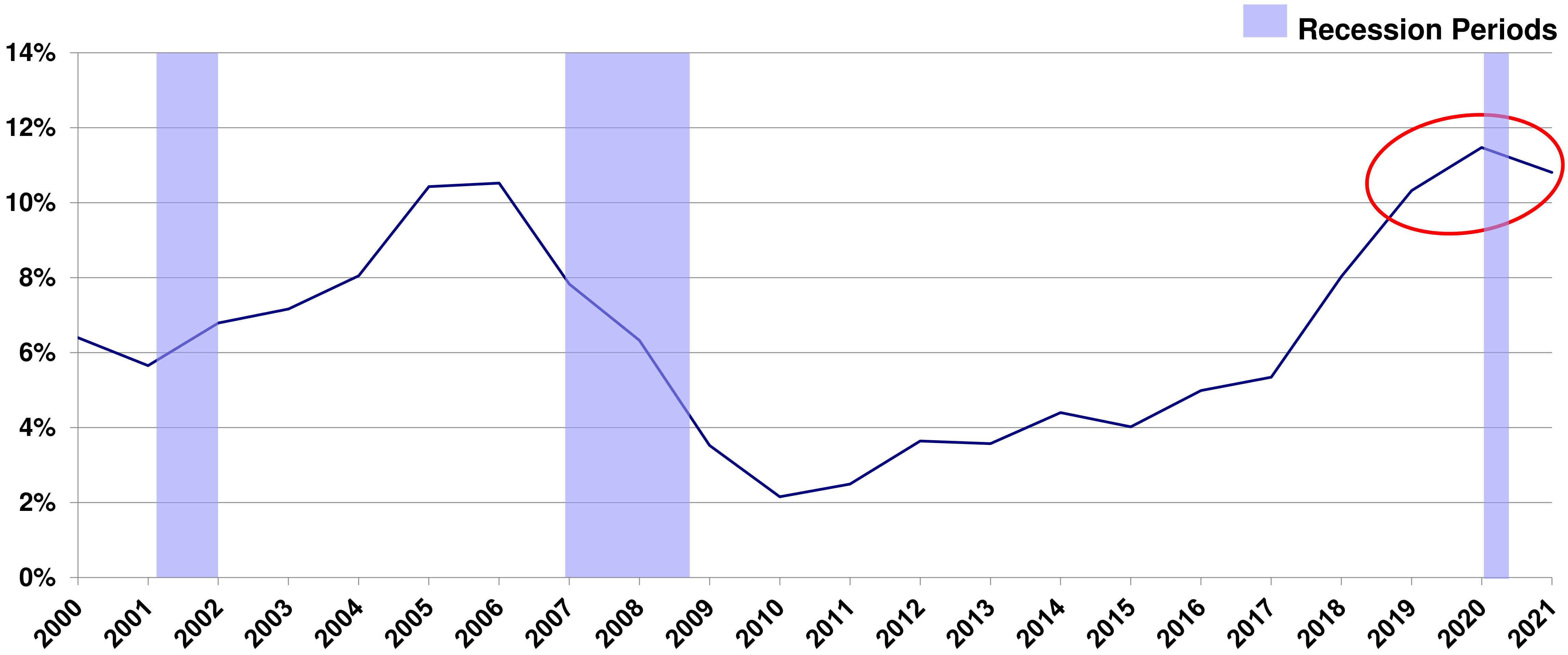
Arizona Capture Rate

Source: U.S. Census Bureau



Note: Does not include in-state movers;
Net migration numbers.

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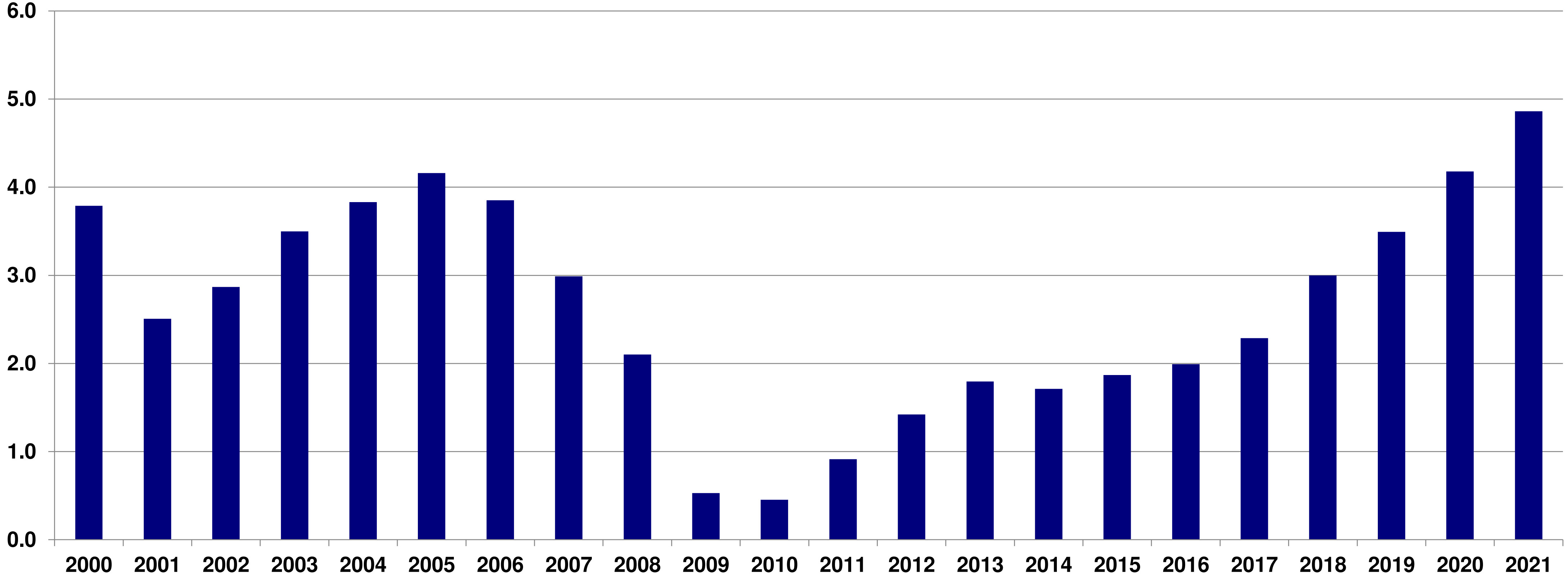
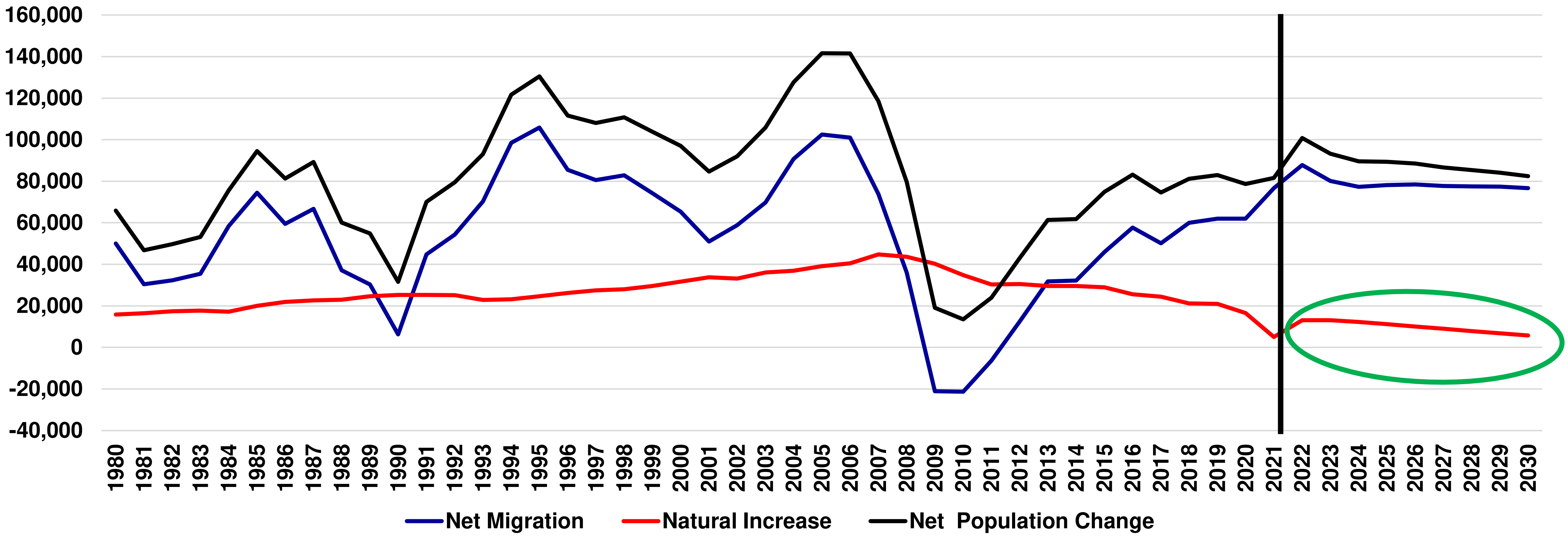
Population: Greater Phoenix to U.S.
Outgrowing the U.S.
2000-2021
Source: U.S. Census Bureau



Net Migration and Natural Increase
Source: AZDHS; UofA Forecasting Project



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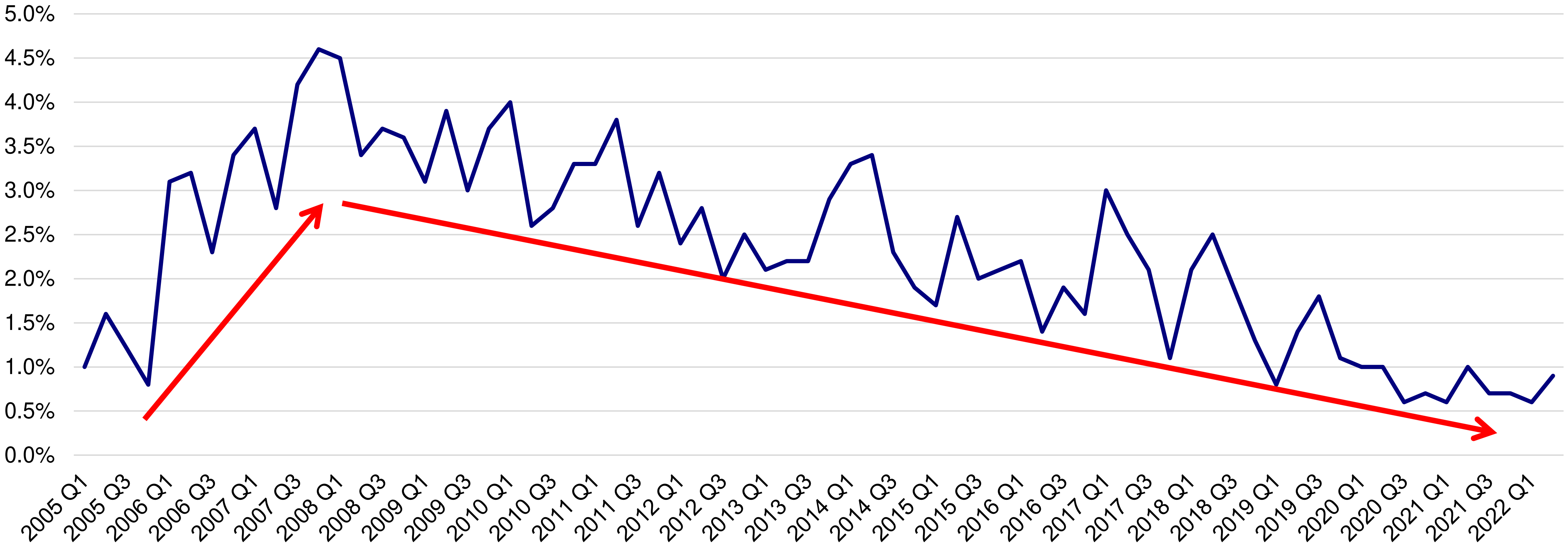
AZ Homeowner Vacancy Rate

Source: U.S. Census Bureau



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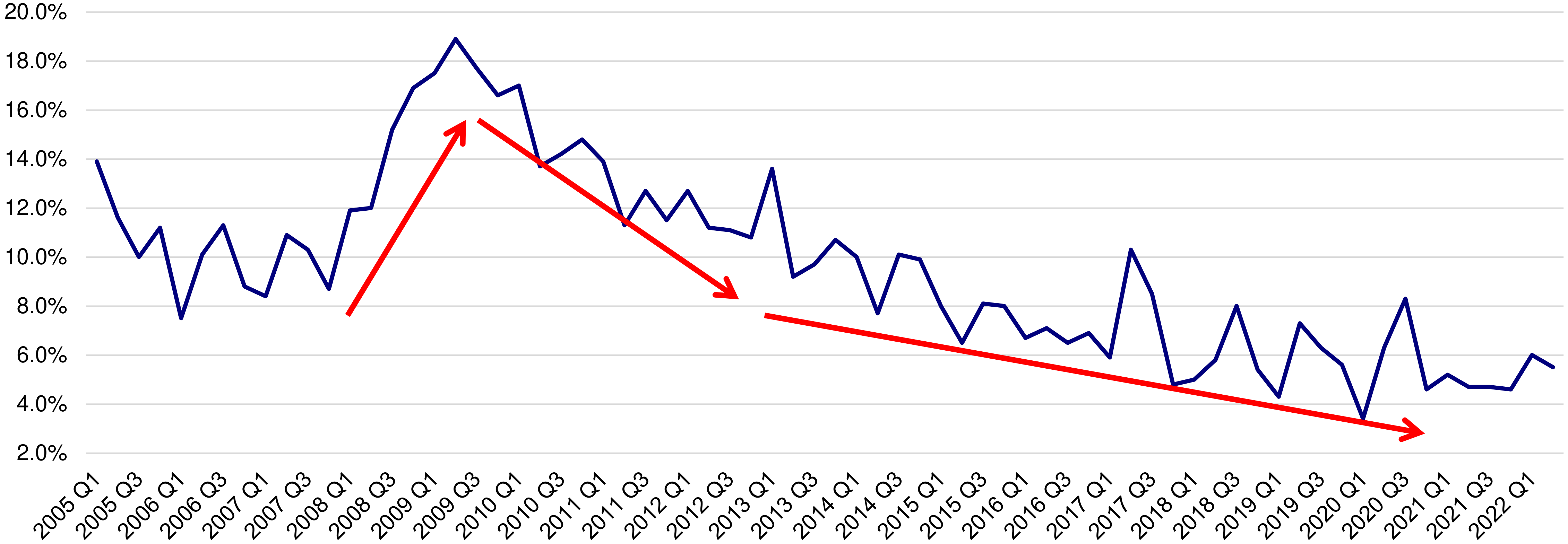
The homeowner vacancy rate is calculated as the ratio of vacant year-round units for sale to the sum of owner-occupied units, vacant year-round units sold but awaiting occupancy, and vacant year-round units for sale.

AZ Rental Vacancy Rate

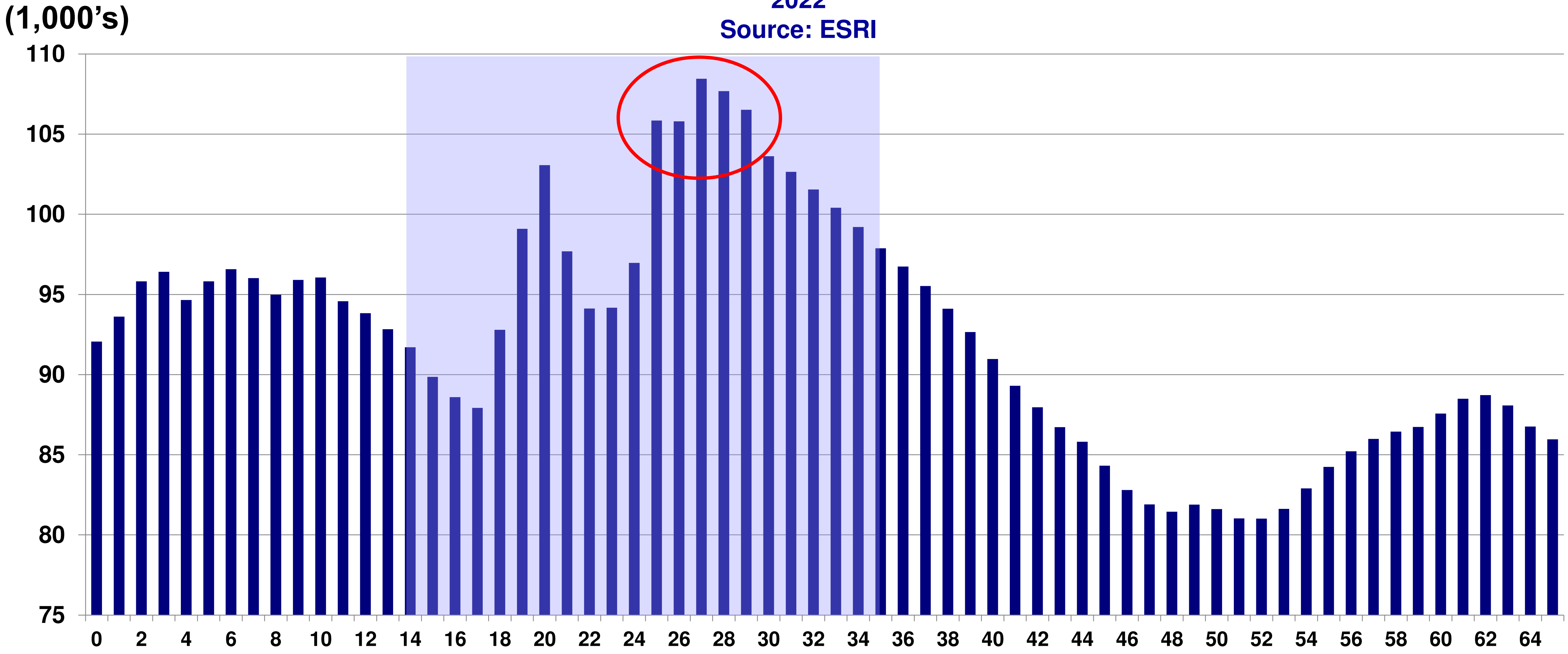
Source: U.S. Census Bureau



The rental vacancy rate is calculated as the ratio of vacant year-round units for rent to the sum of renter- occupied units, vacant year-round units rented but awaiting occupancy, and vacant year-round units for rent.

Arizona Population by Age (0-65)

2022
Source: ESRI



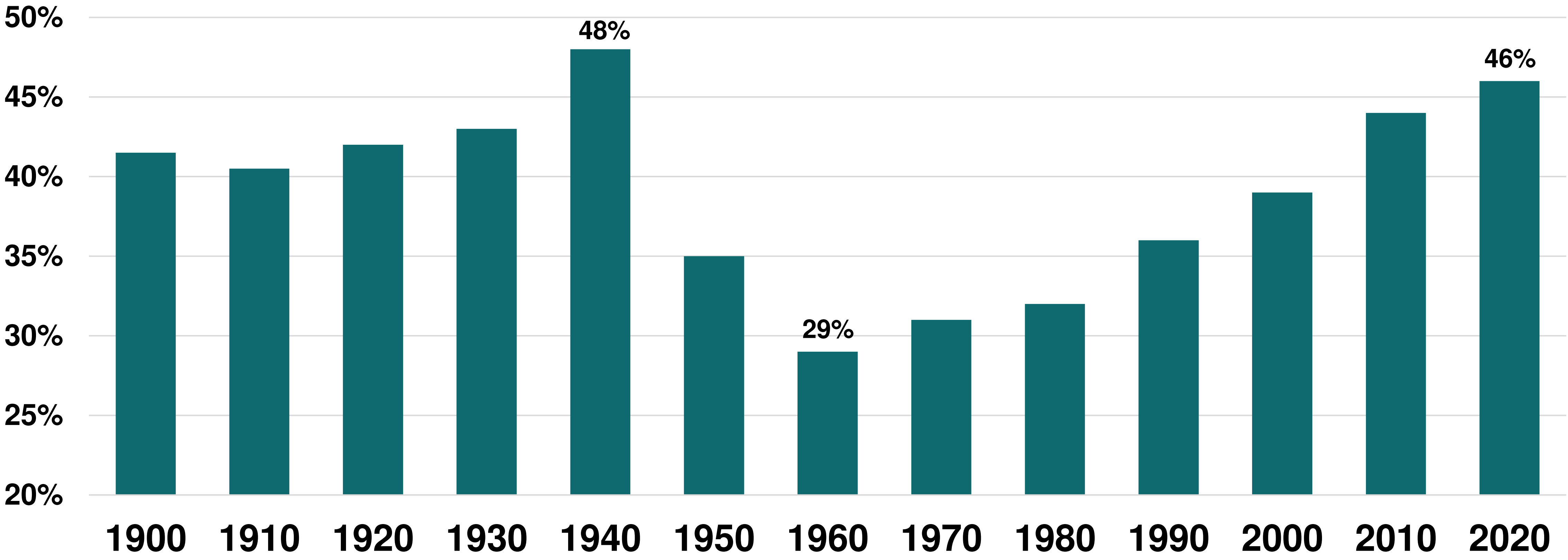
Arizona
Homeownership Rates by Age Group

Source: 2020 American Community Survey 5-Year Estimates

Householder Age	% of Total Occupied
15 to 24 years	**15.0%**
25 to 34 years	**49.8%**
35 to 44 years	**58.1%**
45 to 54 years	**67.3%**
55 to 64 years	**76.1%**
65 to 74 years	**82.4%**
75 to 84 years	**84.0%**
85 years and over	**73.9%**
Total	**65.3%**

Adults Living with a Parent
18-to-29-year-olds

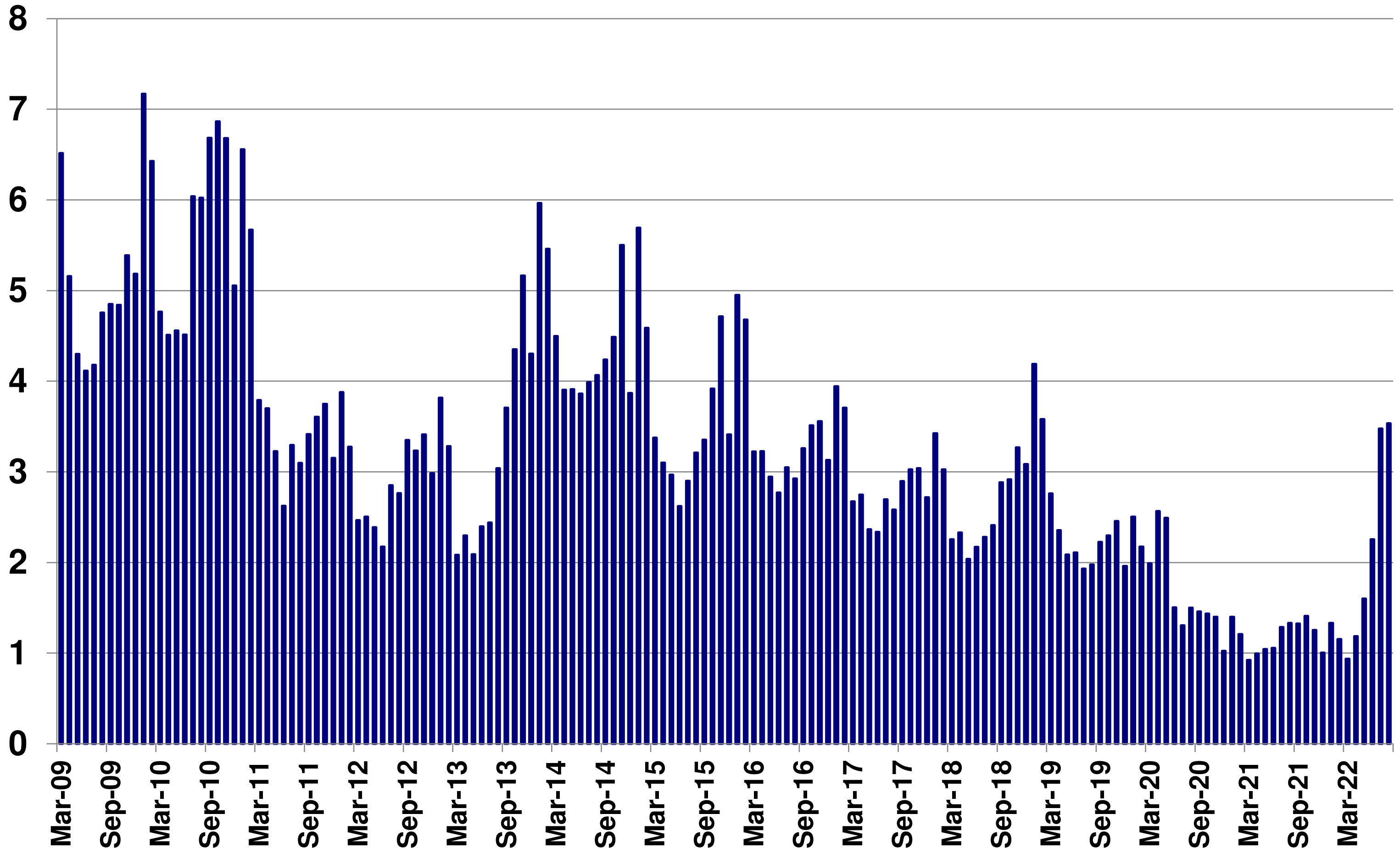
Source: U.S. Census Bureau



Greater Phoenix Months Supply

2009-2022*

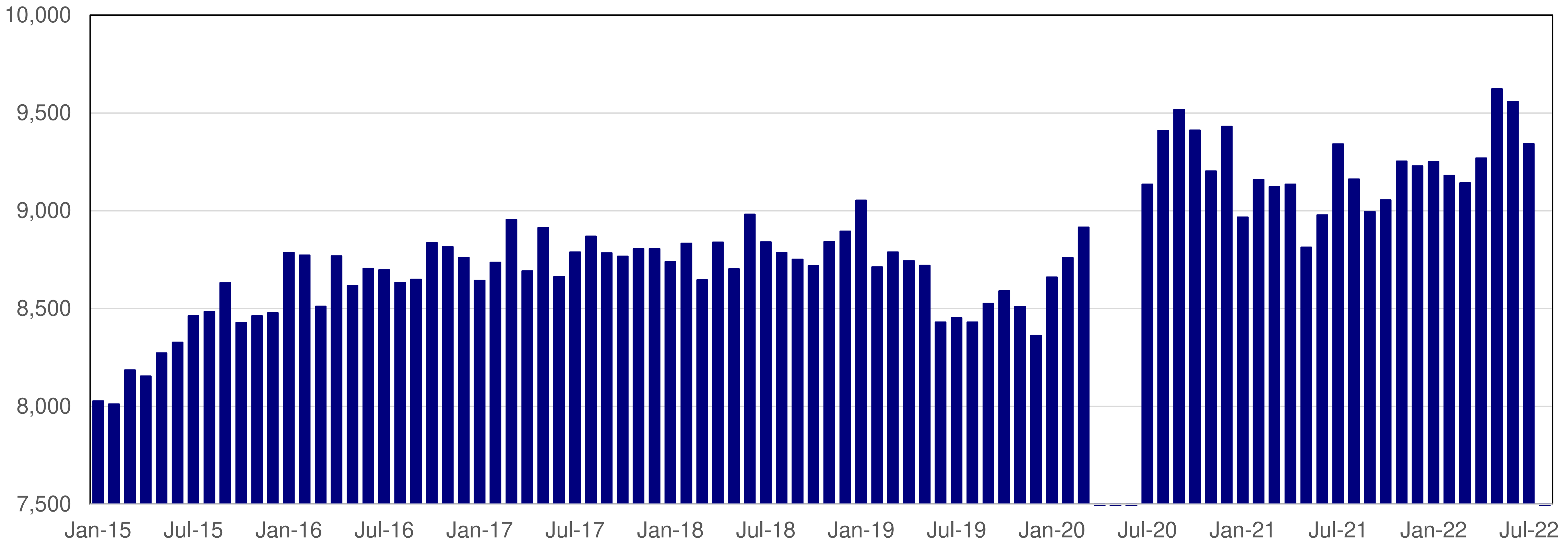
Source: ARMLS; Cromford Report



- Days of inventory:
  - Long run average 66.7
  - Currently at 60.8
- Days of Inventory for homes under $400,000:
  - Long run average 51.4
  - Currently 35.3

*Data through August 2022

Greater Phoenix New Listings (SA)
Source: Redfin



Greater Phoenix
MLS Housing Listings by Price

	Aug. 2015	Aug. 2019	Aug. 2021	Aug. 2022
Total	22,554	17,610	12,048	22,317
Under 300K	53.3%	37.9%	16.7%	9.5%
300k-500k	25.9%	32.9%	42.1%	44.0%
Over 500k	20.8%	29.2%	41.2%	46.5%

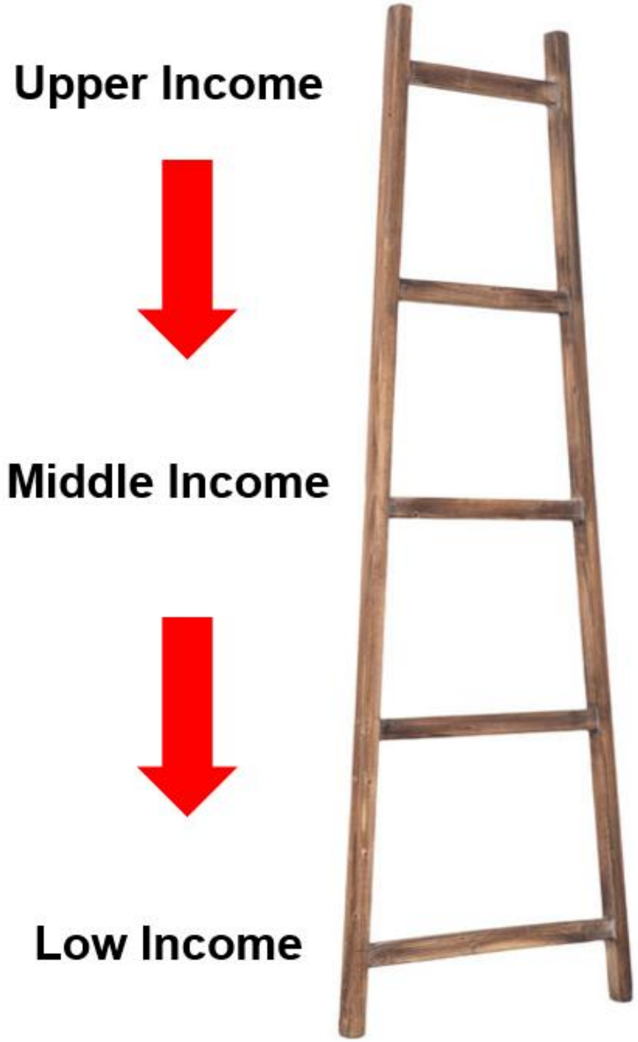
Housing


WE DID HAVE ONE PROPERTY
IN YOUR PRICE RANGE
BUT I'M AFRAID WE
SOLD IT IN 1969

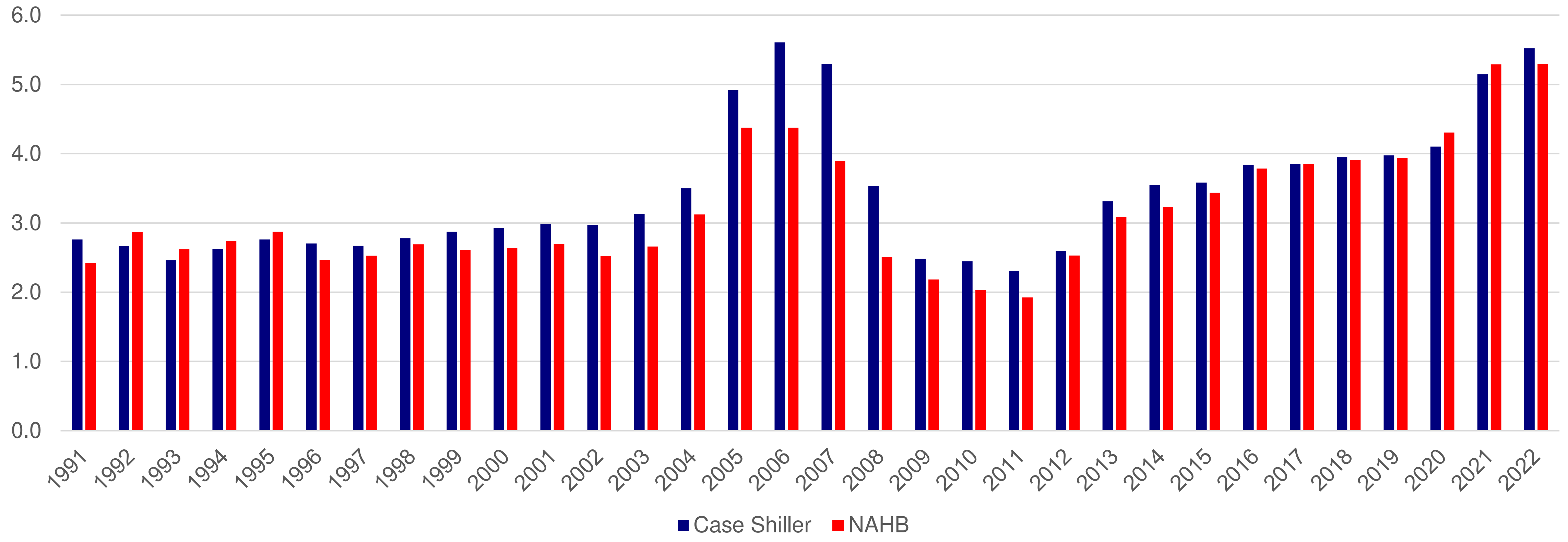
Median Sales Price

Source: ARMLS

Housing Affordability Ladder Effect



Greater Phoenix
Ratio of Housing Price to Family Income



HUD: annual median family income estimates

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Greater Phoenix Home Affordability

Year	Cost	Interest Rate	Total Monthly Payment	Annual Household Income Needed	Medium Income	HOI Phoenix
2000 Q2	$136,000	**8.20%**	$1,200	$51,416	$53,100	**64.4%**
2005 Q2	$225,000	**5.82%**	$1,661	$71,202	$58,300	**49.3%**
2010 Q2	$142,000	**5.11%**	$992	$42,501	$66,600	**80.8%**
2015 Q2	$236,000	**3.90%**	$1,495	$64,091	$64,000	**62.3%**
2020 Q2	$304,000	**3.34%**	$1,840	$78,863	$77,800	**70.3%**
2022 Q2	$470,000	**5.33%**	$3,340	$143,138	$79,000	**22.3%**
% Change	**245.6%**	**-35.0%**	**178.4%**	**178.4%**	**178.4%**	**-65.4%**

Total Payment: Principal, Interest, Property Tax and Insurance; LTV 90%
*Source: Freddie Mac, NAHAB

Mortgage Payment Change

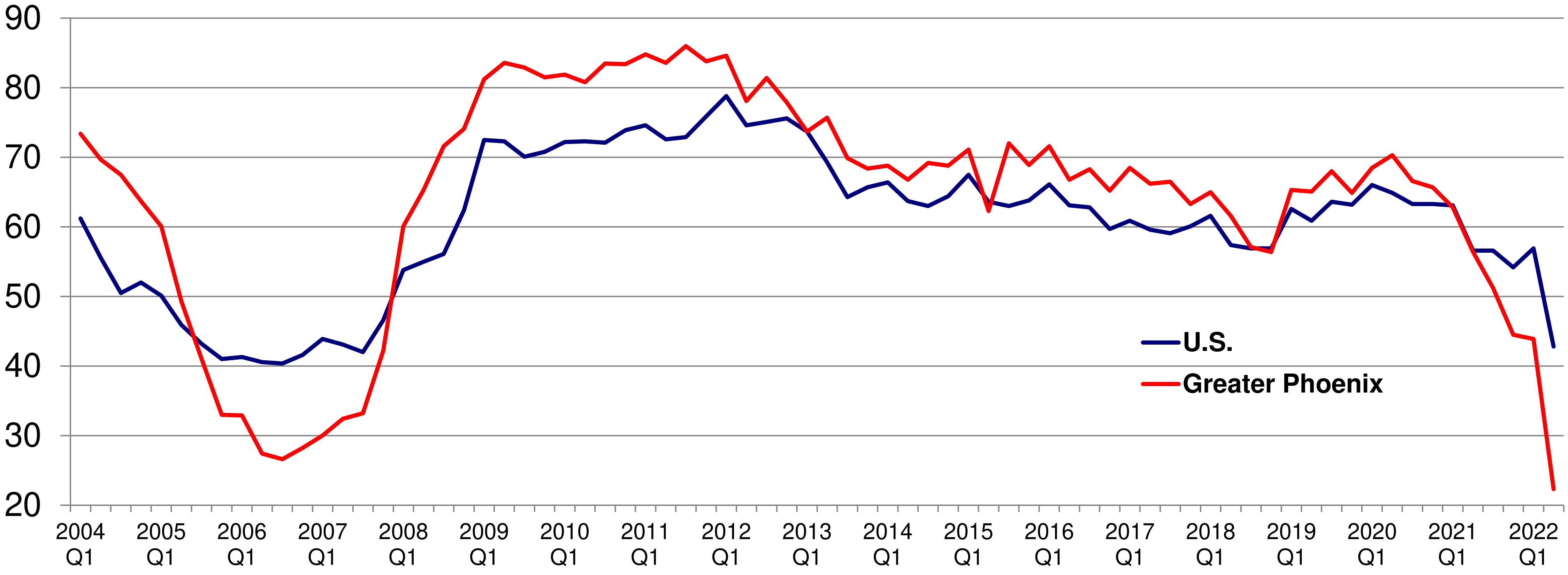
	December 2021	August 2022
Median Sales Price - New	$445,000	$514,000
Median Sales Price - Existing	$439,000	$450,000
Mortgage Rate Only	3.10%	5.86%
Interest & Principal - New	$1,710	$2,732
Interest & Principal - Existing	$1,687	$2,392

Mortgage payments for a new home have increased 40% and 52% for an existing home.

Source: Freddie; Information Market

Housing Opportunity Index 2004-2022*

Source: NAHB/Wells Fargo

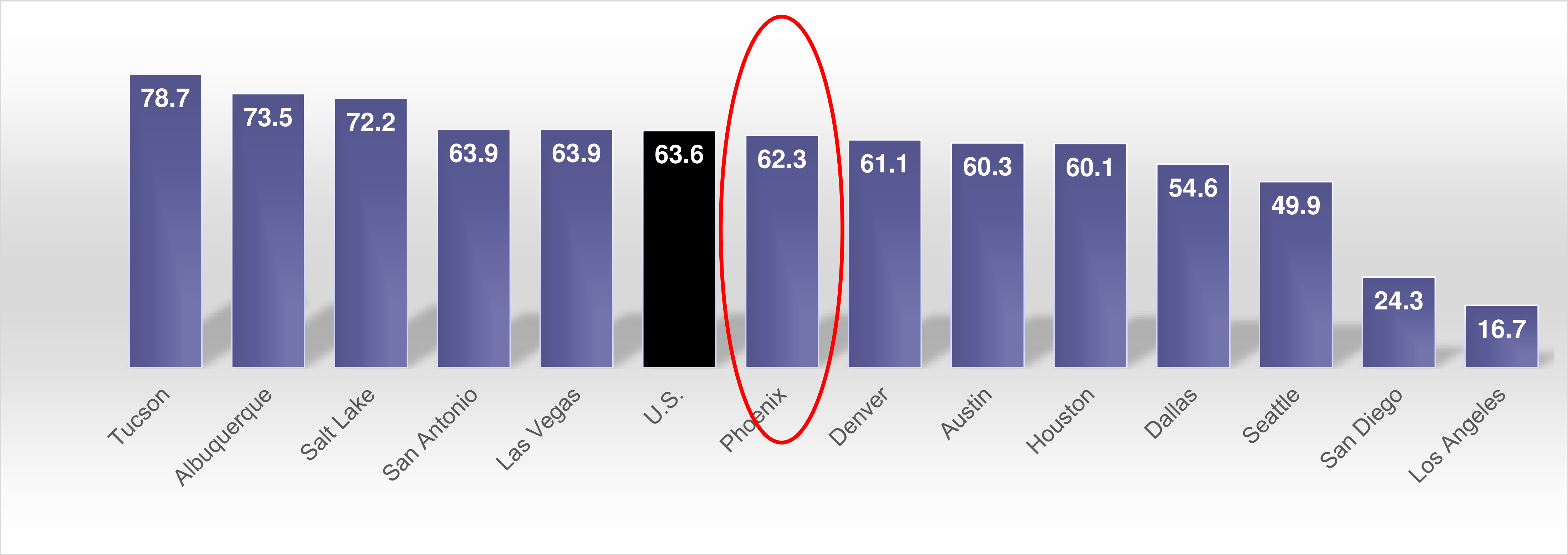


*Data through Q2 2022

Housing Opportunity Index

2015 Q2

Source: NAHB/Wells Fargo



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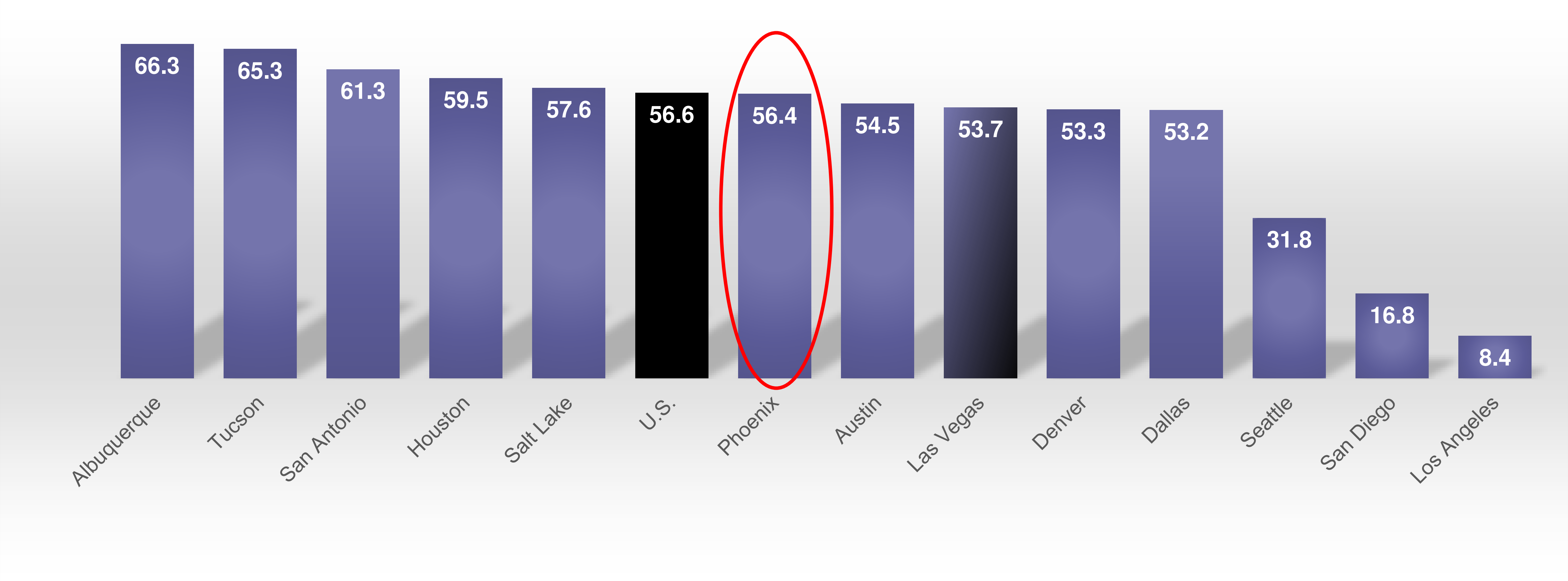
Housing Opportunity Index

2021 Q2

Source: NAHB/Wells Fargo



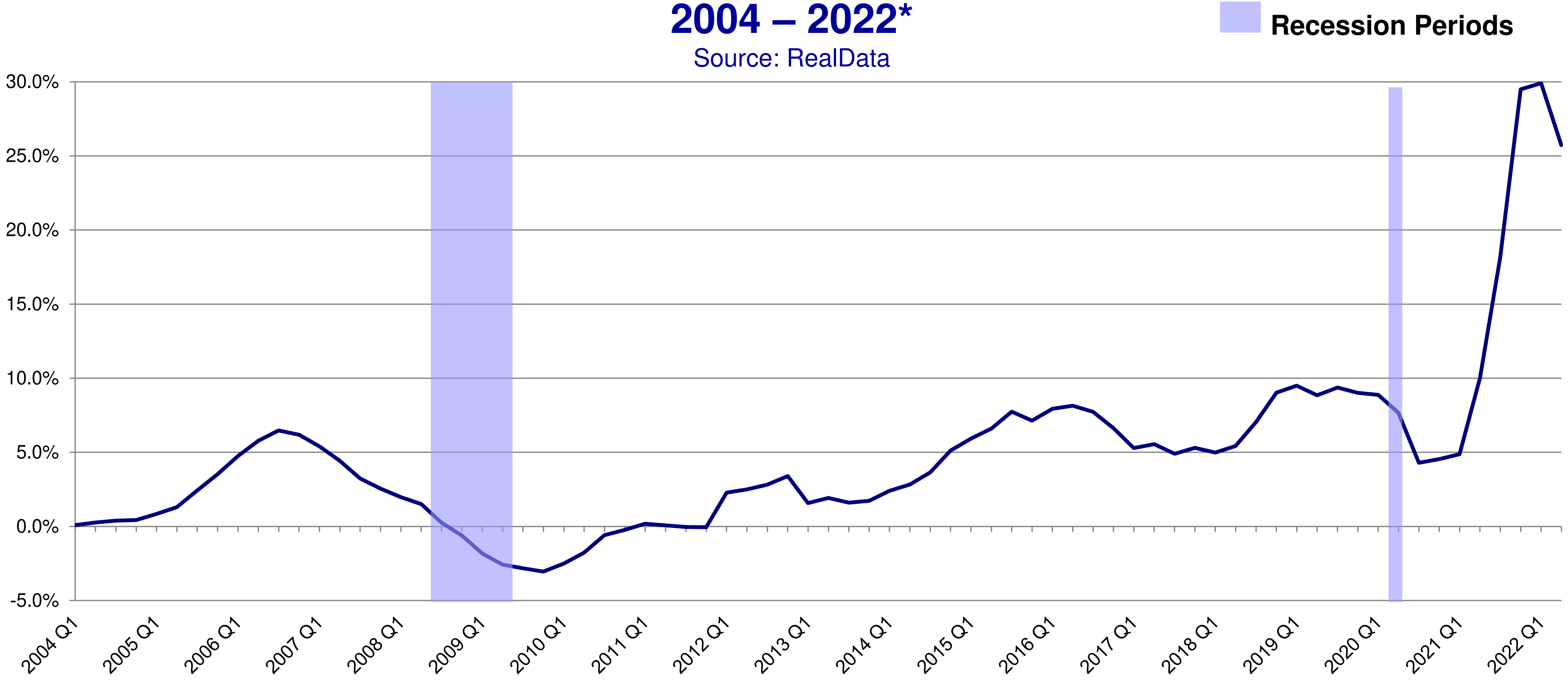
Housing Opportunity Index

2022 Q2

Source: NAHB/Wells Fargo

Greater Phoenix Multi-Family Average Rent Percent Change a Year Ago 2004 – 2022*

Source: RealData



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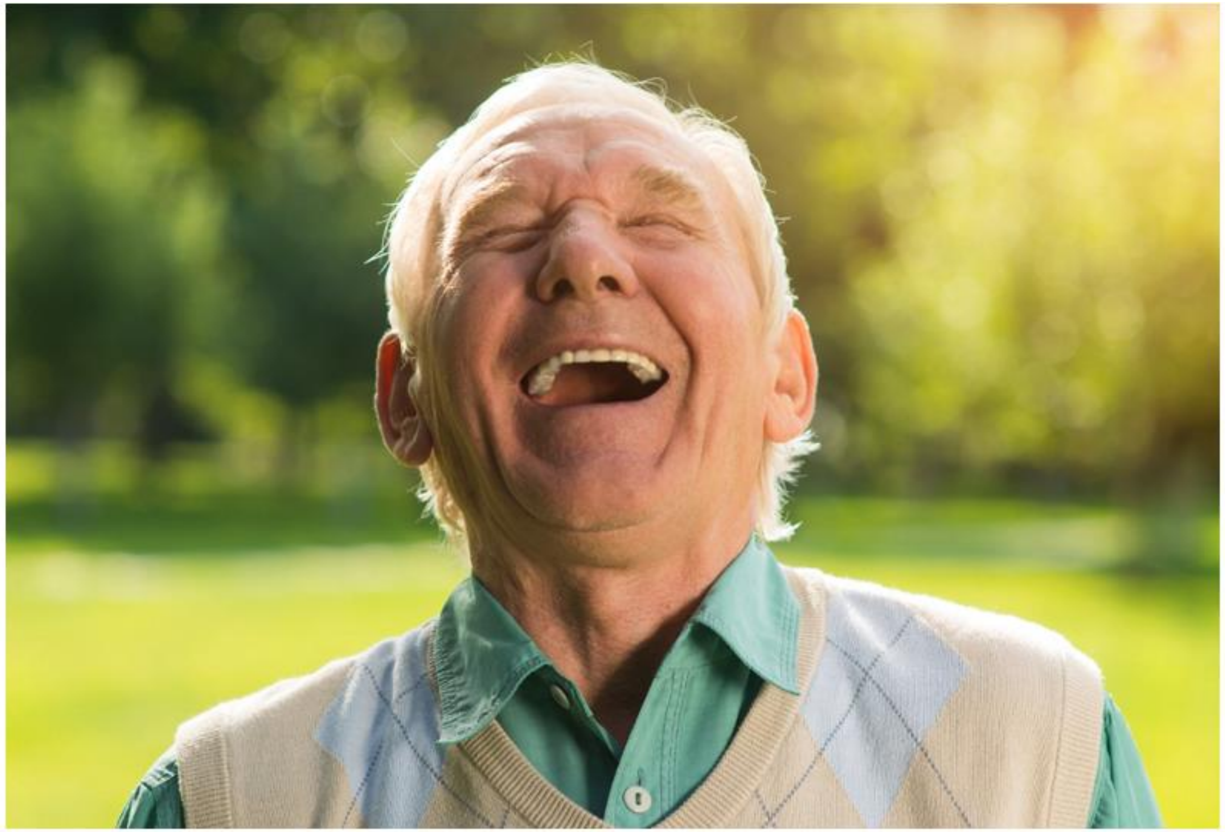
*Data through the second quarter 2022

Only Landlords are this Happy



What to Expect in the Near Term?

- Higher interest rates
- Lower inflation adjusted income
- More renters.
- Fewer owners.
- More attached housing on smaller lots with shorter setbacks and fewer amenities.
- Rents increase rapidly while housing prices decline.
- More doubling and tripling up.
- More living at home with mom and dad (at least for now).
- More homelessness.
- The need for more housing units has not diminish.

What to Expect in the Long Term?

- Lower interest rates but not likely to be in the 3% range.
- Unless there is a miraculous jump in real incomes, affordability will not get back to historically normal levels.
- This means that the nature of housing changes.
- Huge pent-up demand for all types of housing as millennials have children and follow their parents to the suburbs and delayed housing formation takes place.
- But their first home is more likely to be a smaller attached product.
- Those who have double up or lived with parents are likely to create a huge number of new households.
- Unless cities get on board economic development will become more difficult.

Why did housing prices rise so quickly?

1. Labor shortages – Because of the decline of new housing starts, this should be less of a problem in the near term.
2. Supply Chain Issues – Many of these issues should be resolve over the next year.
3. Supply Demand Imbalance – affordability issues in single family will kick this can down the road.
4. Increase in cost due to marginally necessary or unnecessary new/existing regulation as well as time delays getting through the process. If cities do not deal with this now, it will make things worse on the other side of the current situation.

Fix these now or these issues will return.

OFFICE

INDUSTRIAL

RETAIL

What to Expect Next Year?

Greater Phoenix
Conclusion Short Term

- The near term will be difficult
- But it is absolutely necessary.
- Tight but easing labor market
- Slower retail sales (temporarily)
- Inflation higher than U.S.
- Housing Affordability remains an issue

Greater Phoenix Conclusion Longer Term

- Phoenix will continue to grow more rapidly than the U.S. as a whole.
- The water issue will be resolved as more water is used for commercial and industrial uses and less for agriculture. As well less water will be use for landscaping.
- If the cities within the metro area get on board, housing affordability will improve. It is still unlikely to get back to pre-Covid affordability levels.
- Economic development activity will continue to thrive. Greater Phoenix will create more jobs than most places.
- Housing will cycle up dramatically but the nature of housing might be changing.

The long-term outlook is very good. The short term……not so much.

What can possibly go wrong?

- **20% Best Case –** Things work out as planned. Inflation is brought back under control quickly and smoothly and we all live happily ever after.
- **50% Base Scenario –** We are in for a rough ride. It will take a while but we get through it and the economic situation improves in 2024.
- **30% Worst Case –**Things get rocky. We end up with the actions of the Fed, Fiscal policy or black swan event causing things to be worse than anticipated.


LOW BRIDGE
4.5 m
15'-0"
B&Q
diy.com
You can do it