



Economic Realities, Social Narratives, and the Outlook for Tucson, AZ

October 2023

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Alliance Bank
OF ARIZONA®



Overview



■ The National Situation

- The curious case of the missing recession
- Social narratives vs economic realities
- The Fed Created Credit Crisis
- Future Fiscal Realities

■ Focus on Tucson, AZ

- Lagging or catching up?
- Housing and Demographics
- A Border Story



This presentation done in tandem with *September 2023 Arizona Regional Intelligence Report*

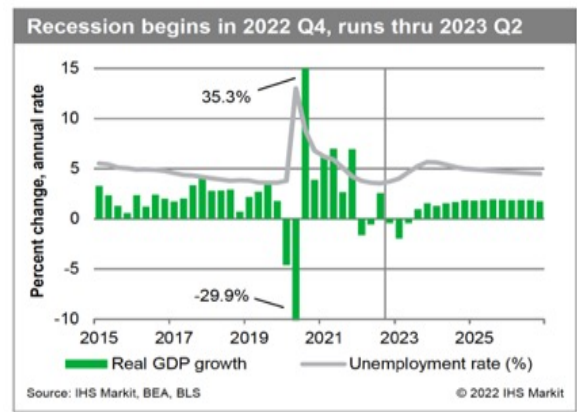
The Forecast: Recession is Nigh!!!



US Fed meeting decision today: PIMCO warns market is underestimating risk of US recession and rate hikes

Opinion: The US economy will likely enter a recession soon

Opinion by Dana Peterson and Erik Lundh
Updated 2:38 PM EDT, Wed September 13, 2023



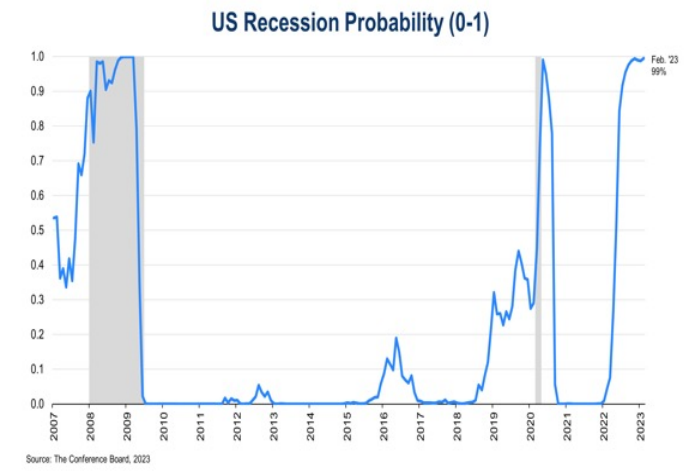
Why a Soft Landing Could Prove Elusive

On the eve of recessions in 1990, 2001 and 2007, many Wall Street economists proclaimed the U.S. was on the cusp of achieving a soft landing, in which interest-rate increases would corral inflation without

Finance

Regulators seize First Republic Bank, sell assets to JPMorgan

By Scott Murdoch, Niket Nishant and Chris Prentice
May 1, 2023 6:11 PM PDT · Updated 5 months ago



HOUSING MARKETS

Housing is in a double-dip recession, First American says

By Brad Finkelstein September 18, 2023, 3:29 p.m. EDT 3 Min Read

Larry Summers warns US economy could face 'Wile E. Coyote moment'

By Thomas Barrabi
Published March 7, 2023 | Updated March 7, 2023, 12:20 p.m. ET



There's a 98% chance of a global recession, research firm warns

By Matt Egan, CNN Business
Updated 11:27 AM EDT, Wed September 28, 2022

FINANCE · HOUSING

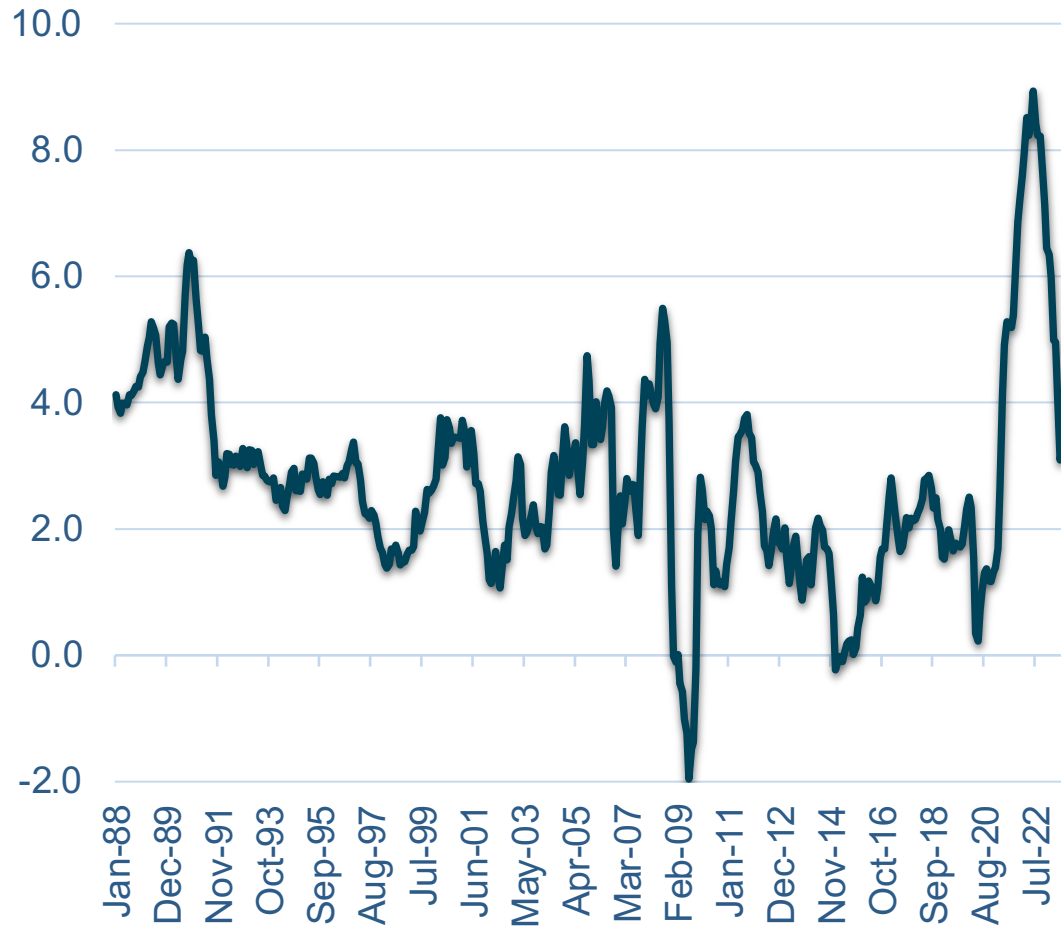
The housing market just slid into a full-blown correction, says top economist Mark Zandi

BY LANCE LAMBERT
May 27, 2022 9:36 AM PDT

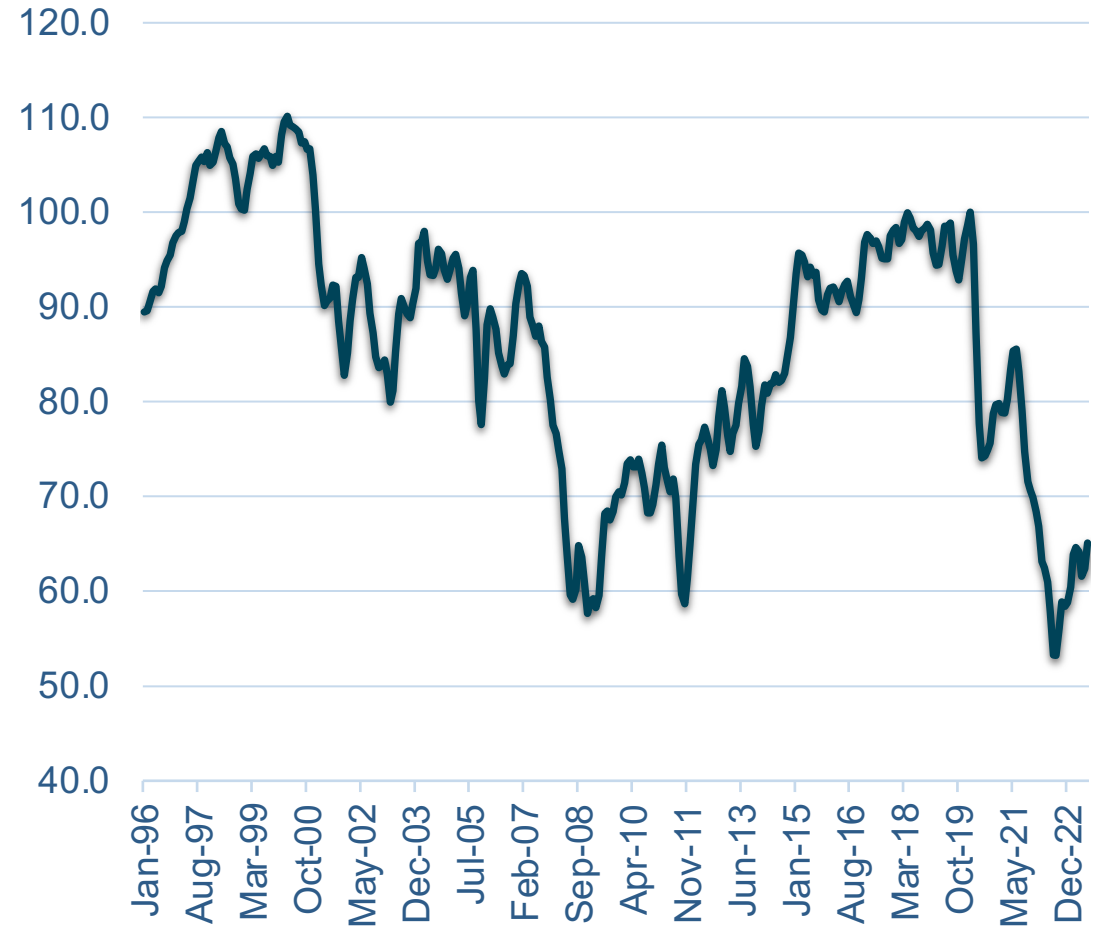
The Big News Stories of 22-23



CPI Inflation (YoY Change)



Consumer Confidence



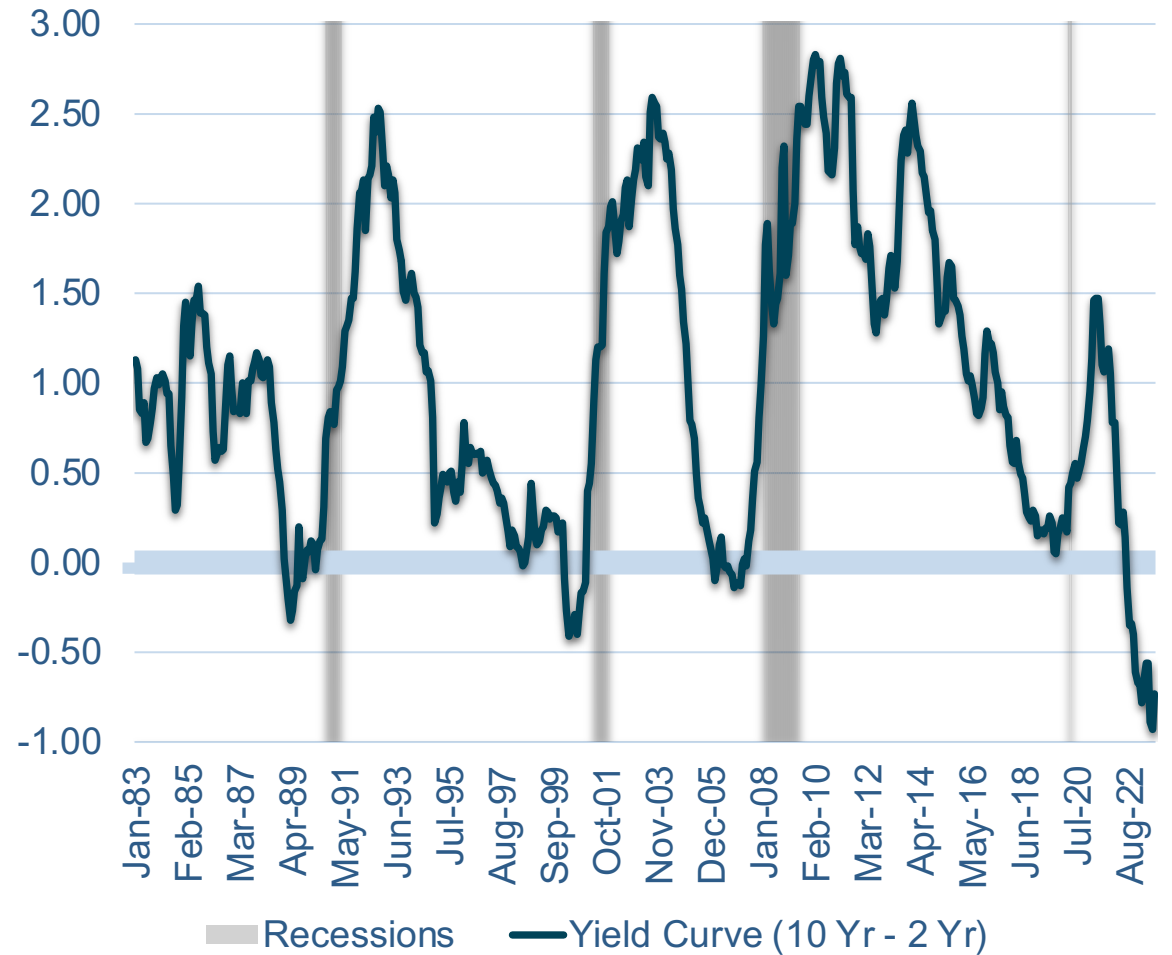
An Interest Rate Shock



Interest Rates



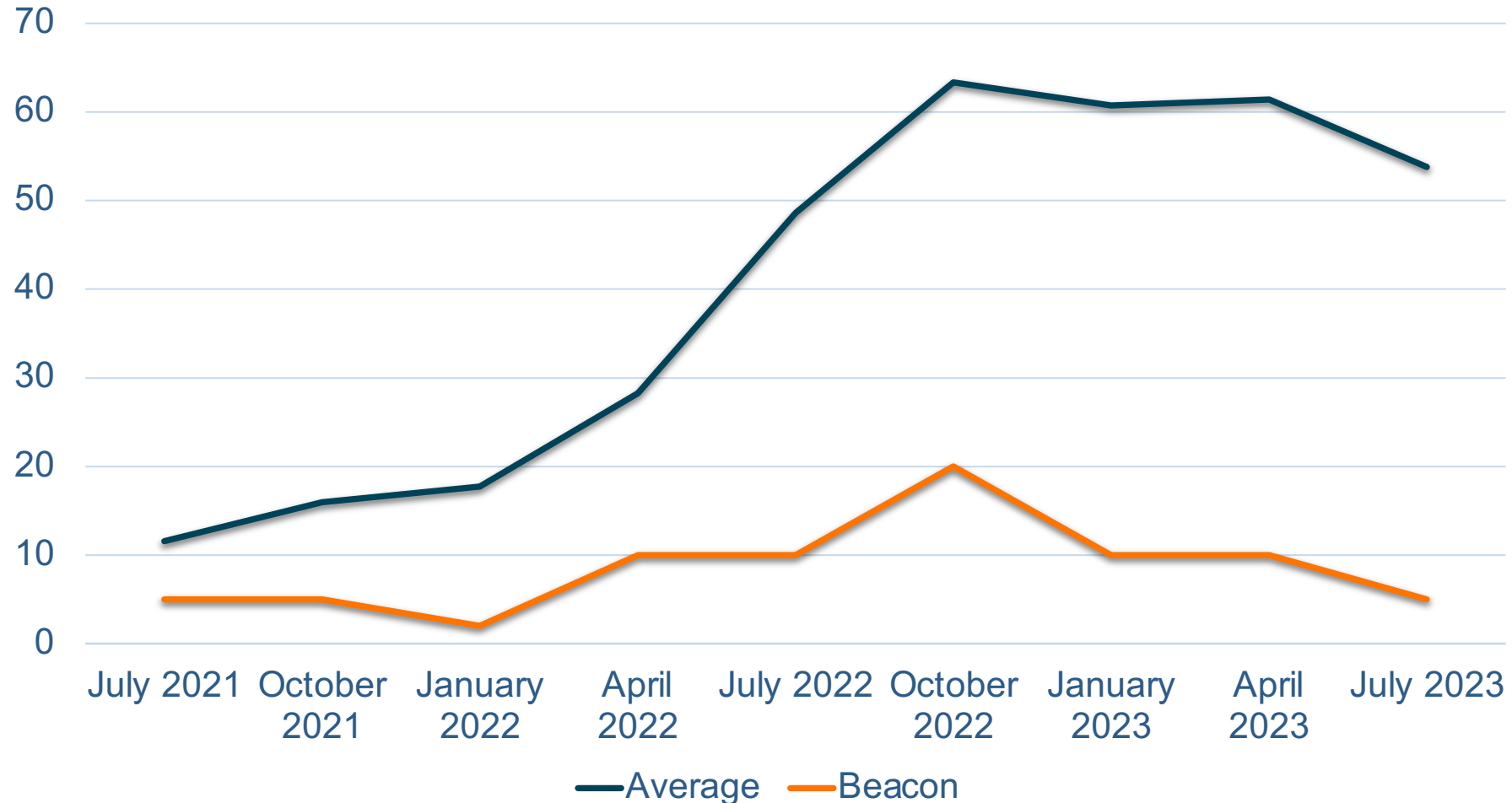
US Yield Curve



Our View at Beacon



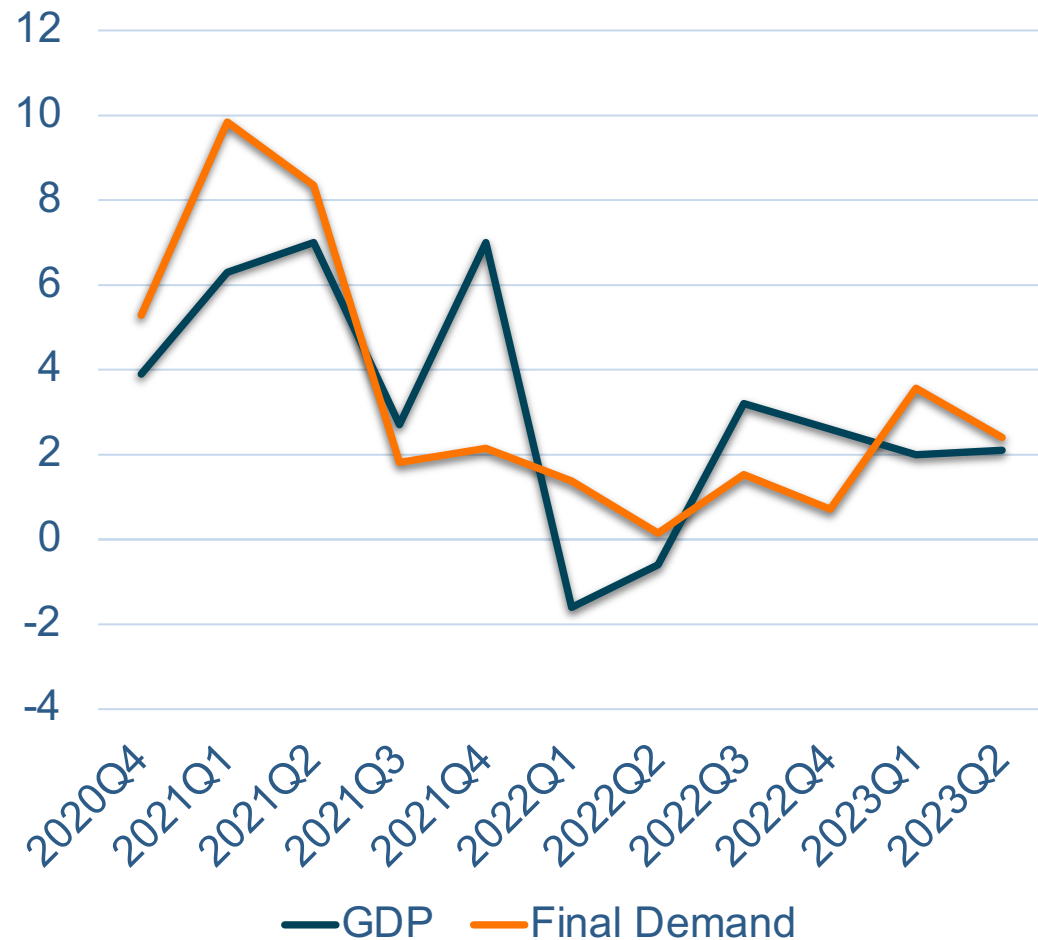
WSJ Economic Survey Recession Probability
Chance of US entering a recession in the next 12 months



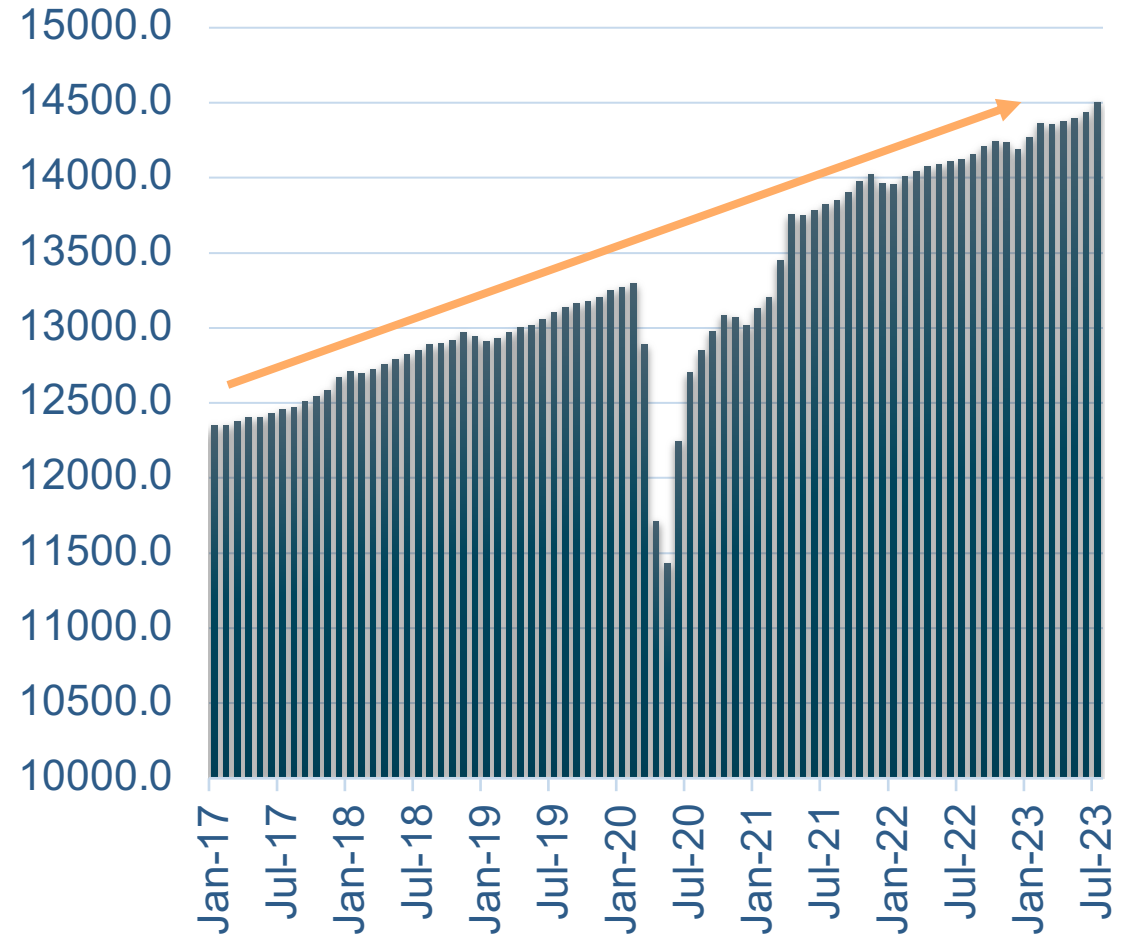
GDP Growth, Consumer Spending: Up



US Real Growth SAAR



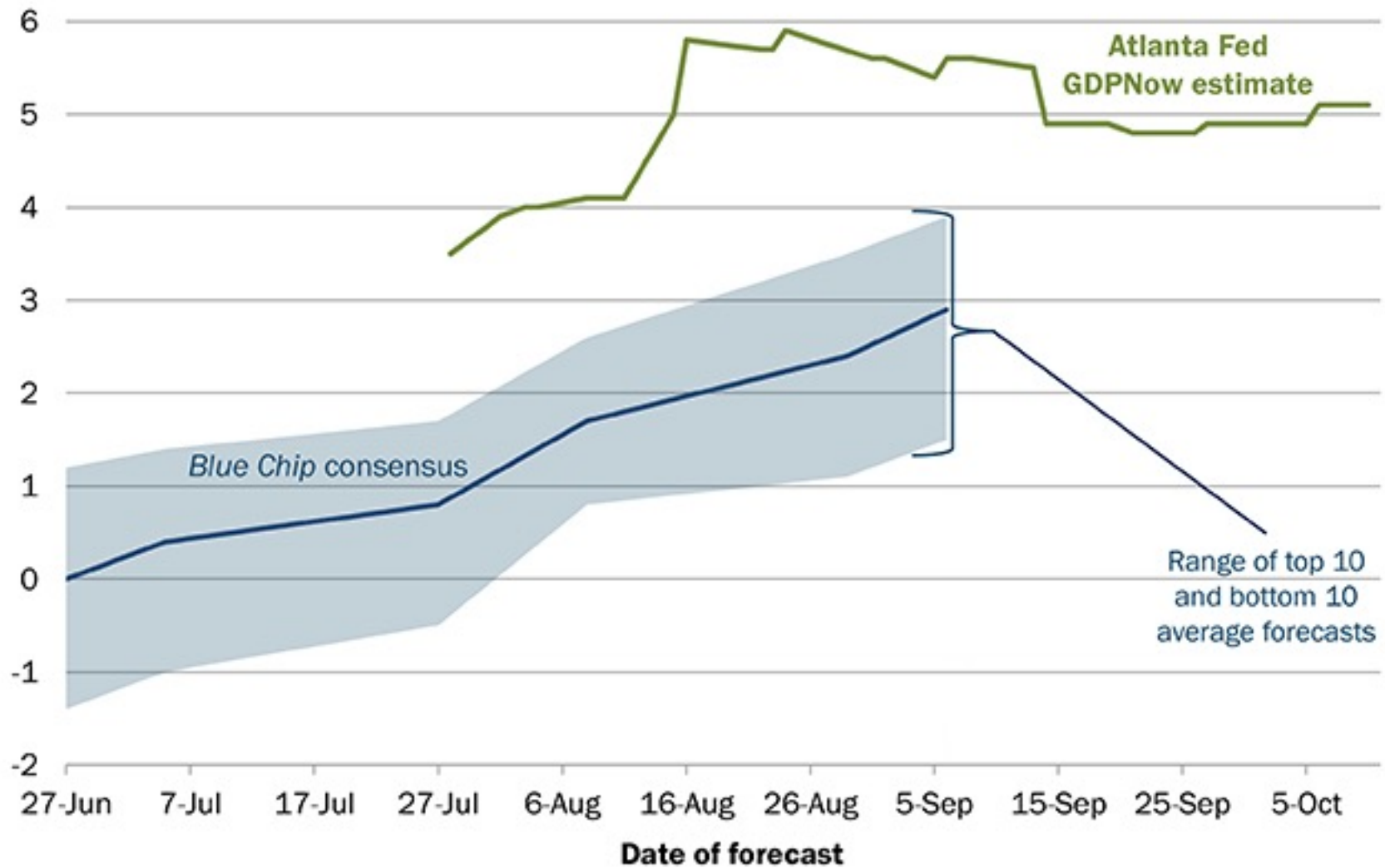
Real Consumer Spending





Evolution of Atlanta Fed GDPNow real GDP estimate for 2023: Q3

Quarterly percent change (SAAR)



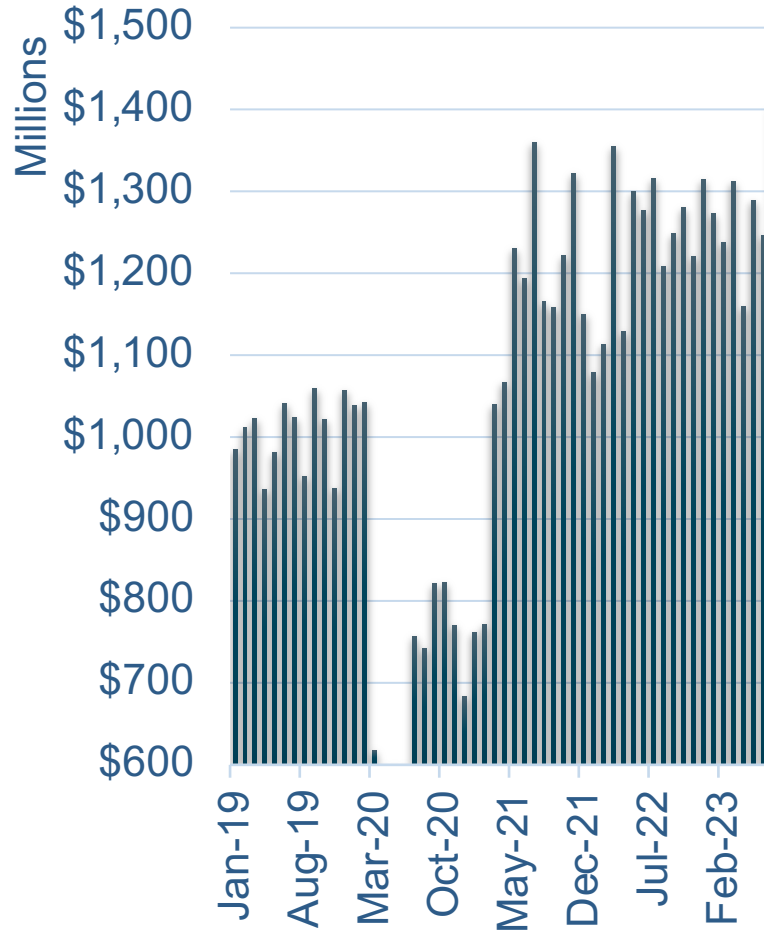
Americans...having Fun!



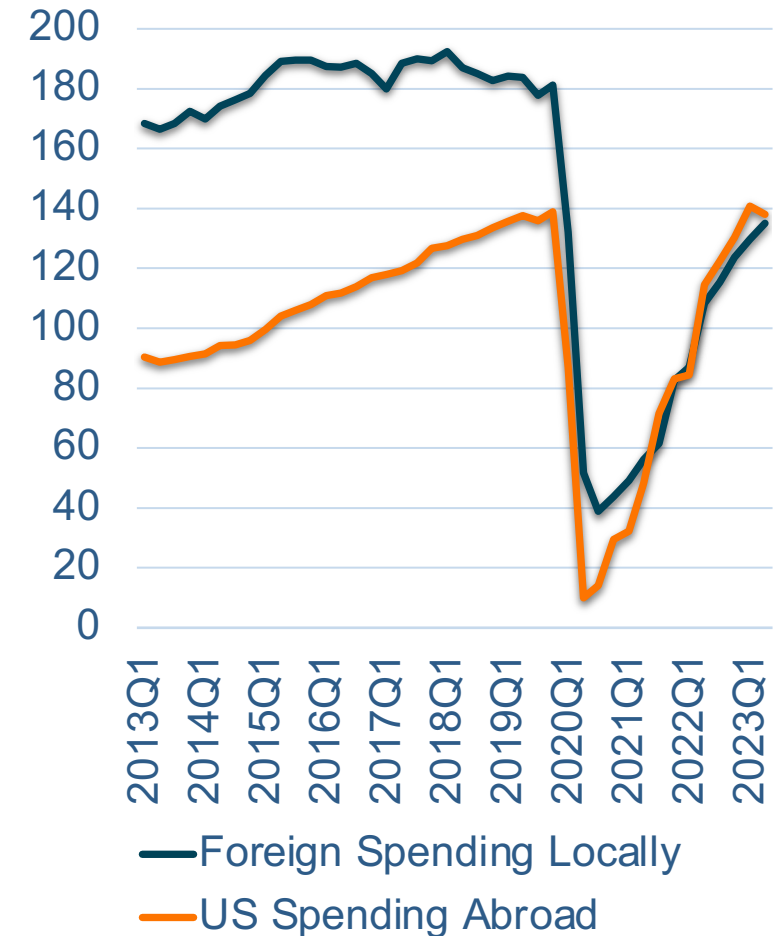
Retail Sales: Restaurants



Nevada Gaming Revenues



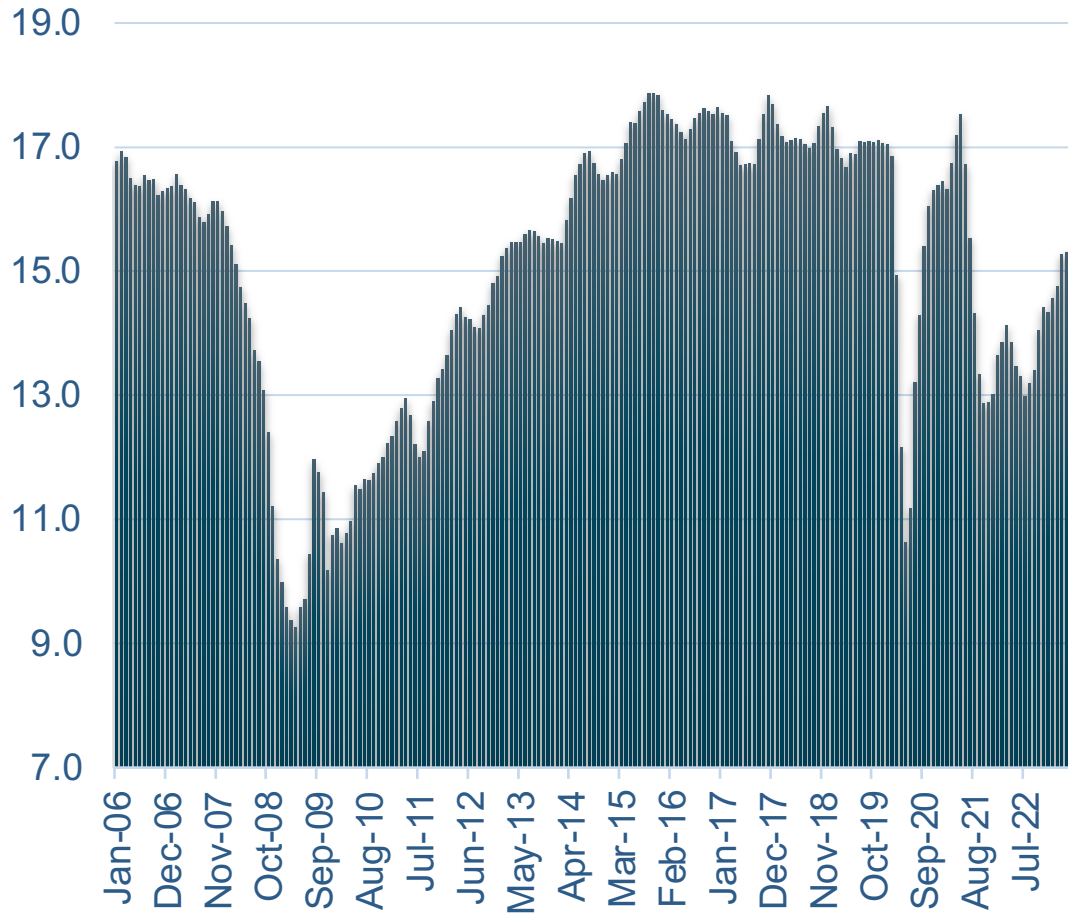
Real Spending on Travel



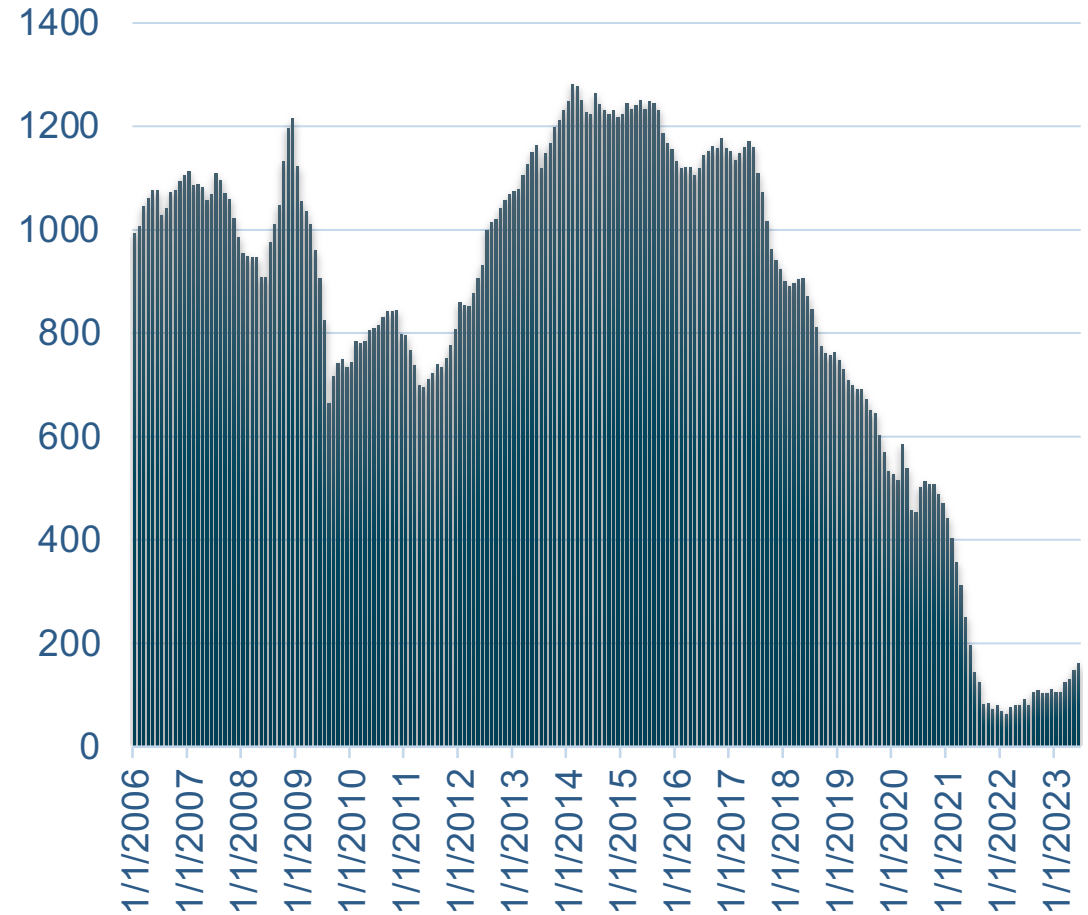
The Auto Sector: Still Catching Up



Auto and Light Truck Sales (Mil, SAAR)



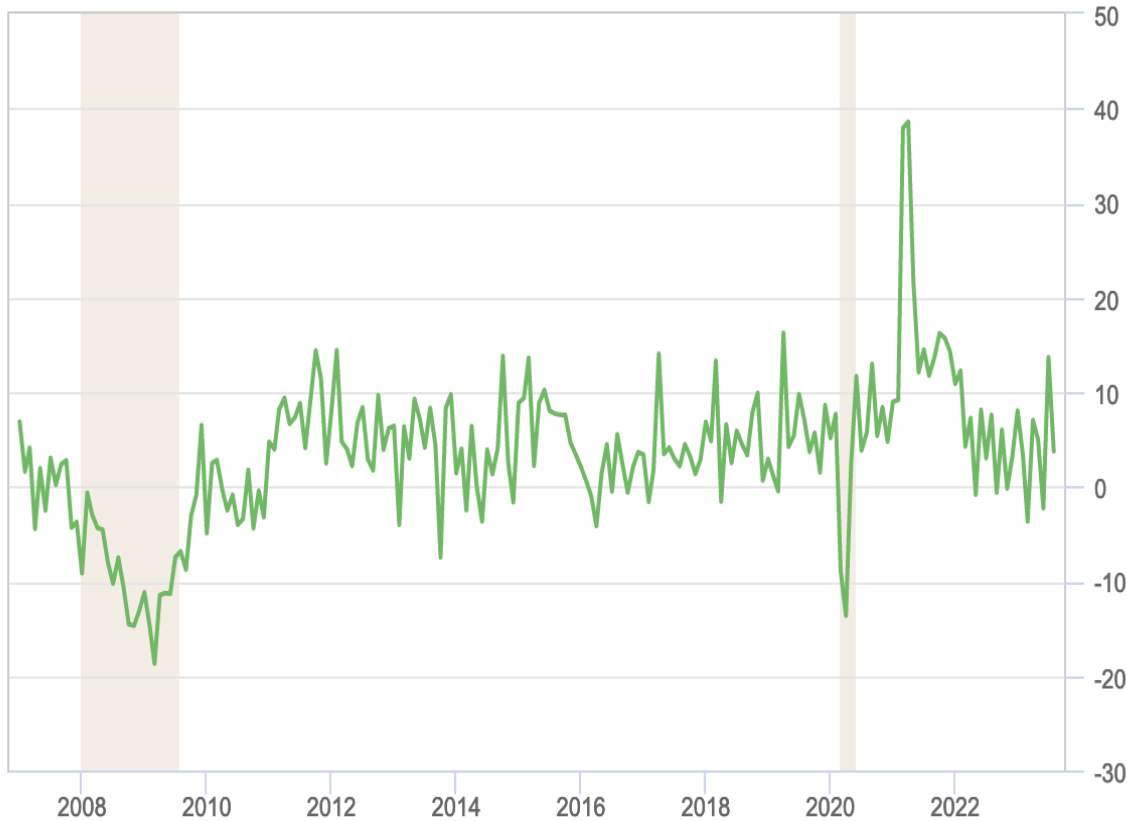
Domestic Inventories of Cars 000s



Arizona Taxable Sales



Tucson Retail Sales (YoY Growth)

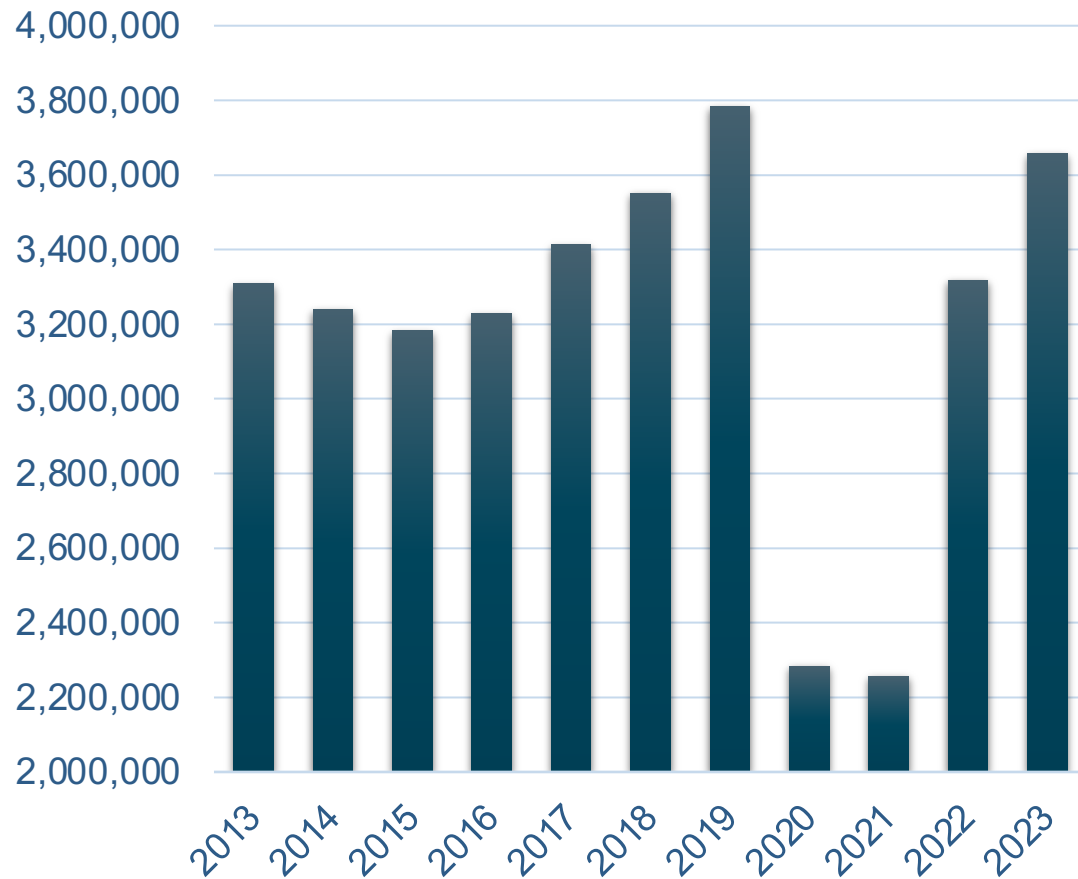


State Taxable Sales and Growth	Jul. 2023 (\$, 000s)	1-Yr.% Growth	Growth (%) since 2020
Total	8,731,114	13.1	36.7
Amusements	191.8	45.2	432.0
Hotel	262.3	2.5	87.6
Restaurants & Bars	1699.5	7.2	67.5
Rentals Personal Property	553.1	4.5	45.6
Contracting	2179.8	19.0	39.4
Mining, Oil, & Gas	19.7	-2.6	26.1
Printing	17.1	-19.8	7.4
Publishing	2.3	-5.3	-7.0
Communications	125.6	18.8	-8.2
Mining Severance	5.2	-89.2	-95.1

Local Tourism



Tucson Int Airport Passenger Traffic



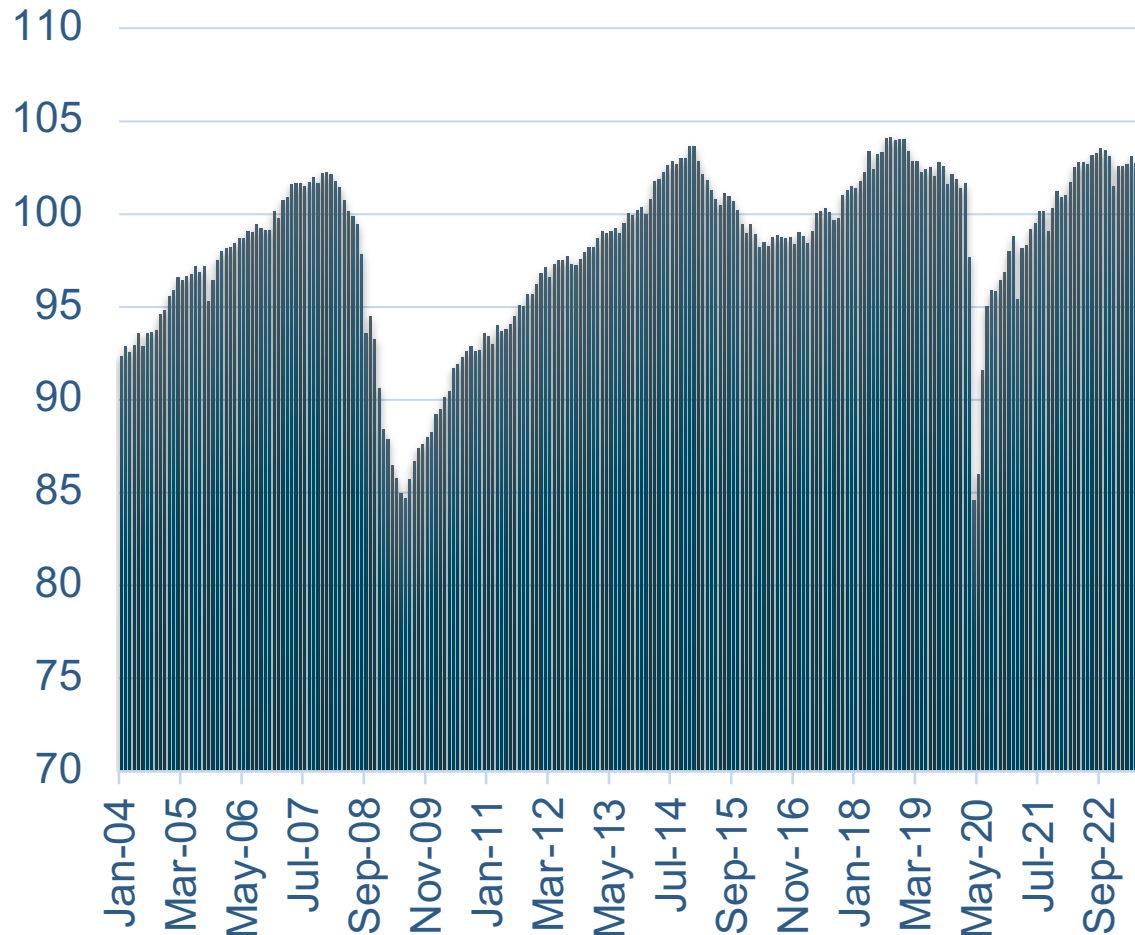
Hotel Performance

	Occupancy	ADR	RevPAR
US	66.7%	\$152	\$101
2023Q2	66.3%	\$157	\$104
YoY Ch	-0.7%	3.2%	2.5%
Mountain	69.8%	\$150	\$105
2023Q2	69.4%	\$153	\$107
YoY Ch	-0.6%	2.6%	1.9%
Phoenix	69.1%	\$157	\$109
2023Q2	67.5%	\$157	\$106
YoY Ch	-2.2%	-0.1%	-2.3%
Tucson	61.6%	\$140	\$86
2023Q2	61.0%	\$141	\$86
YoY Ch	-0.9%	0.8%	-0.1%

Industrial Production and Investment



US Industrial Production

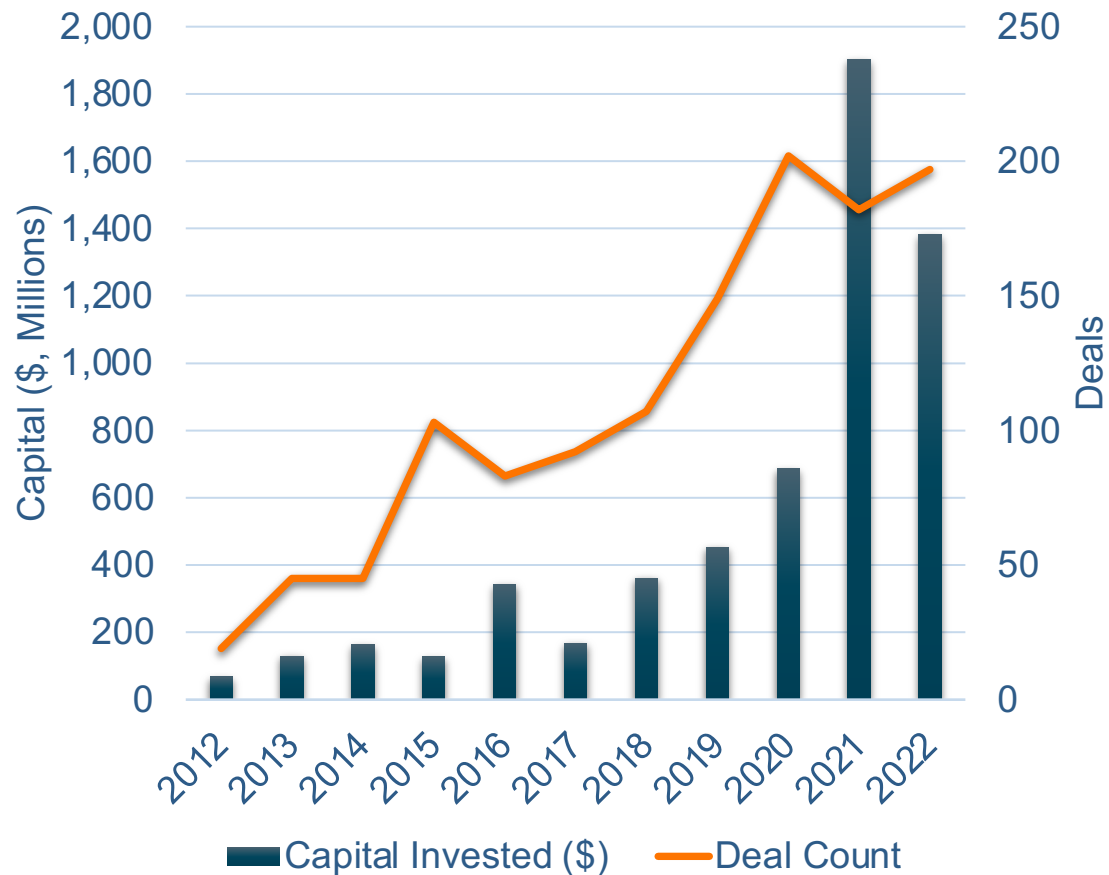


Real Investment	2023	Change
	Q2	Q4 19
Real Non-Residential Investment	3049.1	8.1%
<i>Commercial and health care</i>	141.5	-18.9%
Manufacturing	87.7	40.5%
<i>Power and communication</i>	80.9	-37.2%
<i>Mining exploration, shafts</i>	97.2	-15.9%
Information processing eq	537.2	12.0%
Industrial equipment	263.4	10.6%
Transportation equipment	277.7	3.6%
Software	693.9	43.0%
Research and development	546.4	16.7%
Entertainment, literary, art	96.4	12.4%

Venture Capital



AZ Capital Invested and Number of Deals

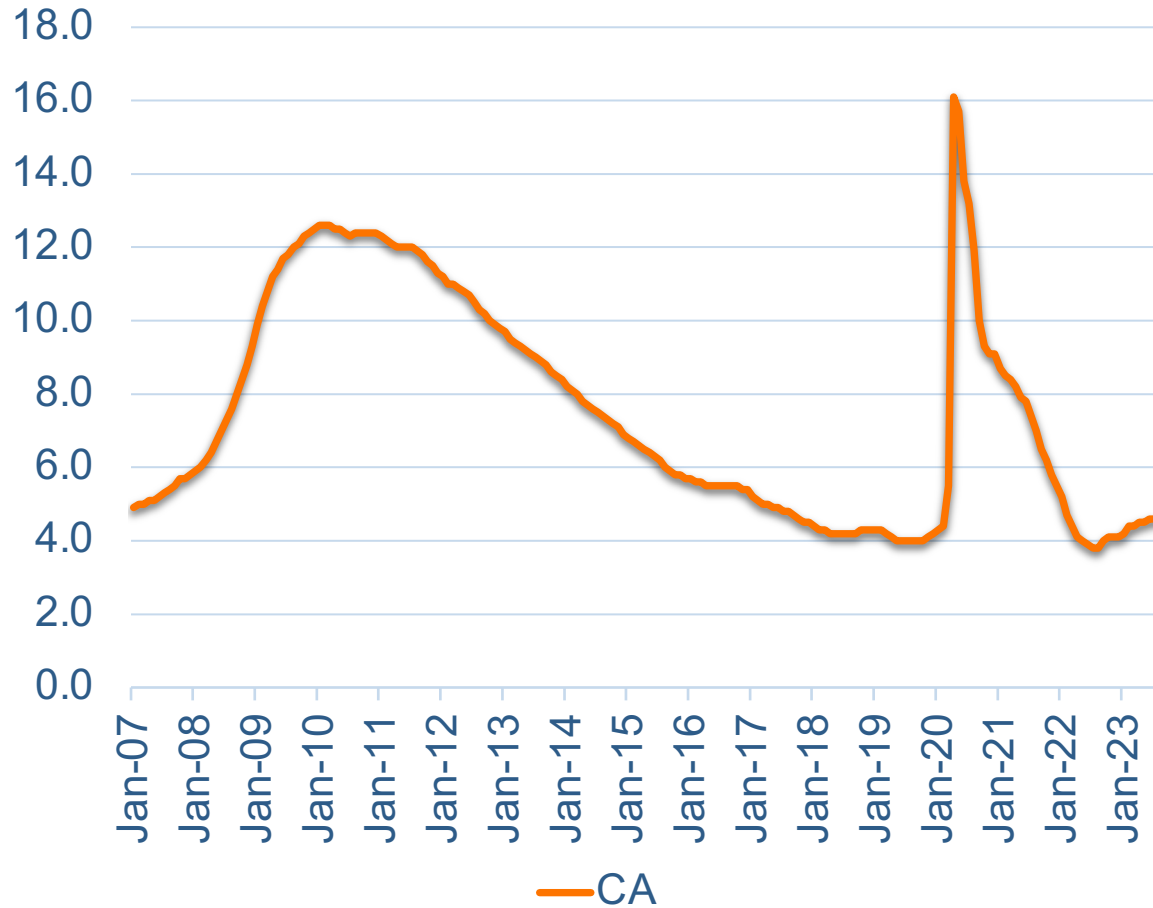


Company Name (AZ HQ)	Deal Size (\$, Mil.)	Industry	Location
Nextiva	200.00	Information Technology	Scottsdale
Arkos Health	130.00	Healthcare	Gilbert
Emerge (Scottsdale)	172.50	Information Technology	Scottsdale
SOURCE	236.82	Information Technology	Scottsdale
Bishop Fox	165.55	Information Technology	Tempe
Mangata	133.02	Information Technology	Phoenix
Postscript	138.13	Information Technology	Scottsdale
OnePointOne	147.96	Materials and Resources	Avondale
Phantom Space	88.76	Business Products and Services (B2B)	Tucson
Persefoni	164.48	Information Technology	Mesa

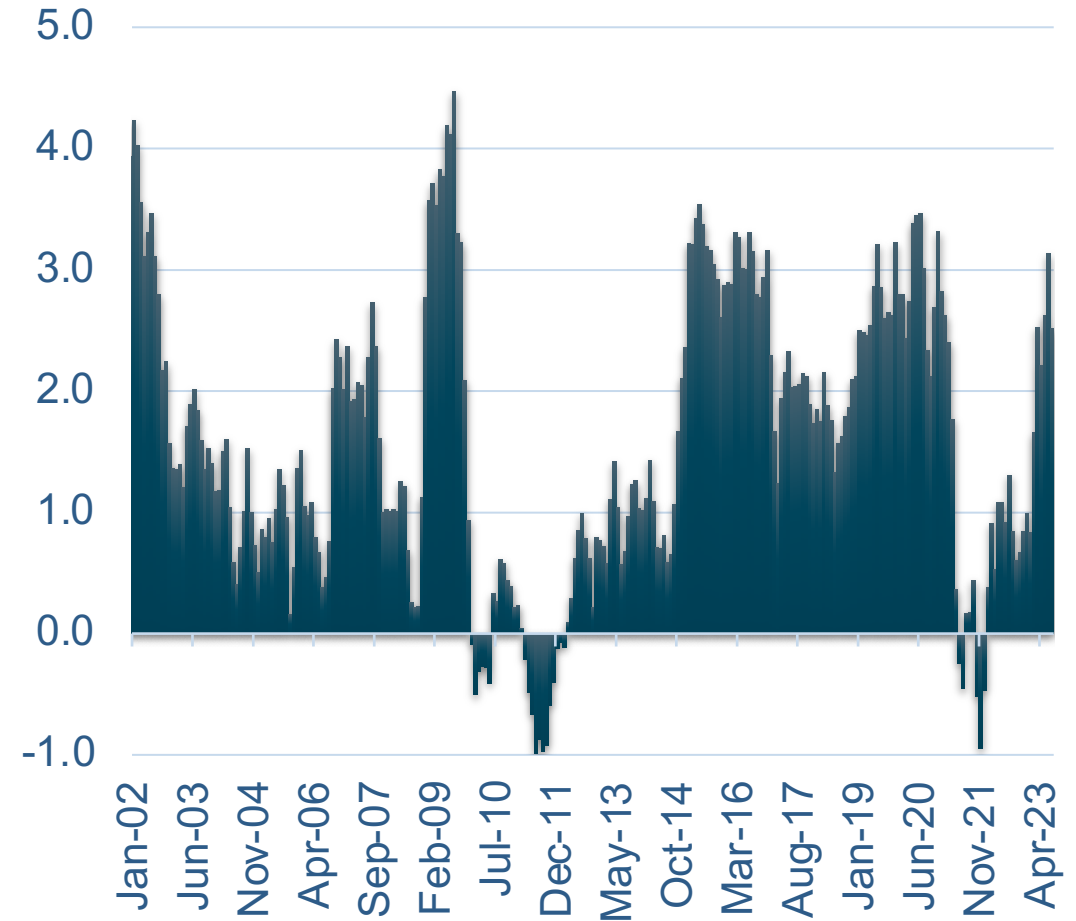
Labor Markets Remain Tight, Wages Up



Unemployment Rate



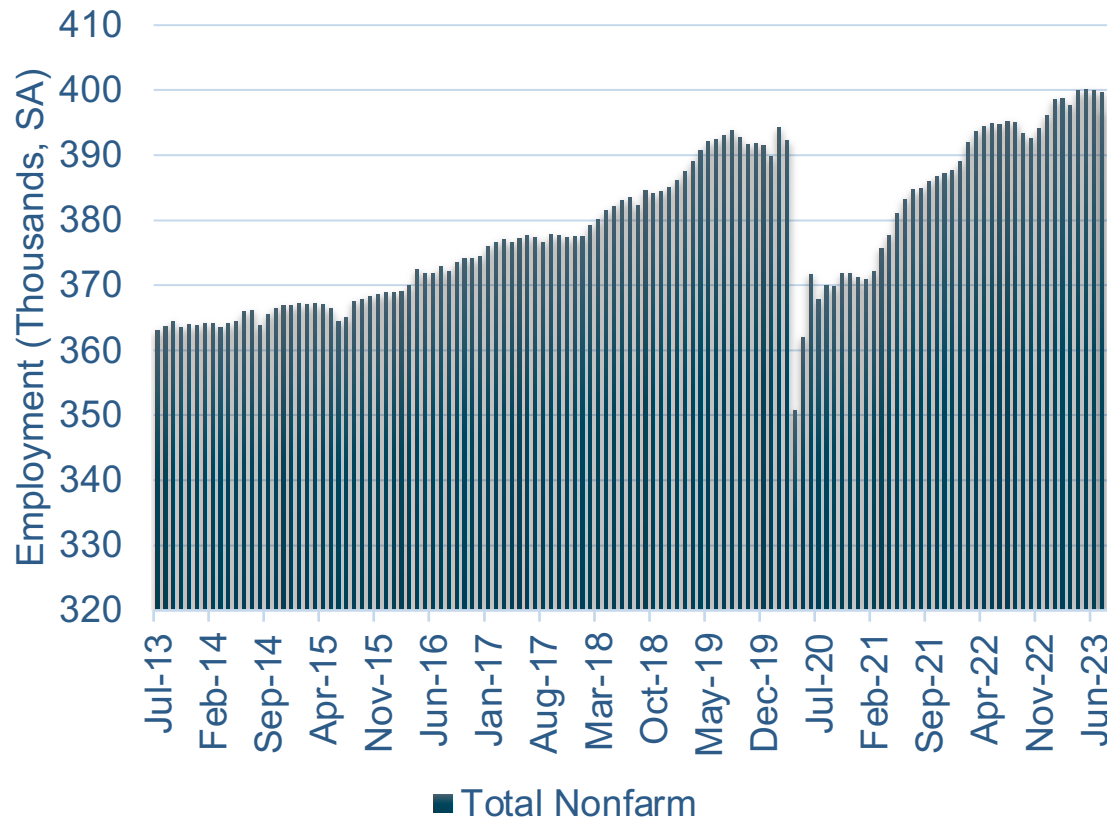
Real Wage Growth



Regional Labor Market



Total Nonfarm Employment Tucson



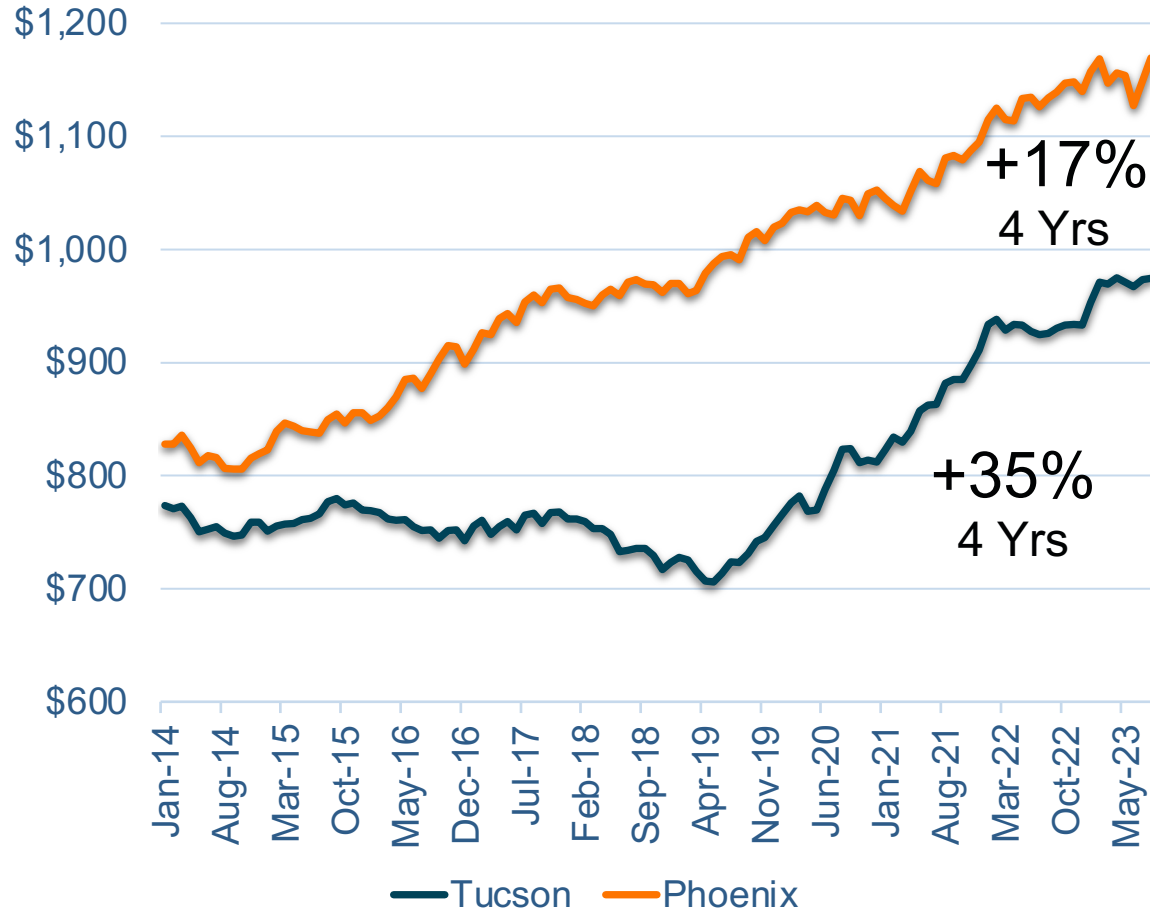
Unemployment Rate



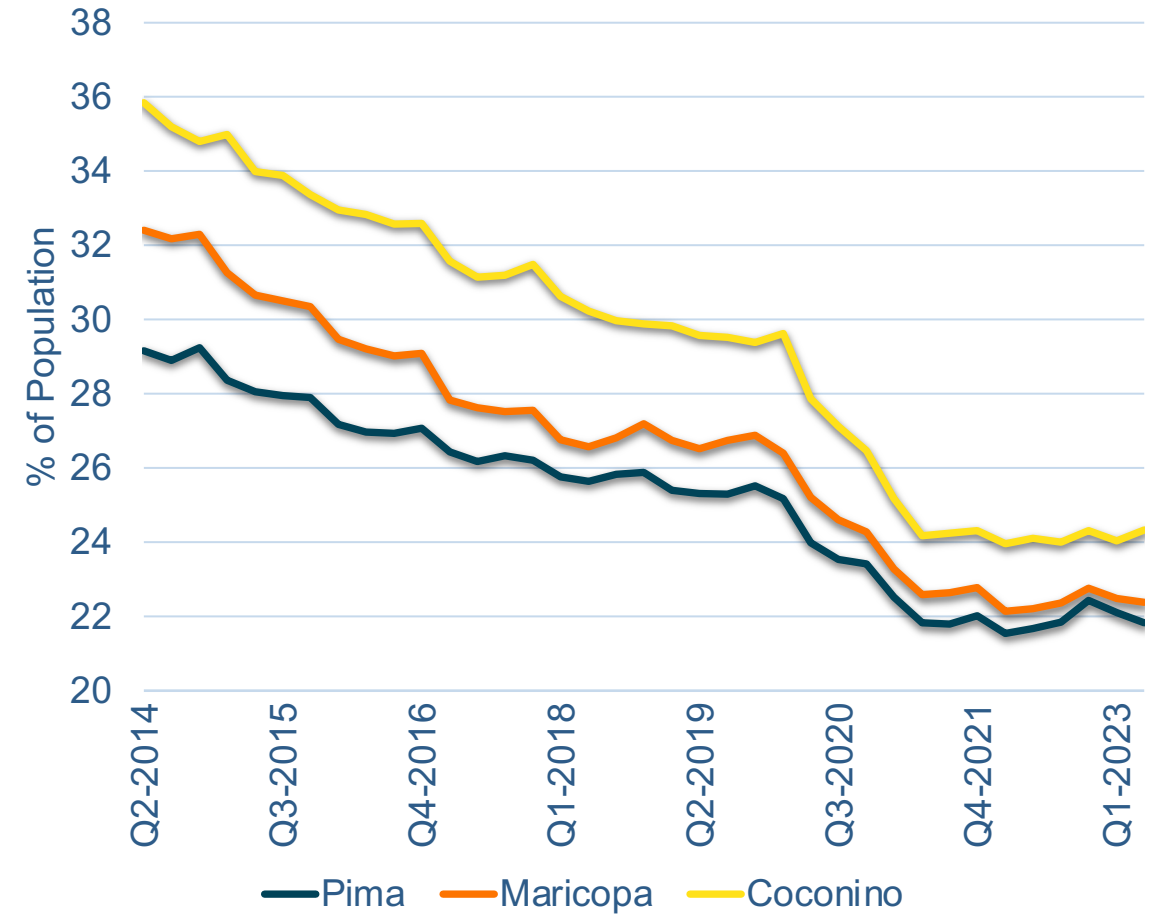
Personal Finances



Average Weekly Earnings



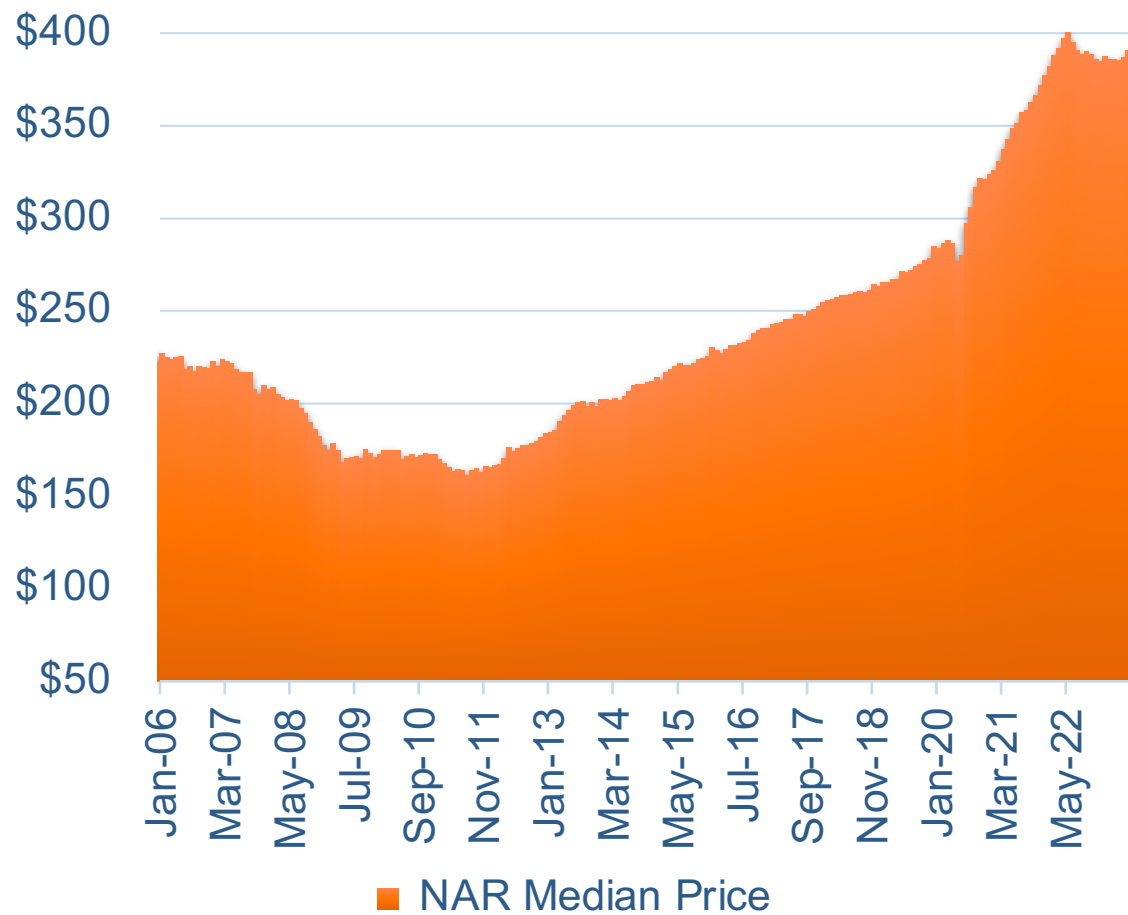
Equifax Subprime Credit Pop.



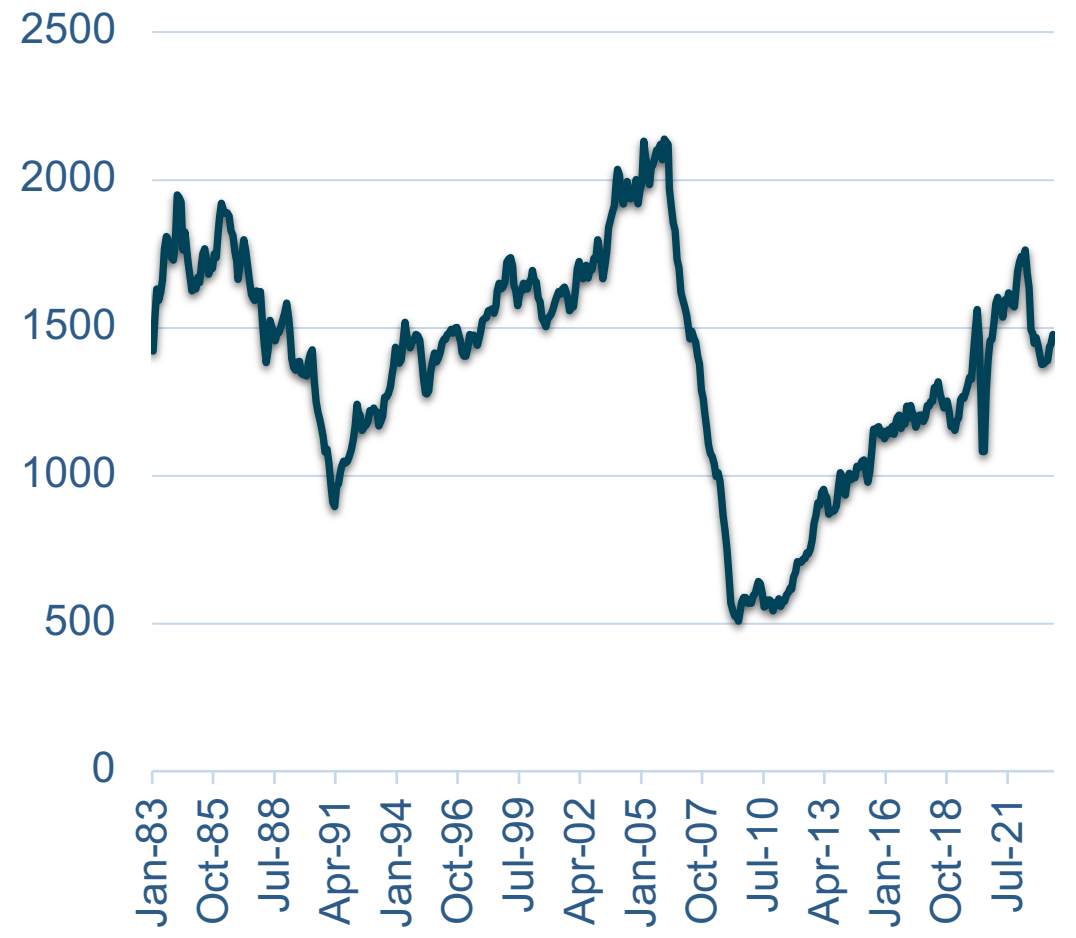
Housing Starts, Home Prices stable



US Median Home Prices



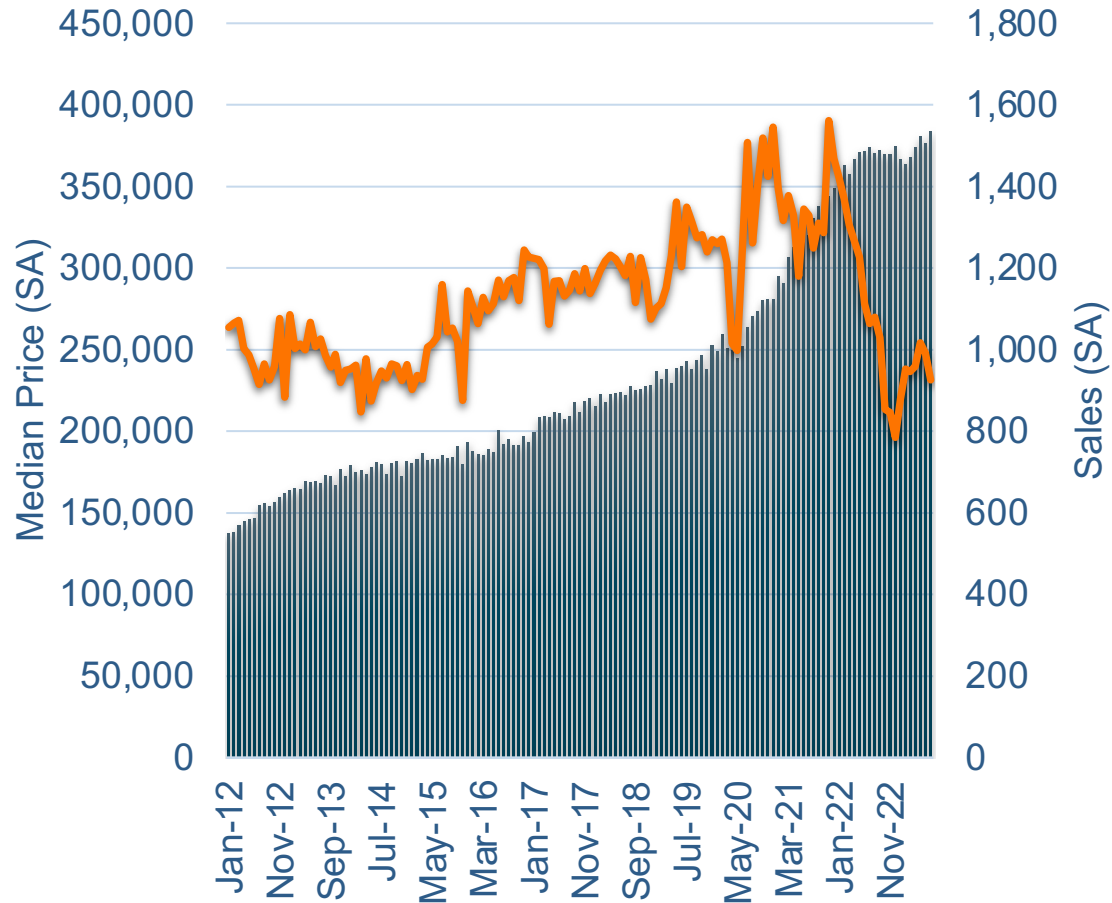
US Housing Starts SAAR, 000's



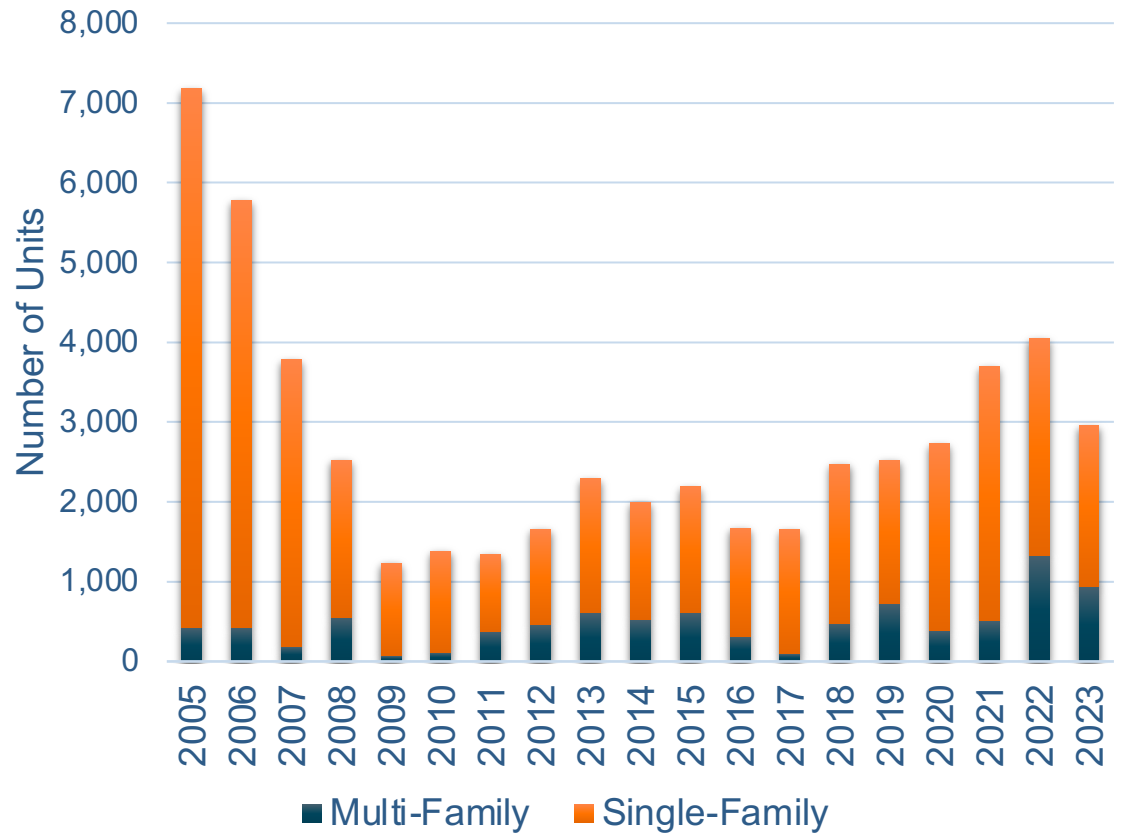
Residential Market - Tucson



Tucson Single-Family Homes



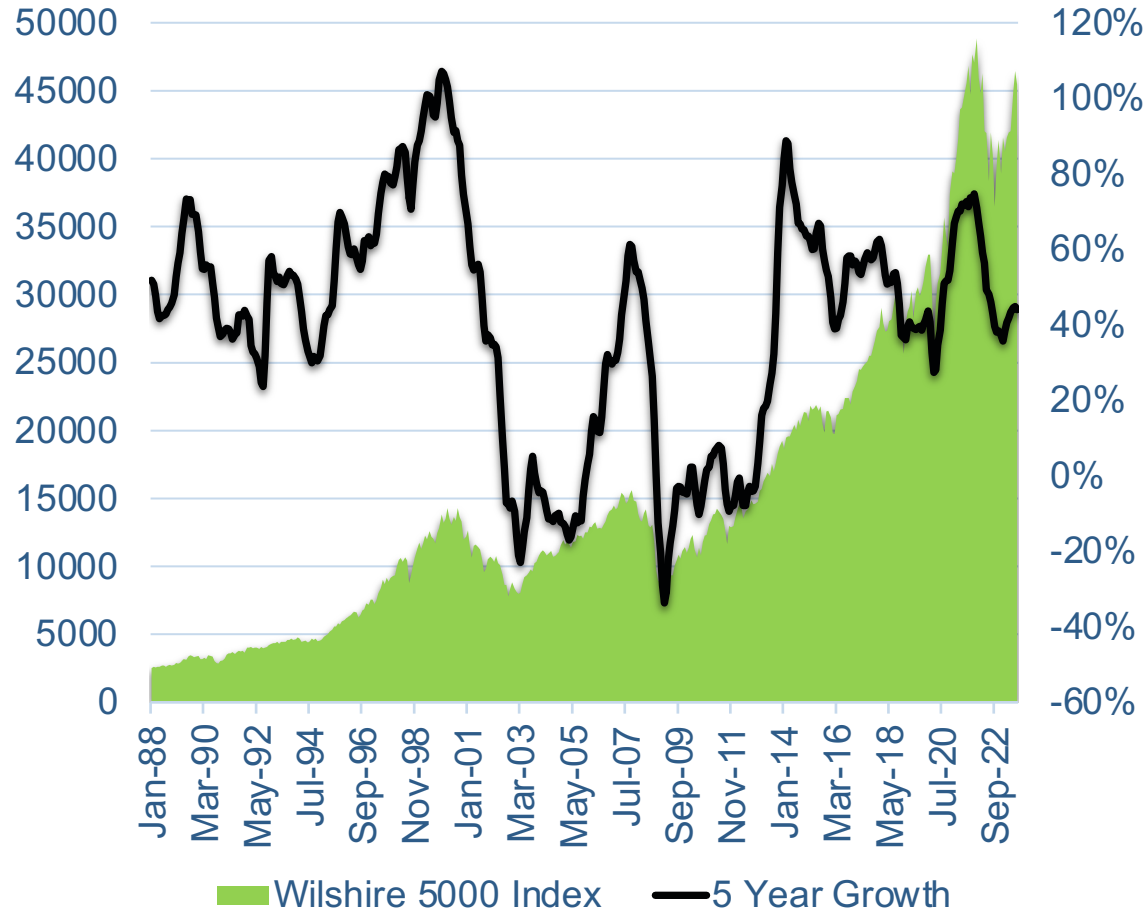
Tucson Residential Permits (YTD through Jul-23)



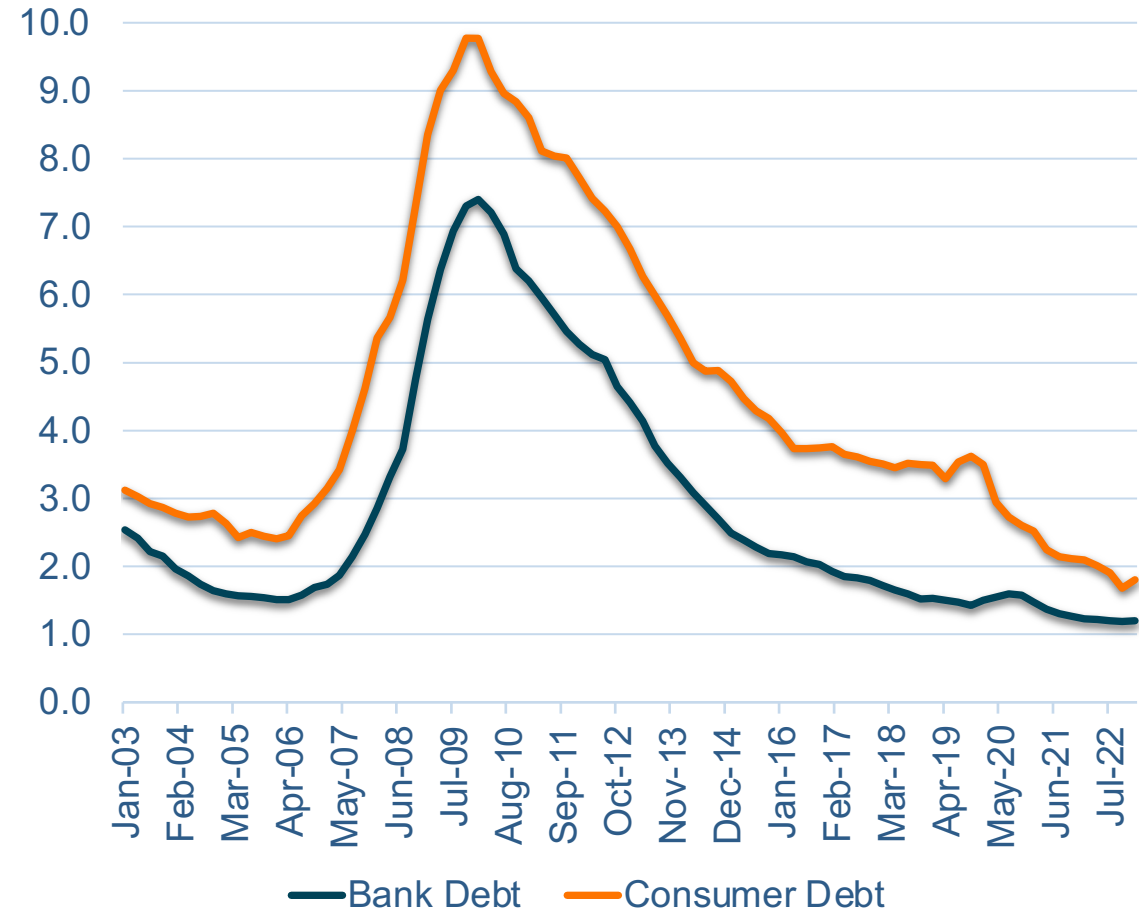
Stock market still bullish, credit markets clean



Wilshire 5000 Market Price Index



Loan Delinquencies (Share of Total Debt)



Market Summary > Bitcoin

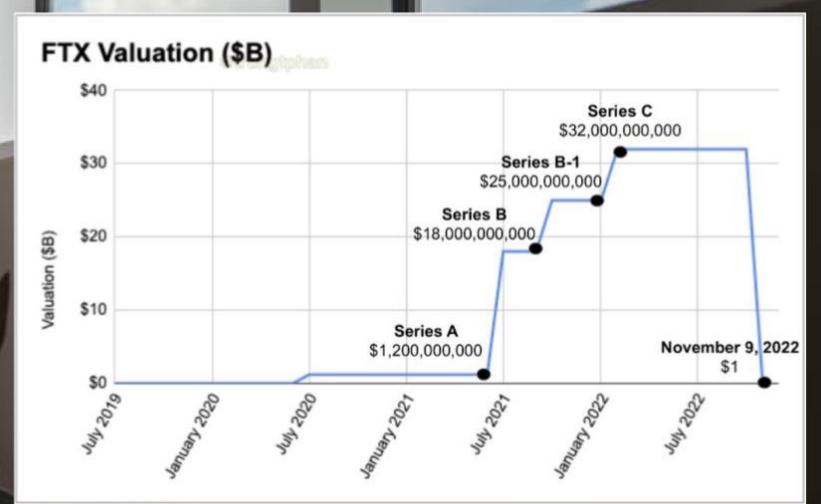
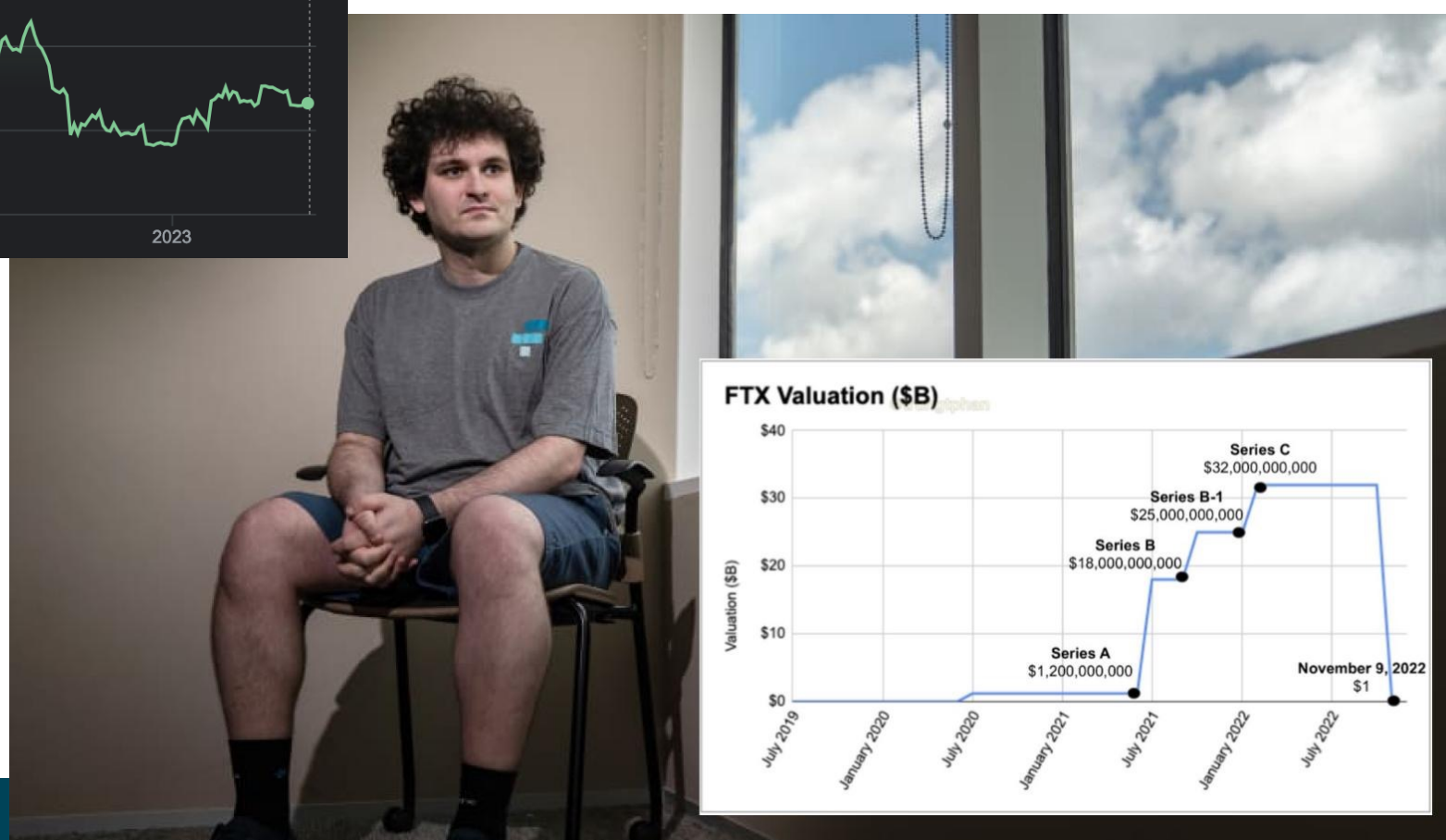
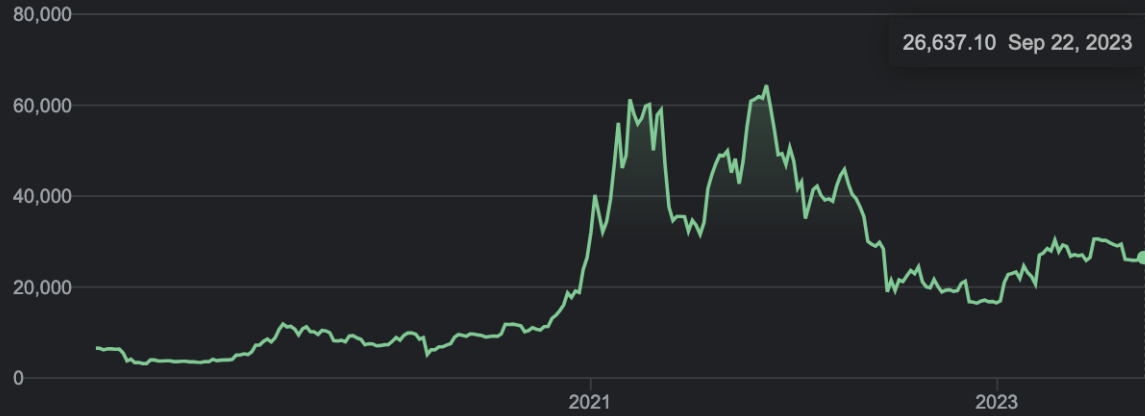
26,637.10 USD

+20,056.10 (304.76%) ↑ past 5 years

Sep 22, 3:14 PM UTC · [Disclaimer](#)

+ Follow

1D 5D 1M 6M YTD 1Y 5Y Max

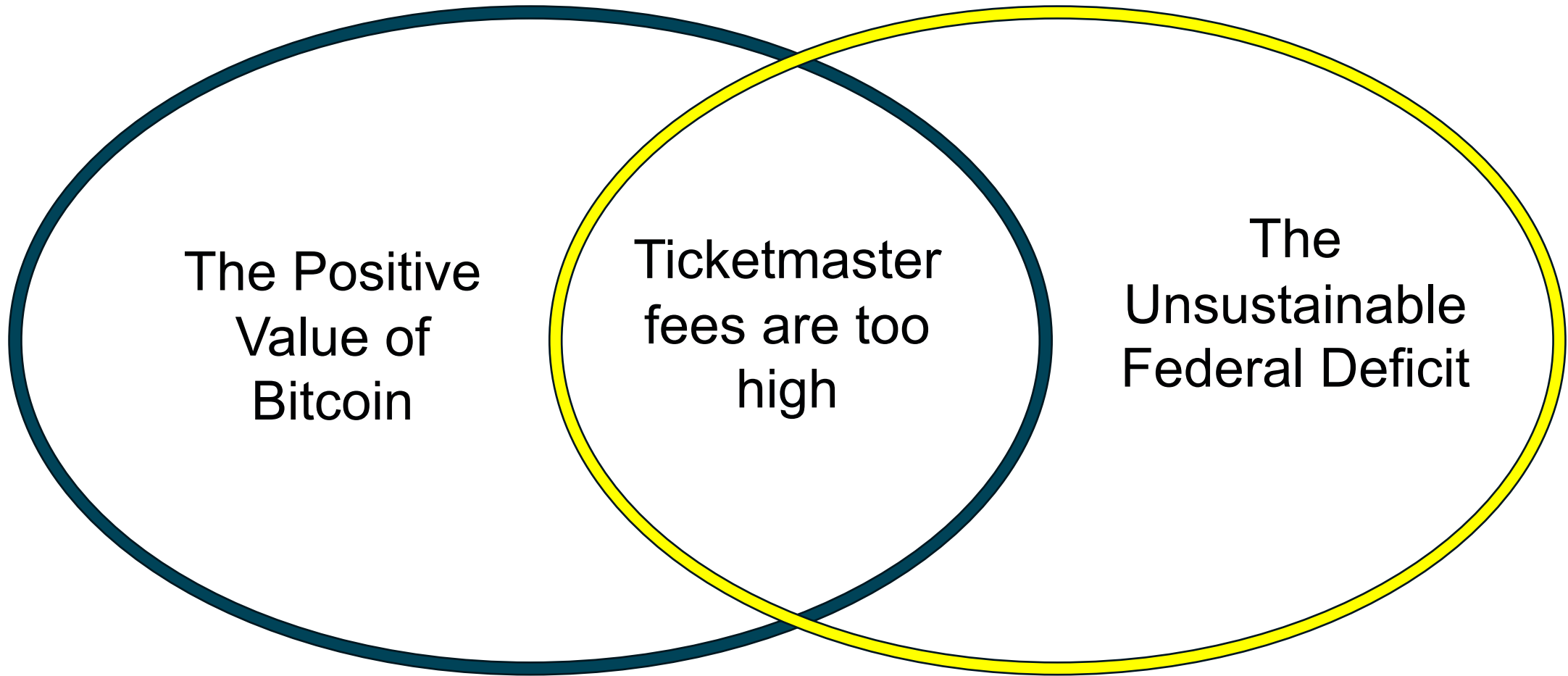


Beware the Narrative!



Social Narratives

Economic Reality



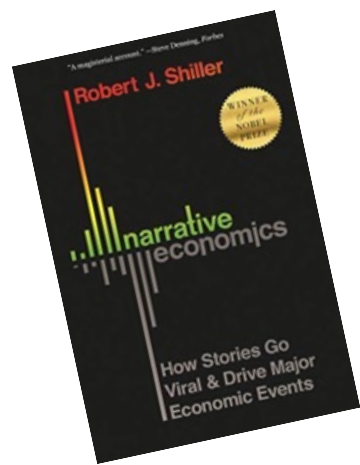
The Positive
Value of
Bitcoin

Ticketmaster
fees are too
high

The
Unsustainable
Federal Deficit



- ✓ Narratives skewing interpretations of economic news
- ✓ Narratives at the root of economic bubbles
- ✓ Narratives driving bad policy choices



“We need to incorporate the contagion of narratives into economic theory. Otherwise, we remain blind to a very real ... mechanism for economic change..”

—R. Shiller, *Narrative Economics: How Stories Go Viral & Drive Major Economic Events*

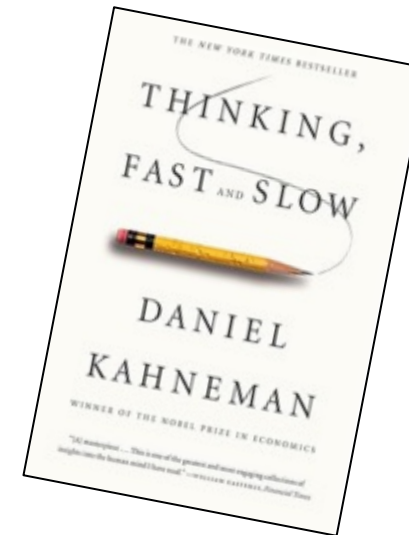
Beware the Narrative!



“People have two modes of thought:
“System 1” is fast, instinctive and
emotional; “System 2” is slower, more
deliberative, and more logical.”

“System 1 is gullible and biased to believe,
System 2 is in charge of doubting and
unbelieving, but System 2 is sometimes
busy, and often lazy”

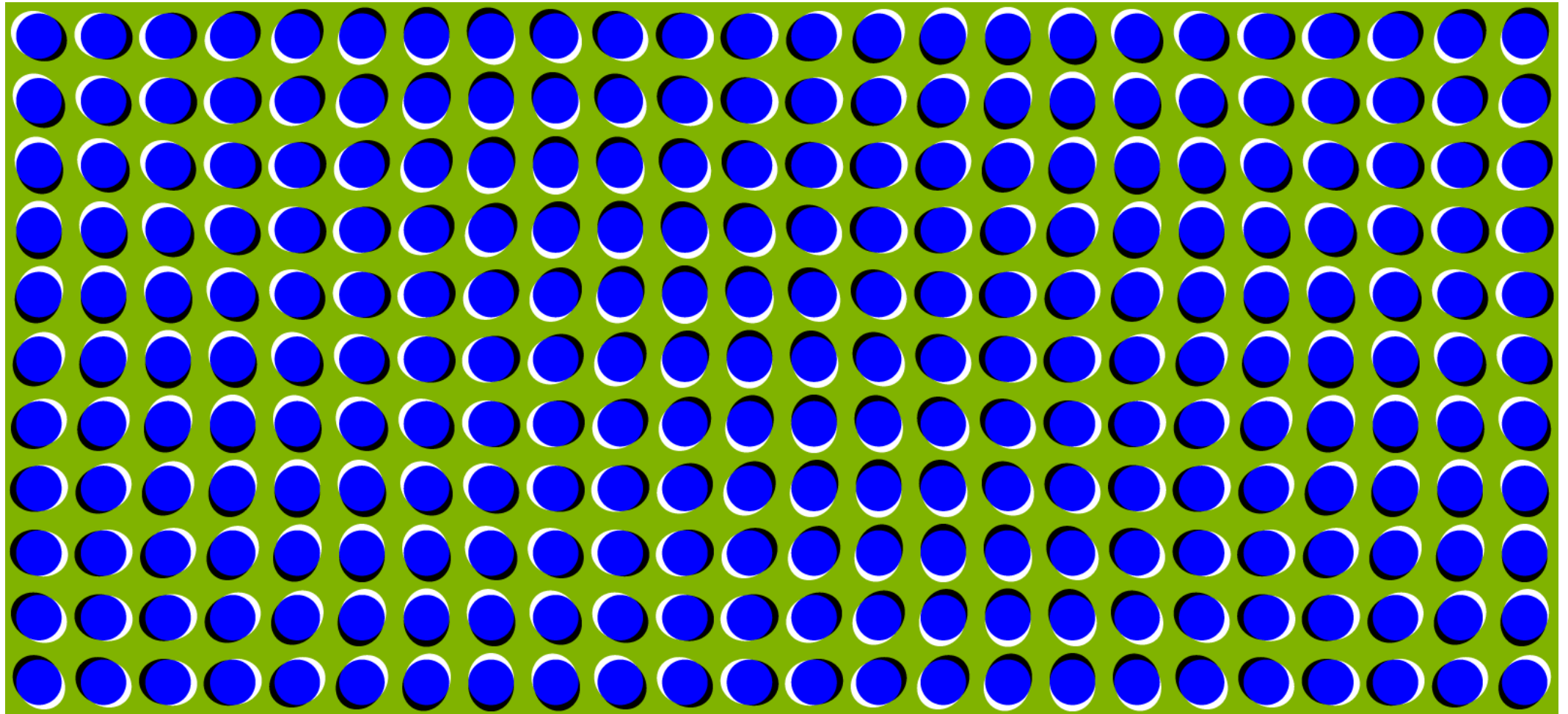
— D. Kahneman, *Thinking Fast and Slow*



Some Examples of Cognitive Biases

- Anchoring bias
- Apophenia
- Availability heuristic
- Cognitive dissonance
- Confirmation bias
- Egocentric bias
- Extension neglect
- False priors
- Framing effect
- Logical fallacy
- Prospect theory
- Self-assessment
- Truth judgment

Examples of a Visual Cognitive Bias



Miserabilism and the Pandemic



CBO: Coronavirus pandemic will scar U.S. labor market for the next decade

30-40 Million People in America Could Be Evicted from Their Homes by the End of 2020

FINANCE · ECONOMY

What shape will the recovery take? U-shape, check mark, square root symbol, and swoosh are all on the table, say economists

Coronavirus: Leading economist warns of 10 years of depression and debt

© 22 May 2020

As many as 30% of Americans with home loans — about **15 million** households — could stop paying if the U.S. economy remains closed through the summer or beyond, according to an estimate by Mark **Zandi**, chief economist for Moody's Analytics.

Home prices rose in June, but they'll likely fall in 2021: CoreLogic

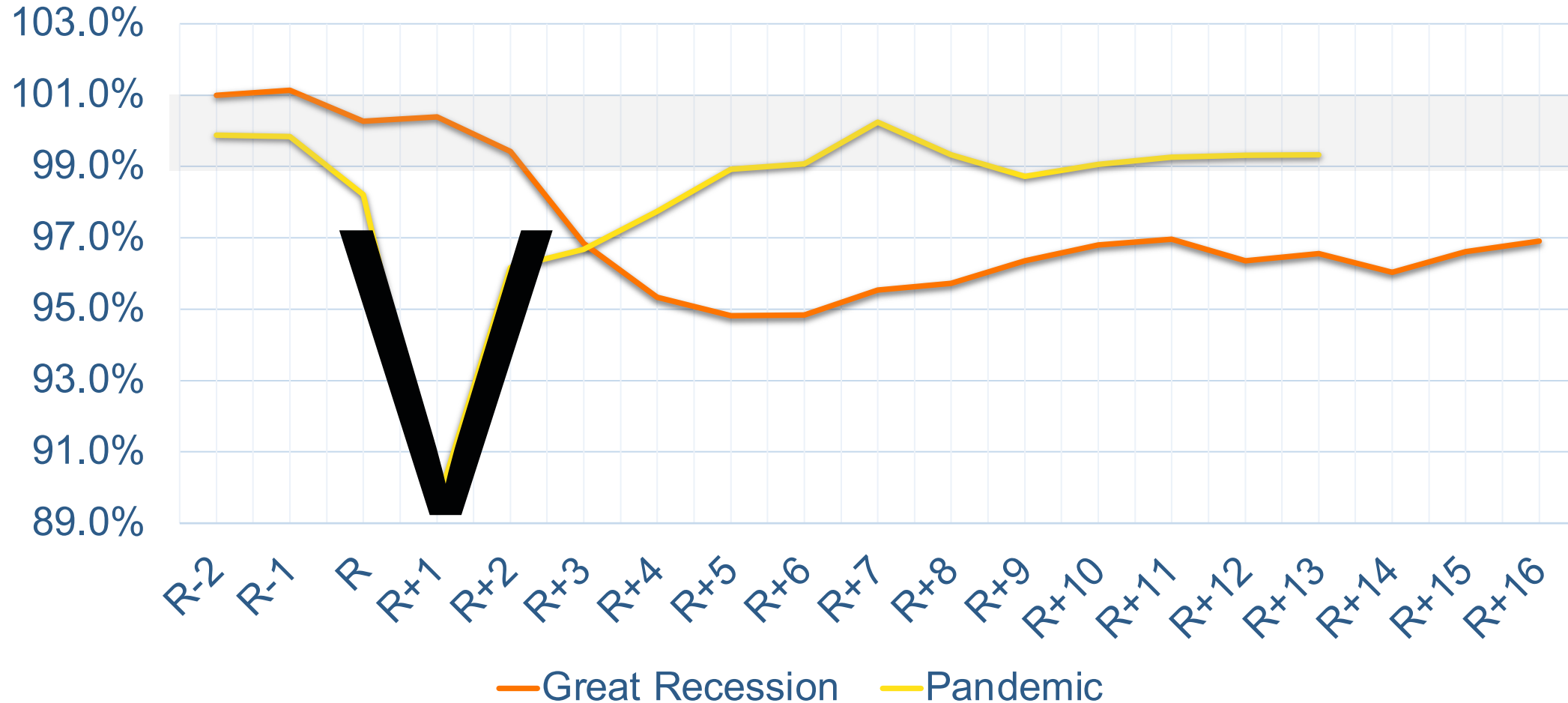
Coronavirus to cause worst economic downturn since Great Depression, IMF forecasts

'Make no mistake...the pandemic morphed into a Depression-like crisis,' says UCLA economist, who predicts U.S. economy won't recover from coronavirus until 2023

The Pandemic Over-reaction



Actual GDP / Potential GDP





Actual Lost GDP: \$1.2 Trillion

Fiscal Stimulus: \$6 Trillion

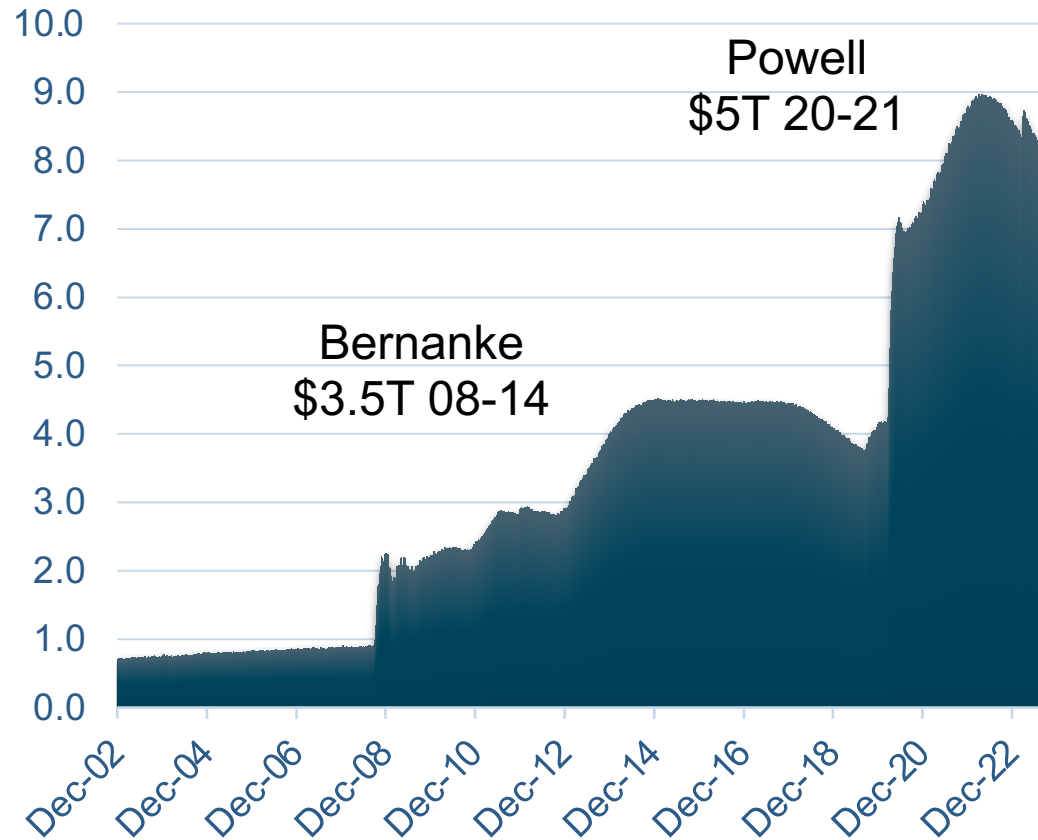
5 to 1 stimulus to loss ratio

\$50,000 in stimulus / household

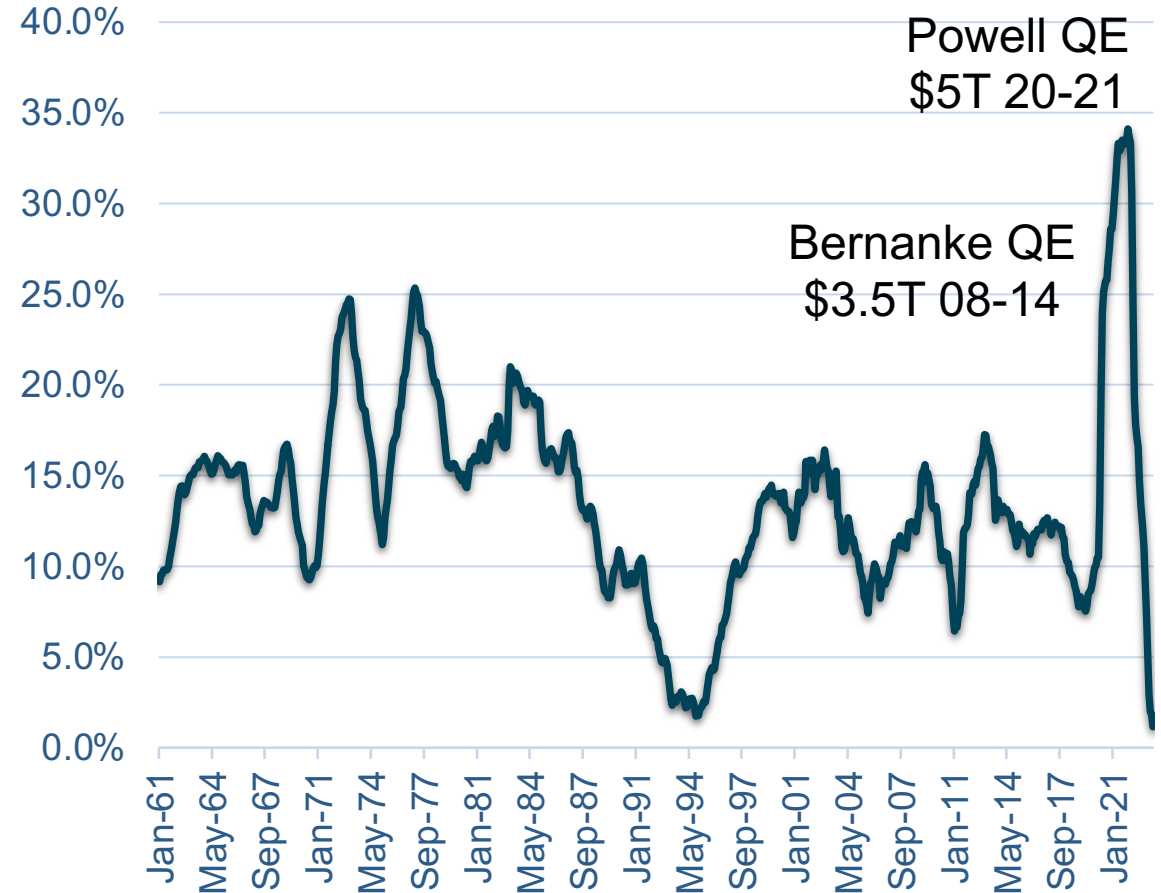
Federal Fiscal (Over)reaction



Federal Reserve Balance Sheet \$Trillions



2 Year M2 Growth



Money Mischief



The Problem with Excess Money

Short term: Money illusion

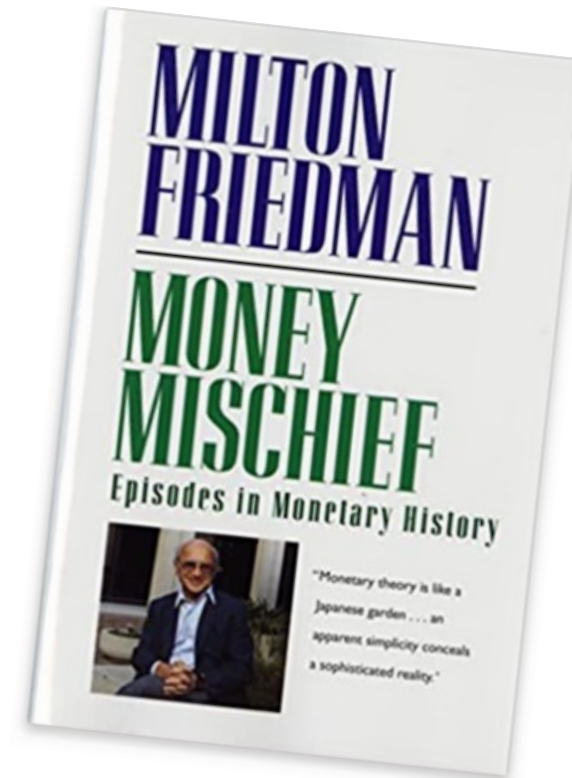
- Falling interest rates, Asset price surge
- Spending and investment binge ensues

Medium term: The Hangover

- Inflation hits, rates rise, asset markets sag
- Spending subsides back to normal
- Recession? Unlikely...

Long Run: The Consequences

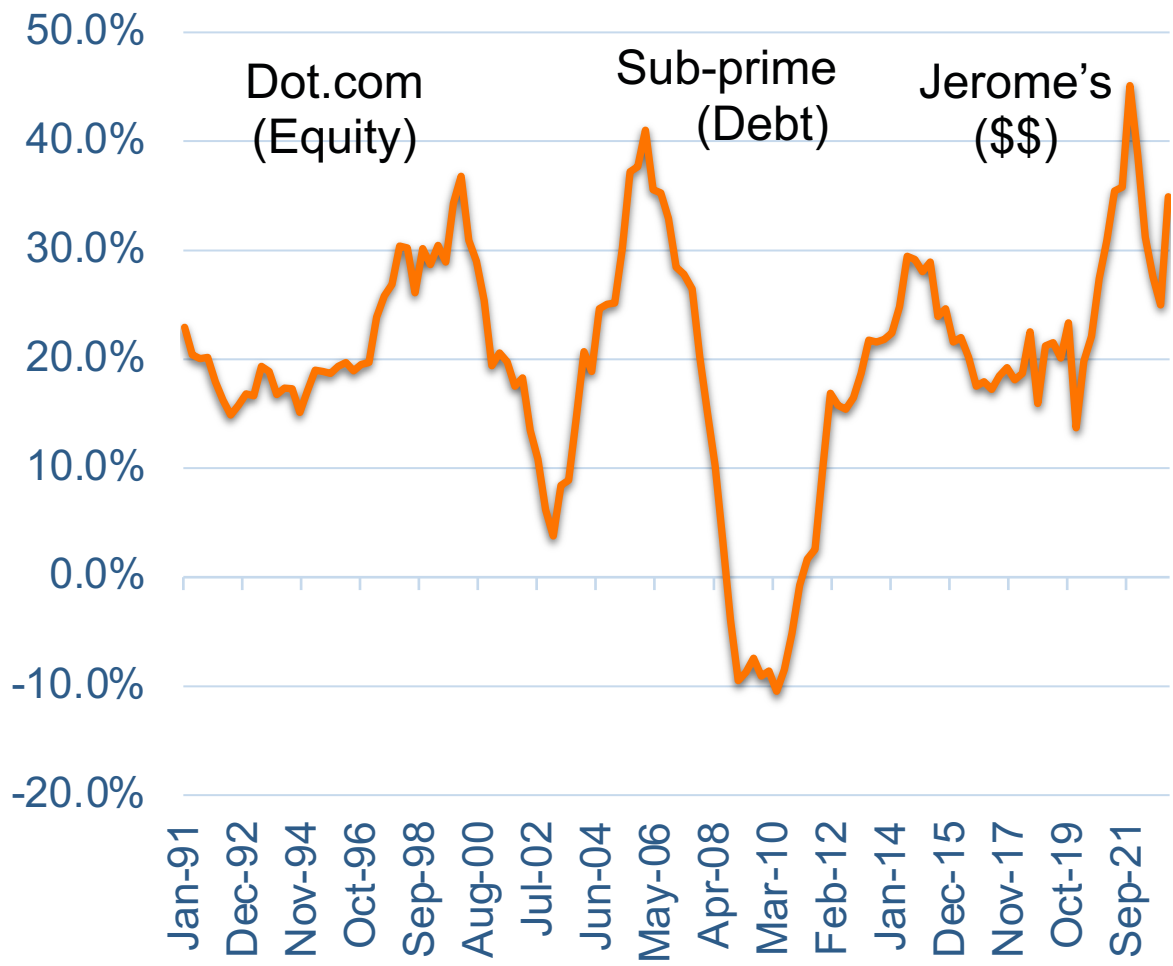
- Winners and Losers and political strife
- Financial risks increase, less investment
- Economic growth slows, economy is brittle



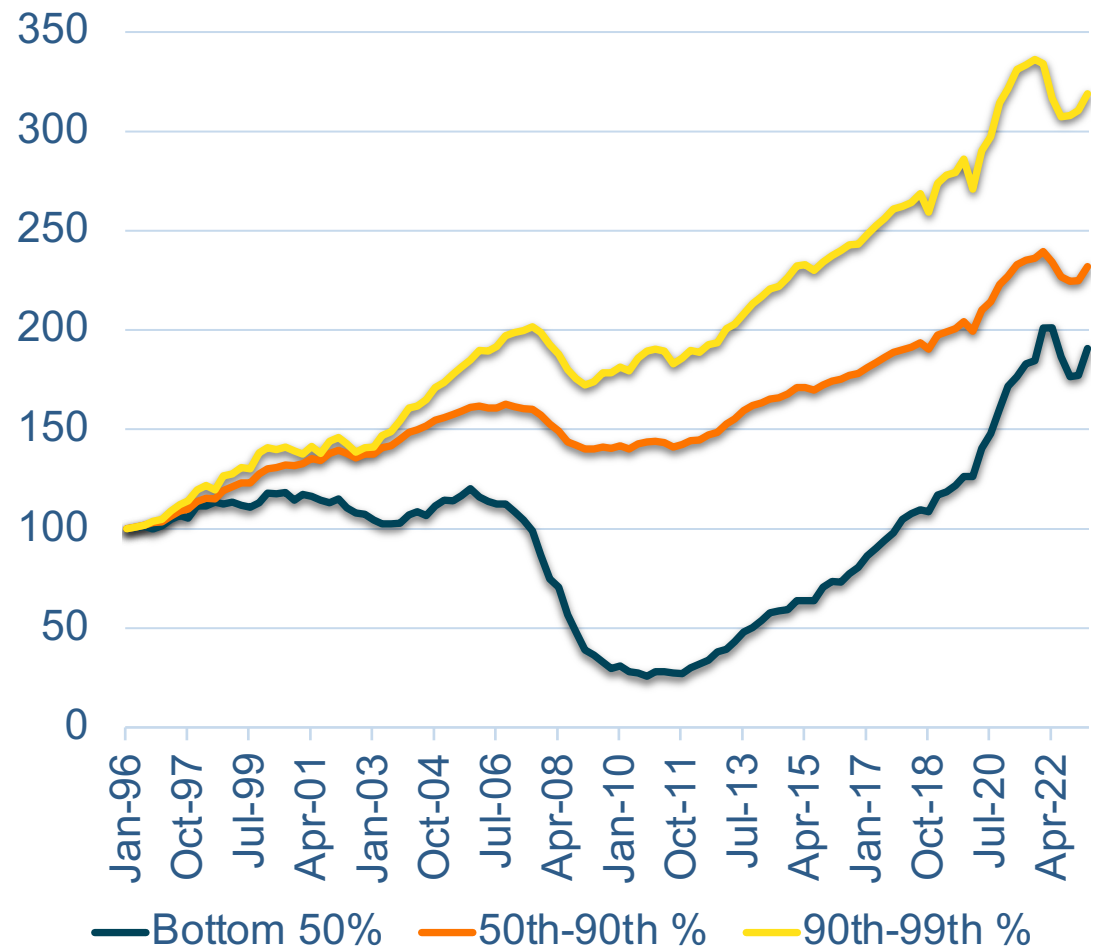
More Wealth = More Demand = Higher Prices



HH Net Worth: 3 Year Growth Rate



Indexed Real Net Worth



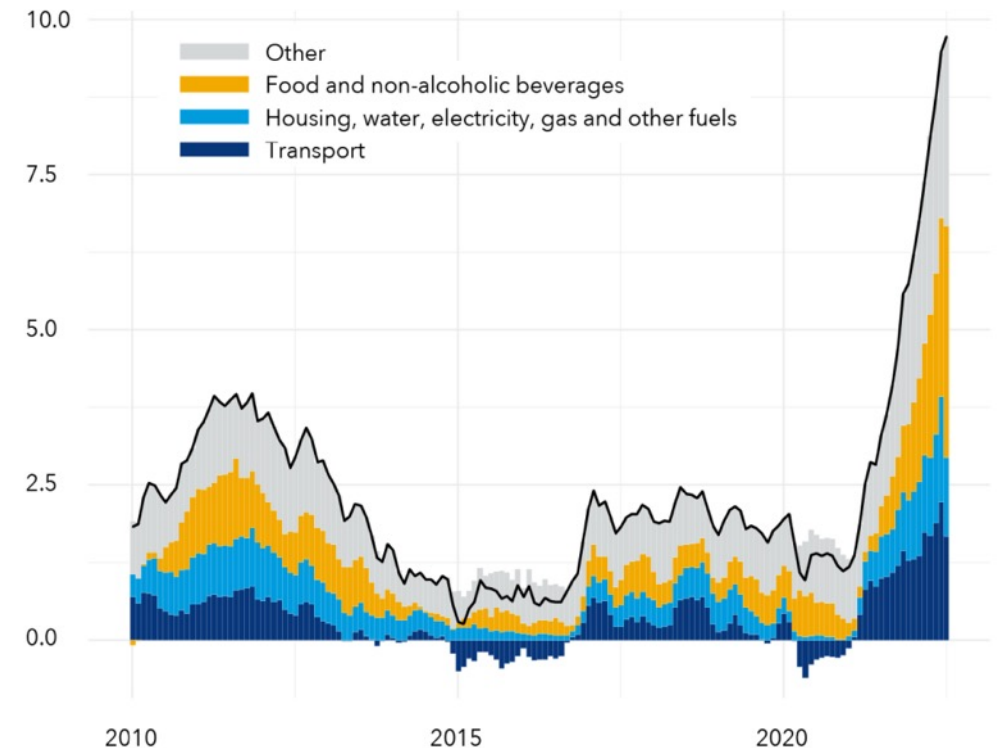
The Inflation Conversation



- Supply chain issues
- The federal deficit
- Corporate Greed
- Not enough manufacturing jobs
- Low Interest Rates
- Inflation expectations
- Its Putin's fault!
- The resale price of Swift concert tickets
- Dodgers awful pitching rotation
- Elon Musk can't get [his rocket] up

Inflation drivers

Food and energy prices continue to drive the global inflation surge.
(percent, median inflation rate)



Source: IMF CPI database and IMF staff calculations.
Note: Chart shows median total inflation and in select categories across 88 countries, including 28 advanced economies and 60 emerging and developing economies.

IMF

The public narrative on inflation?



85% of Americans Are Feeling Impact of Inflation in Day-to-Day Lives, Finds New Survey

NEWS PROVIDED BY

[L.E.K. Consulting](#) →

05 Dec, 2022, 09:30 ET

- About 90% of Americans said that inflation has had an impact on their spending over the past year when it comes to food and beverage, including 54% who said the impact has been significant.
- A similar number – 88% – said inflation has impacted their spending at restaurants.
- About 89% said inflation has had an impact on their motor vehicle spending, such as gasoline – including 56% who said it's had a significant impact.
- Eighty-six percent said inflation has impacted their spending on travel over the past year (45% said significantly).

Context...



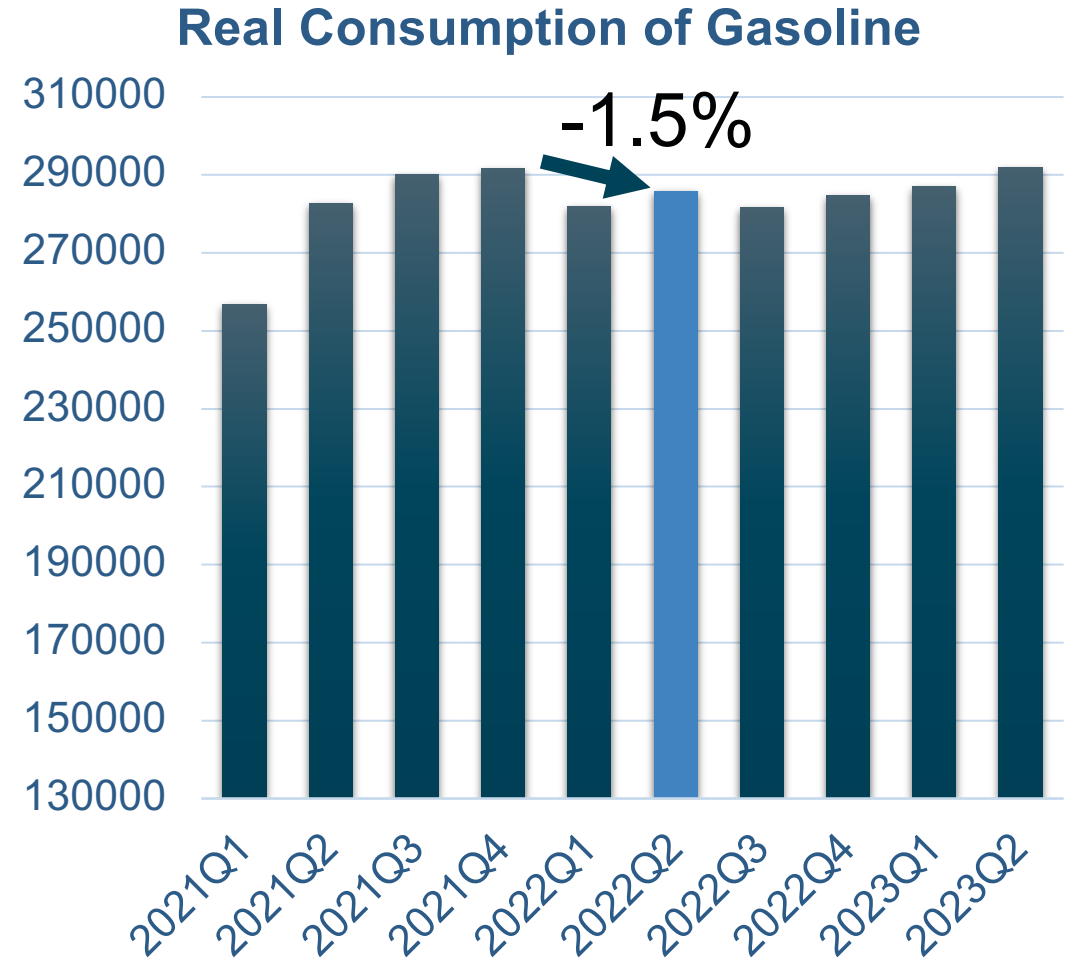
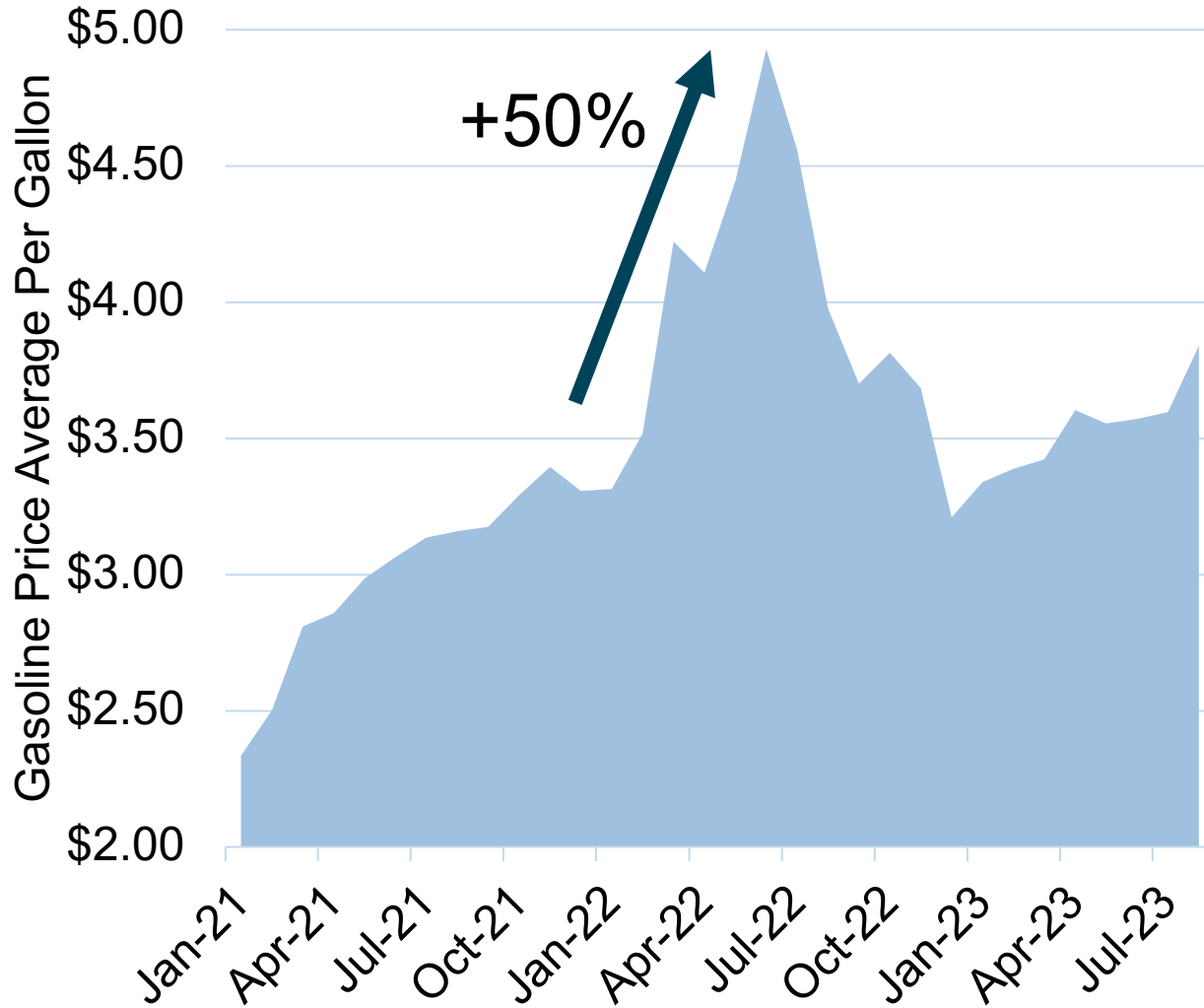
5 Year Change in Consumer Prices (PCE Basis)



Real Consumer Spending Growth 2019-23

Necessary		Discretionary	
Prescription drugs	19.1%	Video and audio equipment	74.8%
Household supplies	16.9%	Sporting equipment, guns, ammo	61.7%
Outpatient services	11.7%	Pleasure boats, aircraft, other rec	36.3%
Social assistance	9.1%	Therapeutic appliances / eq	35.5%
Imputed rental of owner-occupied	5.4%	Foreign travel by U.S. residents	28.9%
Hospital and nursing home	5.1%	Jewelry and watches	28.1%
Ground transportation	4.0%	Air transportation	26.6%
Rental of tenant-occupied housing	3.4%	Alcoholic beverages	17.9%
Food for off-premises consumption	2.5%	Food services	11.4%
Elementary, secondary schools	2.3%	Accommodations	10.4%
Household utilities	0.1%	Recreation services	-1.0%
Higher education	-0.9%	Personal care services	-10.9%

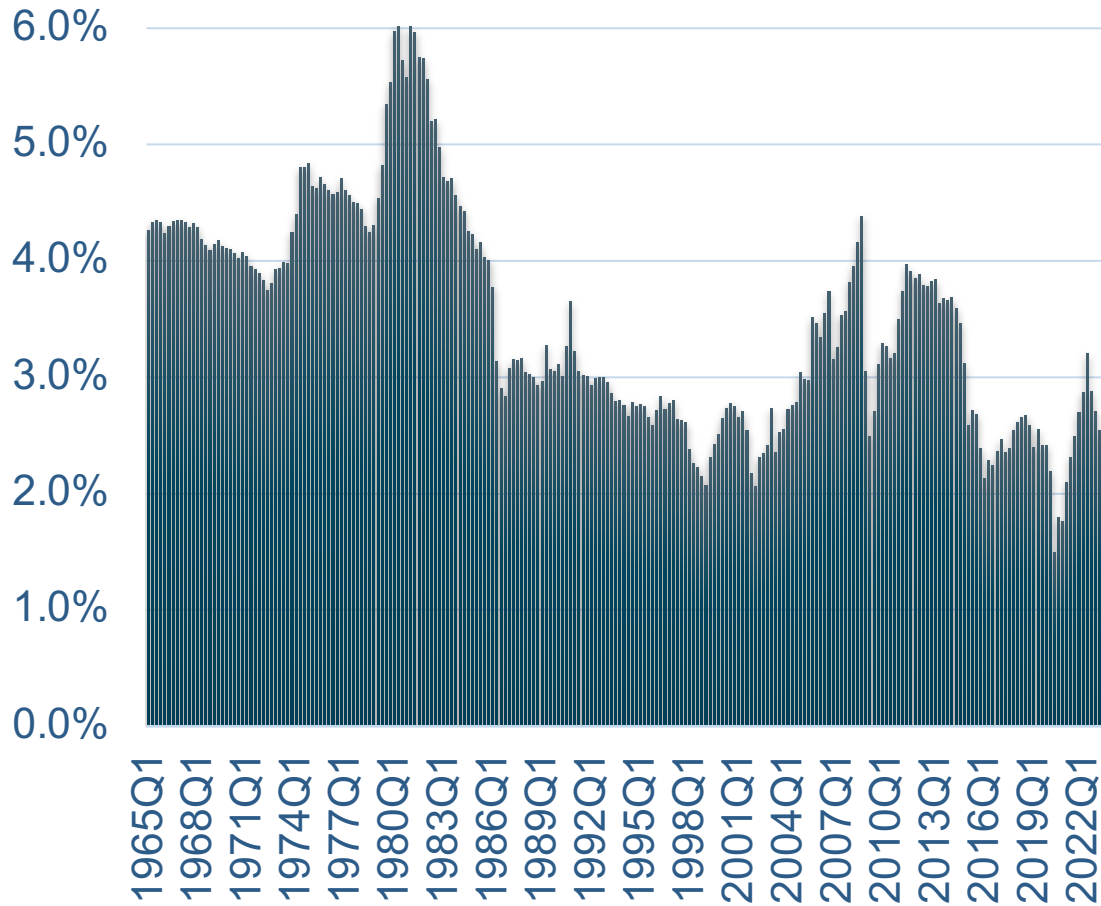
Gasoline Prices: Supply or Demand?



The current surge in oil prices?



Energy Share Consumer Spending



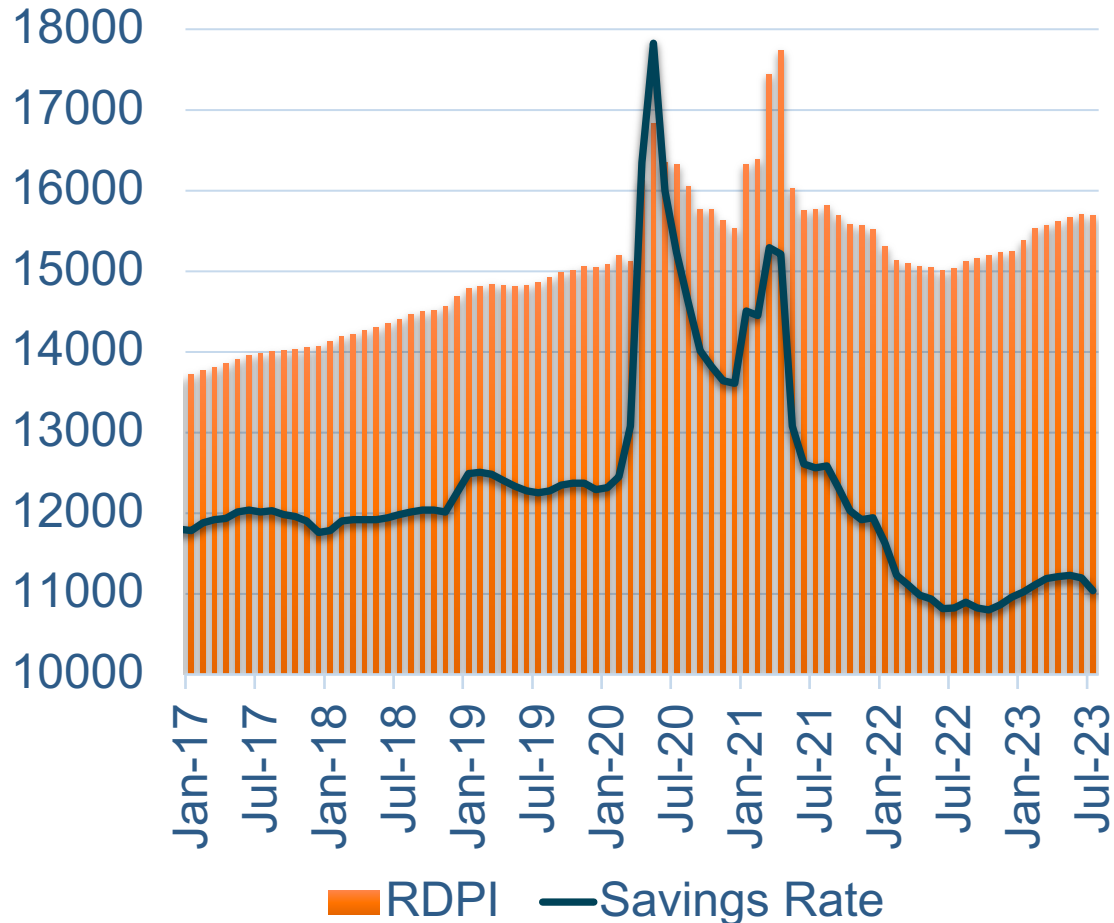
US Crude Oil Production



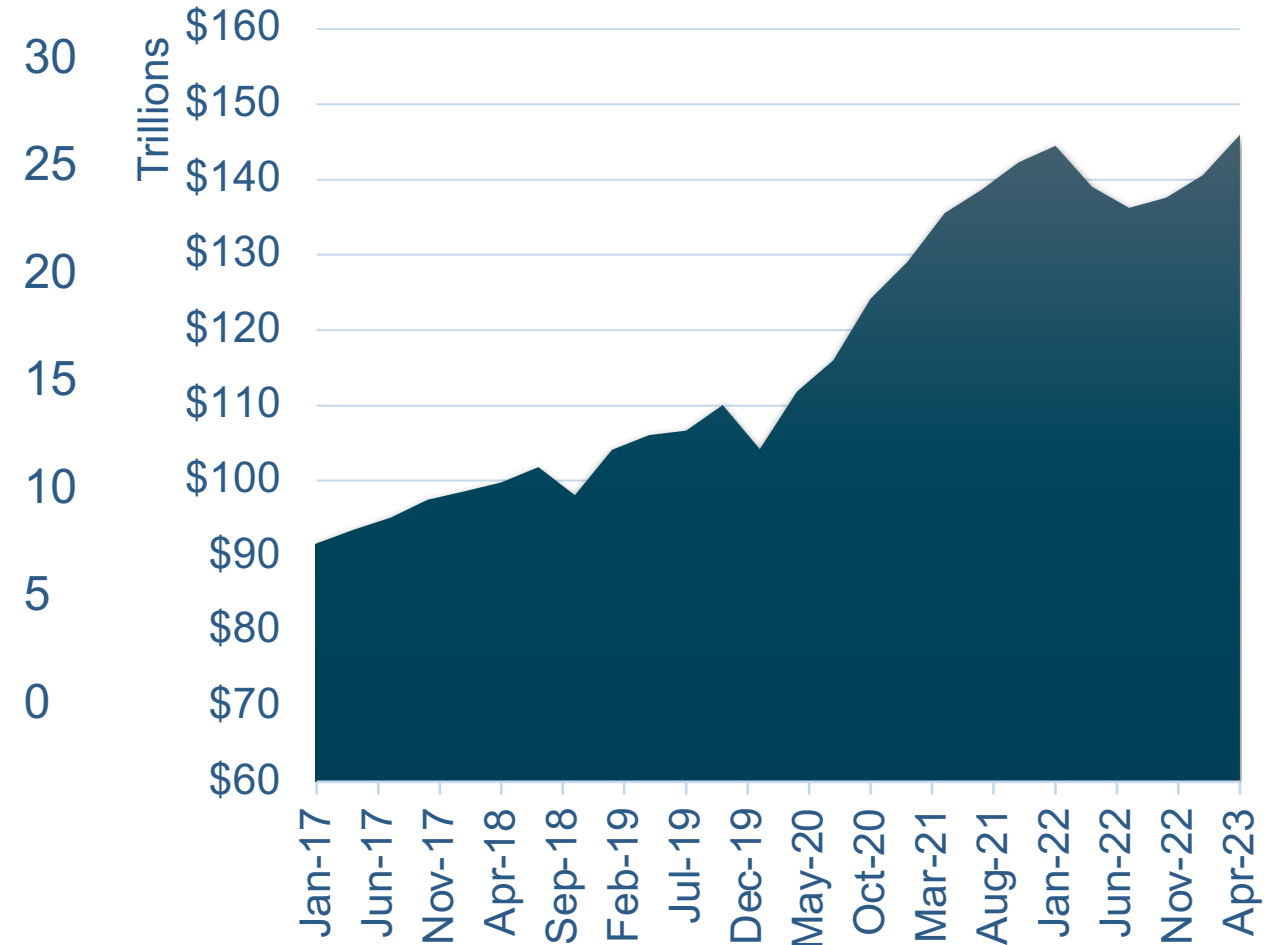
The Outlook for Consumer Demand



Real Household Income



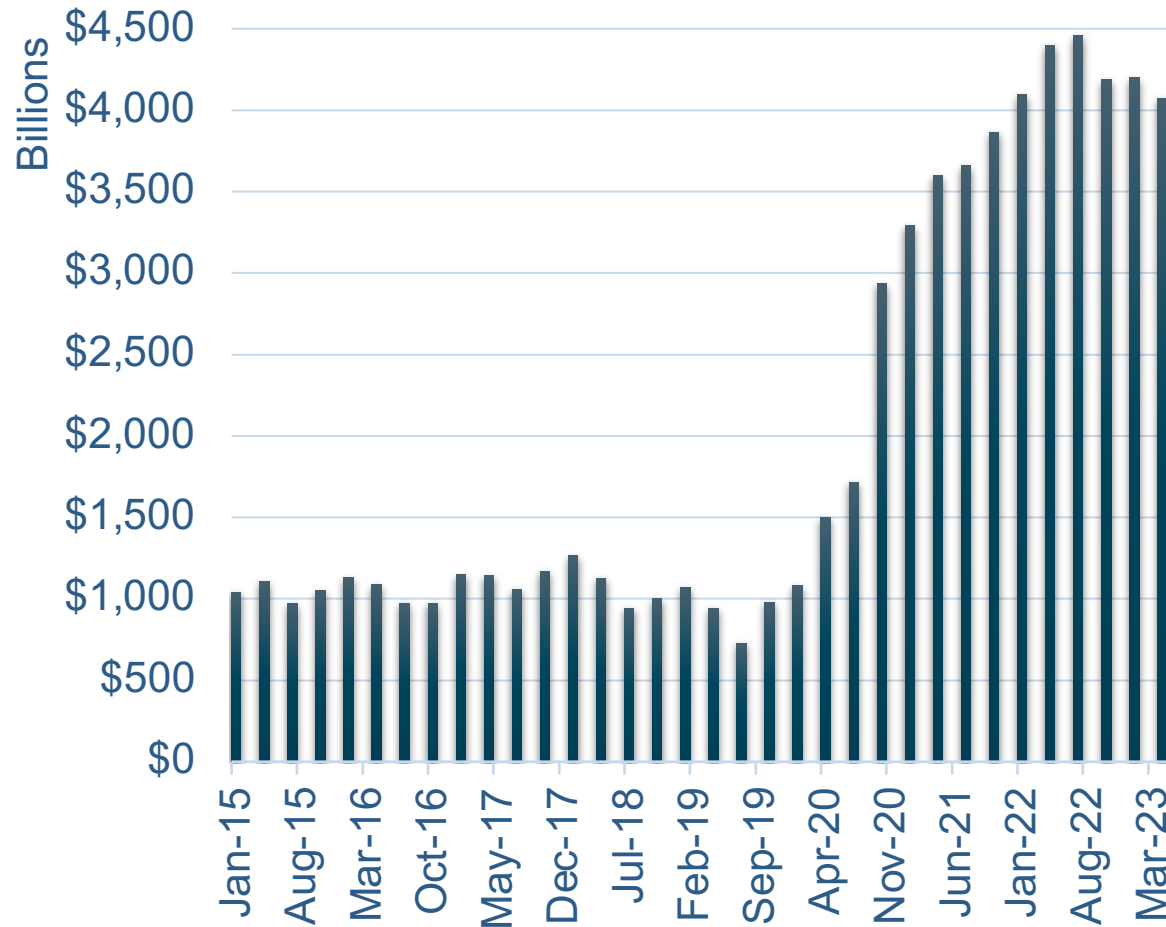
US Household Net Worth



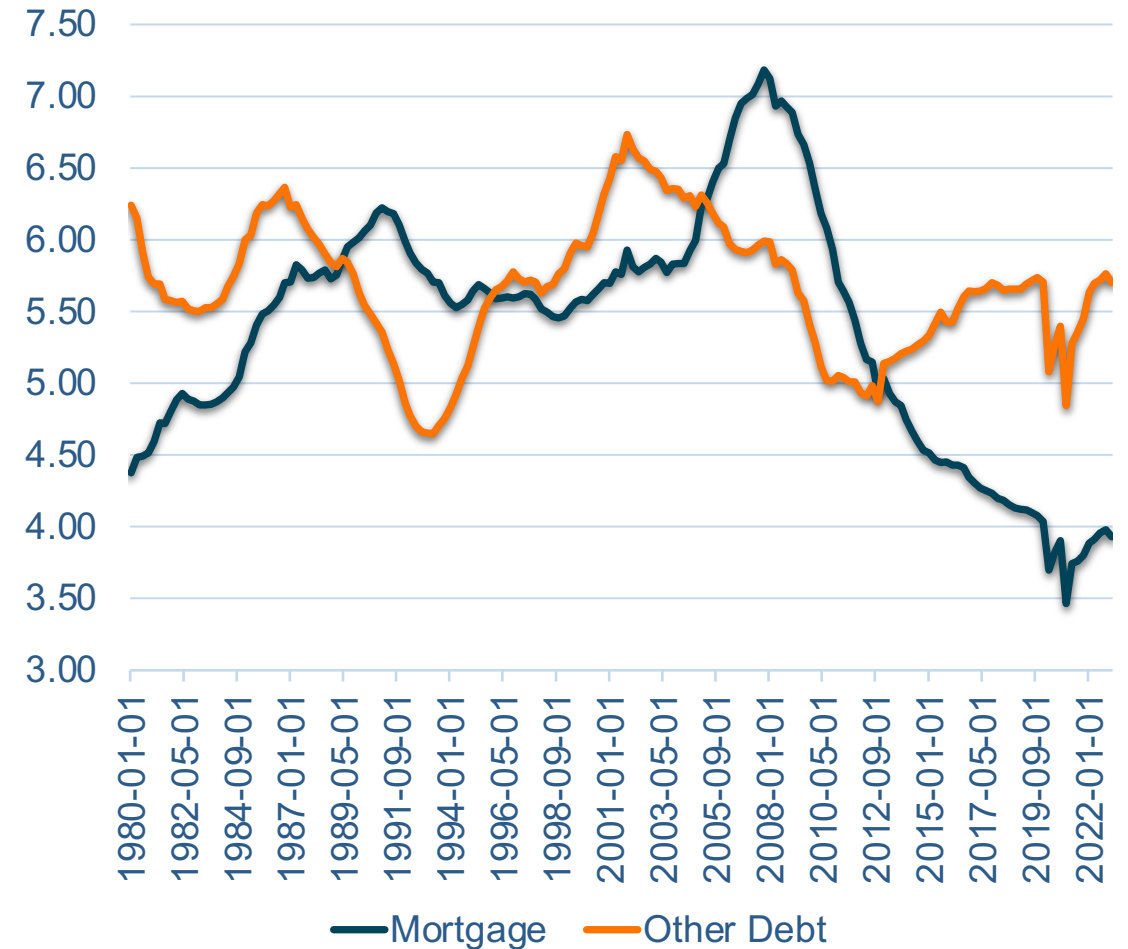
Plenty of Fuel for Growth



Household Checkable Deposits



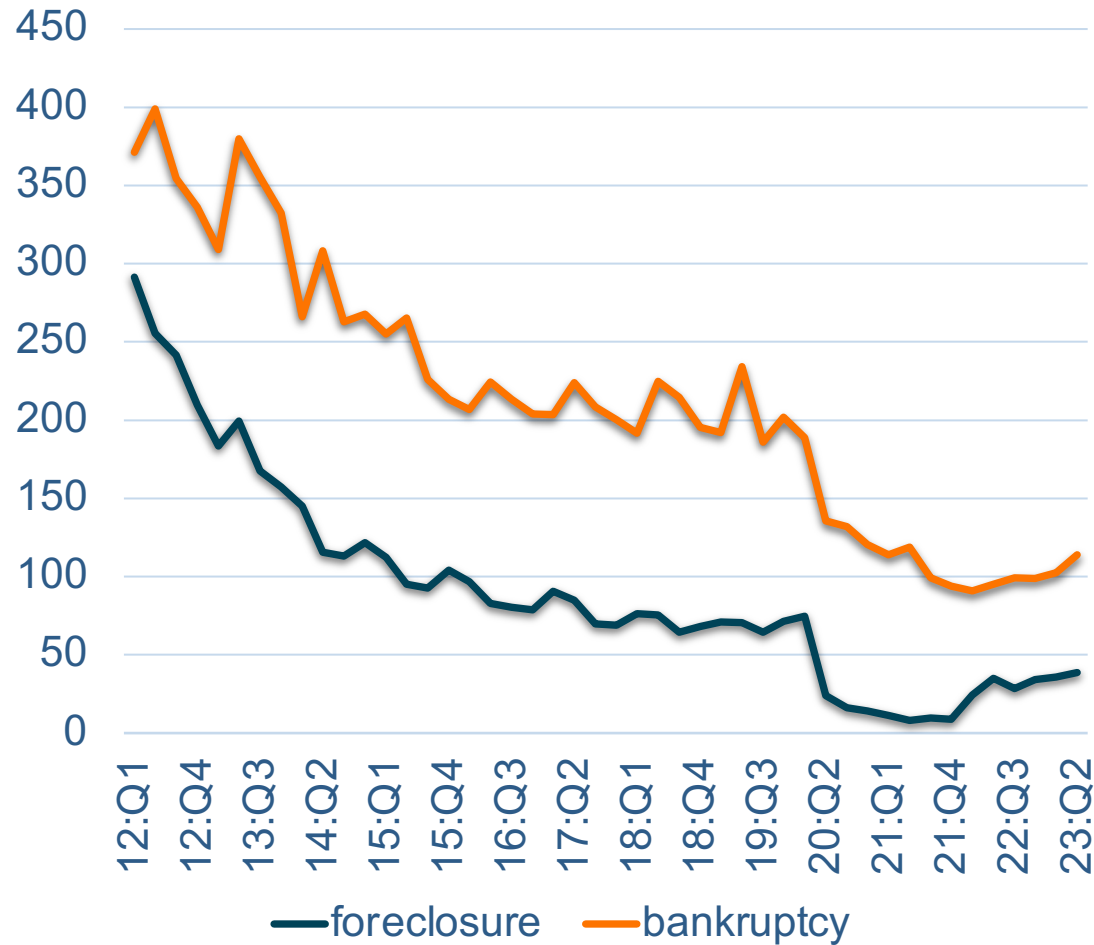
Financial Obligations as % of DPI



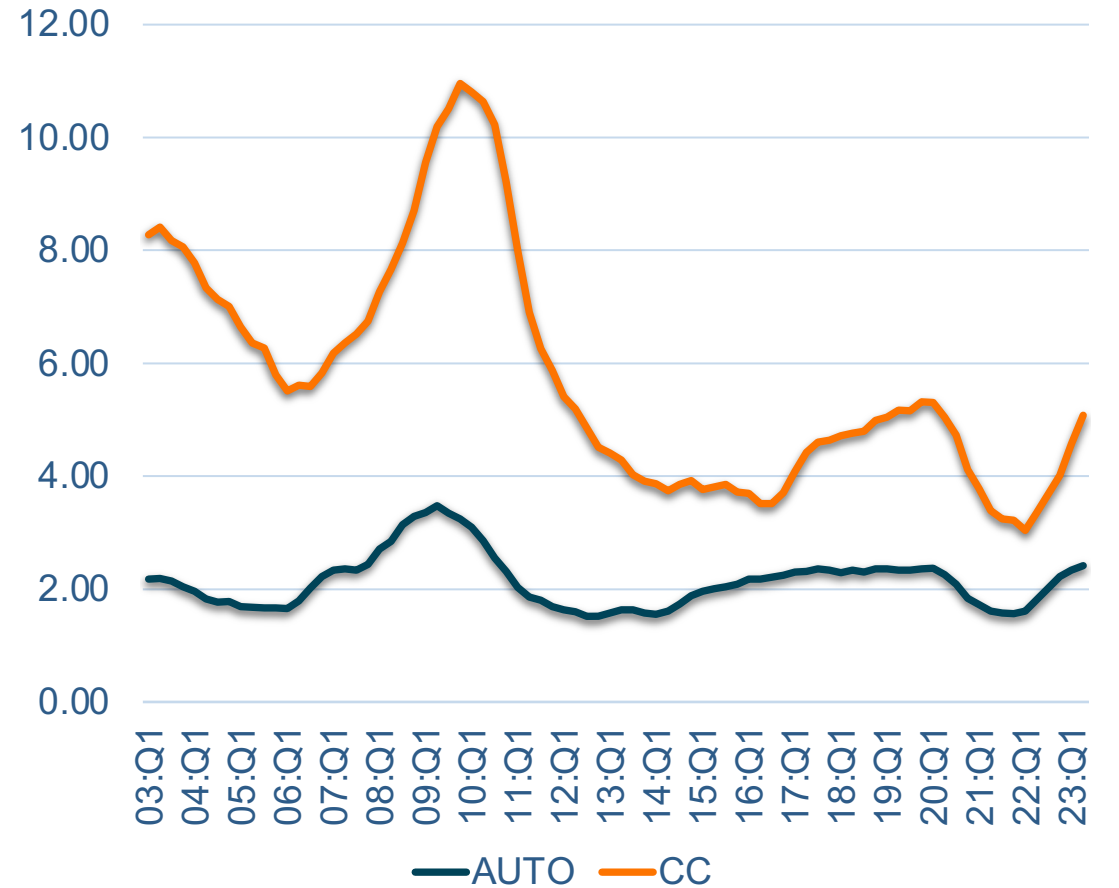
Debt Issues?



Consumer Credit Issues (000's)



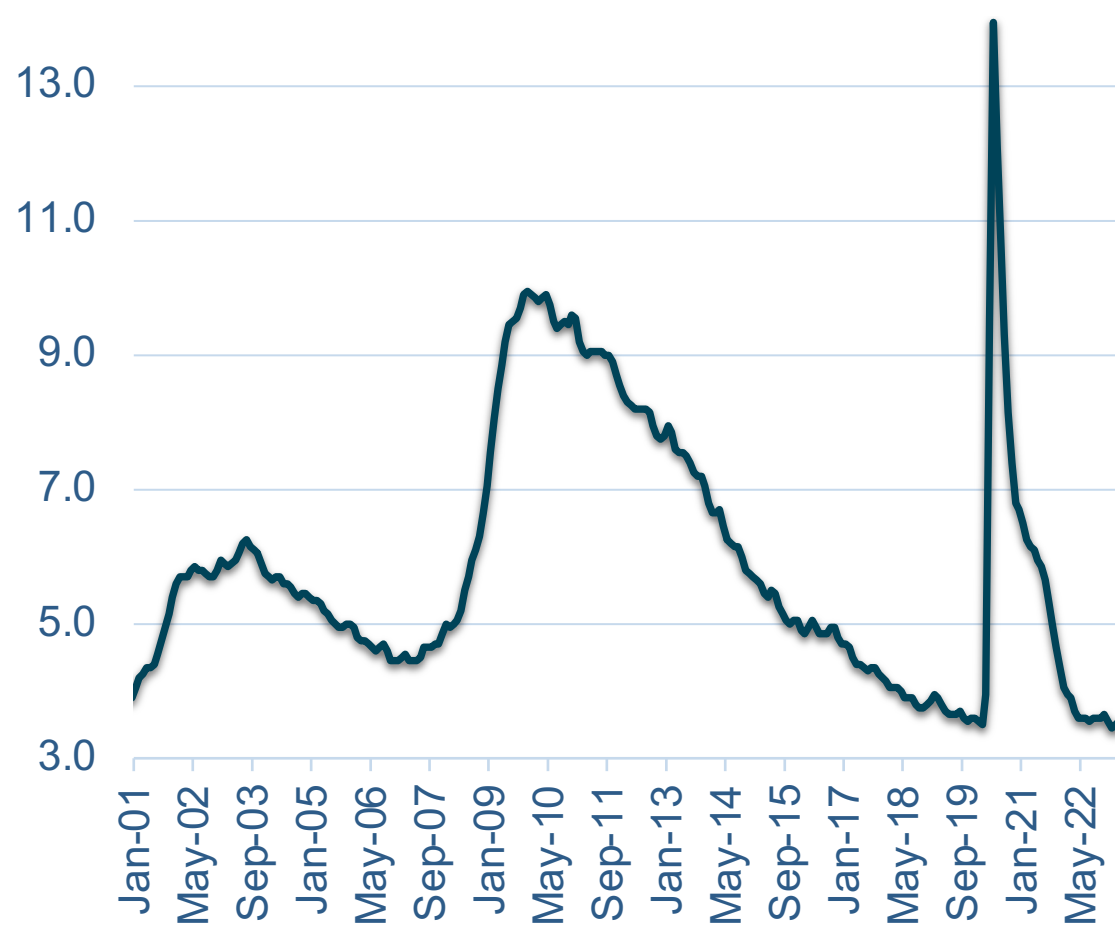
Share of Debt Seriously Delinquent (90 day+)



Recent Labor Market Evidence



US Unemployment Rate



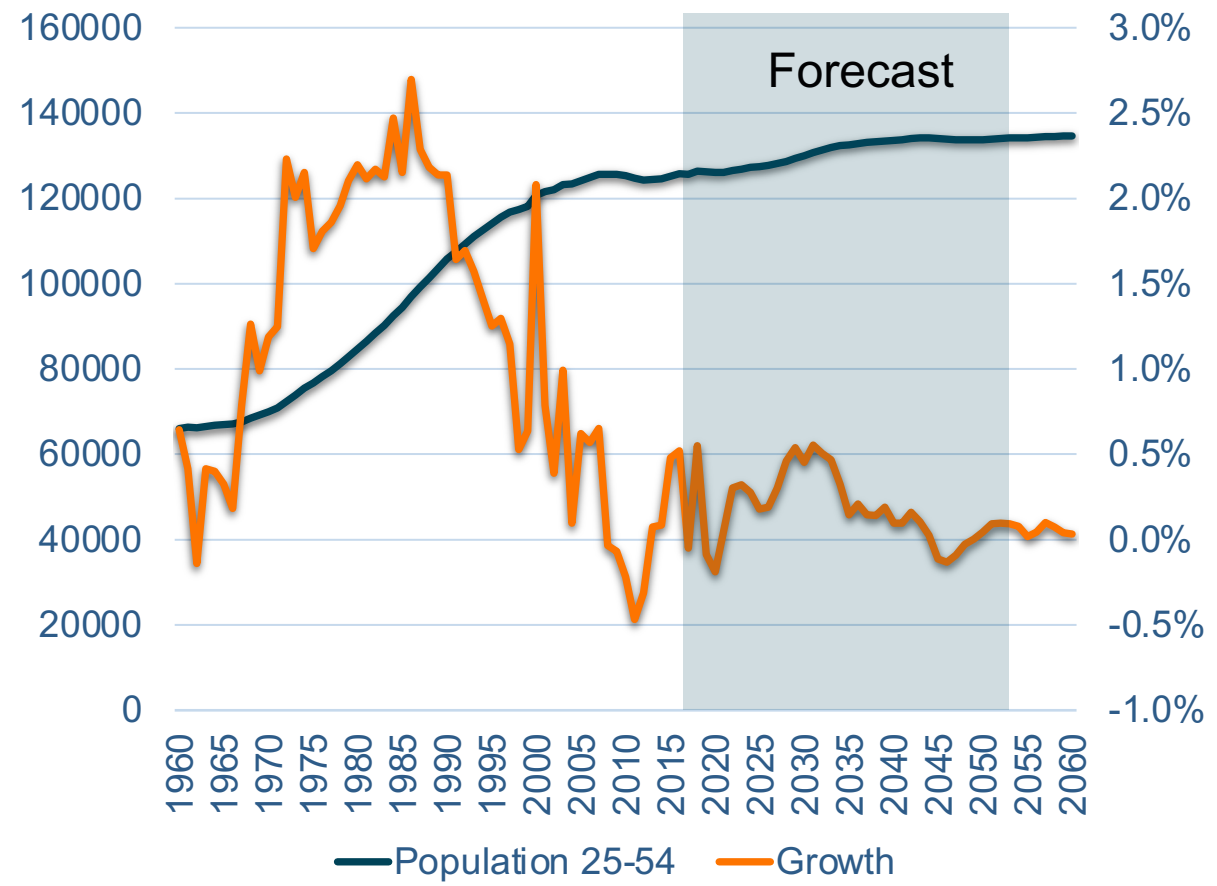
Job Openings / Unemployed Person



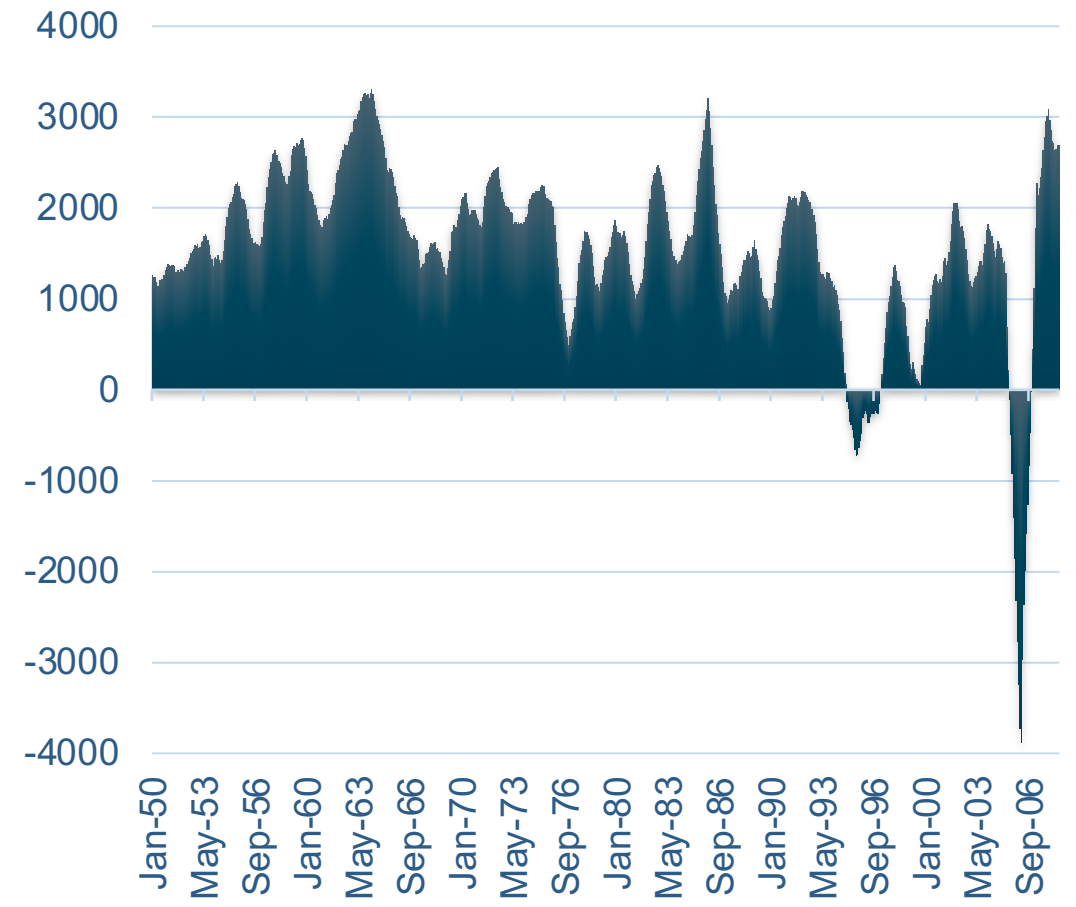
The Era of Labor Shortages is Here



**Prime Working Years Population Growth
(Census Forecasts)**



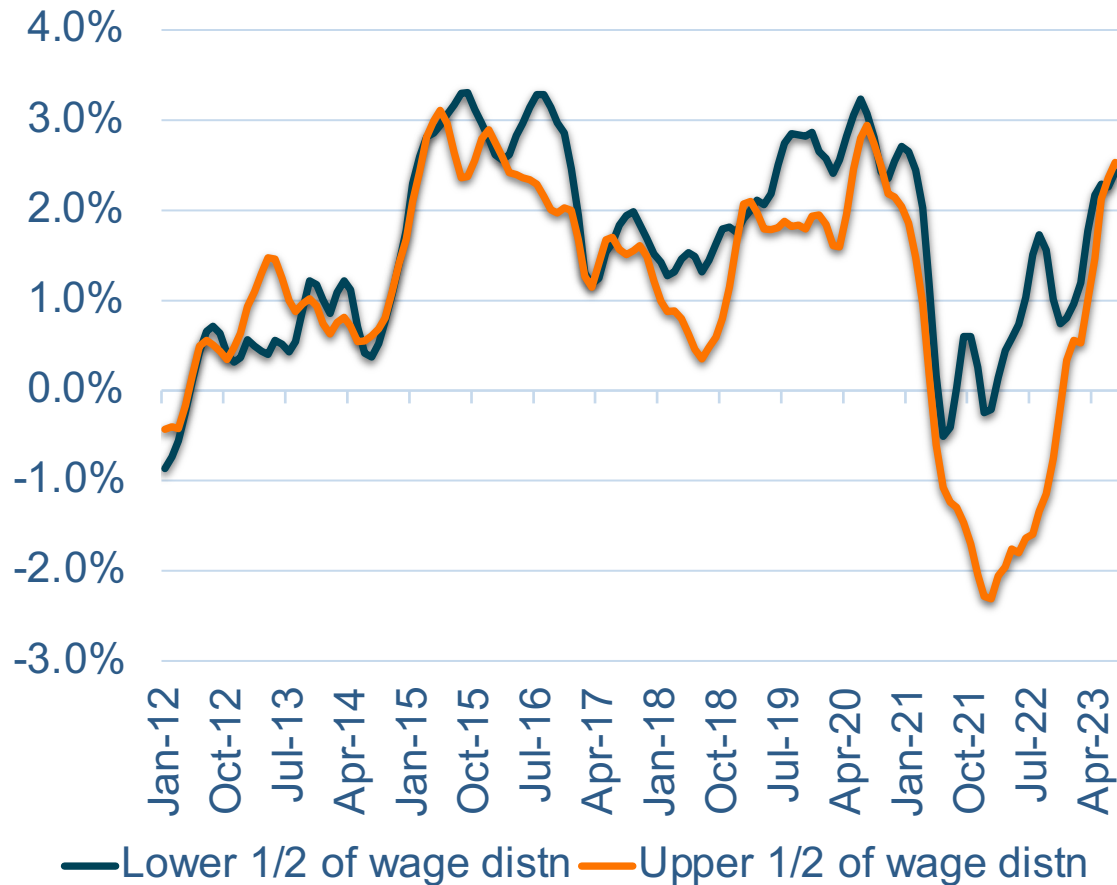
The Great Retirement



The Impact of Labor Shortages



Real Wage Growth (YoY)



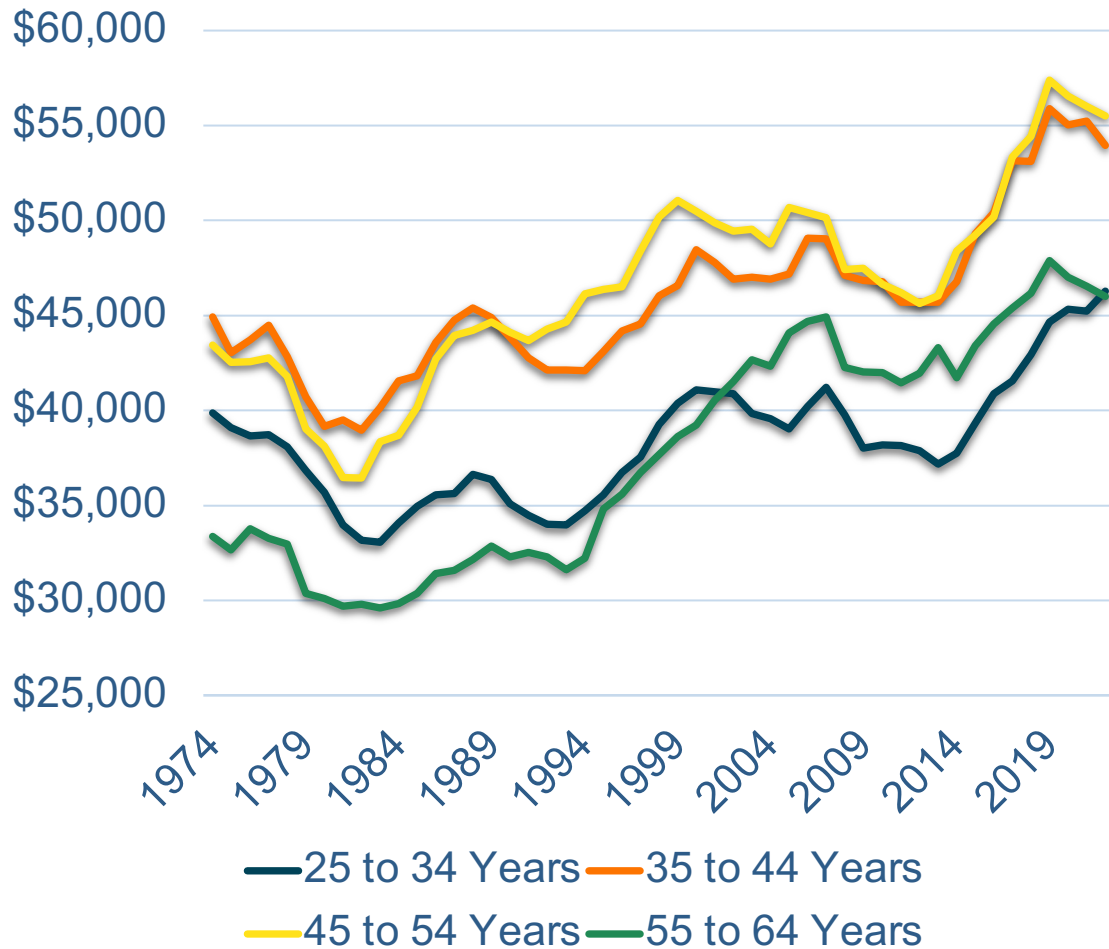
Weekly Earnings for Non-Supervisory Employees

	Q1 23	Gr 17-20	Gr 20-23
Accommodation	\$603.5	6.5%	33.8%
Childcare	\$561.8	11.6%	28.7%
Food and Drink	\$418.6	10.6%	26.2%
Nursing Homes	\$704.4	12.6%	23.5%
Truck Transport	\$1,200.4	13.3%	20.1%
Total Private	\$964.8	10.0%	19.6%
Retail	\$620.0	14.6%	19.0%
Warehouses	\$857.2	10.0%	14.2%

Real Earnings by Age



Real Earnings by Age



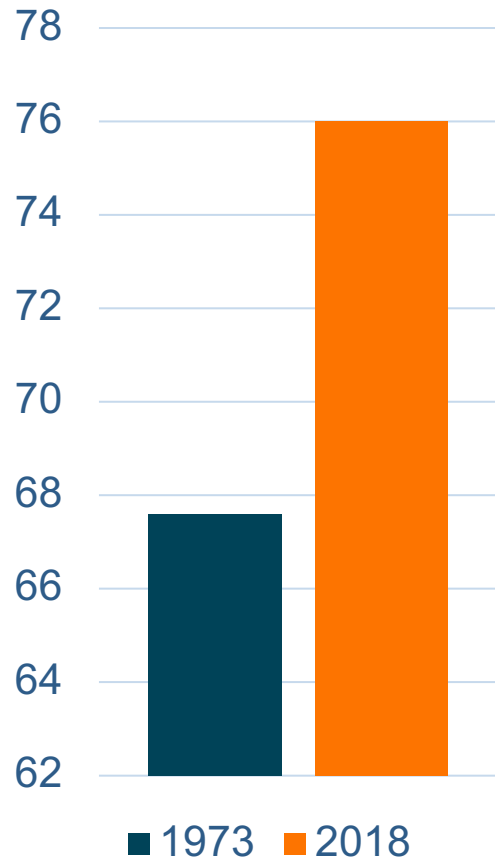
Cohort Comparison Real Earnings

Age in 2022	25 to 34 Years	35 to 44 Years	45 to 54 Years	55 to 64 Years
Inc. Year	<u>2022</u>	<u>2012</u>	<u>2002</u>	<u>1992</u>
Median	\$46,280	\$45,690	\$49,440	\$32,290
Mean	\$59,030	\$62,290	\$67,740	\$45,880
Age in 2004	25 to 34 Years	35 to 44 Years	45 to 54 Years	55 to 64 Years
Inc. Year	<u>2004</u>	<u>1994</u>	<u>1984</u>	<u>1974</u>
Median	\$39,570	\$42,100	\$38,700	\$33,380
Mean	\$47,530	\$55,030	\$49,490	\$43,780

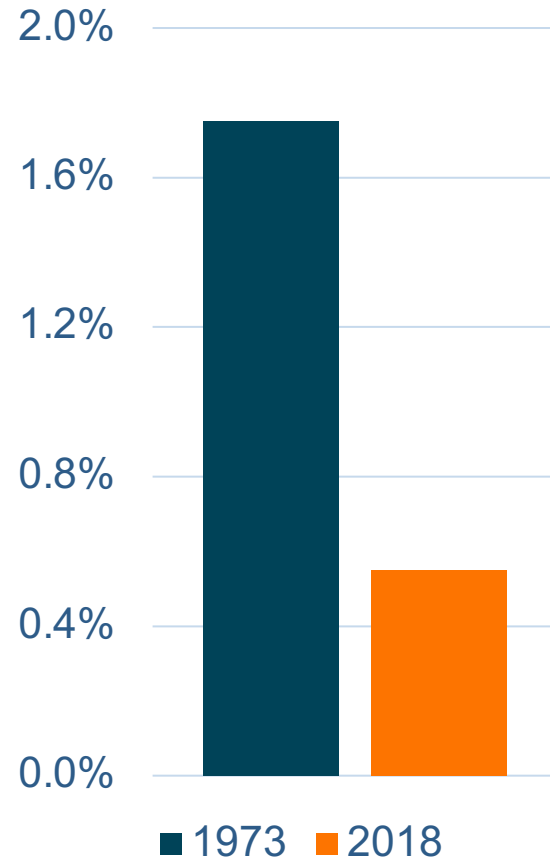
Other Metrics on Quality of Life



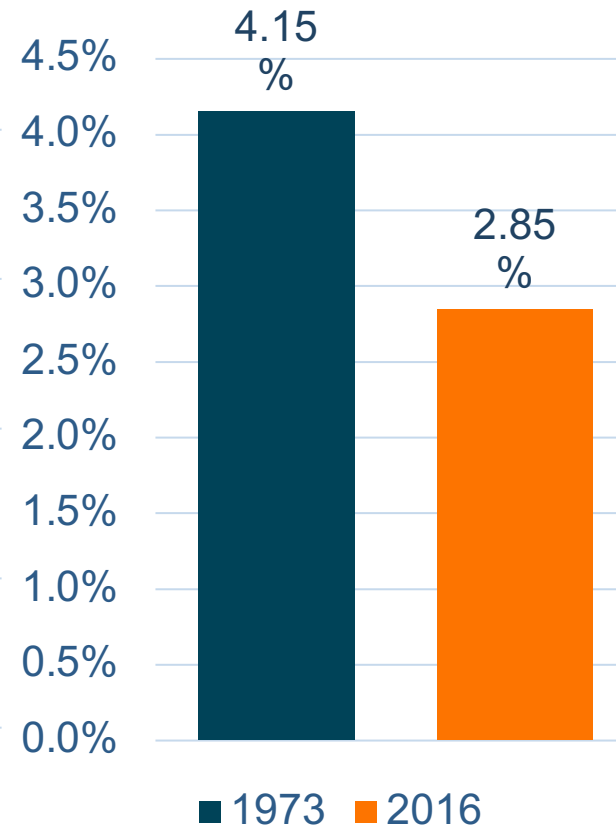
Life Expectancy



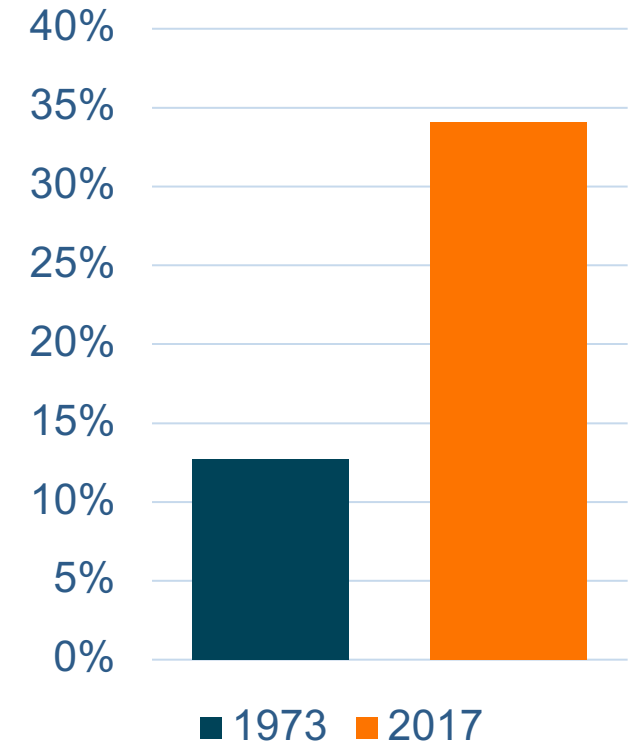
Infant Mortality



Total Crime Rate in the U. S.



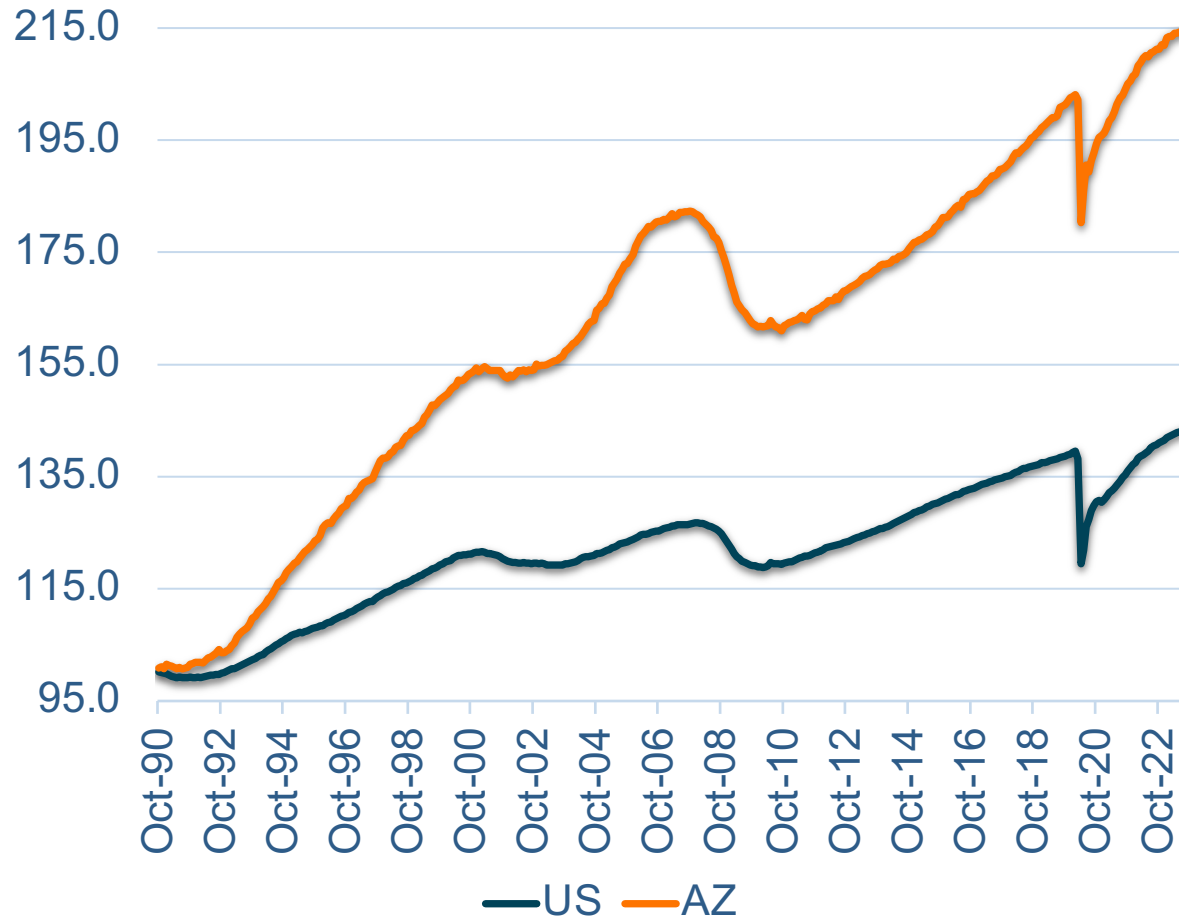
% of Population With College Diploma or Higher



The Local Situation



Index of Payroll Employment

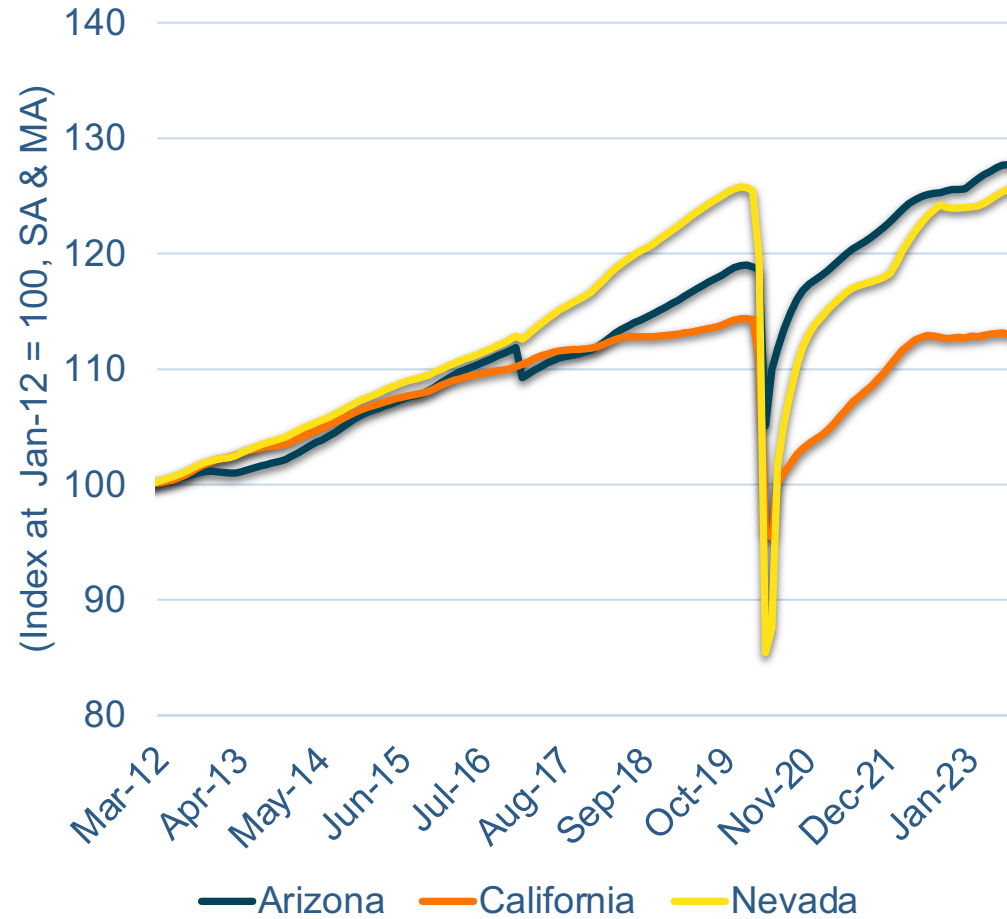


	Change in Payrolls 19-23	
1	Idaho	12.2%
2	Utah	10.9%
3	Nevada	9.1%
4	Florida	8.9%
5	Texas	8.8%
6	North Carolina	7.6%
7	Arizona	7.5%
8	Arkansas	6.5%
9	Tennessee	6.4%
10	Montana	6.3%
11	Georgia	6.1%
12	South Carolina	5.1%
13	Washington	4.6%
14	South Dakota	4.4%
15	Colorado	4.0%
16	Indiana	3.9%
17	California	3.8%
18	Alabama	3.7%

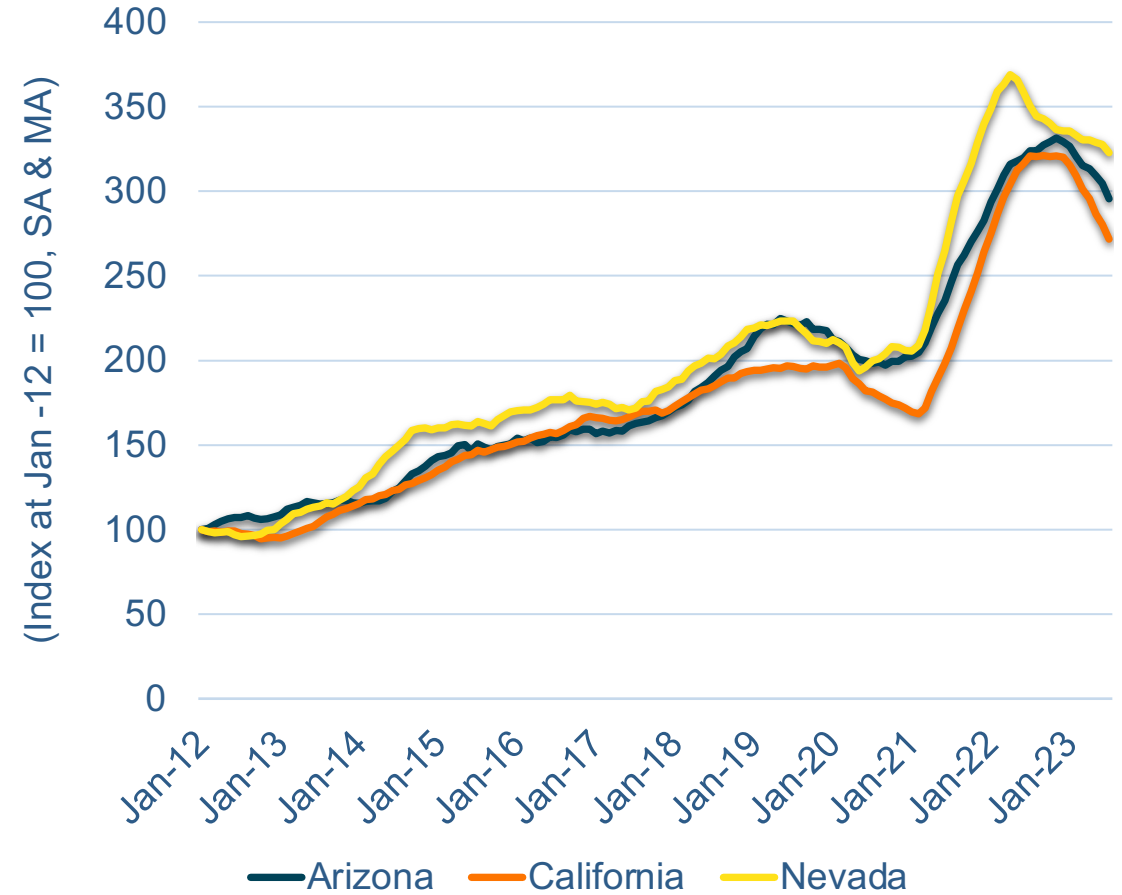
Labor Markets



Indexed Payroll Jobs



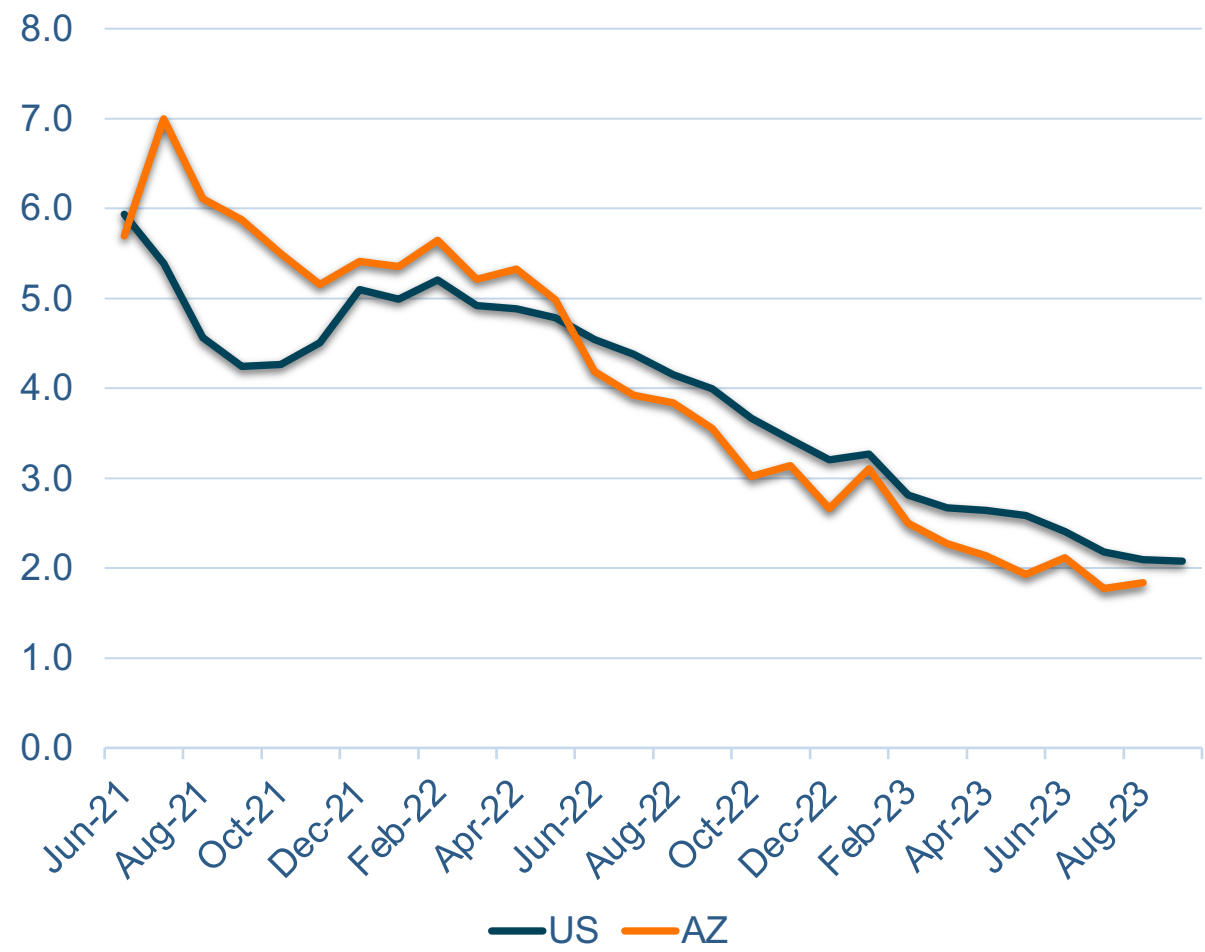
Job Openings



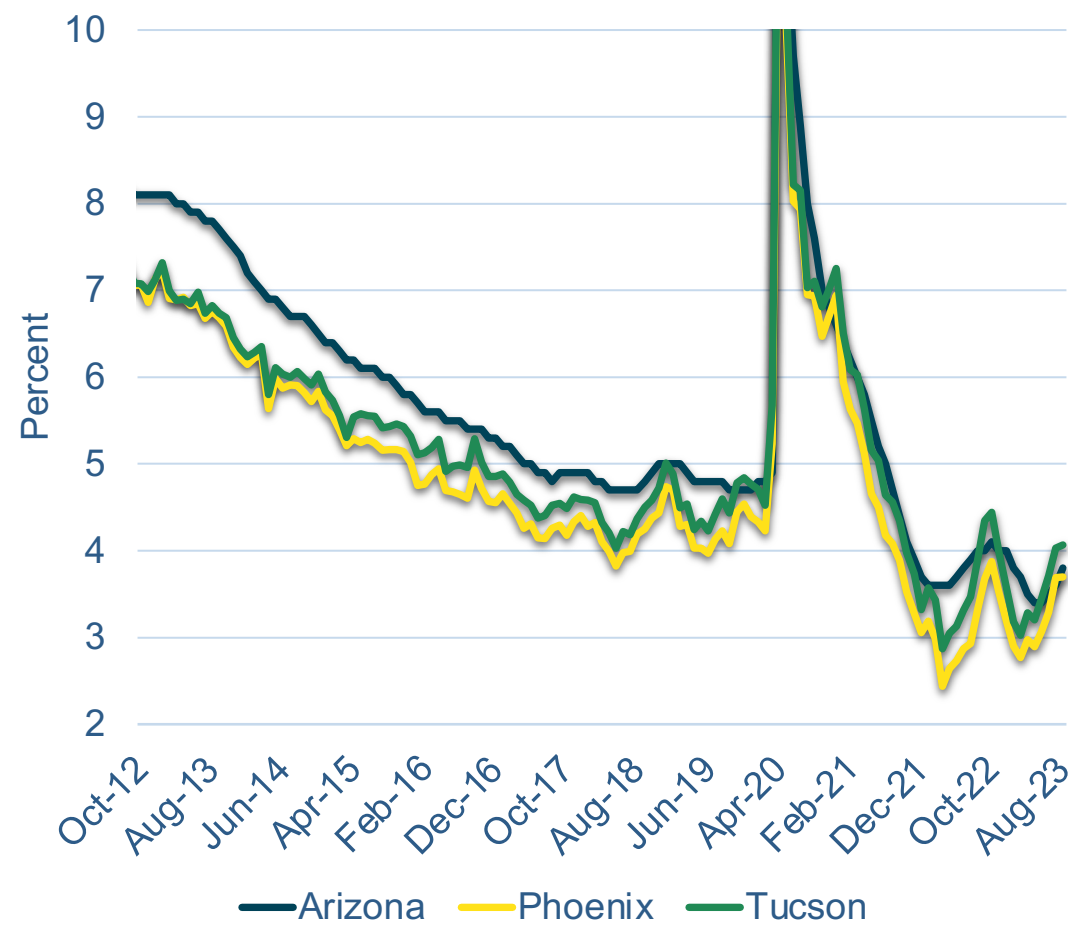
Regional Labor Market



YoY Growth Payrolls



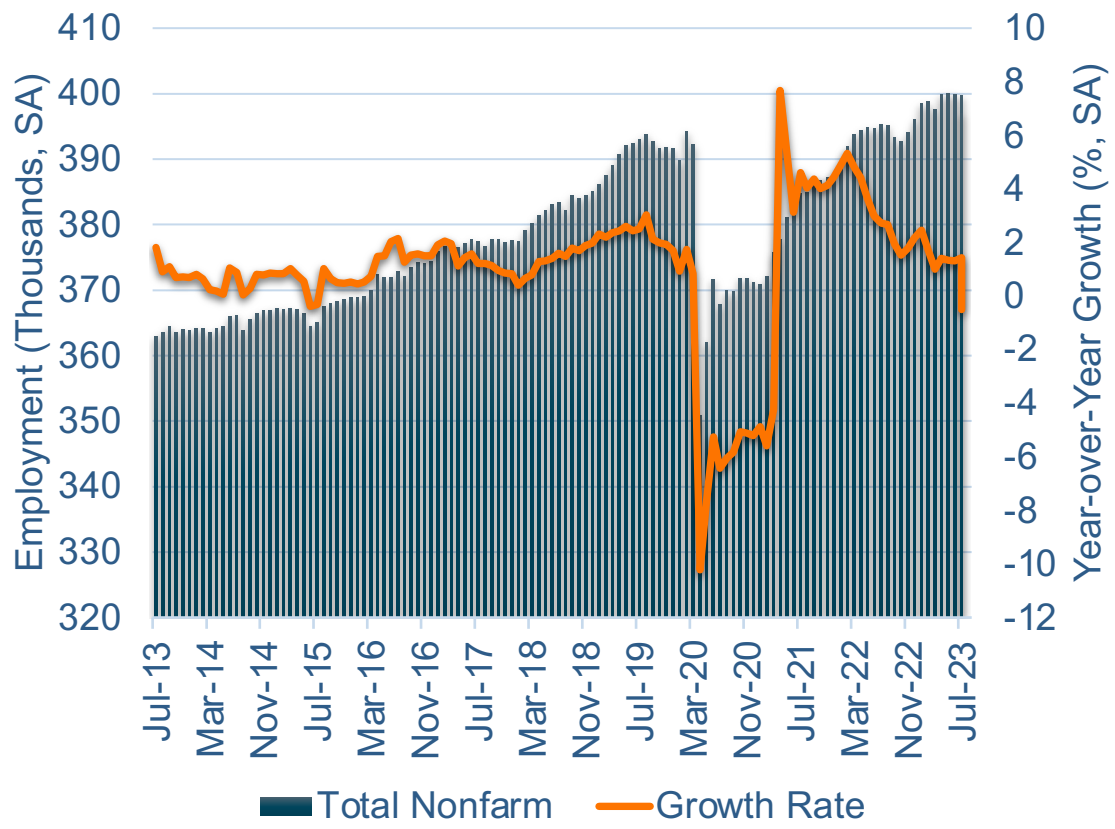
Unemployment Rate



Tucson Employment



**Total Nonfarm Employment
Tucson**



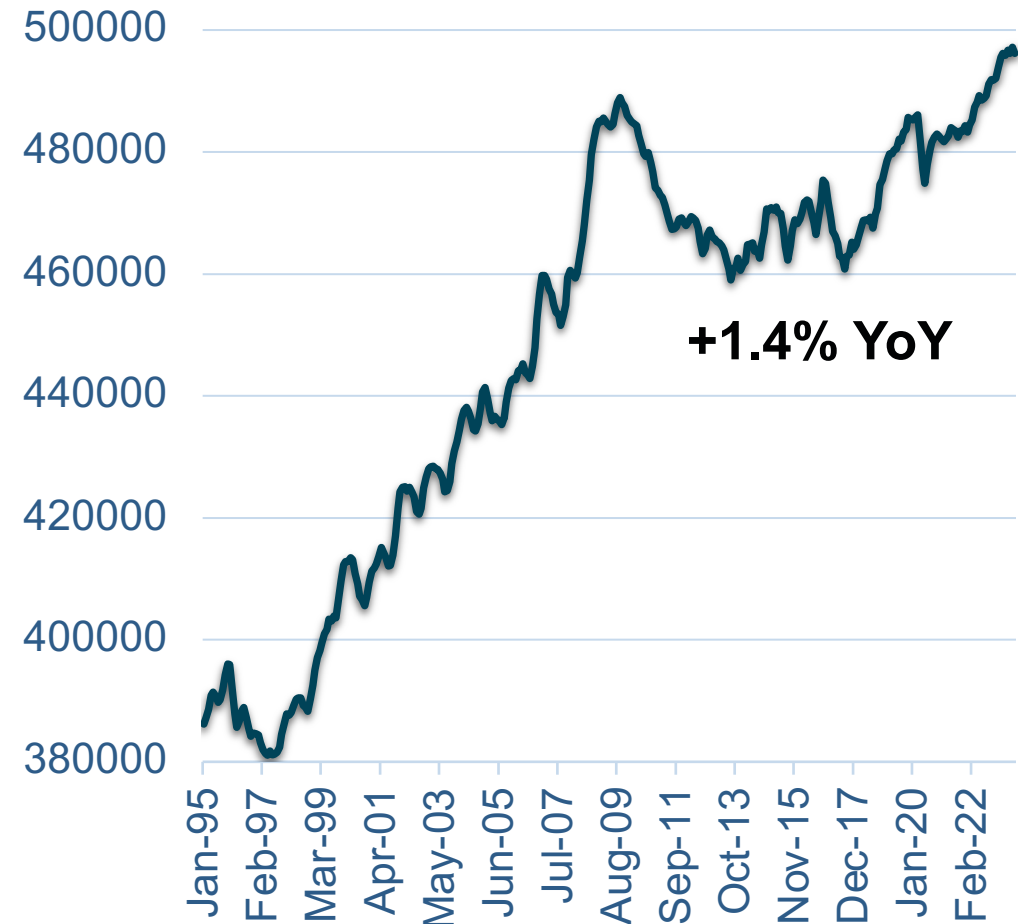
Industry	Aug. 2023 Emp (000s)	3-Yr.% Growth	
		Tucson	Arizona
Total Nonfarm	397.4	12.2	7.4
Leisure & Hospitality	42.7	37.4	27.7
Wholesale Trade	7.9	20.9	14.6
Construction	20.3	17.7	14.2
Manufacturing	29.7	10.1	9.3
Information	5.1	13.3	8.2
Trade, Transport, Util.	68.3	9.2	5.8
Financial Activities	19.6	7.8	5.5
Government	79.0	2.8	3.2
Prof Sci and Tech	19.0	15	2.9
Retail Trade	41.0	5.1	0.7
Admin Support	26.1	5.6	-1.9

Tucson: Recent Job Numbers



	Aug-23	
Total Nonfarm	397.4	0.5%
NR/Construction	22.5	4.7%
Manufacturing	29.7	4.6%
Government	79	2.9%
Other Services	14.4	2.9%
Wholesale Trade	7.9	2.6%
Education/Health	67.9	1.0%
Financial Activities	19.6	1.0%
Professional/Business	48.5	-0.8%
Leisure and Hospitality	42.7	-2.7%
Retail Trade	41	-3.5%
Information	5.2	-3.7%
Logistics	19.4	-4.4%

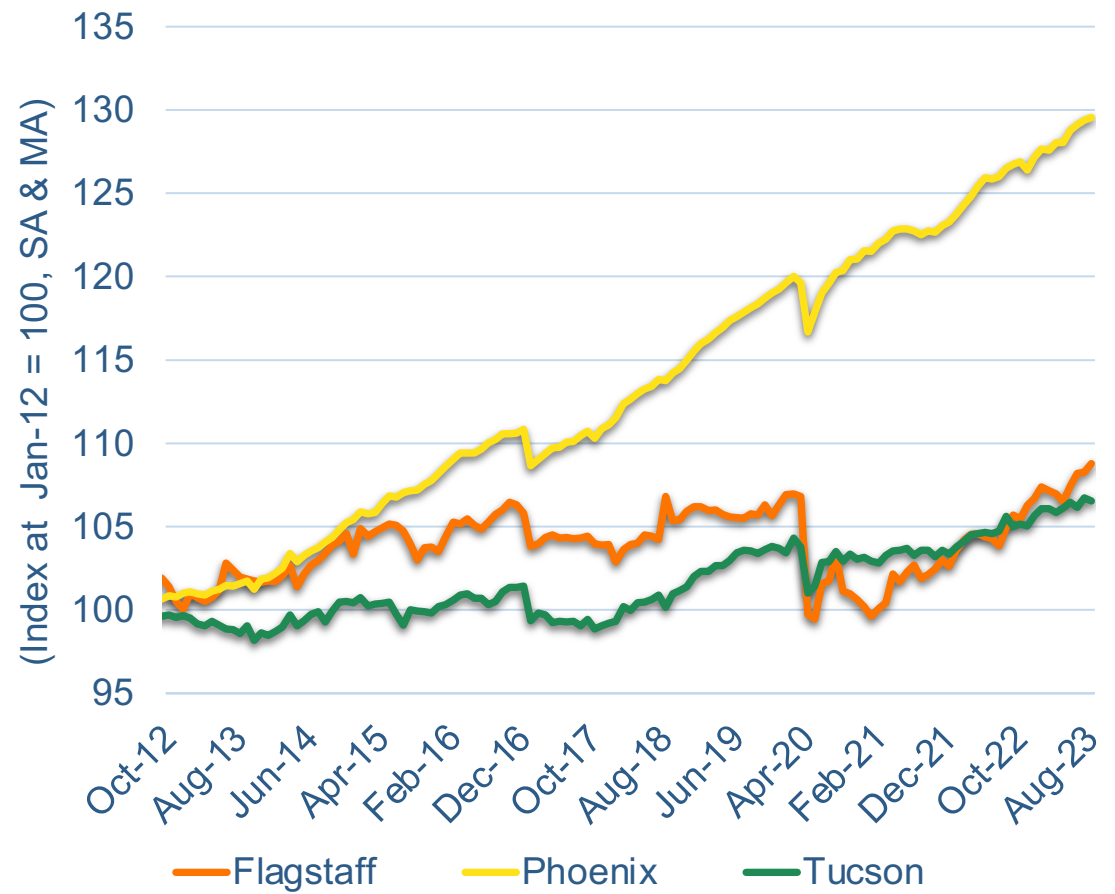
Tucson Labor Force



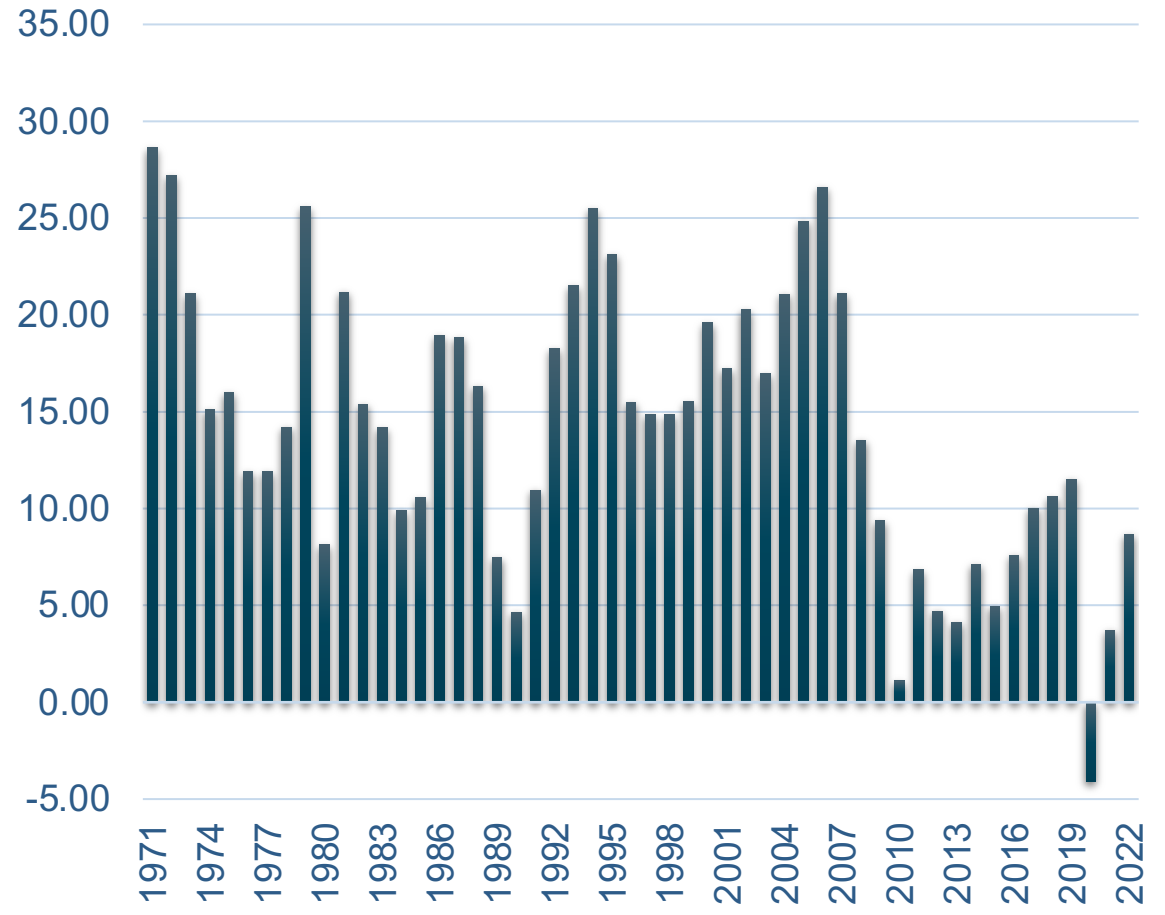
Regional Labor Market



Labor Force



Change Pima County Population (000s)

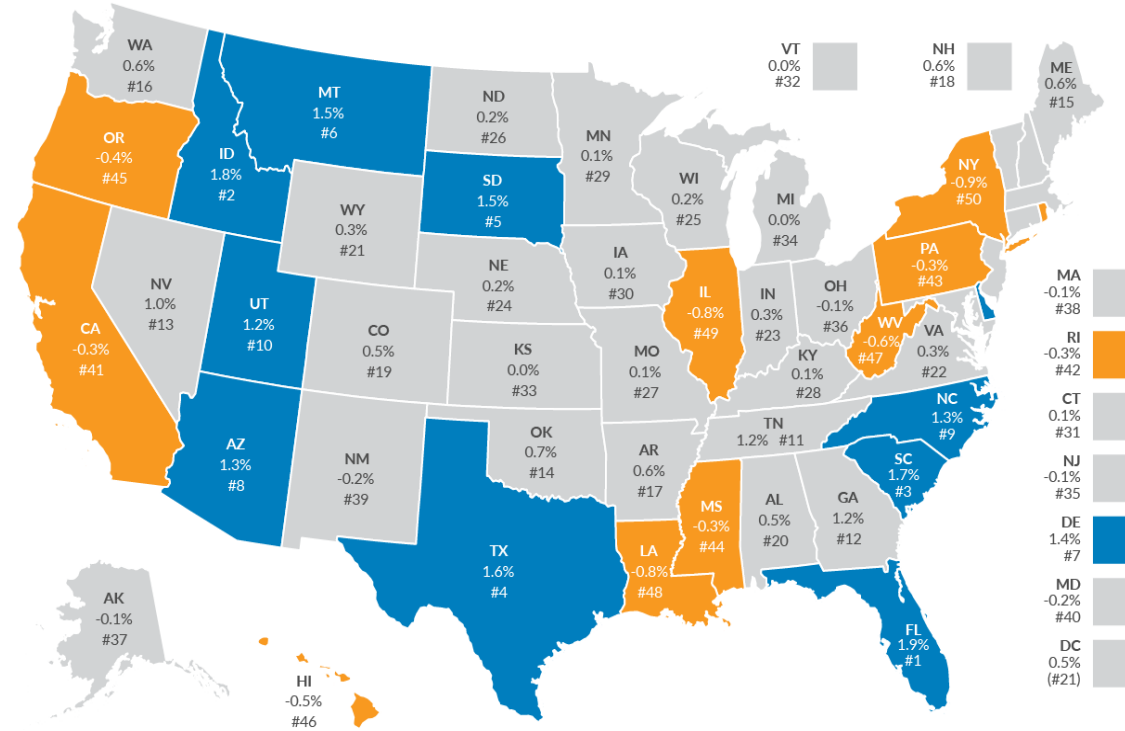


Population = Growth



State Population Change in 2022

State Migration Patterns, from Most Inbound to Most Outbound, 2022



Note: D.C.'s rank does not affect states' ranks, but the figure in parentheses indicates where it would have ranked if included.
Source: U.S. Census Bureau.

■ Top 10 States for Inbound Migration
■ Top 10 States for Outbound Migration

■ Solutions

- Extensive: Increasing labor force through immigration (SR) or birthrates (LR)
- Intensive: Raising participation rates among the existing population
- Productivity enhancements: capital investments
- Productivity enhancements: worker skill training

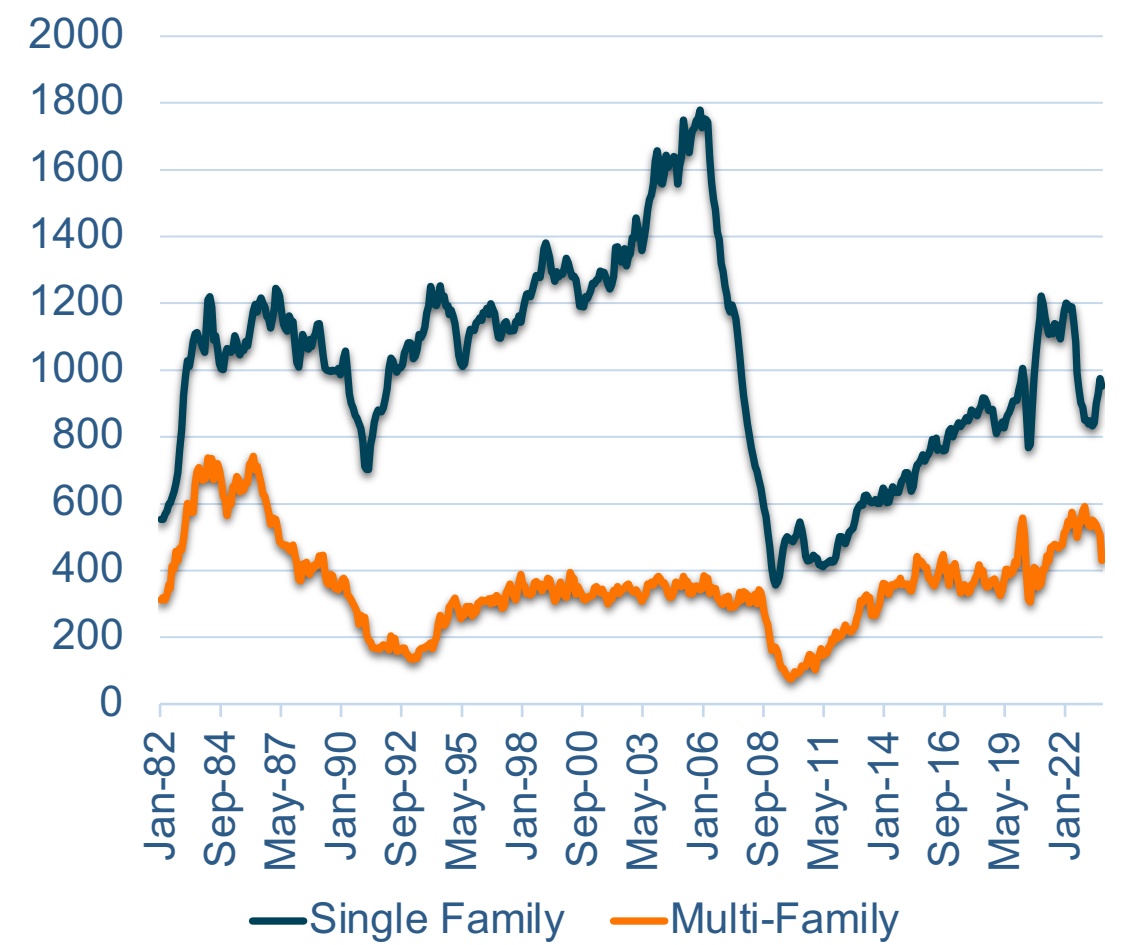
Current Housing Activity



US Existing Home Sales



Housing Starts SAAR



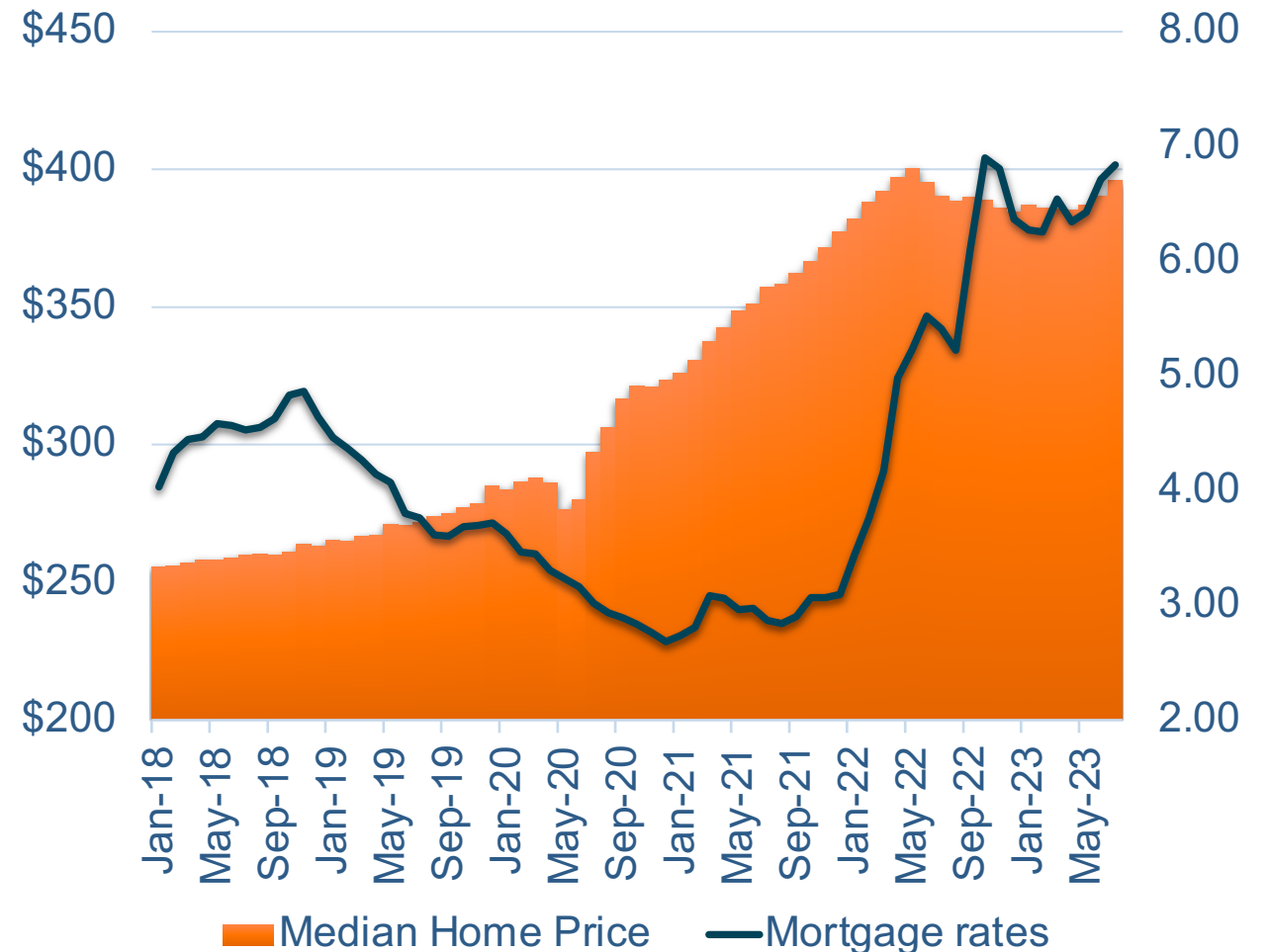
Housing: A Rate Whiplash



Case Shiller Home Price Appreciation
July 20 – July 22

Tampa	64.0%	Los Angeles	37.9%
Phoenix	62.0%	SF	35.1%
Miami	61.4%	New York	34.9%
Dallas	54.2%	Boston	34.6%
Charlotte	49.5%	Portland	33.6%
LV	49.2%	Cleveland	30.9%
SD	49.1%	Detroit	29.4%
Atlanta	45.8%	Chicago	27.4%
Seattle	43.9%	DC	26.0%
Denver	40.3%	Minneapolis	24.6%

Existing Home Market

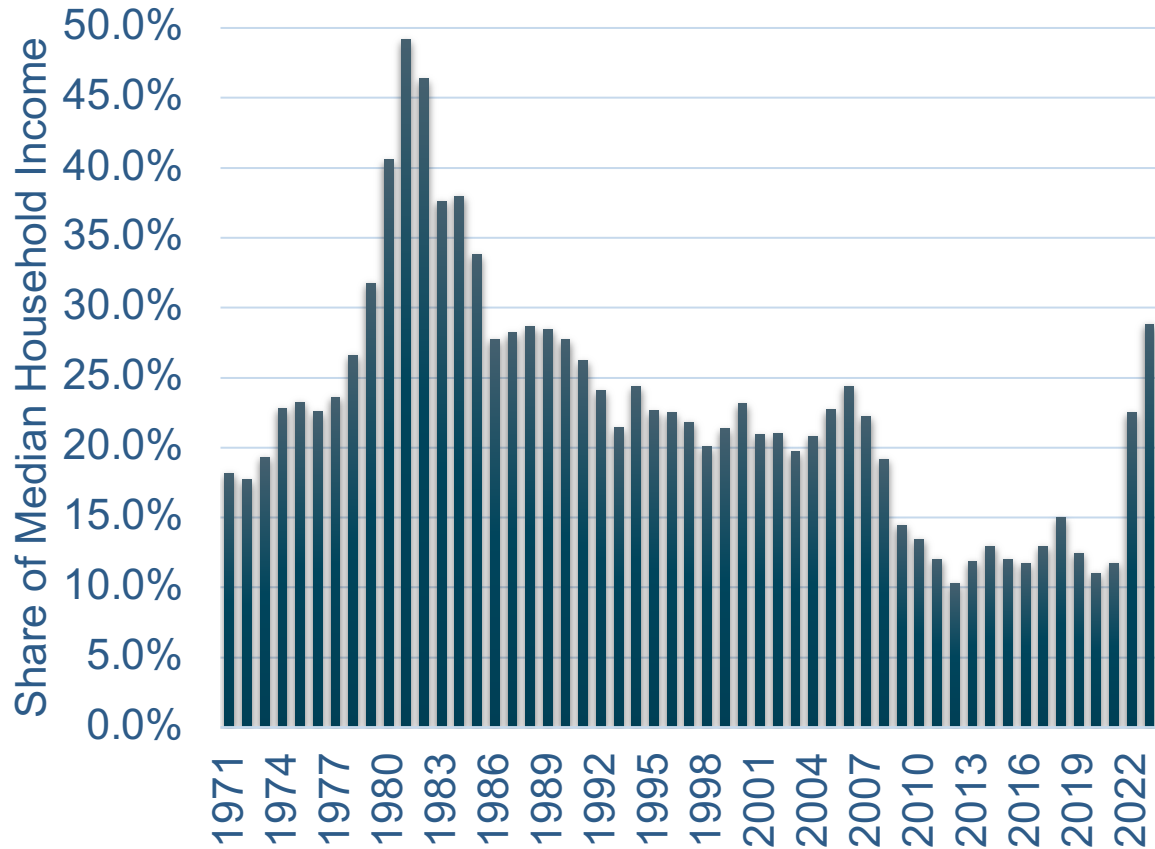


Affordability vs Fundamentals

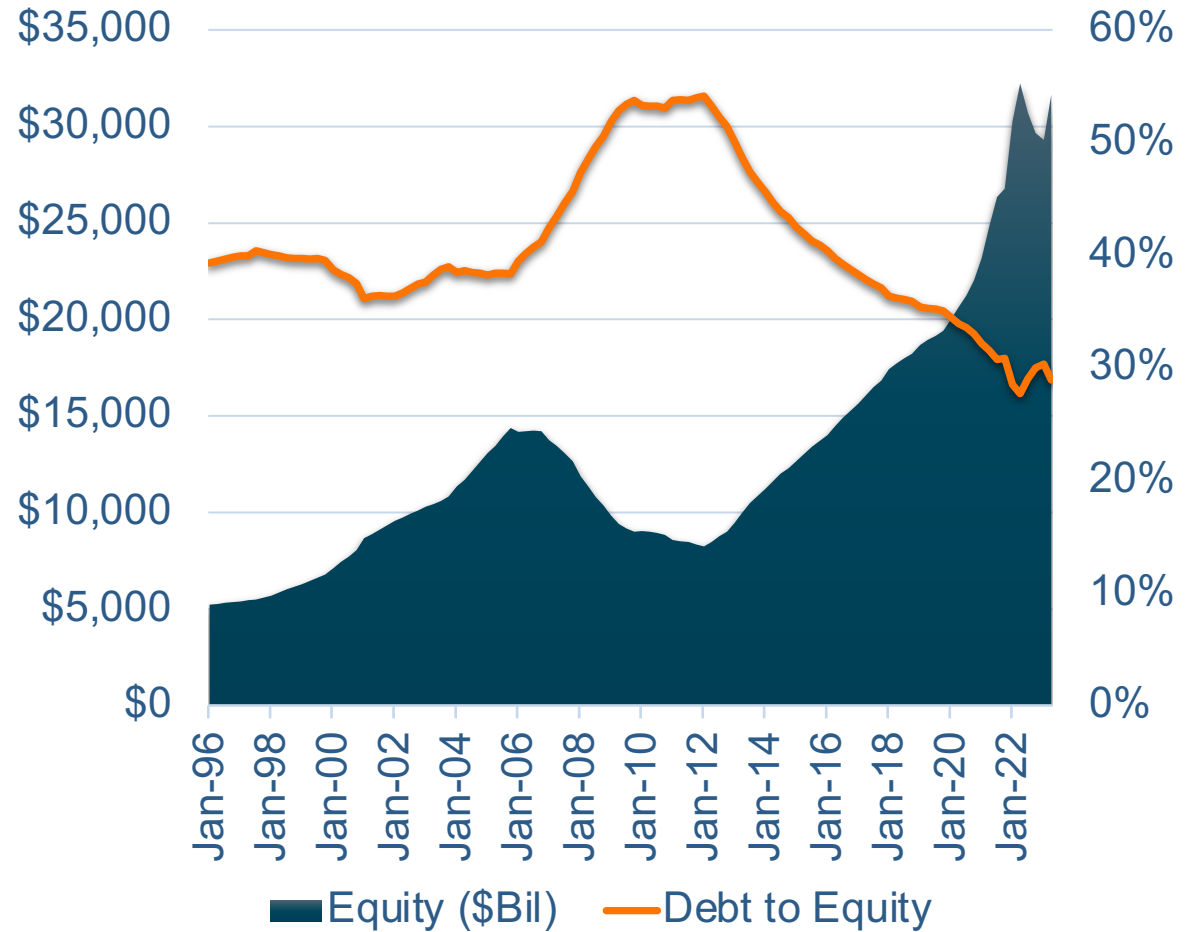


Existing Home Affordability

Interest Payment on Median Priced Home at Current Mortgage Rates



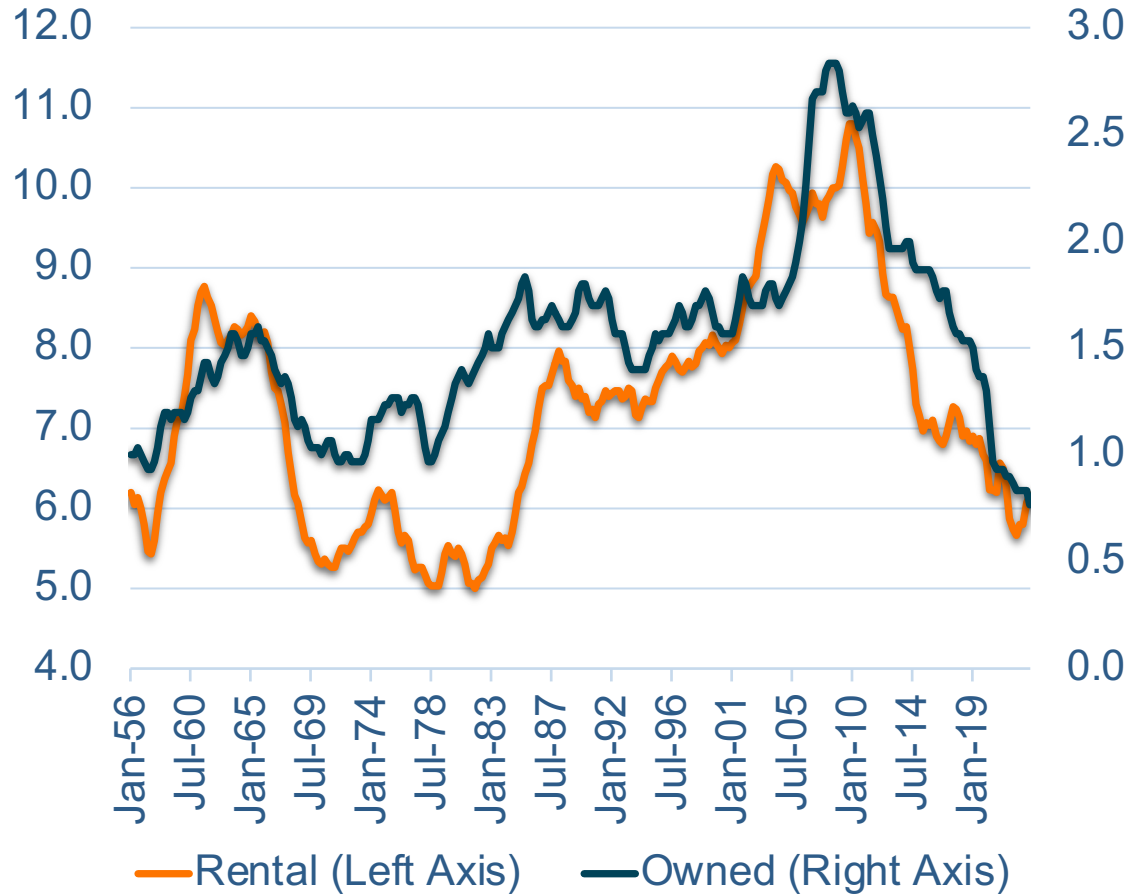
Household Housing Equity and Debt



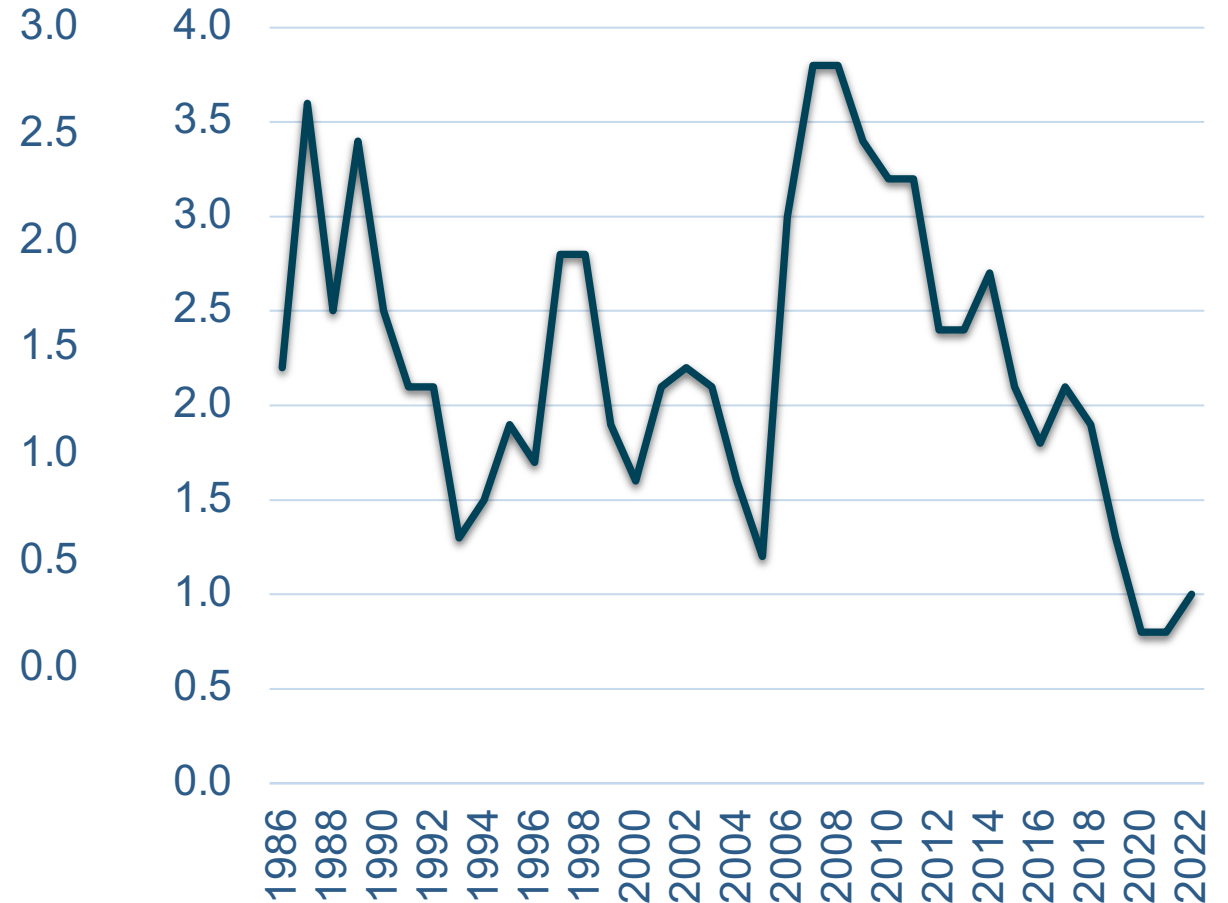
The Deeper Issue: A Collapse in Filtering



Housing Vacancy Rates



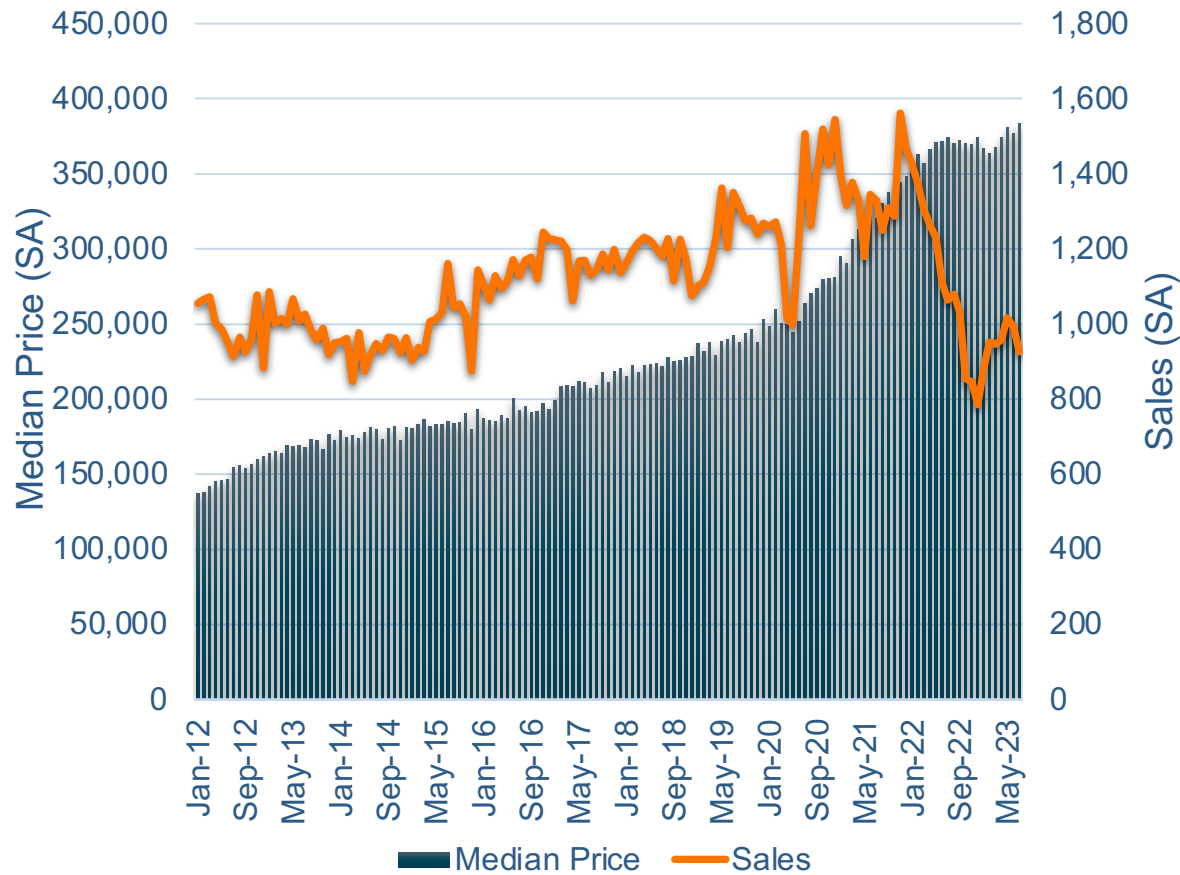
Arizona Housing Vacancy rate



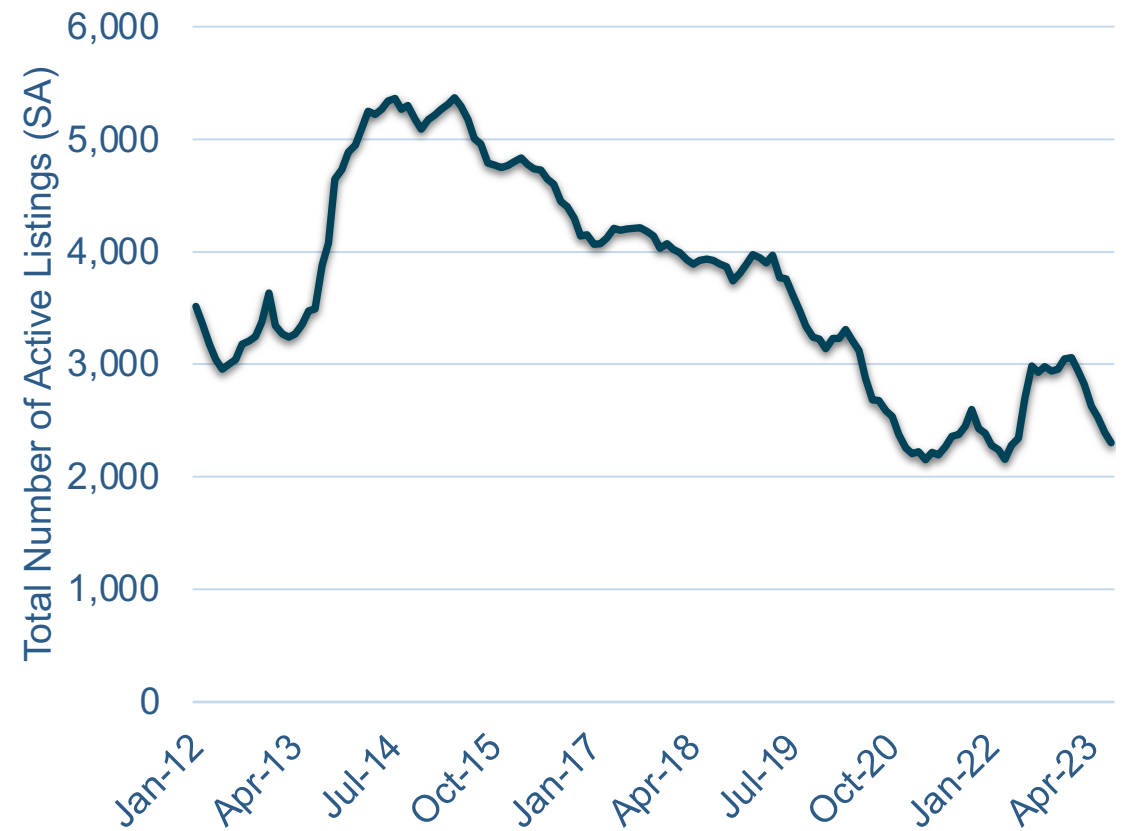
Residential Market - Tucson



Tucson Single-Family Homes



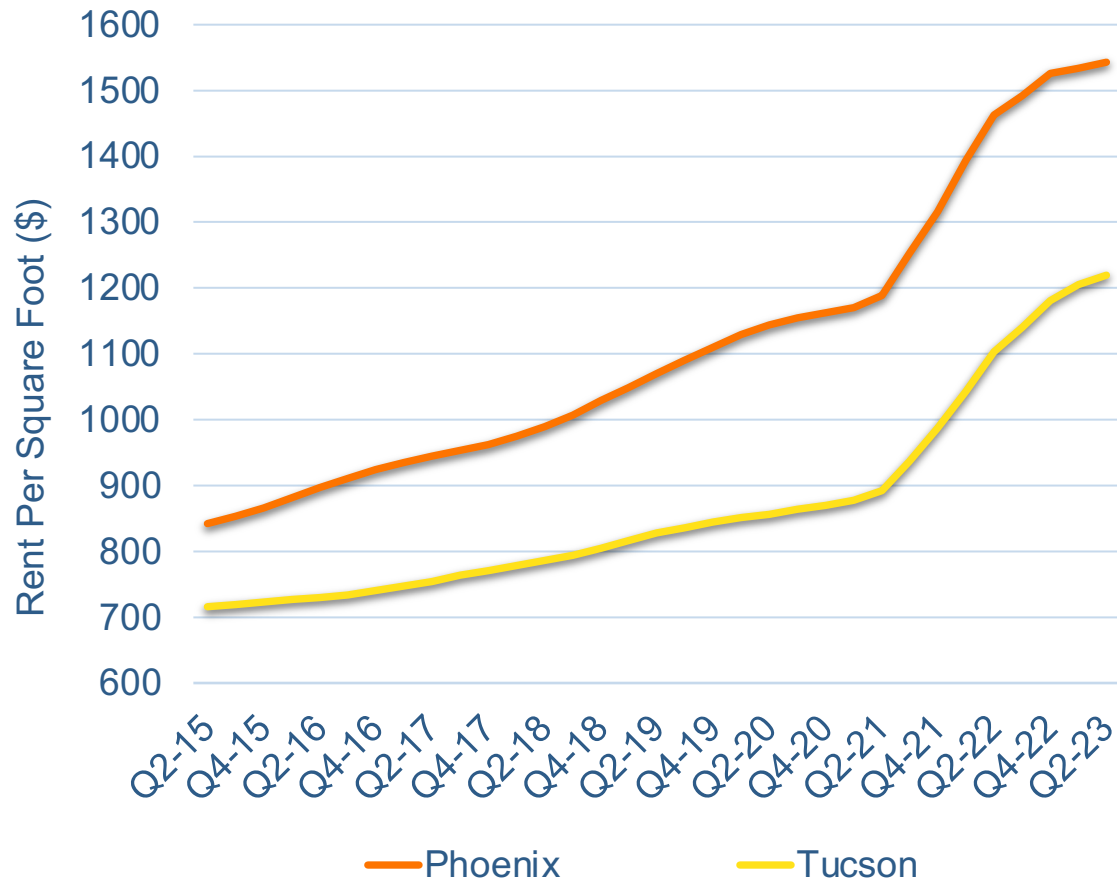
Tucson Inventory of Single-Family Homes



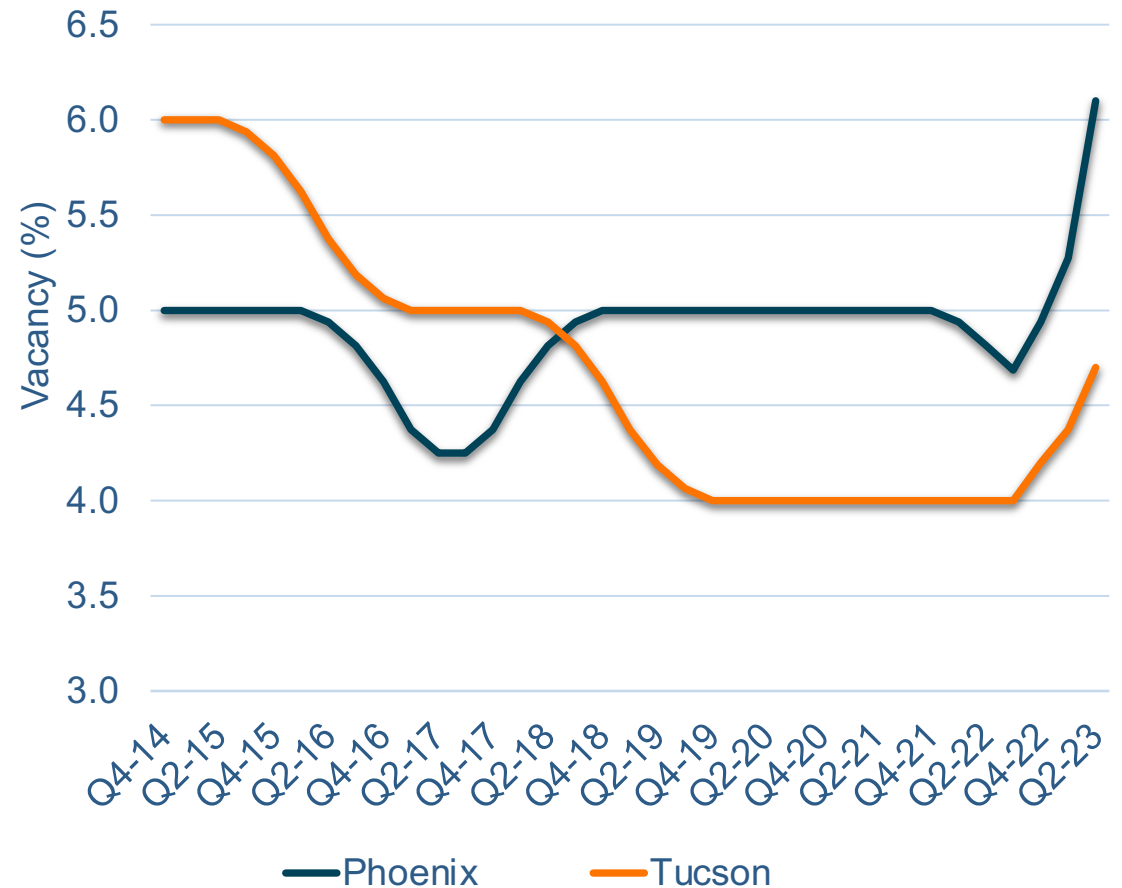
Apartment Market – Arizona MSAs



Cost of Rent (SA)



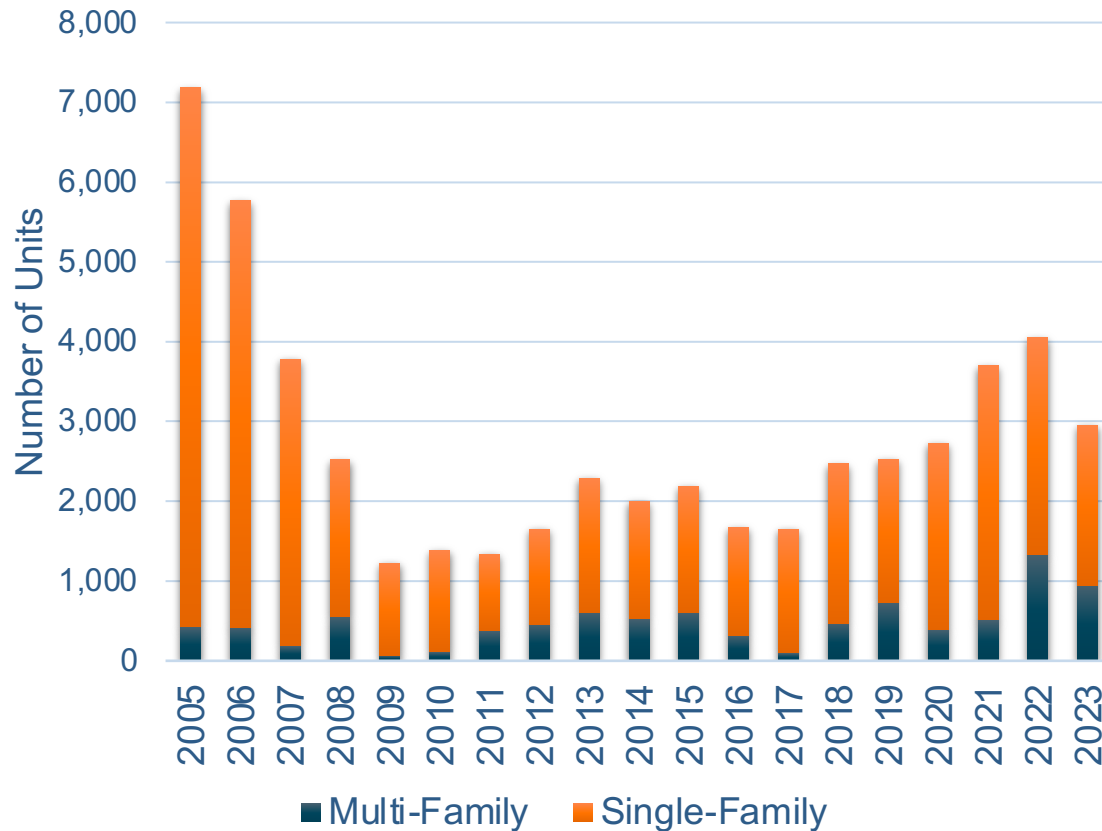
Vacancy Rate (SA)



Residential Construction Activity



Tucson Residential Permits
(YTD through Jul-23)



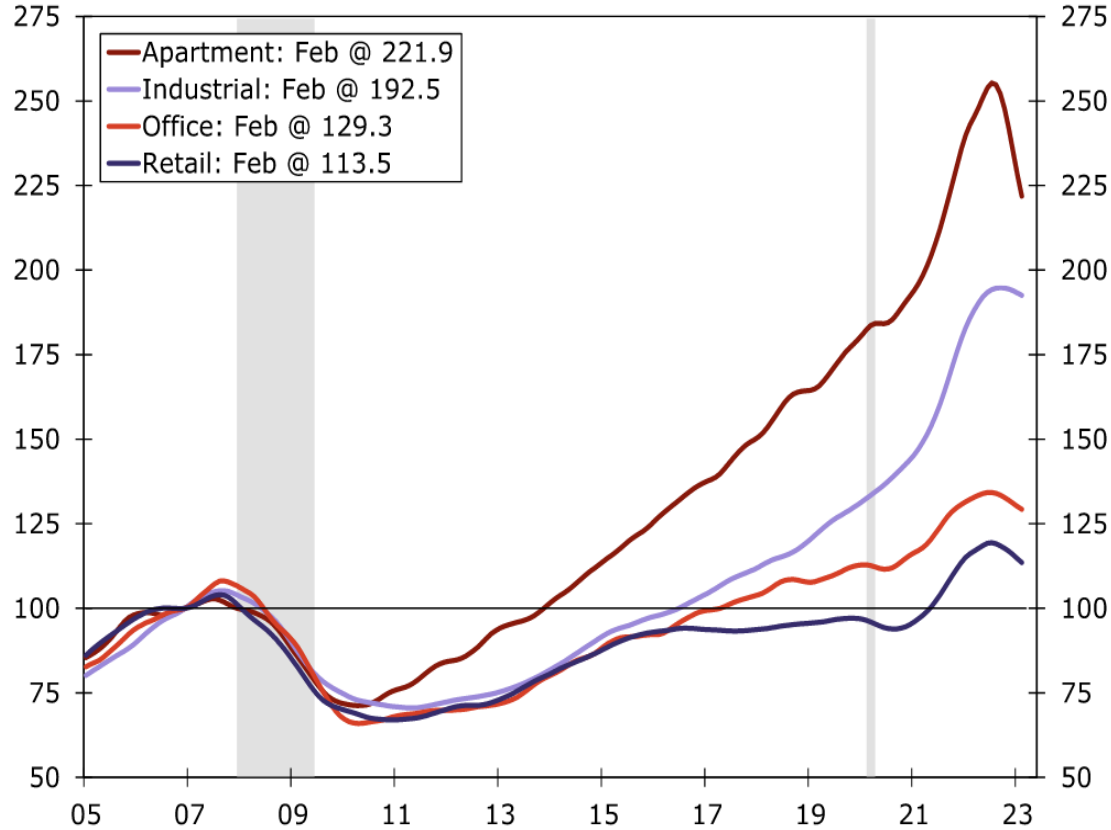
Metro	Single-family		Multifamily	
	2022	5-Yr Change	2022	5-Yr Change
AZ Total	37,404	9,938	23,321	13,305
Phoenix	26,829	11,223	20,110	6,374
Tucson	918	199	962	878

A Commercial Real Estate Shoe?



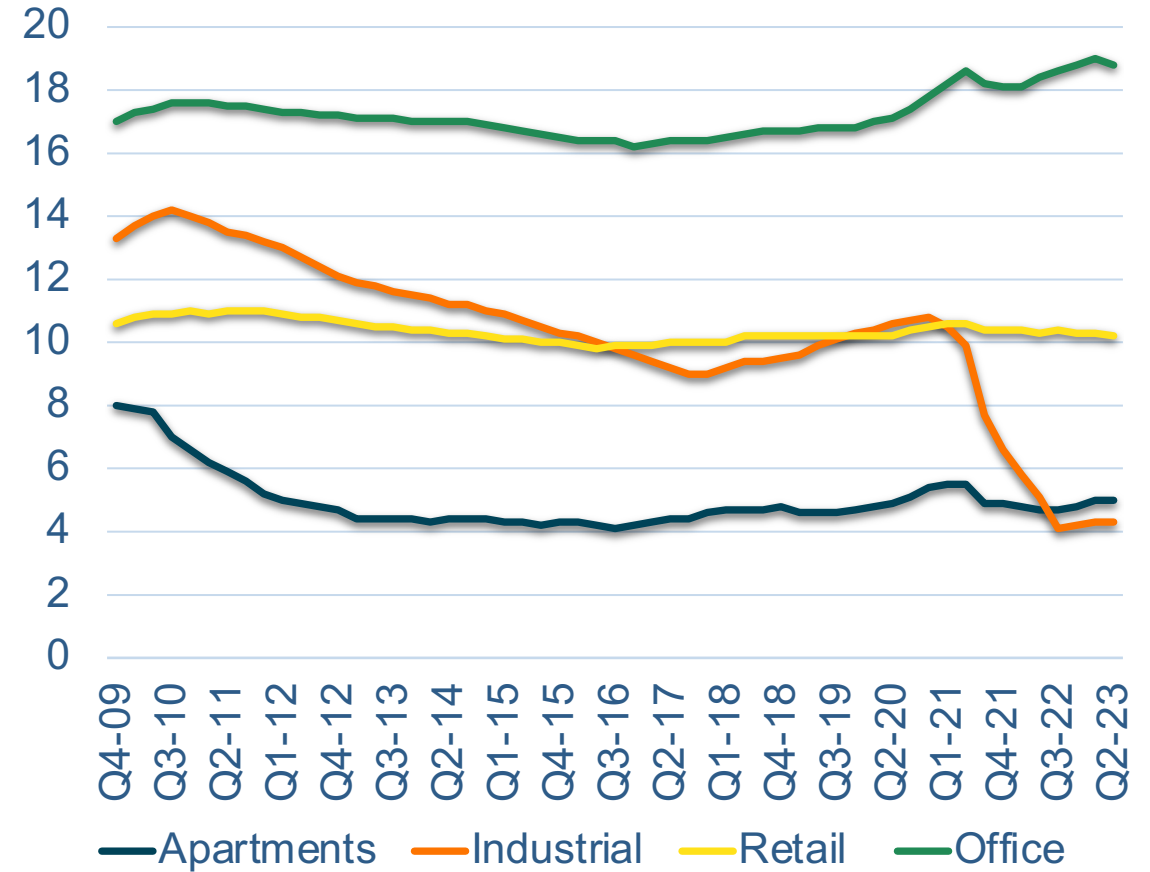
Commercial Property Price Index

Index, 100=2006



Source: MSCI Real Capital Analytics and Wells Fargo Economics

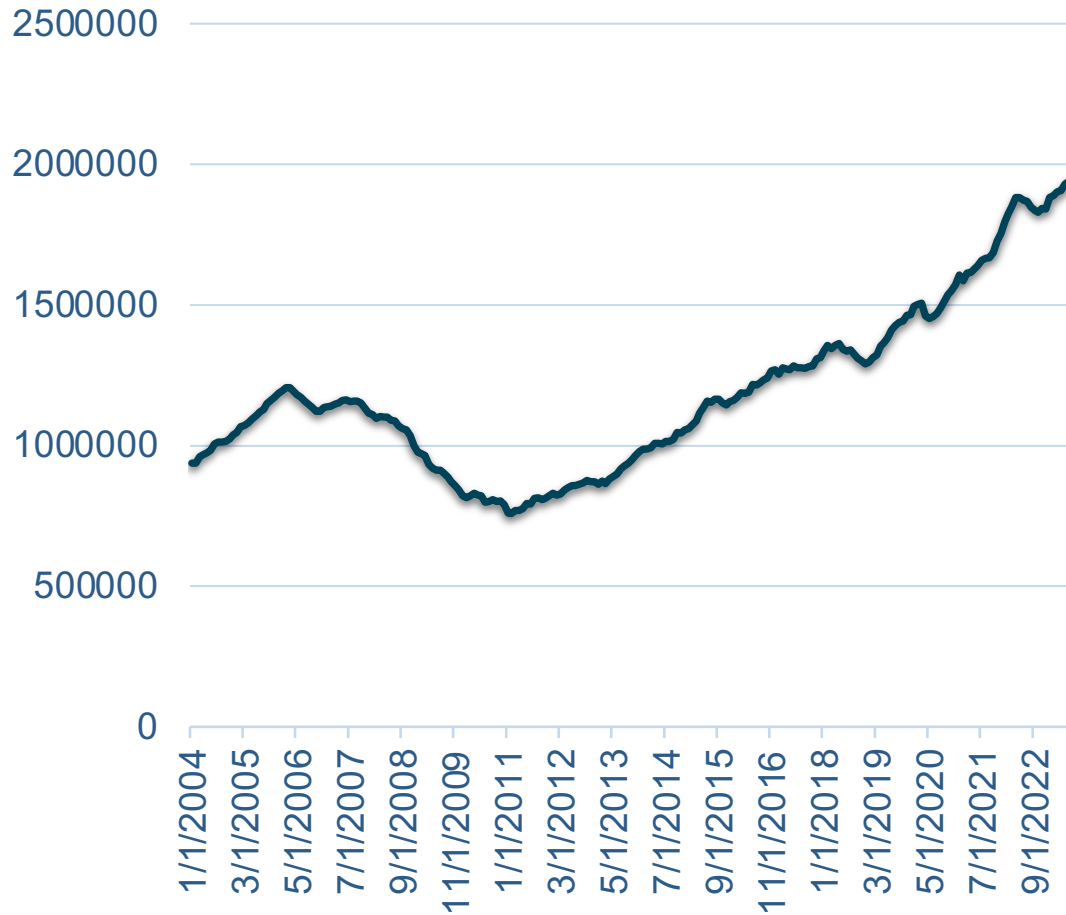
US Vacancy Rate by Class



Construction Spending



Total Construction Spending US

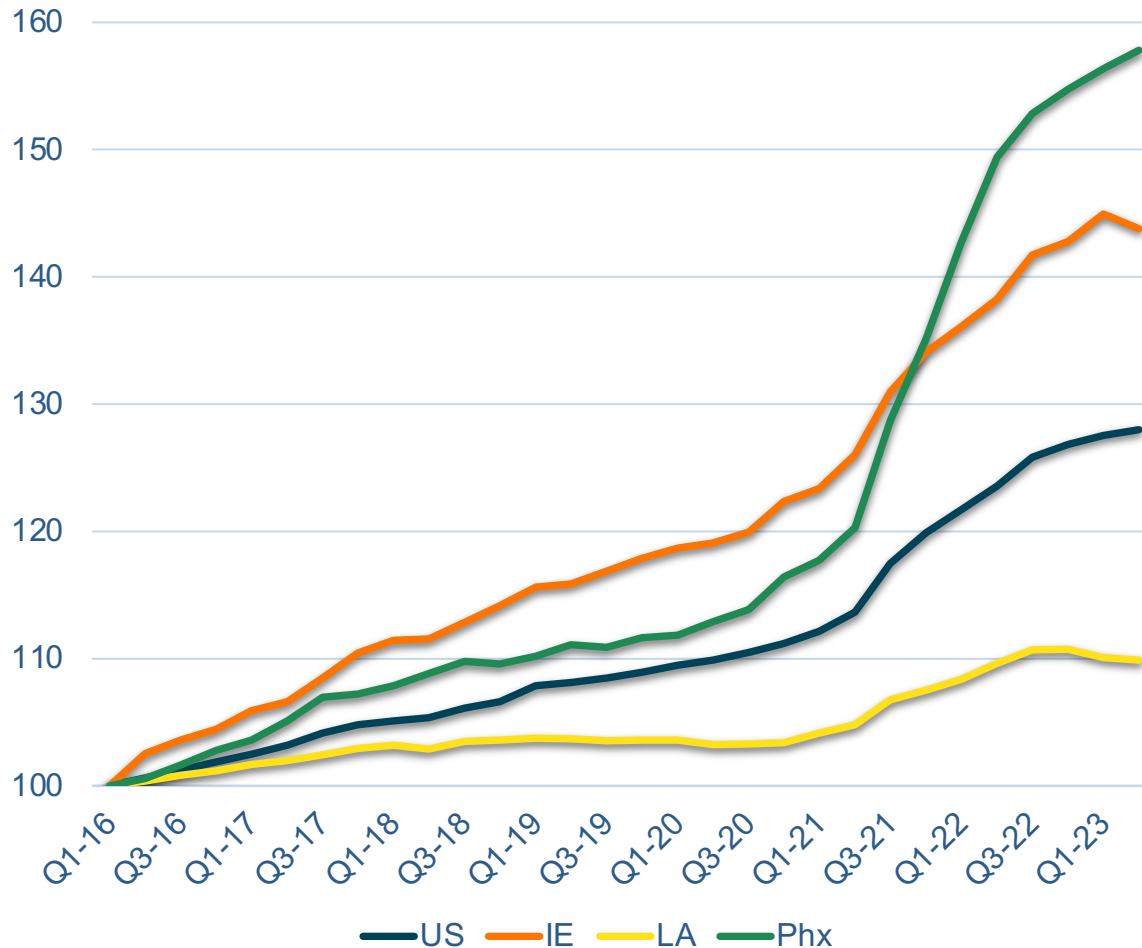


Type of Construction	Jun 2023 ^P	Jun 2022
Total Construction	1,938,357	3.5
Residential	866,408	-10.3
Nonresidential	1,071,949	18.1
Lodging	23,121	20.0
Office	97,227	7.9
Commercial	126,007	4.0
Health care	60,499	10.7
Educational	111,020	7.9
Public safety	12,697	7.5
Amusement and recreation	31,687	5.7
Transportation	63,408	9.0
Communication	24,369	0.7
Power	115,529	4.9
Highway and street	129,260	20.3
Sewage and waste disposal	39,912	24.2
Water supply	26,369	6.4
Manufacturing	195,898	79.9

The Rise of Industrial



Index of Occupied Space

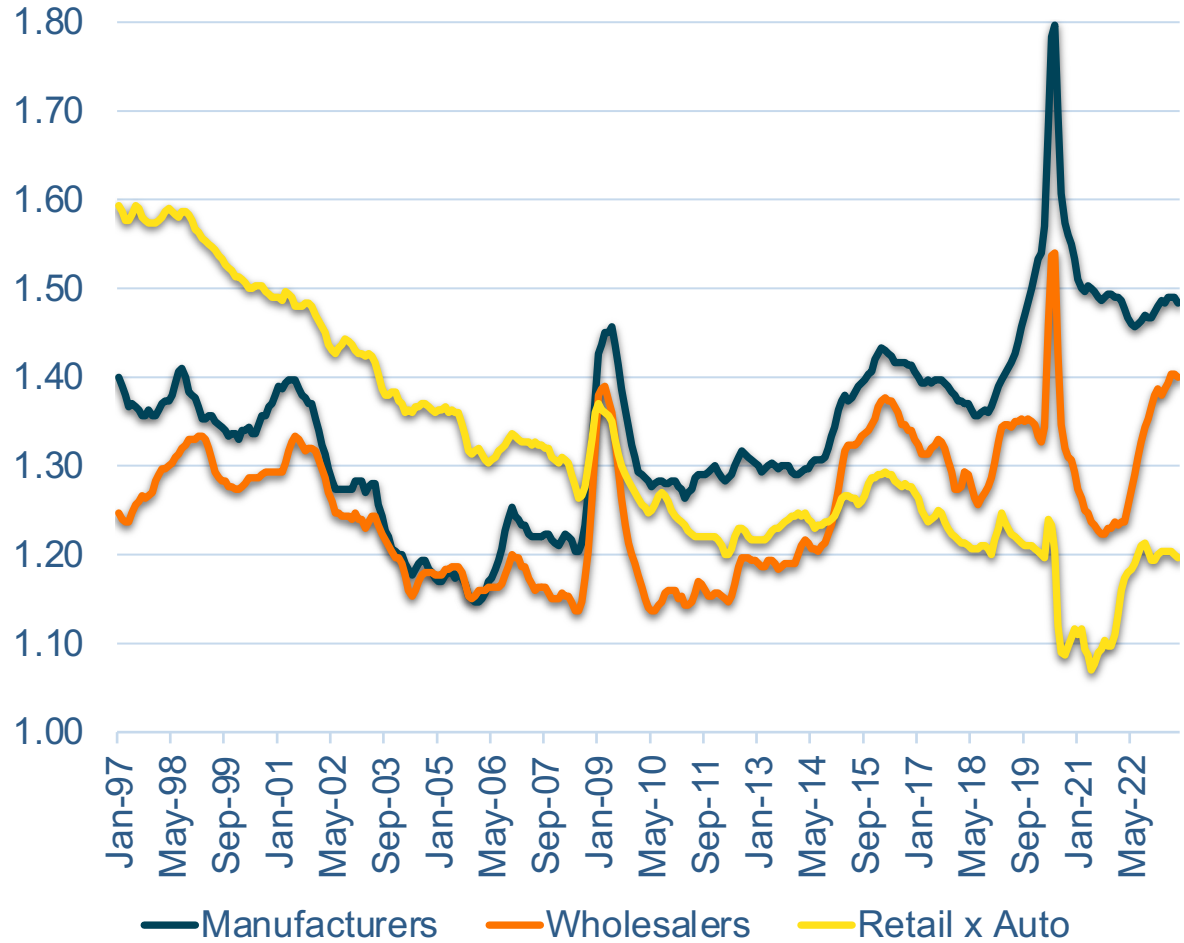


	Q2-23 SF Space	Q2-23 2 Yr Ch	Q2-23 Vacancy	Q2-23 1 Yr Ch	Q2-23 Rate	Q2-23 1 Yr Ch
United States	7610.5	6.0%	4.3	-0.8	7.7	11.6%
Inland Empire	476.7	8.7%	3.7	0.8	12.8	20.8%
Los Angeles	473.5	1.3%	2.1	0.4	13	14.0%
Phoenix	197.4	20.6%	5.5	0	8.1	9.5%
Denver	154.4	8.4%	7.5	1.5	6.9	6.2%
Seattle	136.6	4.3%	3.1	-1.4	9.8	7.7%
Oakland (MD)	135.1	1.0%	2.8	-1.8	8.8	11.4%
Orange	109.0	3.6%	2.5	0.3	10.5	12.9%
Sacramento	104.6	4.4%	3.9	-1.3	6.4	10.3%
Portland, OR	82.2	1.2%	4.5	-2.5	8.1	9.5%
Las Vegas	81.4	4.6%	2.3	-1.2	9	9.8%
San Diego	78.7	6.3%	2	-0.7	11.6	8.4%
Stockton	59.0	13.8%	5.9	-0.8	7.6	7.0%
Salt Lake City	50.6	6.5%	3.5	0	8.1	11.0%
Tacoma	45.2	4.6%	4.5	-1	9.4	6.8%

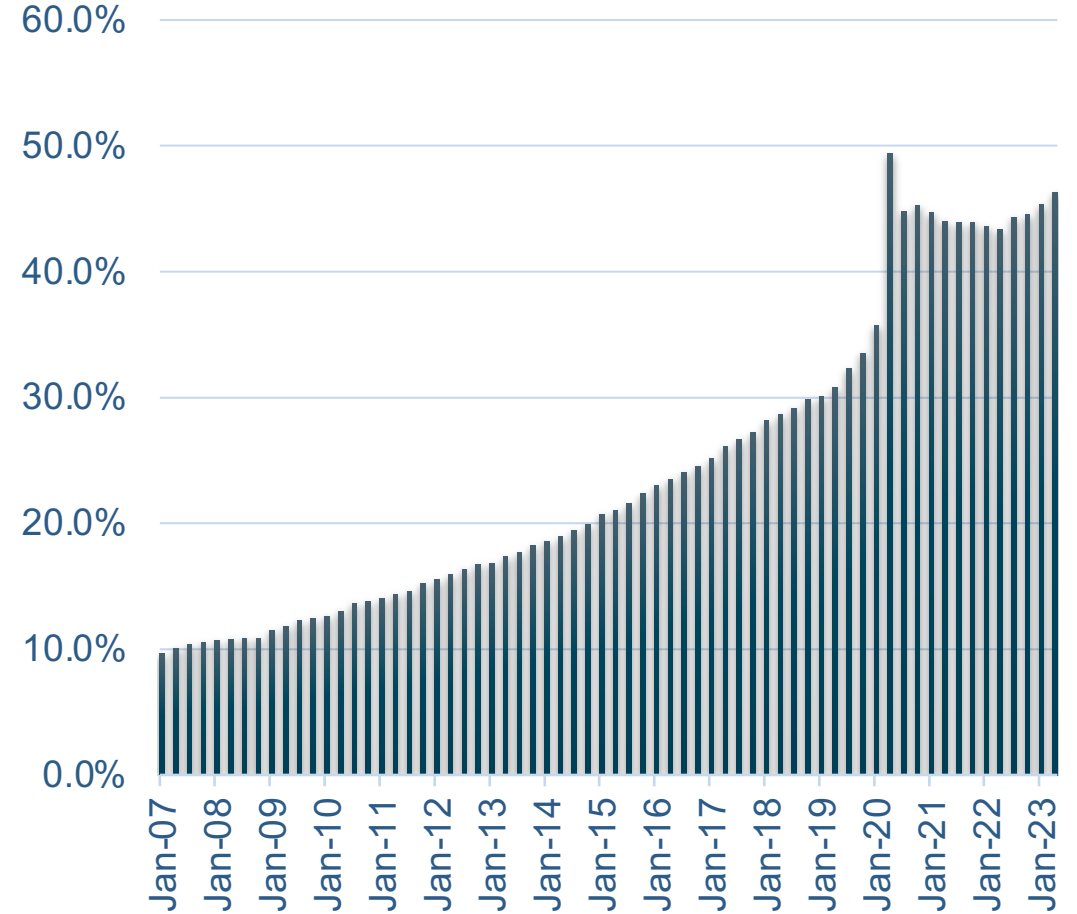
Shifting Trade / Inventories



Inventory to Sales Ratios



E-Commerce Share of Retail Sales



Nonresidential Rents and Vacancies

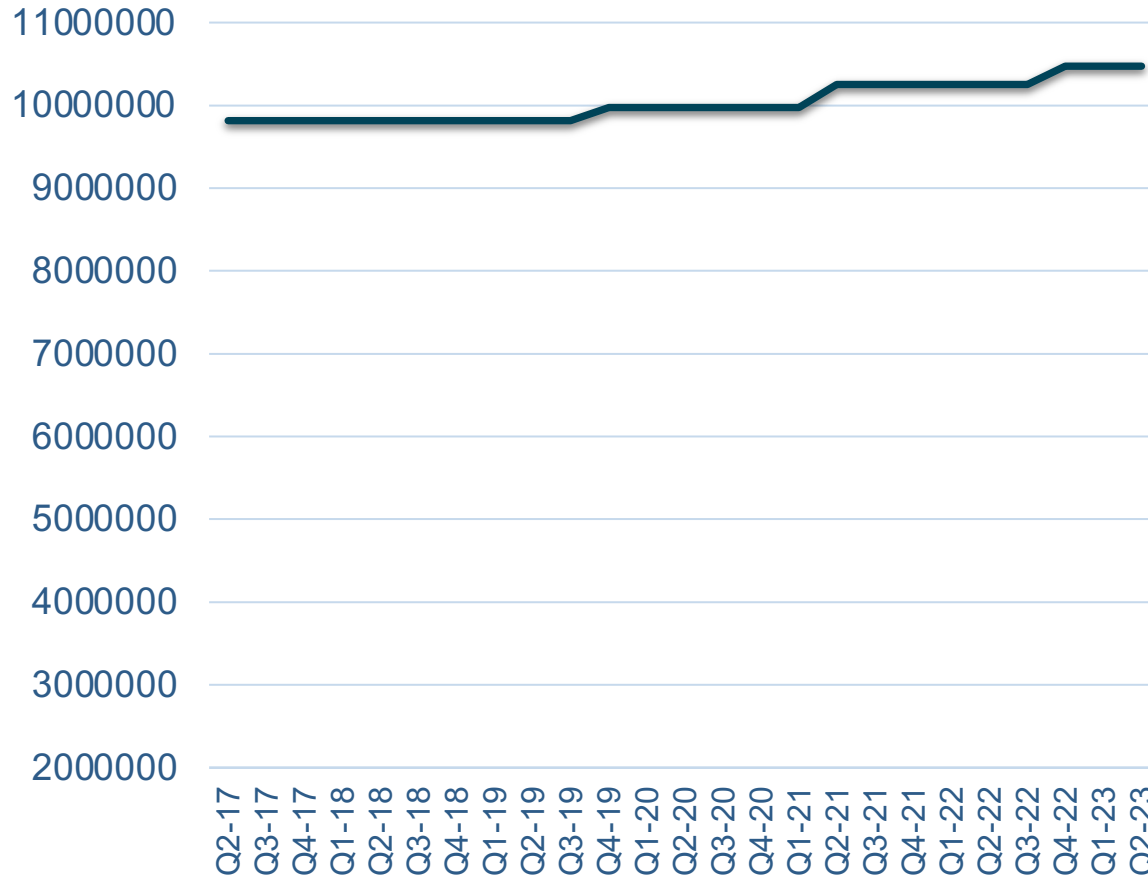


Office	Cost of Rent		Vacancy Rate	
	Q2-23 (\$)	1-Yr % Growth	Q2-23 (%)	1-Yr Change
Tucson	22.7	3.1	19.6	-0.2
Phoenix	28.0	2.8	22.7	-0.9
Las Vegas	27.2	2.1	23.1	-0.7
Reno	21.6	1.5	18.5	-2.1
Retail				
Las Vegas	23.0	2.3	13.2	-0.5
Reno	20.8	2	13.9	-0.2
Tucson	18.5	1.5	9.1	-0.1
Phoenix	21.1	0.7	8.6	-0.5
Warehouse/Distribution				
Tucson	6.7	10.1	3.1	-4.3
Las Vegas	9.7	9.9	2.4	-2.2
Reno	6.5	9.9	3.0	-1.9
Phoenix	8.4	9.3	5.3	-0.1

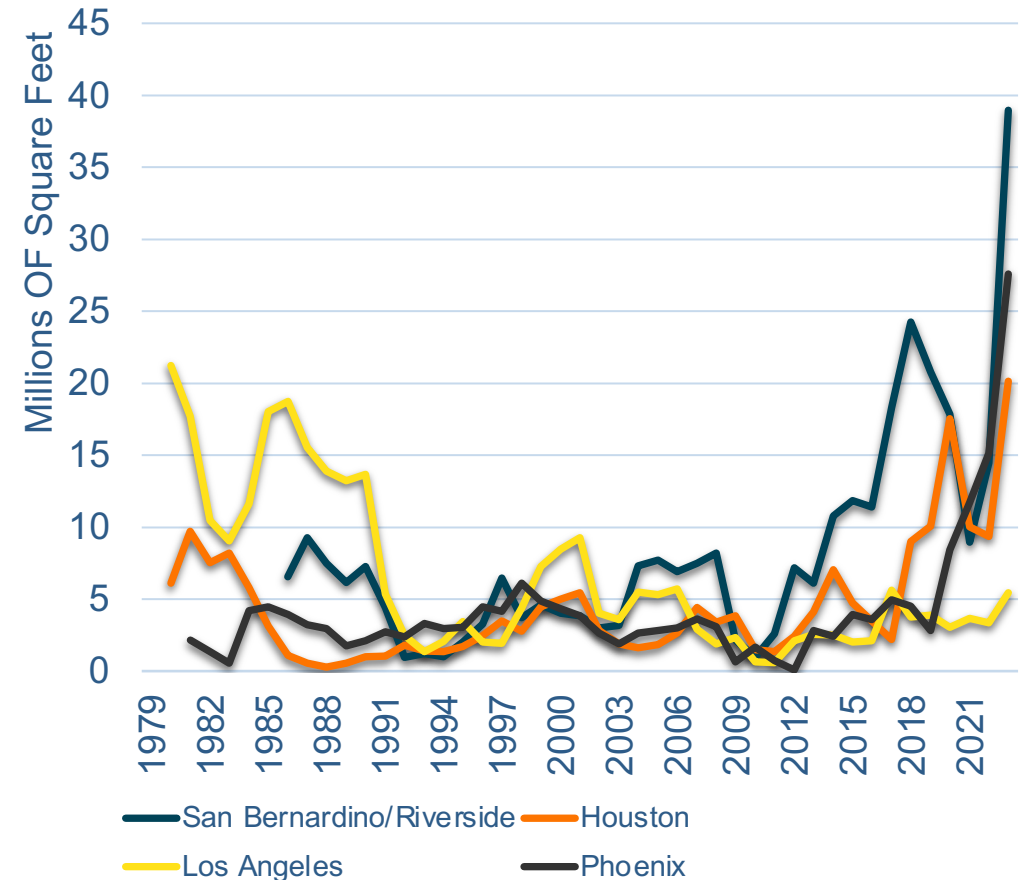
An Over-Supply Problem Coming



Tucson Industrial Space



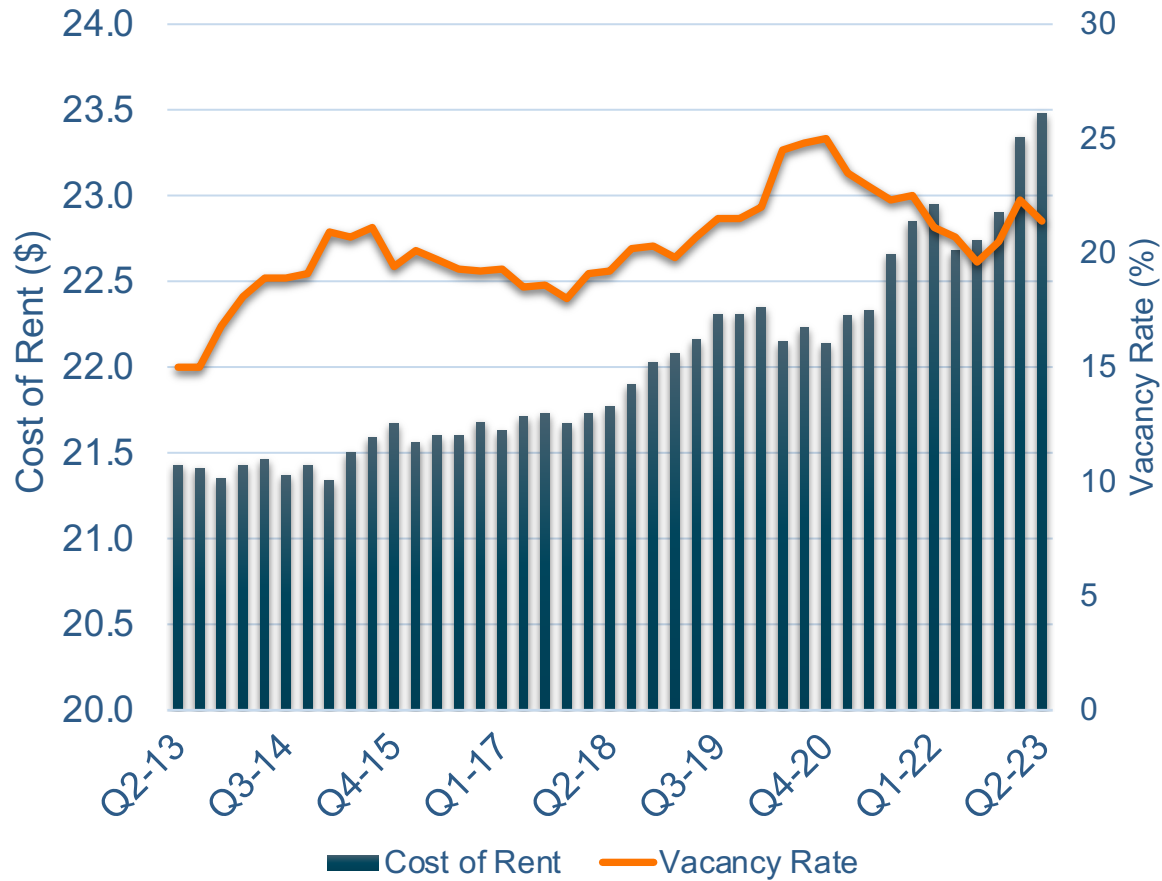
Annual Industrial Completions in Square Feet



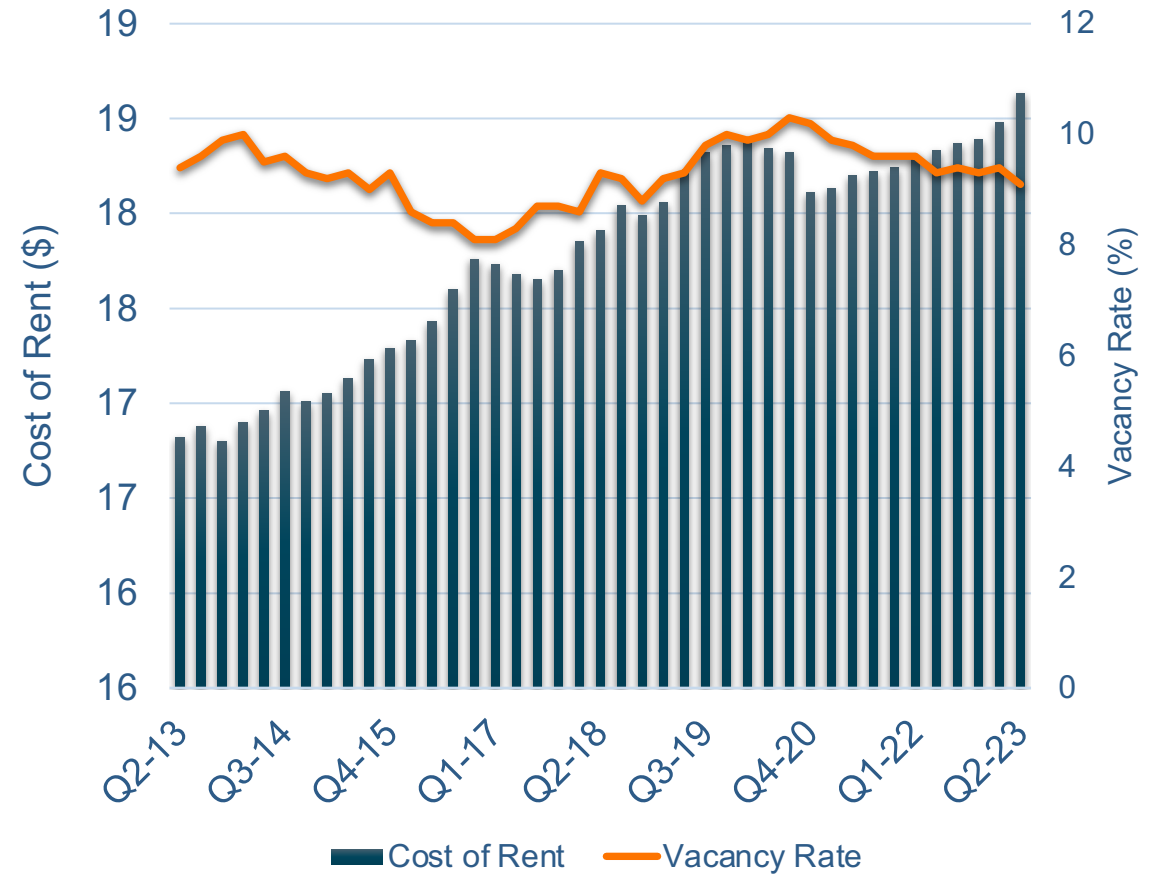
Commercial Real Estate



Tucson Office Market



Tucson Retail Market



Nonresidential Construction-Tucson

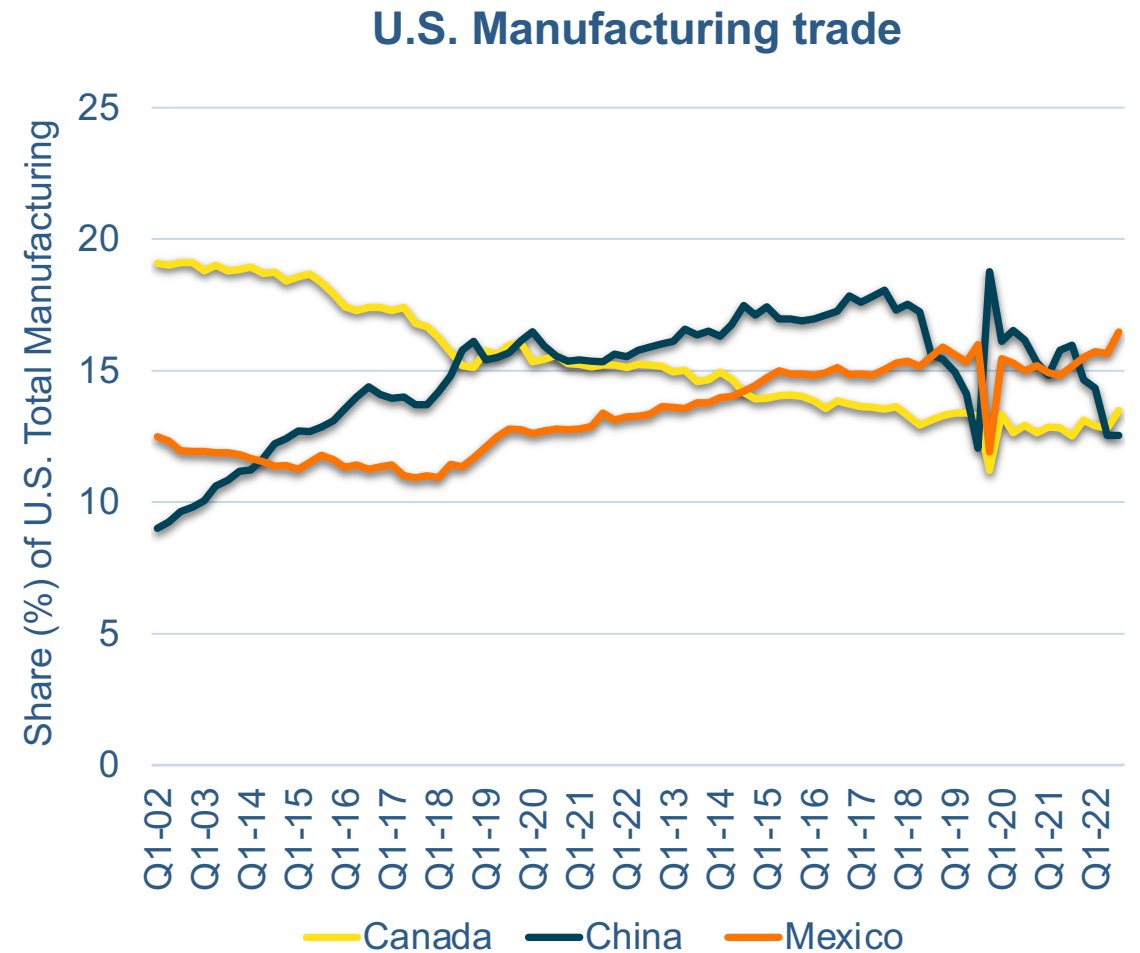
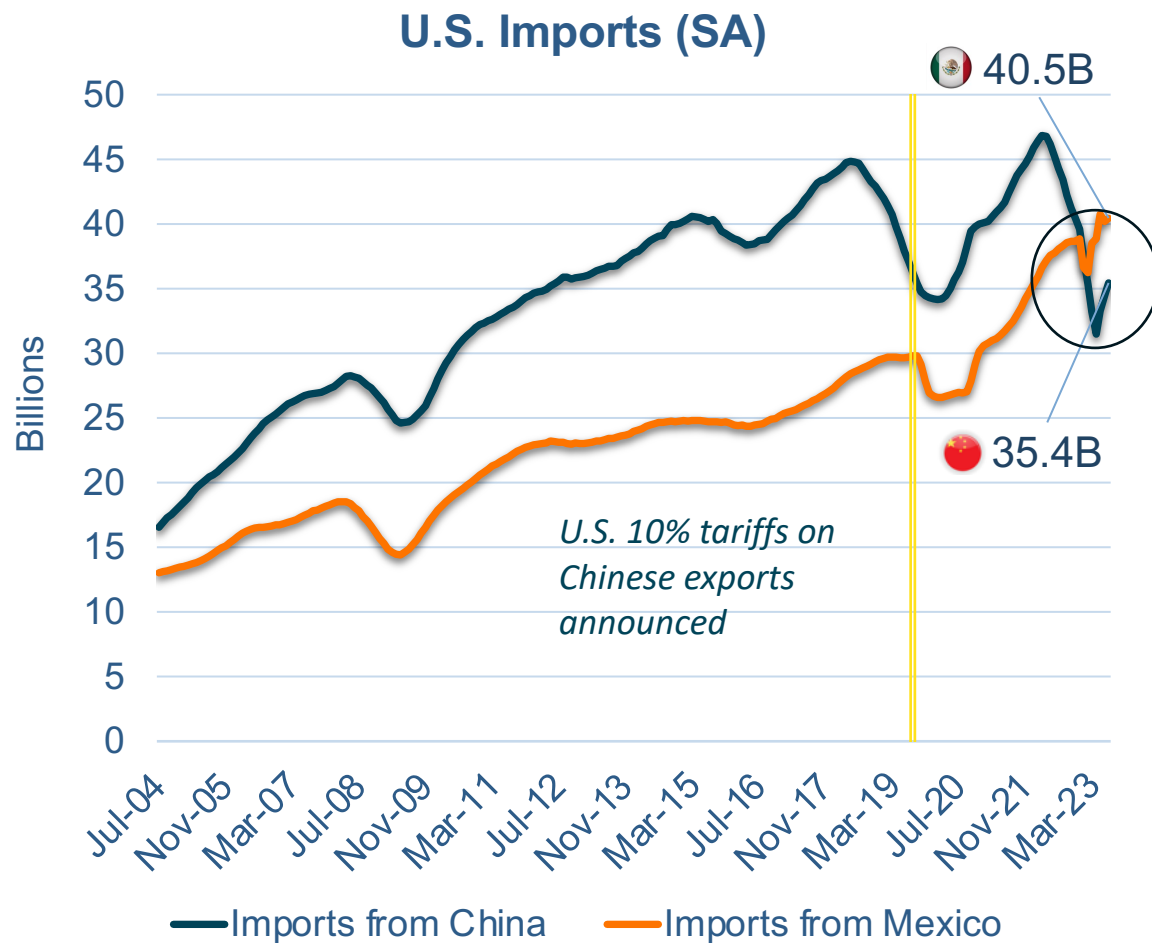


Nonresidential Completions



Property Type	Completions (Sq. Ft., 000s)		Net Absorption (Sq. Ft., 000s)	
	2022	5-Yr Change	2022	5-Yr Change
Warehouse	221.0	221.0	765.0	0.9
Retail	30.0	8.0	64.0	0.1
Office	0.0	-54	116.0	0.2

Deepening Relationship Between the United States and Mexico



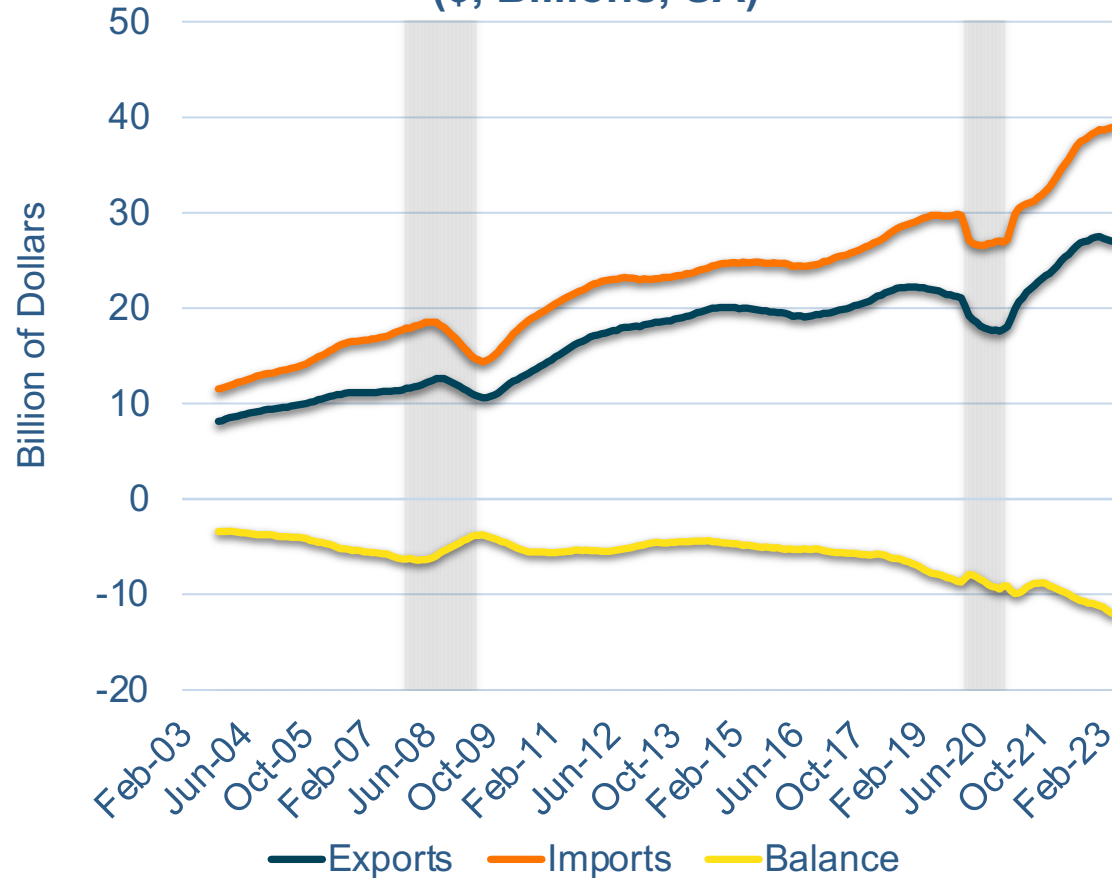
U.S. Trade with Mexico

Value US Exports to Mexico as % of GDP in 2022: **1.4%**

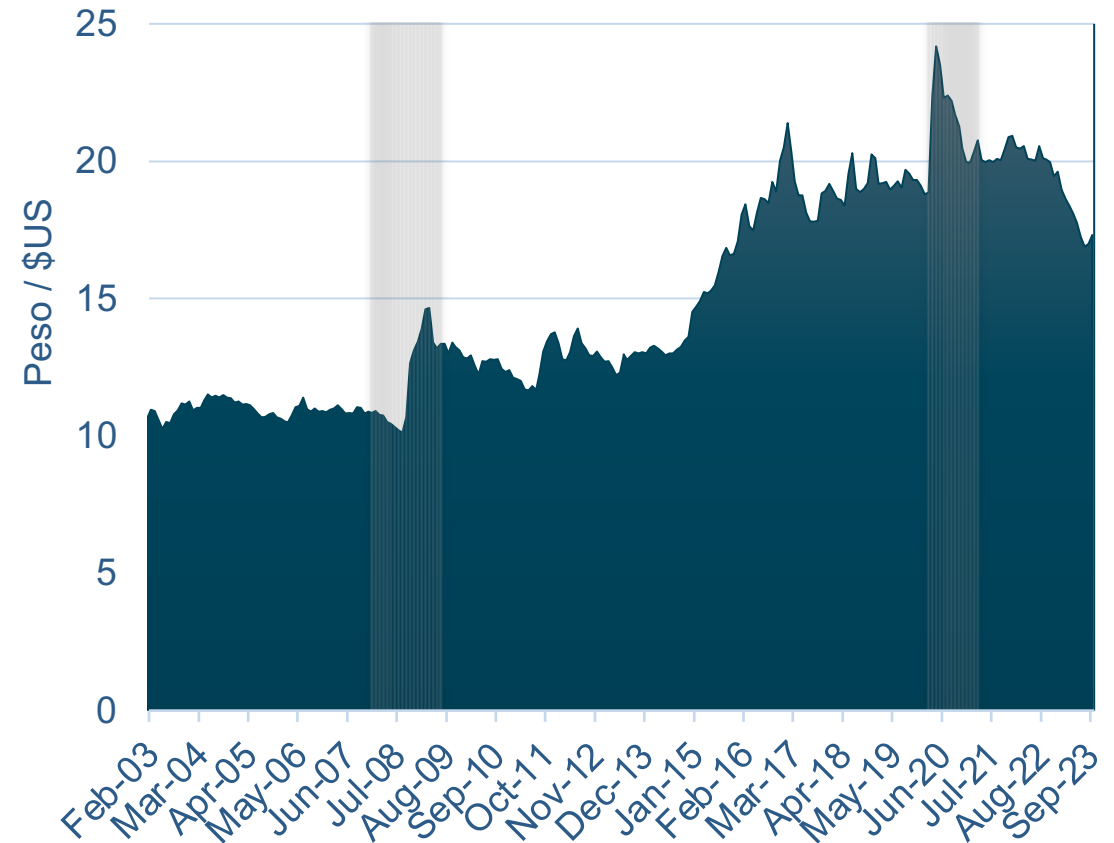
Value Mexico Exports to US as % of GDP in 2022: **1.9%**



U.S. trade in goods with Mexico, (\$, Billions, SA)



Mexican Pesos to U.S. Dollar Spot Exchange Rate, Monthly Average



Southern Border States Performance

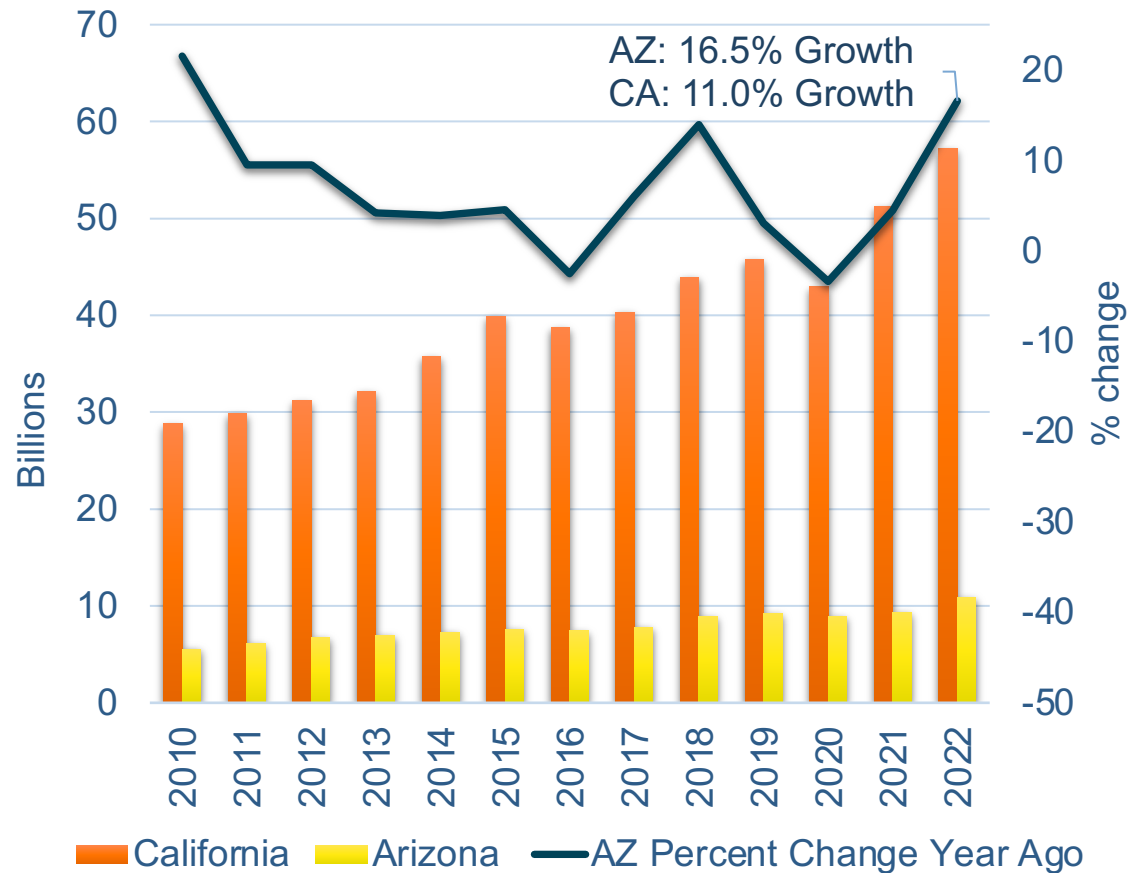


Southern Border States	Imports from Mexico			Exports to Mexico		
	Jul 2023 Imports Volume (\$,Mills)	1-Yr.% Growth	% Share of U.S. Total	Jul 2023 Exports Volume (\$,Mills)	1-Yr.% Growth	% Share of U.S. Total
Arizona	\$844.2	4.6	2.2	\$640.3	-9.2	2.4
California	\$4,748.1	6.3	12.2	\$2,654.3	8.28	10.1
New Mexico	\$198.7	8.3	0.5	\$274.7	-47.5	1.0
Texas	\$11,412.9	-9.5	29.3	\$10,789.5	-12.3	40.8
So. Border States Total	\$17,204.7	-4.8	44.2	\$14,358.8	-10.1	54.4
U.S. Total	\$38,903.9	4.4	-	\$26,405.6	-3.1	-

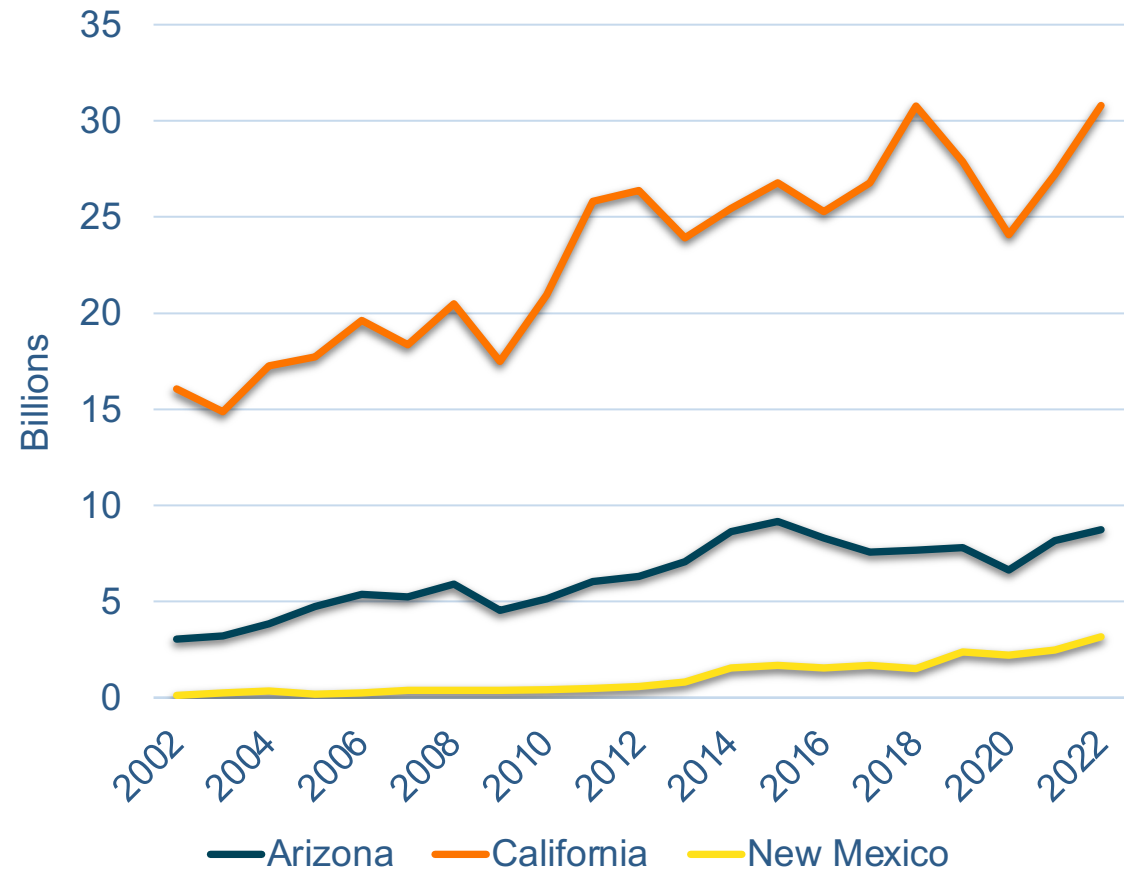
Southern Border States



Total Imports from Mexico



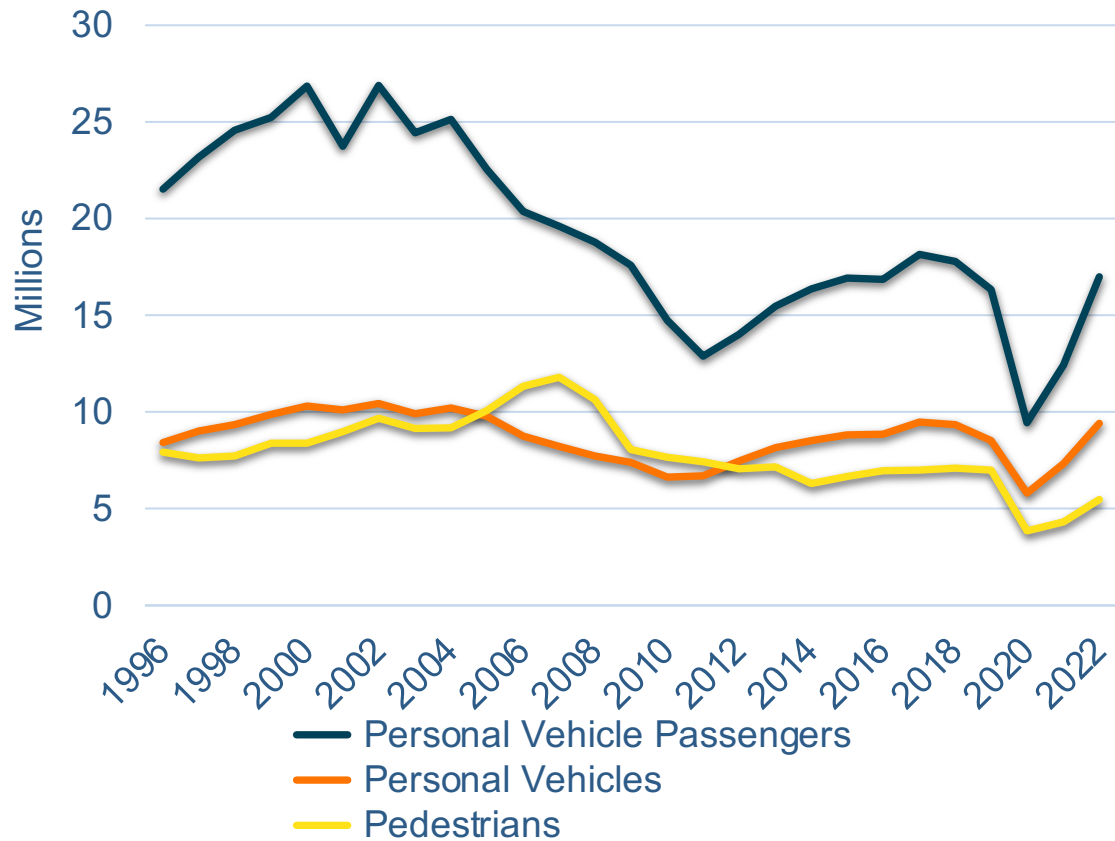
Total Exports to Mexico



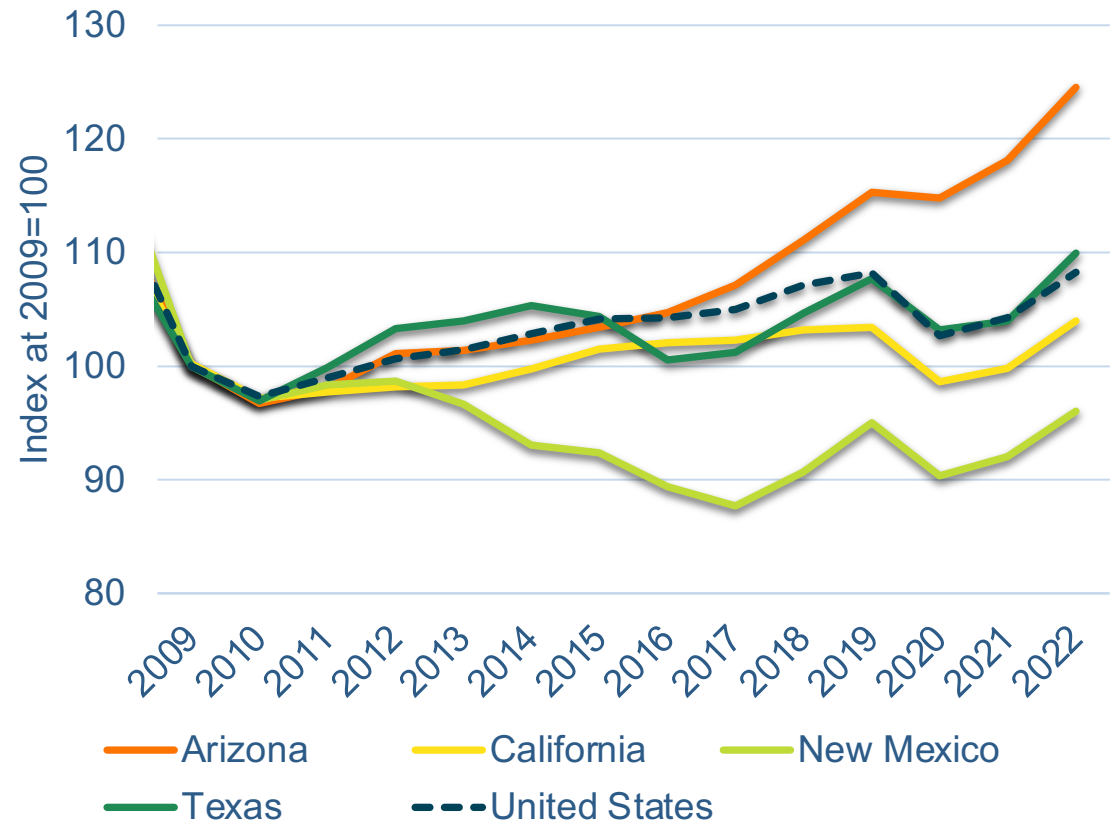
Arizona Border



Total Border Crossings Nogales District



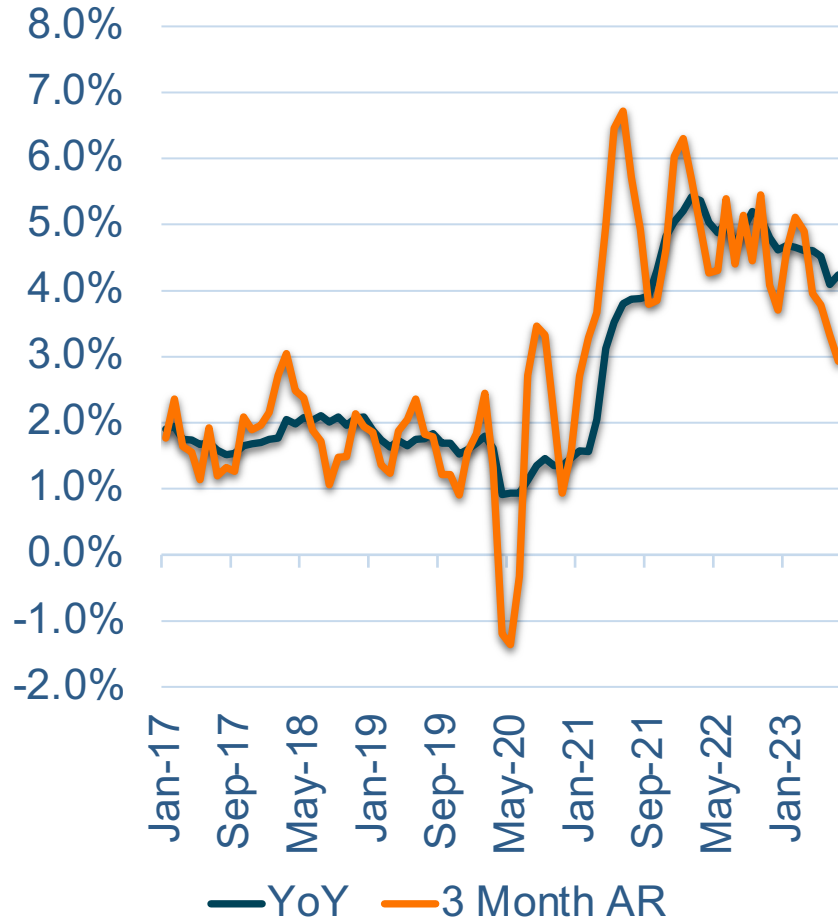
Manufacturing Employment U.S. and Border States



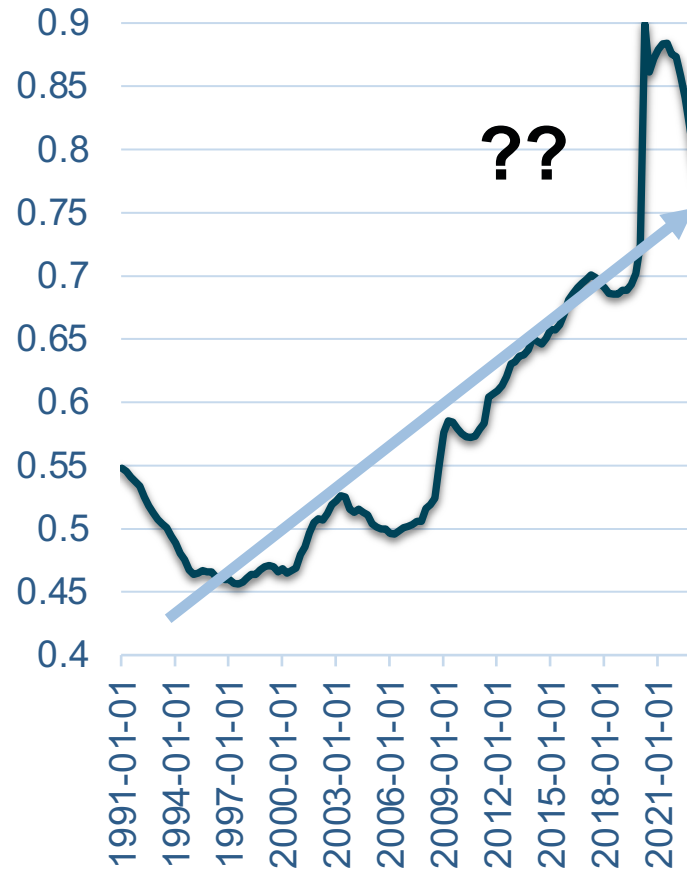
How much farther can inflation really go?



PCE Core Inflation



US Unit Money Supply (M2 / GDP)



US "P/E" Ratio Household Net Worth / GDP




The bad news? The good news...



The Federal Reserve Narrative

- US inflation due to some exogenous shock
- Inflation is now being driven by inflation expectations
- Inflation is causing substantial harm to American households
- The Fed must fight inflation and it is worth the loss of some jobs / higher unemployment



moneycontrol

“We have got to get inflation behind us. I wish there were a painless way to do that. There isn’t.”

Business Alert Sept. 20, 2:01 p.m. EDT

A screenshot from a news broadcast showing Jerome Powell, Chair of the Federal Reserve, speaking at a hearing. The image is overlaid with a yellow box containing a quote and the 'moneycontrol' logo. A red banner at the bottom of the screenshot contains the text 'Business Alert' and the timestamp 'Sept. 20, 2:01 p.m. EDT'.

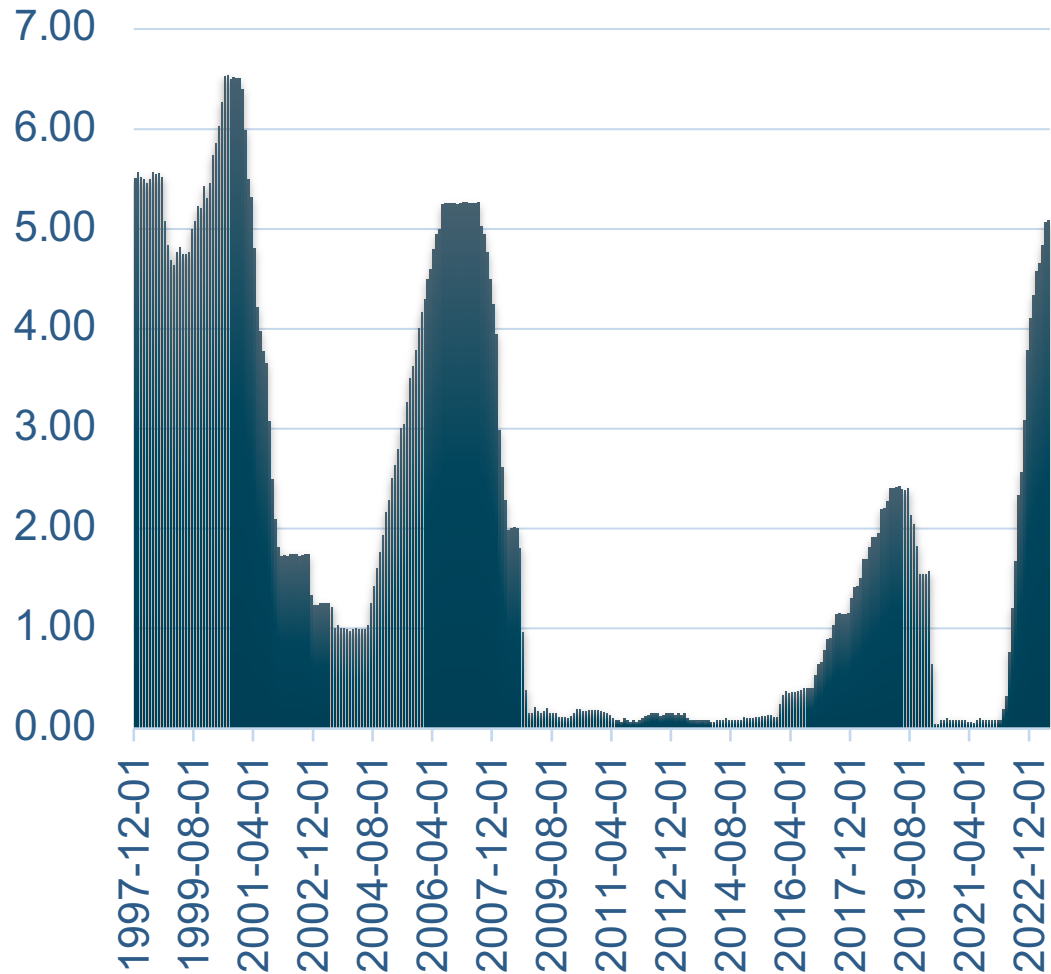
Federal Reserve leaves interest rates unchanged but forecasts another hike this year

The central bank has been racing to get inflation down, and now officials are moving more slowly to see how their rate increases over the past year are slowing the economy.

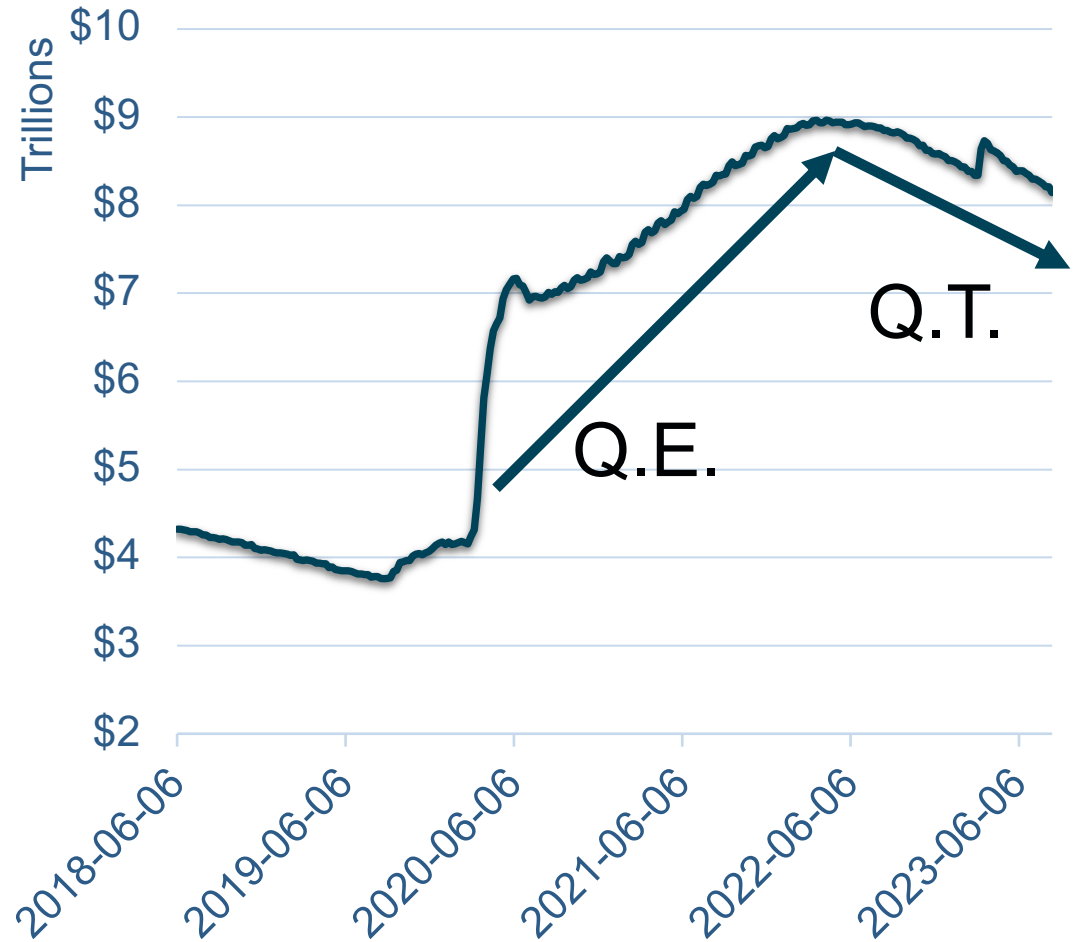
The Fed Response



Stage 1: Federal Funds Rate



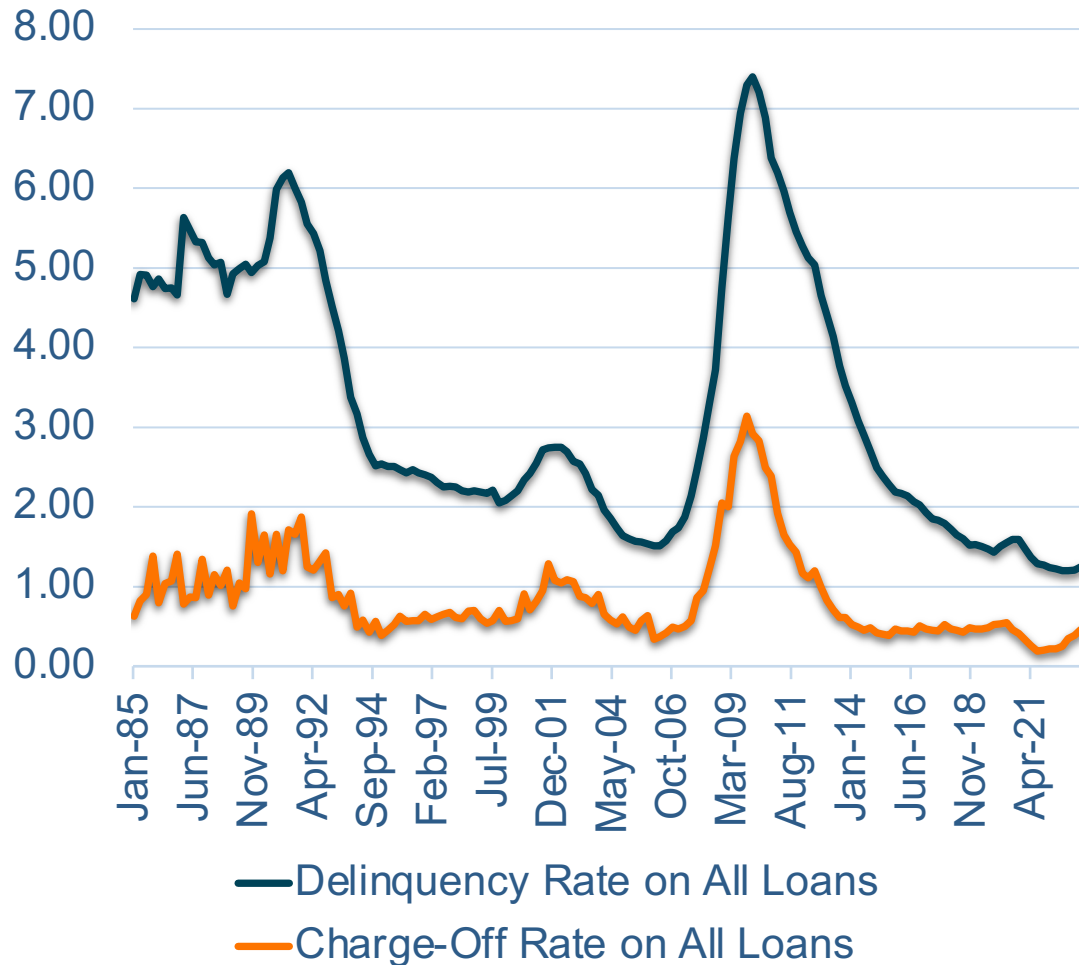
Stage 2: Federal Reserve Assets



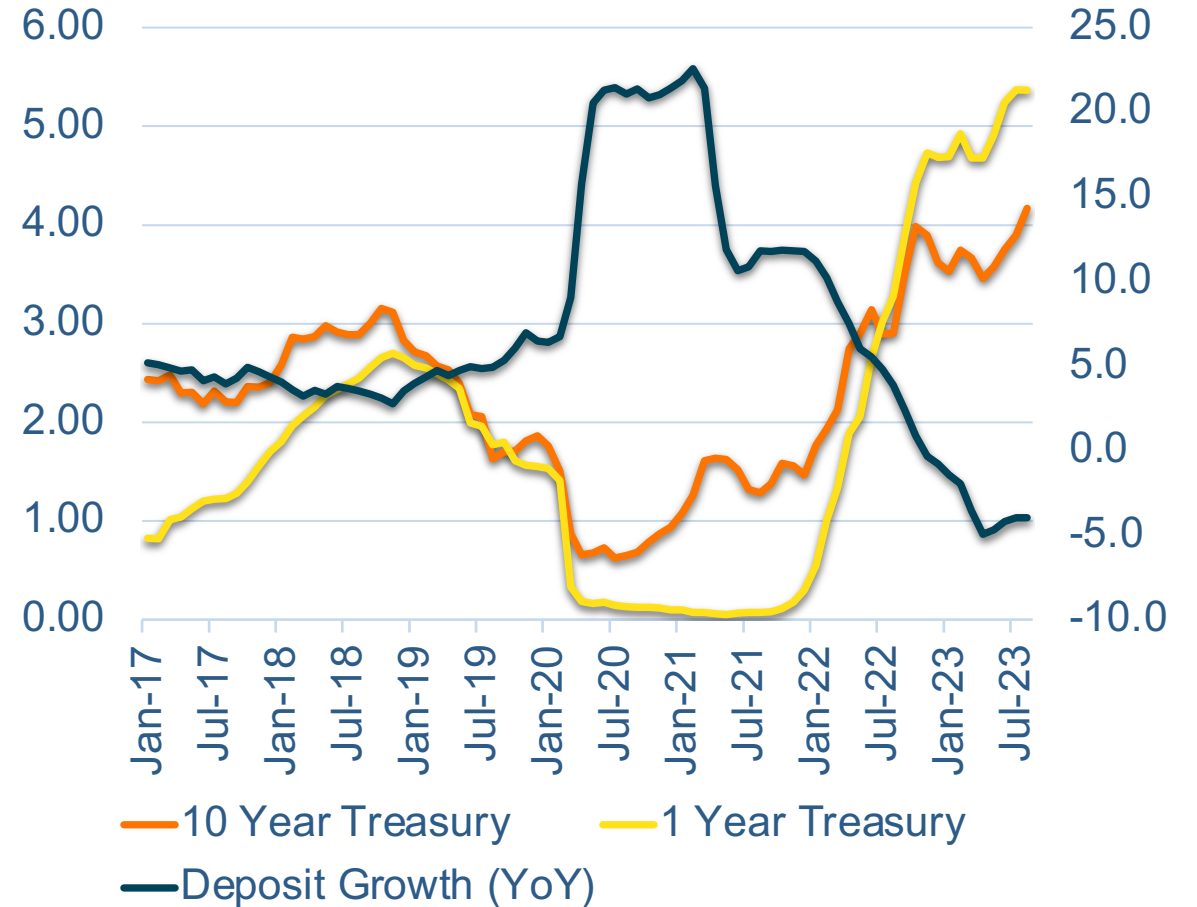
Bank Failures? Forced to Buy High, Sell Low



Bank Loan Performance



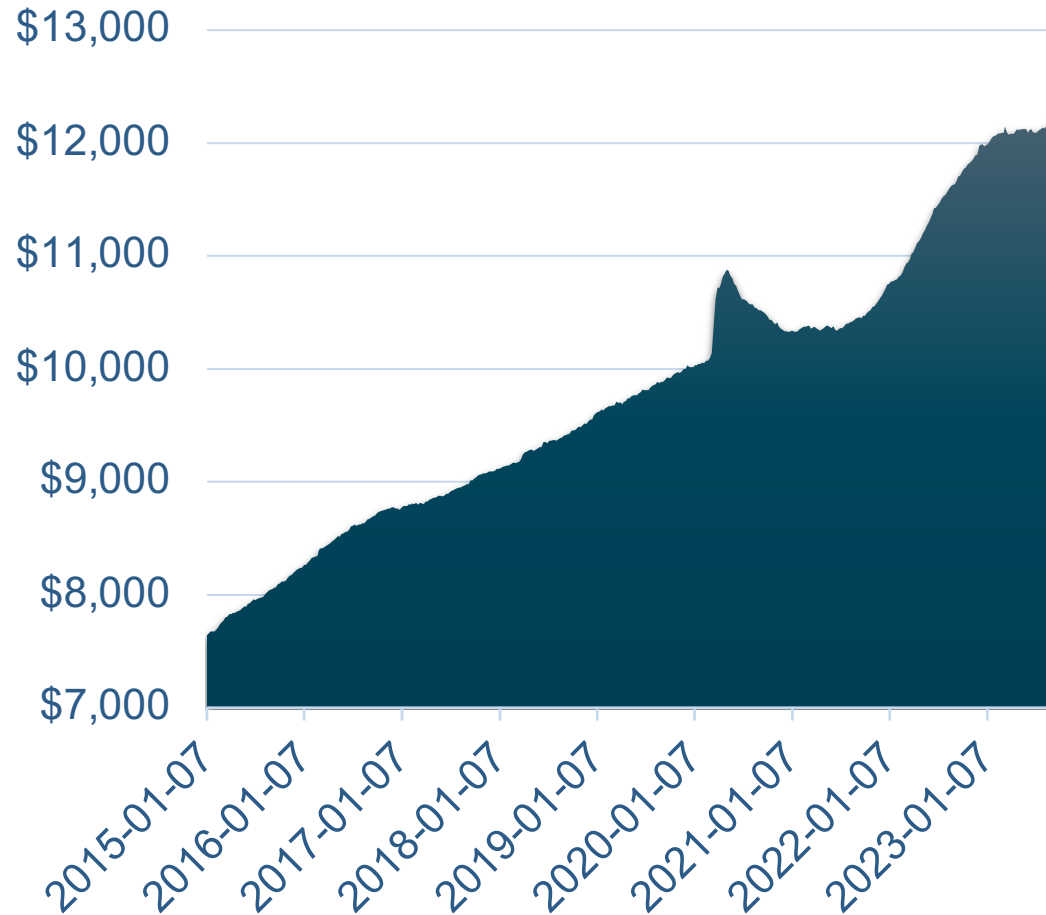
Deposits and Rates



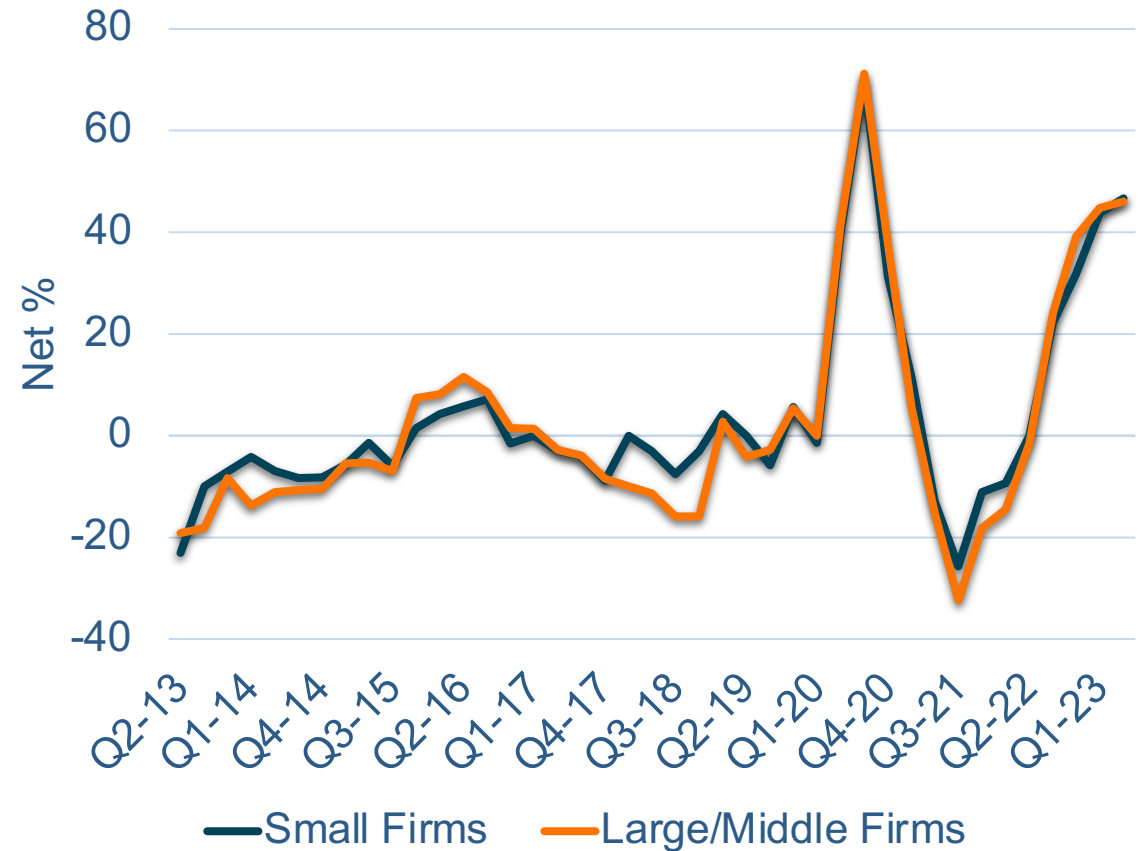
Credit getting tighter



Outstanding Bank Loans (\$Billions)

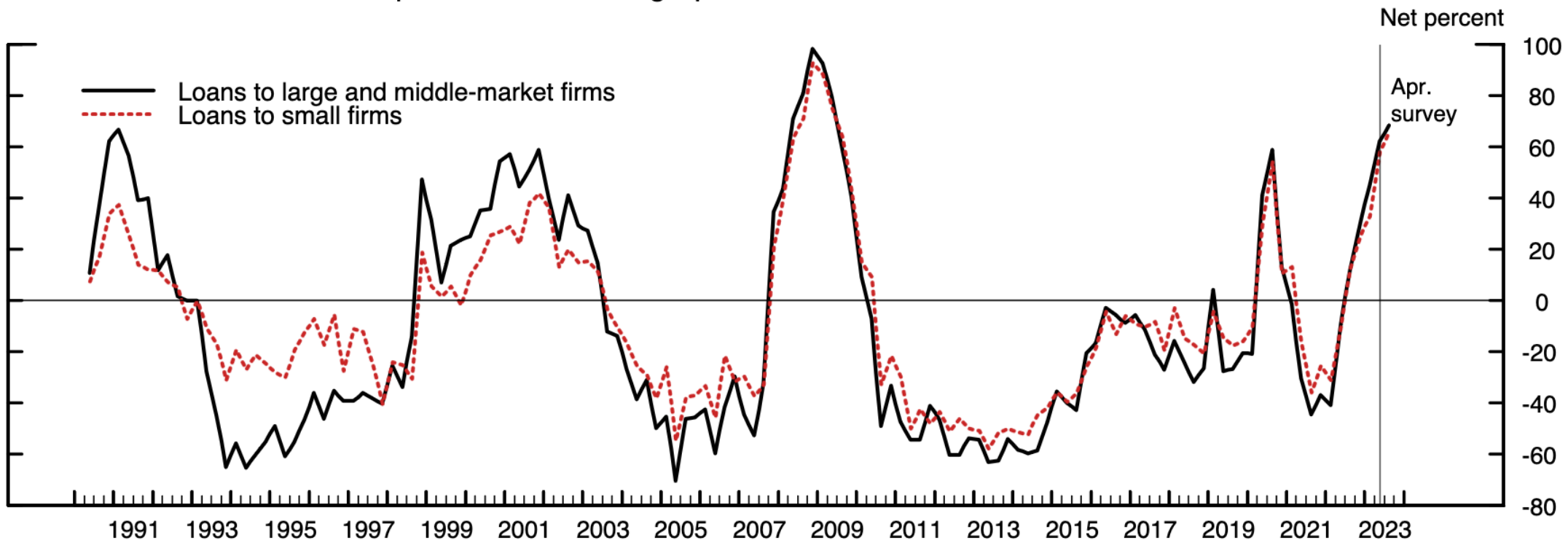


Banks Tightening Standards (Commercial/Industrial Loans)





Net Percent of Domestic Respondents Increasing Spreads of Loan Rates over Bank's Cost of Funds





ECONOMY

Mortgage rates just hit their highest since 2002

August 17, 2023 · 1:45 PM ET



Scott Horsley



What Does the Fed Do?



- *Conducting the nation's monetary policy ... in pursuit of full employment and stable prices.*
- *Supervising and regulating banks ... to ensure the safety and soundness of the nation's banking and financial system.*

Error #1: Panic over full employment has negatively impacted price stability

Error #2: Panic over price stability has negatively impacted the credit system



THE WALL STREET JOURNAL.

MARKETS | FINANCIAL REGULATION

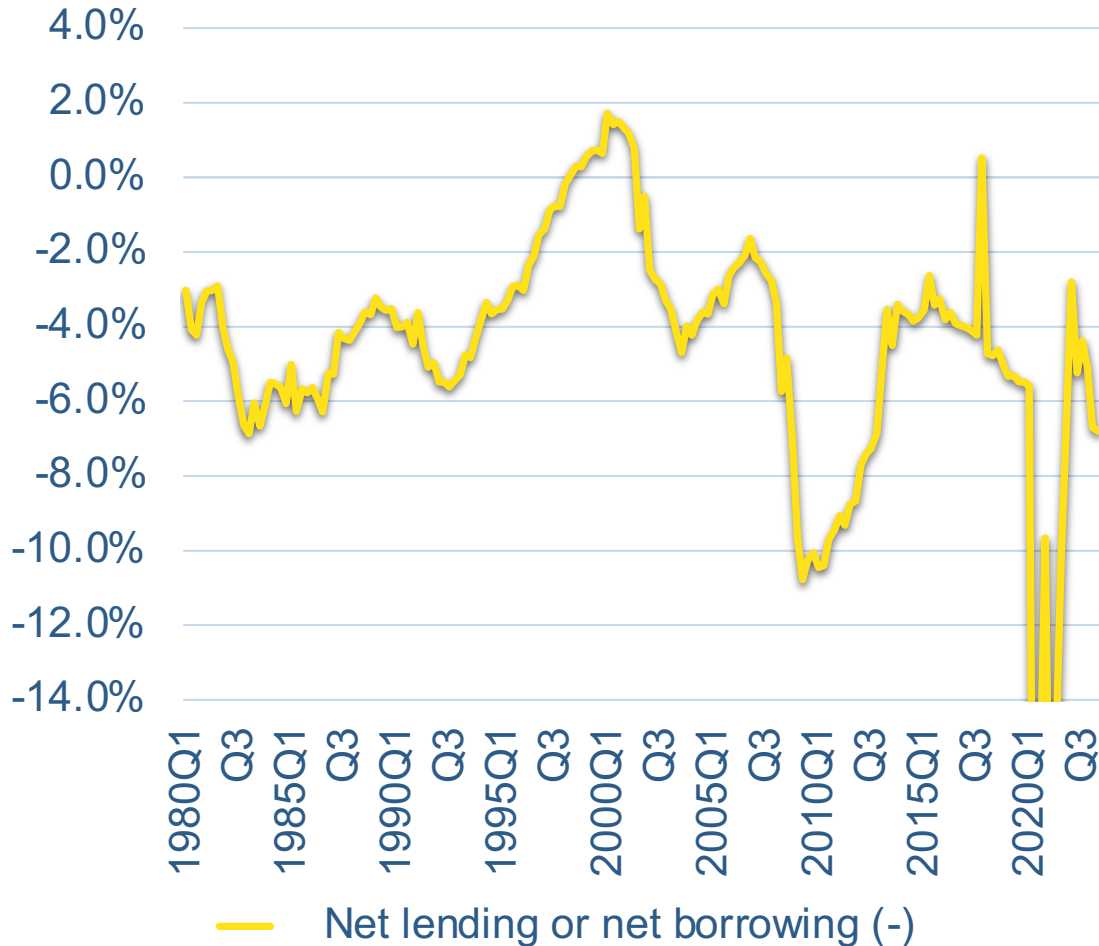
Fed's Barr Calls Silicon Valley Bank a 'Textbook Case of Mismanagement'

Top bank regulator to testify Tuesday alongside other officials

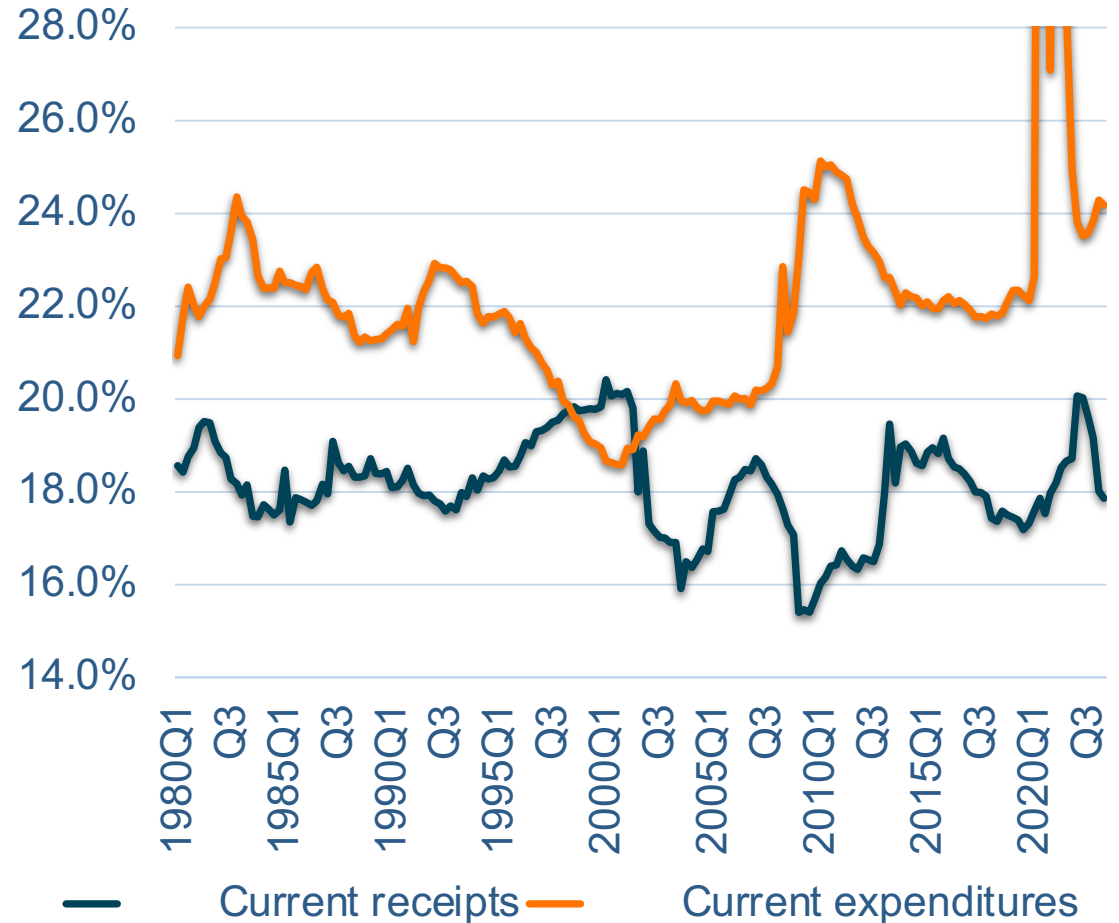
The Fed is on the Brake, Congress is the Gas



Net lending or net borrowing (-)



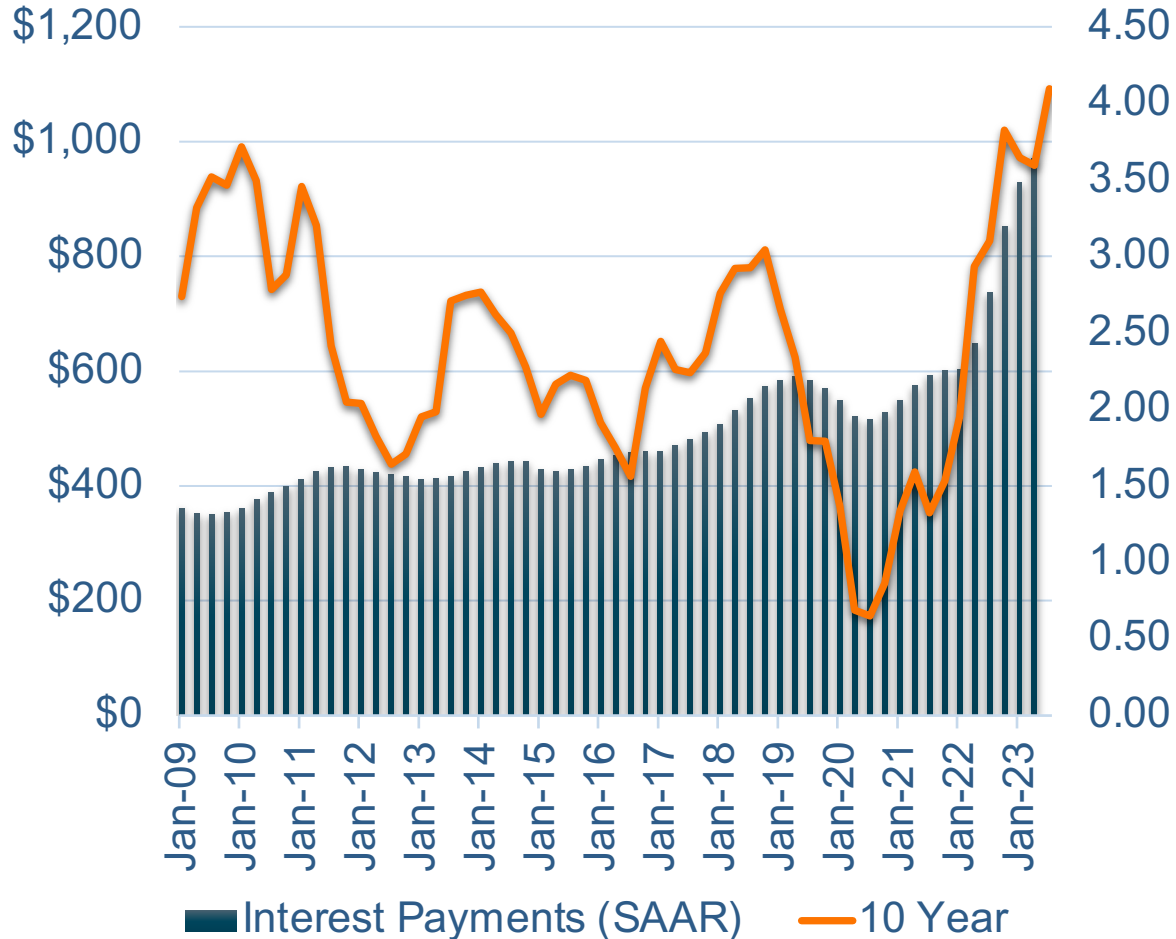
A Spending Issue



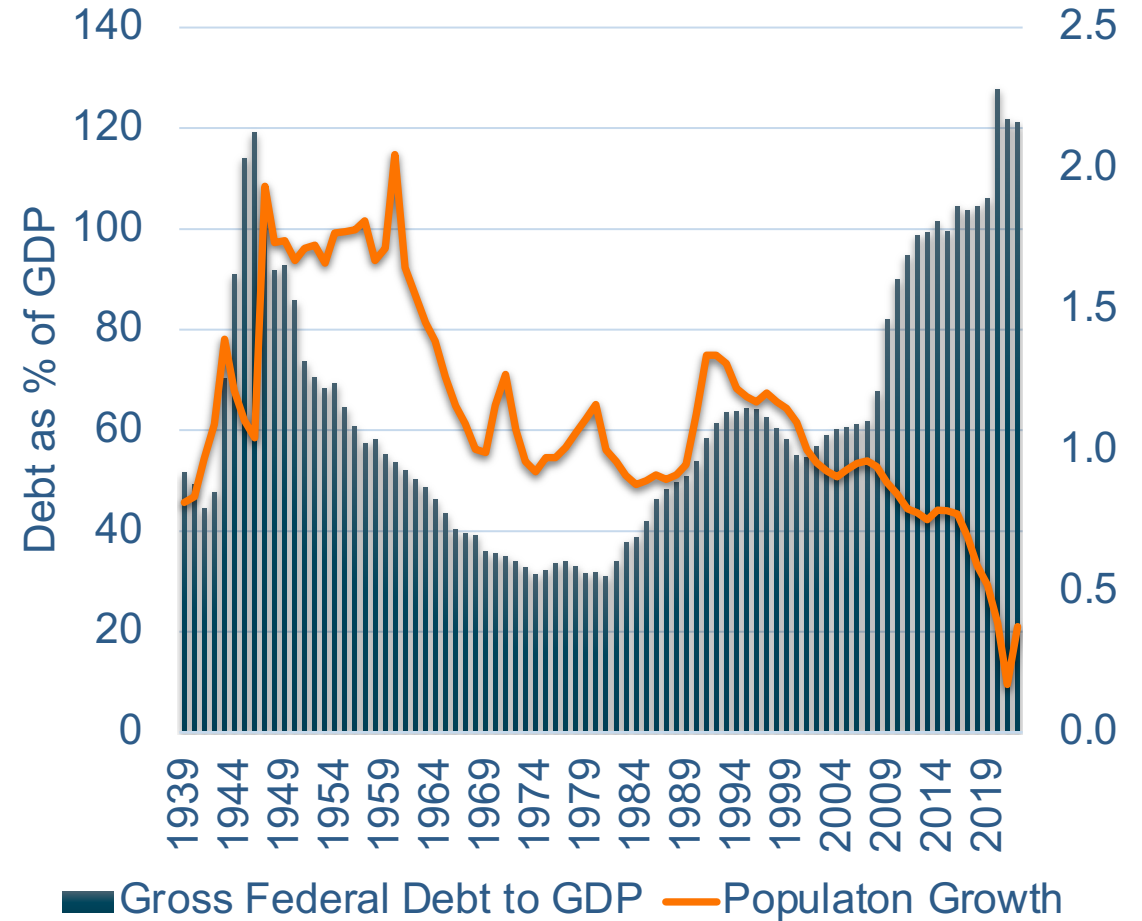
Feedback Effects



Cost of Debt



Which is the Real Problem?

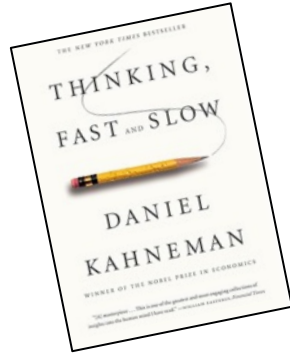


Out of the Woods?



- We were never actually in the woods
 - Household finances solid, consumer demand driving the economy
 - Leading economic indicators remain solid, growth to continue
- Headwinds will intensify
 - Inflation will stay above target, Fed continues to tighten
 - Public deficits at all levels of government are unsustainable
- Tucson
 - The economy is fundamentally strong,
 - Biggest constraint: the lack of labor supply / slow population growth
 - Big opportunities exist at the border, particular in manufacturing
- The bigger issue: Social Narratives
 - Broken narratives are pushing toxic politics and bad policy choices

The Economy is Fine, Our Heads Need Fixing



“Our comforting conviction that the world makes sense rests on a secure foundation: our almost unlimited ability to ignore our ignorance.”

— Daniel Kahneman, *Thinking Fast and Slow*

“People can believe pretty much whatever they want to believe about moral and political issues, as long as some other people near them believe it, so you have to focus on indirect methods to change what people want to believe.

— Jonathan Haidt, *The Righteous Mind: Why Good People are Divided by Politics and Religion*





Thank You

- Economic Outlooks
- Revenue Forecasts
- Cost Projections
- Regional Development
- Housing Studies



- Impact Reports
- CEDS Analysis
- Policy Studies
- Industry Studies
- Labor Markets