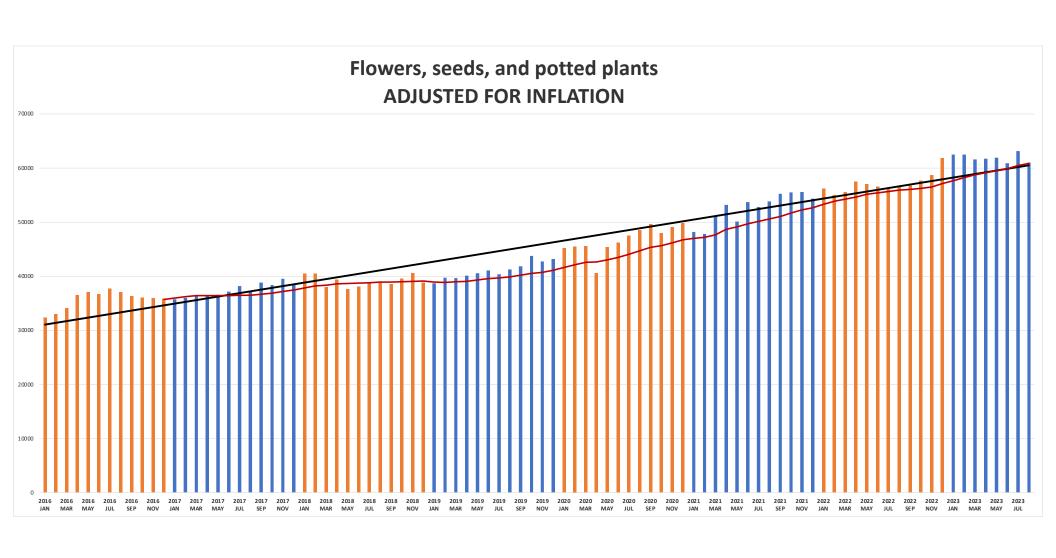


The Current
Green Industry
Economic
Situation &
Outlook

October 2023 Update





Overview, from the 'Comparisons - 5 Numbers' Dashboard, using the "All" filter, August 2023 Median results:

Sales: +0.2% (i.e. flat) compared to YTD Aug 2022 but still +31.2% up against YTD Aug 2019

Customer Count: -1.4% compared to YTD Aug 2022 but +9% up against YTD Aug 2019

G. Margin \$: -0.3% compared to YTD Aug 2022 but still +47.6% up against YTD Aug 2019 (*wowza!*)

Labor \$: +3.5% compared to YTD Aug 2022 and now +28.1% up against YTD Aug 2019 (hmmm...)

Labor Hours: -2% compared to YTD Aug 2022 and (whoop whoop) only +0.7% against YTD Aug 2019 (turning that one green because it's a big victory to hold it that tight!)

Unit Sold Count: -1.9% compared to YTD Aug 2022 and +0.8% against YTD Aug 2019



Overview, from the 'Comparisons - Offspring Calculations' Dashboard, using the "All" filter, August 2023 Median results:

Average Sale: +1% compared to YTD Aug 2022 and now +32.6% since YTD Aug 2019 (*Compared to 20% inflation...*)

Sales Per Labor Hour: -2.9% compared to YTD Aug 2022 and +25% since YTD Aug 2019

Gap \$: -2.6% compared to YTD Aug 2022 but a whopping(!) +55.8% against YTD Aug 2019 (another wowza!)

AND NOW, the emerging relevance of our new "sixth" number (lots of 'hmmms' here...)

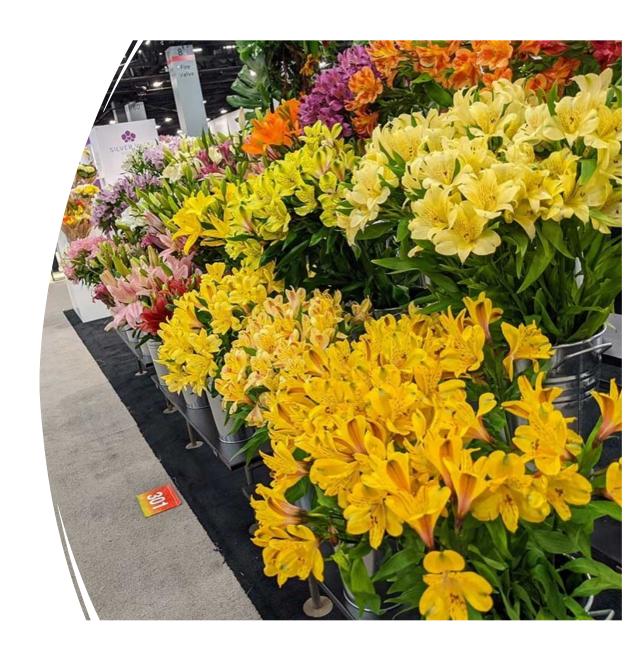
Basket Size: -0.2 units less than YTD Aug 2022 and -0.3 less than YTD Aug 2019 (there's fewer items in your baskets)

Average Unit Price: + 2.4% compared to YTD Aug 2022 but +30% against YTD Aug 2019 (...you're charging more for it!)

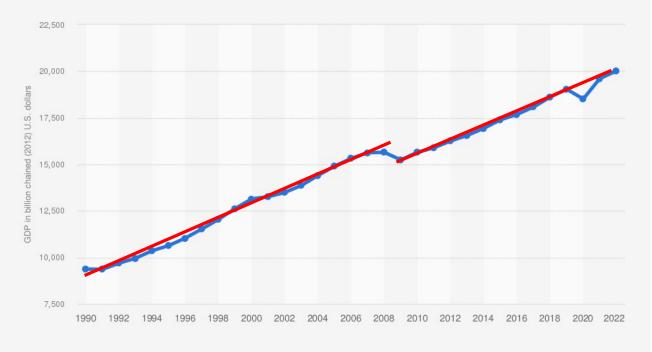


What will impact the industry going forward?

- Overall growth of the economy
- Supply chain performance
- Labor availability and cost
- Cost of inputs
- Housing market correction
- Inflation outlook
- Likelihood of recession
- Response of end consumer



Real gross domestic product of the United States from 1990 to 2022 (in billion chained 2012 U.S. dollars)

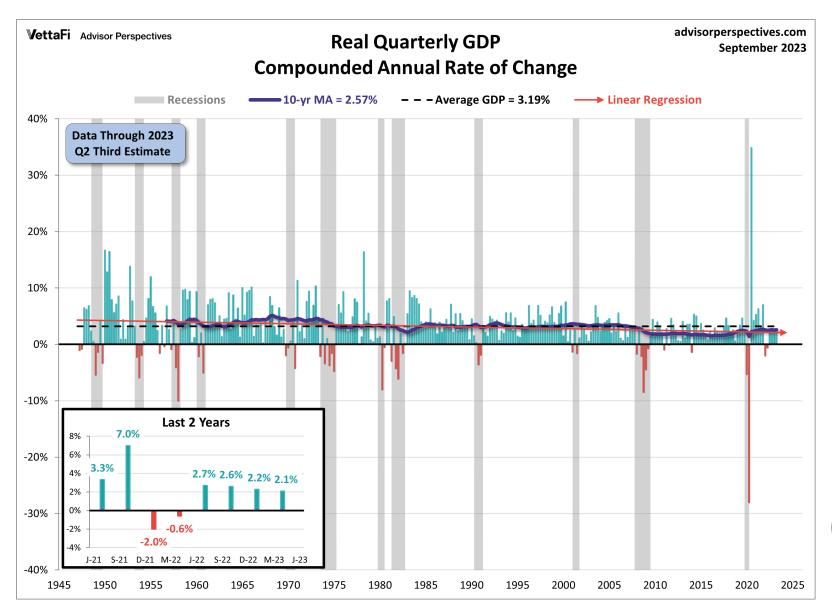


Year

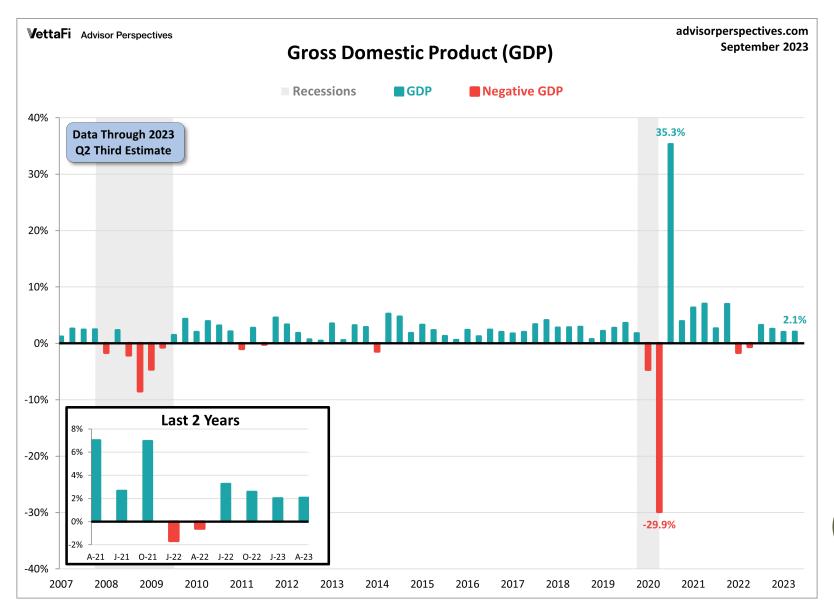
Sources
BEA; US Department of Commerce
© Statista 2023

Additional Information: United States; 1990 to 2022

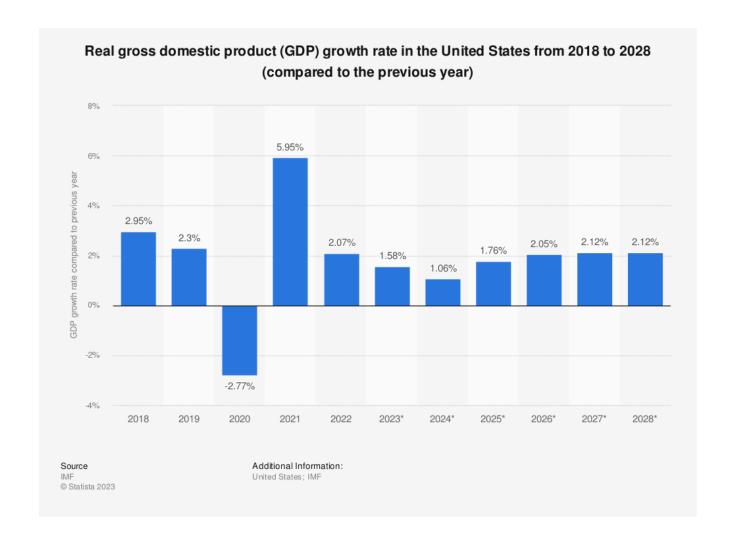








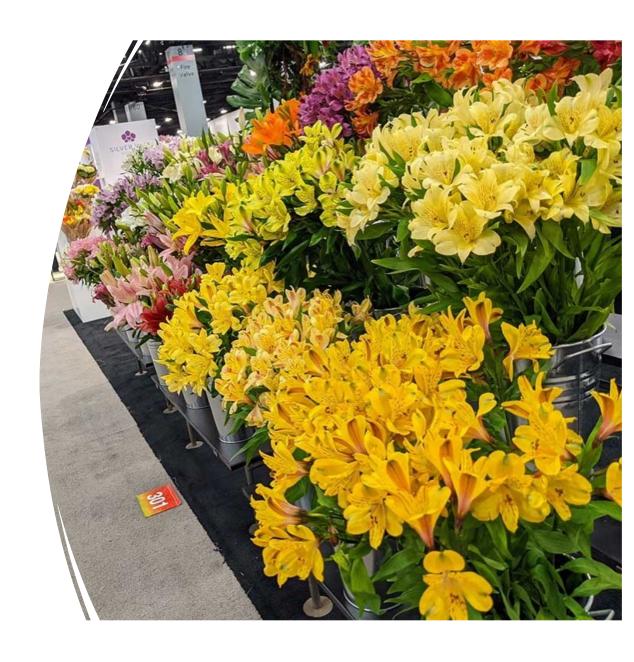






What will impact the industry going forward?

- Overall growth of the economy
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• The GSCPI rose to -0.69 in September, up from -1.08 in August (revised down from an initial reading of -0.86). GSCPI readings measure standard deviations from the index's historical average.

Latest Update September 2023



Sources: Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; authors' calculations.

Notes: GSCPI readings for the most recent months can be revised as realized data become available, replacing the imputed values generated through principal component analysis. Further, for some series, mainly the BLS airfreight cost indices, each new release comes with revisions to up to twelve months of previous data. Thus, revisions can have an impact up to a year back in time.





Boats transit the Soo Locks in Michigan, part of a water-transportation system dating from the 19th century. PHOTO: KEITH KING FOR THE WALL STREET JOURNAL



A Yellow terminal in Kansas City, Mo., over the summer as the carrier was shutting down. PHOTO: CHARLIE RIEDEL/ASSOCIATED PRESS



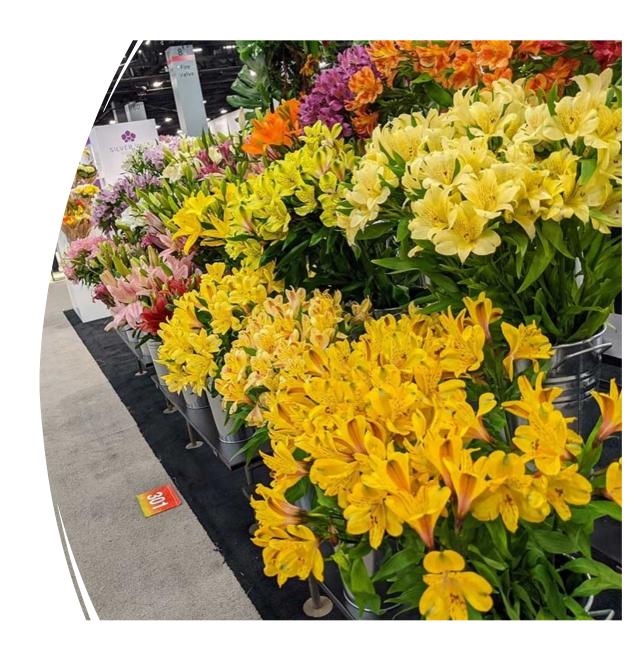
Some companies are using software to schedule warehouse workers for flexible shifts, according to staffing agency Ignite Industrial Professionals. PHOTO: LUKE SHARRETT/BLOOMBERG NEWS



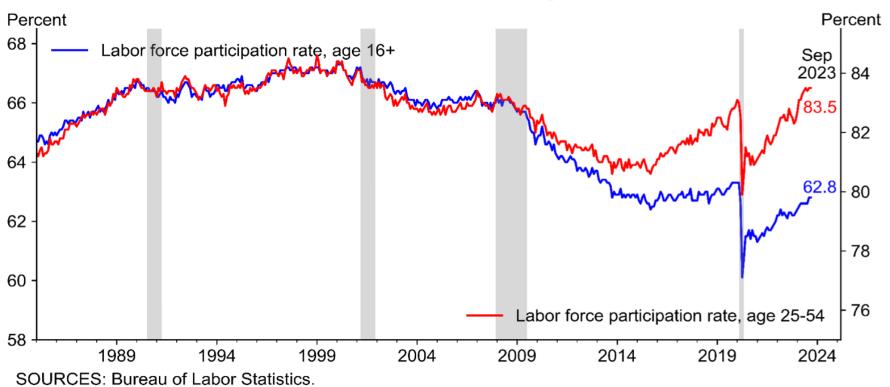
An Air Liquide liquid-hydrogen storage in North Las Vegas, Nev. PHOTO: BRIDGET BENNETT/REUTERS

What will impact the industry going forward?

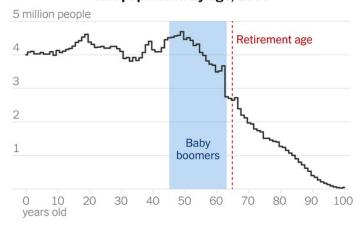
- Overall growth of the economy
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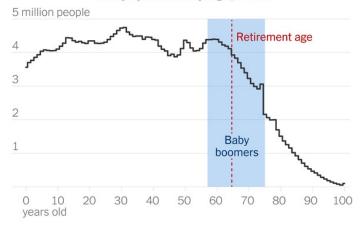
Labor Force Participation



U.S. population by age, 2009

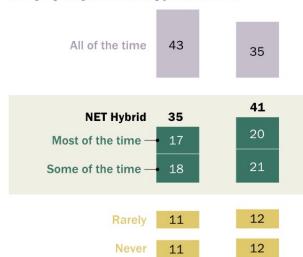


U.S. population by age, 2021



Growing share of U.S. workers are working a hybrid schedule

Among employed adults with a teleworkable job, % saying they are working from home ...

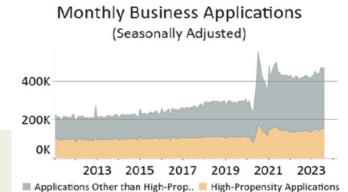


Source: Survey of U.S. workers conducted Feb. 6-12, 2023.

Jan. 2022 Feb. 2023

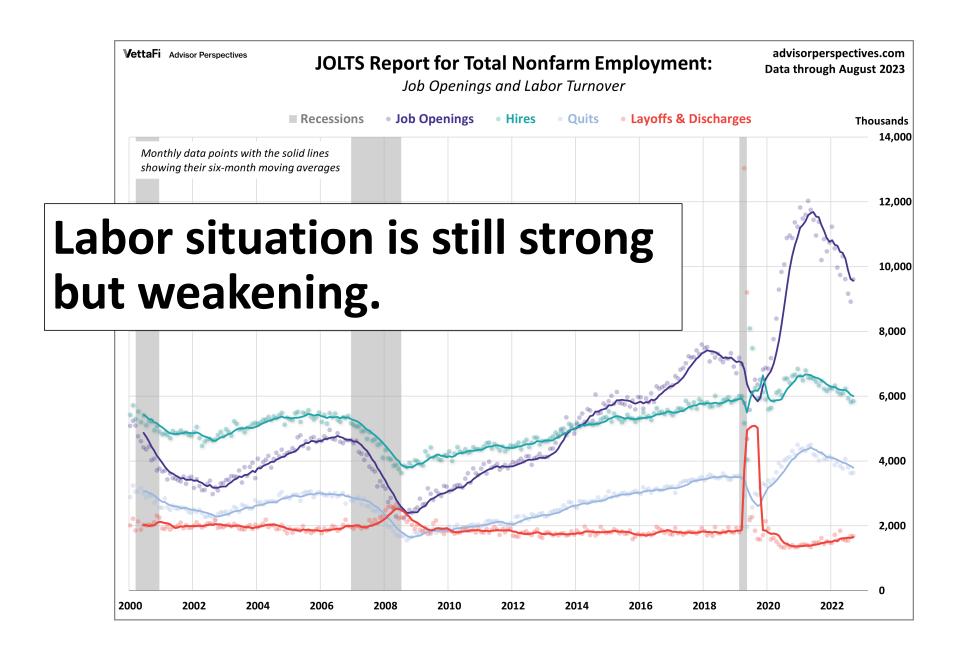
Note: Adults with a teleworkable job are those who say, for the most part, the responsibilities of their job can be done from home. Share of respondents who didn't offer an answer not shown.

PEW RESEARCH CENTER



Source: U.S. Census Bureau, Business Formation Statistics, September 18, 2023



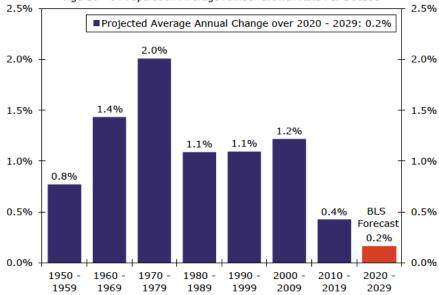


Small Business Important Problems Single Most Important Problem Facing Firms, 3-MMA



U.S. Population Growth

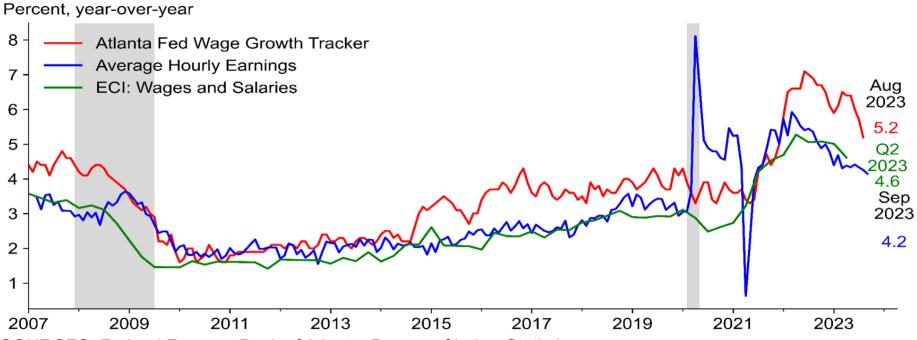


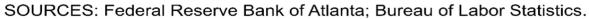


Source: U.S. Department of Labor and Wells Fargo Economics

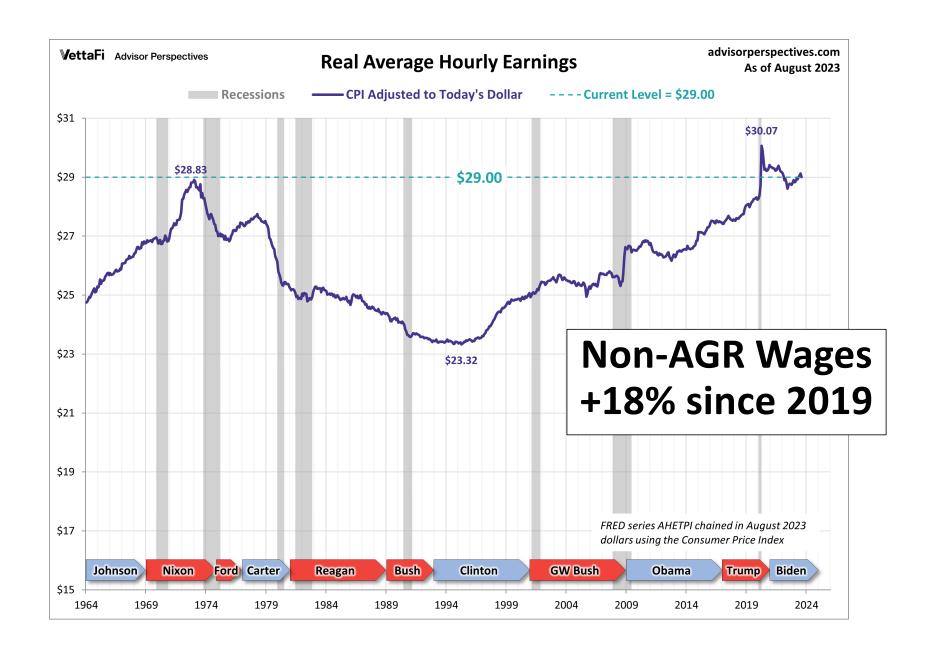


Wage Growth









Adverse Effect Wage Rates by State 2018-2022

YOY

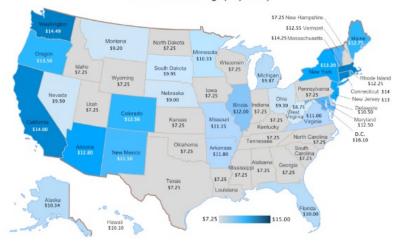
Percent

						YOY	Percent
State	2019	2020	2021	2022	2023	increase	increase
State	AEWR	AEWR	AEWR	AEWR	AEWR	2022 to	from 2019
21,119,112,1219,1219						2023	to 2023
(effective date)	1/9/19	1/1/20	2/23/21	12/29/21	1/1/23		
Alabama	11.13	11.71	11.81	11.99	13.37	11.51%	20.13%
Arizona	12.00	12.91	13.67	14.79	15.62	5.61%	30.17%
Arkansas	11.33	11.83	11.88	12.45	13.67	9.80%	20.65%
California	13.92	14.77	16.05	17.51	18.65	6.51%	33.98%
Colorado	13.13	14.26	14.82	15.58	16.34	4.88%	24.459
Connecticut	13.25	14.29	14.99	15.66	16.95	8.24%	27.929
Delaware	13.15	13.34	14.05	15.54	16.55	6.50%	25.869
Florida	11.24	11.71	12.08	12.41	14.33	15.47%	27.499
Georgia	11.13	11.71	11.81	11.99	13.67	14.01%	22.829
Hawaii	14.73	14.90	15.56	16.54	17.25	4.29%	17.119
Idaho	13.48	13.62	14.55	14.68	15.68	6.81%	16.329
Illinois	15.40	23.02	14.55	24.00	17.17	8.06%	29,499
Indiana					17.17	8.06%	29.49%
	1						
lowa		4 G	. L		17.54	8.34%	31.489
Kansas		70			17.33	5.22%	20.519
Kentucky	_				14.26	2.66%	22.619
Louisiana					13.67	9.80%	20.659
Maine		_			16.95	8.24%	27.929
Maryland	NA.		ge		16.55	6.50%	25.869
Massachusetts	W	121	JP		16.95	8.24%	27.929
Michigan	VV	u	5	J	17.34	12.82%	28.069
Minnesota		•			17.34	12.82%	28.069
Mississippi					13.67	9.80%	20.659
Missouri	_	A F	- 0 /	,	17.54	8.34%	31.489
Montana		' <i>)</i> L	5%	_	15.68	6.81%	16.329
Nebraska	Т) /()	17.33	5.22%	20.519
Nevada					16.34	4.88%	24.459
New Hampshire					16.95	8.24%	27.929
New Jersey		_			16.55	6.50%	25.869
New Mexico	_	-	-		15.62	5.61%	30.179
New York	<u> </u>		ce)	16.95	8.24%	27.929
North Carolina	J			,	14.91	5.30%	21.719
North Dakota					17.33	5.22%	20.519
Ohio					17.17	8.06%	29.499
Oklahoma			4		14.87	7.13%	21.599
Oregon		'			17.97	3.22%	19.569
Pennsylvania		.U.	19		16.55	6.50%	25.869
Rhode Island			_		16.95	8.24%	27.929
South Carolina					13.67	14.01%	22.829
South Carolina South Dakota	14.38	14.99	15.89	16.47	17.33	5.22%	20.519
	100000000000000000000000000000000000000	10000000			1753/1003/1003		
Tennessee	11.63	12.40	12.96	13.89	14.26	2.66%	22.619
Texas	12.23	12.67	13.03	13.88	14.87	7.13%	21.599
Utah	13.13	14.26	14.82	15.58	16.34	4.88%	24.459
Vermont	13.25	14.29	14.99	15.66	16.95	8.24%	27.929
Virginia	12.25	12.67	13.15	14.16	14.91	5.30%	21.719
Washington	15.03	15.83	16.34	17.41	17.97	3.22%	19.569
West Virginia	11.63	12.40	12.96	13.89	14.26	2.66%	22.619
Wisconsin	13.54	14.40	14.72	15.37	17.34	12.82%	28.069
Wyoming	13.48	13.62	14.55	14.68	15.68	6.81%	16.329
Average	\$12.96	\$13.68	\$14.28	\$15.03	\$16.13	7.44%	24.479
YOY increase		5.56%	4.38%	5.27%	7.30%		
			2021	2022	2023		

FY2023 Adverse Effect Wage Rates

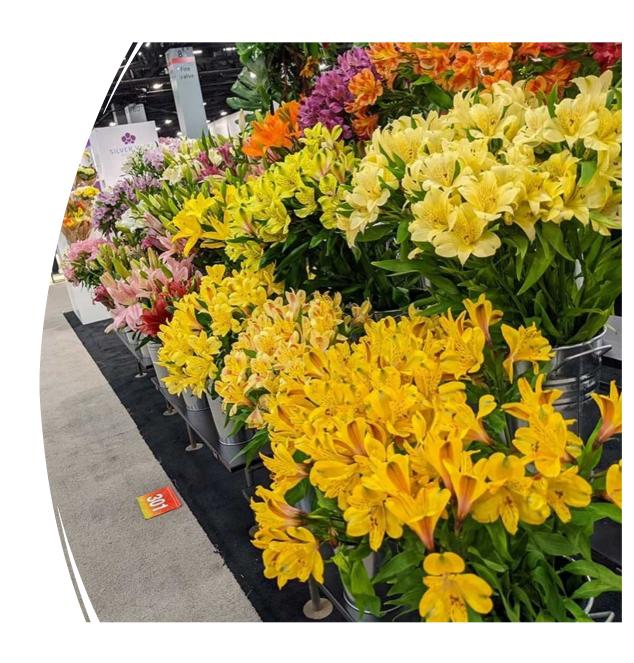


State Minimum Wage (July 2022)



What will impact the industry going forward?

- Overall growth of the economy
- Supply chain performance
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- Cost of inputs
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- Inflation outlook
- Likelihood of recession
- Response of end consumer





Projected input cost increases

Index of Prices Paid by Growers in the Green Industry (2007=100)

Cost category	Weight	2007	2018	2019	2020	2021	2022	2023f	2024p
Containers & other plastics	10.24%	100.0	126.9	127.3	126.4	143.5	166.8	167.7	168.9
Media (peat-based)	3.94%	100.0	128.9	126.5	152.8	177.1	151.1	154.1	155.0
Propagative materials	23.62%	100.0	125.0	128.1	131.0	142.6	149.7	157.2	158.8
Plant protection products	1.57%	100.0	112.9	109.8	107.0	115.1	160.5	168.0	169.3
Fertilizers	1.57%	100.0	106.9	109.5	103.5	138.6	200.3	186.3	187.2
Labor	34.65%	100.0	136.7	144.2	149.6	158.1	169.8	178.4	183.4
Fuel/Energy	3.94%	100.0	97.9	93.3	79.3	105.6	149.7	119.5	120.7
Supplies & repairs	3.15%	100.0	124.1	127.6	129.6	138.9	154.6	159.5	161.1
Freight and trucking	17.32%	100.0	130.0	130.5	124.9	143.1	151.1	146.6	148.1
Weighted index (2007=100)		100.0	128.7	132.0	133.9	147.4	159.8	162.9	165.5
YOY increase/decrease			5.3%	2.5%	1.4%	10.1%	8.4%	1.9%	1.6%





Economic Impact of War

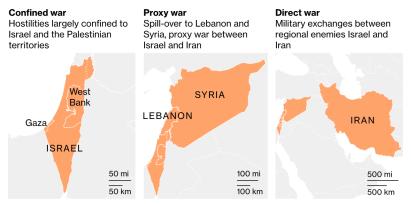
Global growth and inflation impact of three scenarios for how the Israel– Hamas conflict could evolve

Scenario	Details	Impact on oil prices and VIX*	Impact on global GDP and inflation**
Confined war	Ground invasion of GazaLimited broader regional conflictLower Iranian crude output	Oil: +\$4/barrel VIX: No impact	GDP: -0.1 ppts. Inflation: +0.1 ppts.
Proxy war	- Multifront war in Gaza, West Bank, Lebanon, Syria - Unrest in wider Middle East	Oil: +\$8/barrel VIX: +8 points	GDP: -0.3 ppts. Inflation: +0.2 ppts.
Direct war	- Israel and Iran in direct conflict - Unrest in wider Middle East	Oil: +\$64/barrel VIX: +16 points	GDP: -1.0 ppts. Inflation: +1.2 ppts.

Source: Bloomberg Economics

Confined Conflict or Regional War?

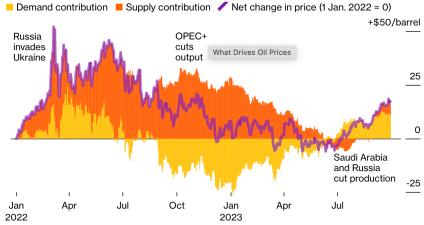
Three scenarios for how the Israel-Hamas conflict could evolve



Source: Bloomberg Economics

What Drives Oil Prices

Contribution of demand and supply shocks to the change in the price of oil



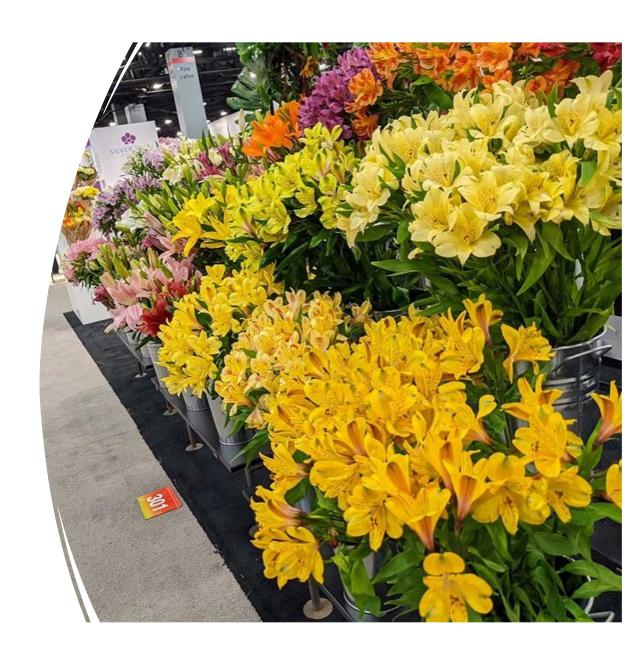
Source: Bloomberg Economics

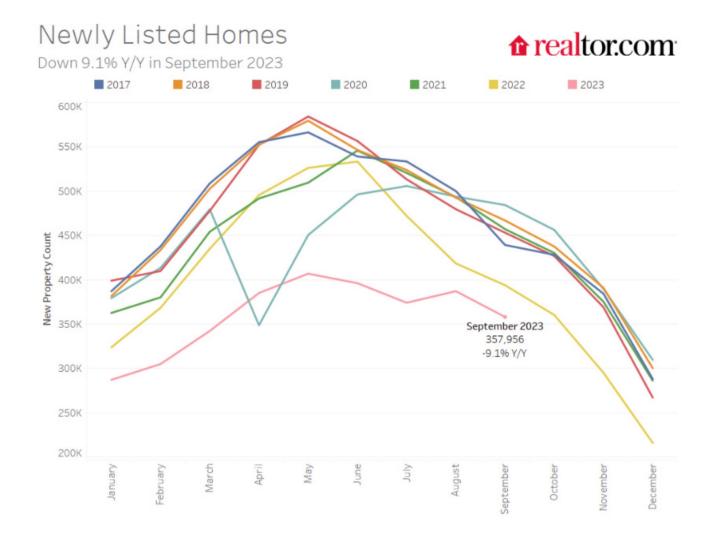
^{*}Impact calibrated based on 2014 Gaza War, 2006 Israel-Lebanon War, and 1990-1991 Gulf War.

^{**}Impact on year on year change in global GDP and inflation for 2024, estimated using Bayesian Global VAR

What will impact the industry going forward?

- Overall growth of the economy
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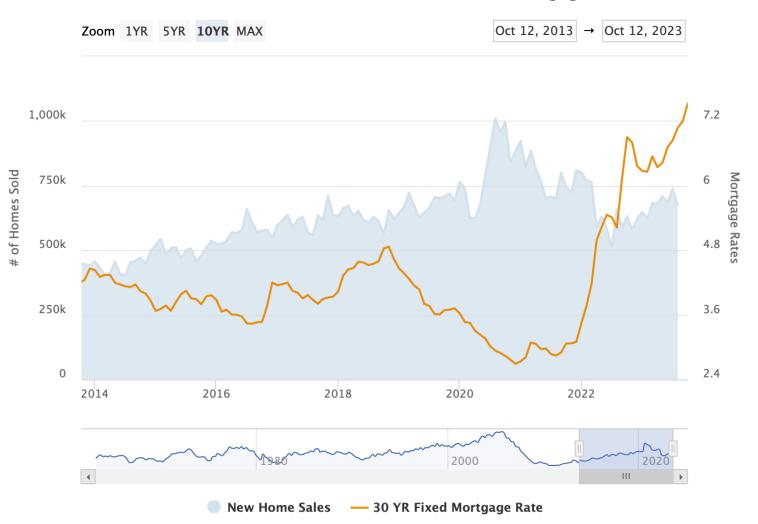


Here is a graph of new listing from Realtor.com's September 2023 Monthly Housing Market Trends Report showing new listings were down about 9.1% year-over-year in September. The year-over-year decline was much smaller in August and September than in previous months, mostly because new listings collapsed in the 2nd half of 2022.

While newly listed homes showed an unusual seasonal increase from July to August, higher mortgage rates and more typical seasonality reset the trend to a decline from August to September. Higher mortgage rates impact selling activity through homeowners feeling 'locked-in' to previously low rates and thus the inventory of existing homes continued to be limited this past month.

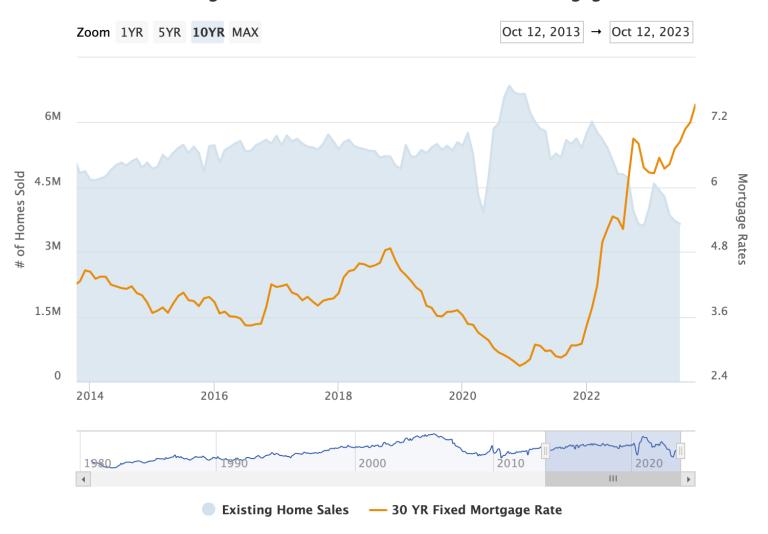


New Home Sales vs. vs. 30 YR Fixed Rate Mortgage

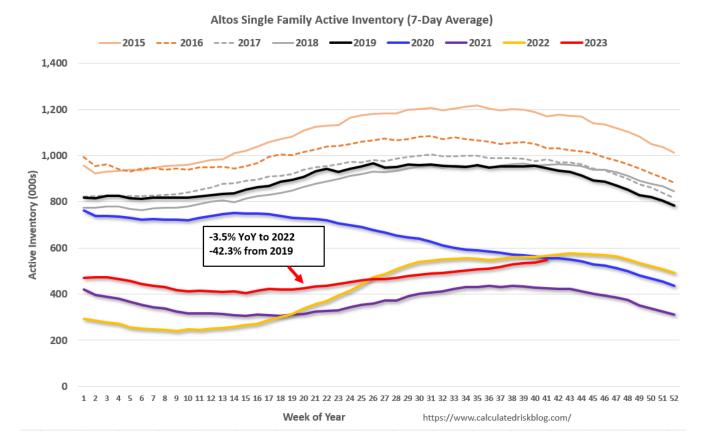




Existing Home Sales vs. vs. 30 YR Fixed Rate Mortgage







This graph shows the seasonal pattern for active single-family inventory since 2015 from Altos Research. The red line is for 2023 and the black line is for 2019.

Note that inventory is up from the record low for the same week in 2021, but below last year and still well below normal levels.

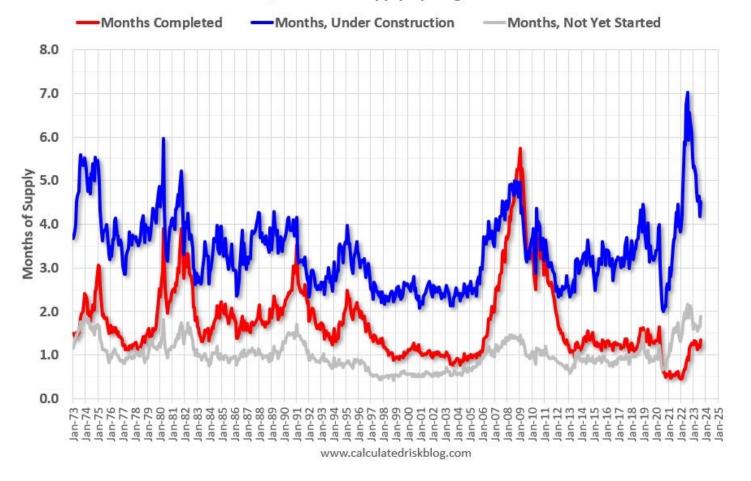
Inventory was down 3.5% compared to the same week in 2022 (last week it was down 4.3%), and down 42.3% compared to the same week in 2019 (last week down 43.8%).

In 2022, inventory didn't peak until late October, and it appears same week inventory will be below 2022 levels for the remainder of the year - depending on when inventory finally peaks this year.

It also seems likely that inventory will be above 2020 levels (dark blue line) sometime in the next few weeks.



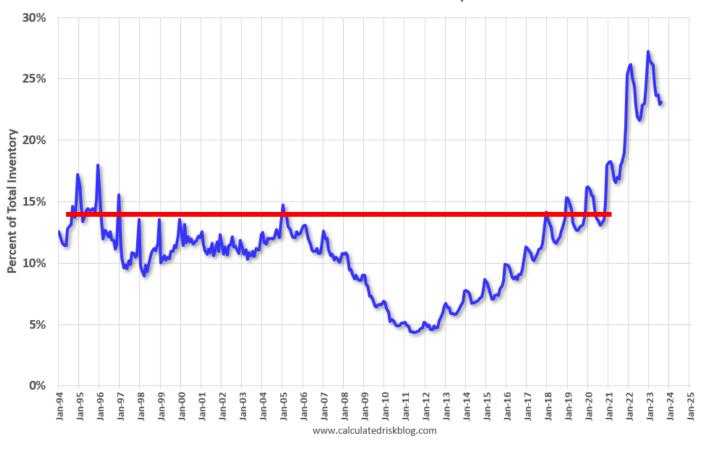
New Home Sales, Months of Supply by Stage of Construction



For new homes, there are 4 1/2 months of homes under construction (blue line), well above the normal level, but declining. This elevated level of homes under construction is due to supply chain constraints. There are 1.4 months of completed supply (red line). This is close to the normal level.



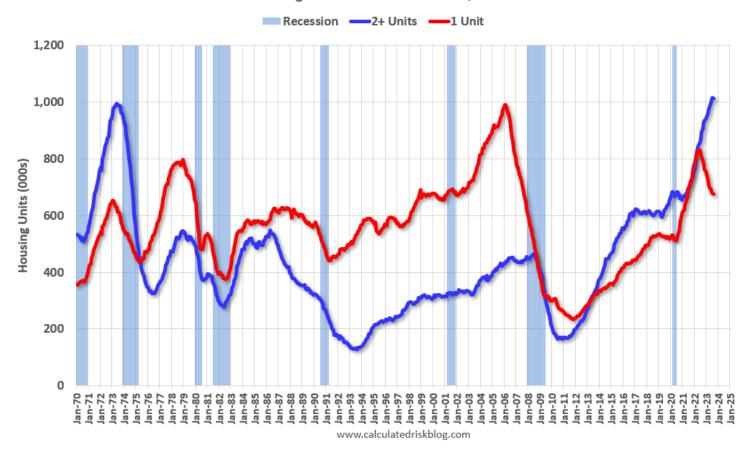
New Home Percent of Total Inventory



It took a number of years following the housing bust for new home inventory to return to the pre-bubble percent of total inventory. Then, with the pandemic, existing home inventory collapsed and now the percent of new homes is 23% of the total for sale inventory. The lack of existing home inventory, and few distressed sales, has been a positive for homebuilders.



Housing Units Under Construction, SA

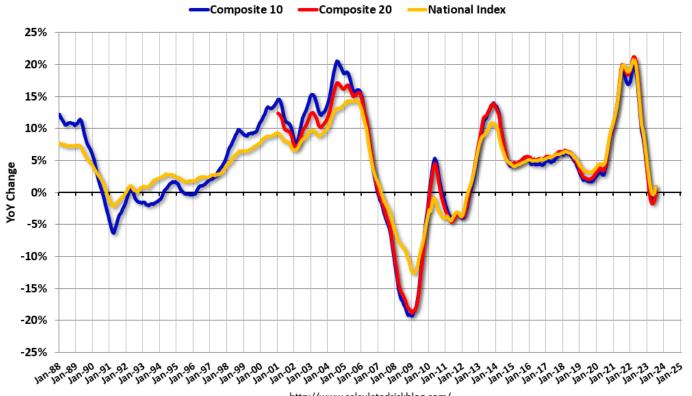


Red is single family units.
Currently there are 676
thousand single family units
(red) under construction (SA).
Blue is for 2+ units. Blue is for 2+
units. Blue is for 2+ units.
Currently there are 1,012
thousand multi-family units
under construction. This is
slightly below the record set last
month of 1,014 thousand.

Combined, there are 1.688 million units under construction, just 22 thousand below the all-time record of 1.710 million set in October 2022.



Case-Shiller National and Composite Indices SA, Year-over-year Change

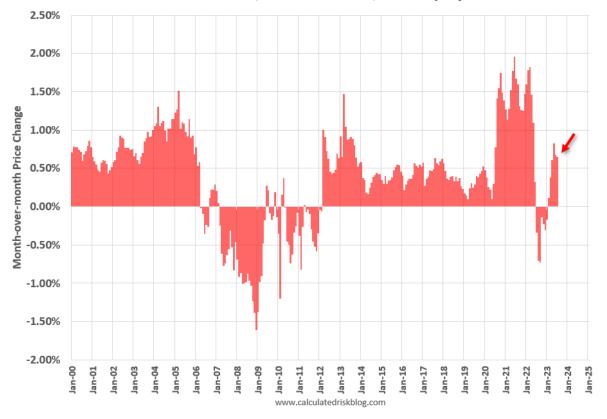


The Case-Shiller National Index was increased 1.0% yearover-year in July and will turn more positive YoY in August (based on other data).





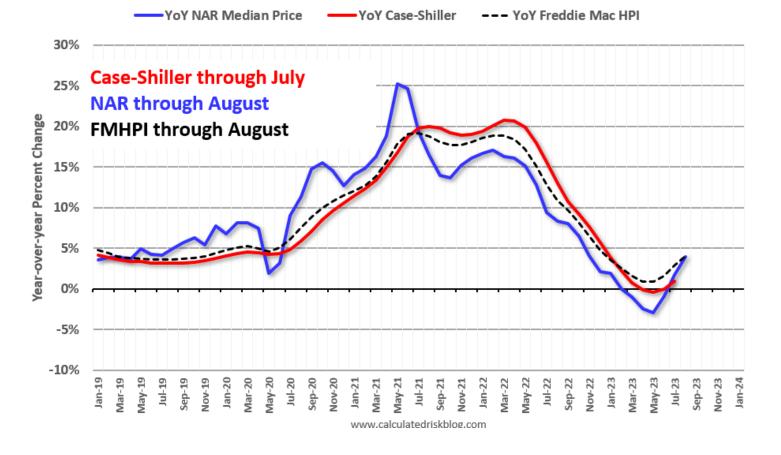
Case-Shiller National Index, Month-over-month, Seasonally Adjusted



The MoM increase in the seasonally adjusted Case-Shiller National Index was at 0.65%. This was the sixth consecutive MoM increase following seven straight MoM decreases.



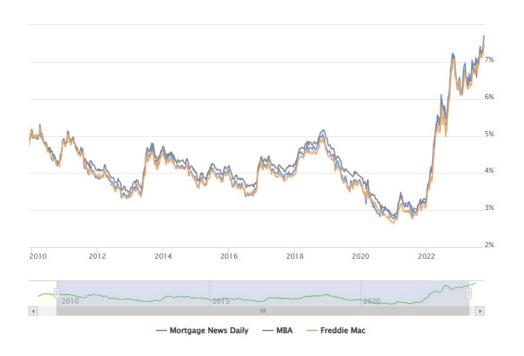
Year-over-year Change: NAR Median Price vs Case-Shiller and Freddie Mac HPI



Most measures of house prices have shown an increase in prices over the last several months, and a key question I discussed in June was whether house prices will decline further later this year?

The FMHPI and the NAR median prices appear to be leading indicators for Case-Shiller. Based on recent monthly data, and the FMHPI, the YoY change in the Case-Shiller index will increase further in the report for August.

In real terms, the Case-Shiller National index is down 3.4% from the peak, seasonally adjusted. Historically it takes a number of years for real prices to return to the previous peak.



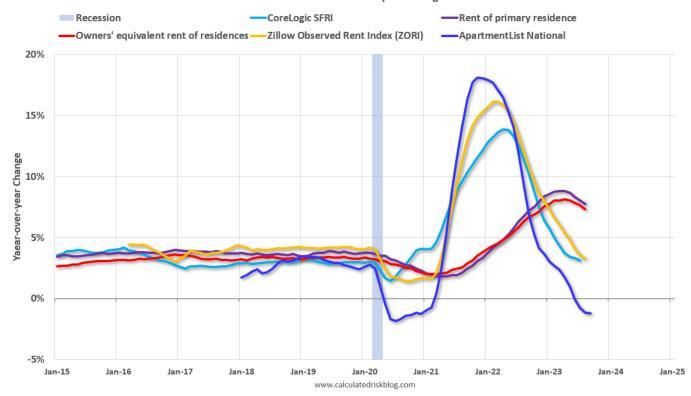
MortgageNewsDaily.com shows 30-year mortgage rates were at 7.81% on October 6th, the highest in 23 years. A year ago, 30-year mortgage rates were at 7.04%, and two years ago rates were at 3.13%.

A year ago, the payment on a \$500,000 house, with a 20% down payment and 7.04% 30-year mortgage rates, would be around \$2,672 for principal and interest. The monthly payment for the same house, with house prices up slightly YoY and mortgage rates at 7.81%, would be \$2,910 - an increase of 9%.

However, if we compare to two years ago, there is huge difference in monthly payments. In September 2021, the payment on a \$500,000 house, with a 20% down payment and 3.13% 30-year mortgage rate, would be around \$1,715 for principal and interest. The monthly payment for the same house, with house prices up 16.7% over two years and mortgage rates at 7.81%, would be \$3,364 - an increase of 96% -- almost double!

This increase in mortgage rates is probably the key reason new listings have declined sharply year-over-year - especially since a large number of homeowners refinanced at lower rates in 2020, 2021 and early 2022. Many potential move-up or move-down buyers have "golden handcuffs" and are unwilling to sell and give up their low mortgage payment.

Rent Measures: Year-over-year Change



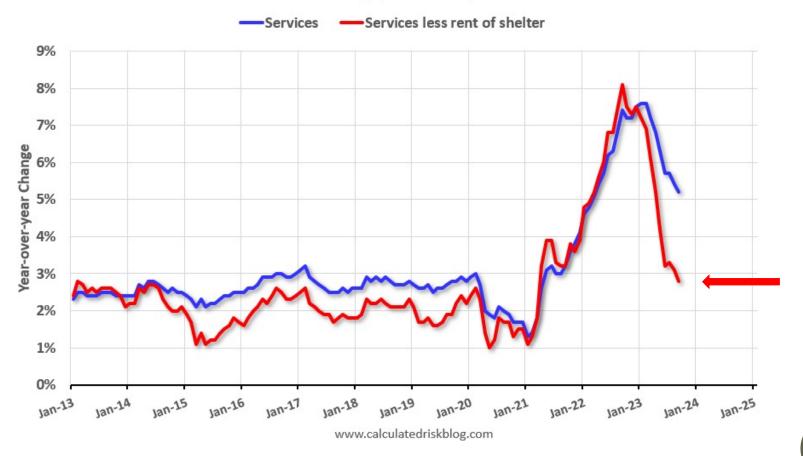
Asking rents are down YoY, and with new supply coming on the market, we will likely see further declines in asking rents.

Last month, the BLS noted in the CPI report: "The index for gasoline was the largest contributor to the monthly all items increase, accounting for over half of the increase. Also contributing to the August monthly increase was continued advancement in the shelter index, which rose for the 40th consecutive month."

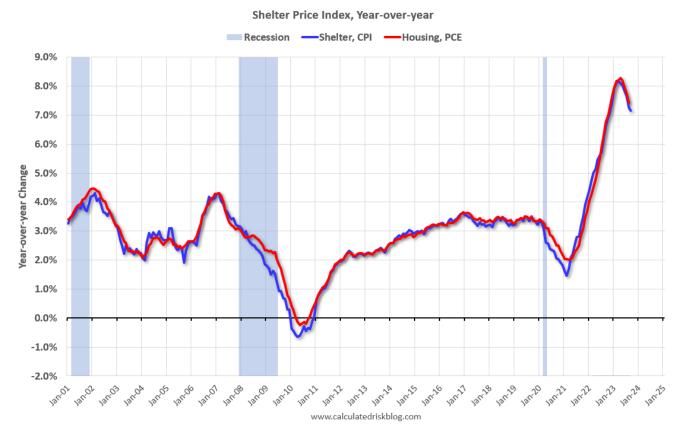
This is important for housing and also for monetary policy. Fed Chair Powell mentioned he was watching services less rent of shelter earlier this year.



Price Change, Year-over-year







Here is a graph of the year-over-year change in shelter from the CPI report (through August) and housing from the PCE report (through July 2023)

Shelter was up 7.1% year-over-year in September, down from 7.2% in August. Housing (PCE) was up 7.4% YoY in August, down from 7.7% in July.

The BLS noted "The index for shelter was the largest contributor to the monthly all items increase, accounting for over half of the increase."

Core CPI ex-shelter was up 1.9% YoY in September, down from 2.3% in August.





October 9, 2023

The Honorable Jerome Powell, Chair Board of Governors, Federal Reserve System 20th Street and Constitution Avenue, N.W. Washington, DC 20551

RE: Providing Market Certainty on Rate Path, MBS Sales

Dear Chairman Powell.

The Mortgage Bankers Association (MBA), National Association of REALTORS® (NAR), and National Association of Home Builders (NAHB) write today to the Board of Governors of the Federal Reserve System (hereinafter "the Fed") to convey profound concern shared among our collective memberships that ongoing market uncertainty about the Fed's rate path is contributing to recent interest rate hikes and volatility. This has exacerbated housing affordability and created additional disruptions for a real estate market that is already straining to adjust to a dramatic pullback in both mortgage origination and home sale volume. These market challenges occur amidst a historic shortage of attainable housing.

According to MBA's latest Weekly Applications Survey data, mortgage rates have now reached a 23-year high, dragging application activity down to a low last seen in 1996. The speed and magnitude of these rate increases, and resulting dislocation in our industry, is painful and unprecedented in the absence of larger economic turmoil.

Today, the spread between 30-year mortgage rates and the 10-year Treasury yield is at historically high levels, signaling deep-seated uncertainty about where the Fed is headed.

The difference between the current spread and the long-run average indicates mortgage rates for homebuyers across the country that are at least 120 basis points higher than they otherwise would be. In other words, the uncertainty-induced mortgage-to-Treasury spread is costing today's homebuyers an extra \$245 in monthly payment on a standard \$300,000 mortgage. Further rate increases and a persistently wide spread pose broader risks to economic growth, heightening the likelihood and magnitude of a recession.

Furthermore, a leading source of inflation in recent months has been increases in shelter costs. In the August CPI report, consumer prices were up 3.7%, while shelter costs were up 7.3%. In July, shelter inflation was responsible for 90% of the gain for consumer prices. The most effective approach to tame shelter costs, and assist on the broader inflation fight, is to facilitate the construction of attainable, affordable housing. Sustained wide spreads or further increases in interest rates make this economic goal more challenging by limiting lot development and home construction, exacerbating housing supply, and pricing out millions of households from the goal of homeownership.

RE: Providing Market Certainty on Rate Path, MBS Sales October 9, 2023 Page 2 of 2

We strongly urge the Fed to make two clear statements to the market:

- · The Fed does not contemplate further rate hikes;
- The Fed will not sell off any of its MBS holdings until and unless the housing finance market has stabilized and mortgage-to-Treasury spreads have normalized.

These steps will provide the market greater certainty about the Fed's rate path and its plans for the MBS portfolio and reduce volatility for traders and investors.

Housing activity accounts for nearly 16% of GDP according to NAHB estimates. We urge the Fed to take these simple steps to ensure that this sector does not precipitate the hard landing the Fed has tried so hard to avoid.

Mortgage Purchase Application Index

Seasonally adjusted

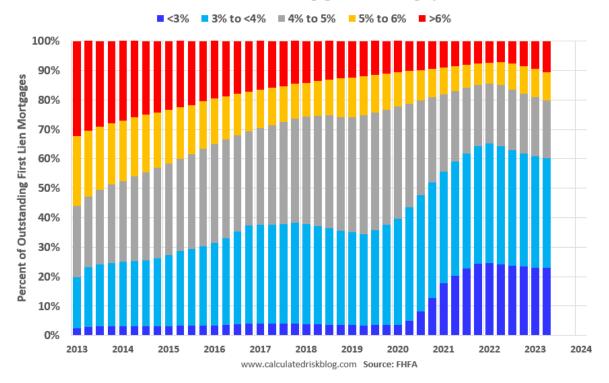


The red line marks the low point at the bottom of the GFC era bust

Chart: Lance Lambert • Source: The Mortgage Bankers Association • Created with Datawrapper



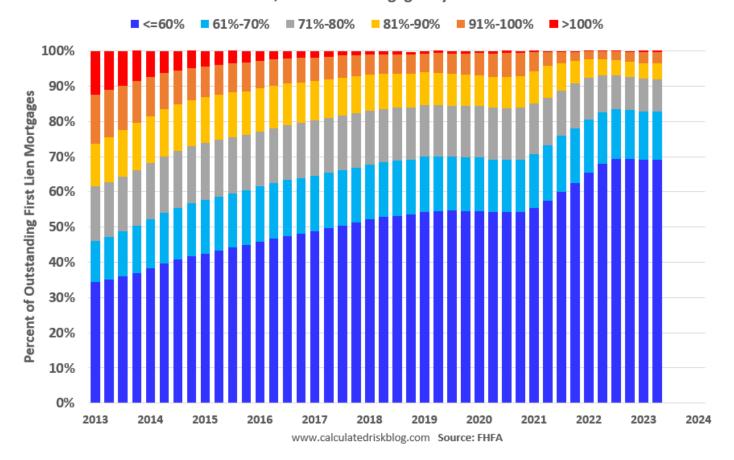
Percent of Closed-End, First-Lien Mortgages Outstanding by Interest Rate



Since lending standards have been solid and most homeowners have substantial equity, there will not be a huge wave of single-family foreclosures this cycle. And that means we will not see cascading price declines like following the housing bubble. Here is some data showing the distribution of interest rates on closed-end, fixed-rate 1-4 family mortgages outstanding at the end of each quarter since Q1 2013 through Q2 2023.



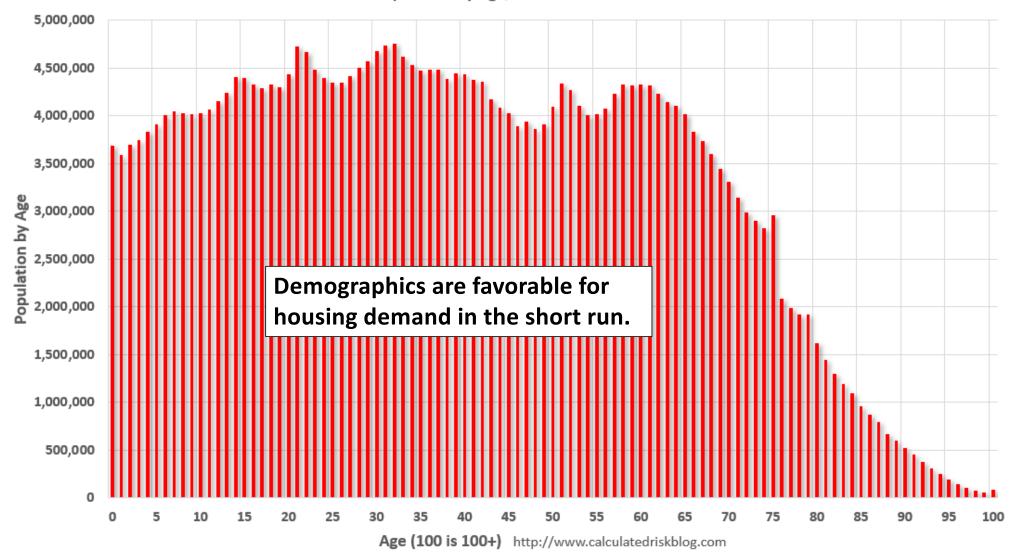
Percent of Closed-End, First-Lien Mortgages by Current Loan-to-Value



Over 69% of borrowers have current LTVs under 60% (and this doesn't include all the homes without a mortgage). And 91.9% of borrowers have LTVs under 80%. This is very different than during the housing bubble and bust, when a large percentage of borrowers had little or no equity.

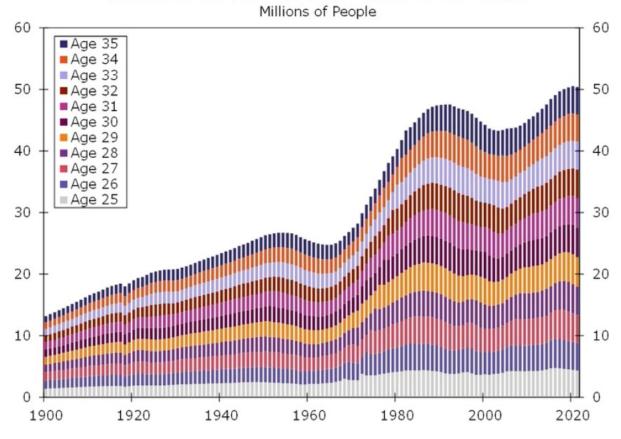


U.S. Population by Age, 2022 Census Estimate



The current wave of potential first-time home buyers is unmatched in recent history.

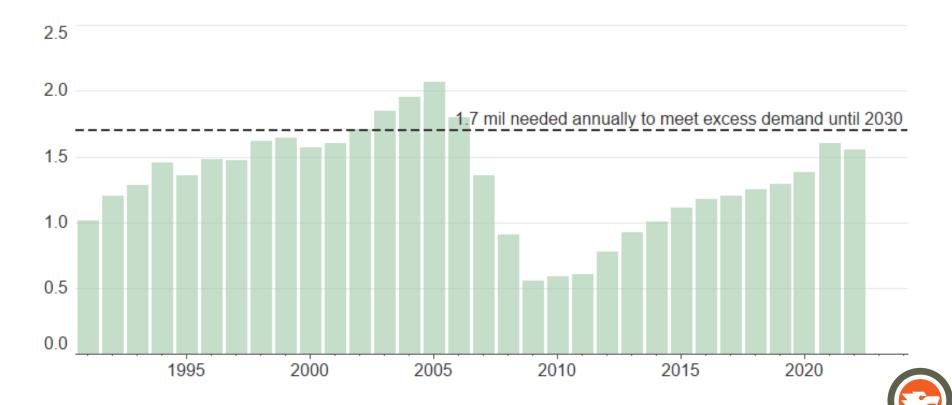
Number of 25-35 Year Olds Over Time





U.S. housing starts, annually

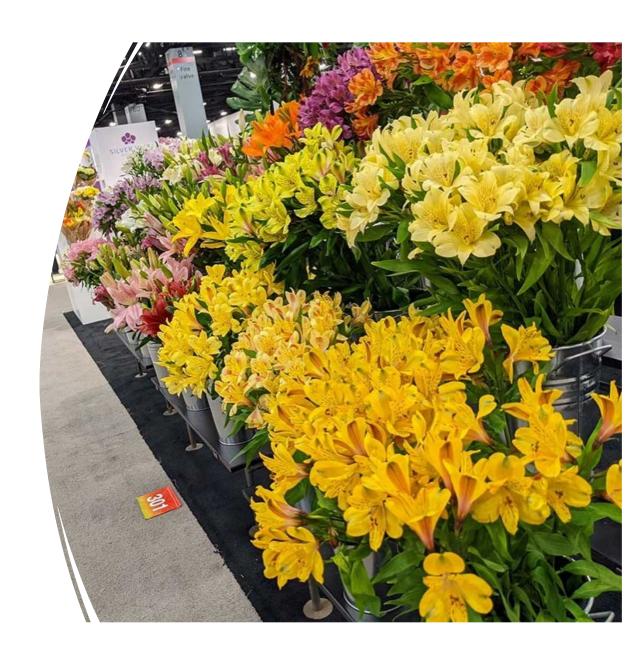
Millions



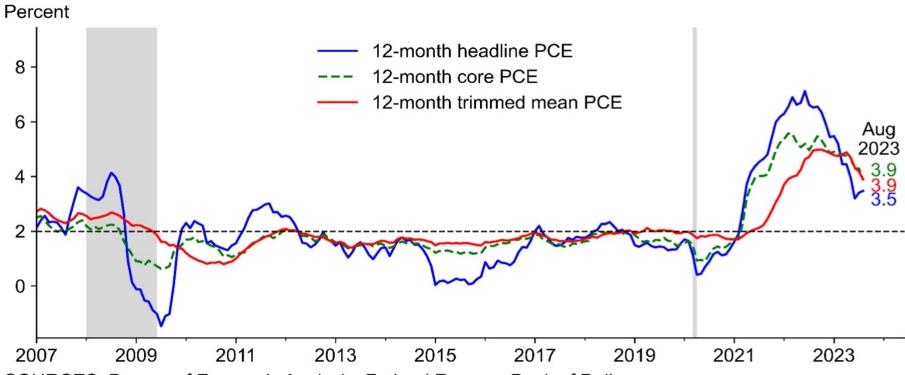
Source: Census Bureau, RSM US

What will impact the industry going forward?

- Overall growth of the economy
- Supply chain performance
- Labor availability and cost
- Cost of inputs
- Housing market correction
- Inflation outlook
- Likelihood of recession
- Response of end consumer



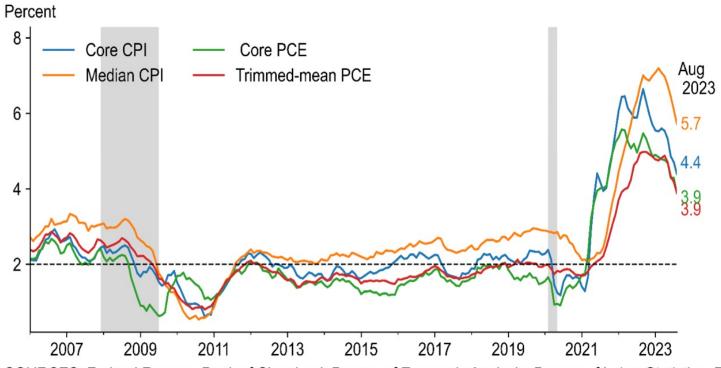
PCE Inflation



SOURCES: Bureau of Economic Analysis; Federal Reserve Bank of Dallas.

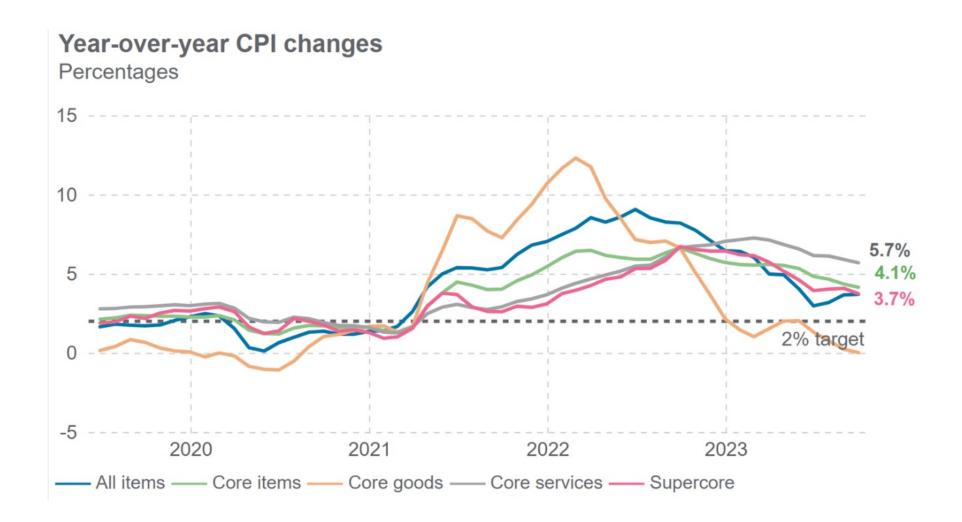


Core Inflation



SOURCES: Federal Reserve Bank of Cleveland; Bureau of Economic Analysis; Bureau of Labor Statistics; Federal Reserve Bank of Dallas.

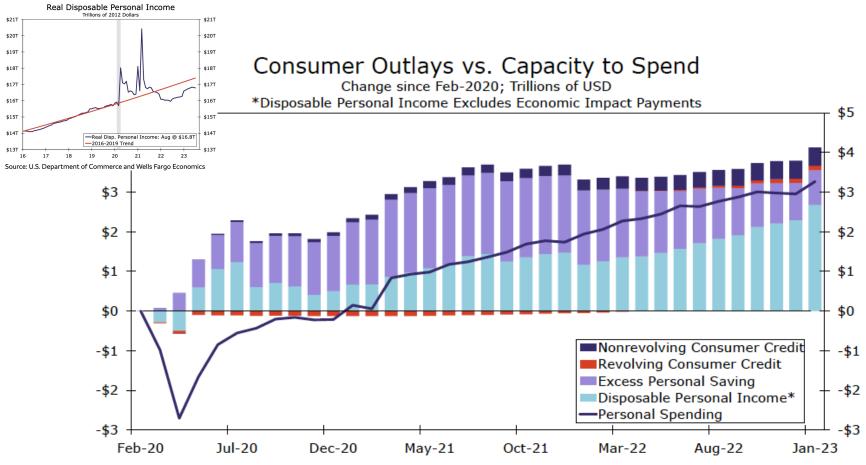




PCE inflation rate in the era of monetary policy and the Fed's 2% inflation target*



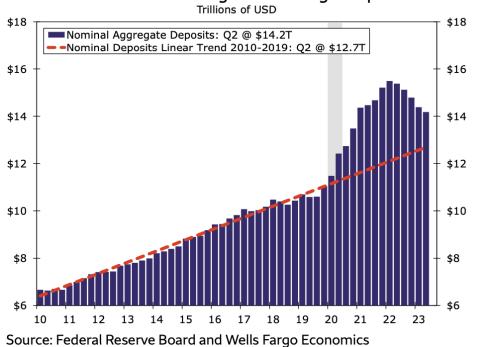
Source: Bloomberg; RSM US LLP *as of 8/31/2023



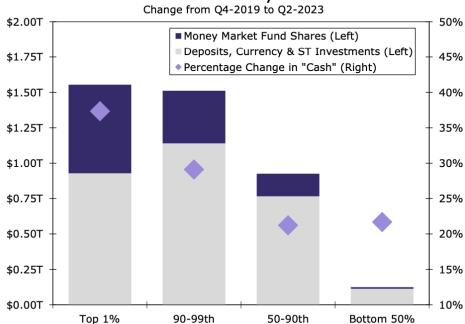




Household Checking and Savings Deposits



Gain in "Cash" Assets by Wealth Cohort



Source: Federal Reserve Board and Wells Fargo Economics

2021 Average Annual Wages	
Group	Avg. Wages
Top 0.1% of Earners	\$3,312,693
Top 1% of Earners	\$819,324
Top 5% of Earners	\$335,891
Top 10% of Earners	\$167,639

Retail Sales Billions of Dollars, SA

\$750
—Total Retail Sales: Sep @ \$704.9B

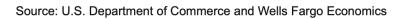
\$650

\$650

\$550

\$550

\$450



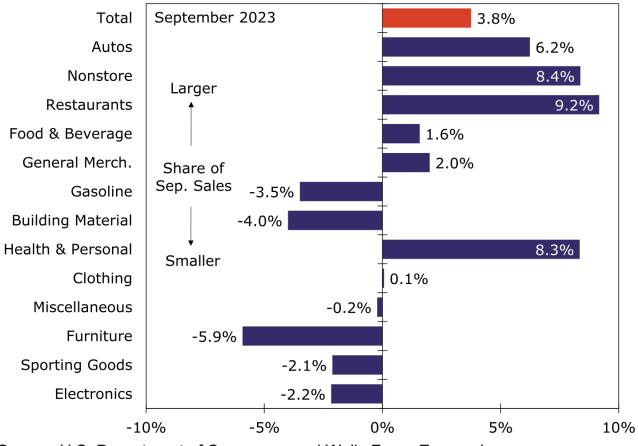
\$400

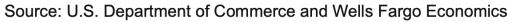


\$400

Change in Retail Sales

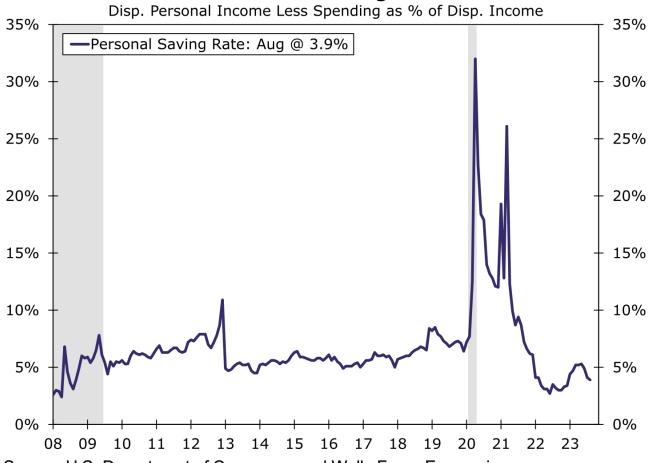
Year-over-Year Percent Change





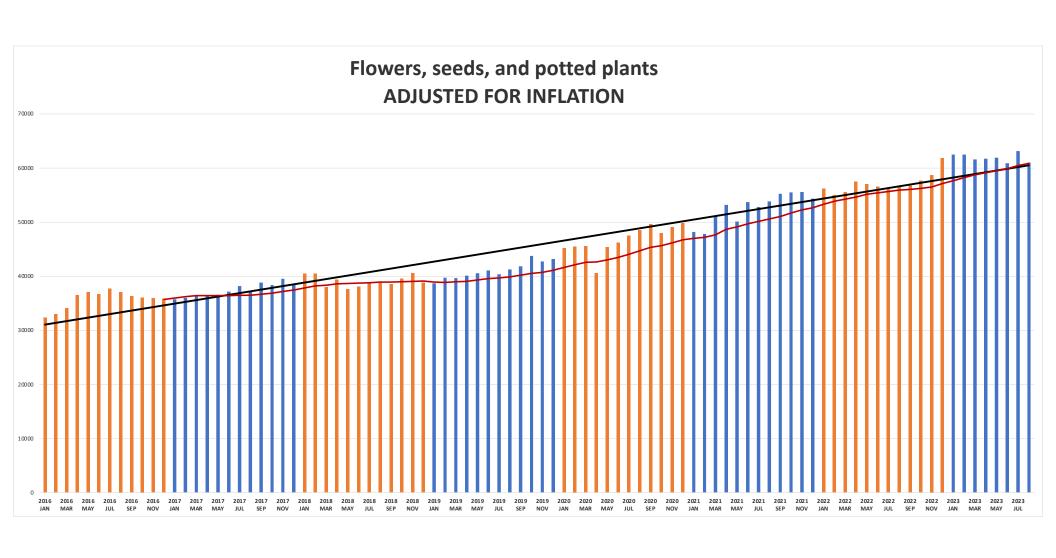


Personal Saving Rate



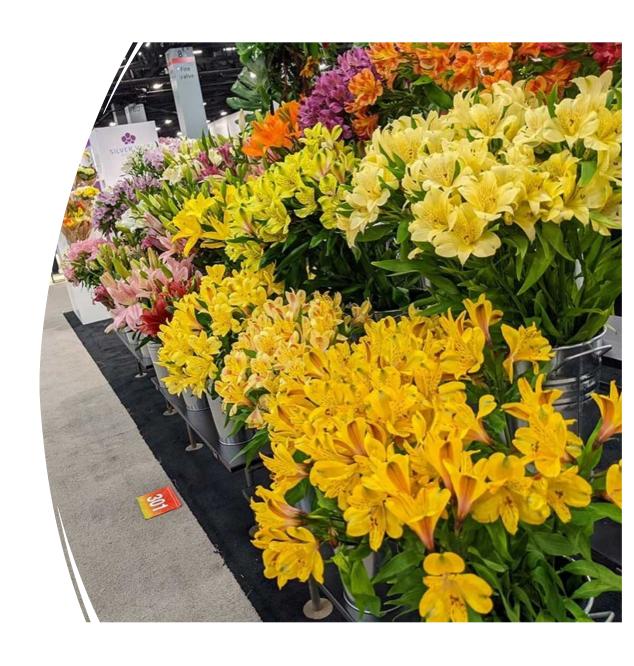






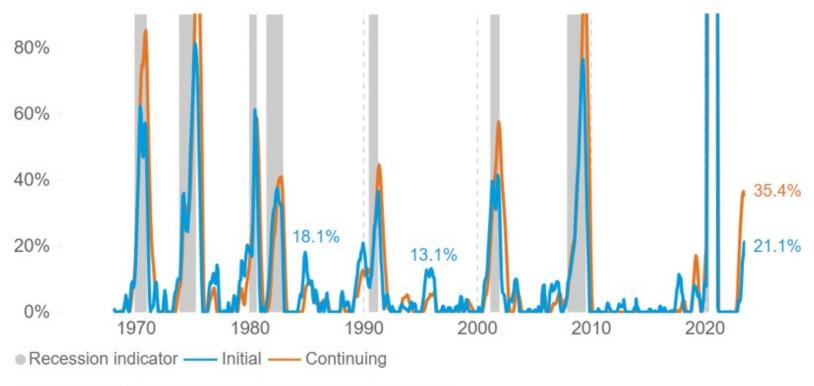
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- Overall growth of the economy
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- Response of end consumer



Increasing jobless claims flash recession signs

Percentage difference between the 3-month moving average and the 12-month minimum

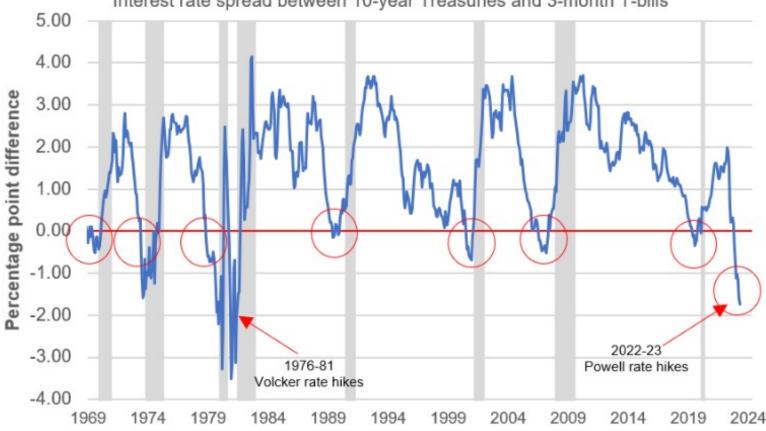


Note: Values above 100% are truncated. Source: BLS, BEA, RSM US



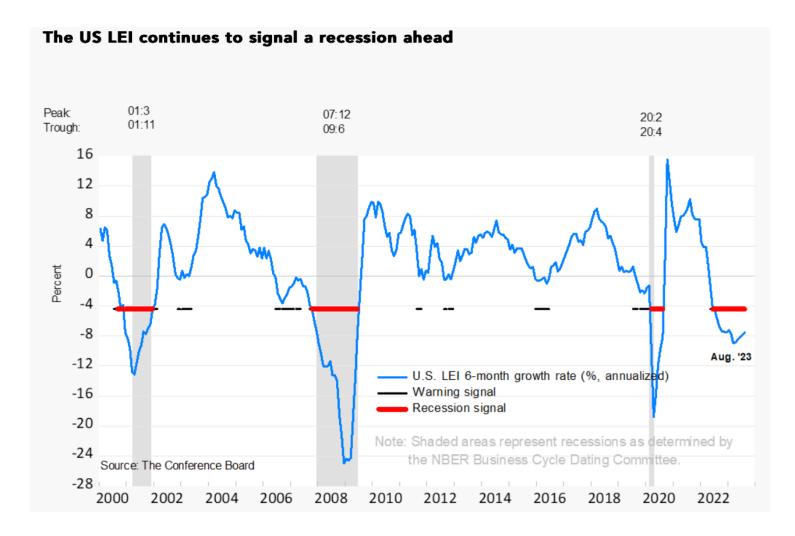
Yield curve inversions before recessions

Interest rate spread between 10-year Treasuries and 3-month T-bills



Source: NY Fed; RSM US

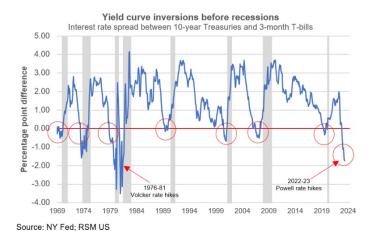




Note: The chart illustrates the so-called 3D's rule which is a reliable rule of thumb to interpret the duration, depth, and diffusion - the 3D's - of a downward movement in the LEI. Duration refers to how long-lasting a decline in the index is, and depth denotes how large the decline is. Duration and depth are measured by the rate of change of the index over the last six months. Diffusion is a measure of how widespread the decline is (i.e., the diffusion index of the LEI ranges from 0 to 100 and numbers below 50 indicate most of the components are weakening). The 3D's rule provides signals of impending recessions 1) when the diffusion index falls below the threshold of 50 (denoted by the black dotted line in the chart), and simultaneously 2) when the decline in the index over the most recent six months falls below the threshold of -4.2 percent. The red dotted line is drawn at the threshold value (measured by the median, -4.2 percent) on the months when both criteria are met simultaneously. Thus, the red dots signal a recession.

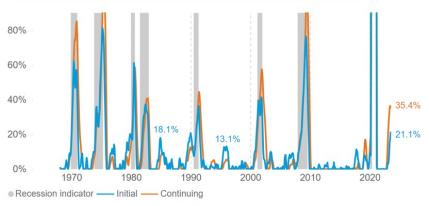


NY Fed yield curve model = 56.2% Cleveland Fed yield curve model = 67.6%

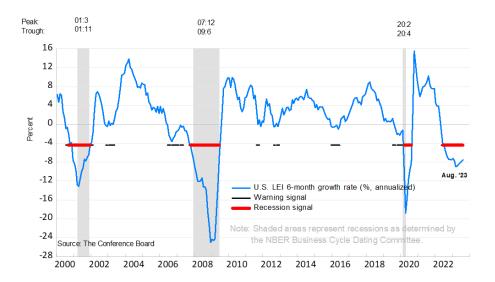


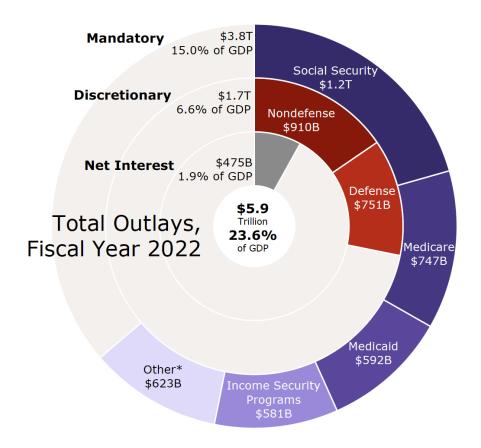
Increasing jobless claims flash recession signs

Percentage difference between the 3-month moving average and the 12-month minimum

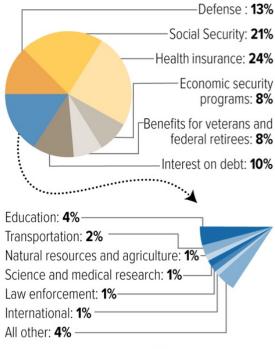


Note: Values above 100% are truncated. Source: BLS, BEA, RSM US



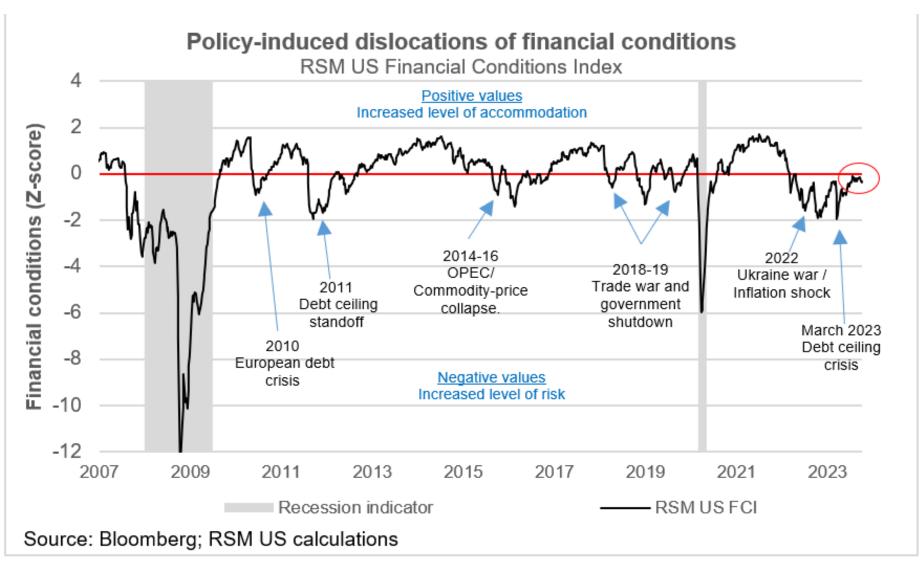


Most of the Budget Goes Toward Defense, Social Security, and Major Health Programs



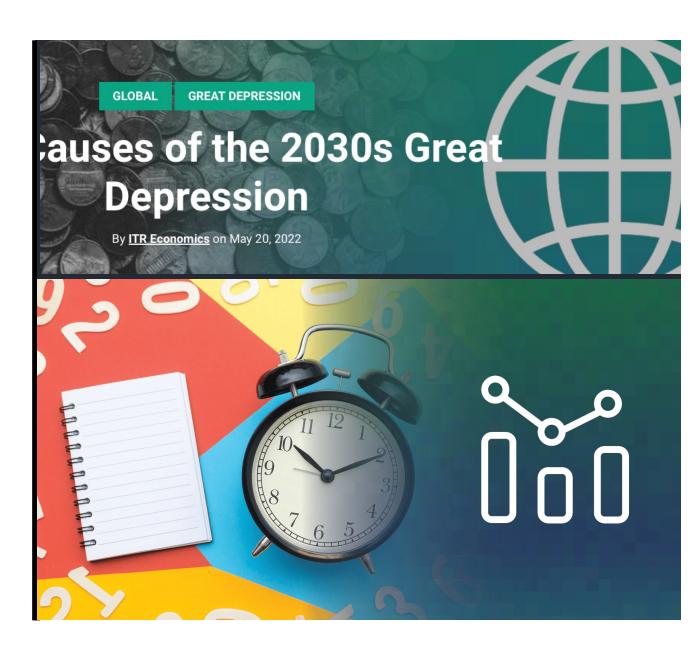
Note: Percentages do not add to 100 percent due to rounding.

Source: 2023 figures from the Congressional Budget Office, May 12, 2023



Notes: This figure plots the NFCI, along with contributions to the index from the three categories of financial indicators (risk, credit, and leverage). The contributions sum to the overall index.

- Demographics
- Health care costs
- Entitlements
- Inflation
- US national debt



Resist irrational exuberance.

Manage working capital.

Focus on value.



Value can come internally...or conveyed externally, by:

- 1. Focusing on **production efficiencies** across the entire value chain, with continued investment in (a) automation and productivity-boosting technologies, (b) improving supply chain and inventory management, or (c) streamlining processes and upskilling employees to improve efficiencies.
- 2. Diversifying and optimizing product offerings with a focus on high-margin products (margin mixing) and/or enhancing marketing strategies and post-sales support to differentiate further from competitors.

Other questions?

- Overall growth of the economy
- Supply chain performance
- Labor availability and cost
- Cost of inputs
- Housing market correction
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