

WELCOME

Economic Discussion – Fall 2023

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For more than 35 years, our firm has built its credit union expertise through membership in credit union associations, continuing education, and involvement in industry events. Our firm currently serves over 150 credit unions ranging in size from less than \$100 million to more than \$20 billion in assets—with more than 90 clients with assets greater than \$500 million and with the average client size greater than \$1 billion in assets.



CREDIT UNION EXPERIENCE



DEEP, CONSISTENT RESOURCES



EXCEPTIONAL CLIENT SERVICE



BRIDGING THE DISTANCE GAP

#2

in the nation in credit union assets audited

#4

in the nation in the number of credit unions served

175+

professionals dedicated to financial institutions

committed to maintaining close and regular contact with you throughout the year and serving as a resource for questions and advice with a quick response time work with clients seamlessly even when we're not on-site and we're well equipped for remote work





Agenda



- () 1 WELCOME & INTRODUCTION
- 02 CURRENT STATE OF THE US ECONOMY
- 103 FINANCIAL INSTITUTION TRENDS
- 04 CREDIT QUALITY
- 05 CLOSING

POLLING QUESTION

Is the US economy headed for a recession?

- A. Yes
- B. Worse
- C. No
- D. I have no idea!



Where do we stand

Current environment

- Fed has kept rates above 5%
- o Inflation, while cooling to 3.7%, has continued to remain above the Fed's target of 2%
- Households experienced an over 30% increase in net worth during the Pandemic
- Consumers continue spending habits
- The Pandemic saw over \$4.5 trillion poured into the economy
- Third quarter annualized GDP of 4.9%!
- Will 2009 2020 be considered the outlier?

Where are we headed?

Predictions

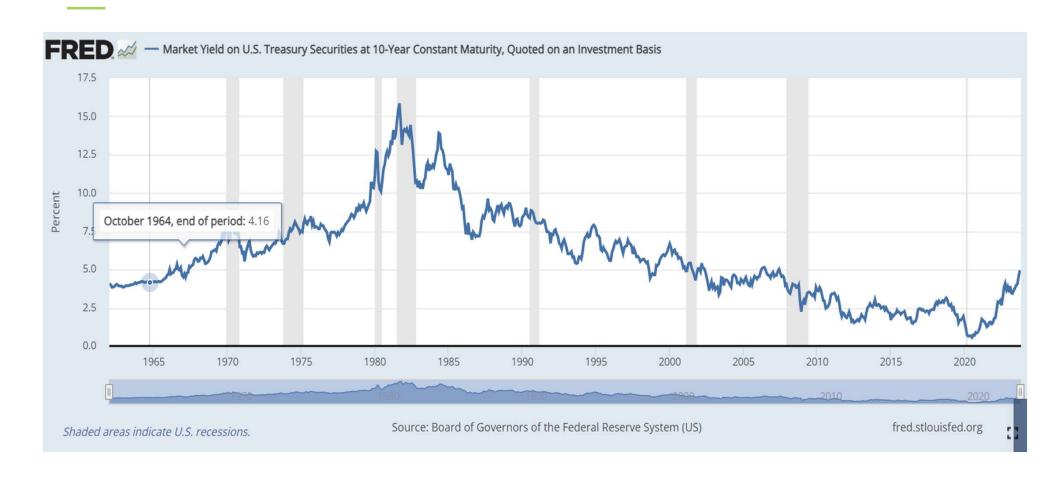
- Fed officials signal a return to 2019 and rates to 2.5%
- Bloomberg recently surveyed 60 economists and every respondent predicted lower rates by end of 2024
- The Philadelphia Fed conducted a survey in summer 2023 and predicts
 - o GDP growth of 2% for 2023 and 2.3% for 2024
 - Unemployment of 3.6% for 2023 and 4.0% for 2024
 - Continued job growth overall
 - Declines in inflation with a 10 year average of 2.5%

Softest of landings?

10-year treasury yields over last five years



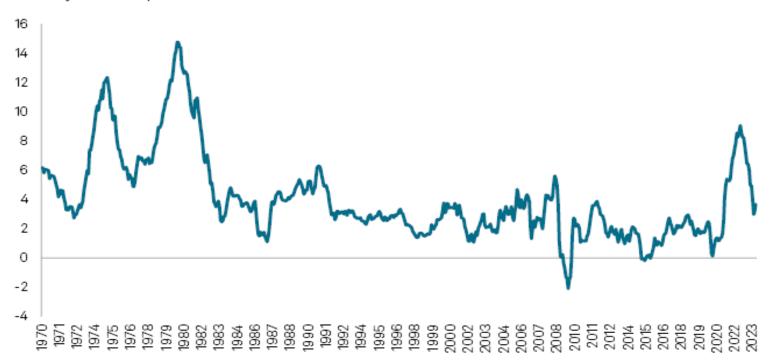
10-year treasury yields since 1962



Consumer prices (excluding food and energy) up 4.1% YoY

Consumer price index all items YOY change (%)

January 1970-September 2023



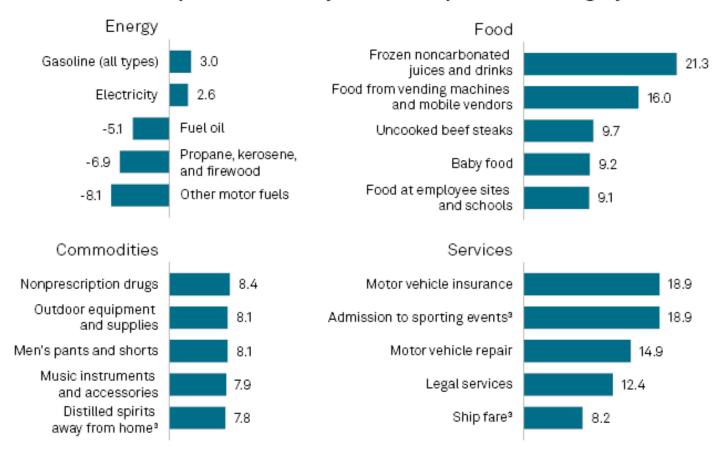
Data accessed Oct. 12, 2023.

Based on data released Oct. 12, 2023.

Data includes year-over-year change in non-seasonally adjusted consumer price index for all items.

Source: US Bureau of Labor Statistics.

YOY inflation in September 2023 by detailed expenditure category (%)



Data accessed Oct. 12, 2023.

Based on data released Oct. 12, 2023.

Data includes year-over-year change in non-seasonally adjusted consumer price indexes.

Source: US Bureau of Labor Statistics.

¹Excludes food and energy commodities.

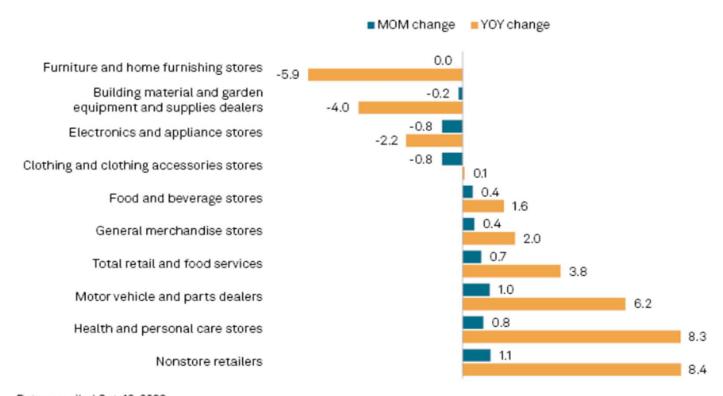
² Excludes energy services.

³ Special index based on a substantially smaller sample.

Consumer spending increases in most categories

Retail store sales (%)

September 2023



Data compiled Oct. 18, 2023.

Based on data released Oct. 17, 2023.

Data includes change in seasonally adjusted estimates of monthly sales.

Source: US Census Bureau.

Wage growth slightly higher than inflation in Sept. 2023

Wages growing faster than consumer prices (%)

YOY change: January 2010-September 2023



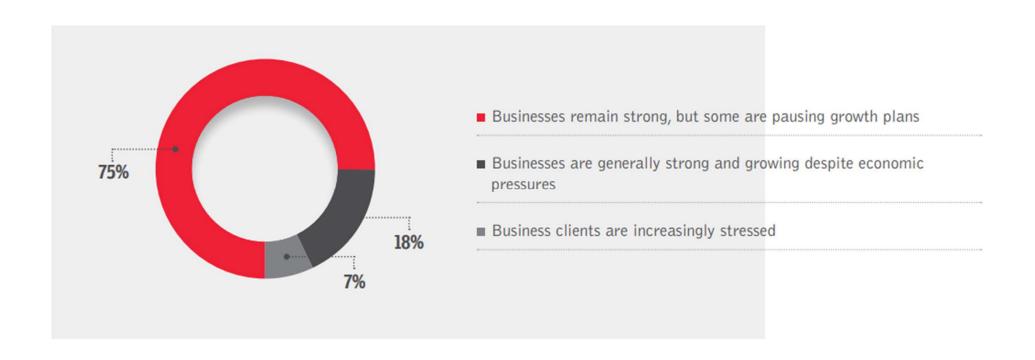
Data accessed Oct. 12, 2023.

Based on data released Oct. 6 and Oct. 12, 2023.

Consumer price index includes year-over-year change in non-seasonally adjusted consumer price index for all items, while average hourly earnings includes seasonally adjusted data.

Source: US Bureau of Labor Statistics.

What is the impact of inflation and economic uncertainty on your customers?



[✓] Bank Director 2023 Risk Survey sponsored by Moss Adams

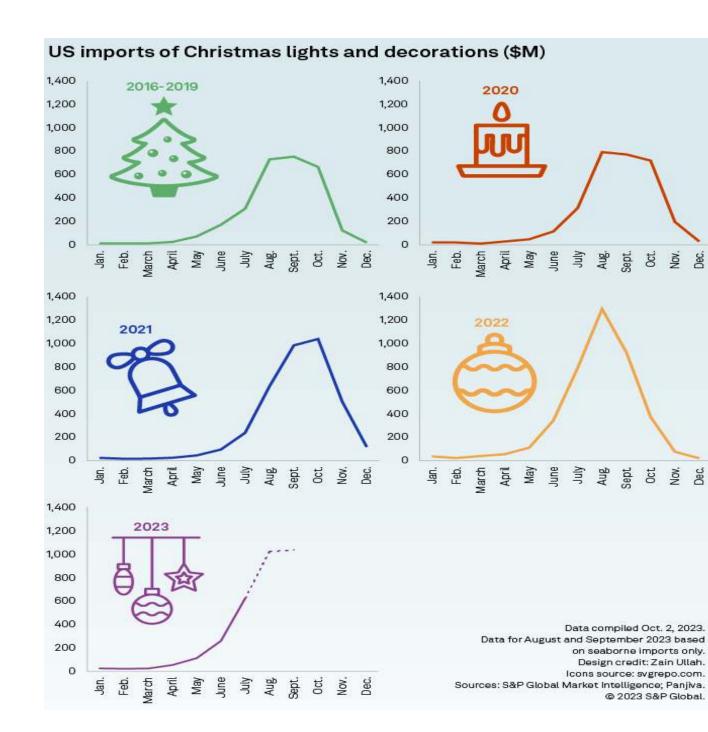
Halloween imports down but still strong

Decorations outperform outfits in post-pandemic period

US seaborne imports of Halloween products, YOY change in 3 months of peak shipping



Holiday season on track to return to normal due to improved supply chains and consumer spending trends



Industry Trends



POLLING QUESTION

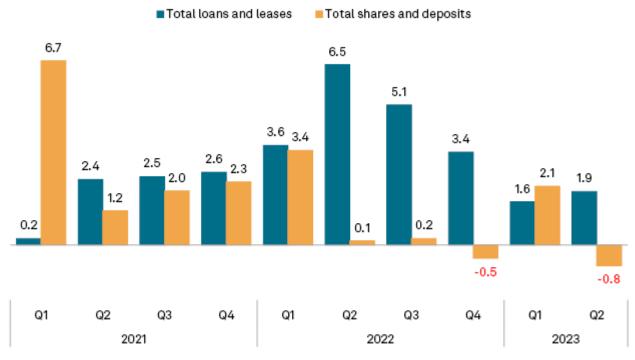
What changes have you observed at your institution as a result of the current environment?

- A. Increased board room stress
- B. Emphasis on deposits
- C. Cost cutting
- D. Other



Credit Unions Add Loans and Shed Deposits in Q2 2023

QOQ balance sheet change at US credit unions (%)



- ✓ Despite deterioration in credit quality, credit unions and banks continue to shift their assets towards loans.
- ✓ Most of the growth has been in business lending, home equities, and unsecured loans (including credit cards).
- ✓ Credit card exposure is expected to continue to grow due to numerous household finance factors.
- ✓ Of the top 20 largest credit unions in the US, only three reported linked quarter over quarter declines in loan growth.

Data compiled Aug. 4, 2023.

Analysis includes all US credit unions except corporate credit unions.

Data based on regulatory filings.

Source: S&P Global Market Intelligence.

Balance Sheet Growth – US Largest Credit Unions Q2 2023

Balance sheet growth trends at largest US credit unions, Q2 2023

Ranked by total assets

			QOQ change						
Company	City, state	Total assets (\$B)	Total shares and deposits (%)	Total loans and leases (%)	NCOs/avg. loans (bps)	Delinquent loans/total loans (bps)			
Navy FCU	Vienna, VA	165.26	0.6	4.2	7	12			
State Employees CU	Raleigh, NC	49.62	-2.5	4.9	-15	68			
Pentagon FCU	Tysons, VA	35.47	-0.1	0.1	8	4			
Boeing Employees' CU	Tukwila, WA	28.99	-3.1	3.5	10	2			
SchoolsFirst FCU	Santa Ana, CA	28.71	-0.4	3.5	-1	7			
Golden 1 CU	Sacramento, CA	20.51	-0.2	5.9	7	7			
Alliant CU	Chicago, IL	19.00	2.6	0.7	23	6			
America First FCU	Riverdale, UT	18.73	2.1	2.5	7	5			
Mountain America FCU	Sandy, UT	17.31	1.8	4.9	8	19			
First Technology FCU	San Jose, CA	16.94	0.1	-0.5	-1	5			
Randolph-Brooks FCU	Live Oak, TX	16.91	0.0	2.5	1	11			
Suncoast CU	Tampa, FL	16.72	-1.8	2.7	11	11			
VyStar CU	Jacksonville, FL	13.65	-2.5	-0.5	40	10			
Security Service FCU	San Antonio, TX	13.47	-0.4	2.2	-7	-6			
Bethpage FCU	Bethpage, NY	13.01	0.1	2.4	-2	17			
San Diego County CU	San Diego, CA	12.94	-1.9	-1.3	0	3			
Lake Michigan CU	Caledonia, MI	12.72	0.6	4.8	2	-1			
Global FCU	Anchorage, AK	12.07	-1.1	1.3	2	23			
Digital FCU	Marlborough, MA	11.96	2.1	3.2	-4	6			
GreenState CU	North Liberty, IA	11.21	-1.8	0.2	24	2			
Industry aggregate			-0.8	1.9	2	11			

Data compiled Aug. 4, 2023.

NCOs = net charge-offs.

Analysis includes all US credit unions except corporate credit unions.

Data based on regulatory filings as of June 30, 2023.

Source: S&P Global Market Intelligence.

Net interest margin beginning to expand as loans reprice

Net interest margins at Big 4 US banks (%)



Data compiled Oct. 17, 2023.

Analysis limited to the four largest US public banks by total assets at Sept. 30, 2023.

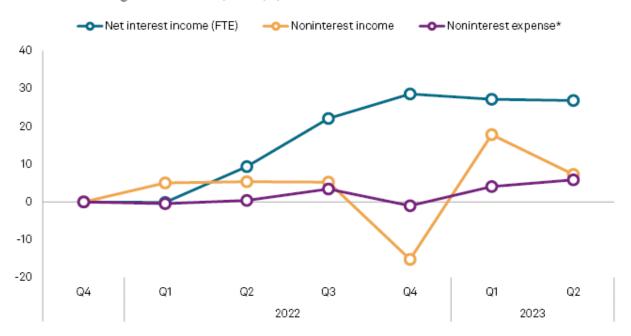
Data based on GAAP filings.

Source: S&P Global Market Intelligence.

Efficiency Ratios - Banks

Efficiency ratio component breakdown at US banks

Cumulative change since Dec. 31, 2021 (%)



Data compiled Sept. 4, 2023.

FTE = fully-taxable equivalent.

Analysis includes US commercial banks, savings banks, and savings and loan associations. Excludes nondepository trusts and companies with a foreign banking organization charter.

- * Excludes impairment losses and amortization expenses on all intangible assets including goodwill impairment.
- Data based on regulatory filings and adjusted for major intercompany consolidations.

Source: S&P Global Market Intelligence.

- ✓ Industry efficiency ratios increased for the first time after five consecutive quarters of improvement.
- ✓ The increase resulted from a sharp decline in non-interest income, as well as a slight decrease in net interest income, and increasing non-interest expenses.
- ✓ Only 8 of the top 20 U.S. banks reported an actual decline in efficiency ratios.
- ✓ Focus is on improved operating performance and cost control

Cost Control - Banks

Largest QOQ decline in full-time employees at US banks with total assets over \$5B, Q2 2023

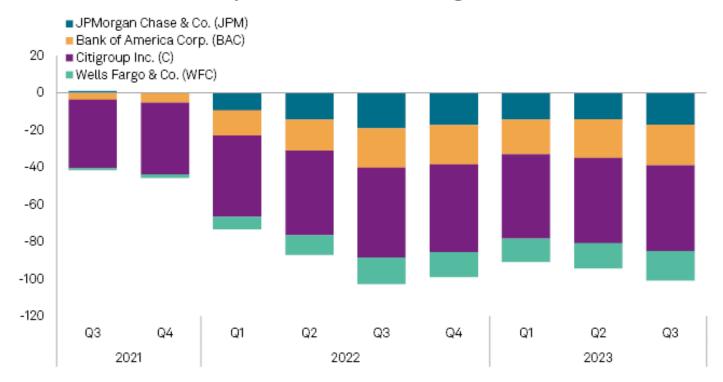
	Full-time employees							
Total assets (\$B)	(Actual)	QOQ change (%)	YOY change (%)	LTM operating revenue/full-time employees (\$000)				
38.34	1,867	-19.9	-21.2	518				
6.02	460	-15.0	-15.0	268				
32.87	4,056	-12.5	-11.7	369				
36.89	6,653	-11.4	-25.9	431				
6.36	924	-11.1	-9.0	365				
8.36	226	-11.0	-21.8	578				
12.86	604	-8.6	-16.1	484				
28.98	2,083	-7.3	2.2	649				
6.52	305	-6.7	6.6	967				
13.99	1,106	-5.5	-3.0	421				
209.52	16,145	-4.8	54.1	1,235				
18.18	1,595	-4.7	-7.8	420				
6.59	617	-4.5	3.7	519				
11.04	465	-4.3	-8.1	702				
27.96	3,066	-3.9	-5.2	293				
11.32	1,483	-3.5	5.3	317				
7.86	1,052	-3.4	30.4	290				
20.75	1,383	-3.2	-11.7	525				
7.12	457	-3.2	21.2	562				
5.10	690	-3.1	0.1	289				
		0.5	2.9	385				
	(\$B) 38.34 6.02 32.87 36.89 6.36 8.36 12.86 28.98 6.52 13.99 209.52 18.18 6.59 11.04 27.96 11.32 7.86 20.75 7.12	Total assets (\$B) (Actual) 38.34 1,867 6.02 460 32.87 4,056 36.89 6,653 6.36 924 8.36 226 12.86 604 28.98 2,083 6.52 305 13.99 1,106 209.52 16,145 18.18 1,595 6.59 617 11.04 465 27.96 3,066 11.32 1,483 7.86 1,052 20.75 1,383 7.12 457	Total assets (\$B) (Actual) QOQ change (%) 38.34 1,867 -19.9 6.02 460 -15.0 32.87 4,056 -12.5 36.89 6,653 -11.4 6.36 924 -11.1 8.36 226 -11.0 12.86 604 -8.6 28.98 2,083 -7.3 6.52 305 -6.7 13.99 1,106 -5.5 209.52 16,145 -4.8 18.18 1,595 -4.7 6.59 617 -4.5 11.04 465 -4.3 27.96 3,066 -3.9 11.32 1,483 -3.5 7.86 1,052 -3.4 20.75 1,383 -3.2 7.12 457 -3.2 5.10 690 -3.1	Total assets (\$B) (Actual) QOQ change (%) YOY change (%) 38.34 1,867 -19.9 -21.2 6.02 460 -15.0 -15.0 32.87 4,056 -12.5 -11.7 36.89 6,653 -11.4 -25.9 6.36 924 -11.1 -9.0 8.36 226 -11.0 -21.8 12.86 604 -8.6 -16.1 28.98 2,083 -7.3 2.2 6.52 305 -6.7 6.6 13.99 1,106 -5.5 -3.0 209.52 16,145 -4.8 54.1 18.18 1,595 -4.7 -7.8 6.59 617 -4.5 3.7 11.04 465 -4.3 -8.1 27.96 3,066 -3.9 -5.2 11.32 1,483 -3.5 5.3 7.86 1,052 -3.4 30.4 20.75 1,383				

- ✓ Given tougher market conditions, U.S. banks have turned to layoffs to reign in costs. Similar trends are being witnessed at various credit unions around the nation.
- ✓ Employee compensation and benefits is the largest expense at most any depository institution, and first to be looked at when market conditions are adverse.
- ✓ Many view the reductions not as a one time save, but as part of their strategic plans to improve overall operating efficiencies.

Data compiled Sept. 6, 2023.

Unrealized losses continue to place pressure on funding options

Accumulated other comprehensive income at Big 4 US banks (%)



Data compiled Oct. 17, 2023.

Analysis limited to the four largest US public banks by total assets at Sept. 30, 2023.

Data based on GAAP filings.

Source: S&P Global Market Intelligence.

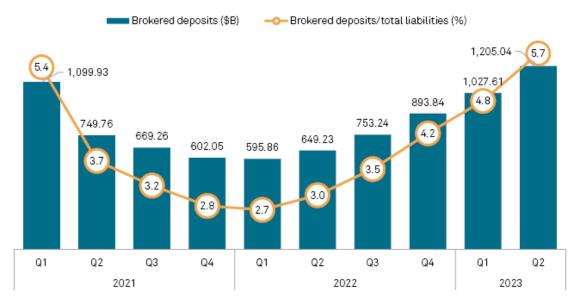
What actions will your institution take to manage liquidity in 2023?

73%	Raise interest rates offered on deposits			
62 %	Borrow funds from a Federal Home Loan Bank	•		
30%	Raise brokered deposits			
28%	Use participation loans			
22 %	Tighten credit standards or slow lending			
20%	Offer other incentives to depositors			
13%	Securitize and sell loans			
8%	None of the above	•		

 $[\]checkmark~$ Bank Director 2023 Risk Survey sponsored by Moss Adams

Brokered Deposits Nearly Double YOY

Brokered deposits at US banks since Q1 2021



Data compiled Sept. 18, 2023.

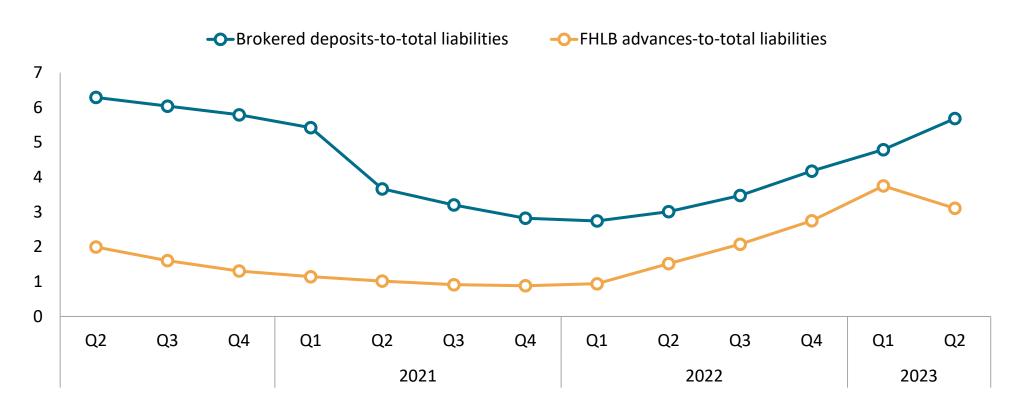
Analysis limited to US commercial banks, savings banks, and savings and loan associations. Nondepository trusts and companies with a foreign banking organization charter are excluded.

Data based on regulatory filings.

Source: S&P Global Market Intelligence.

- ✓ As non-brokered deposit growth slows, many are turning to brokered deposits (see next slide).
- ✓ U.S. banks saw brokered deposits increase 85.6% year over year (YOY).
- ✓ High levels of brokered deposits pose a liquidity risk and is gaining regulatory attention.
- ✓ Additionally, CD rates are increasing YoY with one year rates over 2%.
- ✓ Banks are increasingly competitive for deposits, driving up market rates.

Brokered deposits and FHLB advances at US Banks

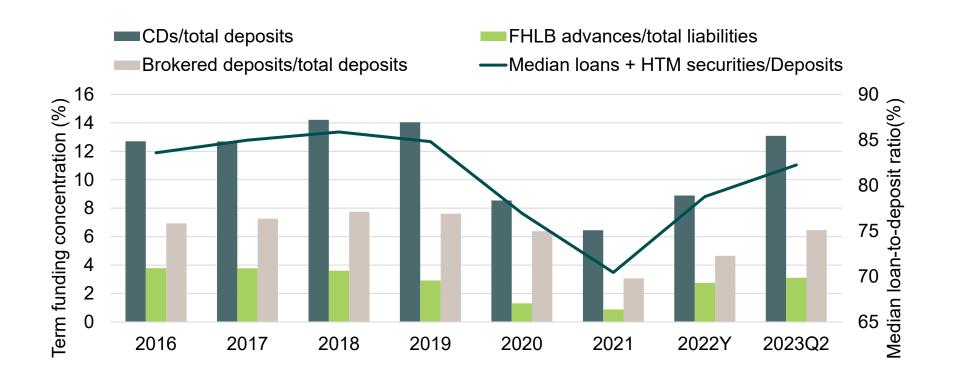


Data compiled Sept. 5, 2023.

CD= certificate of deposit; FHLB = Federal Home Loan Bank

Source: S&P Global Market Intelligence.

Wholesale funding reliance continues to grow at US Banks

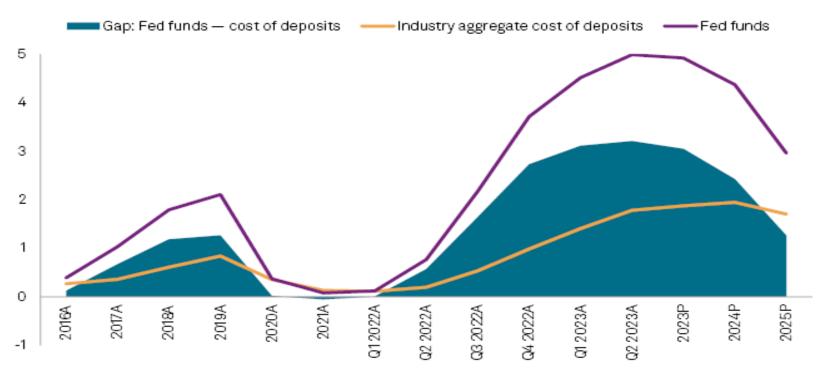


Data compiled Aug. 29, 2023.

CD= certificate of deposit; FHLB = Federal Home Loan Bank; HTM= Held to maturity Source: S&P Global Market Intelligence.

Spread between fed funds and cost of deposits narrowing

Deposit outflows slowing as spread between fed funds, cost of deposits narrows (%)



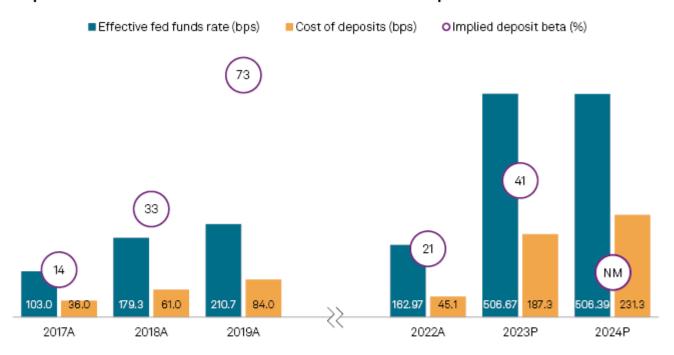
Data compiled Aug. 29, 2023.

A = actual; P = projected.

Sources: S&P Global Market Intelligence; proprietary estimates.

Deposit costs projected to increase beyond 2% on average

Deposit costs will continue to rise even as the Fed pauses rate hikes



Data compiled Aug. 29, 2023.

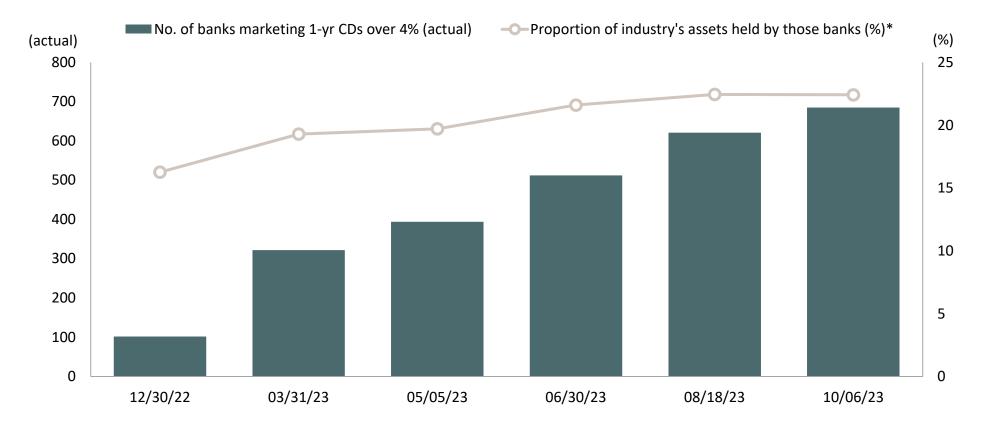
NM = not material.

 $Figures \ for the \ federal \ funds \ rate \ through \ 2026 \ are \ based \ on \ a \ 4-quarter \ average \ of \ estimates \ provided \ by IHS \ Markit.$

Actual reported figures used when available.

Sources: S&P Global Market Intelligence; IHS Markit; proprietary estimates.

Banks marketing CDs over 4% continues to grow

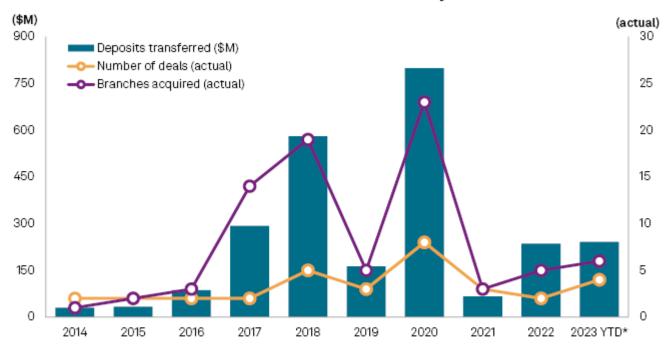


Data compiled Sept. 5, 2023. CD= certificate of deposit

Source: S&P Global Market Intelligence.

Banks continue closing branches and credit unions keep buying

US credit union-bank branch deals over the last 10 years



Data compiled Sept. 26, 2023.

Analysis limited to branch deals announced between Jan. 1, 2014, and Sept. 25, 2023, with a US credit union buyer and US bank or thrift target; excludes terminated deals.

Source: S&P Global Market Intelligence.

^{*} Data as of Sept. 25, 2023

Credit Unions Acquiring Banks

US credit union-bank M&A deals





Data compiled Aug. 31, 2023.

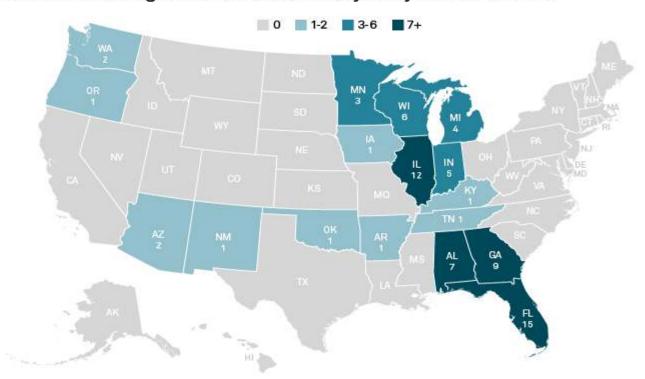
Analysis limited to whole-bank deals announced between Jan. 1, 2015, and Aug. 31, 2023, with a US credit union buyer and US bank or thrift target; excludes terminated deals.

Total target assets are as of the most recent quarter-end prior to deal announcement for all deals announced that year. Source: S&P Global Market Intelligence.

- ✓ Credit unions acquisition of banks continue. 2022 ended with a spurt of activity, and 2023 shaping up to be similar.
- ✓ 2023 started slow with 5 deals announced through May, yet 8 have been announced since June 2023.
- ✓ As more deals have come together, interest among credit unions is growing. Leading to more strategic types of bank pursuits and deal advisers expecting this to continue.
- ✓ Not only have the number of deals increased in recent years, the average size of such acquired banks also has increased.
- ✓ As no capital is created out of the transaction, the surge of subordinated debt has assisted some credit unions in such transactions.

Credit union buyers regionalized with certain states more active

US bank M&A targets with credit union buyers by state since 2015



Data compiled Aug. 31, 2023.

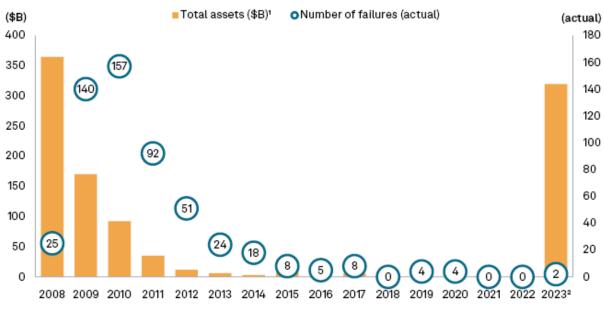
Includes whole-bank deals announced between Jan. 1, 2015, and Aug. 31, 2023, with a US credit union buyer and US bank or thrift target; excludes terminated deals.

Data shown is based on target bank headquarters.

Source: S&P Global Market Intelligence.

US Bank Failures Since 2008

US bank failures since 2008



- ✓ There were 532 bank failures from 2008 through 2019, and only six since 2020 including Silicon Valley Bank and Signature Bank.
- ✓ Given the recent news of these large failures, and increased attention to liquidity levels, consumers are getting nervous, and this could lead to opportunities for credit unions.

Data compiled Mar. 13, 2023.

Analysis limited to commercial bank, savings bank, and savings and loan association failures in the U.S. between Jan. 1, 2008, and Mar. 12, 2023.

Source: S&P Global Market Intelligence.

¹ Total assets based on most recent regulatory filings before failure.

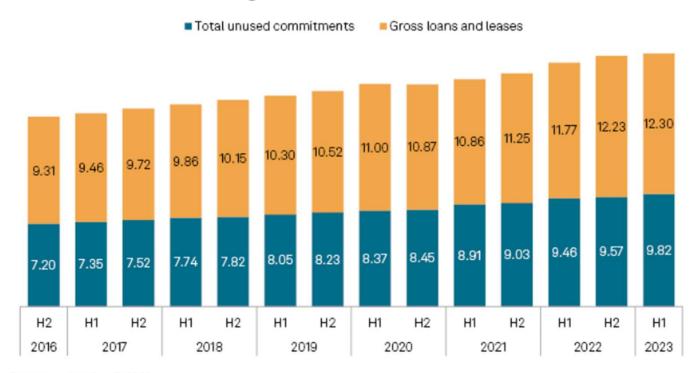
² Year-to-date through Mar. 12, 2023.

Credit Trends



Unused credit lines remain steady

Unused commitments and gross loans and leases at US banks (\$ trillion)



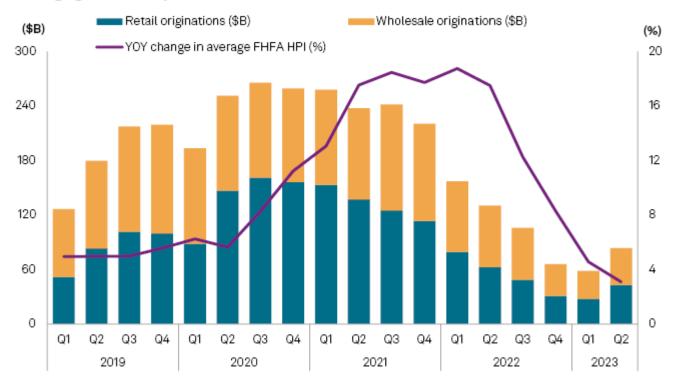
Data compiled Oct. 5, 2023.

Analysis based on regulatory filings by US commercial banks, savings banks, and savings and loan associations. Excludes nondepository trusts and companies with a foreign banking organization charter.

Source: S&P Global Market Intelligence.

Mortgage Originations Reverse Downward Trend in Q2

Quarterly trends for retail and wholesale originations of 1- to 4-family mortgages, home prices



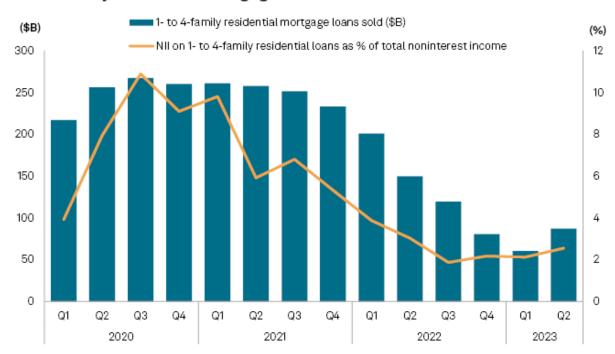
- ✓ One-to-four family mortgage originations in the US reversed a six-quarter downward trend in Q2 2023.
- ✓ Year over year home prices are increasing and indicators suggest there could be a decline in originations for 3rd quarter 2023
- ✓ With the drastic decline in origination volume over recent years, this has also heavily impacted non-interest income as shown on the following slide.

Data compiled Aug. 29, 2023.

FHFA HPI = Federal Housing Finance Agency House Price Index.

Secondary Market Activity & Non-Interest Income

1- to 4-family residential mortgage sold and noninterest income trend



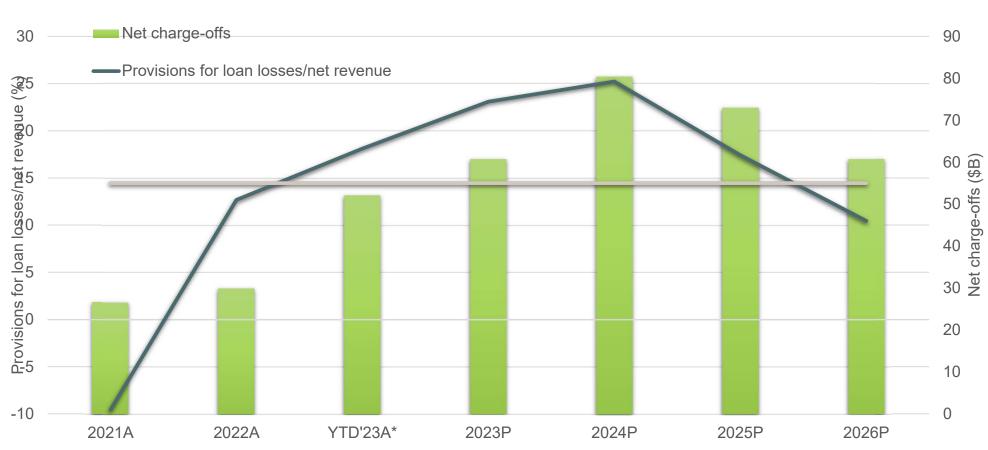
Data compiled Aug. 29, 2023.

NII = noninterest income.

Mortgage originations data based on regulatory filings for all US commercial banks, savings banks, and savings and loan associations with either of these residential mortgage banking activities exceeding \$10 million for two consecutive quarters: 1) one- to four-family residential mortgage loan originations and purchases for resale from all sources; 2) one- to four-family residential mortgage loan sales, or; 3) one- to four-family residential mortgage quarter-end loans held for sale or trading in domestic offices. Analysis excludes nondepository trusts and companies with a foreign banking organization charter.

Source: S&P Global Market Intelligence.

Net charge offs expected to increase through 2024



Data compiled Aug. 29, 2023.

Sources: S&P Global Market Intelligence; proprietary estimates

^{*}Annualized

^{3 **}Average of provisions for loan losses/net revenue from 2013-2019. Net revenue = net interest income + noninterest income - noninterest expense Source: S&P Global Market Intelligence

Provisions increase as economic turmoil continues

Credit loss provisions at Big 4 US banks (\$B)



Data compiled Oct. 17, 2023.

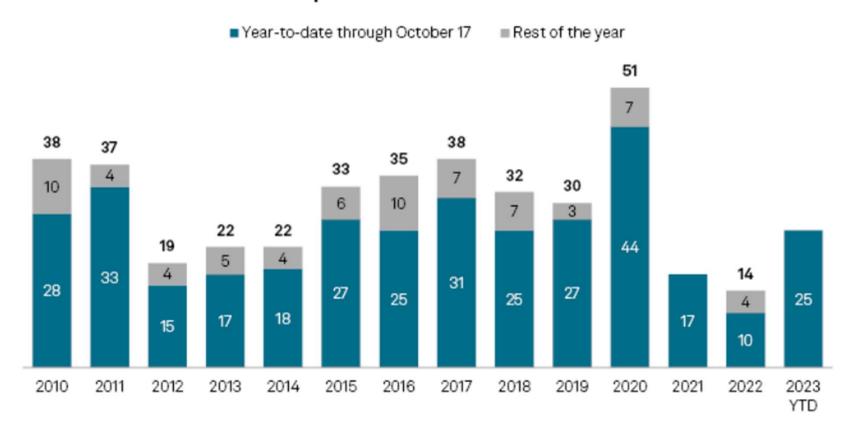
Analysis limited to the four largest US public banks by total assets at Sept. 30, 2023.

Data based on GAAP filings.

Source: S&P Global Market Intelligence.

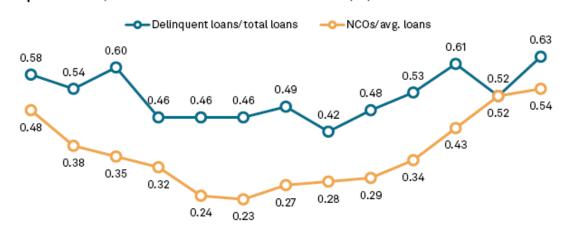
Bankruptcy activity higher than prior two years

Announced US retail bankruptcies



Credit Quality Trends – Credit Unions

Delinquent loan, NCO ratios at US credit unions (%)



\checkmark	Delinquencies and charge offs
	have been on an uptrend, yet
	still considerably lower than
	peaks in 2009 and 2010.

✓ Delinquencies rose to 63 basis points of loans at June 30, 2023 compared to a peak of 1.65% at the end of 2009.

Q2	QЗ	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	2020	2021					20	20	23			

Data compiled Aug. 4, 2023.

NCOs = net charge-offs.

Analysis includes all US credit unions except corporate credit unions.

Data based on regulatory filings.

Source: S&P Global Market Intelligence.

POLLING QUESTION

Is the US economy headed for a recession?

- A. Yes
- B. Worse
- C. No
- D. I have no idea!



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