First-Quarter U.S. Economic Update

June 2023

Summary of Recent Economic and Market Developments

Real GDP growth in the U.S. slowed to 1.3% in the first quarter, but the composition of GDP improved, with acceleration in personal consumption and government spending helping lift domestic final sales to 3.3% from 0.7% in Q4. Hiring remained very strong during the quarter and in the April-May period. Average hourly earnings growth slowed, but the employment cost index showed little to no improvement. Real personal consumption expenditures jumped on a strong rebound in goods spending, while services spending remained firm. Home sales rose after falling by nearly one-third in 2022, which translated to a more-moderate decline in residential investment. Industrial output and orders fell in Q1 but rebounded in April. Real business investment growth slowed as capital equipment spending sagged. Trade, inventories, and government consumption together reduced real GDP growth by 1.2%. That left first-quarter private domestic final sales up 2.9%, up from zero in Q4.

Inflation data was mixed in the first quarter, with energy prices down and food inflation a little slower, but services inflation little changed and goods inflation up modestly. Year-over-year CPI rose 5.8% in Q1, down from 7.1% in Q4, and the PCE deflator slowed to 4.9% from 5.7% YoY over the same periods. Core inflation (excluding volatile food and energy prices) again showed little improvement. Core CPI rose 5.0% YoY and the core PCE deflator rose 4.7% in Q1, each down only 0.1% from the prior quarter. Moreover, inflation picked up again in April. We remain confident that goods inflation will slow as supply chain disruptions ease. Services inflation, however, remains sticky. Given a tight labor market and poor productivity, employment costs have remained high. Interest rates are now restrictive, and shrinking money supply suggests disinflationary pressure is building, but it may take some time for core inflation to fall more rapidly.

The Federal Reserve continued to tighten monetary policy, raising the fed funds target range by 25 bp at each of its three FOMC meetings so far this year. Market forward rates currently price in one more 25 bp rate hike in July, with rate cuts starting in late 2023 and a fed funds rate of 3.25% at year-end 2024, down from 5.00-5.25% currently. Yields on intermediate-term Treasuries fell modestly in Q1 but gave back about half of that rally since quarter-end. Credit spreads were mostly wider in the first quarter but have tightened modestly so far in Q2.

We see significant crosscurrents in the economy today, with some sectors remaining firm while others have weakened. We expect a downshift in growth that leads to a mild recession beginning in Q4, but there is risk that the economy and inflation will run hot and require considerably tighter monetary policy to dampen inflation. As a result, interest rate volatility is likely to remain elevated. However, we think the economy's trajectory will become clearer and risks around growth and inflation will diminish as year-end approaches. With yields up sharply from a year ago, fixed income investors do not need lower rates to earn good returns. Expect an eventful summer.

Economic Outlook

Figure 1: U.S. Gross Domestic Product

Sector	Real GDP (QoQ%, AR; *Q4/Q4)				Nominal GDP (QoQ%, AR; *Q4/Q4)				Implicit Deflator (AR; *Q4/Q4)			
	2023:1	2022:4	2022*	2021*	2023:1	2022:4	2022*	2021*	2023:1	2022:4	2022*	2021*
Gross Domestic Product (GDP)	1.3%	2.6%	0.9%	5.7%	5.4%	6.6%	7.3%	12.2%	4.1%	3.9%	6.4%	6.1%
Personal Consumption Expenditures	3.8%	1.0%	1.7%	7.2%	8.1%	4.8%	7.5%	13.2%	4.2%	3.7%	5.7%	5.7%
PCE: Goods	6.3%	-0.1%	-0.8%	7.1%	7.1%	-0.6%	5.4%	15.6%	0.7%	-0.5%	6.2%	7.9%
PCE: Services	2.5%	1.6%	3.0%	7.2%	8.6%	7.7%	8.5%	12.0%	6.0%	6.0%	5.4%	4.5%
Fixed Investment	-0.2%	-3.8%	-2.0%	3.7%	4.7%	0.0%	5.8%	9.8%	4.9%	4.0%	8.0%	5.9%
Business Investment	1.4%	4.0%	4.5%	5.0%	8.3%	7.7%	11.4%	8.5%	6.9%	3.6%	6.6%	3.3%
Structures	11.0%	15.8%	-1.7%	-5.2%	18.9%	24.7%	13.4%	4.7%	7.1%	7.7%	15.4%	10.4%
Equipment	-7.0%	-3.5%	3.9%	4.7%	0.0%	2.4%	11.4%	7.2%	7.5%	6.1%	7.2%	2.4%
Intellectual Property	5.2%	6.2%	8.2%	10.8%	11.7%	5.5%	10.5%	11.6%	6.1%	-0.6%	2.2%	0.7%
Residential Investment	-5.4%	-25.1%	-18.8%	-0.3%	-6.7%	-21.3%	-9.3%	13.6%	-1.4%	5.1%	11.7%	13.9%
Government Consumption	5.2%	3.8%	0.9%	0.5%	7.1%	7.5%	7.7%	7.3%	1.9%	3.6%	6.8%	6.7%
Federal	7.6%	5.8%	0.1%	0.4%	11.4%	9.2%	5.0%	4.6%	3.5%	3.2%	4.9%	4.3%
State & Local	3.8%	2.6%	1.3%	0.6%	4.7%	6.6%	9.4%	9.0%	0.9%	3.9%	8.0%	8.3%
Domestic Final Sales	3.3%	0.7%	0.9%	5.4%	7.4%	4.4%	7.2%	11.6%	3.9%	3.8%	6.3%	5.9%
Private Domestic Final Sales	2.9%	0.0%	0.9%	6.4%	7.4%	3.8%	7.1%	12.5%	4.3%	3.8%	6.2%	5.7%

Legend for all Figures: AR = Annual Rate; SA = Seasonally Adjusted; MA = Moving Average; C.O.P. = Change over Period
Data source for all tables is Macrobond, unless noted otherwise. Green (red) shading denotes improving (worsening) values.

U.S. economic growth slowed in the first quarter, but the composition of growth improved. Gross domestic product after inflation (real GDP) rose by 1.3%, half the pace of 4Q2022 (Figure 1). Real personal consumption expenditure made the largest contribution to GDP growth in the first quarter, led by a 6.3% surge in goods spending. Real residential investment declined again but at a much slower pace than last year. Business investment also slowed, driven by a 7.0% drop in business equipment spending, while investment in business structures had another double-digit gain. Real government consumption accelerated, with gains in both state and local and federal government spending. Trade was neutral to growth in Q1, but a sharp slowdown in inventory accumulation subtracted 2.1% from real GDP. Stronger consumer spending and less-bad residential investment were only partially offset by slower business investment, leaving domestic final sales up 3.3%. The implicit deflator edged up in most major sectors of the economy in the first quarter, although it is down considerably from its overall pace in 2022.

Looking ahead, economists expect GDP growth to turn slightly negative in 4Q2023 (a quarter later than previously) but do not expect a recession over a 3-year forecast horizon. The most recent *Survey of Professional Forecasters* shows a median forecast for U.S. real GDP growth of 1.0% in Q2, 0.6% in Q3, slight contraction in Q4 (-0.1%), and an average growth rate of 1.0% in 2024.[1] Core inflation is forecast to fall below 3.0% around the end of this year, and average about 2.5% in 2024 before arriving at or near the Fed's 2.0% target in 2025.

Our base-case economic outlook is largely the same as we described in our last Update.[2] We continue to think *nominal* GDP growth will slow over 2023 as consumers deplete savings from the pandemic and reduce spending, but resilient employment and gradually falling inflation should allow real GDP to expand modestly through Q3. Eventually, however, we think tight

[1] Federal Reserve Bank of Philadelphia, *Survey of Professional Forecasters*, May 12, 2023.

[2] Flaherty & Crumrine *Fourth-Quarter U.S. Economic Update*, February 13, 2023.

monetary policy will push up unemployment, and consumer spending will stall. Residential investment, which has been hit hard by higher interest rates, should continue to contract, albeit at a slowing pace throughout the year. Business investment is off to a weaker start than we expected as businesses reduced capital equipment spending given poor returns on earlier investments—productivity has been falling on a 4-quarter annual basis since the start of 2022. With borrowing costs up significantly, we expect business investment will turn negative in the second half of this year. In addition, the recent debt ceiling deal is poised to slow federal government spending modestly beginning in Q4. By the fourth quarter of 2023, we think the economy will be in a mild recession.

However, with growth remaining resilient in the face of sharply higher interest rates, core inflation has declined only gradually. Services inflation has shown tentative signs of slowing recently, but goods inflation has edged up. We expect goods inflation to slow again soon, and certain services components, notably housing, also appear to be slowing. The Fed has been banking on slower job growth and higher unemployment to slow wage growth, but job growth remains strong and employment costs stubbornly high. That suggests service inflation could remain elevated. Under our base case, we think the Fed is within 25 bp of its "terminal" rate for this cycle, but it may need to go higher if inflation does not cooperate. Even in our base case, we think the Fed will leave rates at the terminal rate longer than markets currently expect, reflecting the resilience of growth and inflation.

We think these crosscurrents—with some parts of the economy still looking firm (employment, the unemployment rate, services spending, and inflation) while others look weak (manufacturing orders and capital expenditure, foreign trade volumes, leading economic indices, and consumer and business sentiment)—suggest the economy is at a turning point. We think that means a downshift in growth that leads to a mild recession beginning late this year. However, it could mean businesses and consumers are adapting to higher inflation and will continue to spend and invest, keeping the economy tight and inflation running hot. Data support both outlooks to varying degrees. If our base case is right, the Fed should be nearly finished tightening. If it is not, there may be considerably more tightening ahead.

With the path of growth and inflation still uncertain, we expect interest rate volatility to remain elevated. Nonetheless, we think the economy's trajectory will become clearer and risks around growth and inflation will diminish as year-end approaches. With yields up sharply from a year ago, fixed income investors do not need lower rates to earn good returns. Expect an eventful summer.

Employment, Income and Spending

Figure 2: Employment Overview

Employment	**MoMΔ (Level for Rates)**			**QoQ Change**			**YoY% Change**		**Chg vs.**
(Thousands except percents)	**May-23**	**Apr-23**	**Mar-23**	**2023:1**	**2022:4**	**2022:3**	**May-23**	**Apr-23**	**Feb-20**
Nonfarm Payrolls	339	294	217	937	853	1,270	2.7%	2.7%	3,734
Private	283	253	157	703	759	1,143	2.7%	2.8%	3,943
Household Employment	(310)	139	577	1,648	394	793	1.5%	2.0%	1,972
Labor Participation Rate %	62.6%	62.6%	62.6%	0.3%	0.0%	0.1%	0.3%	0.4%	0.0%
Unemployment Rate	3.7%	3.4%	3.5%	0.0%	0.0%	-0.1%	0.1%	-0.2%	0.0%

	MoM% Change			**QoQ% Change, AR**			**YoY% Change**		
Average Hourly Earnings	**May-23**	**Apr-23**	**Mar-23**	**2023:1**	**2022:4**	**2022:3**	**May-23**	**Apr-23**	**Feb-20**
Average Hourly Earnings, All	0.33%	0.39%	0.27%	3.4%	4.9%	4.4%	3.6%	5.1%	3.7%

	QoQ% Chg (not annualized)				**YoY% Change**				
Employment Cost Index	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2019:4**
Wages & Salaries, Civilian	1.2%	1.2%	1.3%	1.3%	5.0%	5.1%	5.1%	5.3%	2.9%

The **labor market** remains remarkably strong for an economy finishing its third year of expansion (Figure 2). Job growth accelerated in the first quarter, and the unemployment rate averaged 3.5%, the lowest quarterly figure since 1969. Jobs rose briskly in April too. Average hourly earnings did slow in Q1, but that reflects outsized gains in lower-wage employment. The employment cost index of wages and salaries, which corrects for the composition of jobs, was essentially unchanged at 5.0% YoY in Q1 (Figure 3). Both measures of wage inflation are down from their 2022 peaks, but they remain far too high given a 2% inflation target. The quit rate continued its slide, and job openings mostly declined, although they rose again in April (Figure 4). Despite these crosscurrents, we expect labor market conditions will loosen and help slow wage growth over coming quarters. Job and, especially, wage growth will be key data points for policymakers at the Federal Reserve over the second half of 2023.

Figure 3: High Labor Demand and Wages…

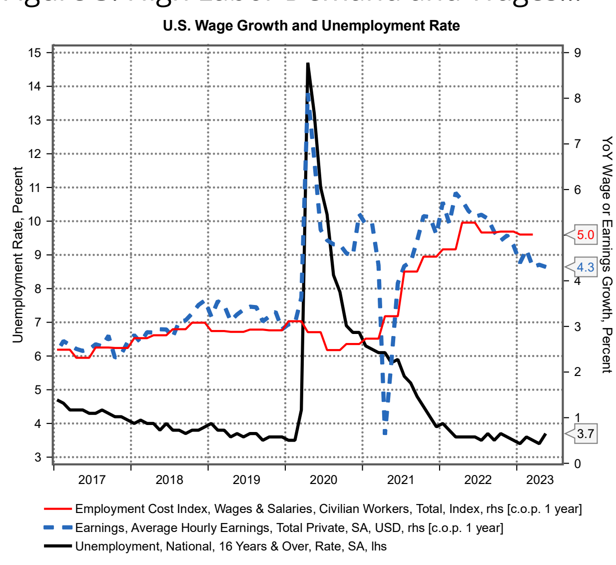


Figure 4: …but Fewer Job Openings and Quits

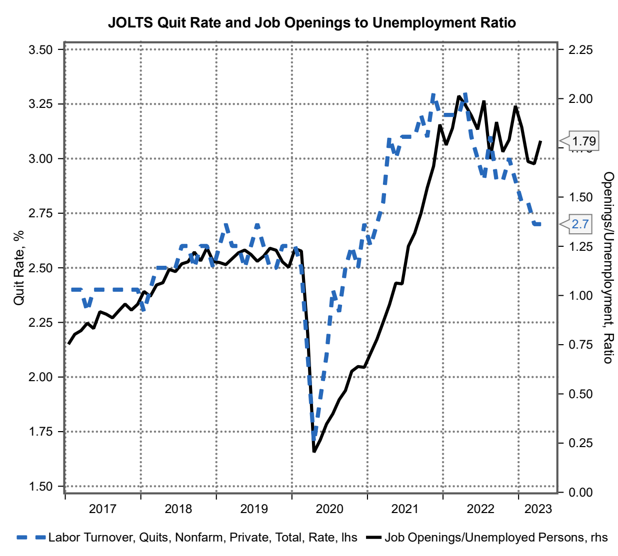


Figure 5: Personal Income and Spending

Personal Income and Consumption	MoM Change			QoQ Change (AR)			YoY Change		
	Apr-23	Mar-23	Feb-23	2023:1	2022:4	2022:3	2023:1	2022:4	2022:1
Personal Income	0.36%	0.28%	0.33%	4.6%	5.0%	7.5%	5.5%	5.1%	-3.5%
Wages & Salaries	0.47%	0.27%	0.22%	4.6%	1.9%	11.4%	5.7%	6.2%	10.9%
Real Disposable Pers. Inc.	0.04%	0.24%	0.18%	7.8%	2.5%	3.2%	2.8%	-1.9%	-12.8%
ex Transfer Payments	0.16%	0.21%	-0.06%	0.3%	0.0%	4.4%	0.8%	0.1%	2.0%
Nominal PCE	0.84%	0.08%	0.13%	8.1%	4.8%	6.7%	7.3%	7.5%	11.5%
excl. Food & Energy	0.96%	0.09%	0.04%	9.9%	5.3%	8.0%	7.8%	7.3%	11.0%
Goods	1.07%	-0.76%	-0.10%	7.1%	-0.6%	2.4%	4.1%	5.4%	11.0%
Services	0.72%	0.50%	0.24%	8.6%	7.7%	9.0%	8.9%	8.5%	11.8%
Real PCE	0.47%	-0.02%	-0.18%	3.8%	1.0%	2.3%	2.3%	1.7%	4.8%

Personal income slowed in nominal terms in Q1, but real disposable personal income jumped 7.8% as cost-of-living adjustments boosted monthly Social Security payments by almost 10% starting in January (Figure 5). Sturdy job and wage growth translated to solid gains in wage and salary income, while higher transfer payments supported overall personal income (Figure 6). Although we expect nominal income growth to moderate as employment and wages cool, real incomes should benefit from lower inflation, especially next year.

Figure 6: Income and Spending Resilient

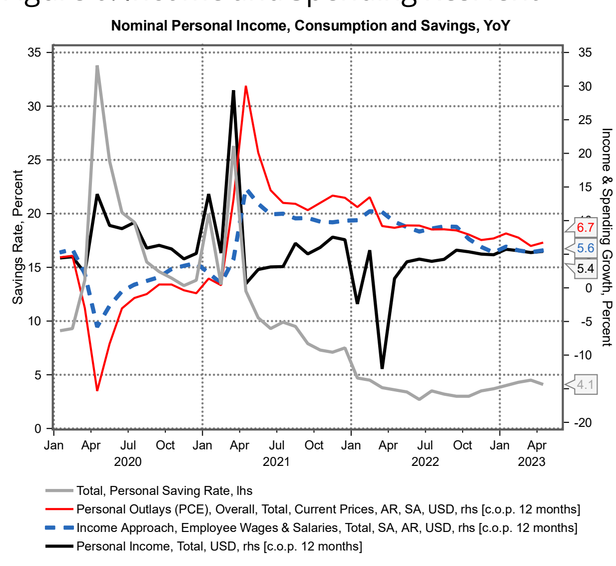
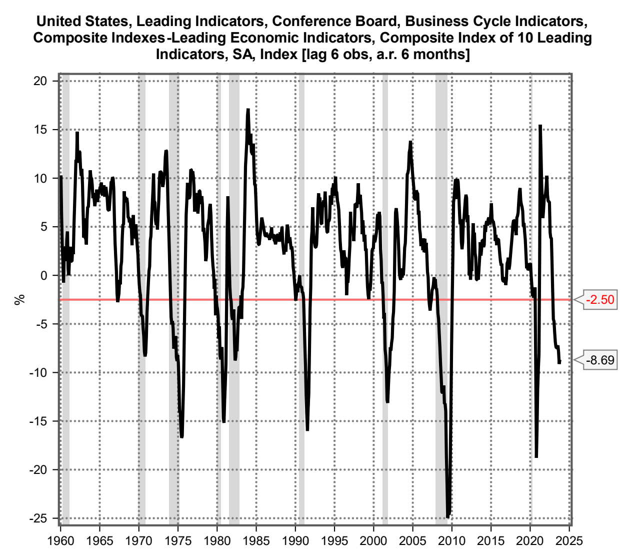


Figure 7: Leading Index Still Flashing Recession



Nominal **personal consumption expenditure** (PCE) jumped 8.1% in the first quarter as good job growth, higher transfer payments, and mild weather spurred a nearly 2% gain in spending in January (Figure 5). Goods spending lagged services, but both rose impressively over the quarter. Following January's blowout, nominal spending slowed in February and March, leaving real spending negative in those months. Accompanied by lower consumer confidence surveys, it appeared that PCE was finally downshifting. However, higher retail sales and continued rapid job growth supported another strong start to the current quarter, with real PCE up 0.5% (not annualized) in April. So far, consumer spending has seen little impact from higher borrowing costs. While tighter monetary policy eventually will dampen demand, we expect PCE to slow only gradually until unemployment turns more meaningfully upward.

Consumer caution did show up in a higher **personal saving rate** during the quarter, rising to 4.5% in March from a recent low of 3.0% in October 2022. However, it dipped back down to 4.1% in April as spending surged. With confidence fragile and interest rates up, we expect consumers will resume adding to savings soon. That should be a headwind to personal spending as the year progresses, but it probably will take a downshift in income growth to have a large impact on consumption.

Since June 2022, we have observed that the index of leading economic indicators (LEI) had dropped below the level that has historically signaled a recession in about six months (Figure 7). Over the past 10 months, it has fallen further without a recession. We are not surprised by this given a huge boost to personal savings from fiscal and monetary policy during and after the pandemic—savings that continue to support consumer spending. However, with policy now restrictive and savings diminishing, we still believe recession will arrive in the second half of this year, probably in Q4 given ongoing strength in both employment and services spending.

The Housing Market

Figure 8: Residential Investment, Home Sales, and Home Prices

	QoQ Change (AR)				YoY Change				
Residential Investment	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2019:4**
Nominal Residential Inv, AR	-6.7%	-21.3%	-21.2%	-5.3%	-14.0%	-9.3%	-1.2%	7.0%	4.5%
Real Residential Inv, AR	-5.4%	-25.1%	-27.1%	-17.8%	-19.3%	-18.8%	-13.0%	-7.2%	2.0%
Implicit Deflator, AR	-1.4%	5.1%	8.1%	15.2%	6.6%	11.7%	13.5%	15.3%	2.4%

	Sales Level (AR)			QoQ Change (AR)			YoY Change		
Home Sales & Prices	**Apr-23**	**Mar-23**	**Feb-23**	**2023:1**	**2022:4**	**2022:3**	**2023:1**	**2022:4**	**2022:3**
New + Existing Home Sales (000)	4,963	5,086	5,181	15.6%	-35.9%	-35.1%	-26.3%	-31.3%	-21.3%
Homes available for sale (000)	1,102	1,034	1,028	-33.6%	-43.0%	46.1%	9.1%	1.3%	-1.9%
S&P/Case-Shiller 20-city HPI Chg	n/a	0.5%	-0.1%	-2.6%	-8.0%	-4.8%	0.6%	6.7%	13.1%

The **housing market** declined for the eighth consecutive quarter, albeit at a much-reduced pace, in the first quarter. Real residential investment fell 5.4% after plunging 18.8% in 2022 (Figure 8). Combined new and existing home sales surged in February on mild weather and (temporarily) lower mortgage rates. Sales slipped modestly in March and April but were still up strongly compared to late 2022 (Figure 9). The S&P/Case-Shiller 20-city home price index in March was down 2.0% (not annualized) since peaking in June 2022 and down 1.1% over 12 months ending in March, compared to gains over 20% in the first half of last year. Affordability remains low, as higher mortgage rates roughly offset lower home prices (Figure 10), which should keep residential investment muted this year. However, given the low inventory of unsold homes, modest new construction activity, and pent-up demand by homebuyers, residential investment could rebound quickly when the interest rate cycle turns—probably in the first half of 2024.

Figure 9: Home Sales Up, Prices Down

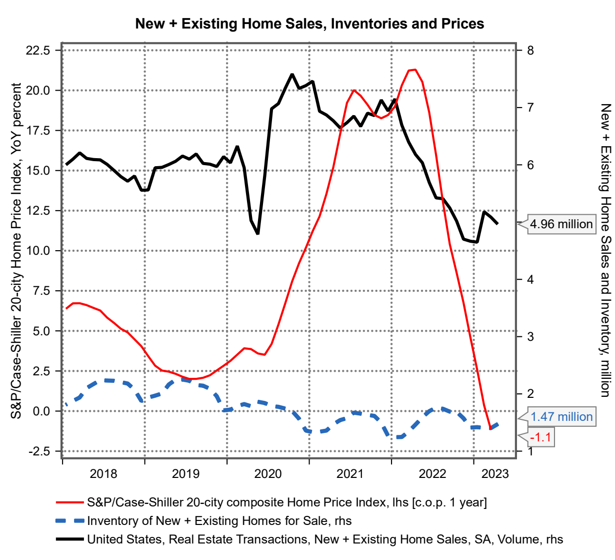
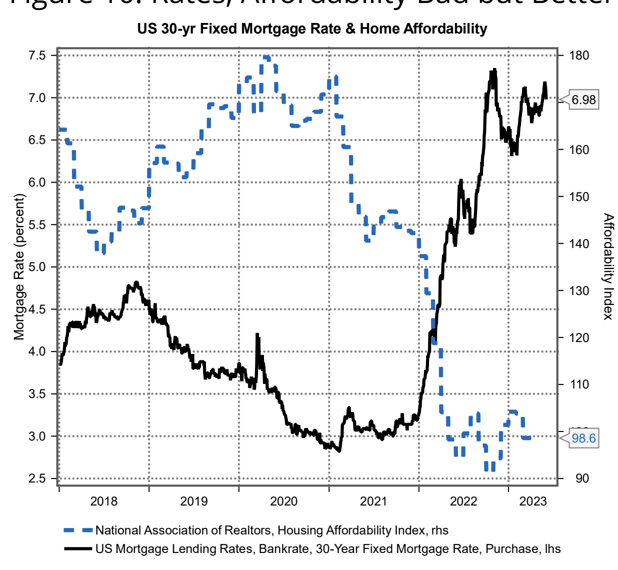


Figure 10: Rates, Affordability Bad but Better



Flaherty & Crumrine

Business Investment and Industrial Output

Figure 11: Industrial Production, Orders, and Business Investment

	MoM Change			QoQ Change (AR)			YoY Change		
Industrial Output	**Apr-23**	**Mar-23**	**Feb-23**	**2023:1**	**2022:4**	**2022:3**	**2023:1**	**2022:4**	**2022:1**
Industrial Production	0.48%	0.05%	0.00%	-0.5%	-2.5%	2.1%	0.7%	1.9%	4.5%
Manufacturing	1.02%	-0.81%	0.28%	-1.0%	-3.7%	0.4%	-0.4%	0.8%	4.5%
	MoM Change			**QoQ Change (AR)**			**YoY Change**		
Mfg Orders & Shipments	**Apr-23**	**Mar-23**	**Feb-23**	**2023:1**	**2022:4**	**2022:3**	**2023:1**	**2022:4**	**2022:1**
Manufacturing Orders, total	0.45%	0.64%	-1.68%	-4.0%	-1.2%	-0.7%	2.3%	6.9%	16.0%
NDCG ex aircraft*	1.30%	-0.59%	-0.21%	2.3%	-1.0%	3.8%	3.3%	3.0%	9.1%
Real core orders**	1.21%	-0.96%	-0.41%	-2.6%	-5.1%	-2.6%	-12.2%	-17.0%	5.7%
Mfg Shipments, NDCG ex air	0.50%	-0.20%	-0.31%	2.3%	5.2%	5.3%	5.6%	8.4%	11.2%
Real core shipments**	0.42%	-0.56%	-0.51%	-2.6%	0.7%	-1.3%	-4.0%	2.0%	14.4%

* NDCG = Nondefense Capital Goods ** NDCG ex aircraft, deflated using PPI Final Demand: Capital Equipment

Business Fixed	QoQ Change (AR)				YoY Change				
Investment	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2019:4**
Nominal Busi. Investment	8.3%	7.7%	14.2%	8.6%	9.7%	11.4%	11.7%	9.5%	3.5%
Real Business Investment	1.4%	4.0%	6.2%	0.1%	2.9%	4.5%	3.8%	4.8%	2.6%
Implicit Deflator	6.9%	3.6%	7.6%	8.5%	6.6%	6.6%	7.7%	4.5%	1.0%

Industrial production began the first quarter looking weak but rebounded strongly in April to end the month near the Q4 average (Figure 11). After inflation, real core capital goods orders and shipments excluding aircraft in Q1 were weak, but they rebounded in April. The ISM manufacturing survey is at a level normally seen in recessions (Figure 12). Despite higher output, we put more weight on the downtrend in orders and expect lower output ahead.

Figure 12: Manufacturing Recession Ahead

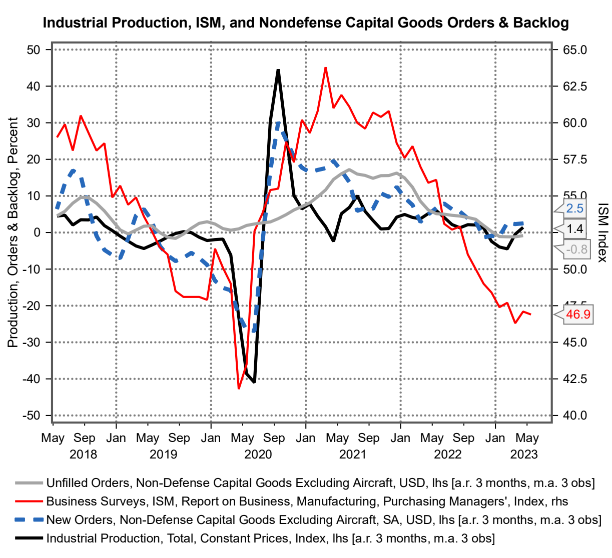
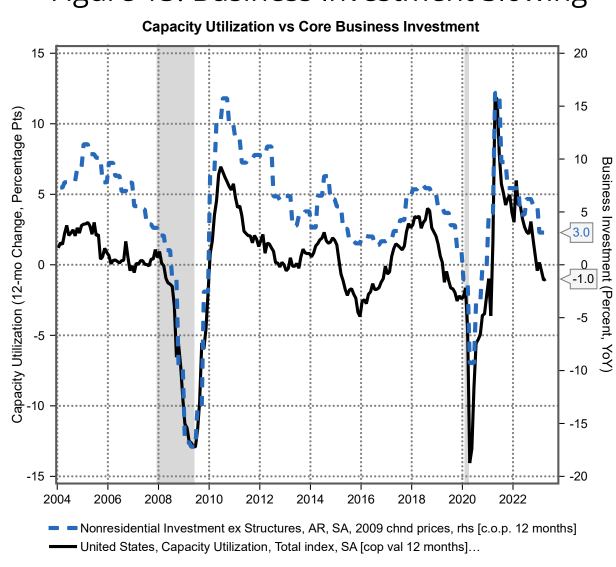


Figure 13: Business Investment Slowing



Weaker business sentiment, higher borrowing costs, and falling productivity contributed to a slowdown in core business investment. With capacity utilization now down compared to a year ago, business investment is likely to turn negative soon (Figure 13).

International Trade, Inventories, and Government Consumption

Figure 14: Contribution to Change in GDP from Net Exports, Inventories & Government

	Contribution to QoQ GDP (%, AR)				Contribution to Annual GDP (%)			
Contributions to Change in GDP, %	**2023:1**	**2022:4**	**2022:3**	**2022:2**	**2022**	**2021**	**2020**	**2019**
Real GDP	1.30	2.60	3.20	-0.60	2.10	5.90	-2.80	2.30
Net Exports	0.00	0.42	2.86	1.16	-0.40	-1.25	-0.26	-0.11
Private Inventories	-2.10	1.47	-1.19	-1.91	0.74	0.24	-0.55	0.05
Government Expenditure & Investment	0.89	0.65	0.65	-0.29	-0.10	0.11	0.45	0.58
Federal	0.48	0.37	0.24	-0.22	-0.17	0.17	0.41	0.25
State & Local	0.41	0.29	0.41	-0.06	0.07	-0.06	0.04	0.32

Foreign trade and government spending and investment made positive contributions to fourth-quarter growth, while slower inventory accumulation was a large negative (Figure 14). Federal government spending accelerated, although the recent debt ceiling deal should curtail that in the fiscal year beginning in September. State and local spending growth held about steady, but weaker tax receipts could prompt lower spending over the balance of 2023.

The **trade deficit** narrowed slightly as both import and export growth continued to slow, especially for imports (Figure 15). Lower imports reflect disruptions from the war in Ukraine and a shift away from goods toward (largely domestically produced) services. Export growth has held up better as U.S. energy exports have jumped, but slowing economic activity among trading partners suggests exports are also likely to turn negative soon.

Figure 15: Trade Volumes Still Sliding

Figure 16: Inventories Up, Outlook Mixed

Businesses slowed additions to **inventory** in Q1, which cut 2.1% from real GDP (Figure 14). Despite that, slowing sales and shipments pushed inventory-to-sales ratios back up to or above pre-pandemic levels at wholesalers and manufacturers, though retailers may boost them further (Figure 16). With supply chain disruptions diminishing and recession worries rising, we think businesses will keep a close eye on inventory growth over coming quarters.

Inflation

Figure 17: Inflation Rates

Key Inflation Rates	MoM Change Apr-23	Mar-23	Feb-23	QoQ Change (AR) 2023:1	2022:4	2022:3	YoY Change 2023:1	2022:4	2022:1	2019:4
Consumer Price Index	0.37%	0.05%	0.37%	3.8%	4.2%	5.5%	5.8%	7.1%	8.0%	2.0%
ex food & energy	0.41%	0.38%	0.45%	5.0%	5.1%	6.2%	5.6%	6.0%	6.3%	2.3%
Services ex Shelter	0.10%	-0.03%	0.12%	4.4%	4.8%	7.6%	6.7%	7.4%	4.9%	2.3%
Owners' Equiv. Rent	0.54%	0.48%	0.70%	8.5%	8.6%	8.3%	7.9%	7.2%	4.3%	3.3%
	Apr-23	Mar-23	Feb-23	2023:1	2022:4	2022:3	2023:1	2022:4	2022:1	2019:4
PPI Final Demand	0.23%	-0.37%	0.02%	0.8%	2.7%	2.7%	4.4%	7.3%	10.7%	1.1%
ex food & energy	0.24%	0.00%	0.23%	2.4%	3.1%	4.3%	4.3%	6.3%	9.1%	1.4%
	Apr-23	Mar-23	Feb-23	2023:1	2022:4	2022:3	2023:1	2022:4	2022:1	2019:4
PCE Deflator, total	0.36%	0.10%	0.31%	4.2%	3.7%	4.3%	4.9%	5.7%	6.4%	1.5%
ex food & energy	0.38%	0.31%	0.35%	5.0%	4.4%	4.7%	4.7%	4.8%	5.3%	1.6%
Goods	0.30%	-0.22%	0.15%	0.7%	-0.5%	2.7%	3.3%	6.2%	9.6%	-0.2%
Services	0.40%	0.27%	0.39%	6.0%	6.0%	5.2%	5.7%	5.4%	4.8%	2.2%
ex energy, housing	0.35%	0.52%	0.60%	6.8%	6.6%	5.7%	6.0%	5.6%	4.4%	2.6%

Like the crosscurrents seen in other economic indicators, **inflation** data was mixed in the first quarter. On one hand, CPI and PPI inflation fell on a combination of lower energy prices and slower core (excluding food and energy) price gains (Figure 17). On the other hand, both the overall and core PCE deflators accelerated in Q1 as goods prices rebounded on strong demand—leaving intact a pattern of rapid improvement in overall inflation but much slower progress on core inflation (Figure 18). Encouragingly, services prices excluding energy and housing (a Fed-favorite metric) slowed a bit in recent months, and the NY Fed's Underlying Inflation gauge has fallen sharply over the past year. However, we remain concerned that stubbornly high wages and strong hiring—combined with weak productivity—will keep services inflation elevated until unemployment rises more meaningfully. Stay tuned.

Figure 18: Core Inflation Falling Only Slowly

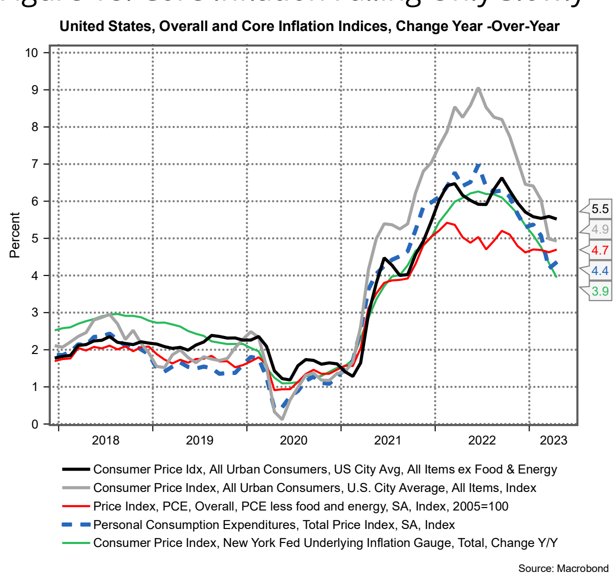
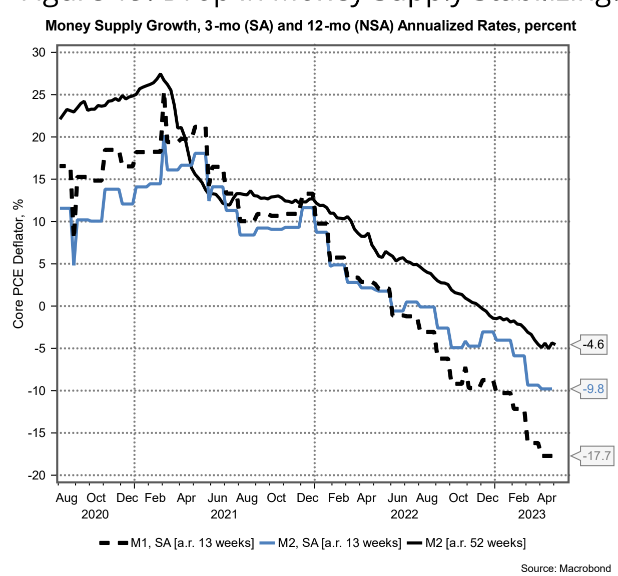
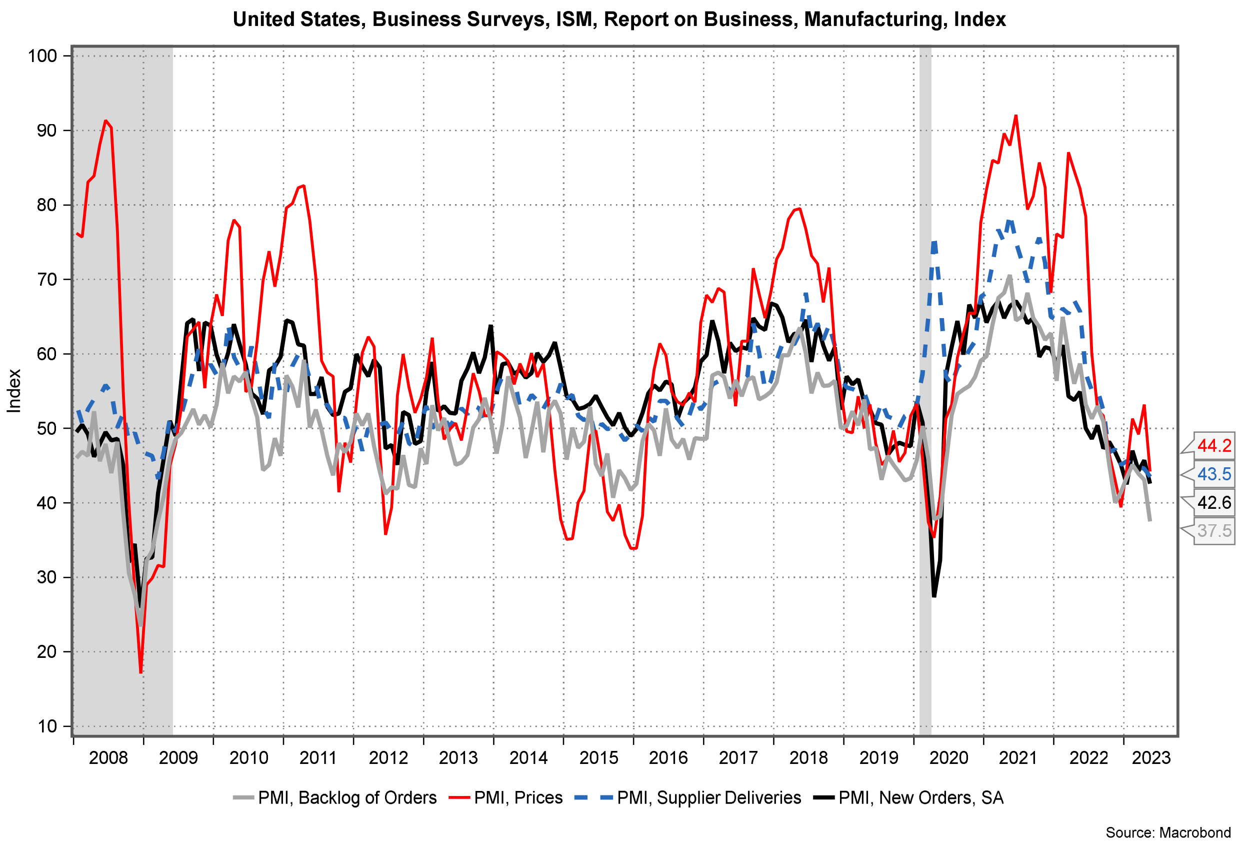


Figure 19: Drop in Money Supply Stabilizing?



Money supply growth continued its decline in the first quarter and may be in the process of stabilizing at these lower levels (Figure 19). Three-month annualized M1 growth has been running at negative 4-5% for the past ten weeks, while M2 is closer to negative 10%. We think that low to moderately negative growth in broad money supply will reinforce the disinflationary impact of higher borrowing costs and slower economic growth. However, we would be concerned about a collapse in money supply growth, and we are encouraged to see tentative signs of stabilization.

Figure 20: Manufacturing PMI Suggests Lower Goods Prices Ahead

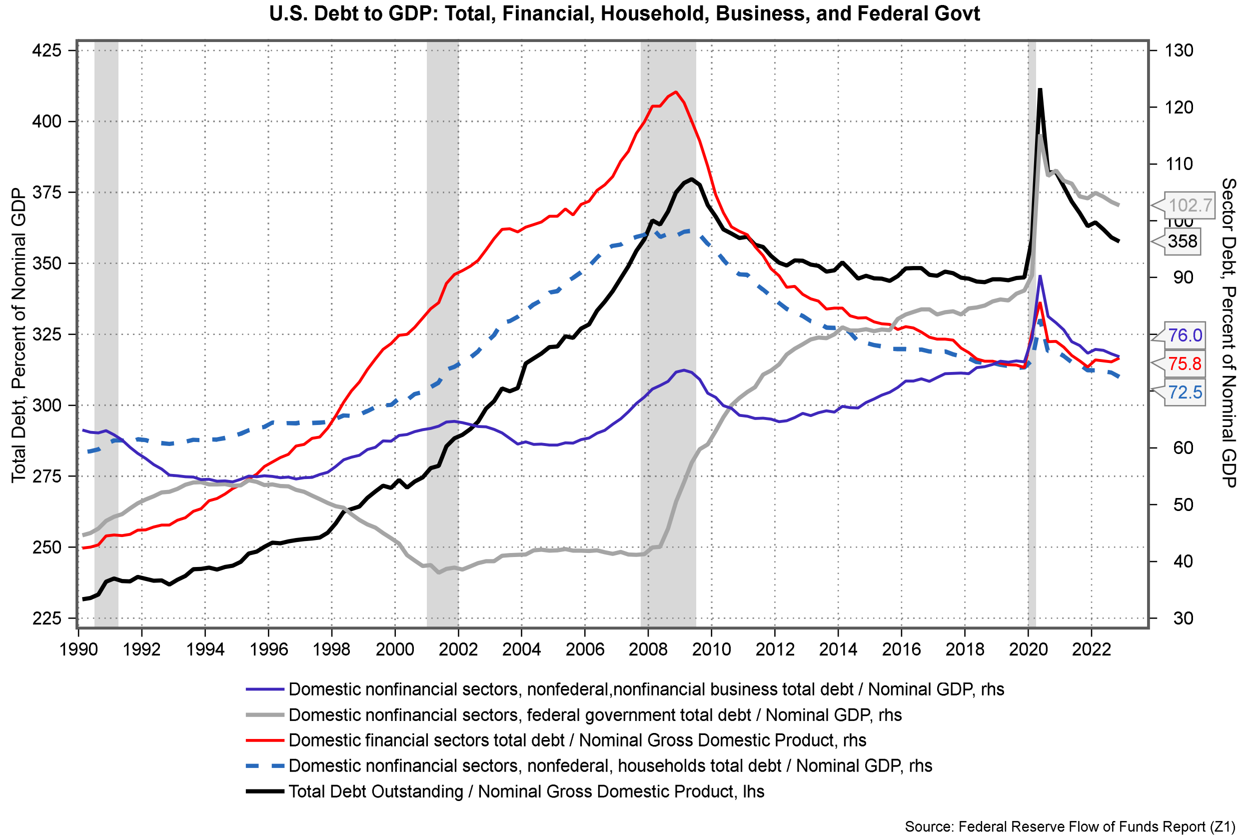


We are confident that goods inflation is coming down. As already noted, PPI inflation has slowed meaningfully. The recent ISM Manufacturing Survey showed continued declines in Order Backlogs and Supplier Deliveries (a lower index means orders are being received more quickly) as well as a Prices index below 50, indicating lower prices on purchases (Figure 20). These suggest supply chains continue to heal, which should increase competition and reduce prices. This is clearly visible in import prices, where the prices of consumer goods excluding automobiles (-0.2% YoY) and capital goods (+1.1% YoY) are at or near pre-pandemic averages.

Services inflation is likely to be more stubborn, but as goods inflation eases and income growth slows, ever-rising service prices will encounter greater consumer and business resistance. Barring a sudden surge in productivity, this should force service employers to reduce headcount, slow wage growth, and push down services inflation too.

Aggregate Debt Ratios

Figure 21: Q4 Debt-to-GDP; Private Sector Debt Remains Low, Govt High but Falling



Broad **balance sheet trends** through the fourth quarter of 2022 (latest data available) show lower debt-to-GDP ratios across borrowing sectors (Figure 21). Overall debt-to-GDP fell to 358%. Federal government debt-to-GDP fell to 102.7% from 103.4%. Nonfinancial business and household debt ratios continued a modest downward trend. Leverage at financial businesses rose by 0.6% to 75.8% of GDP on faster loan growth, though it remains near the lowest level in 25 years. We remain watchful for signs of strain in the nonfinancial business sector, where borrowing is a little above pre-pandemic levels. Higher interest rates are a risk for highly leveraged companies in that sector, especially if the economy slips into recession. However, for the overall U.S. economy, especially households and financial businesses, we continue to believe debt levels do not pose a major risk to our economic or credit outlooks.

Interest Rate and Monetary Policy Outlook

Figure 22: Key Interest and Policy Rates

Interest Rates (%, end of period)	6/5/23	2023:1	2022:4	2022:3	2022:2	2022:1	2021:4	2021:3
Fed funds rate target (upper bound)	5.25	5.00	4.50	3.25	1.75	0.50	0.25	0.25
3-month LIBOR	5.51	5.19	4.77	3.75	2.29	0.96	0.21	0.13
2-Yr Treasury note yield	4.46	4.06	4.41	4.22	2.92	2.28	0.73	0.28
10-Yr Treasury note yield	3.69	3.48	3.88	3.83	2.98	2.32	1.52	1.52
30-Yr Treasury note yield	3.89	3.67	3.97	3.79	3.14	2.44	1.90	2.08

Long-term **Treasury rates** fell by 30-40 bp in the first quarter before worries over the debt ceiling pushed the 30-year rate as high as 4.00% in late May. Fortunately, a deal was reached, legislation passed by the House on May 31, and long-term rates dropped back modestly (Figure 22).

Given only limited declines in core inflation, the Federal Reserve continued to hike short-term rates, albeit at a slower pace than in prior periods. The FOMC raised rates by 25 bp at its meetings in February, March, and May, bringing the current fed funds target range to 5.00-5.25%. Market forward rates price in a pause at the June 14 FOMC meeting followed by a final 25 bp hike on July 26. Markets expect a relatively short peak-rate plateau, with a 25 bp rate cut priced in at the November or December 2023 FOMC meetings. Markets anticipate rate cuts totaling 170 bp in 2024 (Figure 23).

Figure 23: Market Expects Brief Rate Plateau[3]

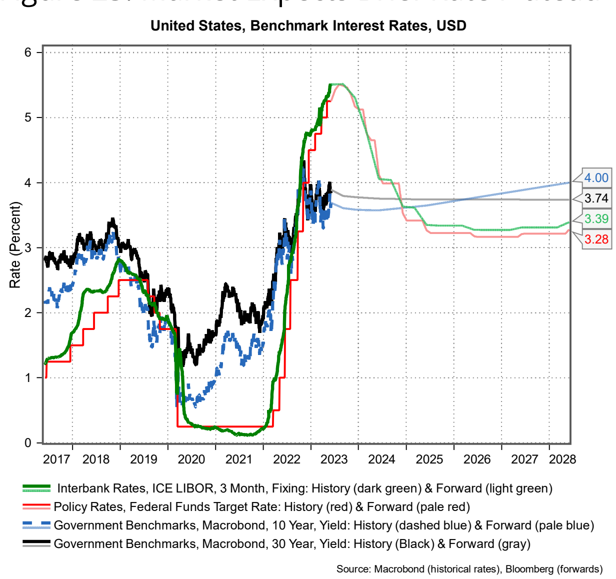
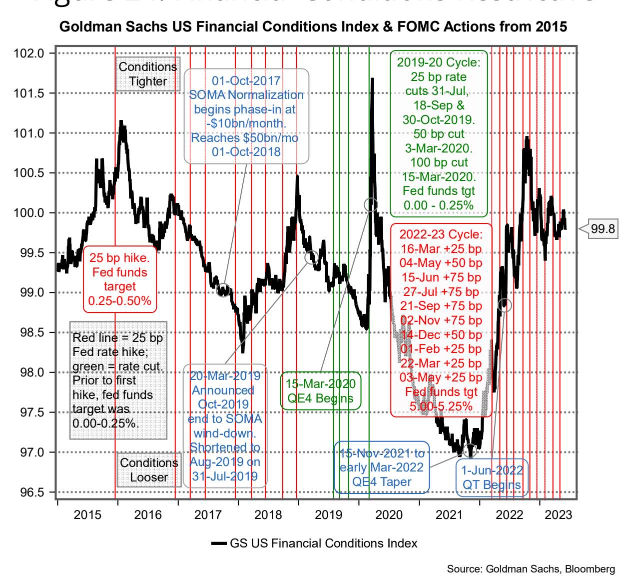


Figure 24: Financial Conditions Restrictive



The FOMC left the pace of securities reductions in the Fed's System Open Market Account (SOMA) unchanged in Q4. The Fed will continue to trim Treasury holdings by up to $60 billion

[3] The fed funds effective rate recently has traded about 17 bp below the top end of the FOMC target range. In Figure 25, we add 17 bp to forward rates implied by overnight index swaps (OIS) to align them with the upper band of historic target rates.

and agency mortgage-backed securities by up to $35 billion per month. SOMA reductions have contributed to slower money supply growth and upward pressure on interest rates.

Financial conditions have been broadly stable since the end of 3Q2022, as higher stock prices largely offset higher short-term rates (Figure 24). While the Fed probably would like to see financial conditions somewhat tighter—the FOMC believes inflation will fall more slowly than the market does—real short-term rates are now restrictive. Moreover, strain in the banking system following the receiverships of Silicon Valley Bank and Signature Bank NY in March and First Republic Bank in May have raised bank borrowing costs and accelerated a shift from bank deposits to higher-yielding money market funds. In turn, banks report that they have tightened lending standards and lowered their willingness to extend consumer installment loans (Figure 26). They also are raising spreads (i.e., cost) on new loans, which has reduced demand (Figure 27). These shifts are large and recent, and they are likely to result in tighter credit conditions that should do some of the work for the Fed in dampening aggregate demand.

Figure 26: Banks Tighten Credit Standards…

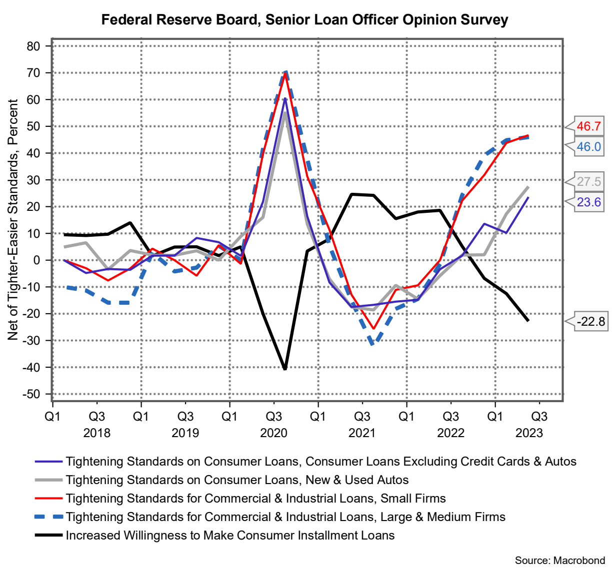
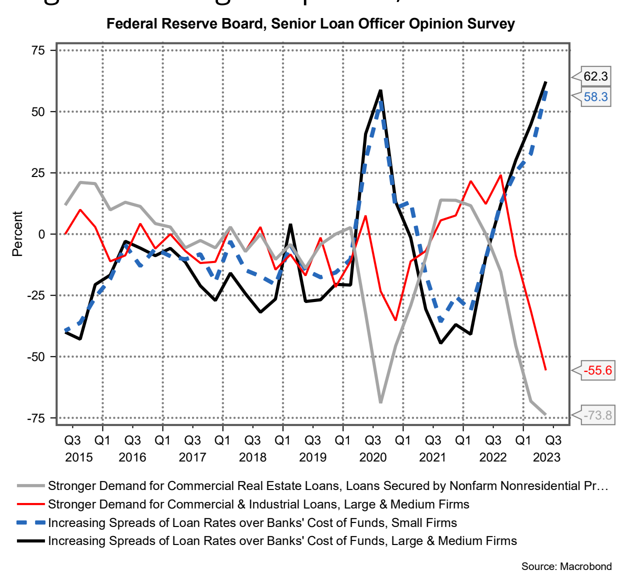


Figure 27: …Higher Spreads, Lower Demand



We continue to think one more 25 bp rate hike—probably in July—will be enough to push the economy into a mild recession by the fourth quarter (a little later than our prior estimate) and bring core PCE inflation down near 3% in early 2024. From there, the FOMC should cut rates somewhat faster than the pace of disinflation until inflation reaches the Fed's 2% target. Our forecast implies no easing in 2023 and about 50 bp less easing than the market has priced into 2024—primarily because we think inflation will decline more slowly than the consensus forecast. While we acknowledge a great deal of uncertainty over how quickly inflation will come down, we are confident that it will without needing another extended series of rate hikes by the Fed. If we are right, we think 10- and 30-year Treasury rates should rise only modestly to reflect a slightly longer timeline to reach the Fed's inflation target.

Credit Conditions and Outlook

Figure 28: Selected Credit Spreads and Quality Metrics

Credit Spreads (bp, end of period)	6/5/23	2023:1	2022:4	2022:3	2022:2	2022:1	2021:4	2021:3
ICE-BofAML Index, spread to worst								
US Corporate (C0A0)	142	148	141	168	163	121	95	84
US High Yield (H0A0)	459	474	491	550	592	371	330	331
US Preferred & Hybrid (P8JC)	334	357	351	319	332	240	178	170
10-Yr Interest Rate Swap Spread (bp)	4.9	0.3	(4.8)	6.1	8.3	5.8	6.3	2.3

	Delinquencies (% of loans)				Charge-Offs (% of loans)			
Bank Loan Quality (%) (FRB)	2023:1	2022:4	2022:3	2022:2	2023:1	2022:4	2022:3	2022:2
US Banks, Total Loans	1.20	1.19	1.20	1.22	0.38	0.33	0.27	0.22
Commercial & Industrial	0.97	1.02	1.09	1.04	0.28	0.22	0.17	0.13
Commercial Real Estate	0.76	0.69	0.65	0.72	0.07	0.03	0.01	0.01
Consumer	2.23	2.06	1.92	1.81	1.75	1.65	1.32	1.07

Bank Capital & Reserves*	2023:1	2022:4	2022:3	2022:2	2022:1	2021:4	2019:4
Common Equity Tier 1 Capital Ratio (%)	10.56	10.40	10.41	10.44	10.59	10.85	10.62
Loan-loss Reserve/Non-perf. Loans (%)	324	246	254	241	228	238	162

* Average of peer group of 29 large US banks (Source: S&P Capital IQ).

Credit spreads were mostly wider in the first quarter but have tightened modestly so far in Q2 (Figure 28). Loan fundamentals remain good—with loan delinquencies and charge-offs mostly remaining low. Moreover, bank capital and loan-loss reserves are healthy. However, problem loans are rising in consumer segments as higher interest rates and rising consumer loan balances strain some households (Figure 29). Commercial loans continue to perform well, but business bankruptcy filings and factors unfavorable to bankruptcy have trended higher (Figure 30). With interest rates up sharply and economic growth likely to slow later this year, we remain watchful of highly leveraged companies that may not be able to pass along higher operating and interest costs. Bankruptcy filings are likely to increase.

Figure 29: Consumer Loan Problems Up

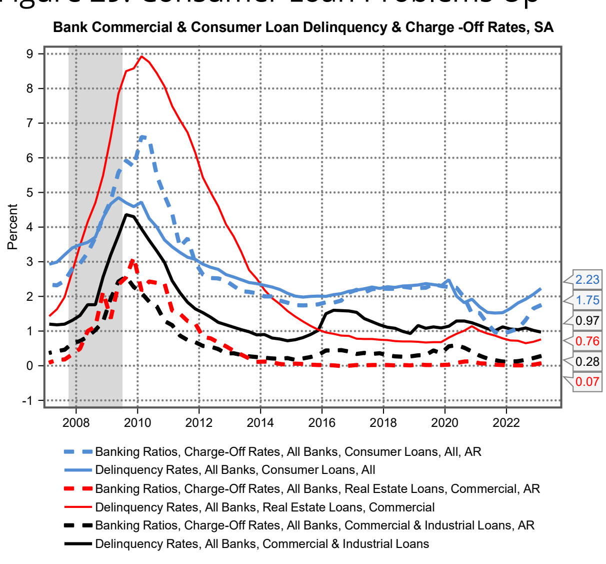
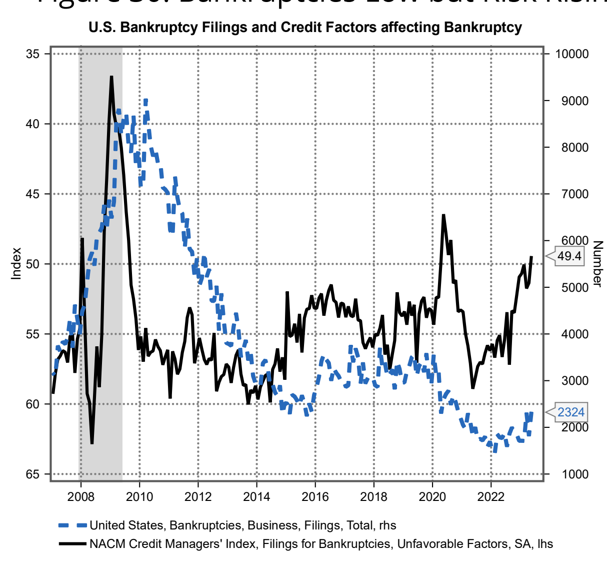


Figure 30: Bankruptcies Low but Risk Rising



Commercial real estate (CRE) loans at banks have raised investor concern, especially for loans on office properties. We expect that banks will see higher defaults and charge-off rates on that part of their loan books, but it generally is a small percentage of total loans. We do not expect a doom loop of foreclosures, lower values, and more foreclosures on CRE. After taking substantial losses in CRE loans in earlier cycles, banks raised lending standards significantly after the global financial crisis, typically lending 55-60% of building value at inception. While some loans will fall below those thresholds and lead to foreclosure, we think most should meet their contractual terms, and some will have their terms modified. Moreover, because they are secured, there should be some recovery on loans that do default. We are watching CRE closely but given the strong performance of other loan categories and already elevated loan-loss reserves on CRE, we think it will be manageable for banks.

Another worry has been banks' ability to meet deposit outflows, which accelerated following the bank failures in March and May that we noted above. They have funded outflows primarily by increasing other borrowings from the Federal Reserve and Federal Home Loan Banks and, to a lesser extent, by selling securities holdings. By our estimates, available liquidity can repay all uninsured deposits at the banks we cover. We believe that significantly reduces funding risk at these banks. Moreover, loan growth has slowed sharply as lending standards have tightened, putting less pressure on banks to raise new deposits (Figure 31).

Finally, investors have been concerned about unrealized losses on loans and securities at U.S. banks. Last year's rapid rise in rates lowered prices of nearly all fixed-income investments, even those with minimal or no credit risk like those in banks' securities portfolios. As intermediate- and long-term interest rates have fallen from their peaks last October, mark-to-market securities losses have declined (Figure 32). Meanwhile, banks' earnings have lifted common equity capital over that time. While higher interest rates remain a risk, we expect unrealized losses to narrow over the next several years. Low-yielding assets will be a headwind to earnings, but we do not see them as a systemic risk to banks.

Figure 31: Loan Growth at Banks Slowing

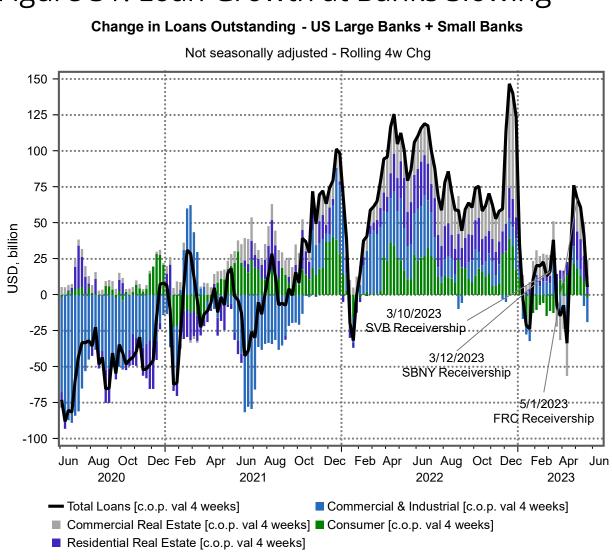
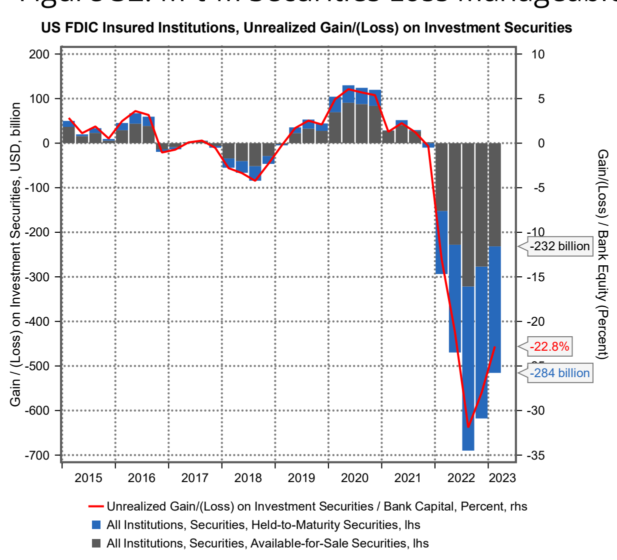


Figure 32: M-t-M Securities Loss Manageable



Tighter monetary policy and recession worries drove **credit spreads**[4] sharply wider in 2022, and they have remained volatile, but little changed on balance, since late last year. Investment-grade and high yield corporate bond spreads were 7 bp wider and 17 bp narrower, respectively, in the first quarter (Figures 28 and 33).[5] Spreads on the preferred securities index widened 6 bp over the same period.[6] Spreads on all three indices have narrowed so far in Q2, with larger moves in preferreds and high yield bonds.

Figure 33: Spreads Volatile, Roughly Flat

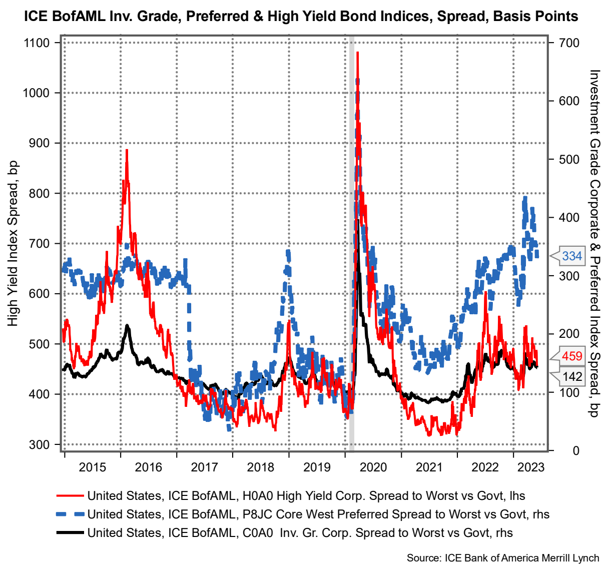
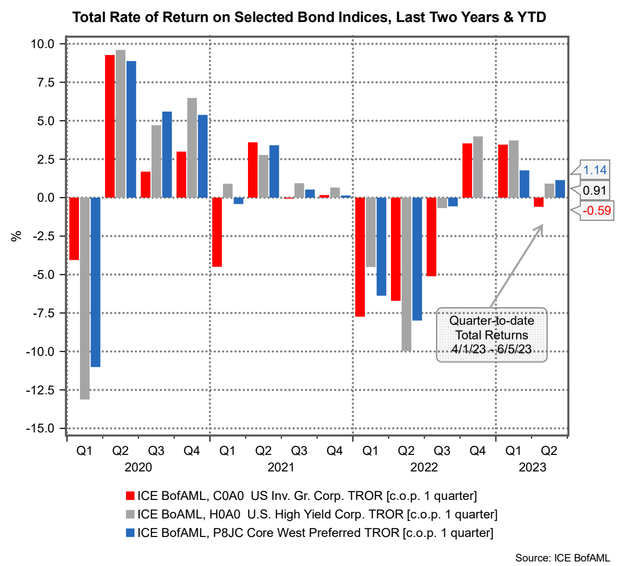


Figure 34: Risk Appetite Returning?



While we illustrate preferred spreads using spread to worst, preferreds' complex call features distort this simple spread measure in certain market environments, especially when prices of most preferred securities are above par (where they started 2022, but most trade below par today). Therefore, we also like to examine total rate of return, as it captures the impact of issuer redemptions as well as changes in credit spreads and Treasury yields. Figure 34 shows total returns on selected ICE BofA indices in recent quarters. The first three quarters of 2022 were terrible for almost all asset classes, including investment-grade and high-yield corporate bonds and preferred securities. Returns have been better since then, but looking

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[4] The benchmarks from ICE Data Indices, LLC ("ICE Data") are used with permission. ICE Data, its affiliates and their respective third-party suppliers disclaim any and all warranties and representations, express and/or implied, including any warranties of merchantability or fitness for a particular purpose or use, including the indices, index data and any data included in, related to, or derived therefrom. Neither ICE Data, its affiliates nor their respective third-party providers shall be subject to any damages or liability with respect to the adequacy, accuracy, timeliness or completeness of the indices or the index data or any component thereof, and the indices and index data and all components thereof are provided on an "as is" basis and your use is at your own risk. ICE Data, its affiliates and their respective third-party suppliers do not sponsor, endorse, or recommend Flaherty & Crumrine Incorporated, or any of its products or services.

[5] Investment-grade corporate bond spread is represented by the ICE BofA U.S. Corporate Index℠ (C0A0) "Yield to Worst versus Government" yield spread series. "Spread to Worst" is the lower of yield to call and yield to maturity minus yield on a comparable Treasury security. Index data through 6/5/2023.

[6] Preferred index is the ICE BofA 8% Constrained Core West Preferred & Junior Subordinated Securities Index℠ (P8JC). Index inception date was 3/31/2012; data through 6/5/2023.

at the period from December 31, 2021 to June 5, 2023, all three had sizable negative returns. Total return on the preferred index (-11.84%) outperformed the investment-grade corporate bond index (-13.05%) but trailed the high yield index (-7.07%) over that period.[7]

We remain confident in the credit fundamentals of most preferred issuers. Of course, credit risk and unrealized losses on securities investments could increase with additional monetary policy tightening, and that risk could outweigh the benefit of higher rates on earnings at banks and other financial businesses. However, given sizable reserves for potential loan losses, we think banks are well prepared for a recession, if that is what lies ahead. Moreover, both businesses and consumers should benefit from lower inflation that we believe will become more visible in the second half of 2023 and, especially, next year.

As inflation slows, interest rates fall, and an economic recovery begins in 2024, credit fears should recede. Markets are likely to anticipate that before rate cuts begin, although today's variable economic data—some strong, some weak—make it difficult to predict when that will occur. Although many risks remain, we continue to think most of the market's adjustments to higher rates and wider credit spreads are behind us. Yields on preferred securities are up significantly from a year ago and can offer attractive returns without the need for lower interest rates. Despite recent problems in the banking sector, we believe long-term investors can earn high income with moderate interest rate risk and good credit quality by investing in preferred and contingent capital securities today as they wait for better days ahead.

Flaherty & Crumrine Incorporated
June 5, 2023

[7] Total return is not annualized and includes both price change and income. Past performance does not guarantee future performance.