Flaherty & Crumrine

Second-Quarter U.S. Economic Update

August 2022

Summary of Recent Economic and Market Developments

The U.S. economy contracted slightly again in the second quarter. Overall real GDP fell 1.6%, and personal spending was the only major sector that recorded real growth. Hiring slowed but still averaged 384,000 job gains per month, and job openings remain elevated. Personal income rose moderately, with strong gains in wages and salaries, but failed to keep pace with inflation. Real personal consumption expenditures rose 1.0% in Q2, down from 1.8% in Q1 as consumers coped with sharply higher energy and food prices. Home sales fell as higher prices and mortgage rates hit demand, pushing real residential investment down 14%. Industrial output (+6.1%) had another strong quarter, but business investment fell slightly on weaker structures and equipment investment. Other sectors—trade (+1.4%), inventories (-2.0%), and government consumption (-0.3%)—together contributed -0.9% to real GDP.

Inflation remained very high, with food and energy prices up sharply. Year-over-year CPI reached a high of 9.1% in June before falling back to 8.5% in July, and the PCE deflator rose 6.8% YoY in June. Core inflation (excluding volatile food and energy prices) eased somewhat. Core CPI rose 5.9% YoY in July, down from a peak of 6.5% in March. The core PCE deflator was up 4.8% YoY in June, down from a peak of 5.3% in February. While the improvement in core inflation is good news, the employment cost index of wages and salaries, median CPI, housing inflation, and the Atlanta Fed's "Sticky" CPI all hit new YoY highs. We do not expect to see much progress on inflation until the fourth quarter.

The Fed hiked the fed funds rate by 125 bp in Q2 and another 75 bp in July to bring the fed funds target range up to 2.25-2.50%. Market forward rates show the fed funds rate peaking around 3.5% at year-end, holding steady until mid-2023, and falling in the second half of 2023 through 2024—to well below the Fed's projections. Yields on intermediate-term Treasuries rose sharply in Q2—peaking in mid-June—and declined substantially since then. Credit spreads behaved similarly. Lower rates and narrower credit spreads so far in Q3 have given credit index returns a welcome boost after a dreadful first half of 2022.

Although we anticipate a mild recession sometime after mid-2023, fundamental credit quality remains healthy. We think financial companies, which are the largest issuers in the preferred market, should benefit from higher interest rates and have the capital, earnings, and reserves to manage strains that a recession could bring. We believe today's higher yields on preferred and contingent capital securities offer a foundation for potentially better returns ahead.

Author's note: We recently changed the presentation of our Economic Update, organizing it by major economic sectors and markets. Most economic and market data now appear in tables and graphs, while accompanying prose focuses on explanation and analysis. In the data tables, we use green shading to highlight indicators that improved from the prior period, red shading on those that deteriorated, and no shading on indicators that were little changed. We hope you find the new format more readable and useful.

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)			
	2022:2	2022:1	2021*	2020*	2022:2	2022:1	2021*	2020*	2022:2	2022:1	2021*	2020*
Gross Domestic Product (GDP)	-0.9%	-1.6%	5.5%	-2.3%	7.8%	6.6%	11.8%	-1.0%	8.9%	8.3%	5.9%	1.3%
Personal Consumption Expenditures	1.0%	1.8%	6.9%	-2.4%	8.2%	9.0%	12.8%	-1.3%	7.1%	7.1%	5.5%	1.2%
PCE: Goods	-4.4%	-0.3%	7.3%	7.7%	5.3%	11.4%	16.1%	7.2%	10.2%	11.8%	8.2%	-0.5%
PCE: Services	4.1%	3.0%	6.7%	-6.9%	9.7%	7.7%	11.1%	-5.1%	5.4%	4.6%	4.1%	2.0%
Fixed Investment	-3.9%	7.4%	4.4%	0.5%	5.3%	17.9%	10.7%	2.2%	9.6%	9.8%	6.0%	1.7%
Business Investment	-0.1%	10.0%	6.6%	-3.8%	8.1%	17.6%	10.2%	-3.0%	8.1%	7.0%	3.4%	0.8%
Structures	-11.7%	-0.9%	-2.6%	-20.0%	2.2%	17.2%	8.9%	-19.4%	15.8%	18.2%	11.8%	0.7%
Equipment	-2.7%	14.1%	6.5%	-0.3%	5.3%	22.2%	9.2%	-1.1%	8.2%	7.1%	2.6%	-0.8%
Intellectual Property	9.2%	11.2%	11.5%	2.5%	14.1%	13.2%	12.0%	5.3%	4.5%	1.8%	0.4%	2.7%
Residential Investment	-14.0%	0.4%	-1.5%	15.7%	-2.2%	18.7%	11.9%	21.0%	13.7%	18.2%	13.6%	4.6%
Government Consumption	-1.9%	-2.9%	0.1%	1.2%	9.5%	6.6%	6.4%	3.0%	11.6%	9.8%	6.3%	1.8%
Federal	-3.2%	-6.8%	-1.1%	3.1%	2.9%	0.2%	3.6%	4.9%	6.3%	7.5%	4.7%	1.7%
State & Local	-1.2%	-0.5%	0.8%	0.0%	13.6%	10.7%	8.2%	1.9%	14.9%	11.2%	7.3%	1.9%
Domestic Final Sales	-0.3%	2.0%	5.3%	-1.3%	7.9%	10.1%	11.3%	0.1%	8.2%	8.0%	5.7%	1.4%
Private Domestic Final Sales	0.0%	3.0%	6.4%	-1.8%	7.6%	10.8%	12.3%	-0.6%	7.6%	7.6%	5.6%	1.3%

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.

The U.S. economy in the second quarter posted stronger nominal GDP growth, higher inflation, and weak real GDP growth (Figure 1). While not quite as bad as Q1, real GDP growth was again negative. Moreover, the composition of growth deteriorated, with real domestic final sales (overall and private) flat to down during the period. This is what stagflation looks like. Except for residential investment, nominal GDP rose strongly across major sectors—albeit at a slower pace than in Q1 in most cases—but inflation either remained high or worsened. After inflation, personal consumption expenditure on services was a highlight, while residential investment slumped, and business investment slowed. Real government consumption fell for the third consecutive quarter. The table above highlights that the U.S. economy does not have a demand problem—nominal spending remains impressive—it has an inflation problem.

Following disappointing growth in the first half of the year, economists forecast U.S. real GDP will expand by just 1.6% in 2022 and 1.1% in 2023, down from 2.7% and 2.1%, respectively, in the May survey.[1] For the second half of this year, GDP is forecast to grow by 1.5% in Q3 and 1.4% in Q4. Tighter monetary policy in the U.S. and slowing demand are expected to bring down year-on-year PCE inflation from 4.8% in 2Q2022 to 4.5% in 4Q2022, 2.9% in 4Q2023 and an average of 2.4% in 2024.

We admit that forecasting real GDP growth is exceptionally difficult currently. We think *nominal* GDP growth will slow modestly over coming quarters as consumers deplete savings from the pandemic and pare spending, residential investment remains subdued, and business investment slows. We are less sure about how quickly inflation comes down. If inflation falls quickly next year, the real GDP forecasts above will probably be too low. If inflation is stickier (our base case), the Fed will have to tighten more or leave rates at a restrictive level for longer than markets currently expect, and the economy could slip into

[1] Bloomberg *Monthly Economic Survey*, August 12, 2022, Bloomberg L.P.

recession. The consensus forecasts above imply that the Fed will engineer an economic "soft landing" by reducing core PCE inflation close to its 2% long-term target over the next several years while avoiding a recession. We continue to think that will be a very difficult task and expect a mild recession beginning in the second half of 2023 or in 2024. However, we still do not see excessive investment in homes, inventories, or plant and equipment that typically leads from boom to bust. If a recession arrives, it should be mild.

Employment, Income and Spending

Figure 2: Employment Overview

Employment	**MoMΔ (Level for Rates)**			**QoQ Change**			**YoY% Change**		**Chg vs.**
(Thousands except percents)	**Jul-22**	**Jun-22**	**May-22**	**2022:2**	**2022:1**	**2021:4**	**Jul-22**	**Jun-22**	**Feb-20**
Nonfarm Payrolls	528	398	386	1,152	1,616	1,912	4.2%	4.3%	32
Private	471	404	331	1,103	1,581	1,882	4.8%	4.9%	629
Household Employment	179	(315)	321	(347)	2,483	2,169	3.6%	4.2%	(576)
Labor Participation Rate %	62.1%	62.2%	62.3%	-0.2%	0.5%	0.2%	0.4%	0.6%	-1.3%
Unemployment Rate	3.5%	3.6%	3.6%	0.0%	-0.3%	-0.8%	-1.9%	-2.3%	0.0%

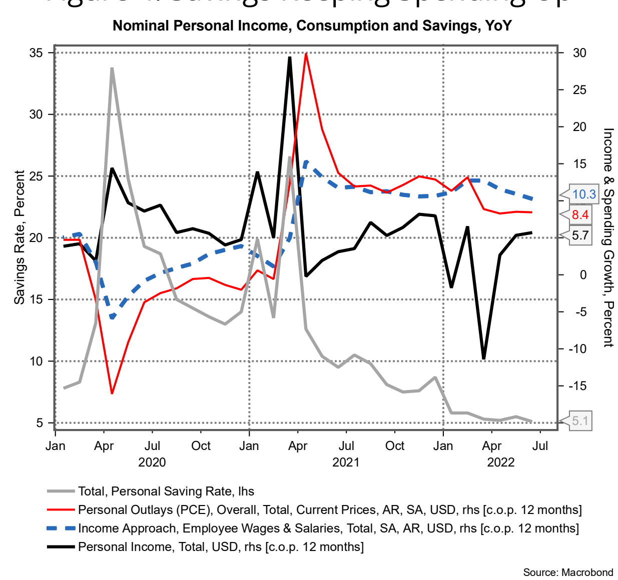
	MoM% Change			**QoQ% Change, AR**			**YoY% Change**		
Average Hourly Earnings	**Jul-22**	**Jun-22**	**May-22**	**2022:2**	**2022:1**	**2021:4**	**Jul-22**	**Jun-22**	**Feb-20**
Average Hourly Earnings, All	0.47%	0.44%	0.38%	4.7%	4.8%	6.1%	5.3%	5.2%	3.7%

	QoQ% Chg (not annualized)				**YoY% Change**				
Employment Cost Index	**2022:2**	**2022:1**	**2021:4**	**2021:3**	**2022:2**	**2022:1**	**2021:4**	**2021:3**	**2019:4**
Employment Cost, Total, Civilian	1.3%	1.4%	1.0%	1.2%	5.1%	4.5%	4.0%	3.7%	2.7%

The **labor market** slowed in the second quarter but continued to add jobs at an impressive pace. Moreover, nonfarm payrolls rose 1.15 million in Q2 and added 528,000 jobs in July, pushing payrolls above their prior peak in February 2020, just before the COVID-19 pandemic caused employment to plunge (Figure 2). Similarly, the unemployment rate dipped to 3.5% in July, equaling its pre-pandemic level. However, the household employment survey, which had outpaced the payroll survey for several quarters, recorded job losses in Q2 and only a modest gain in July, leaving it 576,000 jobs below its February 2020 peak. While the two surveys track closely over longer periods, they can diverge over shorter periods. In general, we put more weight on the much larger payroll survey, and that remains the case now. However, sustained weakness in the household survey (which produces the unemployment rate) may signal a turning point in hiring, and it bears watching.

Figure 3: Labor Market Still Tight; Wages Up

Figure 4: Savings Keeping Spending Up



While prospects for continued job growth remain good, the current pace of gains is bound to slow. Job openings declined for the third consecutive month in June, bringing the ratio of job openings to unemployed persons down to 1.81 from a high of 1.99 in March. That ratio is still very high historically, however. Even in February 2020, when the unemployment rate equaled today's 3.5%, the ratio of job openings to unemployment was 1.23. Unsurprisingly, both the employment cost index and hourly earnings continued to rise faster than when unemployment was at a similar level before the pandemic (Figure 3). Although higher wages usually are welcome, they add to production costs and may contribute to inflation becoming entrenched, if not offset by higher labor productivity—which has been weak this year. Tighter monetary policy and a slower pace of hiring should begin to dampen wage growth, but with job openings still elevated, we think it will take several more quarters to have an impact. Sticky wage growth would make the Fed's job considerably more difficult.

Figure 5: Personal Income and Spending

Personal Income and Consumption	MoM Change			QoQ Change (AR)			YoY Change		
	Jun-22	May-22	Apr-22	2022:2	2022:1	2021:4	2022:2	2022:1	2021:2
Personal Income	0.62%	0.60%	0.45%	6.8%	4.8%	3.6%	4.6%	-2.8%	1.6%
Wages & Salaries	0.46%	0.56%	0.50%	7.6%	9.8%	13.7%	10.9%	12.2%	13.4%
Real Disposable Pers. Inc.	-0.30%	0.01%	0.19%	-0.5%	-7.8%	-4.5%	-4.3%	-12.0%	-4.3%
ex Transfer Payments	-0.28%	0.15%	0.33%	1.0%	0.0%	2.9%	1.8%	2.8%	6.9%
Nominal PCE	1.07%	0.26%	0.48%	8.2%	9.0%	9.0%	8.4%	11.1%	20.7%
excl. Food & Energy	0.85%	0.12%	0.69%	7.1%	7.6%	8.3%	7.4%	10.4%	21.6%
Goods	1.63%	-0.75%	0.17%	5.3%	11.4%	11.4%	6.4%	10.7%	27.1%
Services	0.78%	0.79%	0.64%	9.7%	7.7%	7.8%	9.5%	11.3%	17.5%
Real PCE	0.12%	-0.33%	0.26%	1.0%	1.8%	2.5%	1.8%	4.5%	16.3%

Personal income grew strongly in nominal terms in Q2, but, once again, high inflation pushed real disposable personal income growth into negative territory, albeit less so than in Q1 (Figure 5). Excluding the impact of substantially lower transfer payments, real disposable personal income rose modestly in Q2. Gains in hourly pay and employment drove 10.3% annual and 7.6% quarterly gains in wage and salary income (Figures 4 and 5, respectively), although inflation pared them to only modest increases in real terms. Looking ahead, we expect further slowing in nominal personal income growth, partially offset by a gradual decline in inflation, leaving U.S. households with modestly lower real disposable personal income as tighter monetary policy cools the labor market.

Nominal **personal consumption expenditure** (PCE) slowed slightly in the second quarter but remained very strong (Figure 4). Goods spending slowed significantly, while services expenditure accelerated (Figure 5). After inflation, real PCE growth was up just 1.0% in Q2. Although U.S. consumers continue to see higher wages and good job availability, high inflation—especially sharply higher gasoline prices in Q2—and ongoing worries over war in Ukraine crushed consumer confidence during the quarter. The University of Michigan's consumer sentiment survey reached a record low in June of 50, although it improved slightly to 51.5 in July as energy prices dropped (Figure 6). The Conference Board survey does not look as dire, but it too dropped sharply during the quarter. Weaker confidence has not upended retail sales, but sales have not kept pace with inflation. Overall and core "retail control" categories of retail sales rose 8.4% and 5.3%, respectively, over 12 months ending in June. While that is down from their pace in Q1, they remain solid numbers. Adjusting overall and core retail sales for inflation using the overall and core CPI deflator, respectively, each are down 0.6%. Once again, the problem is not weak spending, the problem is high inflation, and consumers are feeling it.

Figure 6: Consumer Confidence Down, Out?

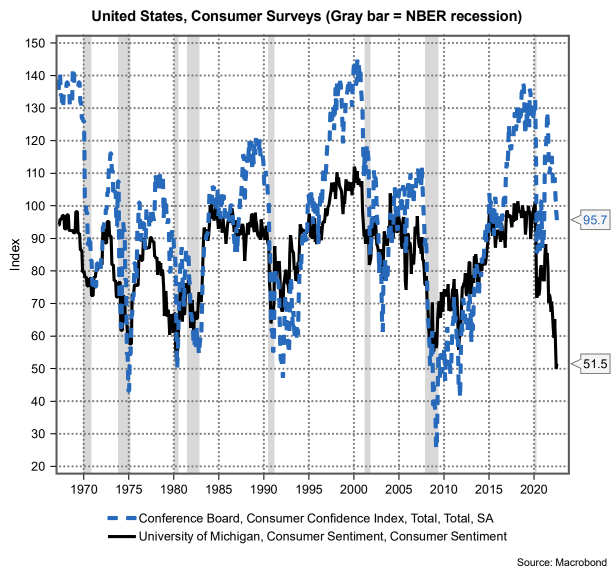
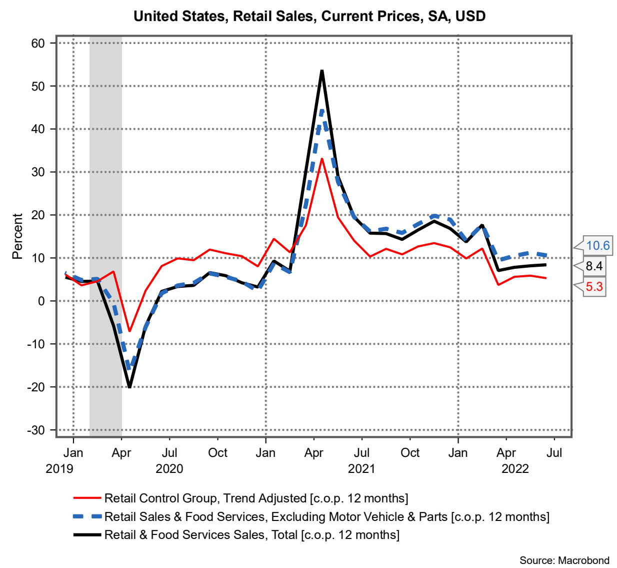


Figure 7: Retail Sales Holding Up, but…



Because spending slightly outpaced income again in Q2, the **personal saving rate** edged down to 5.1% in June from 5.3% in March, well below the pre-pandemic rate of about 7% (Figure 4). In aggregate, consumers are still sitting on large savings buffers accumulated during the pandemic and are spending down those savings to limit the hit to real spending as inflation picked up. However, as we noted last quarter, some consumers have turned to credit card borrowing to support spending. Revolving credit balances rose at a 19.3% annualized rate over three months ending in June, up from last quarter's 13.9% pace and far above an average of about 4% before the pandemic. While the ratios of household debt to GDP and interest expense to income remain manageable, the pickup in credit card borrowing suggests rising strain in some households and bears watching.

The Housing Market

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

	QoQ Change (AR)				YoY Change				
Residential Investment	**2022:2**	**2022:1**	**2021:4**	**2021:3**	**2022:2**	**2022:1**	**2021:4**	**2021:3**	**2019:4**
Nominal Residential Inv, AR	-2.2%	18.7%	14.4%	6.0%	8.9%	10.0%	11.9%	18.4%	4.7%
Real Residential Inv, AR	-14.0%	0.4%	2.2%	-7.7%	-5.0%	-4.4%	-1.5%	5.5%	2.2%
Implicit Deflator, AR	13.7%	18.2%	11.9%	14.8%	14.6%	15.0%	13.6%	12.2%	2.4%

	Sales Level (AR)			QoQ Change (AR)			YoY Change		
Home Sales & Prices	**Jun-22**	**May-22**	**Apr-22**	**2022:2**	**2022:1**	**2021:4**	**2022:2**	**2022:1**	**2021:4**
New + Existing Home Sales (000)	5,710	6,052	6,204	-41.0%	-7.0%	10.9%	-10.7%	-4.3%	-6.4%
Homes available for sale (000)	1,309	1,209	1,084	159.1%	-50.6%	-49.9%	-5.0%	-15.0%	-14.5%
S&P/Case-Shiller 20-city HPI Chg*	n/a	1.3%	1.7%	20.8%	24.5%	14.8%	19.6%	20.2%	18.4%

* First three columns are MoM% changes. QoQ and YoY change calculated using average index values of April and May for 2022:2

The **housing market** slumped in the second quarter as higher home prices and mortgage rates prompted a sharp slowdown in activity. After two quarters of small gains, real residential investment fell a remarkable 14.0% in Q2 (Figure 8). Investment was even down in nominal dollars. Home sales slowed, leaving June's sales pace 1.25 million units below the 4Q2021 average. Inventory of unsold homes also rose. That helped take some steam out of home prices, which slowed marginally in Q2 through May. However, prices are still up 20.5% over 12 months ending in May (Figure 9). High home prices and this year's sharp increase in mortgage rates caused affordability to plummet to levels last seen in the mid-2000s' housing boom (Figure 10). Residential investment is likely to remain a drag on GDP growth until affordability improves materially. In turn, that will require lower mortgage rates and a significant slowdown in home price gains—including lower prices in some markets. With the Fed tightening monetary policy, rents rising rapidly, and housing supply still very tight, we think residential investment is set for several years of weakness.

Figure 9: Home Prices Up, Sales Down

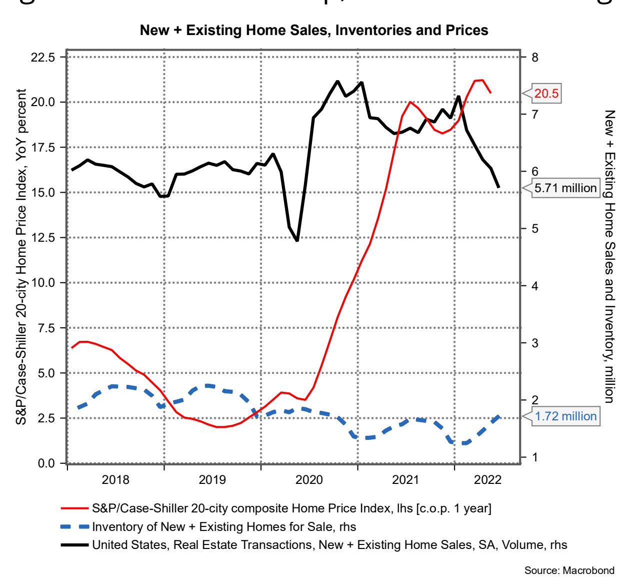
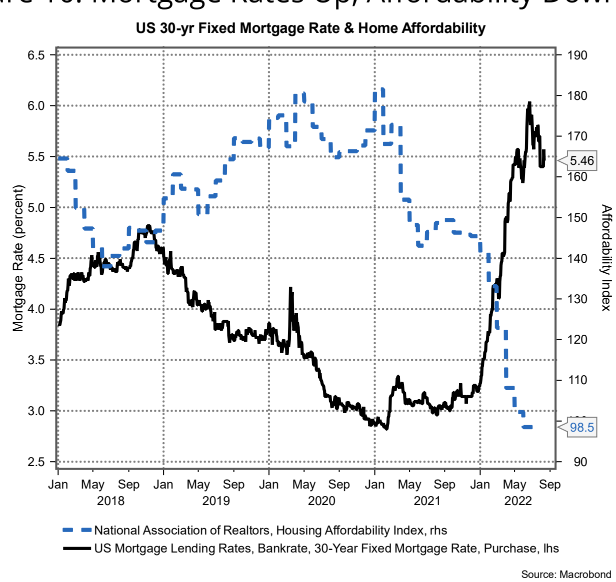


Figure 10: Mortgage Rates Up, Affordability Down



Business Investment and Industrial Output

Figure 11: Industrial Production, Orders, and Business Investment

	MoM Change			QoQ Change (AR)			YoY Change		
Industrial Output	**Jun-22**	**May-22**	**Apr-22**	**2022:2**	**2022:1**	**2021:4**	**2022:2**	**2022:1**	**2021:2**
Industrial Production	-0.20%	0.05%	0.77%	6.1%	5.1%	4.8%	4.6%	5.1%	13.9%
Manufacturing	-0.54%	-0.52%	0.66%	4.3%	3.9%	5.9%	4.1%	4.9%	16.0%

	MoM Change			QoQ Change (AR)			YoY Change		
Mfg Orders & Shipments	**Jun-22**	**May-22**	**Apr-22**	**2022:2**	**2022:1**	**2021:4**	**2022:2**	**2022:1**	**2021:2**
Manufacturing Orders, total	1.99%	1.76%	0.67%	16.3%	14.5%	14.0%	14.5%	12.5%	25.5%
NDCG ex aircraft*	0.73%	0.50%	0.35%	6.1%	6.6%	10.1%	8.9%	11.3%	19.0%
Real core orders**	-0.01%	-0.20%	-0.78%	-4.2%	-1.7%	4.0%	0.4%	14.7%	80.5%
Mfg Shipments, NDCG ex air	0.68%	1.01%	0.80%	8.2%	12.3%	13.4%	11.9%	12.5%	15.9%
Real core shipments**	-0.05%	0.31%	-0.34%	-2.1%	5.2%	3.6%	11.6%	19.9%	62.3%

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

Business Fixed Investment	QoQ Change (AR)				YoY Change				
	2022:2	**2022:1**	**2021:4**	**2021:3**	**2022:2**	**2022:1**	**2021:4**	**2021:3**	**2019:4**
Nominal Busi. Investment	8.1%	17.6%	11.0%	6.0%	10.6%	11.1%	10.2%	10.7%	4.0%
Real Business Investment	-0.1%	10.0%	2.9%	1.7%	3.5%	5.9%	6.6%	13.3%	3.1%
Implicit Deflator	8.1%	7.0%	7.8%	4.3%	6.8%	5.0%	3.4%	-2.3%	0.9%

Industrial production improved in the second quarter, led by a 14.5% surge in mining output (including oil and gas extraction) and moderate gains in manufacturing and utility output (Figures 11 & 12). Rising manufacturing output along with quicker deliveries and some moderation in input costs suggest that labor and materials shortages eased a bit during the quarter, though they remain headwinds to output.

Figure 12: Output Up, but Caution Ahead

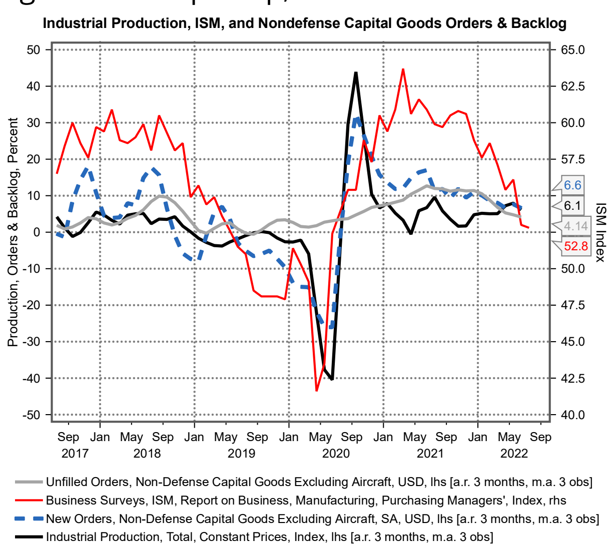
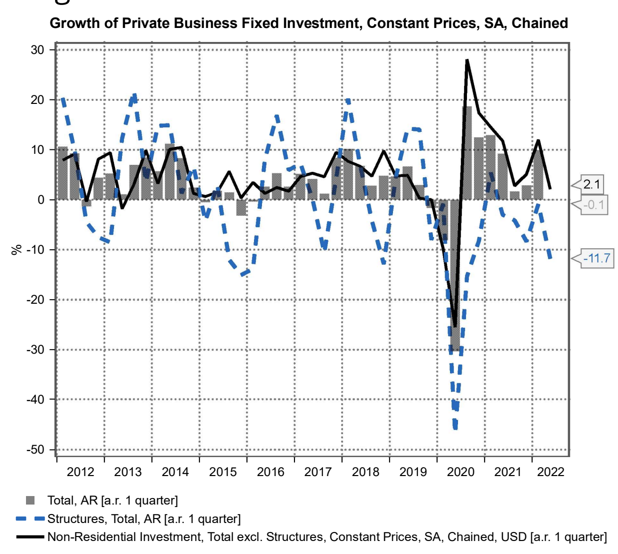


Figure 13: Business Investment Slower



Despite rising output, the Institute for Supply Management's manufacturing survey reveals a significant decline in business sentiment and activity. The overall index fell to 52.8 in July (50 is neutral), down from a peak of 63.7 in March 2021 (Figure 12). Manufacturing orders rose briskly again in Q2, although orders for core capital goods (nondefense, excluding aircraft) were considerably weaker, falling an estimated 4.2% after inflation (Figure 11). Backlogs grew at a slower pace (+4.1%), in part reflecting easing supply constraints. Inventories rose, but they remain historically lean relative to shipments. Capacity utilization rose to an average of 80.3 in Q2 from 79.5 in Q1. Rising utilization should drive ongoing demand for capital equipment, though at a slower pace than earlier in the reopening boom (Figure 14). We continue to believe output will grow moderately as supply constraints gradually diminish, order backlogs are filled, and investment in capital goods boosts capacity. However, it will face increasing headwinds from tighter monetary policy as the year progresses.

Real **business investment** edged down 0.1% in the second quarter as spending on structures fell for the fifth consecutive quarter and capital equipment spending slowed (Figure 11). While nominal spending was up across major investment categories, 8.1% average inflation in the sector erased that gain in real terms. As noted above, rising capacity utilization suggests investment should turn positive again as businesses seek to boost productivity at a time when hiring workers remains difficult, although the impulse from rising capacity utilization has diminished (Figure 14). We expect moderate growth in real business investment excluding structures over the balance of 2022.

Figure 14: Rising Utilization Supports CapEx…

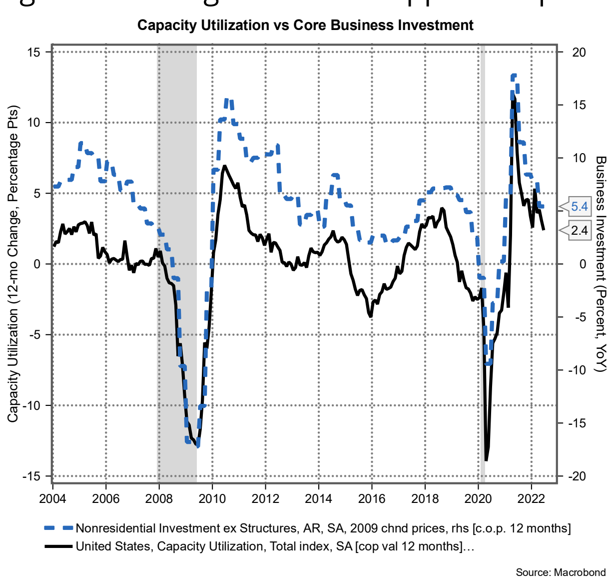


Figure 15: …but Productivity is a Problem

A potential stumbling block to stronger investment and hiring is declining productivity. Businesses invest in capital to boost capacity and raise productivity. However, productivity has dropped, and unit labor costs have increased despite generally strong business investment (Figure 15). It is unclear what is causing this—or indeed if it will be revised away as more complete data are available—but it does pose a risk to our relatively optimistic outlook for investment. For now, we expect productivity will turn up and businesses will continue to invest, albeit at a slower pace than earlier in the expansion.

International Trade, Inventories, and Government Consumption

Figure 16: Contribution to Change in GDP from Net Exports, Inventories & Government

	Contribution to QoQ GDP (%, AR)				Contribution to Annual GDP (%)			
Contribution to Change in GDP, %	**2022:2**	**2022:1**	**2021:4**	**2021:3**	**2021**	**2020**	**2019**	**2018**
Real GDP	-0.90	-1.60	6.90	2.30	5.70	-3.40	2.30	2.90
Net Exports	1.43	-3.23	-0.23	-1.26	-1.40	-0.29	-0.18	-0.27
Private Inventories	-2.01	-0.35	5.32	2.20	0.35	-0.52	0.05	0.16
Government Expenditure & Investment	-0.33	-0.51	-0.46	0.17	0.09	0.43	0.38	0.24
Federal	-0.20	-0.46	-0.29	-0.35	0.04	0.33	0.25	0.20
State & Local	-0.13	-0.05	-0.17	0.52	0.04	0.10	0.14	0.04

Foreign trade, inventories and government spending and investment made mixed contributions to second-quarter growth. Net exports was a moderate positive, while a slower pace of inventory accumulation was a larger negative (Figure 16). Government spending subtracted 0.3% from GDP, a slightly smaller negative than in the prior two quarters. In total, these sectors by themselves reduced real GDP by 0.9%.

The **trade deficit** in Q2 reversed a huge widening from the prior quarter, as real import growth slowed sharply while export growth jumped. (Figure 17). US trade volumes rose, with real imports up about $30 billion and real exports up $100 billion (annualized rates) in Q2. Those are up 16% and down 4%, respectively, compared to 4Q2019, the last full quarter prior to the pandemic. Despite political tensions, war in Ukraine, supply chain disruptions, and worries about globalization's demise, international trade remains brisk.

Figure 17: Trade Volumes Still Rising

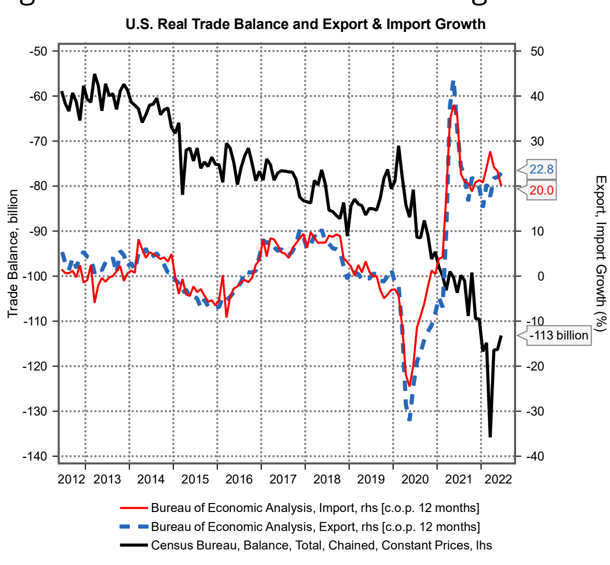
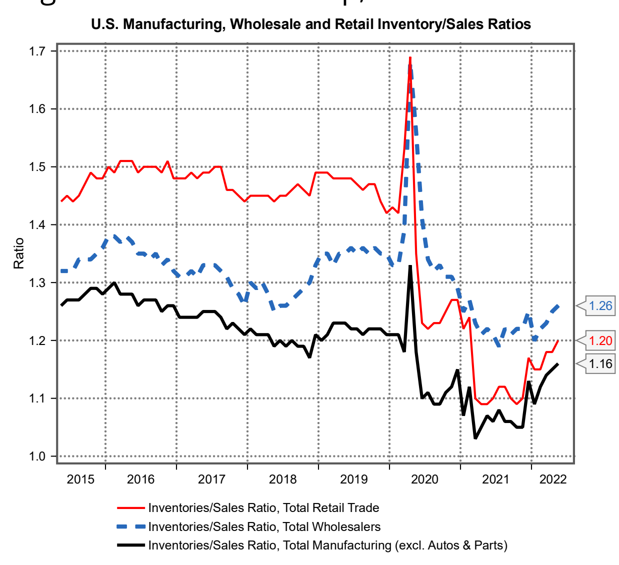


Figure 18: Inventories Up, with More Ahead



Businesses added to **inventories** in the second quarter, but because they rose at a slower pace than in Q1, inventories made a negative contribution to Q2 GDP (Figure 16). Inventory-to-sales ratios are now higher than in 2021, but they remain below pre-pandemic levels across major sectors (Figure 18). Given ongoing concerns about potential supply disruptions, we expect inventories to rise further, contributing to growth in orders and output over the next several quarters. Their contribution to GDP will vary quarter-to-quarter, but inventory accumulation should add modestly to growth this year.

Real **government consumption** fell again in the second quarter. Federal government spending edged down 0.8%, while state and local spending slipped 0.3%. Together they subtracted 0.3% from Q2 real GDP. Federal receipts were up 24% in the fiscal year beginning October 1, 2021 through July 31, 2022 compared to the year-earlier period. Outlays were down 18% as pandemic spending fell sharply. We expect modest growth in real state and local government spending over the balance of the year, but federal spending is likely to remain subdued.

Inflation

Figure 19: Inflation Rates

Key Inflation Rates	MoM Change			QoQ Change (AR)			YoY Change			
	Jul-22	Jun-22	May-22	2022:2	2022:1	2021:4	2022:2	2022:1	2021:2	2019:4
Consumer Price Index	0.0%	1.3%	1.0%	10.5%	9.2%	7.9%	8.6%	8.0%	4.8%	2.0%
ex food & energy	0.3%	0.7%	0.6%	6.6%	6.5%	5.6%	6.0%	6.3%	3.7%	2.3%
Owners' Equiv. Rent	0.6%	0.7%	0.6%	6.3%	5.3%	5.1%	5.1%	4.3%	2.2%	3.3%
	Jun-22	May-22	Apr-22	2022:2	2022:1	2021:4	2022:2	2022:1	2021:2	2019:4
PPI Final Demand	1.1%	0.9%	0.4%	11.7%	13.1%	8.7%	11.1%	10.7%	7.0%	1.1%
ex food & energy	0.4%	0.6%	0.3%	7.2%	10.4%	7.0%	8.5%	9.0%	5.2%	1.4%
	Jun-22	May-22	Apr-22	2022:2	2022:1	2021:4	2022:2	2022:1	2021:2	2019:4
PCE Deflator, total	1.0%	0.6%	0.2%	7.1%	7.1%	6.4%	6.5%	6.3%	3.9%	1.5%
ex food & energy	0.6%	0.3%	0.3%	4.4%	5.2%	5.0%	4.8%	5.2%	3.4%	1.6%
Goods	1.5%	0.9%	-0.2%	10.2%	11.8%	10.2%	9.8%	9.6%	5.0%	-0.2%
Services	0.6%	0.4%	0.4%	5.4%	4.6%	4.4%	4.7%	4.6%	3.2%	2.3%

Broad measures of **inflation** rose on a YoY basis in the second quarter from already-high levels, although there was a little improvement in core inflation, and QoQ inflation eased in spots (Figure 19). Using Q2 average index levels compared to the same quarter a year earlier for our calculations, the Consumer Price Index (CPI) rose 8.6%, the Producer Price Final Demand Index (PPI) was up 11.1%, and the PCE deflator rose 6.5%—all higher than in Q1. Higher energy prices (up over 50% at an annual rate from Q1 to Q2) were primarily responsible for the increases. More positively, excluding volatile food and energy prices, both core CPI and core PCE peaked on a 12-month annual basis in Q1 and came down a bit in Q2 (Figure 20).

Figure 20: Inflation High, but Core Easing

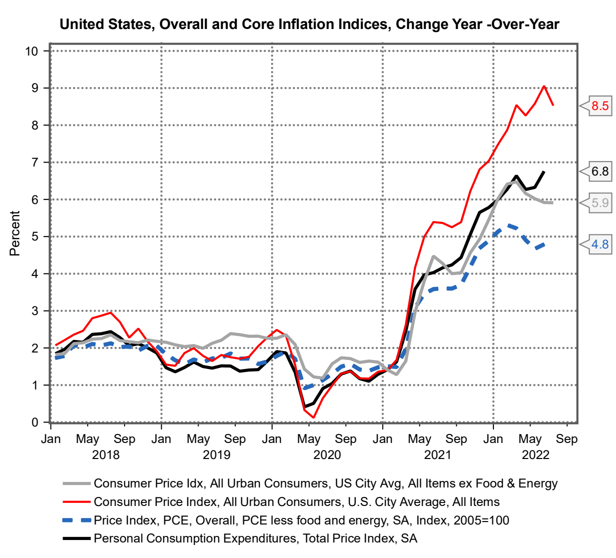
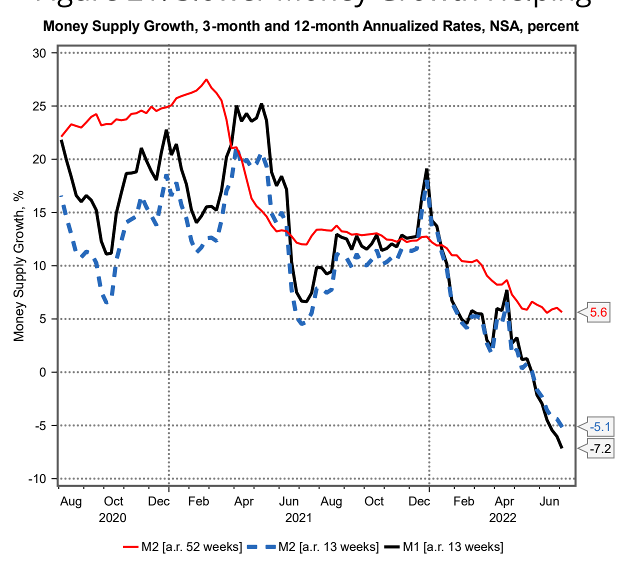


Figure 21: Slower Money Growth Helping



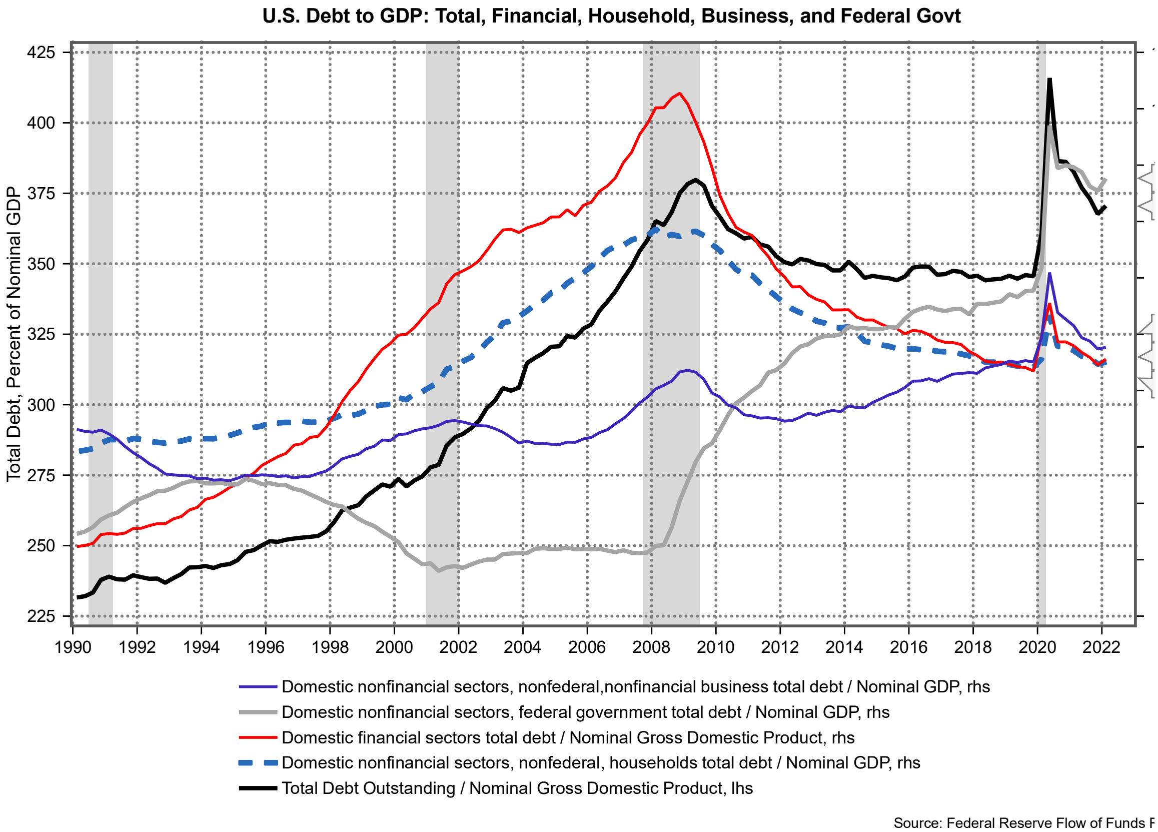
However, inflation from Q1 to Q2 in housing (+8.8%), the Cleveland Fed's median CPI (+7.6%), and the Atlanta Fed's "sticky" CPI (+7.0%) show that underlying inflation remained high. In addition, the labor market is tight, and employment costs are rising quickly. While there is some evidence of progress toward lower inflation in spots—notably, energy and grain prices are down significantly since June—the Federal Reserve is far from declaring "mission accomplished" on inflation.

Money supply growth has slowed sharply and should reinforce the disinflationary impact of higher borrowing costs and slower economic growth over the next 12-18 months. Looking back, M2 was up 25% in 2020 and 12.7% in 2021 (Figure 21). As the pandemic began to recede in early 2021, a rapid global recovery in demand collided with constrained supply, and inflation started its ascent. Easy monetary policy and rapid money growth accommodated it, and we are still feeling its impact. This year, M2 growth has slowed meaningfully, turning negative for the past few months as the Fed's balance sheet shrinks. That should give inflation a strong push down, albeit with a lag.

We expect only limited progress on inflation over the next few months, with larger declines in the fourth quarter and into 2023 as monetary policy tightens, the global economy slows, and supply chains catch up to demand. The current period of stagflation should be relatively short. However, it may take more tightening or a longer period of restrictive monetary policy than markets currently expect to root out inflation. The war in Ukraine and rising global trade tensions could prompt renewed supply shortages and higher prices, and labor costs in a tight labor market could prove stickier than we hope. In short, there is risk that inflation is less cooperative than we expect. We will continue to follow inflation developments closely.

Aggregate Debt Ratios

Figure 22: Debt-to-GDP Up in Q1; Private Sector Debt Remains Low



Broad **balance sheet trends** through the first quarter of 2022 (latest data available) show modest increases in debt-to-GDP ratios across borrowing sectors (Figure 22). Overall debt-to-GDP rose 3% to 371%, mostly on a 2.2% jump in Federal government debt. After surging early in the pandemic, private sector borrowing relative to GDP is back near pre-pandemic levels. Households increased leverage marginally, while financial leverage increased by 1% as loan demand rose. Nonfinancial business leverage rose only slightly, but it remains above its financial crisis peak. Higher interest rates could add a significant burden to heavily indebted (i.e., low- or non-rated) nonfinancial businesses or to companies unable to pass through rising costs, and we remain watchful for signs of strain in that sector. For the overall U.S. economy, and for households and financial businesses in particular, we do not believe debt levels pose a major risk to our outlook.

Interest Rate and Monetary Policy Outlook

Figure 23: Key Interest and Policy Rates

Interest Rates (%, end of period)	8/15/22	2022:2	2022:1	2021:4	2021:3	2021:2	2021:1	2020:4
Fed funds rate target (upper bound)	2.50	1.75	0.50	0.25	0.25	0.25	0.25	0.25
3-month LIBOR	2.94	2.29	0.96	0.21	0.13	0.15	0.19	0.24
2-Yr Treasury note yield	3.20	2.92	2.28	0.73	0.28	0.25	0.16	0.13
10-Yr Treasury note yield	2.79	2.98	2.32	1.52	1.52	1.45	1.74	0.93
30-Yr Treasury note yield	3.10	3.14	2.44	1.90	2.08	2.06	2.41	1.65

Long-term **Treasury rates** rose again in the second quarter but have seen mixed performance since quarter-end (Figure 23). High and persistent inflation kept the Federal Reserve on a rapid path of tightening, and short rates rose consistently. Intermediate- and long-term rates rose sharply until mid-June but have since declined on worries over economic growth. Since the beginning of 2022 to August 15, ten- and 30-year Treasury yields are up 127 and 120 basis points (bp), respectively, considerably less than the 225 bp of rate hikes the Fed has implemented over that time. As a result, the yield curve flattened, with the 2-year now the highest point on the benchmark Treasury yield curve—excluding the 20-year benchmark, which is about 10 bp higher. Market forward rates point to more policy tightening in Q3 and Q4, followed by a brief period of stable rates and rate cuts starting in the second half of 2023 (Figure 24).

Figure 24: Market Expects Early Peak in Rates[2]

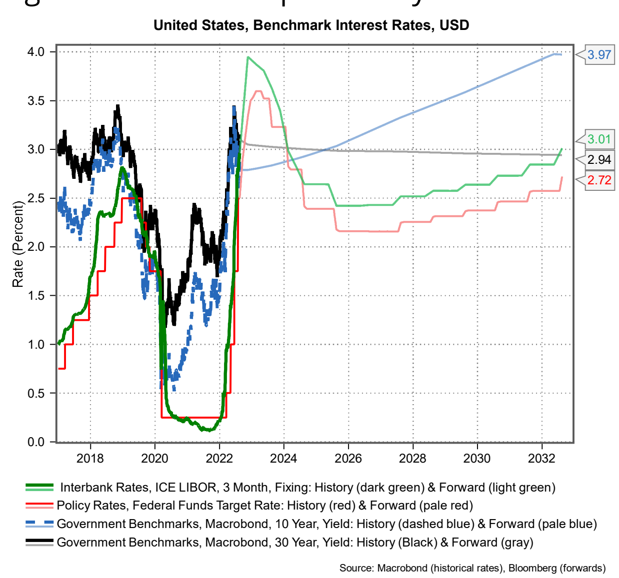
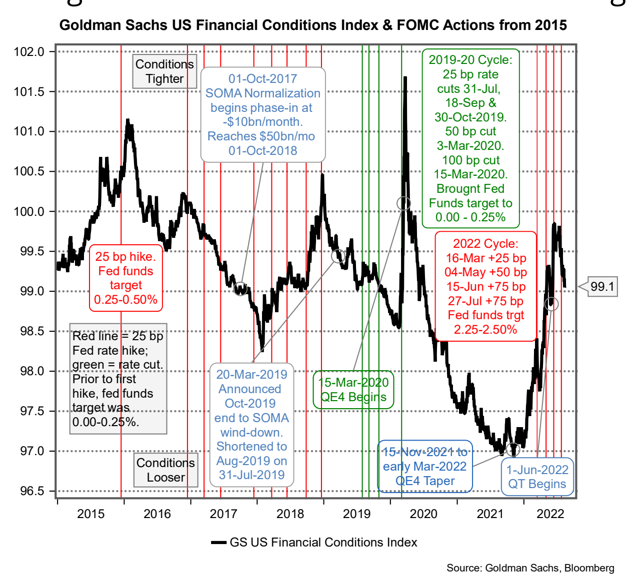


Figure 25: Financial Conditions Now Easing



Given a sharp pickup in inflation this year, the Federal Open Market Committee (FOMC) at its June 14-15 meeting raised its median projection for the year-end 2022 fed funds rate to 3.4% (consistent with a target range of 3.25-3.50%), up from projections of 1.9% in March 2022 and

[2] 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.

0.9% in December 2021. For year-end 2023, the FOMC's median fed funds projections were 3.8%, 2.8%, and 1.6% in June 2022, March 2022, and December 2021, respectively. While the FOMC did not release updated projections following its July 26-27 meeting, Chairman Powell repeatedly noted in a post-meeting press conference that the June projections still summarized the FOMC's thinking around an appropriate path of rate hikes. The evolution of these projections reflects higher and broader inflation and the FOMC's determination to bring it down.

The FOMC announced no changes to the pace of securities reductions to the Fed's System Open Market Account (SOMA). The Fed will pare Treasury holdings by up to $30 billion and agency mortgage-backed securities by up to $17.5 billion per month through August. The pace of reductions is slated to double in September. Initially, the Fed will achieve those reductions by not reinvesting maturing Treasuries (primarily notes and bonds, not Treasury bills) and principal paydowns on mortgages. Later, it intends to sell securities when needed to reach those targets, although probably not until 2023. Those reductions will contribute to slower money supply growth and upward pressure on interest rates.

Markets today are more sanguine about rates than the FOMC. Market forward rates currently price in a 50 or 75 bp rate hike in September 2022, followed by 25 bp rate hikes in November and December, bringing the top end of the fed funds rate to 3.50-3.75% at year-end 2022, close to the FOMC's 3.4% projection. However, after holding around 3.5% through mid-year 2023, markets expect the fed funds rate to fall to about 3.25% by year-end 2023, rather than continue hiking rates to about 3.8%. Similarly, markets expect lower rates in 2024, with the fed funds rate falling to about 2.4% at year-end 2024, 100 bp below the FOMC's most recent projection (Figure 24). This shift in market rates, along with a rebound in common stock prices and a slightly weaker U.S. dollar, unwound some of the tightening in financial conditions that occurred in Q2—and that the Fed relies on to transmit monetary policy to the real economy.

With inflation by any measure over 4.5%, the fed funds rate is not yet neutral, much less restrictive. We expect the Fed to hike rates to a peak of about 3.75% in 2023 (only a little higher than market forwards) but maintain that peak for longer and then cut rates by less than the market is currently pricing. We think intermediate- and long-term interest rates will rise moderately, perhaps by 50 bp, from current levels as the Fed proceeds along the tightening path it has outlined.

Given a recent decline in energy prices, the Fed may be able to engineer an economic "soft landing" (bringing inflation back to target while avoiding recession) if the supply side of the economy improves while the demand side slows and wage growth moderates. Lags in monetary policy and a wide gap between current inflation and the Fed's inflation target makes its job very difficult, however. At the same time, we do not see excessive investment in homes, inventories, or plant and equipment that typically leads from boom to bust. Risk of a severe recession appears low. We believe a mild recession remains the most likely outcome.

Credit Conditions and Outlook

Figure 26: Selected Credit Spreads and Quality Metrics

Credit Spreads (bp, end of period)	8/15/22	2022:2	2022:1	2021:4	2021:3	2021:2	2021:1	2020:4
ICE-BofAML Index, spread to worst								
US Corporate (C0A0)	141	163	121	95	84	82	91	98
US High Yield (H0A0)	443	592	371	330	331	318	353	390
US Preferred & Hybrid (P8JC)	257	332	240	178	170	137	166	203
10-Yr Interest Rate Swap Spread (bp)	3.9	8.3	5.8	6.3	2.3	(2.6)	3.6	0.8

	Delinquencies (% of loans)				Charge-Offs (% of loans)			
Bank Loan Quality (%) (FRB)	2022:1	2021:4	2021:3	2021:2	2022:1	2021:4	2021:3	2021:2
US Banks, Total Loans	1.24	1.31	1.28	1.32	0.21	0.20	0.20	0.26
Commercial & Industrial	1.06	1.12	1.03	1.05	0.11	0.13	0.15	0.21
Commercial Real Estate	0.78	0.77	0.85	0.92	0.01	0.02	0.03	0.06
Consumer	1.63	1.64	1.52	1.45	0.95	0.94	1.00	1.22

Bank Capital & Reserves*	2022:2	2022:1	2021:4	2021:3	2021:2	2021:1	2019:4
Common Equity Tier 1 Capital Ratio (%)	10.47	10.64	10.85	11.23	11.38	11.49	10.62
Loan-loss Reserve/Non-perf. Loans (%)	241	229	236	228	229	236	162

* Average of peer group of 31 large US banks (Source: S&P Capital IQ)

Credit spreads widened sharply in the second quarter but recovered a substantial portion of that selloff since the quarter ended (Figure 26). Credit fundamentals remained good but edged down in spots as tighter monetary policy and higher interest rates roiled financial assets. Business bankruptcy filings were little changed, but factors unfavorable to bankruptcy filings as measured by the National Association of Credit Management rose to around pre-pandemic levels (Figure 27). The increase in unfavorable factors probably reflects rapidly rising interest expense, which squeezes highly leveraged companies that cannot fully pass along higher operating and interest costs. Bankruptcy filings are likely to increase.

Figure 27: Bankruptcies Remain Subdued

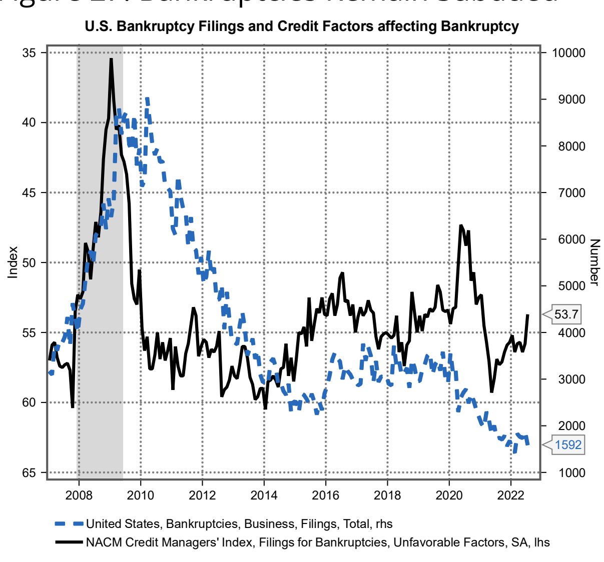
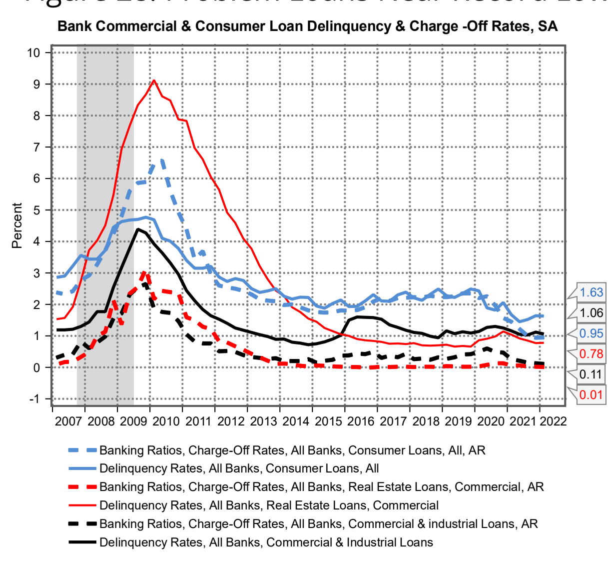


Figure 28: Problem Loans Near Record Lows



Bank loan quality was steady or slightly better in Q1 (latest data available), as it has been for the past year (Figures 26 and 28). Charge-offs remain near record lows, and delinquencies are low and stable. Bank loan quality remains outstanding. While there are risks on the horizon, banks are prepared to manage through a recession. Common Equity Tier 1 (CET1) capital protects banks against unexpected (but inevitable) credit, market, and operational losses. In addition, it is the only layer of capital that is junior to preferred stock. Banks' CET1 ratios remain well above pre-pandemic levels (which were already good), but they slipped this year as higher interest rates hurt the value of banks' securities portfolios. These are generally high quality, liquid assets whose values are likely to recover as they approach maturity. We do not view these mark-to-market declines as credit problems.

While charge-offs have remained low, large banks boosted the ratio of loan-loss reserves to non-performing loans to an average of 241% in Q2 (Figure 26). Along with pretax, pre-provision earnings, loan-loss reserves are an important layer of protection for CET1; we are happy to see more.

At the end of June, the Federal Reserve released this year's Dodd-Frank Act stress testing (DFAST) results for large US banks. All 33 banks "passed" the 2022 stress test. Under the 2022 "severely adverse scenario"—which factored in unemployment peaking at 10% in 3Q23, real GDP down 6.2%, equities down 55%, house prices down 28.5% and commercial real estate down 40%—the average minimum common equity Tier 1 (CET1) capital ratio for this year's 33 bank participants was 9.7%, meaning these large U.S. banks remained "well-capitalized," and no bank breached minimum capital requirements during the two-year stress period. Large U.S. banks are well prepared for a recession, should one arrive, over the next several years.

The Fed also conducted its 2022 Comprehensive Capital Analysis and Review to evaluate bank capital plans given DFAST results. Our main takeaway is that banks continue to exercise discipline regarding common shareholder returns. They maintain flexibility to increase dividends and share repurchases if earnings accelerate or dial them back if earnings slip. Most money center banks will be subject to higher CET1 capital requirements effective October 1, 2022, which will restrain their share repurchases for now. Given risk from monetary policy tightening, we expect banks to maintain conservative capital and loan-loss positions over coming quarters.

Turning to major borrowing groups, **household debt service** currently is not a burden to consumers. The Federal Reserve's debt service ratio (DSR) and financial obligation ratio (FOR) estimate payments on household debt and major household obligations[3] as a percentage of disposable personal income. As of 1Q2022 (latest data available), the DSR was 9.5% and the FOR was 14.2%, both higher than in prior quarters but still below pre-pandemic levels (Figure 29). While higher interest rates should boost those ratios and dampen discretionary

[3] Household debt service includes payments on home mortgage loans, student and personal loans, and automobile, marine and recreational vehicle loans. The financial obligation ratio (FOR) adds in residential rent payments for renters, property taxes and homeowner's insurance payments for owner-occupied property, and personal automobile lease payments. See https://www.federalreserve.gov/releases/housedebt/about.htm.

spending, it will take time, given that most household loans (excluding revolving credit, such as credit cards) have fixed terms.

Figure 29: Household Debt Not a Burden

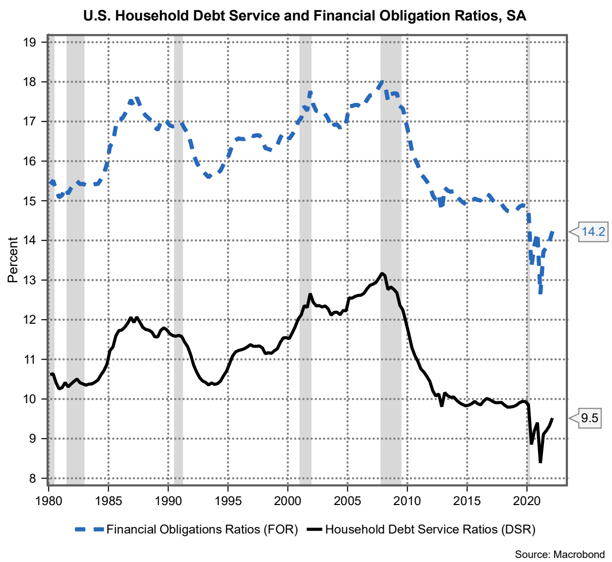
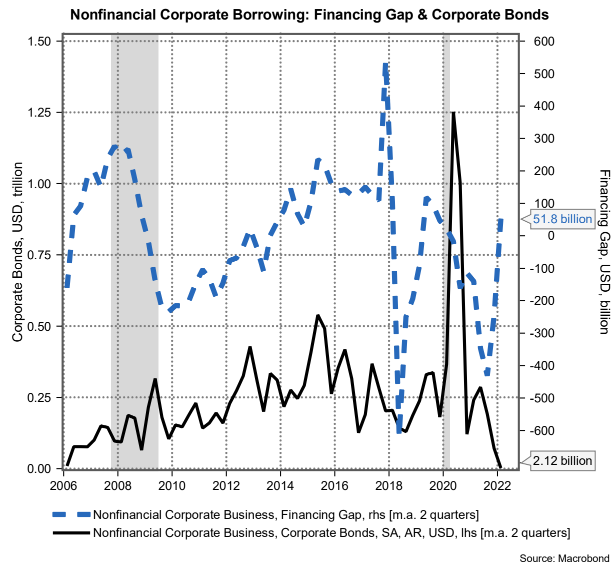


Figure 30: Financing Gap Increasing



As of 1Q2022, the "financing gap" (i.e., capital expenditures less internally generated funds) at nonfinancial corporations turned slightly positive ($52 billion) on a 2-quarter moving average basis (Figure 30). That shift reflects both narrower operating margins from higher input costs and higher capital expenditures to boost output or productivity. While that is a change from the past several years, when these businesses had ample cash flow for investment, they are not overextended. Higher interest rates mean interest expense should increase and may push some highly leveraged companies into bankruptcy or restructuring. However, we do not expect widespread problems servicing debt at nonfinancial businesses.

Figure 31: Spreads Wider but Recovering

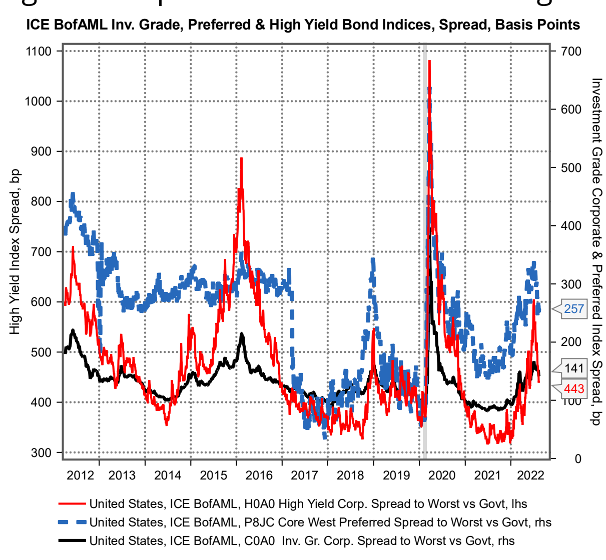
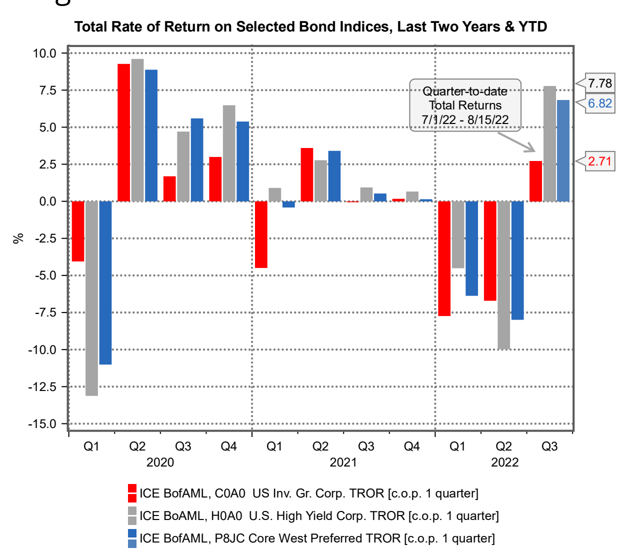


Figure 32: Some Relief after First-Half Rout



As noted above, tighter monetary policy and recession worries drove **credit spreads**[4] wider in Q2, although spreads have narrowed so far in Q3. From year-end 2021 through August 15, 2022, investment-grade and high-yield corporate bond spreads widened 46 and 113 bp, respectively (Figures 26 and 31).[5] Spreads on the preferred index widened 79 bp over the same period, falling between investment grade and high-yield spreads.[6]

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 (which is not the case currently). 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 32 shows total returns on selected ICE BofA indices in recent quarters. The first half of 2022 was a terrible period for almost all asset classes, including investment-grade and high-yield corporate bonds and preferred securities. Fortunately, the third quarter so far has been better. Total return from January 1, 2022 through August 15, 2022 on the preferred index (-7.34%) significantly outperformed the investment-grade corporate bond index (-11.59%) and was ahead of the high-yield index (-7.98%) by a narrower margin.[7]

We remain confident in the credit fundamentals of most preferred issuers. The investment grade and high-yield indices are dominated by nonfinancial companies, which are exposed to rising interest rates. While that is a smaller concern for investment grade companies, it is a major risk for many high-yield companies. In contrast, financial companies, which are by far the largest issuers of preferred securities, tend to *benefit* from rising rates. Banks today are asset-sensitive, meaning interest income tends to rise more quickly than deposit cost as interest rates move up, boosting margins. Finance companies also tend to raise their lending rates faster than their funding costs. Higher rates mean insurance companies earn more on their investment portfolios. Of course, credit risk also increases with tighter monetary policy, so there is a limit to the benefit of higher rates for financial companies. However, (i) we think rates would need to rise considerably more than we anticipate before that risk would become worrisome, (ii) nonfinancial firms should feel pain from a recession before financial firms do,

[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 8/15/2022.

[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 8/15/2022.

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

and (iii) as the Fed's DFAST results show, banks have sizable loan-loss reserves, earnings cushions, and capital to absorb potential losses in a recession. We think financial companies are well prepared for a recession, if that is what lies ahead.

With economic prospects uncertain and the Fed poised to tighten at least 100 bp between now and year-end, higher yields are likely to remain a headwind to preferred returns for now. However, given the rise in rates and spreads that has already occurred this year, we think most of the adjustment is behind us and that today's yields of over 6% (with some issues much higher) offer a foundation for potentially better returns ahead. We believe long-term investors should focus on the benefits that preferred and contingent capital securities continue to offer: moderate interest rate risk, high income, and good credit quality.

Flaherty & Crumrine Incorporated
August 15, 2022