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The US economic update

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The US outlook: Key themes



- We think a hard landing is more likely than not. We look for a mild recession this year on tighter monetary policy and a willingness to err on the side of tightening more than less.
- Inflation remains elevated, but energy prices have moved lower and core goods prices are beginning to retrace. We expect Core PCE to fall to 2.5% q4/q4 by yearend 2023 and 2.1% by yearend 2024.
- The labor market is tight. Job openings remain near record highs and labor supply is constrained. Our forecast for the U-3 unemployment rate is 5.1% in Q1 2024.
- We expect the Fed to raise its policy rate by 25bp in February and to 5.0-5.25% by May. The Fed’s “overarching focus” is to restore price stability and sees labor markets as “clearly out of balance.”

BofA US Economic Outlook: Forecast highlights

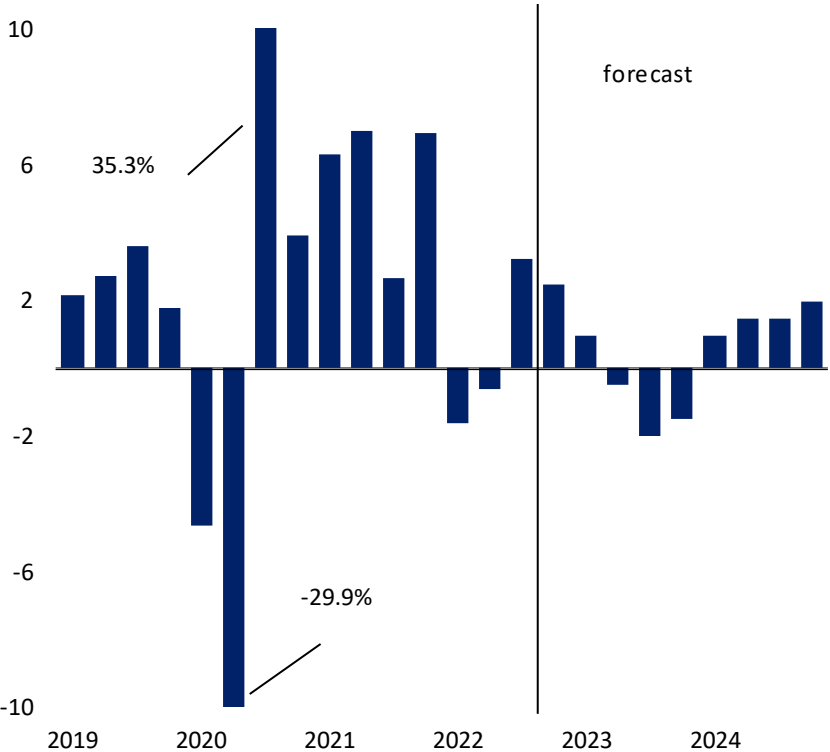
q/q % saar unless indicated	1Q 23	2Q 23	3Q 23	4Q 23	1Q 24	2Q 24	3Q 24	4Q 24
Real GDP	1.5	-0.5	-2.0	-1.5	1.0	1.5	1.5	2.0
Final sales to domestic purchasers	0.5	-1.0	-2.0	-1.0	1.5	2.0	2.0	2.0
Private consumption	1.5	-0.5	-2.0	-1.5	1.0	1.5	1.5	2.0
Nonres investment	0.5	-1.0	-2.0	0.5	4.0	4.0	4.0	4.0
Residential investment	-12.0	-10.0	-5.0	1.0	3.0	3.0	2.0	2.0
Unemployment rate (%)	3.5	3.8	4.4	4.8	5.1	5.1	5.0	4.9
PCE inflation (% yoy)	4.3	3.3	2.8	2.4	2.4	2.2	2.1	2.2
Core PCE inflation (%/yoy)	4.1	3.6	3.0	2.5	2.2	2.1	2.1	2.1
Federal funds target	4.75-5.00	5.00-5.25	5.00-5.25	5.00-5.25	4.75-5.00	4.25-4.50	3.75-4.00	3.25-3.50

Investment to lead, consumer to follow



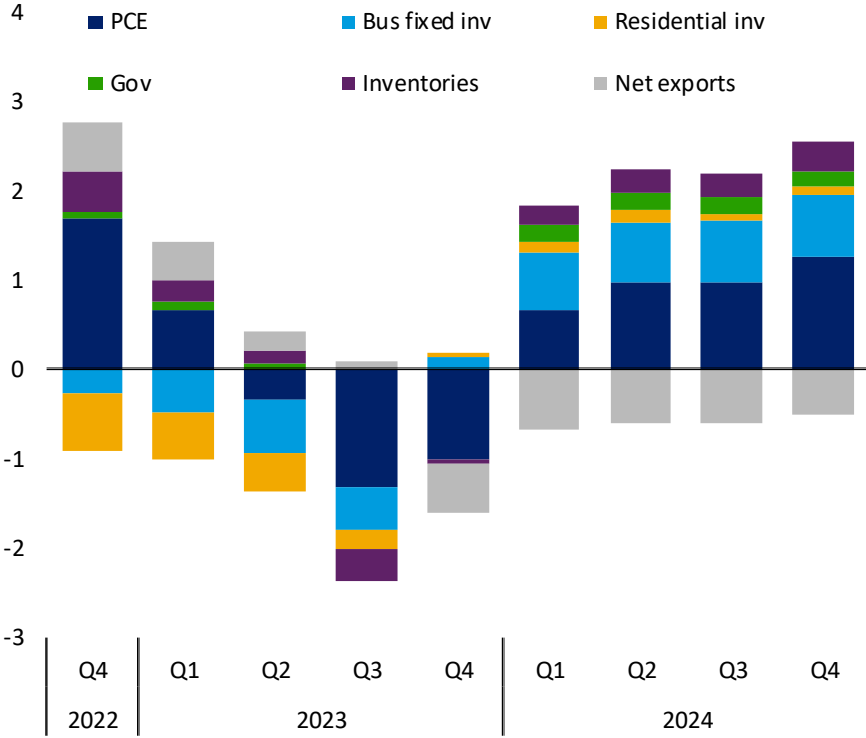
GDP quarterly forecast (% q/q annualized rate)

We now expect the recession to begin in 2Q

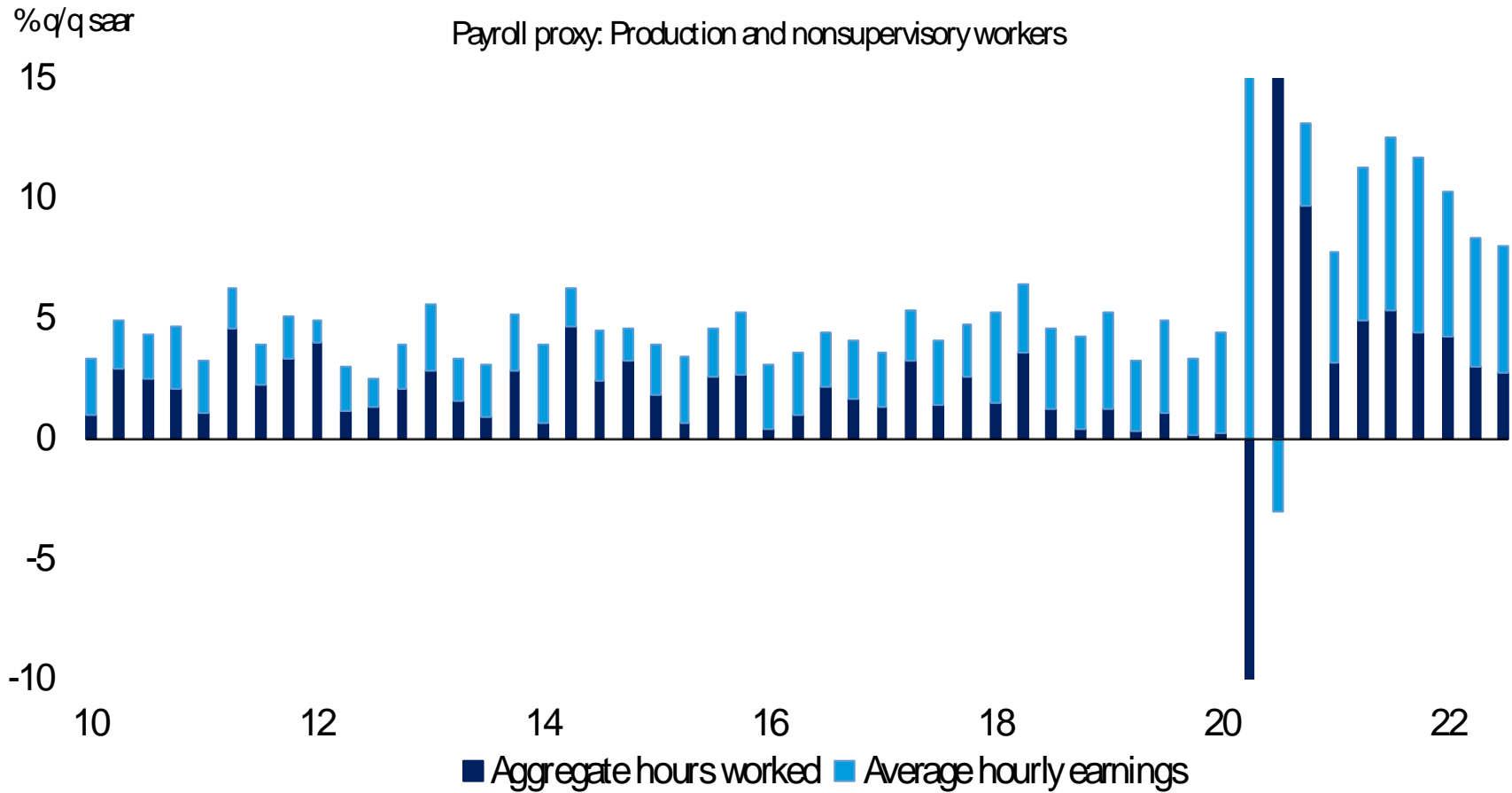


Forecasted contributions to quarterly GDP growth (pp)

Investment- and consumer-led slowdown



Why the delay? Spending has held up



Why the delay? Consumers are dipping into savings



Massive excess savings

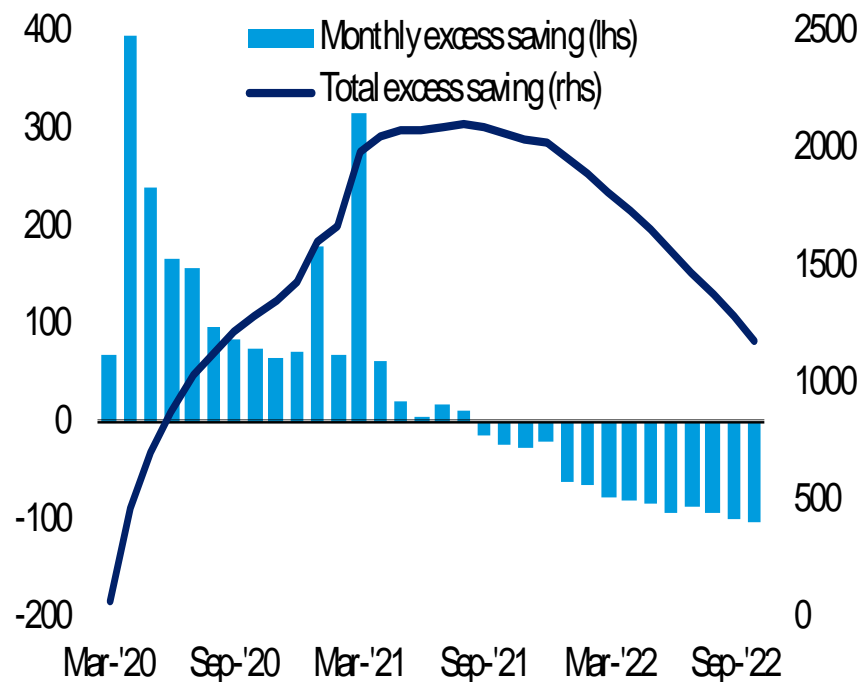
- Record fiscal transfers
- Constrained services consumption
- Peak of \$2.1tr in excess savings

Spending the windfall

- Covering surging prices
- Lowering excess saving by 100bn per mo.
- Now down to \$1.2tr

Excess savings (\$ tr.)

Households amassed excess savings during 2020-21

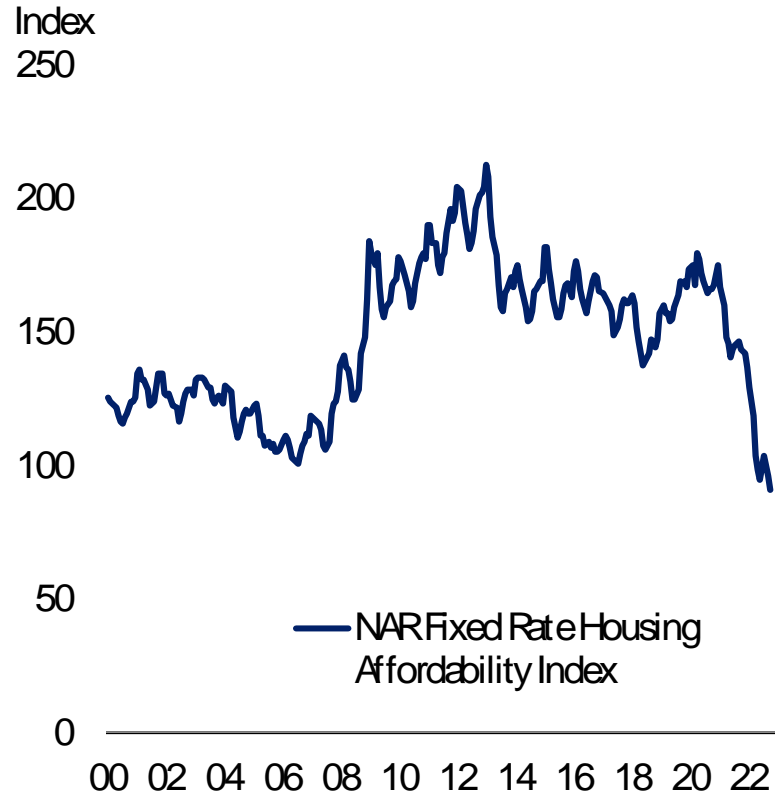


Housing already in a recession



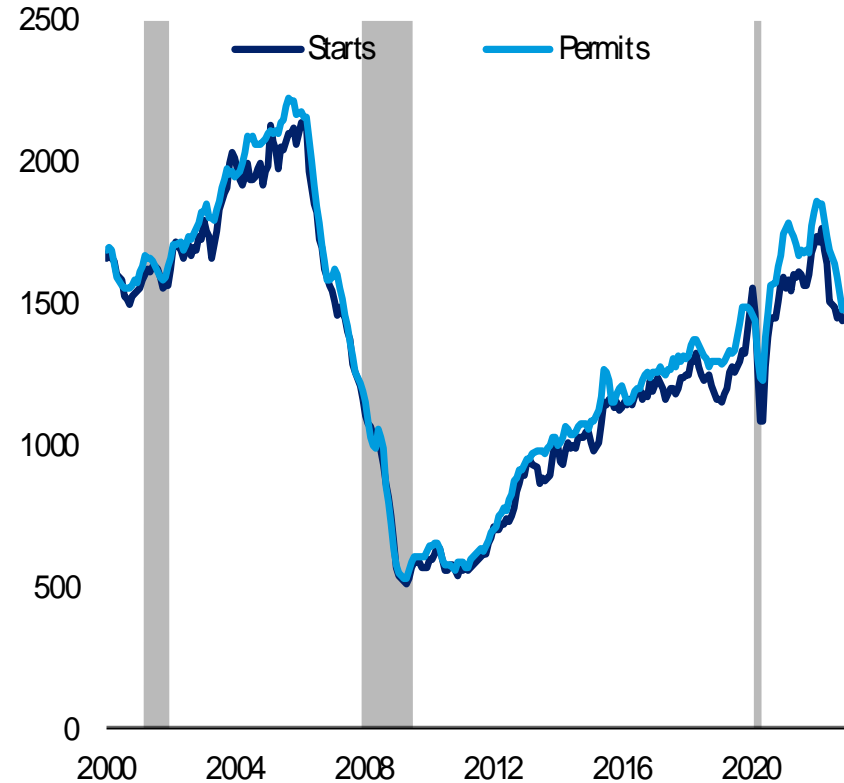
The affordability index (100+ = more affordable)

Rising home prices and mortgage rates have worsened affordability



Housing starts and building permits (3m mov. avg.)

Housing starts and permits have retrenched

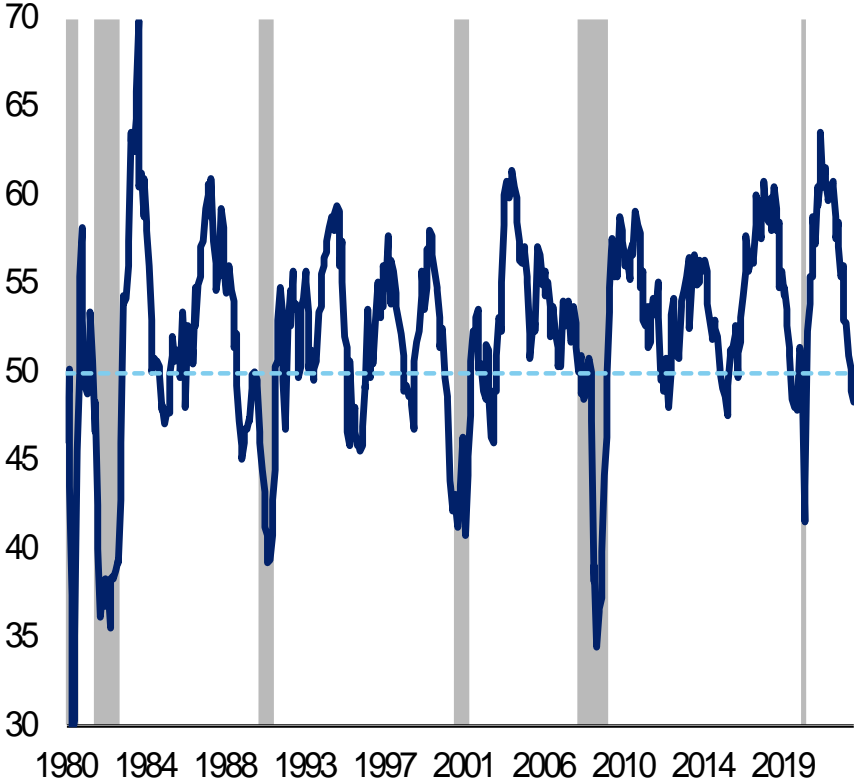


Note: An index value equal to 100 means a family earning the median income can qualify for a mortgage on a median-priced home. Values above 100 mean housing is more affordable. A value of 80 means a family earning the median income only has 80% of the income necessary to qualify for a conventional loan. Source: Census Bureau, National Association of Realtors, Haver Analytics, BofA Global Research



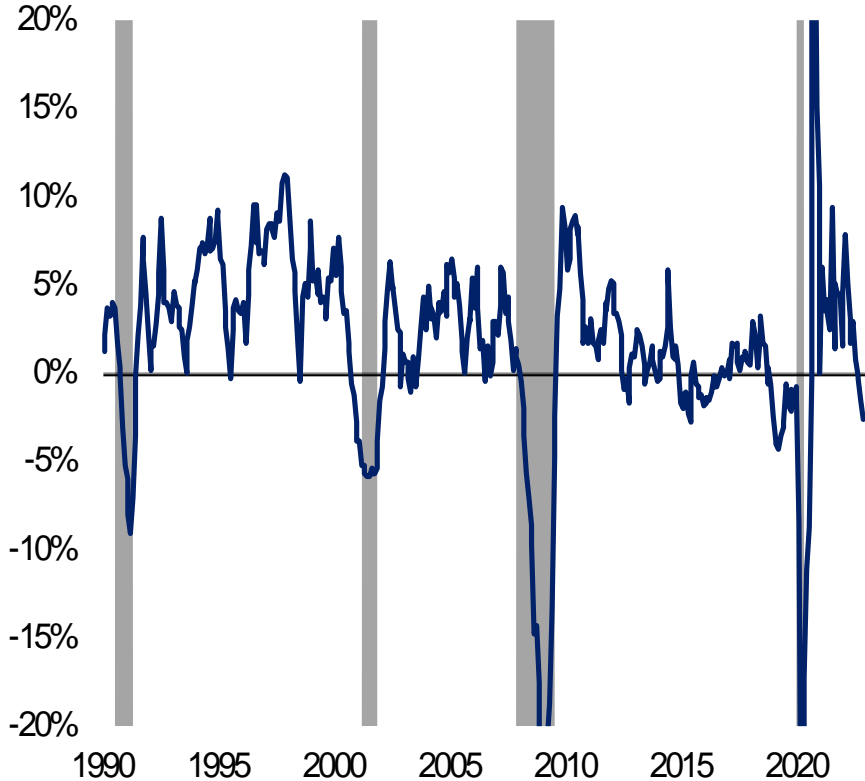
ISM manufacturing (50= breakeven)

Survey measures of manufacturing activity point to a material slowdown



Industrial production manufacturing (6m % ch annualized)

Industrial production suggest manufacturing has slipped into a recession

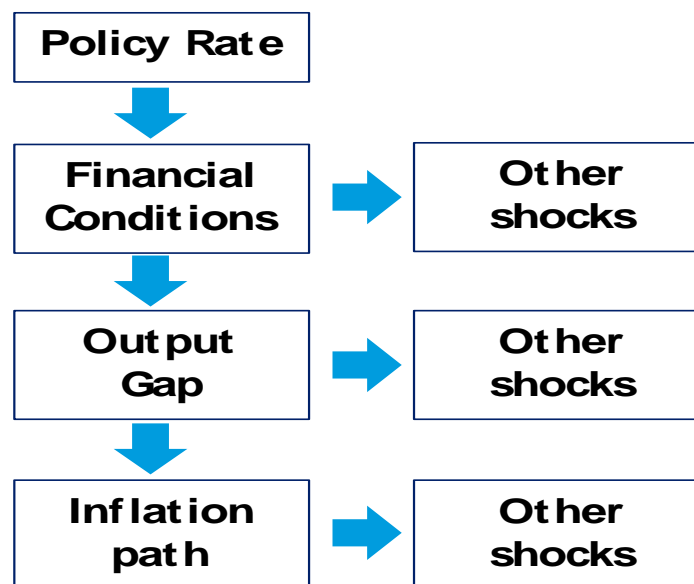




- **Exogenous demand shock**
 - Central banks quickly ease
 - Depth of the downturn depends on natural resilience of economy
- **Exogenous supply shock**
 - Weak growth and high inflation
 - Central bank hesitates
 - Second round effects key
- **Inflation fighting central bank**
 - Resilient economy means more hikes
 - Depth of downturn depends on persistence of inflation
 - Reverse only if overkill

Reverse engineering

The outlook for growth depends on the outlook for inflation



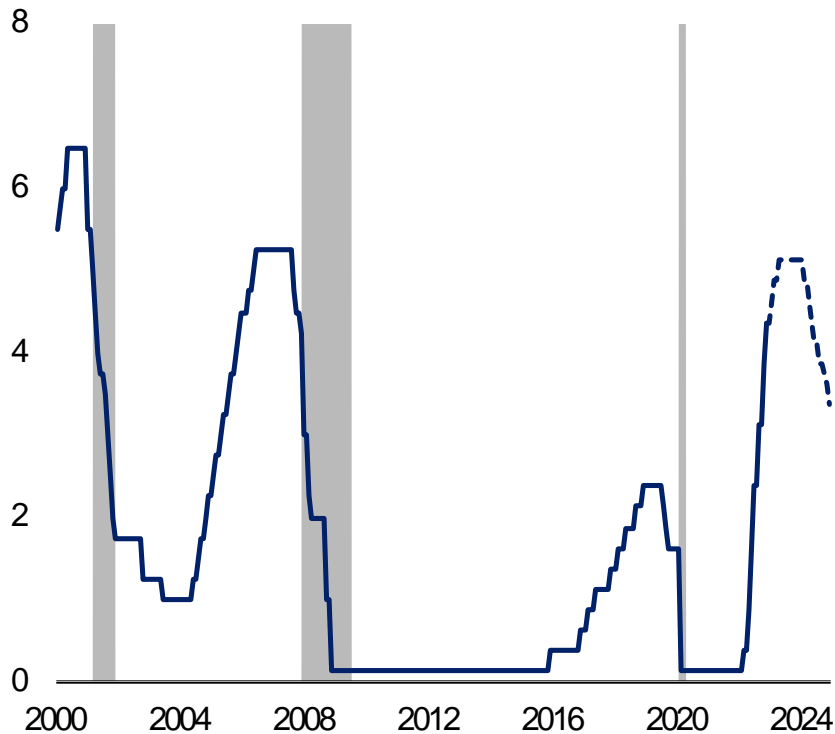
Source: BofA Global Research, Bureau of Economic Analysis

The Fed is trying to rebalance the economy



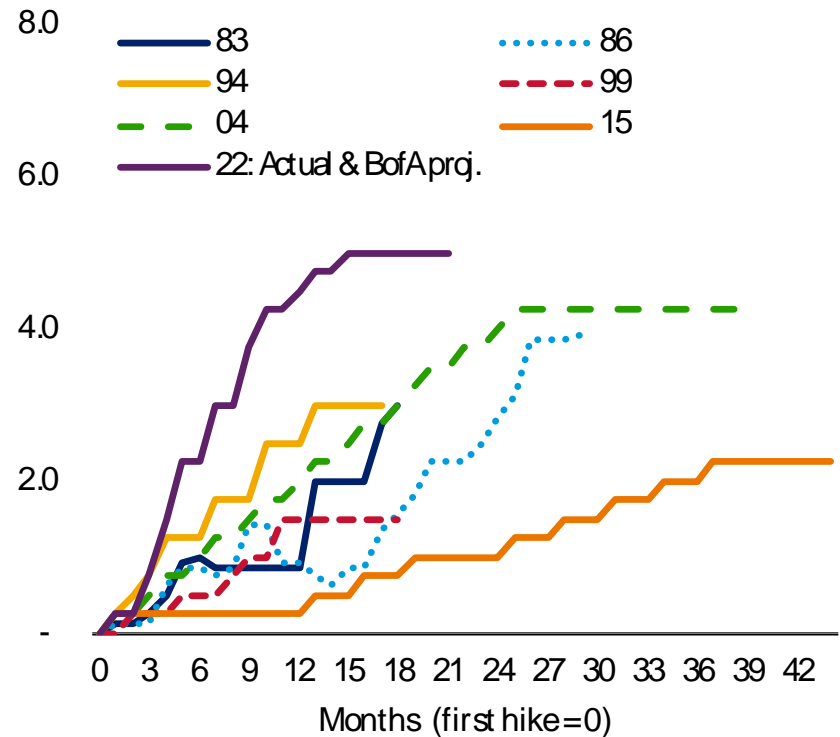
Fed funds target rate (midpoint, %)

We expect the Fed to reach a terminal rate of a 5.00-5.25%



Fed hiking cycles

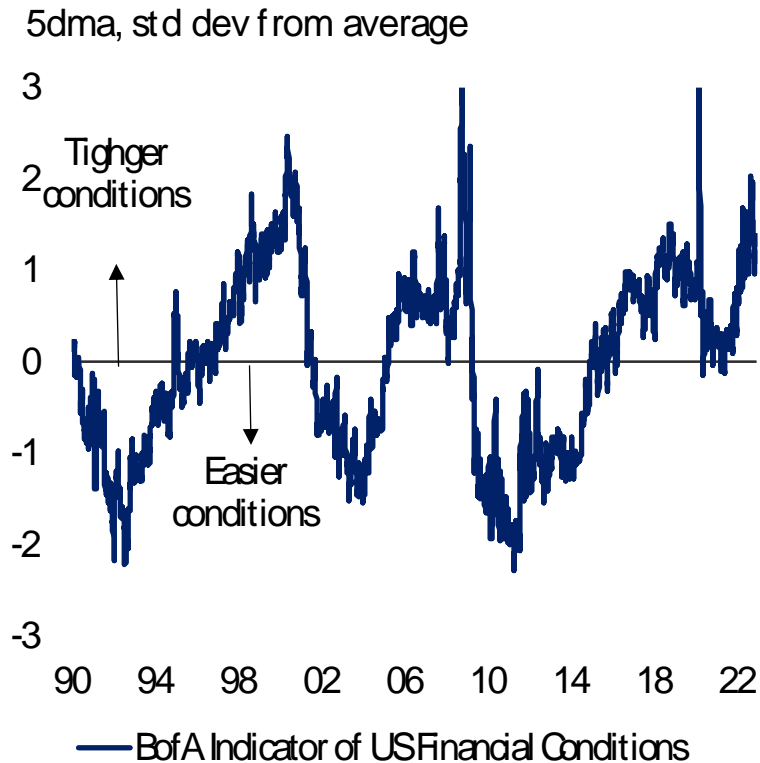
The Fed is hiking more aggressively than prior cycles



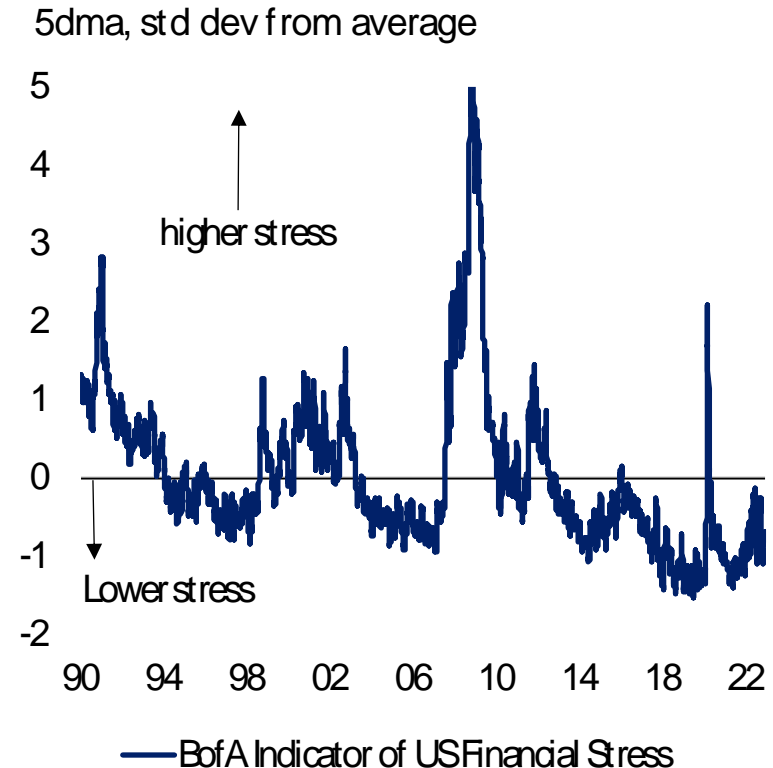
Financial conditions have tightened



Financial conditions have tightened, but remain below prior cycle peaks



Financial stress remains below normal



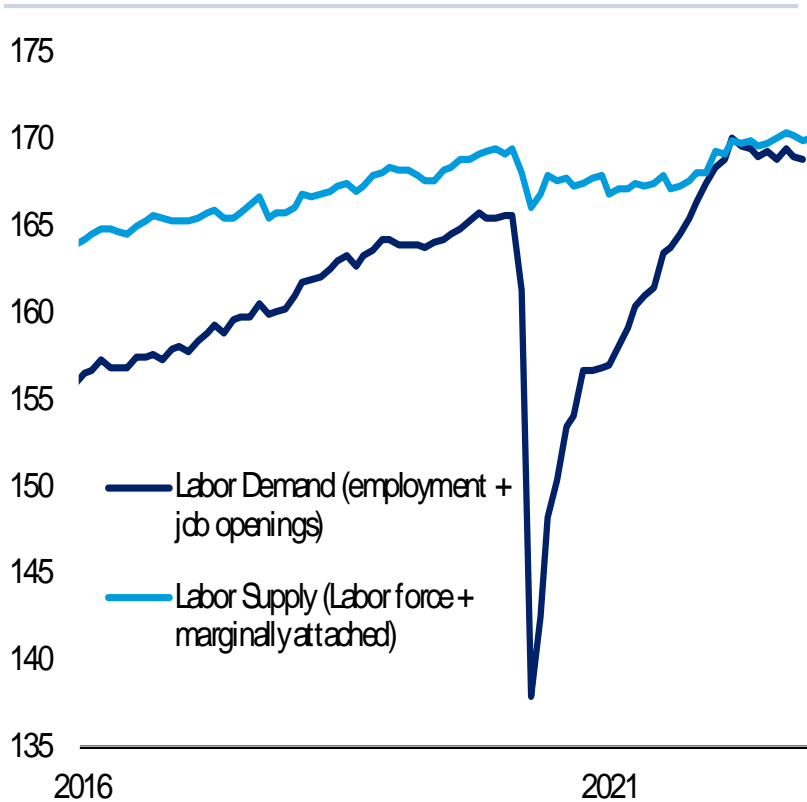
Note: The BofA Indicator of US Financial Conditions and BofA Indicator of US Financial Stress are intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. The BofA Indicator of US Financial Conditions and BofA Indicator of US Financial stress were not created to act as a benchmark. Source: BofA Global Research

The Fed wants to cool the labor market



Labor Demand and supply (millions, SA)

Labor supply is a constraint



Job vacancies to unemployed ratio

There remain far more jobs than unemployed persons

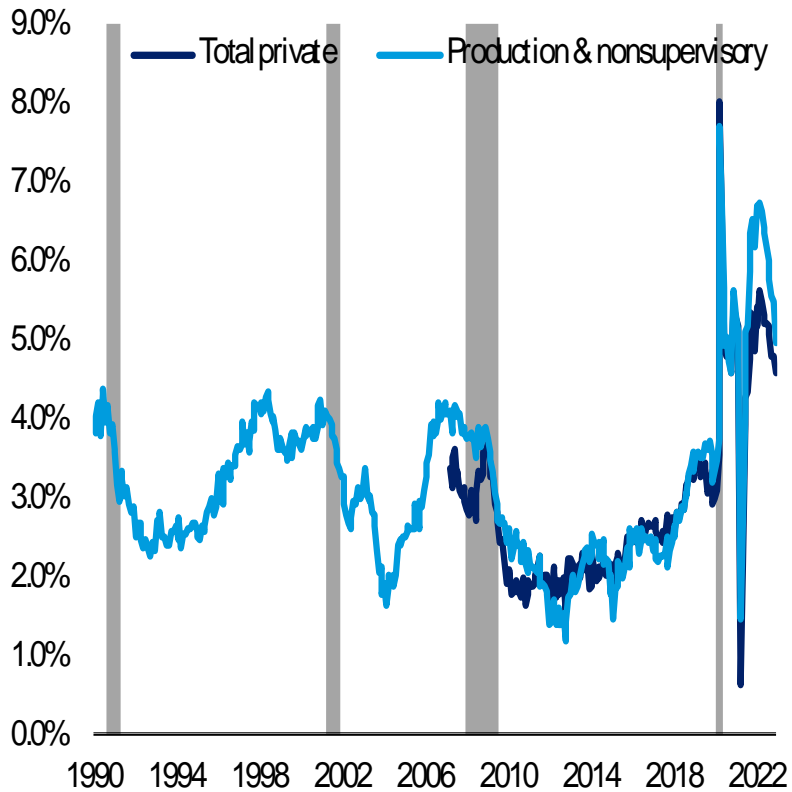


Tight labor markets are leading to elevated wage growth



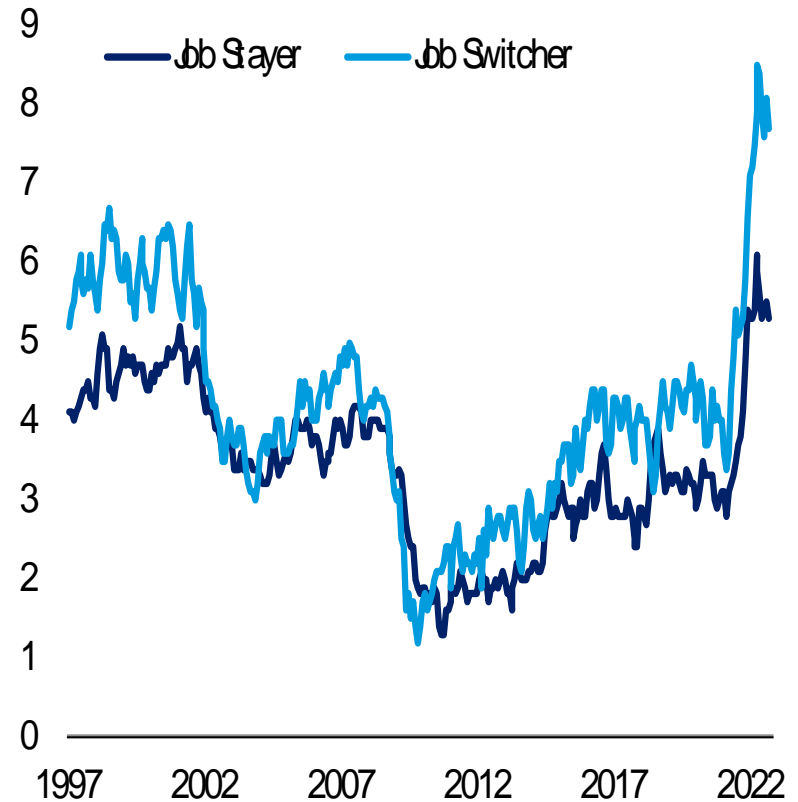
Average hourly earnings (% y/y)

Average hourly earnings growth has peaked but is still elevated relative to recent history



Atlanta Fed wage tracker (% yoy, 3m MA)

Wage growth has been robust for both job stayers and job switchers though there are signs that it may be turning

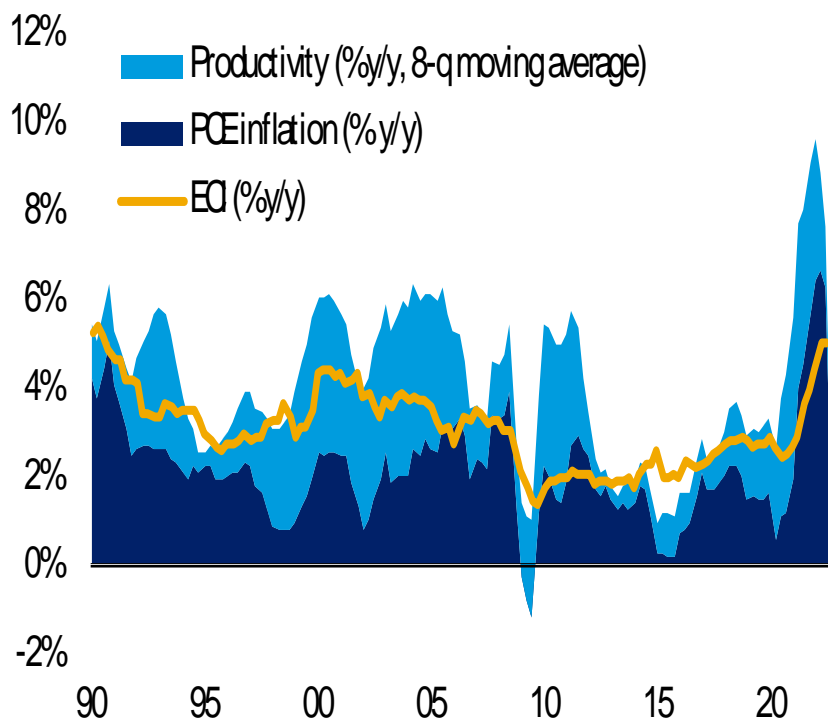


Wage growth is inconsistent with Fed's 2% target



Employment costs and Productivity

Wage growth is inconsistent with the Fed's 2% target given productivity remains low



Wage growth is a function of productivity and inflation

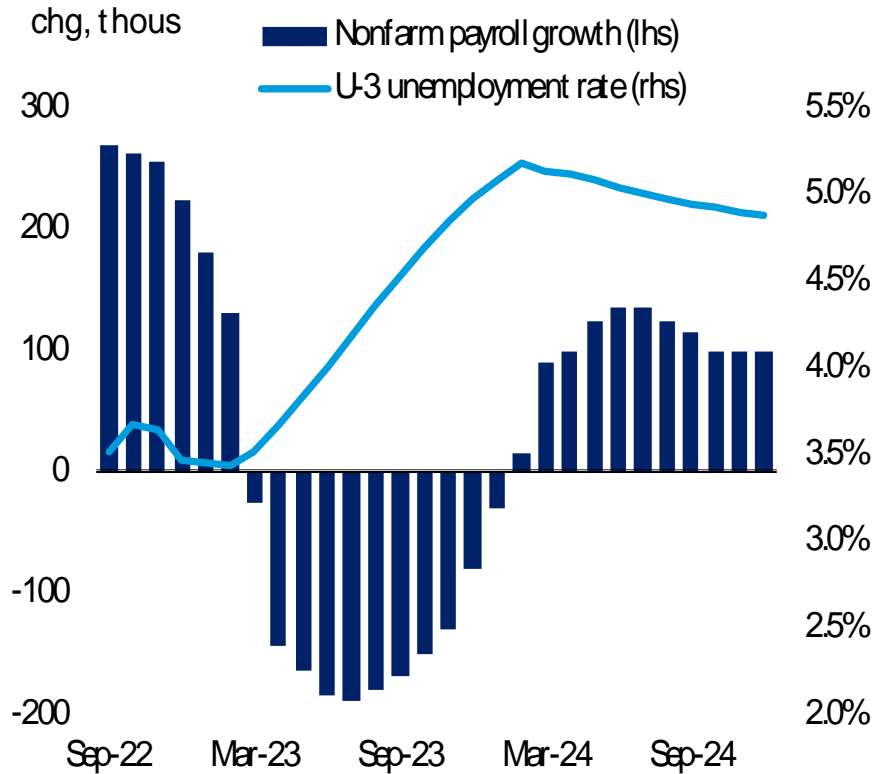
- High productivity allows for higher non-inflationary wage growth
- Low productivity + high wage growth = risks to persistent inflation
- Productivity growth remains low – harder to see large gains over time
- Wage growth should be closer to 3-4% to be consistent with 2% inflation target in the long-run
- Implications: Fed needs to cool off labor market; risks of recession high

A rebalancing of the labor market will likely mean job losses



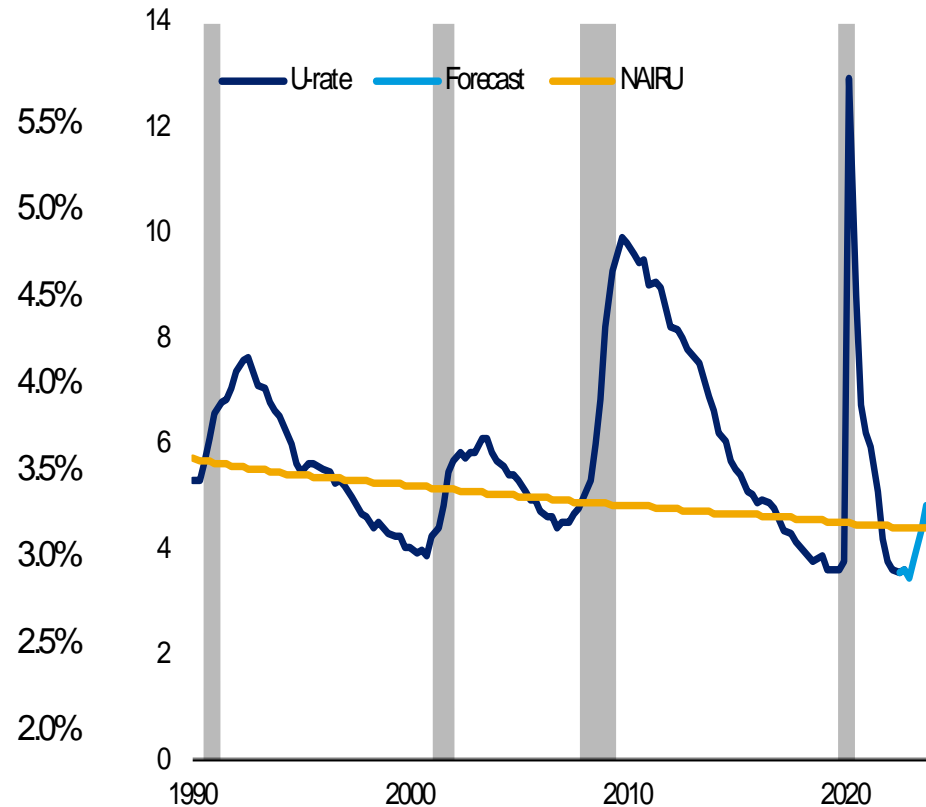
Nonfarm payroll ch. vs. unemployment rate

We expect payrolls to contract starting in 2Q 23



Unemployment rate v. NAIRU (%)

We expect the unemployment rate to rise

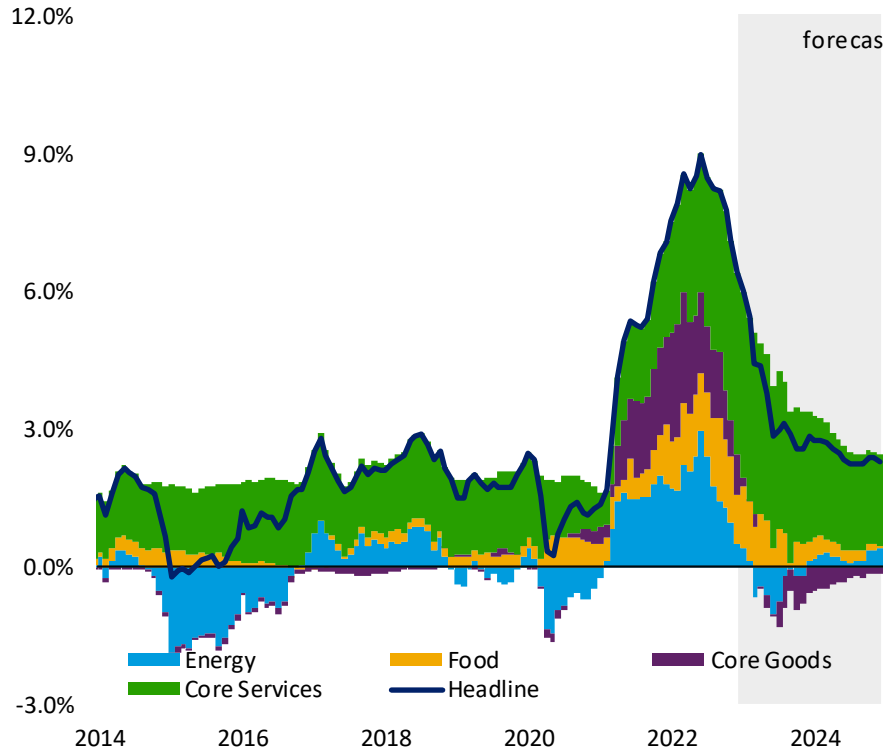


Will the Fed's plan work? A recession will help, but goods to do a lot of work



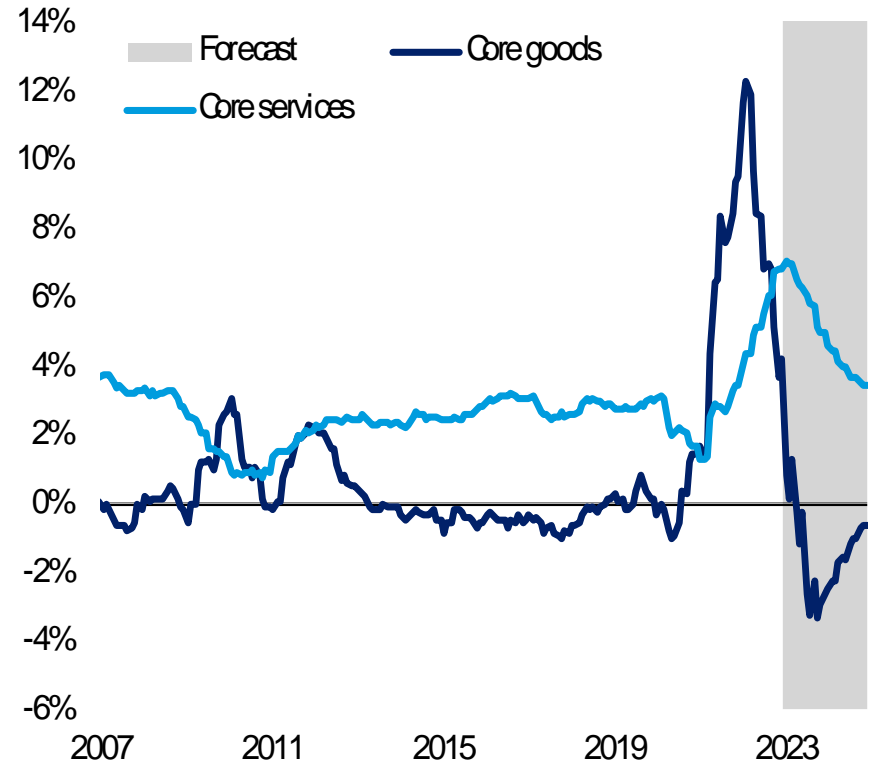
Contributions to headline CPI inflation (%y/y)

Deflation of core goods will help drive inflation lower this year and next



Core CPI: goods vs. services (%y/y)

Sustained lower inflation requires broad-based easing

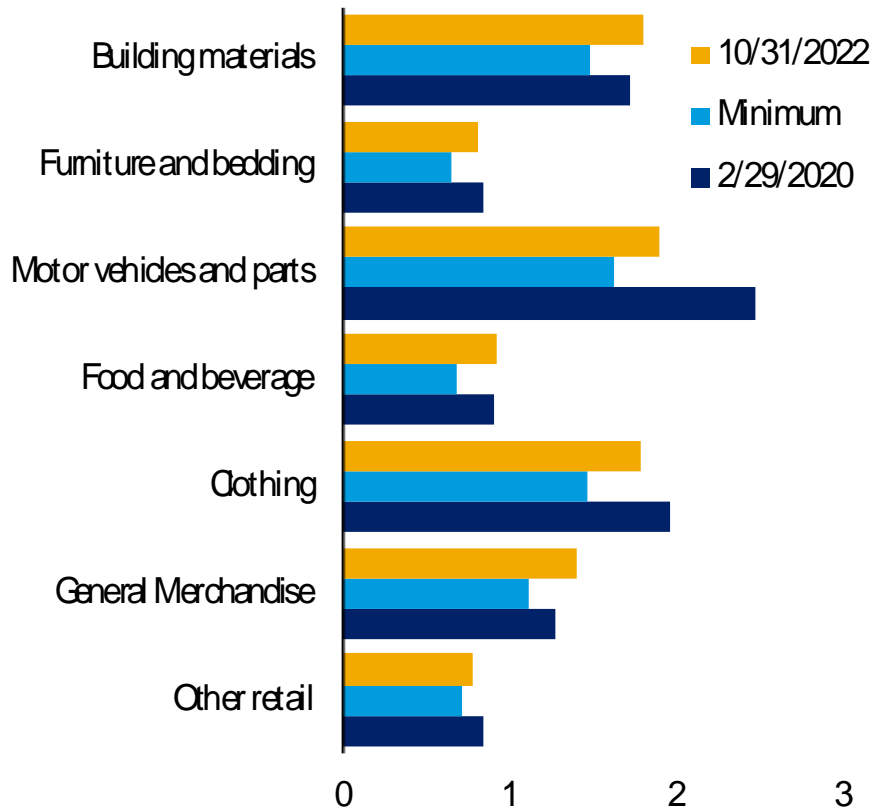


Goods deflation: Easing supply chains and rebuilt inventories



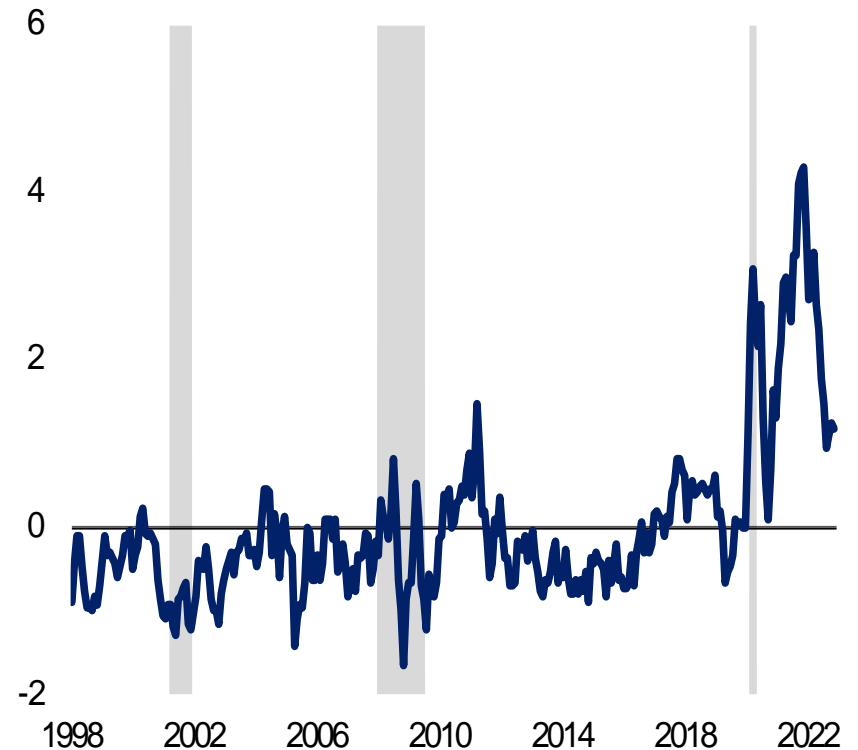
Real Inventory-to-sales ratios

Retail inventory-to-sales ratios have recovered from pandemic lows



NY Fed Global Supply Chain Pressure Index (Z-score)

Supply chain pressures are easing

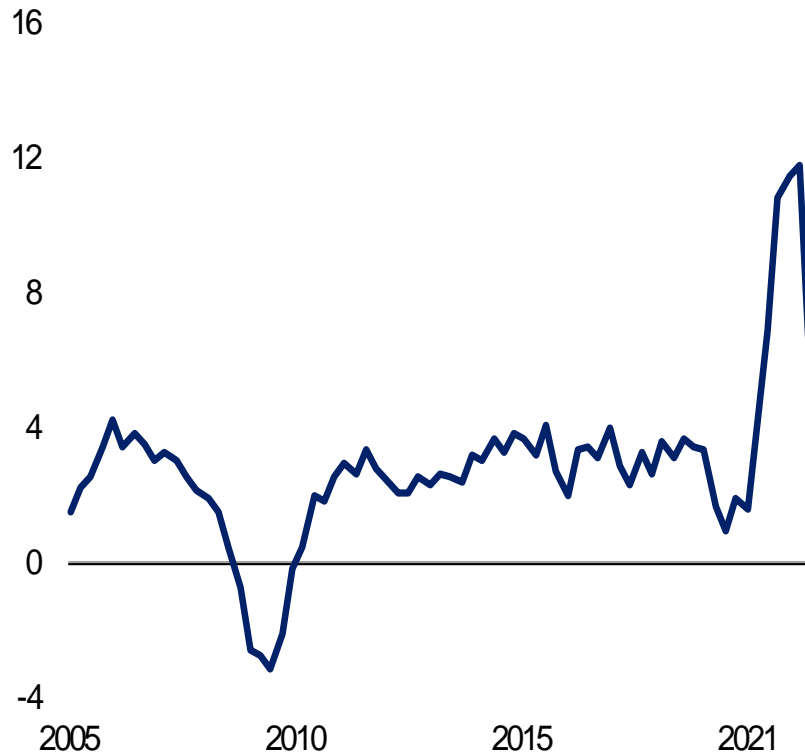


Services inflation will cool with labor market



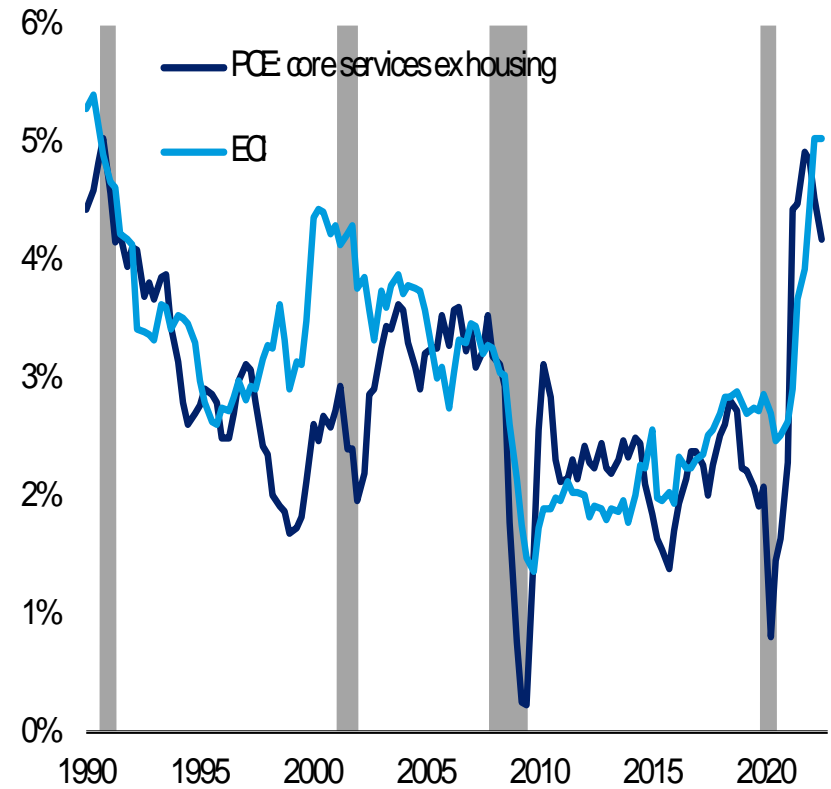
New tenant repeat rent index (% y/y)

Shelter inflation likely to cool in 2H



Atlanta Fed wage tracker (% yoy, 3m MA)

Wage growth has been robust for both job stayers and job switchers though there are signs that it may be turning

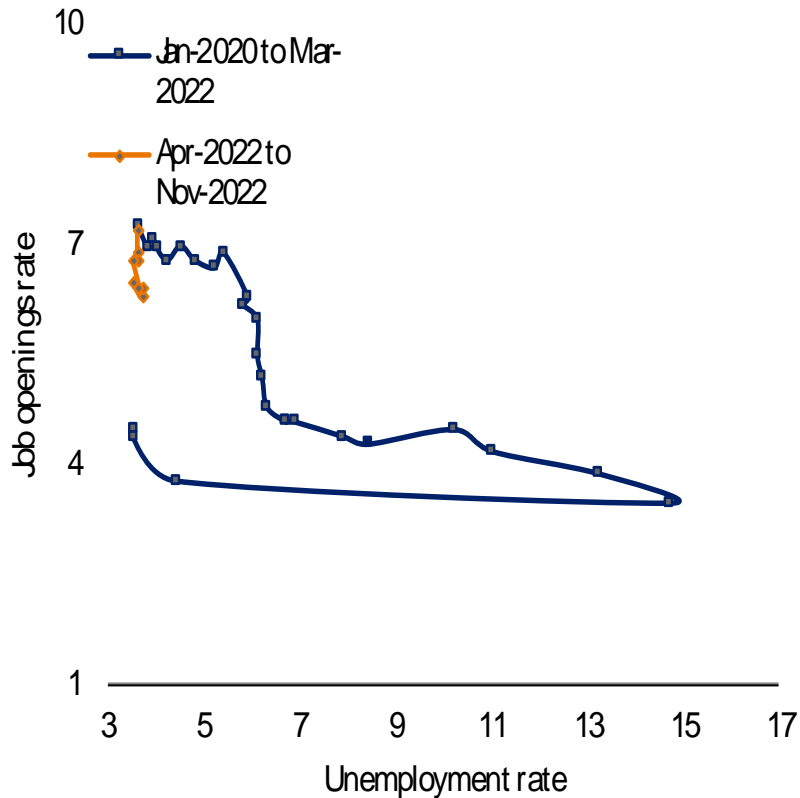


A slim but increasing likelihood of a soft landing



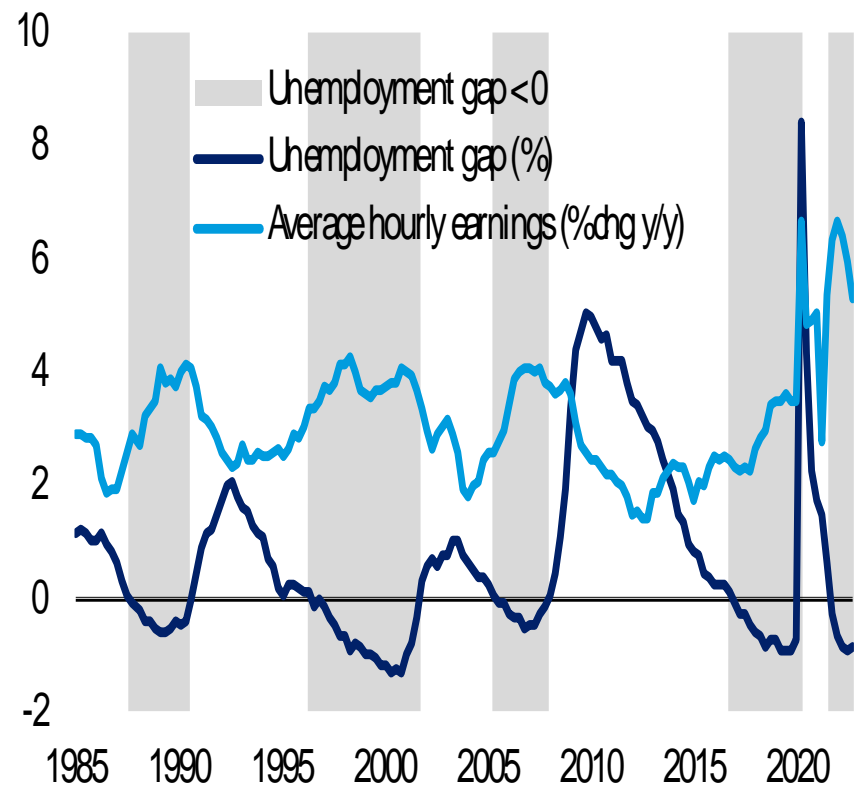
Beveridge Curve

The job opening rate has fallen without much change in the u-rate



Unemployment gap v. wage inflation

Inverse relationship suggests u-rate must rise to cool wages

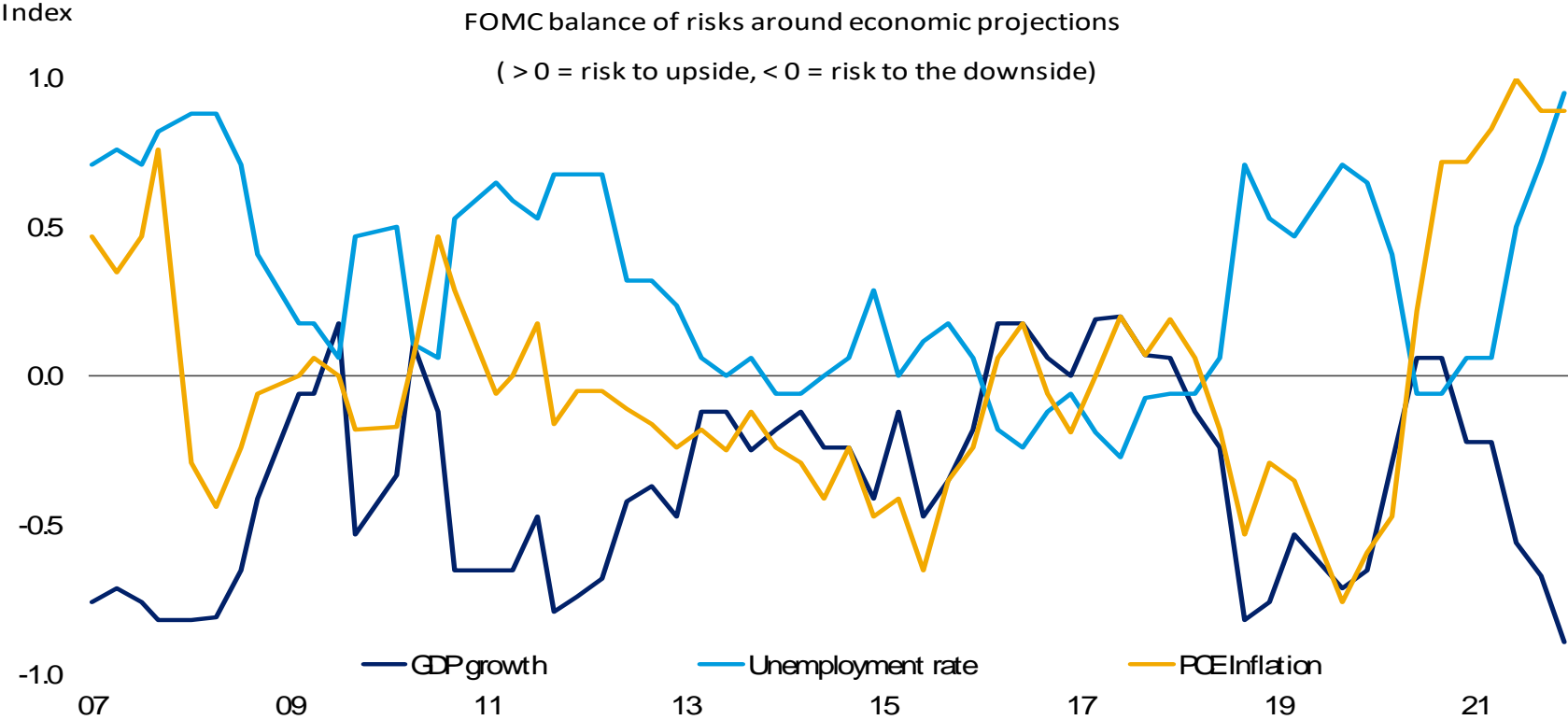


Risks of a hard landing are rising in the eyes of the Fed



FOMC balance of risks around projections

FOMC participants see risks skewed in the direction of lower growth, higher unemployment, and higher inflation, versus their median projection.



Detailed US outlook



	1Q 22	2Q 22	3Q 22	4Q 22	1Q 23	2Q 23	3Q 23	4Q 23	1Q 24	2Q 24	3Q 24	4Q 24	2021	2022	2023	2024
Real Economic Activity, % SAAR																
Real GDP	-1.6	-0.6	3.2	2.5	1.5	-0.5	-2.0	-1.5	1.0	1.5	1.5	2.0	5.9	2.1	0.7	0.3
% Change, Year Ago	3.7	1.8	1.9	0.9	1.6	1.7	0.3	-0.7	-0.7	-0.2	0.6	1.5				
Consumer Spending	1.3	2.0	2.3	2.5	1.5	-0.5	-2.0	-1.5	1.0	1.5	1.5	2.0	8.3	2.8	0.8	0.3
Residential Investment	-3.1	-17.8	-27.1	-14.0	-12.0	-10.0	-5.0	1.0	3.0	3.0	2.0	2.0	10.7	-9.9	-13.0	0.5
Nonresidential Investment	7.9	0.1	6.2	3.0	0.5	-1.0	-2.0	0.5	4.0	4.0	4.0	4.0	6.4	3.8	1.0	2.2
Structures	-4.4	-12.7	-3.6	-3.0	-3.5	-4.0	-4.5	0.5	3.0	3.0	3.0	3.0	-6.4	-7.6	-4.0	1.1
Equipment	11.4	-2.1	10.6	-1.0	-3.0	-4.0	-4.5	0.5	3.0	3.0	3.0	3.0	10.3	4.4	-1.1	1.1
Intellectual Property	10.8	8.9	6.8	10.0	6.0	3.0	1.5	1.0	5.0	5.0	6.0	6.0	9.7	9.0	5.5	3.9
Government	-2.3	-1.6	3.7	0.5	0.5	0.5	0.0	0.0	1.0	1.0	1.0	1.0	0.6	-0.8	0.6	0.7
Exports	-4.6	13.8	14.6	2.0	1.0	-1.5	-3.0	0.5	2.0	4.0	4.0	5.0	6.1	7.5	2.5	1.7
Imports	18.4	2.3	-7.3	-2.0	-2.0	-2.5	-3.0	4.0	6.0	7.0	7.0	7.0	14.1	8.3	-2.3	4.3
Net Exports (Bil 12\$)	-1489	-1431	-1269	-1237	-1211	-1196	-1187	-1221	-1265	-1305	-1346	-1382	-1233	-1356	-1204	-1324
Inventory Accumulation (Bil 12\$)	214.5	110.2	38.7	60.5	72.5	79.5	63.0	60.5	70.5	82.5	94.5	109.5	-19.4	106.0	68.9	89.2
Key Indicators																
Industrial Production (% SAAR)	4.7	5.0	1.8	-1.5	-5.5	-3.0	-2.5	-1.0	2.5	2.0	1.5	1.5	4.9	3.9	-2.1	0.5
Nonfarm Payrolls (Avg mom ch, 000s)	539	349	366	247	95	-165	-180	-120	25	120	125	100	562	375	-93	93
Civilian Unemployment Rate (%)	3.8	3.6	3.5	3.6	3.5	3.8	4.4	4.8	5.1	5.1	5.0	4.9	5.4	3.6	4.1	5.0
Personal Savings Rate (%)	4.3	3.2	2.7	2.5	3.1	3.2	3.8	4.5	4.5	4.5	4.5	4.4	11.8	3.2	3.6	4.5
Inflation																
Core PCE Chain Prices (% SAAR)	5.6	4.7	4.6	3.9	3.2	2.7	2.1	1.8	2.4	2.2	2.1	1.8	3.5	5.0	3.3	2.2
% Change, Year Ago	5.3	5.0	4.9	4.7	4.1	3.6	3.0	2.5	2.2	2.1	2.1	2.1				
CPI, Consumer Prices (% SAAR)	9.2	10.5	5.7	3.1	2.0	3.9	3.0	1.8	2.3	2.7	2.1	2.3	4.7	8.0	3.5	2.4
% Change, Year Ago	8.0	8.6	8.3	7.1	5.3	3.7	3.0	2.7	2.8	2.5	2.3	2.4				
CPI ex Food & Energy (% SAAR)	6.5	6.6	6.4	4.4	3.4	3.1	2.5	2.3	2.5	2.4	2.3	2.1	3.6	6.1	3.9	2.5
% Change, Year Ago	6.3	6.0	6.3	6.0	5.2	4.3	3.3	2.8	2.6	2.4	2.4	2.3				

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