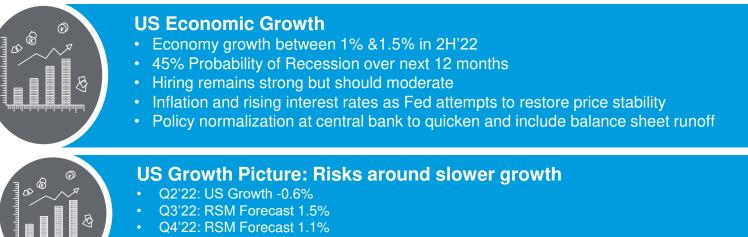


U.S. 2022 ECONOMIC OUTLOOK: LACKLUSTER GROWTH, INFLATION AND RISING RATES

September 2022



U.S. Economy: Slowdown, inflation and future expectations



• 2022 1.5%, 2023 1.1%, 2024 1.8%

US Inflation Outlook: Risk around stubborn inflation

- Q3'22: RSM CPI Y/Y Forecast 8.6 Core PCE Y/Y 4.9 %
- Q4'22: RSM CPI Y/Y Forecast 7.7%, Core PCE Y/Y 4.7%
- 2023: RSM CPI Y/Y Forecast 4.0%, Core PCE Y/Y 3.0%

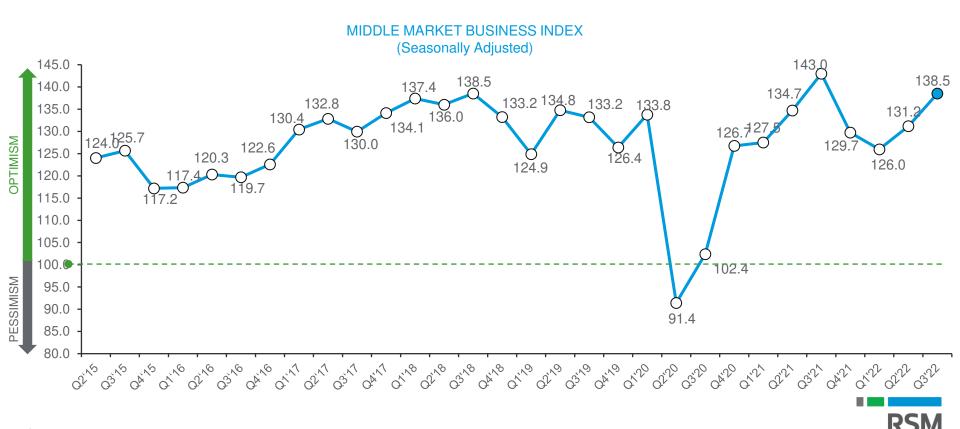


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	2020	2021	Q1'22	Q2'22	Q3'22	Q4'22	2022	2023	2024
Real GDP	-3.4	5.7	-1.6	-0.9	1.4	1.0	1.5	1.1	2.0
Consumer Spending	-3.8	7.9	3.1	2.8	1.5	1.3	1.7	1.5	1.7
Private Investment	-5.5	9.8	-2.7	-1.4	-0.2	0.8	2.0	1.7	3.1
Industrial Production	-0.8	-7.2	3.6	4.6	3.9	2.5	4.2	2.3	2.9
Consumer Price Index (Y/Y%)	1.2	4.7	8.0	6.5	8.6	7.7	8.3	3.9	2.7
Personal Consumption Expiditure Deflator (Y/Y%)	1.2	3.9	6.3	6.1	6.2	5.5	5.5	4.0	2.5
Core PCE (Y/Y%)	1.4	3.5	5.1	4.7	4.9	4.5	4.5	3.0	2.6
10-Year Yield	0.9	1.5	2.3	3.2	3.3	3.2	3.3	3.1	3.0
Policy Rate	0.25	0.25	0.50	0.75	3.25	4.0	4.0	4.0	4.0
Unemployment	8.1	5.4	3.8	3.6	3.6	3.8	3.8	4.7	4.6



The RSM US Middle Market Business Index: Economic Activity and Sentiment Remain Strong



RSM MMBI: Passing Through Price Increases

PRICE RECEIVE FOR ALL GOODS/SERVICES – CURRENT

"Thinking about the prices that your organization received for all of its goods and services this quarter versus last quarter, how would you describe the current general level of prices received? Would you say prices received by your organization, on average, have . . ."

										Total									
	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19	Q4 '19	Q1 '20	Q2 '20	Q3 '20	Q4 '20	Q1 '21	Q2 '21	Q3 '21	Q4 '21	Q1 '22	Q2 '22	Q3 '22
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Non-Seasonally Adjusted:																			
Bottom 2	9	9	8	10	9	10	10	11	8	31个	22↓	16↓	17	23个	10↓	11	18个	15	7↓
Decreased substantially	<.5	<.5	1	2	1	2	1	2	1	5	4	3	5	7	3↓	1	2	1	1
Decreased somewhat	8	9	7	8	8	8	9	9	7	27个	18↓	13↓	13	16	8↓	10	16个	14	6↓
Remained unchanged	47	44	47	48	49	49	48	49	49	48	54个	43↓	40	36	30	32	26	25	22
Top 2	45	46	45	42	41	42	42	40	43	21↓	24	<i>42</i> 个	43	42	<i>59</i> 个	57	56	60	71↑
Increased somewhat	41	41	40	37	38	38	40	36	36	17↓	19	35个	33	35	49个	48	45	47	61个
Increased substantially	4	6	5	6	3	3	3	4	7	4	5	6	10	6	10	9	10	13	10
Seasonally Adjusted:																			
Bottom 2	8	7	7	10	9	7	9	11	8	28个	21	17↓	16	19	10↓	12	17	10↓	7
Top 2	44	48	47	43	41	44	44	40	43	25↓	25	<i>41</i> ↑	42	47	60个	56	55	66个	71个

Base: All Council Members Except Nonprofits (n=388)



RSM MMBI: Passing Through Price Increases

PRICE RECEIVE FOR ALL GOODS/SERVICES – OVER NEXT SIX MONTHS

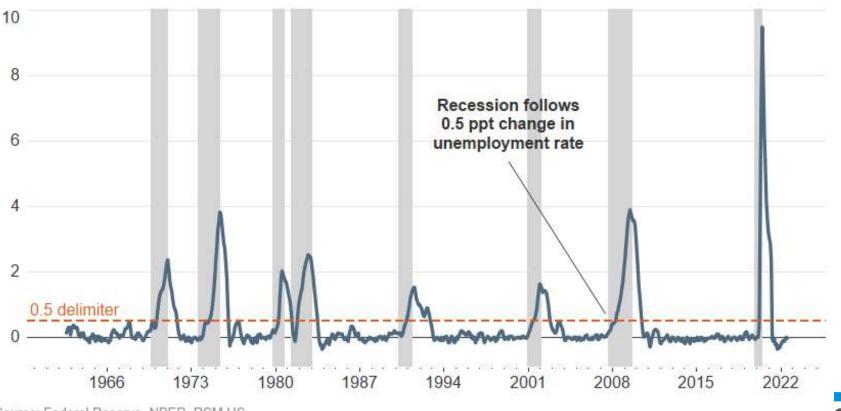
"What are your expectations regarding the general level of prices that your organization will receive for all goods and services over the next six months? Would you say the prices received by your organization, on average, will . . ."

										Total									
	Q1 '18	Q2 '18	Q3 '18	Q4 '18	Q1 '19	Q2 '19	Q3 '19	Q4 '19	Q1 '20	Q2 '20	Q3 '20	Q4 '20	Q1 '21	Q2 '21	Q3 '21	Q4 '21	Q1 '22	Q2 '22	Q3 '22
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Non-Seasonally Adjusted:																			
Bottom 2	6	8	8	7	8	7	7	10	8	28个	15↓	13	9	5	6	3	<i>8</i> 个	3↓	5
Decrease substantially	<.5	<.5	1	1	<.5	<.5	1	1	<.5	5	3	1	2	1	1	<.5	2个	1	1
Decrease somewhat	5	7	7	6	8	7	6	9	8	24个	12↓	11	8	4	5	3	6	3	4
Remain unchanged	41	38	38	31	39个	44	43	37	35	43个	46	38↓	27↓	28	29	28	22	24	21
Top 2	54	54	54	61	53↓	49	50	53	57	29↓	<i>39</i> 个	49个	64个	67	65	68	70	73	74
Increase somewhat	49	47	48	55	49	43	45	49	48	23↓	31个	39个	48个	50	51	53	53	53	60
Increase substantially	5	7	7	7	4	6	5	4	9↑	6	8	10	15个	17	14	15	17	19	14
Seasonally Adjusted:																			
Bottom 2	4	7	6	7	7	6	5	9	7	27个	13↓	12	8	4↓	4	4	6	3↓	3
Top 2	53	57	58	60	52↓	52	54	52	56	31↓	43个	48	62 个	70个	69	66	69	75	78

Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
'15	'15	'15	'16	'16	'16	'16	'17	'17	'17	'17
%	%	%	%	%	%	%	%	%	%	



Real-time Sahm Rule U.S. recession indicator



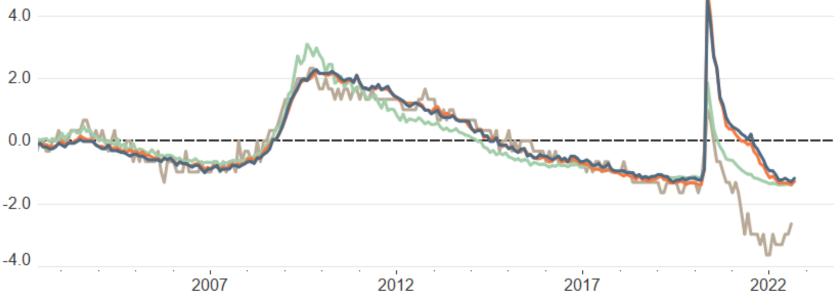
Source: Federal Reserve, NBER, RSM US

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Measures of labor market tightness

Calculated using z-score based on mean and standard deviation from 2001 to 2019

Unemployment rate (prime-age)
Unemployment rate (U-3)
Reverse quit rate

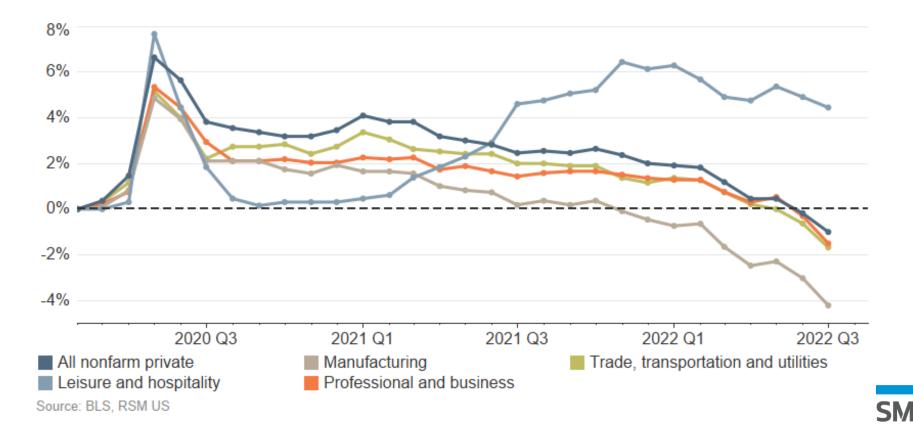


Note: Values below 0 indicate more tightness than neutral. The reverse quit rate is calculated as 1 minus the quit rate. Source: BLS, RSM US



Real hourly wage: % change since Jan. 2020

Adjusted for inflation and seasonal effect



NBER recession key indicators

Normalized with Feb 2020 = 100

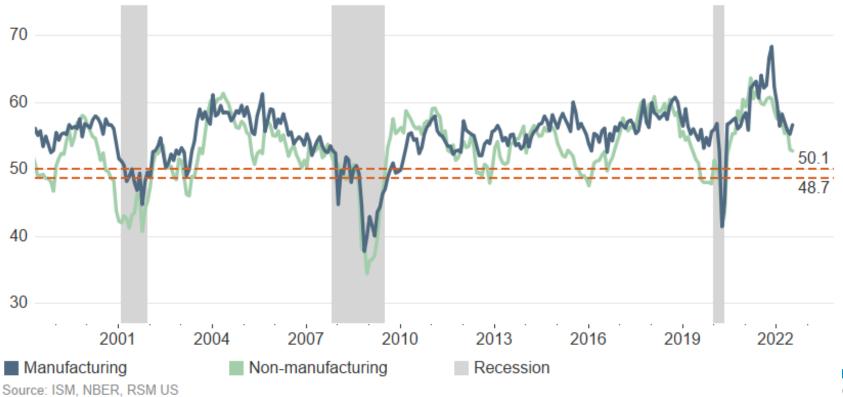


Source: Bureau of Economic Analysis, NBER, RSM US



ISM U.S. indices and recessions

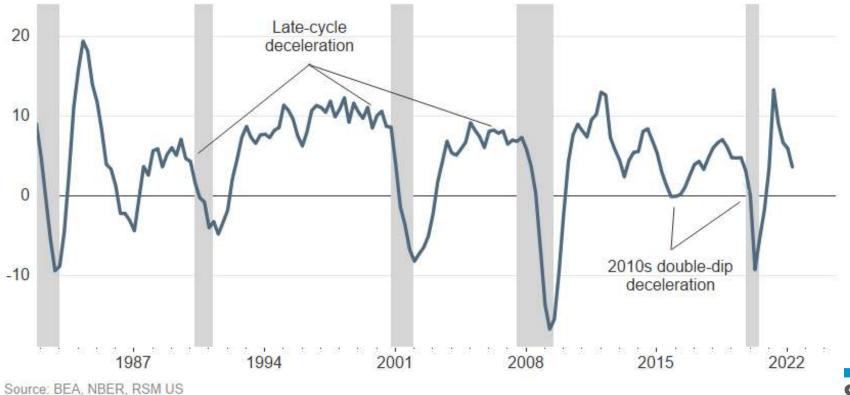
Manufacturing index above 48.7 and non-manufaturing index above 50.1 indicate overall expansions





Nonresidential investment growth at the end of business cycles

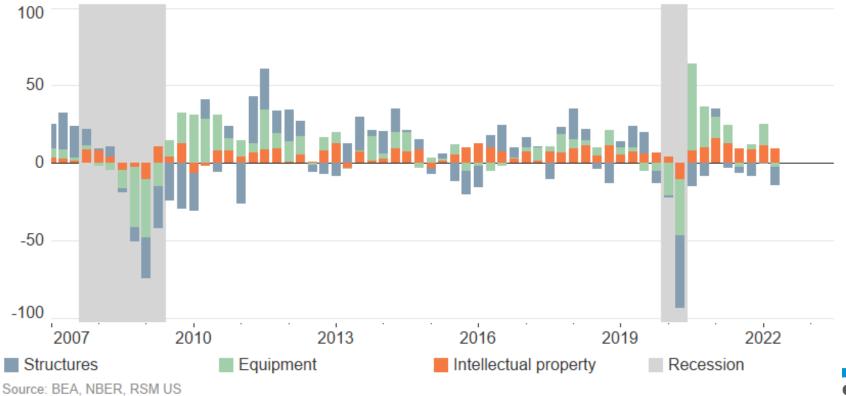
Quarter-over-quarter %, 1-year average annualized





Business investment in IP, equipment and structures

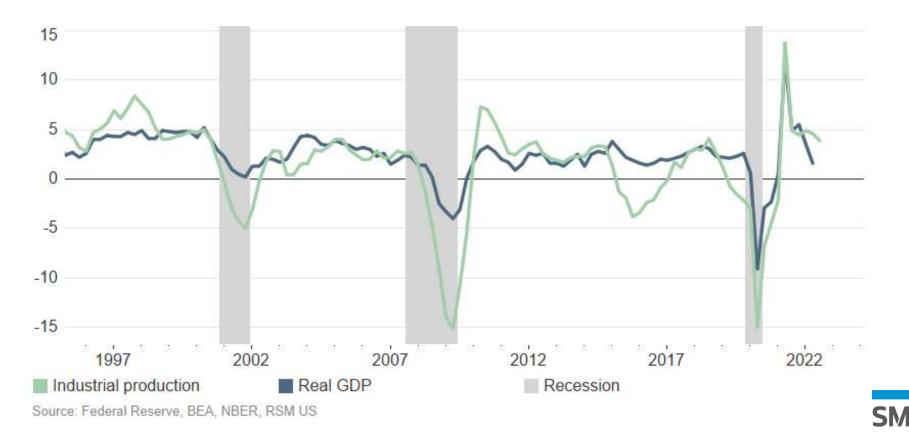
GDP national accounts of non-residential investment



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Industrial production and real GDP growth

Year-over-year % change



RSM US Supply Chain Index

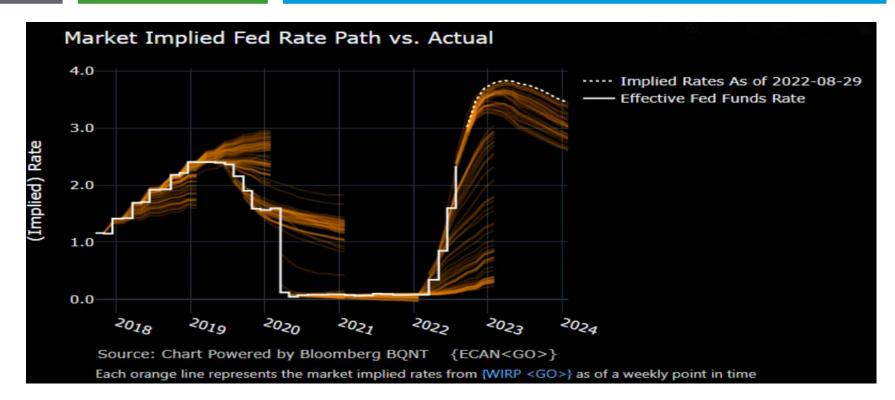
Z-score based on mean and standard deviation from 2001 to 2019



Note: An index value of zero is defined as a normal level of supply chain efficiency. Positive values of the index suggest adequate levels; negative levels suggest deficiencies. Source: Various government & private organizations, Bloomberg, RSM US



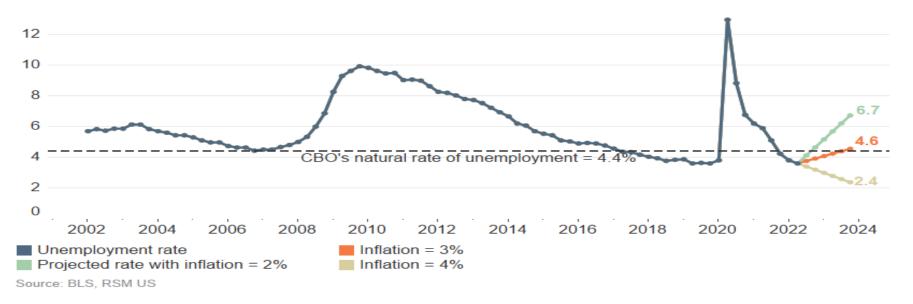
Federal Funds Policy Rate: Lift and Hold





The Cost of Price Stability

Unemployment rate projections based on PCE price index In percentage, quarterly





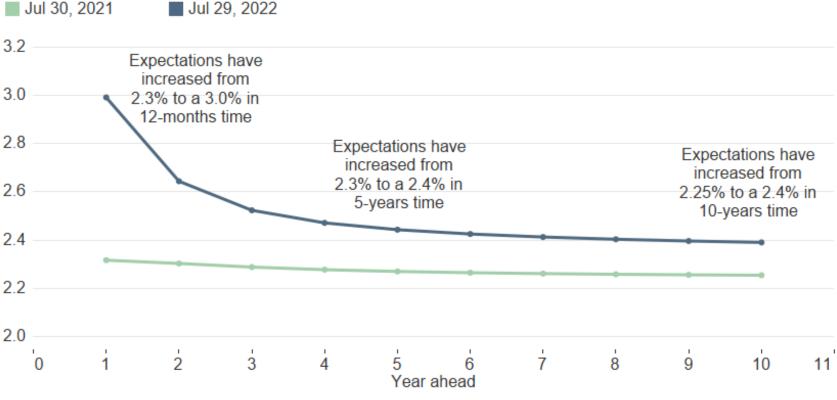
Source:

	PCE target	Projected unemployment rate	Job losses (Millions)
High	4%	2.4%	-1.9
Base case	3%	4.6%	1.7
Low	2%	6.7%	5.3
	CPI target	Projected unemployment rate	Job losses (Millions)
High	CPI target 4%	Projected unemployment rate 4.1%	Job losses (Millions) 0.9
High Base case			



Inflation expectations during the recovery from the pandemic

Aruoba Term Structure of Inflation Expectations (ATSIX) for 1-10 years ahead

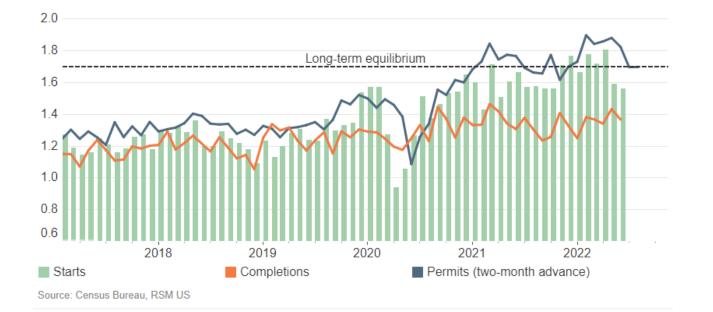


Source: Federal Reserve Bank of Philadelphia, RSM US

U.S. Housing: The slump continues as housing deficit grows

U.S. housing starts and permits, monthly

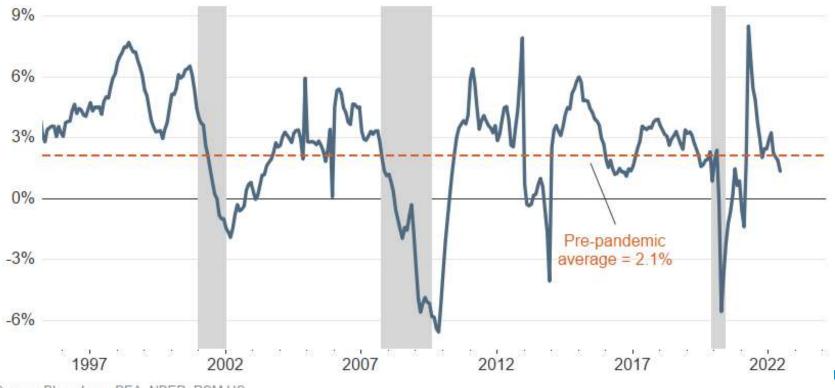
Millions, seasonally adjusted annual rate





Growth of U.S. real income exlcuding transfers

Year-over-year % change





U.S. Economy: Slowdown, inflation and future expectations



US Growth Picture: Risks to the Outlook

- U.S. economy activity (jobs & spending) has slowed, inflation spreading out into services & housing
- Supply chain stress improving but remains well below neutral. China a major issue
- Geopolitical risks and energy costs: Expecting relief in 2H'22 due to sharp decline in oil prices
- Margin compression and rising operating costs



Interest Rate Outlook

- Flattening yield curve with the 10-year yield rising to 3.25% by end of 2022
- Pandemic era polices over. Policy rate moves into restrictive terrain in Q3'22.
- Rate hike of 75 bps in September.
- Financial conditions imply drag on risk appetite and overall economic activity



Inflation and Risk to the Economic Outlook

- Commodity prices continue to drop due to recession fear and jumbo rate hikes
- Inflation remains sticky, while top line all item inflation will fall markedly due to energy prices volatility.
- Wage pressures easing but do not expect major decline
- Watch cost of shelter and owners equivalent rent for longer term inflation problems



U.S. Economy: Slowdown, inflation and future expectations

US Economy: Growth, Employment and Inflation

- Unemployment increases to 3.8% by end of 2022
- Over \$2 trillion in excess savings compared to pre-pandemic levels
- Housing market cools off to pre-pandemic level: residential starts moderate and likely fall due to sharp fall in demand

2022 Policy Outlook

- Inflation Reduction Act no real boost to economic outlook this year.
- Price stability is the paramount policy goal. Draw down of Fed balance sheet to boost rates
- \$1.25 trillion infrastructure investment plan implemented, slated to add \$16 billion in investment in 2022

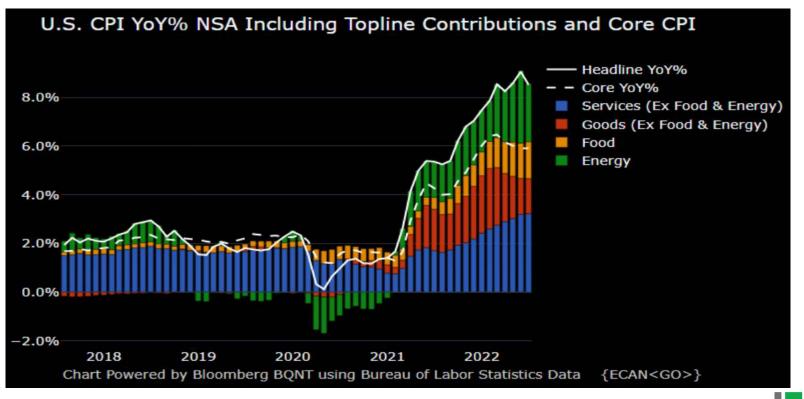


Labor Market

- Early retirees not coming back as expected, significant demographic challenges lay ahead
- · Tight labor market to result in accelerated integration of technology to meet demand
- Unsustainable labor demand masking problem with labor market: hiring more than needed
- Labor market reverses course: more layoffs, less hiring but might take a while to reach concerning level

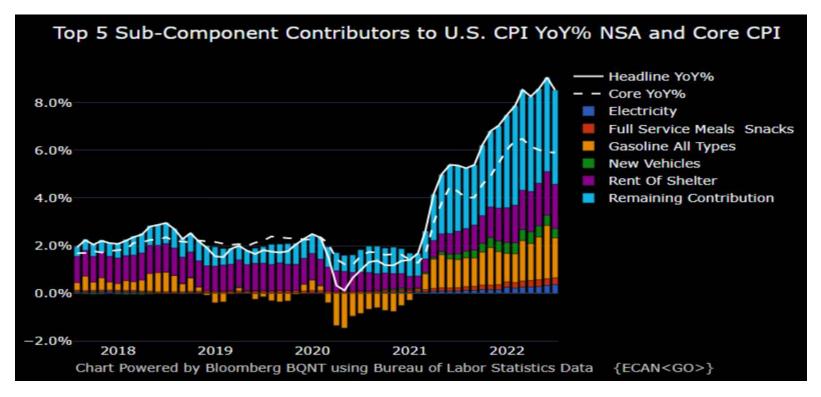


Consumer Price Index: Contributions to Inflation





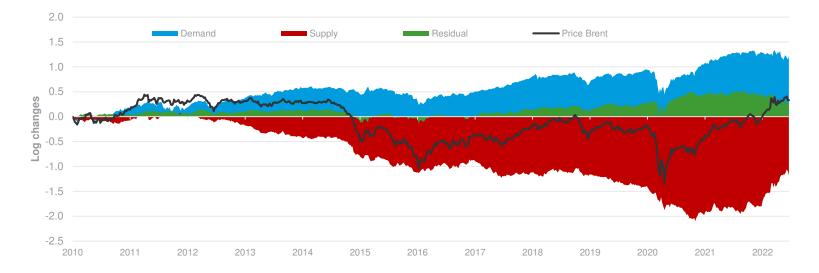
Consumer Price Index: Contributions to Inflation





Global Oil Supply: Tight Supply

Supply, demand and price of crude oil Cumulative weekly decomposition, 2010-present

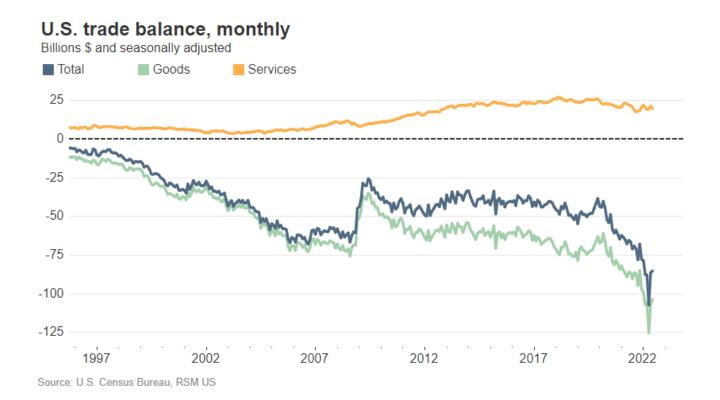


Source: Federal Reserve Bank of New York; RSM US



Source:

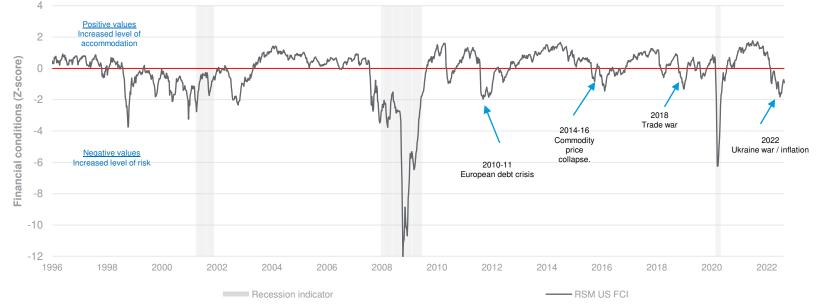
U.S. Trade: Sharp improvement but won't last due to strong \$





US Financial Conditions: Tight Due to Fed Policy

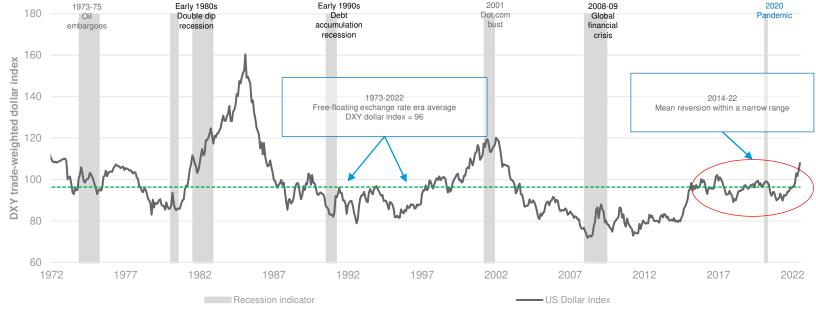




Source: Bloomberg; RSM US calculations



U.S. Dollar Strength on Back of Global Rate Differentials



U.S. dollar index before and after recessions

Source: BLS; NBER; Bloomberg; RSM US



U.S. Dollar Strength on Back of Global Rate Differentials

U.S. dollar/euro exchange rate



Source: Bloomberg; RSM US



U.S. Employment Outlook: Expecting Slower Pace of Hiring



State of Play

- Unemployment at 3.5%, likely to increase to 3.8% by end of 2022
- Deceleration to average of 150K per month in 2H'22
- Service sector driving the increases
- Participation rate remaining below pre-pandemic
- Structural transformation



Demographic transition

- Exit of the boomers
- Labor growth fading
 - 1945-2005 1% per annum, below 0.5% now
- No relief via immigration channel on horizon
- More technology to be deployed to substitute for lack of labor

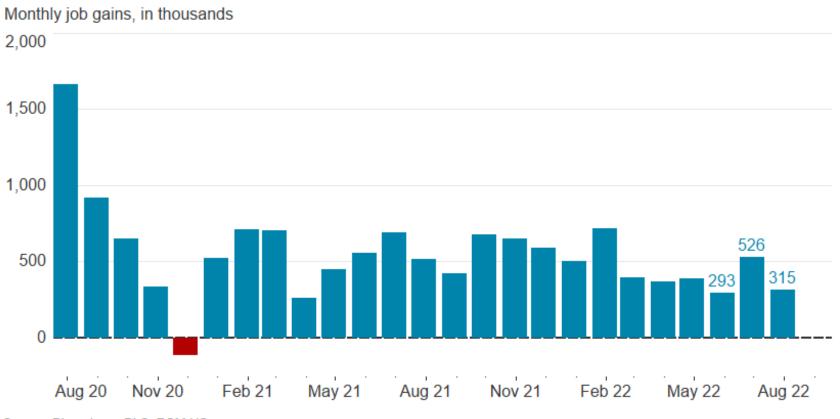


Wages

- Nominal wage gains easing
- Falling real wages due to inflation
- Competition at a premium
- Wage revolution in lower two quintiles



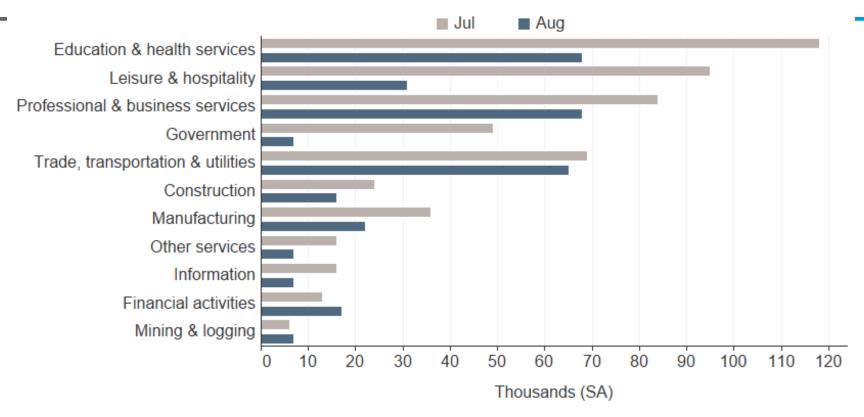
Change in nonfarm payrolls



Source: Bloomberg, BLS, RSM US



Net monthly change in nonfarm payrolls by sector

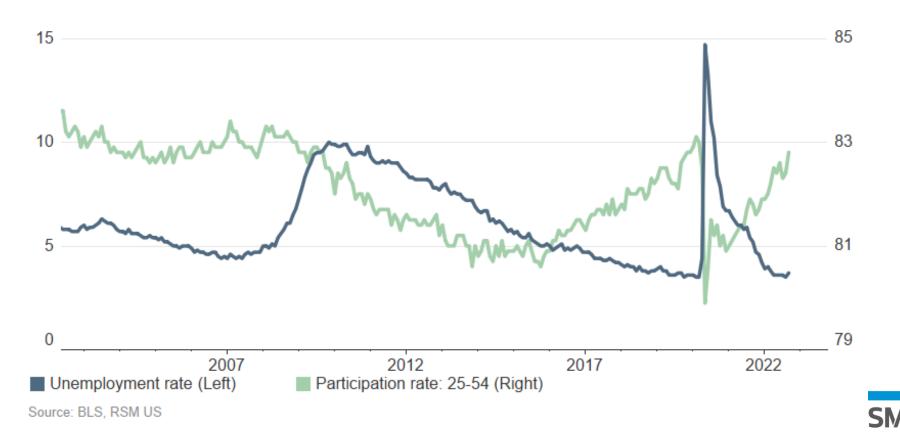


Note: Other services include Repair and maintenance, Personal and laundry services, and Membership associations and organizations Source: BLS, RSM US

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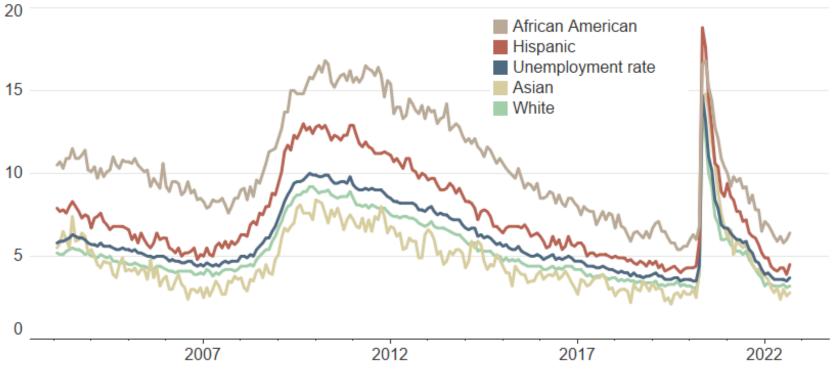
Unemployment and participation rates for prime-age labor (25-54)

Monthly percentage and seasonally adjusted



Unemployment rates across demographics

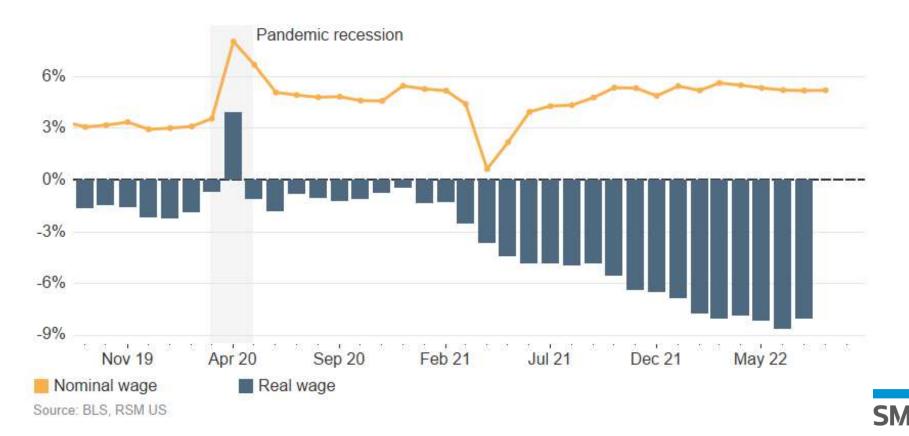
In percentage and seasonally adjusted





Average hourly wage rate

% year-over-year change



Real hourly wage: % change since Jan. 2020

Adjusted for inflation and seasonal effect

