

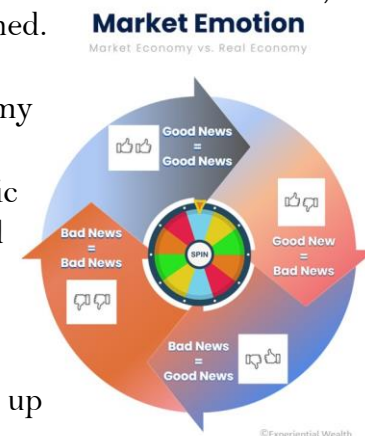
2023 Q1 Commentary: Walk and Chew

- The excitement and relief of “no landing” and “soft landing” in the U.S. during the past 6-months have given way to a hard landing scenario on March 10th when Silicon Valley Bank was shut down by federal regulators. An investigation is still ongoing to identify all the contributing factors (regulations, regulators, management, rising interest rates, etc.), but one thing is clear: the bank poorly anticipated the speedy rise in interest rates and responded accordingly to the impact of such rate increases to its reserve and balance sheet. There was a clear and serious mismatch of investments (bond duration) and liabilities (liquidity) – basic competence of bank management. The subsequent failure of Signature Bank happened two days later as we witnessed a run on banks. These are examples of liquidity problems rather than solvency issues. The increasing loss in investor confidence ultimately forced the demise of the 167-year-old Credit Suisse which fell into the arms of UBS.
- These events caused significant fear and discomfort among savers and bank depositors and witnessed a rush of depositors pulling their money out of banks and into money market funds (primarily investing in U.S. government securities) as a safe haven. This massive exodus from banks brought into question the stability of all banks (except the top tier). The Federal Reserve and the FDIC had to step in to reassure the market that they are there to provide liquidity and protection¹. These events also suggest bank regulatory failures.
- These bank failures, which resulted in tighter regulatory scrutiny, and the desire to restore confidence in the system will both lead to tighter financial conditions. This means banks (especially the small and medium size banks) are more cautious in providing credit and lending. This reaction is equivalent to the Fed raising interest rates to slow down economic activities. Market participants now expect the Fed to have reached the end of its hiking cycle. The market indicates that the Fed will likely be lowering rates in the second half of 2023.
- The Fed has and continues to focus on bringing inflation back down to the 2% range. To do so, it has a well-known tool kit of hiking rates and shrinking its balance sheet, among others. These are specific to restoring and maintaining price stability. At the same time, the Fed has macroprudential tools to deal with financial instability such as the current banking debacle, although some of the actions would cross over and impact financial and price stability. With that said, however, the Fed is focused on diminishing economic activities (higher unemployment and tempering consumer spending and corporate investment), and reactions to bank debacle-led tightening financial conditions (tougher lending standards and less willing to provide credit) would help the Fed in its quest for price stability. Nonetheless, the Fed is able to Walk and Chew at the same time. Case in point, the Fed raised rates in its March meeting and is likely to raise rates again in May while taking steps to support banks.

¹<https://home.treasury.gov/news/press-releases/jy1337>

2023 Q1 Commentary: The Fog of War

- Economic data dependency has been the Federal Reserve's consistent message regarding its reaction function to monetary policy actions going forward. There are at least three challenges when it comes to data for market participants:
 - Data Set** - Which data sets are emphasized? Backwards data (such as employment, inflation and GDP data from one month or a quarter ago) and/or high frequency data (current or almost current anecdotal data) offer glimpses of most recent economic activities and what weightings are assigned.
 - Good News/Bad News** - Good economic news today is often interpreted as bad inflation news which leads to more rate hikes and thus is bad news for the economy with a higher probability of a more severe economic slowdown and contraction. This is bad news for the stock market. Vice versa is also true, where bad economic news (higher unemployment, slowing GDP) means ending rate hikes and is good for the market. But sooner or later, bad news for the economy will be bad news for the market as the economy enters a contraction phase with unemployment rising, wages stagnating, and corporate earnings dropping.
 - Inconclusive** - During periods of transition, like now, incoming data do not line up neatly to deliver a clear direction. Here are some factors:
 - Core inflation remains stickier than expected (even with supply chain restored).
 - Massive fiscal transfers during Covid strengthened consumers' savings and reserves, which supported consumer spending longer and extended a stronger post-Covid economy, and this is coming to an end.
 - Low immigration, retirement and item (b) above all add to labor shortage which supports higher wages (especially for the lower-end service workers), even though real wages remain stagnant. There are still more job openings than job seekers.
 - The goods sector has been showing a gradual slow down for many months from a the robust Covid era, but the service sector remains robust. The latest data shows goods inflation has edged up slightly.
 - Credit is the lifeblood of the modern economy and the current banking challenges are causing tightened financial conditions and impacting lending. Refinancing risk has obviously risen.
- The Fed remains the central player to the economy. The question remains if the Fed can engineer an economic slowdown that would bring inflation back to the 2% range without causing a severe recession while maintaining financial stability.



2023Q1 Stocks & Bonds Performance in USD & 60/40

Index in US\$ (as of 03-31-2023)	TR 2023 Q1	Total Trail 6 Mo	TR Y2022	TR Trail 3 YR Anlzed
DJ Industrial Average NR	0.77	16.71	-7.44	16.59
S&P 500 TR	7.50	15.62	-18.11	18.60
S&P 500 Growth TR	9.63	11.22	-29.41	16.84
S&P 500 Value TR	5.17	19.47	-5.22	19.12
Russell Mid Cap TR	4.06	13.61	-17.32	19.20
Russell Mid Cap Growth TR	9.14	16.67	-26.72	15.20
Russell Mid Cap Value TR	1.32	11.91	-12.03	20.69
Russell 2000 TR	2.74	9.14	-20.44	17.51
Russell 2000 Growth TR	6.07	10.46	-26.36	13.36
Russell 2000 Value TR	-0.66	7.70	-14.48	21.01
NASDAQ 100 TR	20.77	20.72	-32.38	20.00

Index in US\$ (as of 03-31-2023)	TR 2023 Q1	Total Trail 6 Mo	TR Y2022	TR Trail 3 YR Anlzed
Bloomberg US Agg Bond TR	2.96	4.89	-13.01	-2.77
Bloomberg US Corp IG + HY TR	3.74	-0.70	-14.91	-2.31
Bloomberg Municipal TR	2.78	7.00	-8.53	0.35
Bloomberg High Yield Corporate TR	4.17	3.50	-11.19	0.05
Bloomberg Global Aggregate TR	3.01	7.69	-16.25	-3.43
JPM EMBI Global Diversified TR	1.86	10.12	-17.78	-0.02
JPM GBI-EM Global CompTR Local Currency	1.77	3.78	-1.84	2.78

US 60/40 Portfolio US\$ (as of 03-31-2023)	TR 2023 Q1	Total Trail 6 Mo	TR Y2022	TR Trail 3 YR Anlzed
S&P 500 TR	7.50	15.62	-18.11	18.60
Bloomberg US Agg Bond TR	2.96	4.89	-13.01	-2.77
Total Return (no fee)	5.68	11.33	-16.07	10.05
US 60/40 Portfolio US\$ (as of 03-31-2023)	TR 2023 Q1	Total Trail 6 Mo	TR Y2022	TR Trail 3 YR Anlzed
MSCI ACWI All Cap GR USD	7.04	17.71	-18.04	16.18
Bloomberg Global Aggregate TR USD	3.01	7.69	-16.25	-3.43
Total Return (no fee)	5.43	13.70	-17.32	8.34

Index in US\$ (as of 03-31-2023)	TR 2023 Q1	Total Trail 6 Mo	TR Y2022	TR Trail 3 YR Anlzed
S&P 1500 Financials TR	-5.92	6.36	-10.15	18.01
S&P 1500 Energy TR	-4.94	16.11	63.77	48.96
S&P 1500 Health Care TR	-4.06	7.69	-3.31	15.06
S&P 1500 Utilities TR	-3.14	5.50	1.37	10.11
S&P 1500 Cons Staples TR	1.07	13.82	-0.74	14.93
S&P 1500 Industrials TR	4.28	23.27	-6.43	22.50
S&P 1500 Materials TR	4.86	21.42	-10.78	25.18
S&P 1500 TR	7.16	15.50	-17.78	18.88
S&P 1500 Media TR	8.23	25.18	-30.54	5.35
S&P 1500 Cons Discretionary TR	15.36	6.11	-35.70	16.41
S&P 1500 Commun Services TR	20.15	18.57	-39.66	9.36
S&P 1500 Information Technology TR	21.45	27.41	-27.91	24.33

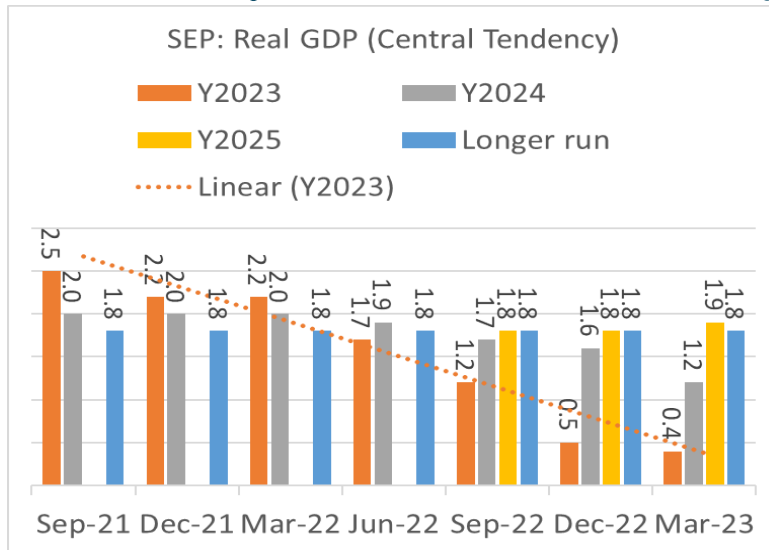
Index in US\$ (as of 03-31-2023)	TR 2023 Q1	Total Trail 6 Mo	TR Y2022	TR Trail 3 YR Anlzed
MSCI ACWI ex USA All Cap GR	6.63	21.77	-16.24	12.76
MSCI EAFE GR	8.62	27.52	-14.01	13.52
MSCI Europe GR	10.74	32.24	-14.53	15.67
MSCI AC ASEAN GR	2.97	13.14	-4.09	10.08
MSCI EM GR	4.02	14.20	-19.74	8.23
MSCI Frontier Emerging Market GR	2.53	11.99	-17.84	7.89
MSCI Australia GR	2.80	18.97	-5.13	20.33
MSCI Brazil GR	-3.09	-0.66	14.61	14.43
MSCI Canada GR	4.55	12.54	-12.17	19.43
MSCI China GR	4.71	18.87	-21.80	-2.51
MSCI France GR	14.69	40.26	-12.67	20.36
MSCI Germany GR	14.79	43.13	-21.62	13.57
MSCI Hong Kong GR	-2.39	15.38	-4.71	4.59
MSCI India GR	-6.29	-4.36	-7.49	22.71
MSCI Italy GR	14.87	45.45	-13.42	18.66
MSCI Japan GR	6.38	20.49	-16.31	7.78
MSCI Korea GR	9.65	29.91	-28.94	10.32
MSCI Mexico GR	20.39	35.62	-1.64	30.41
MSCI UK All Cap GR	5.77	24.00	-10.16	13.57

Chair Powell – The end is in sight? March 21 Press Conference¹

- “We are highly attentive to the risks that high inflation poses to both sides of our mandate, and we are strongly committed to returning inflation to our 2 percent objective...It is important that we sustain that confidence with our actions as well as our words” (*showing unwavering resolve*)
- “Labor market remains extremely tight, and inflation remains well above our longer-run goal of 2 percent” (*signaling that more work is needed*)
- “Reducing inflation is likely to require a period of below-trend growth and some softening in labor market conditions.” (*the economy and the labor market have to slow*)
- “Events in the banking system over the past two weeks are likely to result in tighter credit conditions for households and businesses, which would in turn affect economic outcomes...you can think of it as being the equivalent of a rate hike or perhaps more than that” (*likely doing less than expected*)
- “We no longer state that we anticipate that ongoing rate increases will be appropriate to quell inflation; instead, we now anticipate that some additional policy firming may be appropriate... focus on the words ‘may’ and ‘some,’ as opposed to ‘ongoing.’” (*signaling a bit more hiking and stop*)
- “Since our previous FOMC meeting, economic indicators have generally come in stronger than expected, demonstrating greater momentum in economic activity and inflation.” (*waiting for data to be supportive*)
- “We’ll be focused as always on the incoming data and the evolving outlook and, in particular, on our assessment of the actual and expected effects of credit tightening...we simply don’t know.” (*data is key in determining the exact path of future policy*)

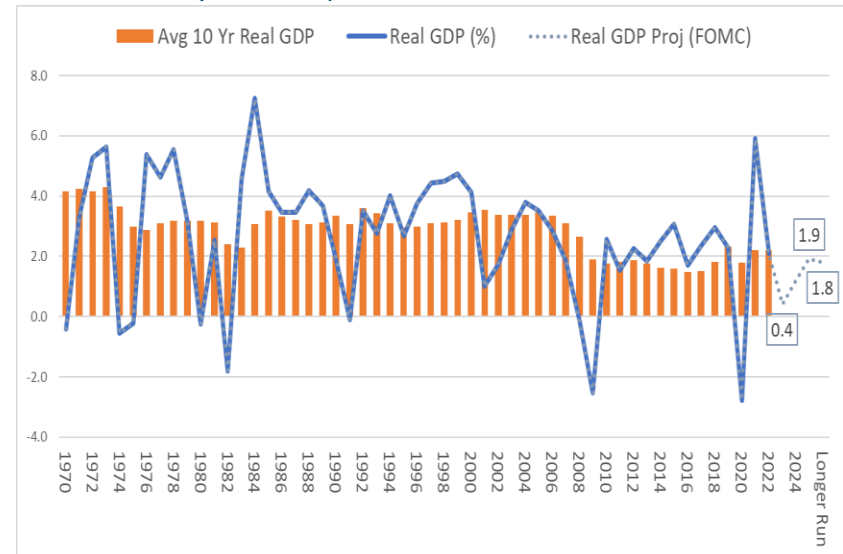
¹ <https://www.federalreserve.gov/mediacenter/files/FOMCpresconf20230322.pdf>

Summary of Economic Projections (SEP) - GDP



<https://www.federalreserve.gov/monetarypolicy/fomcproptabl20211215.htm>

At its December meeting, the Federal Open Market Committee (FOMC) released its quarterly Summary of Economic Projections (SEP). FOMC participants submit their projections of the most likely outcomes for real gross domestic product (GDP) growth. Participant projections are based on information available at the time of the meeting together with their assessment of appropriate monetary policy and assumptions about other factors likely to affect economic outcomes. Historically, SEP projections are more instructive in terms of directionality rather than the actual projections.

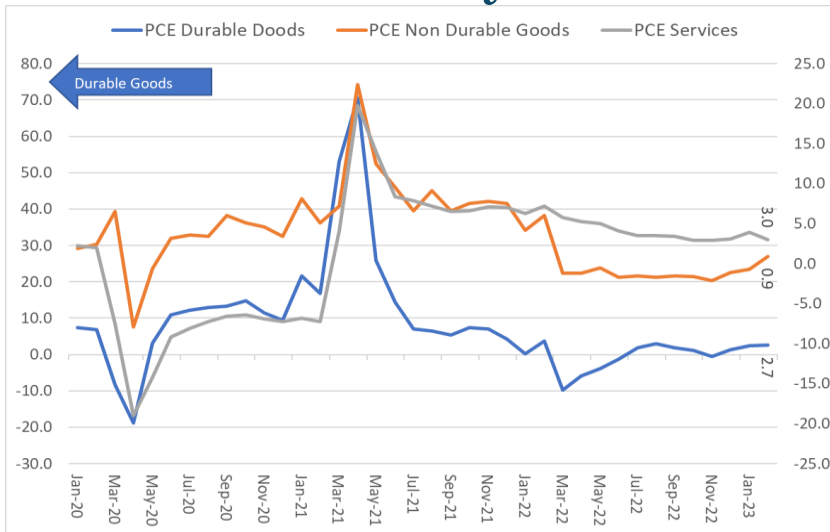


Source: FRED, FOMC SEP, Experiential Wealth

The SEP should NOT be relied upon as the official position of the FOMC. The FOMC has revised downward its 2023 economic growth projection to near recession levels. This is likely in recognition of the signs of a significantly slowing U.S. and global economies as well as the need to further and persistently tighten financial conditions to bring inflation back to the 2% level with “pain” to households and the economy.

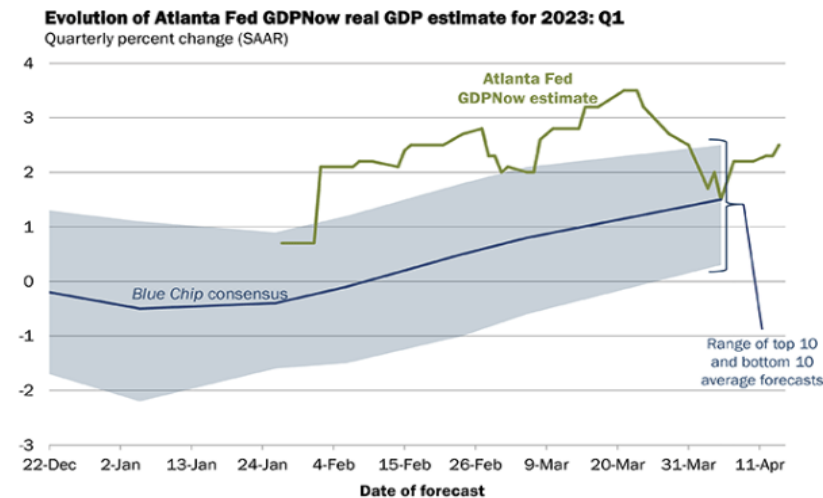
According to the March 2023 SEP, the central tendency average estimate for real GDP has dropped 0.1%, from 0.5% to 0.4%, for 2023 and dropped 0.4%, from 1.6% to 1.2%, for 2024. This continues the trend of projecting a slower economy each quarter since September 2021 for 2023 and 2024.

The U.S. Economy – GDP – A Slow Transition



Source: BEA, Experiential Wealth

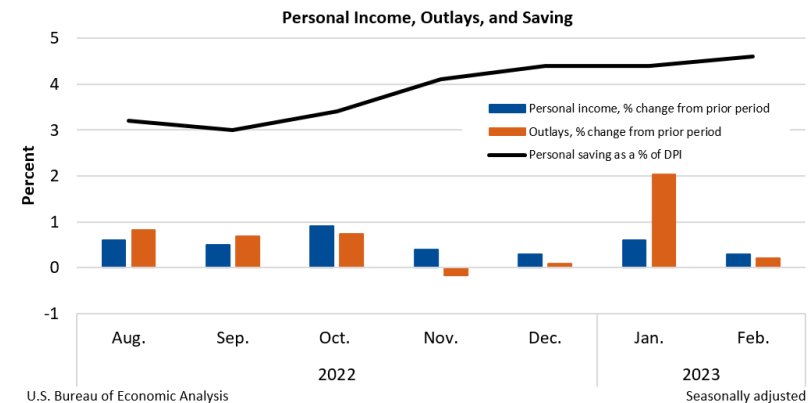
<https://www.bea.gov/data/income-saving/personal-income>



Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts
Note: The top (bottom) 10 average forecast is an average of the highest (lowest) 10 forecasts in the Blue Chip survey.

<https://www.atlantafed.org/cqer/research/gdpnow>

According to BEA, personal consumption expenditure (PCE) for durable goods has shown some rebound, while PCE for services has trended down slightly in February. In the meantime, personal savings has continued to move higher as personal income has notched down from January along with personal outlay.



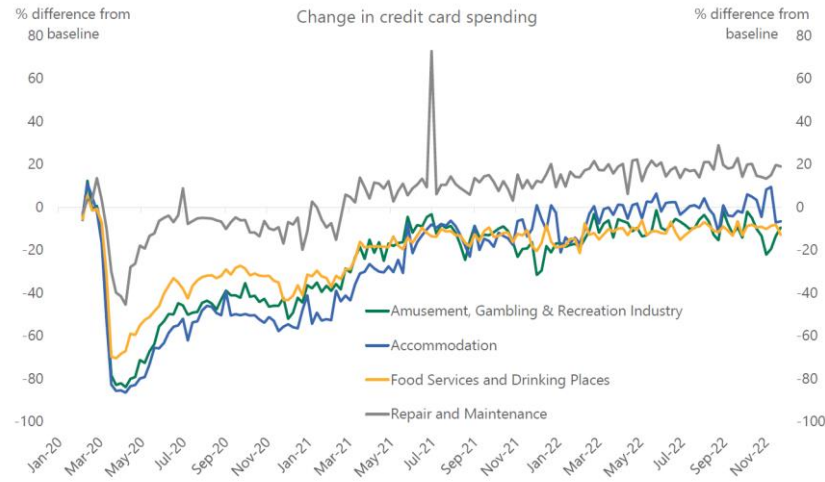
Personal income increased \$72.9 billion (0.3%) in February, according to the Bureau of Economic Analysis. Disposable personal income (DPI) increased \$89.9 billion (0.5%), and personal consumption expenditures (PCE) increased \$27.9 billion (0.2%).

The PCE price index increased 0.3%. Excluding food and energy, the PCE price index also increased 0.3%. Real DPI increased 0.2% in February, and Real PCE decreased 0.1%; goods and services each decreased 0.1%.

As of April 3, the Atlanta Fed GDPNow model estimate for real GDP growth (seasonally adjusted annual rate) in the first quarter of 2023 is 2.5%. At the same time, the Blue Chip Economist average estimate continues to move upward, closer to 1.5%.

High Frequency Economic Data

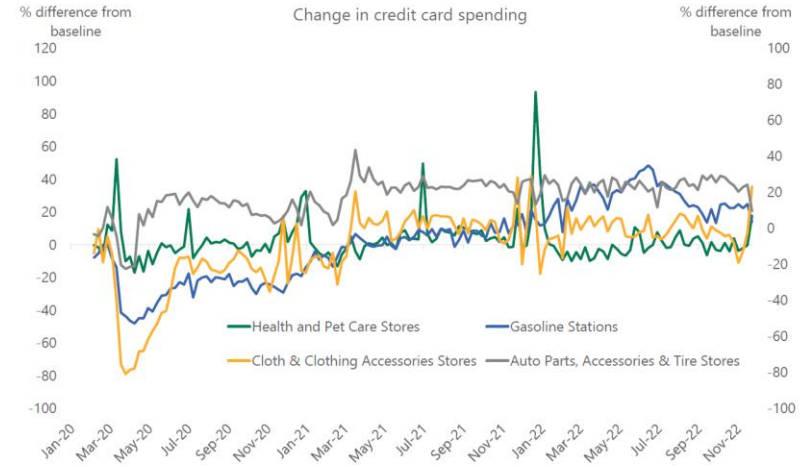
US consumer still strong



Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

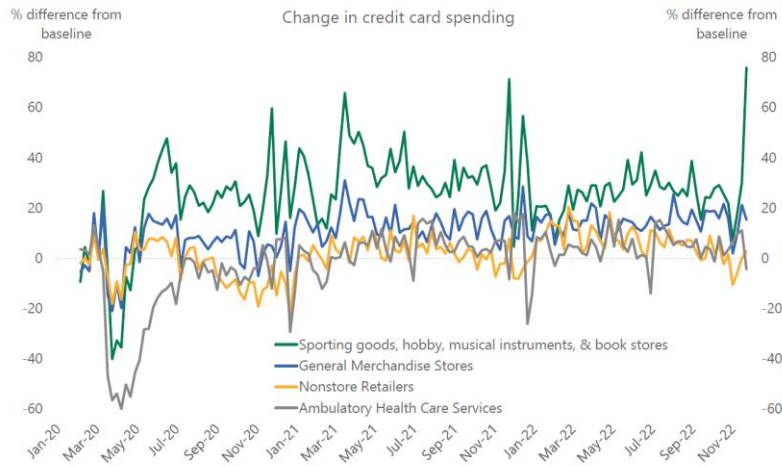
US consumer still strong

US consumer still strong

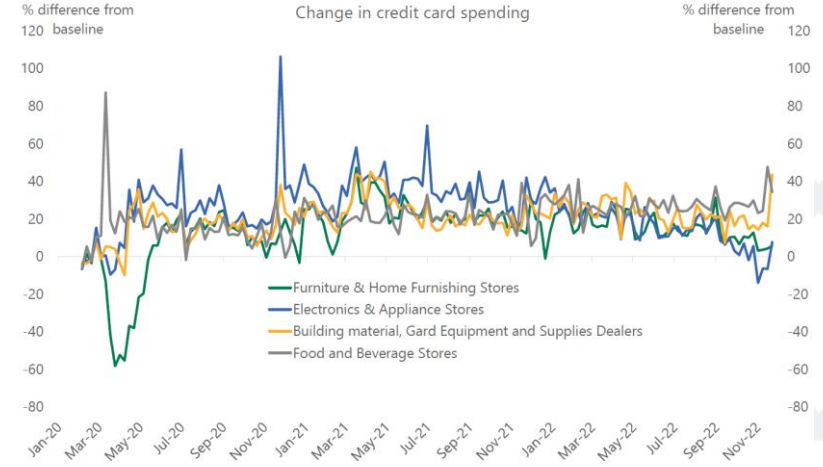


Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

US consumer still strong, some weakness emerging in furniture sales



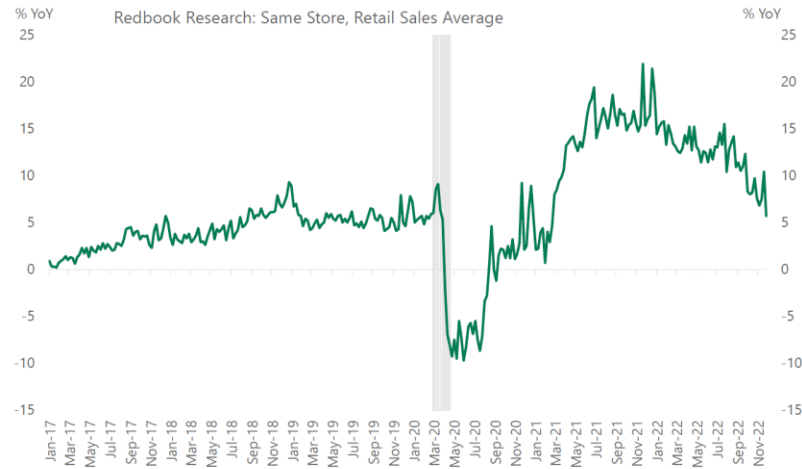
Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.



Source: BEA, Haver analytics, Apollo Chief Economist. Note: The weekly values represent the predicted percentage difference from the typical level of spending (prior to the pandemic declared by the World Health Organization on March 11, 2020) after adjusting for day-of-week, month, and year effects, based on daily data. The typical level corresponds to a value of zero.

High Frequency Economic Data

Same-store retail sales slowing down gradually



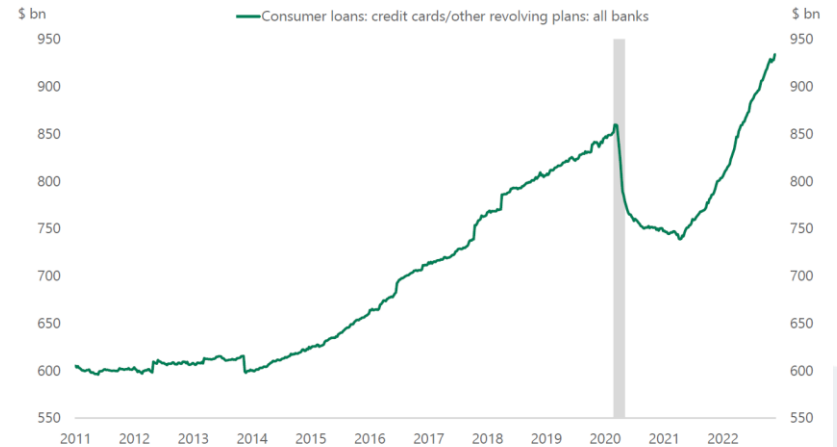
Source: Redbook, Haver Analytics, Apollo Chief Economist

Weekly housing inventory starting to roll over



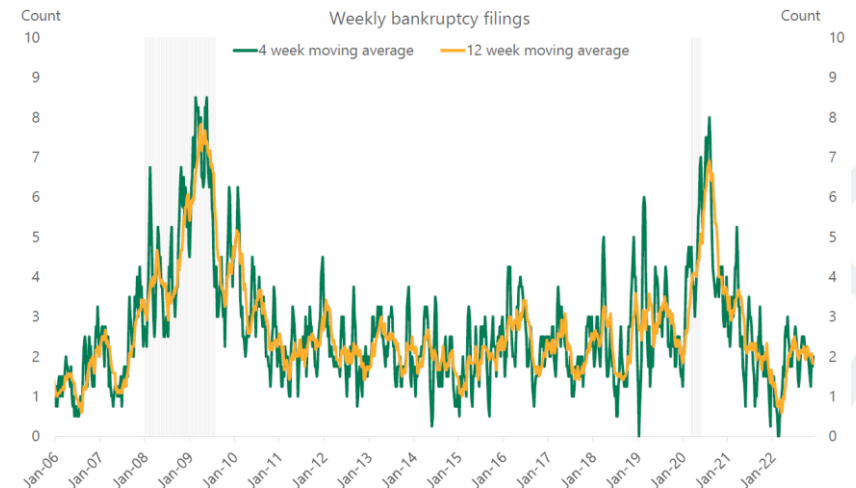
Source: Redfin, Haver, Apollo Chief Economist

Weekly credit card debt is rising as the economy re-opens



Source: FRB, Haver, Apollo Chief Economist

Weekly bankruptcy filings still at normal levels



Source: Bloomberg, Apollo Chief Economist. Note: Filings are for companies with more than \$50m in liabilities. For week ending on Thursday

Courtesy: Apollo, 2023 March

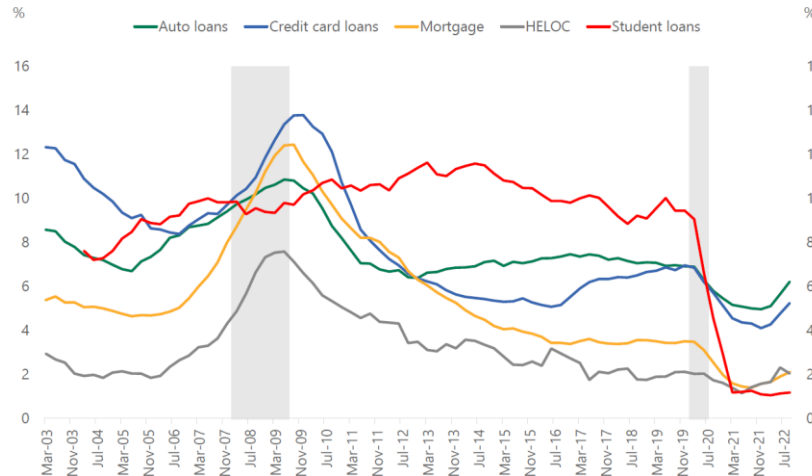
High Frequency Economic Data

More households having difficulties paying expenses



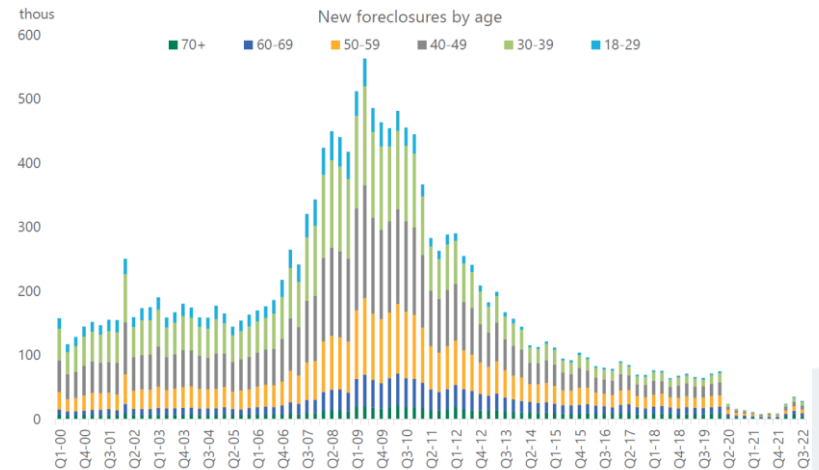
Source: Census Bureau, Apollo Chief Economist (Note: Household Pulse Survey)

New delinquent (+30 days) balances by loan type, % of current balance



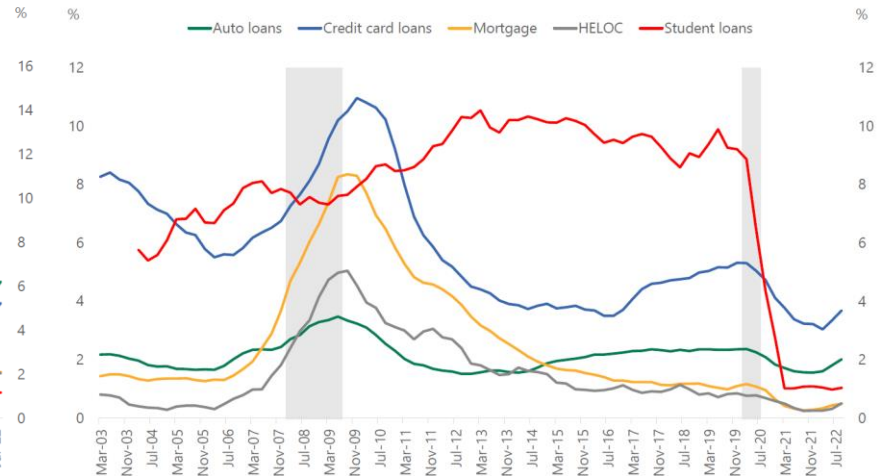
Source: FRED, Haver, Apollo Chief Economist

New foreclosures starting to move up a bit



Source: FRED, Haver, Apollo Chief Economist

New delinquent (+ 90 days) balance by loan type, % of the current balance

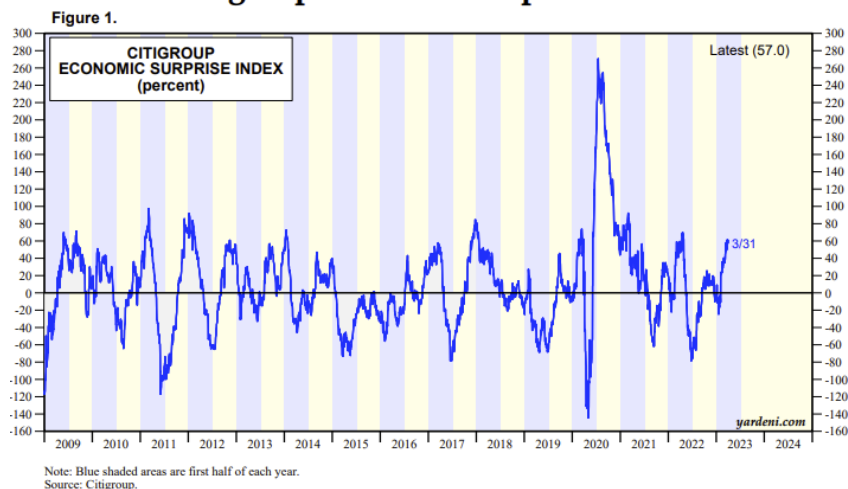


Source: FRED, Haver, Apollo Chief Economist

Courtesy: Apollo, 2023 March

High Frequency Economic Data

Citigroup Economic Surprise Index



<https://www.yardeni.com/pub/citigroup.pdf>

Weekly Economic Index (WEI)

Latest Release 11:30 a.m. March 30, 2023

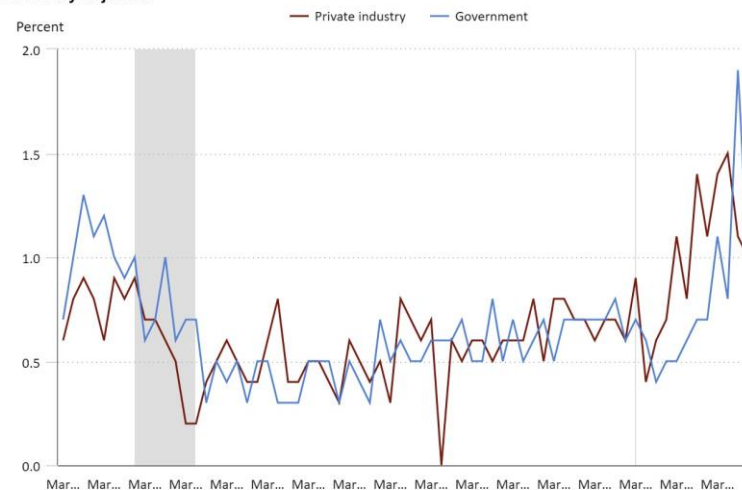


Citi's Economic Surprise Index, which measures the degree to which economic data is either beating or missing expectations, continued to positively improve in the first quarter.

New York Fed's Weekly Economic Index shows ten daily and weekly indicators of real economic activity. Since its peak in May 2021, the index continues the general declining trend.

The fourth quarter BLS Employment Cost Index shows private industry wages along with government wages are both decelerating. This is a welcome sign for the Fed since slowing wage growth slows demand growth which leads to disinflation.

Compensation in private industry and state and local government, 3-month percent change, seasonally adjusted



Source: U.S. Bureau of Labor Statistics.

<https://www.bls.gov/news.release/eci.nr0.htm>

<https://www.newyorkfed.org/research/policy/weekly-economic-index#/interactive>

National Federation of Independent Business (NFIB)

Small Business Optimism Index at 90.1

Based on 10 survey indicators, seasonally adjusted, Jan. '10 – Mar. '23



<https://www.nfib.com/surveys/small-business-economic-trends/>

50% of the U.S. labor force is employed by private and small businesses in America, thus the viability of these employers is critical to the economy. NFIB's Small Business Optimism Index decreased 0.8% in March to 90.1%, marking it the 15th consecutive month below the 49-year average. Also, of 98.24% of owners reported inflation as their single most important business problem, down 4 points from February. Small business owners expecting better business conditions over the next six months remained at a net negative 47%. A net negative 6% of all owners (seasonally adjusted) reported higher nominal sales in the past three months. Sales are trending down. The net percent of owners expecting higher real sales volumes deteriorated six points to a net negative 15%.

Small Business Optimism

Index Component	Net %	From Last Month
Plans to Increase Employment	15%	▼ -2
Plans to Make Capital Outlays	20%	▼ -1
Plans to Increase Inventories	-4%	▲ 3
Expect Economy to Improve	-47%	■ 0
Expect Real Sales Higher	-15%	▼ -6
Current Inventory	1%	▲ 5
Current Job Openings	43%	▼ -4
Expected Credit Conditions	-9%	▼ -3
Now a Good Time to Expand	2%	▼ -4
Earnings Trends	-18%	▲ 5

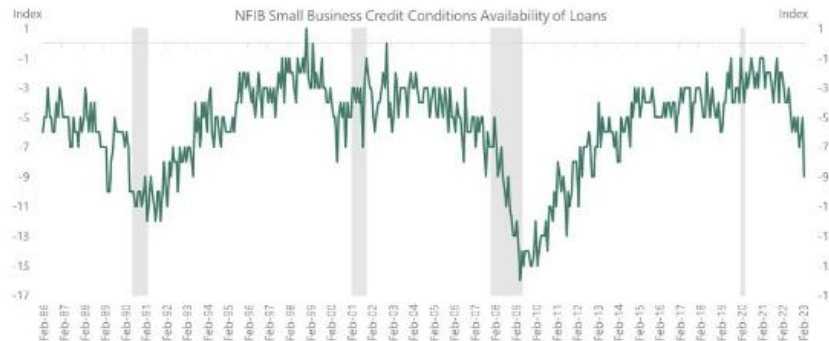
Job Components	Seasonally Adjusted Level	Change from Last Month
Job Openings	43%	▼ -4
Hiring Plans	15% (net)	▼ -2
Qualified Workers "few" or "none"	53%	▼ -1
Temporary Workers*	10%	▼ -1
Compensation Plans	22% (net)	▼ -1
Actual Compensation Changes	42% (net)	▼ -4
Average Change in Employment per Firm	0.21	
*not seasonally adjusted		

<https://www.nfib.com/foundations/research-center/monthly-reports/jobs-report/>

2% of owners reported that all their borrowing needs were not satisfied. 29% reported all credit needs were met, and 59% said they were not interested in a loan. A net 9% reported their last loan was harder to get than in previous attempts, up four points. 3% reported that financing was their top business problem. A net 26% of owners reported paying a higher rate on their most recent loan, up two points. In summary, rates are rising, but credit is still available.

National Federation of Independent Business (NFIB)

After SVB: Small firms are reporting that financing is harder to get



Source: NFIB, Bloomberg, Apollo Chief Economist

The net percent of owners raising average selling prices decreased 1% from February to a net 37% seasonally adjusted, the lowest since April 2021. Unadjusted, 11% reported lower average selling prices, and 50% reported higher average prices.

Price hikes were the most frequent in:

- wholesale (71% higher, 16% lower),
- retail (61% higher, 8% lower),
- construction (57% higher, 8% lower), and
- finance (56% higher, 8% lower).

Seasonally adjusted, a net 26% plan price hikes, up 1%.

The frequency of positive profit trends was a net -18%, 5% better than in February. Among owners reporting lower profits:

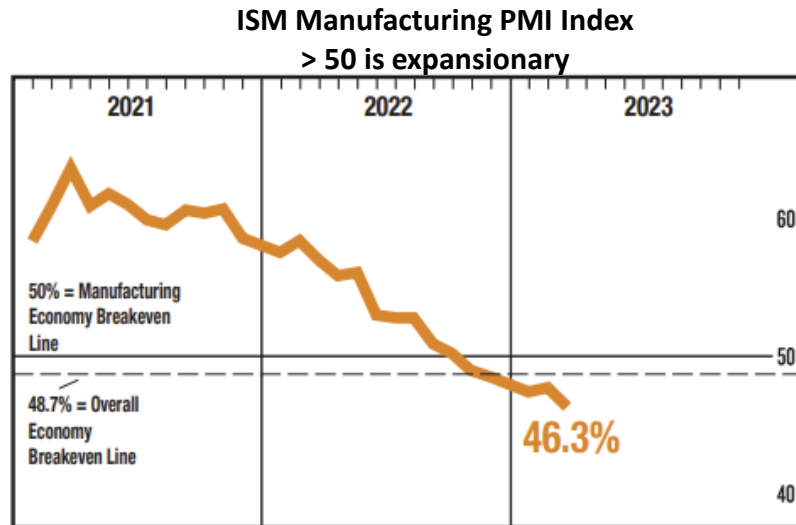
- 31% blamed weaker sales,
- 23% blamed the rise in the cost of materials,
- 13% cited the usual seasonal change,
- 9% cited lower prices,
- 8% cited labor costs, and
- 3% cited higher taxes or regulatory costs.

For owners reporting higher profits:

- 48% credited sales volumes,
- 21% cited higher prices,
- 18% cited usual seasonal change, and
- 5% cited lower labor costs.

<https://www.nfib.com/surveys/small-business-economic-trends/>

Signs of an Economic Transition to a Slowdown



The U.S. manufacturing sector contracted in March, as the Manufacturing PMI registered 46.3%, 1.4% lower than the reading of 47.7% recorded in February. This is the fifth month of contraction and a continuation of a downward trend that began in June 2022. Of the five subindexes that directly factor into the Manufacturing PMI, none were in growth territory. This month, the PMI registered its lowest reading since May 2020 (43.5%).

<https://www.ismworld.org/globalassets/pub/research-and-surveys/rob/pmi/rob202304pmi.pdf>

Source: Moody's Economics

Manufacturing at a Glance

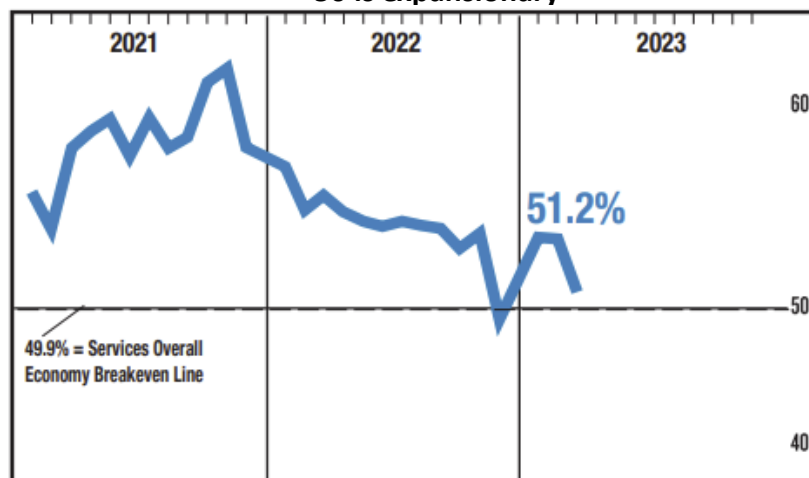
INDEX	Mar Index	Feb Index	% Point Change	Direction	Rate of Change	Trend* (months)
Manufacturing PMI®	46.3	47.7	-1.4	Contracting	Faster	5
New Orders	44.3	47.0	-2.7	Contracting	Faster	7
Production	47.8	47.3	+0.5	Contracting	Slower	4
Employment	46.9	49.1	-2.2	Contracting	Faster	2
Supplier Deliveries	44.8	45.2	-0.4	Faster	Faster	6
Inventories	47.5	50.1	-2.6	Contracting	From Growing	1
Customers' Inventories	48.9	46.9	+2.0	Too Low	Slower	78
Prices	49.2	51.3	-2.1	Decreasing	From Increasing	1
Backlog of Orders	43.9	45.1	-1.2	Contracting	Faster	6
New Export Orders	47.6	49.9	-2.3	Contracting	Faster	8
Imports	47.9	49.9	-2.0	Contracting	Faster	5
Overall Economy				Contracting	Faster	4
Manufacturing Sector				Contracting	Faster	5

*Number of months moving in current direction. Manufacturing ISM® Report On Business® data has been seasonally adjusted for the New Orders, Production, Employment and Inventories indexes.

The overall trend for goods supports the understanding that this segment of the economy is in contraction after the surge that led inflation higher during the pandemic. Eight of the sub-indexes are in contraction and trending lower. Good employment is slowing faster along with new orders. The prices sub-index is decreasing, which supports a disinflationary manufacturing and goods segment of the economy.

Early Signs of an Economy Slowing in Services

ISM Services PMI Index
> 50 is expansionary



In March, the Services PMI registered 51.2%, a 3.9% decrease compared to the February reading of 55.1%. A reading above 50% indicates the services sector economy is generally expanding; below 50% indicates it is generally contracting. The past relationship between the Services PMI and the overall economy indicates that the Services PMI for March (51.2%) corresponds to a 0.5% increase in real gross domestic product (GDP) on an annualized basis.

Economic activity in the services sector expanded in March for the third consecutive month as the Services PMI® registered 51.2%. The sector has grown in 33 of the last 34 months, with the lone contraction in December.

Services at a Glance

INDEX	Mar Index	Feb Index	% Point Change	Direction	Rate of Change	Trend* (months)
Services PMI®	51.2	55.1	-3.9	Growing	Slower	3
Business Activity	55.4	56.3	-0.9	Growing	Slower	34
New Orders	52.2	62.6	-10.4	Growing	Slower	3
Employment	51.3	54.0	-2.7	Growing	Slower	2
Supplier Deliveries	45.8	47.6	-1.8	Faster	Faster	2
Inventories	52.8	50.6	+2.2	Growing	Faster	2
Prices	59.5	65.6	-6.1	Increasing	Slower	70
Backlog of Orders	48.5	52.8	-4.3	Contracting	From Growing	1
New Export Orders	43.7	61.7	-18.0	Contracting	From Growing	1
Imports	43.6	52.6	-9.0	Contracting	From Growing	1
Inventory Sentiment	57.9	55.3	+2.6	Too High	Faster	4
Overall Economy				Growing	Slower	3
Services Sector				Growing	Slower	3

*Number of months moving in current direction. Services ISM® Report On Business® data has been seasonally adjusted for the Business Activity, New Orders, Employment and Prices indexes.

Since services represent about 70% of the U.S. economy, it's monthly direction is a precursor to the direction of the general economy. For March, 5-subsectors of the PMI index remains above 50, this means growing, but the pace is slowing. Particularly, new orders have dropped 10.4 and employment is showing a drop of 2.7%. Three sub-indexes show contraction and from growing in the prior month. Finally inventory and inventory sentiment are growing. It is informative to see the price index remains in positive territory, but the rate of growth is slowing. This is an indicator that supports a persistent and slowing inflation.

Signs of Continuing Economic Slowdown

California Purchasing Manager's Composite Index

> 50 is expansionary



**New York Empire State Manufacturing Survey
General Activity - Current vs. Previous Month**

> 0 is expansionary



Kansas City Fed Manufacturing Survey

Composite Diffusion Index

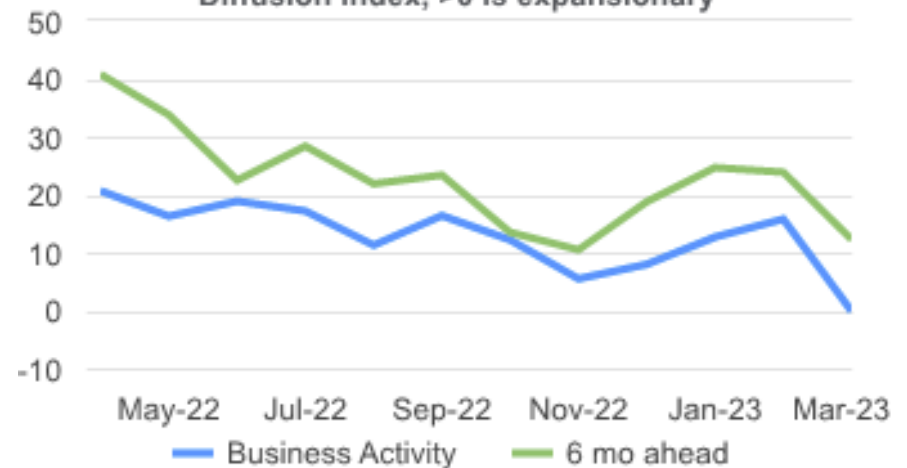
>0 is expansionary



Philadelphia Fed Non-Manufacturing Survey

Nonmanufacturing Survey

Diffusion index, >0 is expansionary

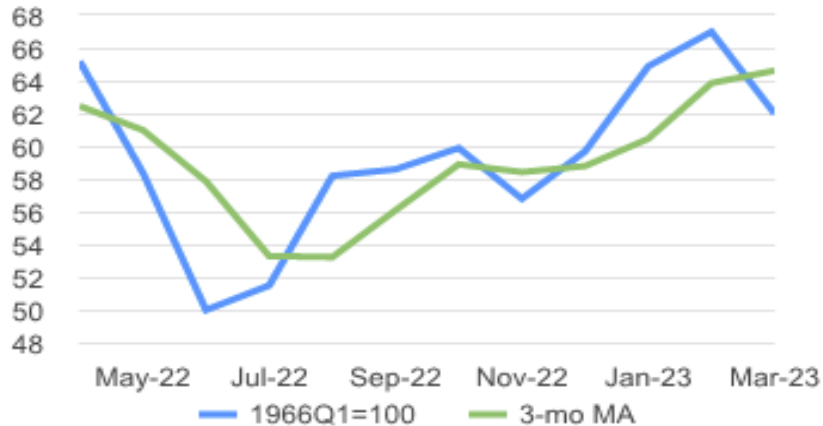


Source: Moody's economics

Consumer Sentiments

UMich Consumer Sentiment
03-2023

Consumer Sentiment



<https://fred.stlouisfed.org/series/UMCSENT#>

Consumer sentiment fell in March after posting three straight gains, according to final data from the University of Michigan. The index fell to 62 in March from 67 in February. The preliminary report had the index at 63.4. The change from February led by expectations fell 5.5 points. The current conditions component dropped 4.4 points. Expectations were revised down 2.3 points. Current conditions were revised down 0.1 point. Inflation expectations also fell in the short term, though they remain elevated. Median 12-month inflation expectations dropped from 4.1% to 3.6%, the lowest since April 2021, while five-year expectations held at 2.9% for the fourth straight month.

Conference Board Consumer Confidence Survey
03-28-2023

Consumer Confidence Index 1985=100

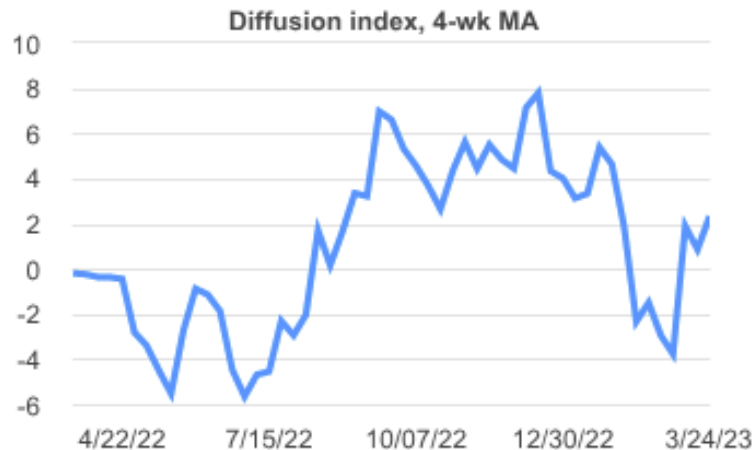


<https://www.conference-board.org/topics/consumer-confidence>

U.S. consumer confidence does not appear to have been hurt by recent bank failures, according to the Conference Board. Its index increased from an upwardly revised 103.4 (previously 102.9) to 104.2 in March, bucking consensus expectations for a moderate decline. The top-line increase was driven by an improvement in consumers' near-term outlook for income, business and job market conditions. On the other hand, their appraisal of current business and labor market conditions deteriorated some. Consumers are acknowledging an economy that headed into the recent banking crisis with a lot of momentum.

How Are Businesses Feeling?

Moody's Analytics Survey Business Confidence
03-24-23



Source: Moody's

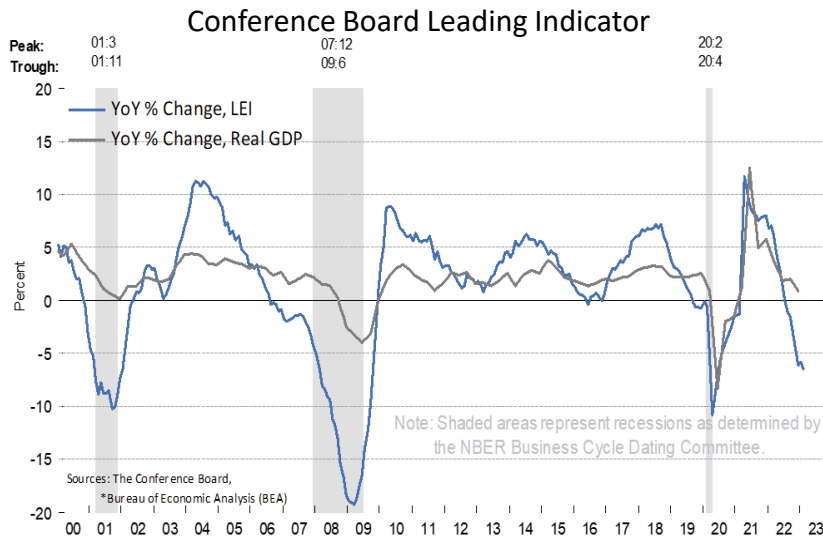
Global business sentiment is weak but held steady in late March despite the banking crisis that erupted in the U.S. and has swept across the globe. The immediate fallout of the crisis will likely be a significant tightening in bank underwriting standards, and it is notable that respondents to the survey say that credit is already difficult to get. Sales are also soft, with more respondents saying they are weakening than say they are improving. The survey results are consistent with a global economy struggling to avoid recession.

Moody's Analytics Beige Book
03-09-2023

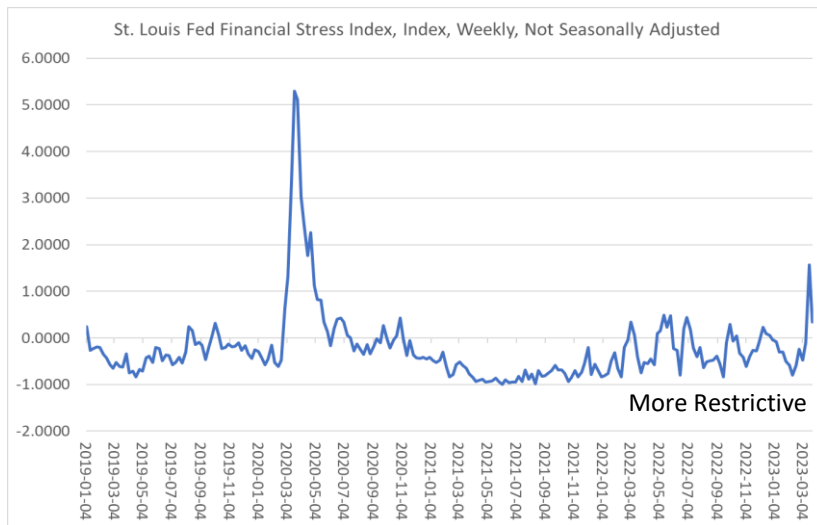


The Moody's Analytics Beige Book Index increased in March to 19.4, up from 8.3 in January's release. A top-line score around 100 indicates that U.S. economic activity advanced at a moderate tempo, while a score of 0 represents the index's neutral level. This release marks the first time the Beige Book Index has increased since the spring of 2022, but the relatively low value demonstrates that the U.S. economy remains under pressure from a number of headwinds. Of the 12 Federal Reserve districts, six noted a modest increase in economic activity over the reporting period.

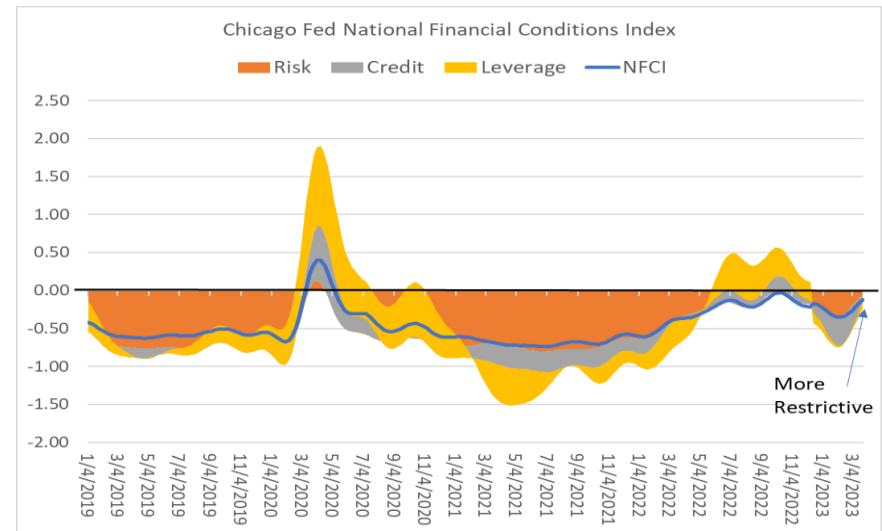
Leading Indicators and Financial Conditions – a mixed bag



Source: Conference Board -
<https://www.conference-board.org/topics/us-leading-indicators>



St Louis Fed, Experiential Wealth
<https://fred.stlouisfed.org/series/STLFISI3>

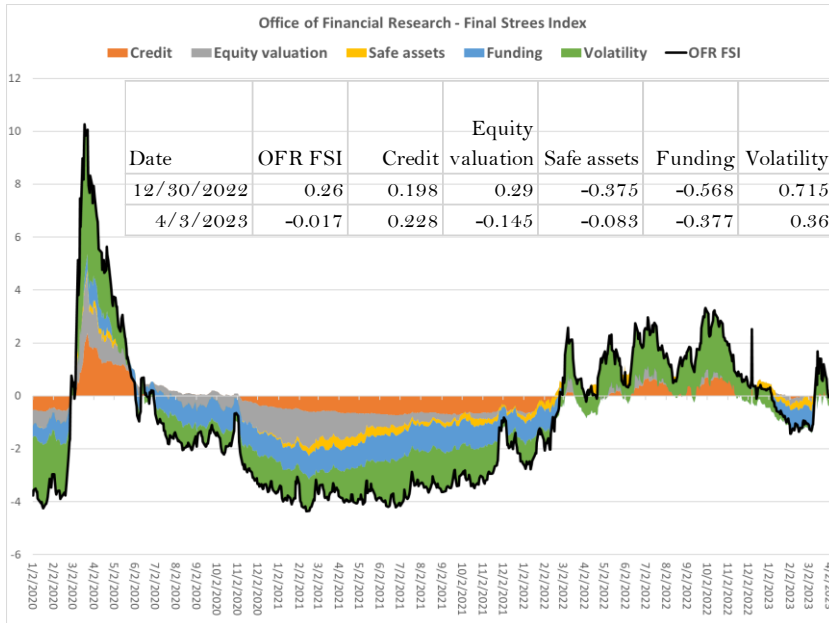


Chicago Fed, Experiential Wealth
<https://www.chicagofed.org/publications/nfci/index>

The Conference Board Leading Economic Index® (LEI) for the U.S. fell again by 0.3 percent in February 2023 to 110.0 (2016=100), after also declining by 0.3 percent in January. The LEI is down 3.6 percent over the six-month period between August 2022 and February 2023—a steeper rate of decline than its 3.0 percent contraction over the previous six months (February–August 2022). The St. Louis Federal Reserve Bank's Financial Stress Index This index measures the degree of financial stress in the markets and is constructed from 18 weekly data series: 7 interest rate series, 6 yield spreads and 5 other indicators. Each of these variables captures some aspect of financial stress. Accordingly, as the level of financial stress in the economy changes, the data series are likely to move together.

The Chicago Fed's National Financial Conditions Index (NFCI) provides a comprehensive weekly update on U.S. financial conditions in money markets, debt and equity markets, and the traditional and “shadow” banking systems. The NFCI was -0.12 in the week ending March 24, up from a revised -0.16 (initially reported as -0.24). Risk indicators contributed -0.02 , credit indicators contributed -0.06 , and leverage indicators contributed -0.04 to the index in the latest week. Negative values have been historically associated with looser-than-average financial conditions.

Financial Stress – still accommodative

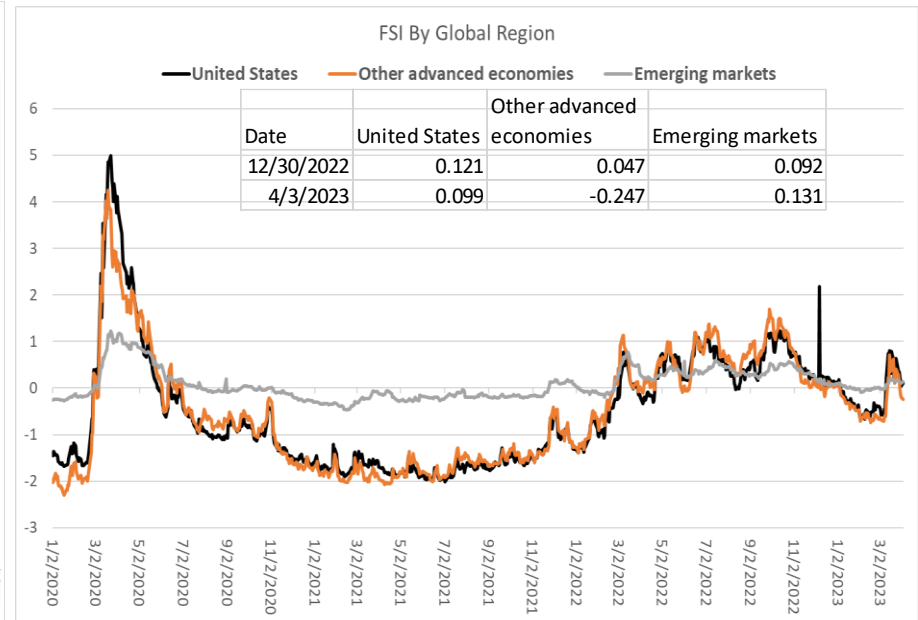


FSI, Experiential Wealth

<https://www.financialresearch.gov/financial-stress-index/#ae>

The OFR Financial Stress Index (OFR FSI) is a daily market-based snapshot of stress in global financial markets. It is constructed from 33 financial market variables, such as yield spreads, valuation measures, and interest rates. The OFR FSI is positive when stress levels are above average, and negative when stress levels are below average. The OFR FSI incorporates five categories of indicators: **credit**, **equity valuation**, **funding**, **safe assets** and **volatility**.

After a short spike due to banking debacle in March, overall financial stress in the U.S. has come down.



FSI, Experiential Wealth

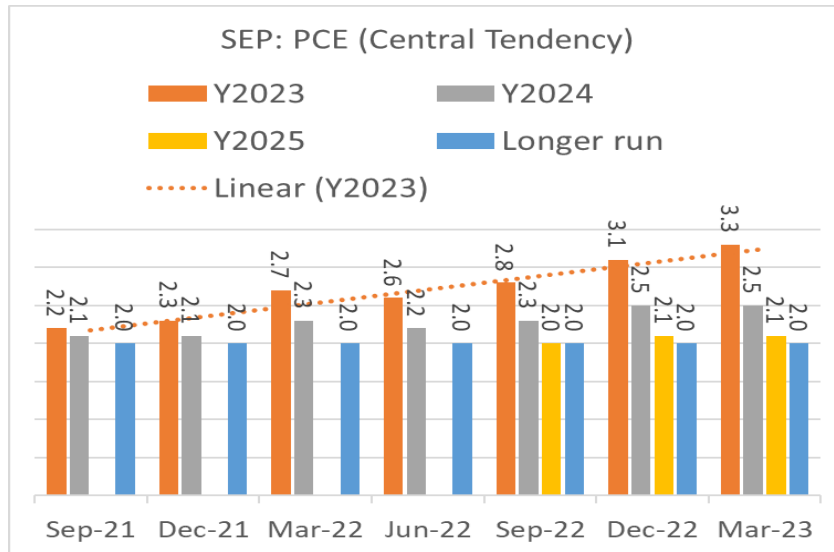
The FSI also shows stress contributions by three regions: United States, other advanced economies, and emerging markets.

Other advanced economies: Variables measuring stress from advanced economies other than the United States, including primarily the eurozone and Japan.

Emerging markets: Variables measuring stress from emerging markets.

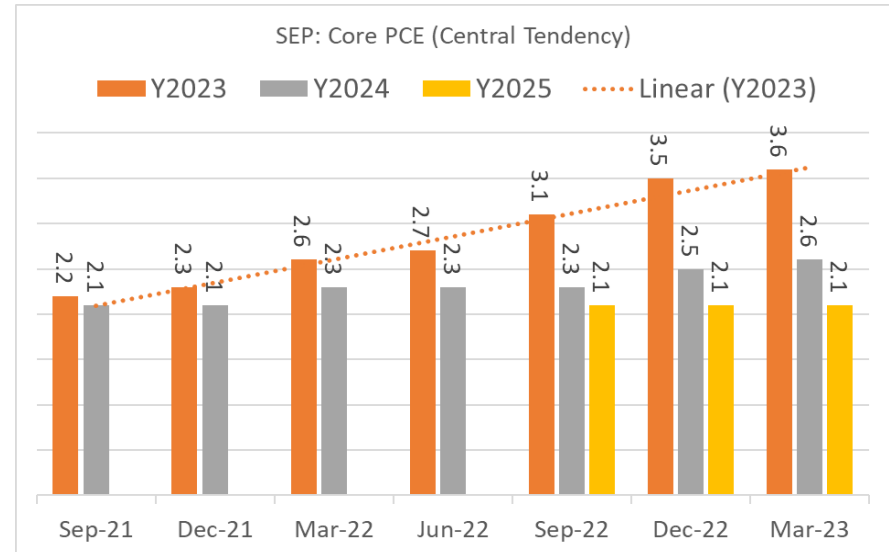
After a brief spike during the banking debacle, overall financial stress globally is coming down.

Summary of Economic Projections – Inflation (Core PCE)



FOMC, Experiential Wealth

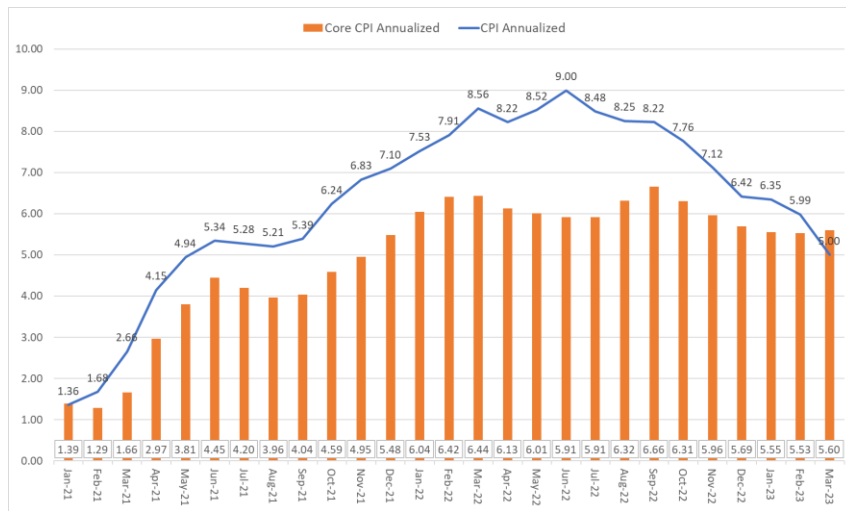
In the latest SEP, the central tendency average member continues to expect PCE inflation to move higher for 2023. Since September 2021 projection until March 2023, the projection has consistently edged higher each quarter. For 2023, the projected annual PCE moved up from December's meeting at 3.1% to the March meeting at 3.3%. The projection implies that the Fed's current hiking in rates continues, and at least one more hike in May and may be one more thereafter.



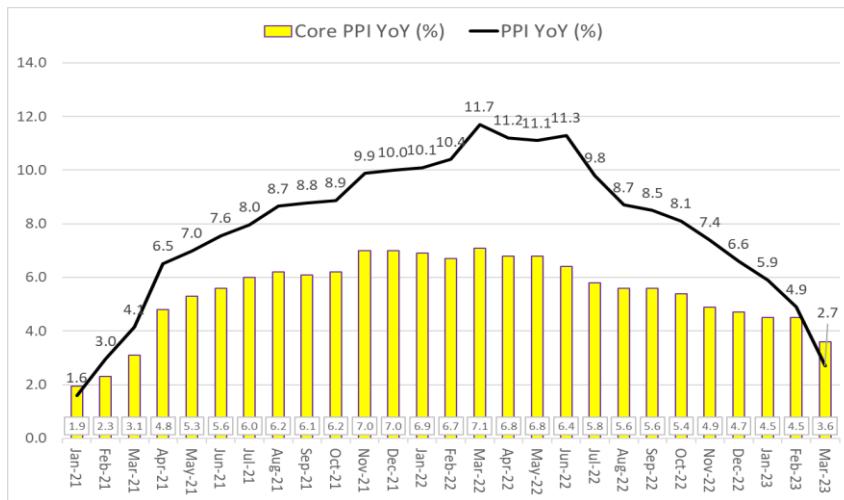
FOMC, Experiential Wealth

At the same time, projections for Core PCE (ex-food and energy) inflation mirrors those of PCE projections, except at a higher rate. The Core PCE has moved up from 3.5% in December to 3.6% in March for 2023. This suggests that the FOMC members are expecting headline inflation (PCE) to come down at a slightly faster pace than the all-important core PCE for 2023. In either case, the central tendency average member is projecting the Fed reaching its 2% inflation target not until the end of 2025. This also implies that the Fed will not likely to lower rates in 2023 and continues to hold at a higher rate for some time to gain a higher certainty that the trajectory of inflation is moving towards the 2% objective.

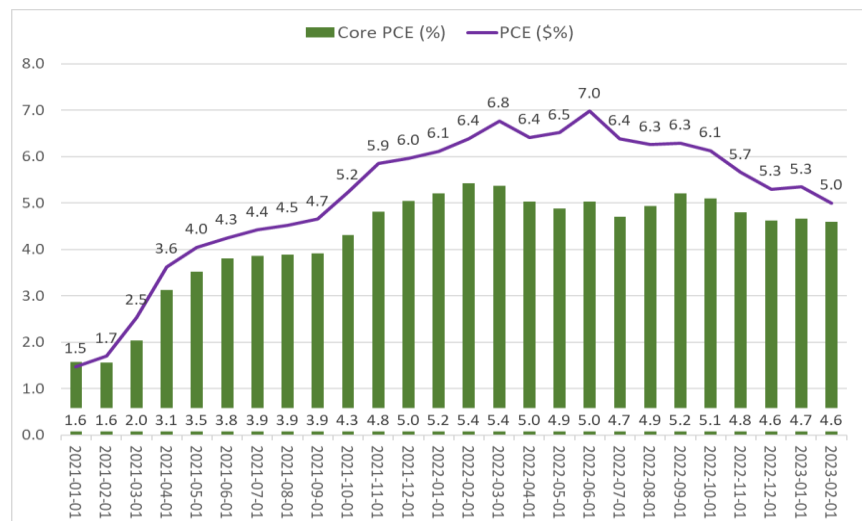
Inflation Alphabet Soup – CPI, PCE and PPI



BLS, Experiential Wealth
<https://www.bls.gov/charts/consumer-price-index/consumer-price-index-by-category-line-chart.htm>



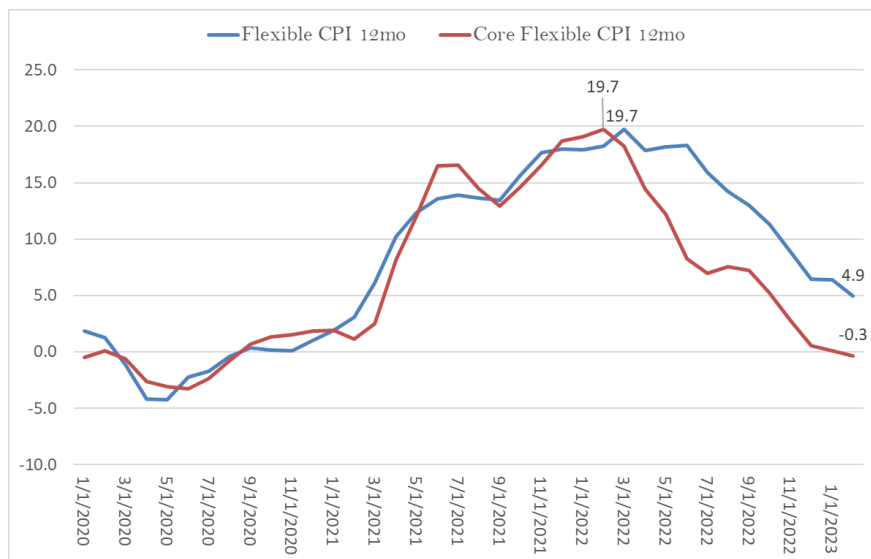
BLS, Experiential Wealth
<https://www.bls.gov/charts/producer-price-index/final-demand-12-month-percent-change.htm>



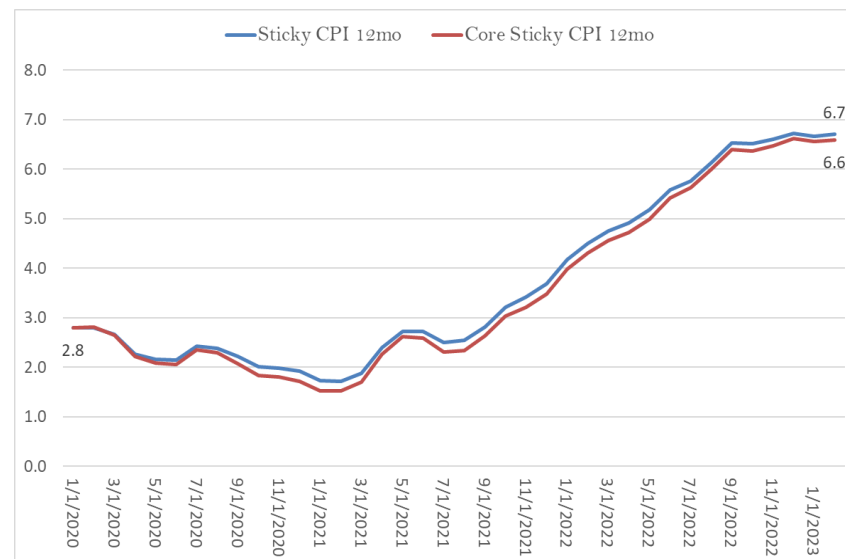
BLS, Experiential Wealth
<https://www.bea.gov/data/personal-consumption-expenditures-price-index>

The Consumer Price Index for All Urban Consumers (CPI-U) rose 0.1% in March on a seasonally adjusted basis, after increasing 0.4% in February. The index for shelter was by far the largest contributor to the monthly all items increase. This more than offset a decline in the energy index. The core index rose 0.3% in March, after rising 0.5% in February. The PCE and Core PCE remain elevated as compared to the Fed's target of 2%. Core PCE at 4.6% annualized rate is more than twice the Fed target at 2%. The CPI increased 5.0% for the 12 months ending March; this was the smallest 12-month increase since the period ending May 2021. The core CPI rose 5.6% over the last 12 months. The Producer Price Index (ppi) for final demand declined 0.5% in March, seasonally adjusted. Prices for final demand less foods, energy, and trade services edged up 0.1% in March after rising 0.2% in February. Same pattern here: headline rate is down but core remain sticky.

CPI – Flex and Sticky (03-14-2023)

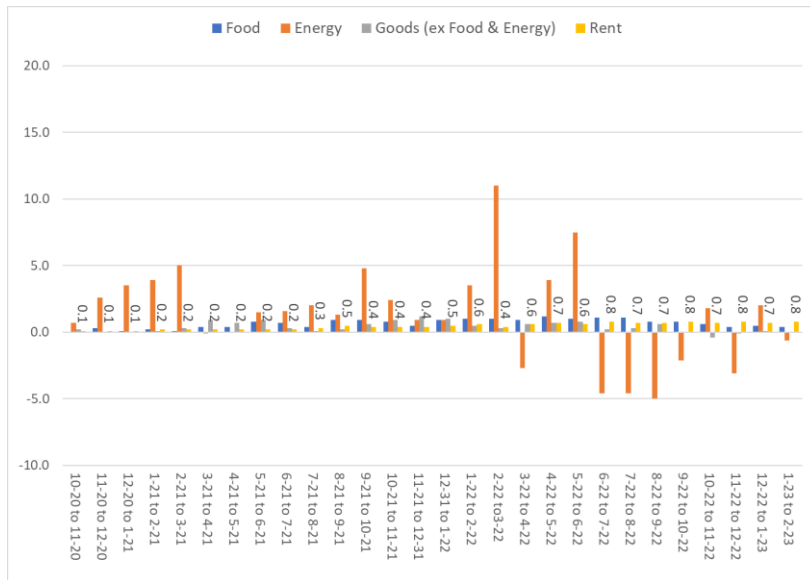
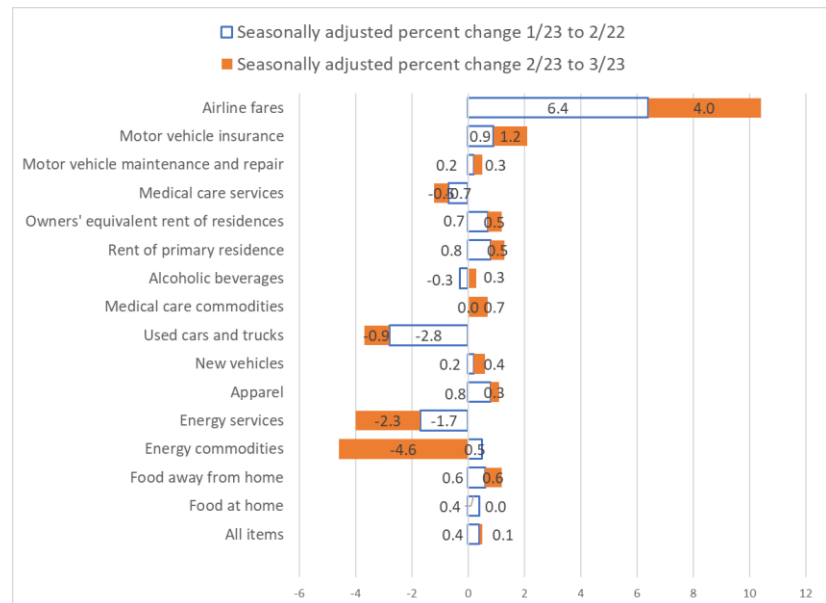
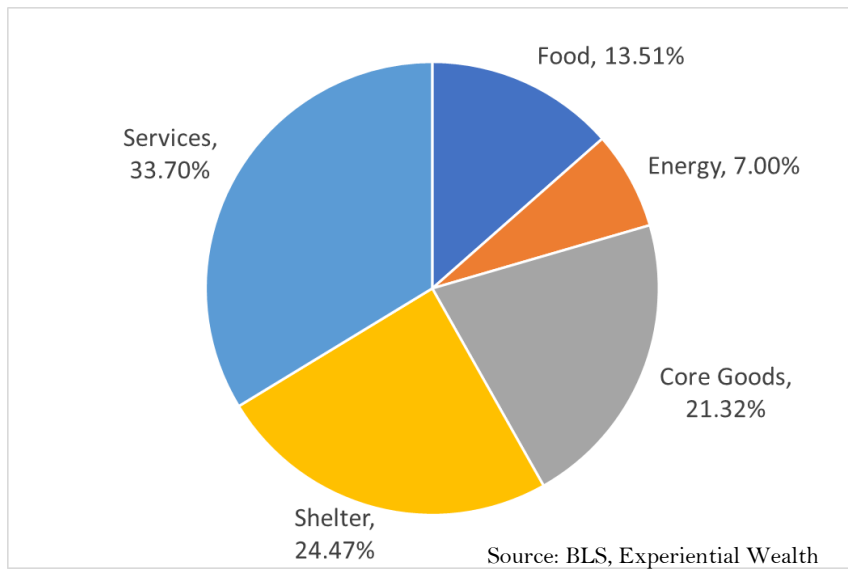


The Atlanta Federal Reserve use the published components of the CPI to compute two subindexes, a **sticky-price composite** of the CPI and a **flexible-price** CPI. The evidence indicates that the flexible-price measure is, in fact, much more responsive to changes in the economic environment— slack—while the sticky-price variant appears to be more forward looking. Price setters understand that it will be costly to change prices, they will want their price decisions to account for inflation over the periods between their infrequent price changes. The Atlanta Fed divides the published components of the monthly CPI (45 categories derived from the raw price data) into their “sticky-price” and “flexible-price” Aggregates.



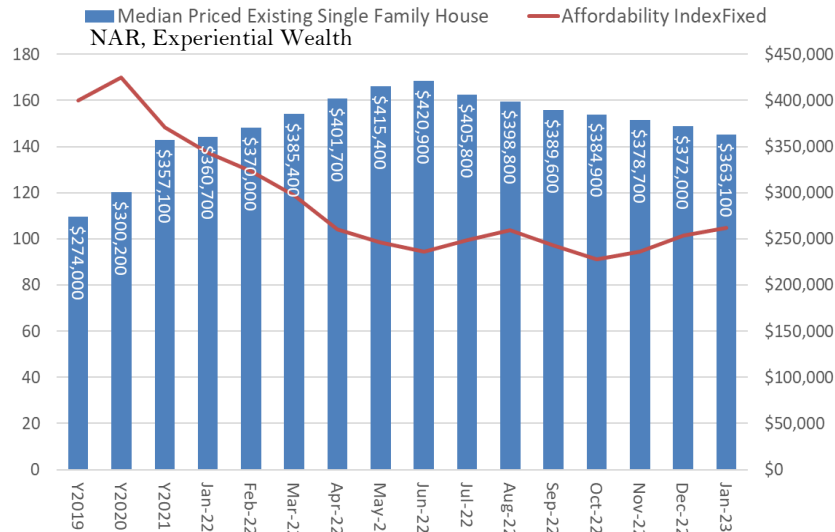
Flex and sticky are further divided into core and non-core. Core excludes energy and food prices. Historically, flexible-price and flexible core price CPI shown much more volatility than the alternative sticky-price and sticky price core measures. Although imperfect, separating CPI categories into these two measures and further separating core categories from non-core provide a view of future inflation (i.e. removing the more volatile priced categories from the CPI). As of March 2023, both sticky CPI (including energy and food categories) and the sticky-core CPI remain very much elevated from the Fed target of 2% (Core PCE). Although the rate of change/increase has slowed, core inflation remain “sticky”.

CPI Components: Goods, Services and Shelter – 03-2023



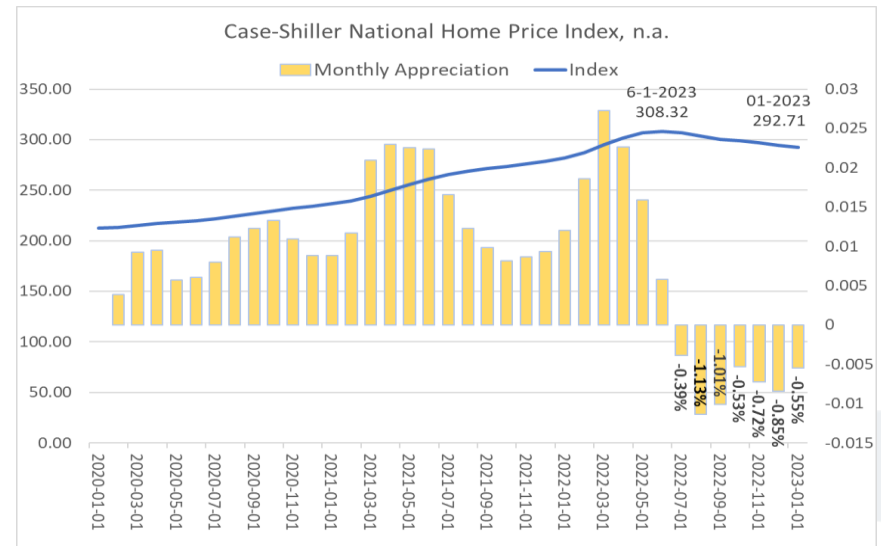
58% of the CPI basket is made up of services and 21% is made up of goods while the rest is made up of food and energy. The biggest component of non-energy and non-food segment is residential shelter/rent. This one component remains steadily inflating. Although we all know that there is a lag in reflecting rental price increases as rental agreement renews mostly on an annual basis and it takes time to see rent rolls through the CPI. At the same time core goods inflation has definitely come down and remain controlled. As stated previously with 70% of the U.S. economy is service driven it remains clear that until and unless there is real weakness in the labor economy, spending will continue. If inflation continue to trend down (even though not to 2% target), and wages continue to show improvement (albeit at a reduce pace), workers will realize better real wages and support the economy. A headache for the Fed in controlling inflation.

Housing – A Better Place for Buyers as Mortgage Rates Lower



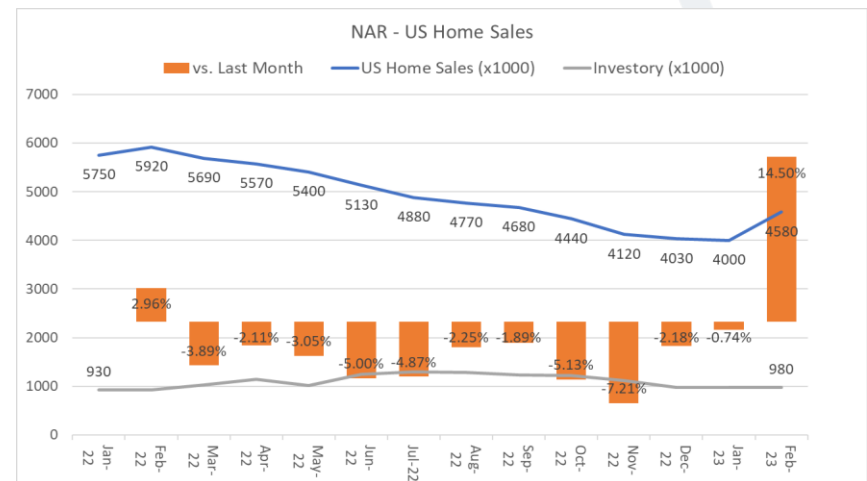
<https://cdn.nar.realtor/sites/default/files/documents/hai-01-2023-housing-affordability-index-2023-03-10.pdf>

Affordability value of 100 means that a family with the median income has exactly enough income to qualify for a mortgage on a median-priced home. An index above 100 signifies that a family earning the median income has more than enough income to qualify for a mortgage loan on a median-priced home, assuming a 20% down payment. The latest (Jan 2023) index shows a decreasing medium priced, existing, single-family house and but an increasing affordability index value after the mortgage rate has lowered since the October high at 6.98%. Case-Shiller Index shows continuing erosion of home value since the beginning of rate hike and end of covid. Inventory from NAR remains tight while home sales shot up om Feb with improving affordability.



DJ Case Shiller, FRED, Experiential Wealth

<https://www.spglobal.com/spdji/en/indices/indicators/sp-corelogic-case-shiller-us-national-home-price-nsa-index/#overview>



NAR, Experiential Wealth

Rent – Peak Increase is Behind Us

U.S. Metro Area	Median Asking Rent	Year-Over-Year Change in Median Asking Rent
National—U.S.A.	1,937	1.70%

Rent Growth Continued to Slow in February
Year-over-year change in median U.S. asking rent



Source: Redfin analysis of asking rents

REDFIN

<https://www.redfin.com/news/redfin-rental-report-february-2023/>

Redfin analyzed rent prices from Rent.com across the 50 largest U.S. metro areas. This analysis used data from more than 20,000 apartment buildings across the country. It is important to note that the prices in this report reflect the current costs of new leases during each time period. In other words, the amount shown as the median rent is not the median of what all renters are paying, but the median cost of apartments that were available for new renters during the report month. Currently, data from Rent.com includes only median rent at the metro level. This latest information supports the idea that owners' equivalent rent of residences (OER) and rent of primary residence (rent) have seen their peak. Rent is typically one of the last components to show disinflation and the rate of increase has significantly come down as evidenced by Feb 2023 data.

The Median Asking Rent Was \$1,937 in February
Median U.S. asking rent



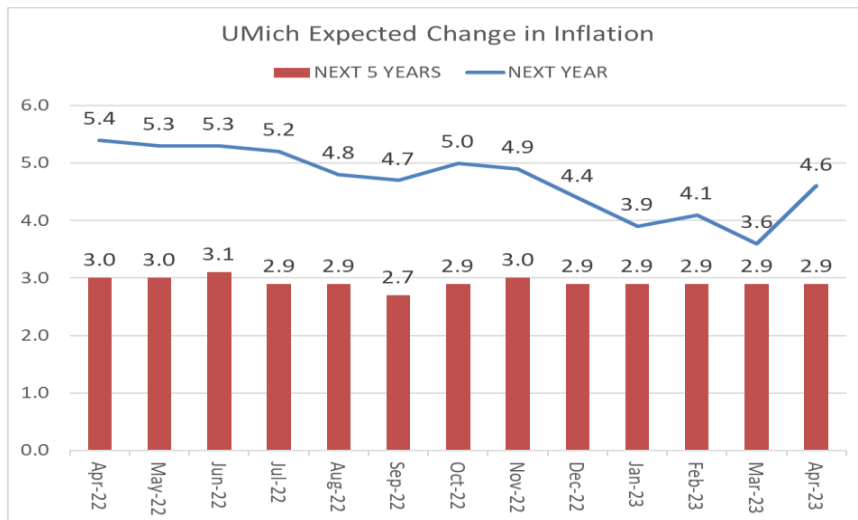
Source: Redfin analysis of asking rents

REDFIN

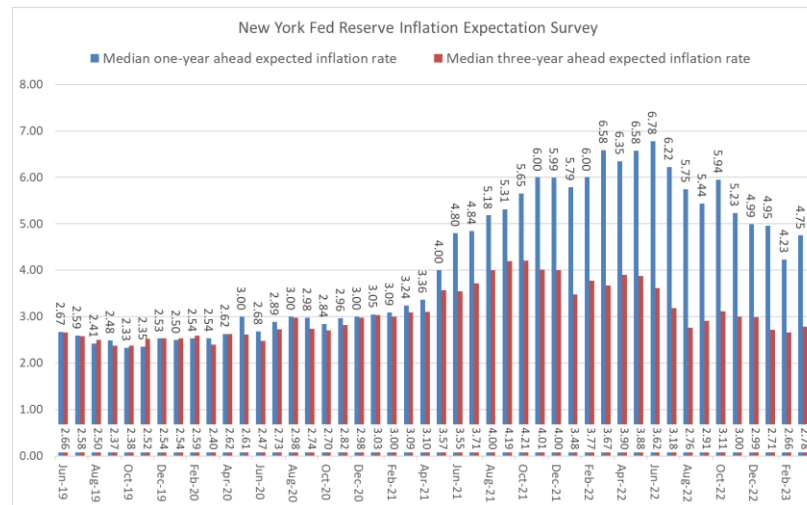
Rents Increase in 12 U.S. Markets

1. Charlotte, NC (14.3%)	6. Kansas City, MO (8.3%)
2. Columbus, OH (12.6%)	7. Hartford, CT (6%)
3. Milwaukee, WI (9.5%)	8. Buffalo, NY; Providence RI (5.9%)
4. Nashville, TN (9.0%)	9. Cincinnati, OH; Louisville, KY Memphis, TN (5.5%)
5. Indianapolis, IN (8.5%)	10. Riverside, CA; San Diego (5.5%)

Inflation Expectation – Survey-Based



<http://www.sca.isr.umich.edu/tables.html>



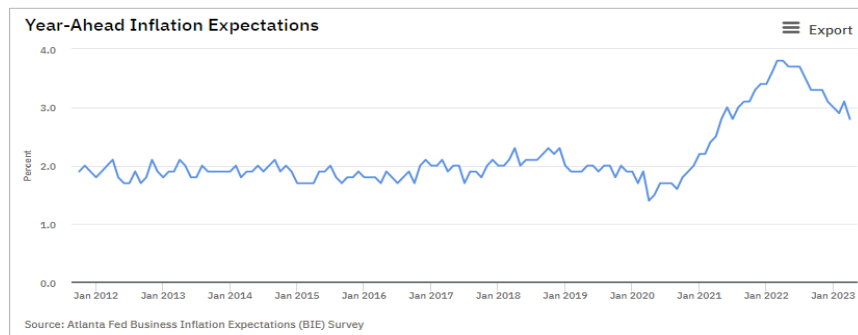
<https://www.newyorkfed.org/microeconomics/sce#/inflepx-1>

UMich consumer survey: Consumers' concerns over high prices have softened somewhat over the last month, though these concerns still remain substantially higher than a year-and-a-half ago prior to the onset of elevated inflation. The share of consumers reporting that their living standards are being eroded by inflation fell slightly in December, though it remained over 40% for the seventh straight month.

New York Fed survey: Median one-, and three-ahead inflation expectations decreased to 4.75 percent, and 2.78 percent, respectively, according to the March Survey.

Atlanta Fed survey: Firms' year-ahead inflation expectations decreased significantly to 2.8 percent.

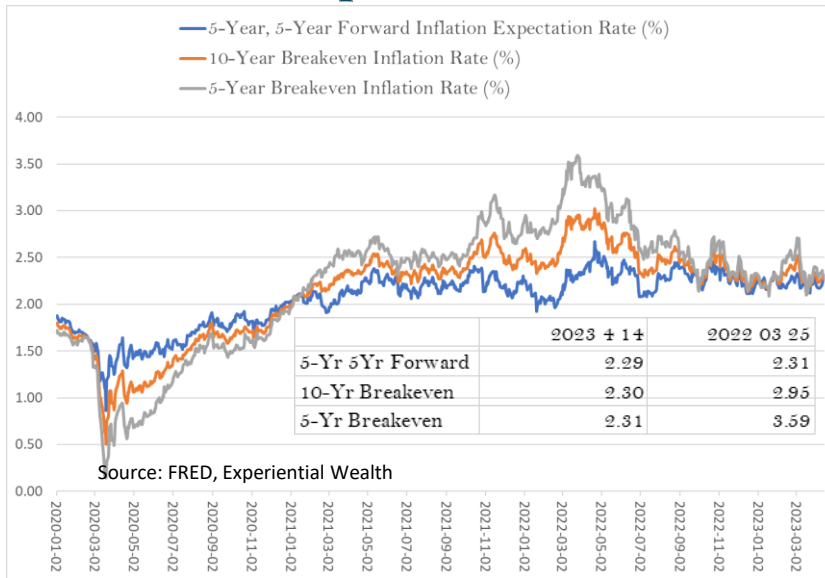
Inflation expectation is a leading indicator for future inflation. Thus far, survey-based data suggest that consumers and businesses, over the past quarter have lowered their expectations. The trends for both short- and long-term inflation expectations are moving lower, which is welcome news to the Fed.



Atlanta Fed Business Inflation Expectations: Firms' year-ahead inflation expectations decreased to 2.8% in April.

<https://www.atlantafed.org/research/inflationproject/bie>

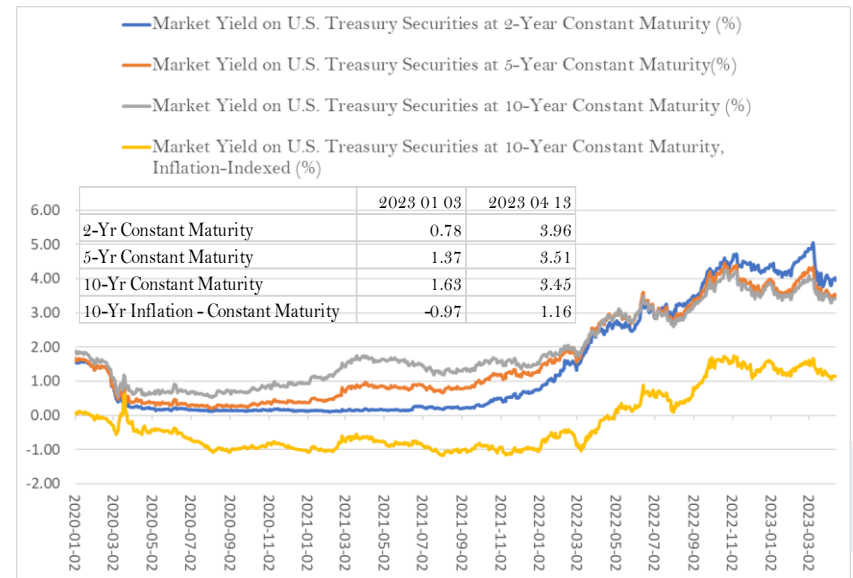
Inflation Expectation – Market-Based



5-Year, 5-Year Forward Inflation Expectation Rate is a measure of expected inflation (on average) over the five-year period that begins five years from today @ **2.31%**

10-Year Breakeven Inflation Rate is a measure of expected inflation derived from 10-Year Treasury Constant Maturity Securities and 10-Year Treasury Inflation-Indexed Constant Maturity Securities. The latest value implies what market participants expect inflation to be in the next 10 years, on average @ **2.95%**

5-Year Breakeven Inflation Rate is the measure of expected inflation derived from 5-Year Treasury Constant Maturity Securities and 5-Year Treasury Inflation-Indexed Constant Maturity Securities. The latest value implies what market participants expect inflation to be in the next 5 years, on average - @ **3.59%**



2-Year Constant Maturity Rate is the nominal rate of the 2-Year U.S. Treasury. The latest value is the current yield on the 5-Year Treasury @ **3.96%**

5-Year Constant Maturity Rate is the nominal rate of the 5-Year U.S. Treasury. The latest value is the current yield on the 5-Year Treasury - @ **3.51%**

10-Year Constant Maturity Rate is the nominal rate of the 10-Year U.S. Treasury. The latest value is the current yield on the 10-Year Treasury - @ **3.45%**

10-Year Constant Inflation Indexed Maturity Rate is the real rate of the 10-Year U.S. Treasury. The latest value is the current yield on the 10-Year Treasury - @ **1.16%**

Expectations remain somewhere around 2% in the long run but 5 year breakeven is bit high and a bit concerning.

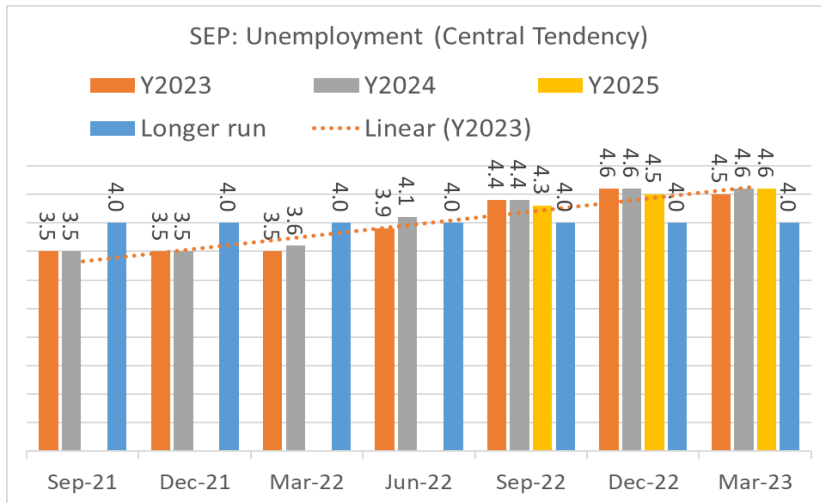
Global Inflation is Falling

Country	Last	Previous	Reference
China	0.70	1.00	23-Mar
Saudi Arabia	2.70	3.00	23-Mar
Switzerland	2.90	3.40	23-Mar
Japan	3.30	4.30	23-Feb
Spain	3.30	6.00	23-Mar
Russia	3.50	11.00	23-Mar
South Korea	4.20	4.80	23-Mar
Netherlands	4.40	8.00	23-Mar
Brazil	4.65	5.60	23-Mar
Indonesia	4.97	5.47	23-Mar
United States	5.00	6.00	23-Mar
Canada	5.20	5.90	23-Feb
India	5.66	6.44	23-Mar
France	5.70	6.30	23-Mar
Singapore	6.30	6.60	23-Feb
Mexico	6.85	7.62	23-Mar
Euro Area	6.90	8.50	23-Mar
South Africa	7.00	6.90	23-Feb
Germany	7.40	8.70	23-Mar
Italy	7.70	9.10	23-Mar
Australia	7.80	7.30	22-Dec
United Kingdom	10.40	10.10	23-Feb
Turkey	50.51	55.18	23-Mar
Argentina	104.00	102.00	23-Mar

Most countries have seen a reduction in inflation in the first quarter 2023

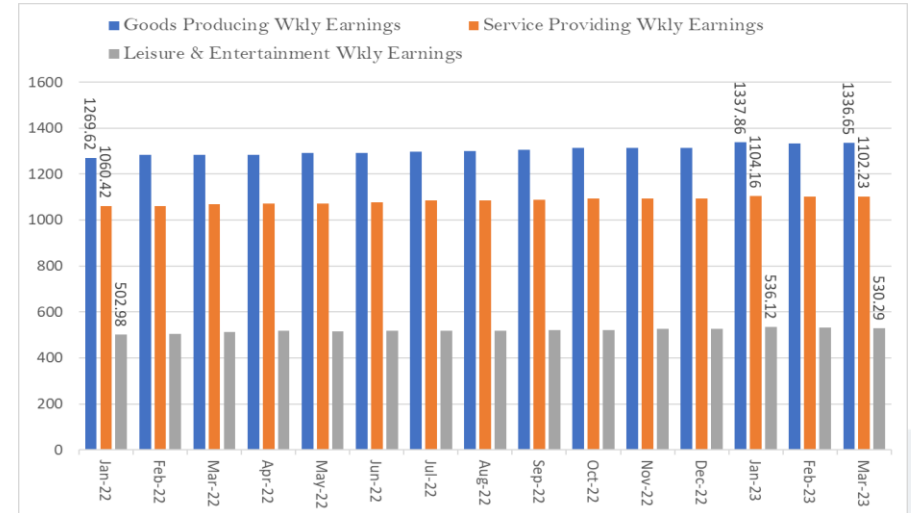
Source: Trading Economics, Experiential Wealth
<https://tradingeconomics.com/country-list/inflation-rate>

Summary of Economic Projections – Unemployment (U3)



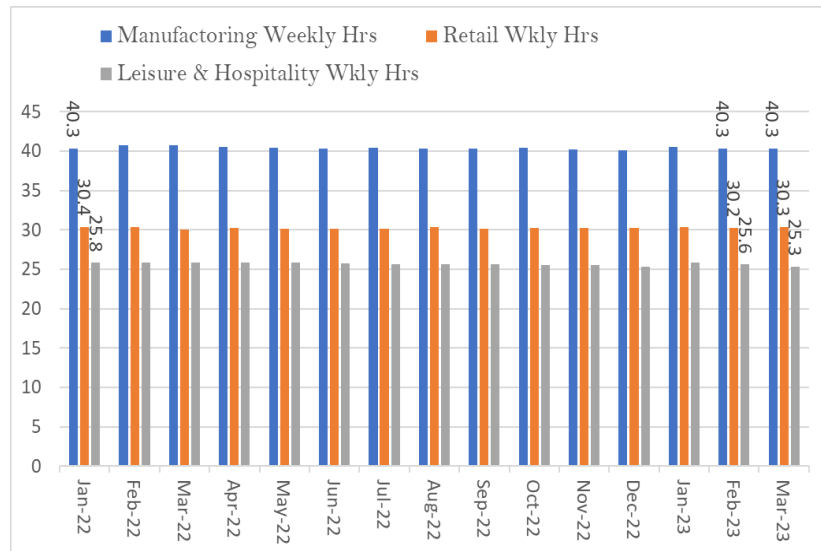
Source: FOMC, Experiential Wealth

<https://www.federalreserve.gov/monetarypolicy/fomcproptabl20221214.htm>



Source: FOMC, Experiential Wealth

<https://www.bls.gov/news.release/empsit.t19.htm>



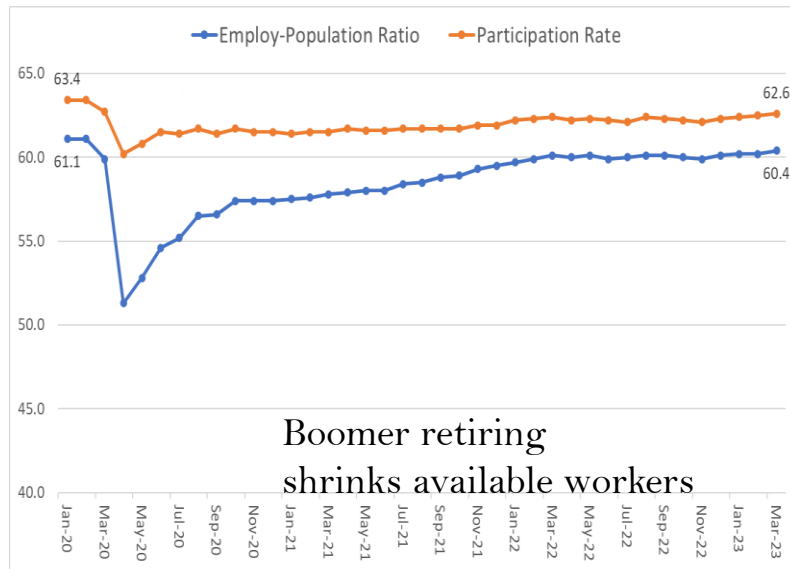
The Federal Reserve expects the unemployment to move up from current 3.5% to 4.5% by end of year and up to 4.6% for the next couple of years.

The tight labor market remains tight and the weekly hours work for manufacturing, retail and leisure and hospitality remain fairly stable. However, weekly wages have lowered a bit after months of increases. This is an encouraging sign from an inflation perspective. Nonetheless, the labor economy remains robust and until the supply and demand of the labor force becomes more balanced, the general economy is unlikely to slow down. This would be a necessary condition to bring inflation to the 2% target.

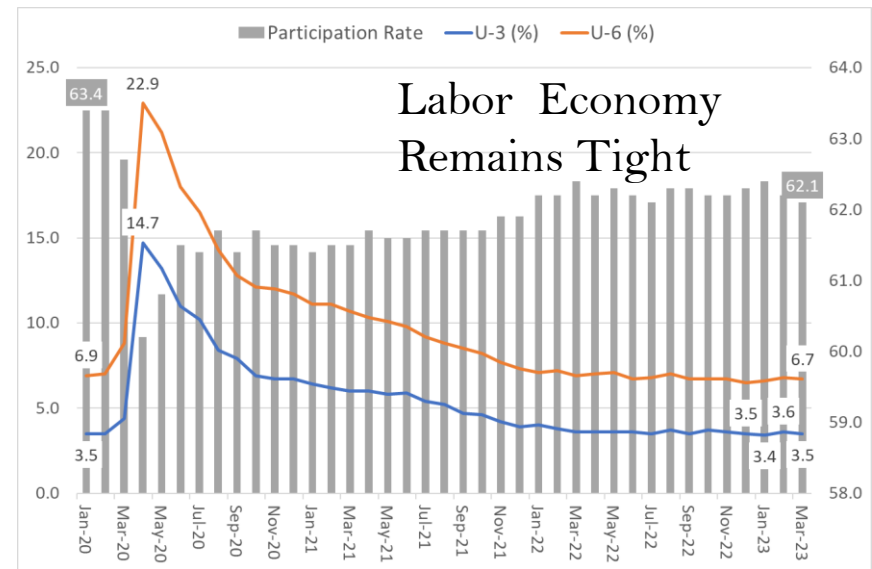
BLS, Experiential Wealth

<https://www.bls.gov/ces/data/employment-situation-table-download.htm>

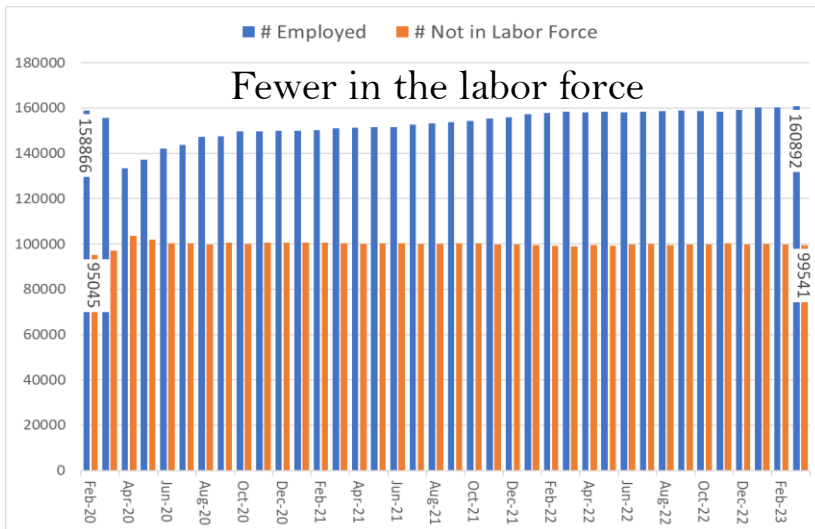
The Labor Economy – Less Workers



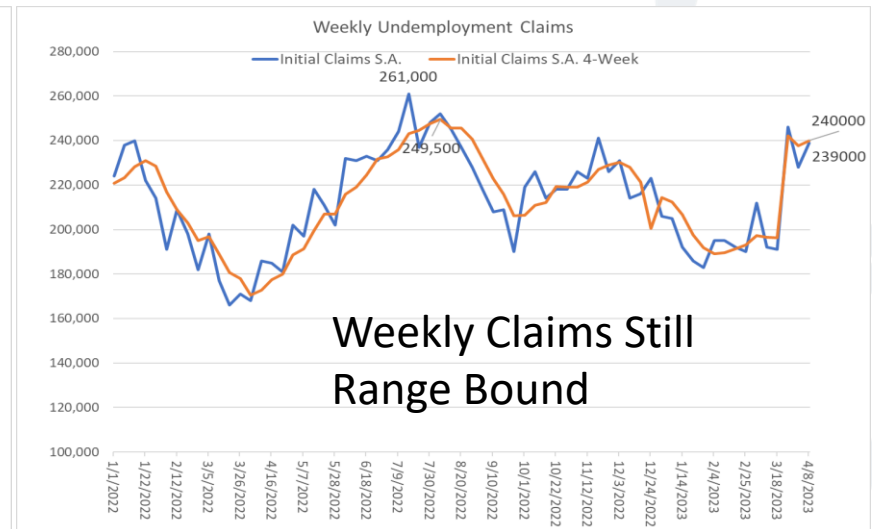
BLS, Experiential Wealth



BLS, Experiential Wealth

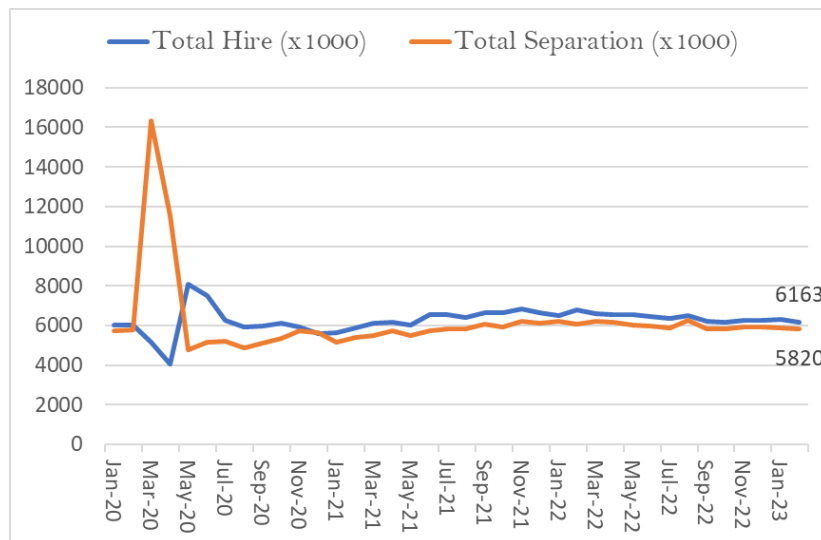
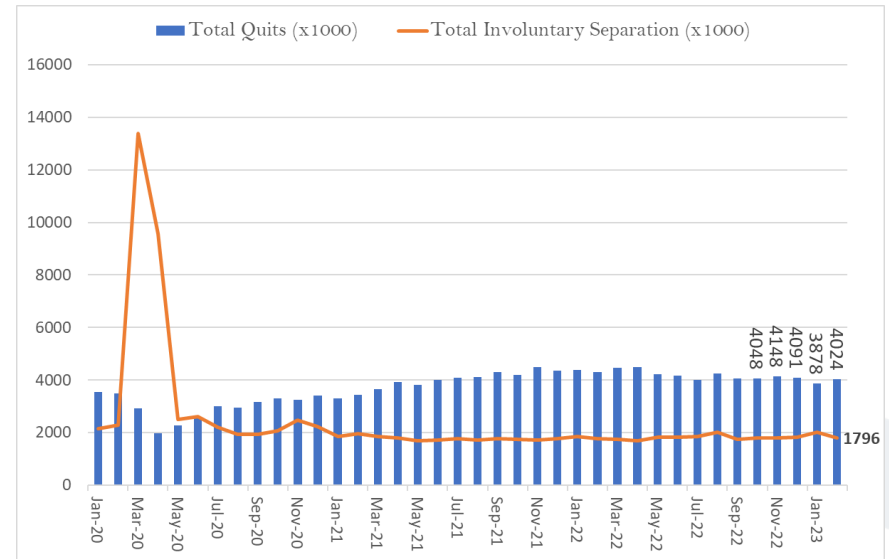
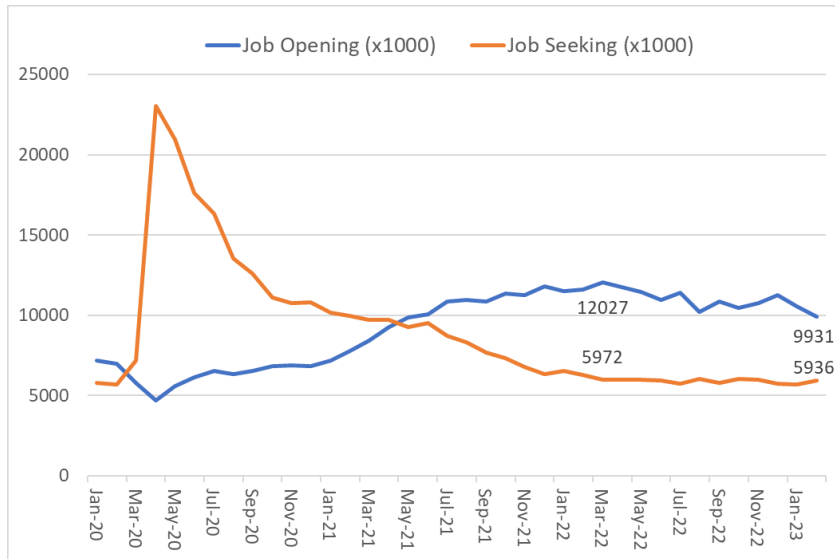


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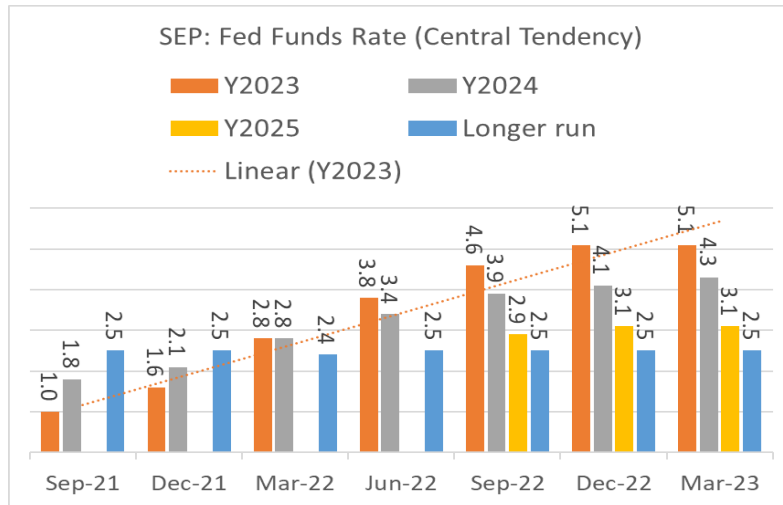
BLS, Experiential Wealth

JOLTS Data - March 2023 Report (Feb 2023 Data)

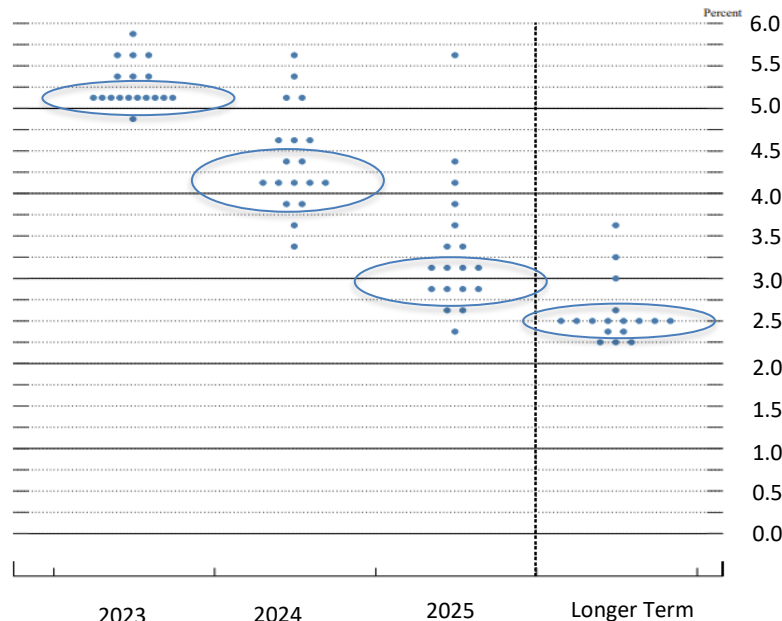


Although total job opening continues to come down (1.2027 million opening in Feb 2022 compares to 993,100 in Jan 2023), the ratio remains almost 2 job openings for each job seeker. The total number of hires in February still exceeds the number of people separating from jobs (quits + involuntary separation). This means on average everyone left the workforce was able to find a job. Finally, the number of workers elected to quit or voluntarily leaves remains elevated which is more evidence that workers feel confident to quit as there are jobs available, perhaps even at a higher income. All this suggests a healthy labor economy and continues to support a strong economy.

Summary of Economic Projections (SEP) – Fed Fund Rate



FOMC, Experiential Wealth



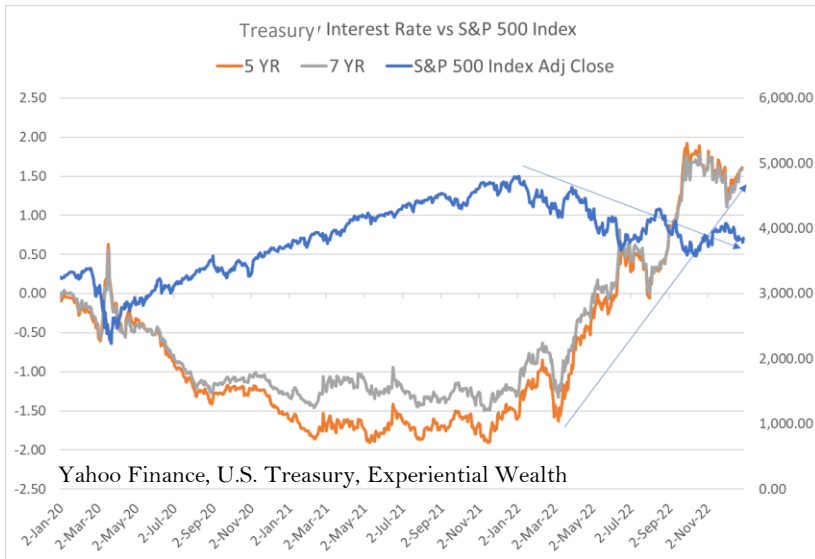
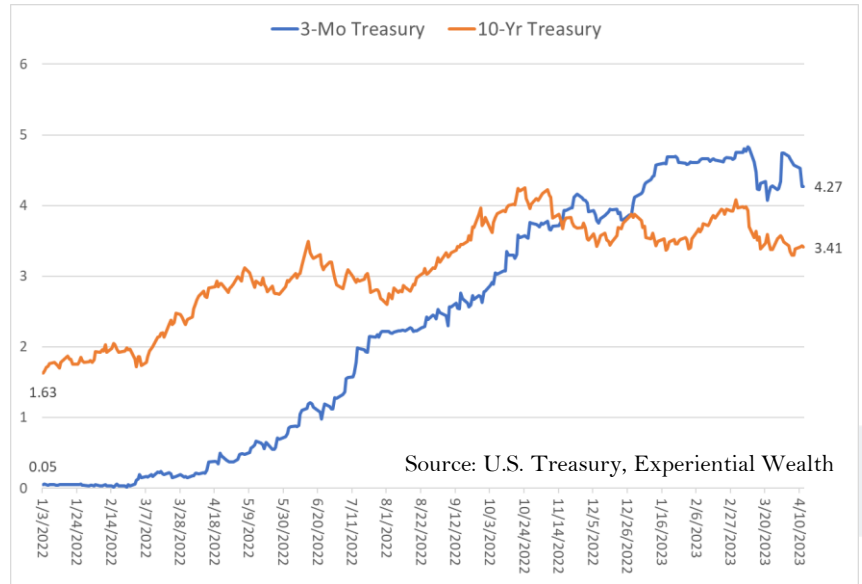
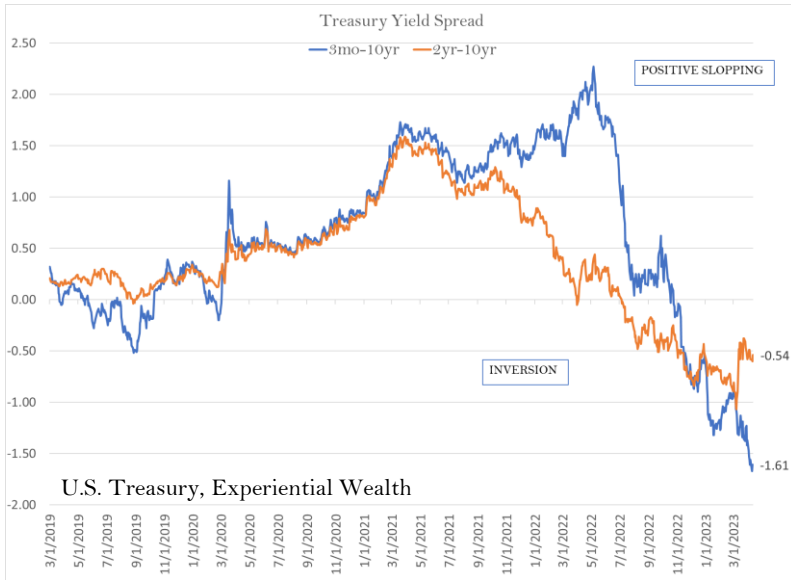
FOMC, Experiential Wealth 03 2023

It is not surprising that the central tendency is at 5.1% for March meeting with the SVB bankruptcy and the folding of CS to UBS. The FOMC is signaling a slowing to a crawl pace for rate hikes at this point forward. What is interesting is the central tendency rate has moved up from 4.1% to 4.3% by the end of 2024. At a 25bp drop per meeting, the FOMC is also signaling that the pivot will not likely be this year, as Chair Powell has relentlessly said that higher rates will be sustained for some time.

Assuming one more rate hike in May and the FOMC will hold the rate. At which time the rate would be at 5.00 to 5.25 range. Rate cut will not likely be until mid year in 2024 and would take 4 meetings of 25bp drop to get to 4.3% neutral rate.

The dot plot (each dot represents a FOMC member – voting and non-voting) in its March Summary of Economic Projections shows the range of opinion or projections among members of where the terminal rate would be for this cycle. The central tendency is a convenient reference point but the range of dots is more informative. Clearly for 2024 and 2025 there is an upward holding rate bias. This also means (1) the rate increase from here may be another 50 bp (data dependent of course), and (2) the FOMC may hold the higher rate for much longer or pivot much later than the market is hoping for.

Fed Policy – Uncertainty Abound



The 2-10 U.S. Treasury yield curve spread (i.e. the difference in rates) has flattened somewhat since March. This was due to the banking default shock which led to market expectation for a higher probability of a U.S. economic contraction by the end of 2023. This pushed interest rates lower. In the recession, historically the Fed lowers rates to spur economic revival. The 3-months-10year spread remains quite negative (i.e. the short-term rate remains higher than the longer maturity 10-year bonds.) This means that the short-rates (controlled by the Fed) remain elevated as there is uncertainty regarding Fed's policy intentions for the next two meetings and even greater speculation regarding Fed to pause and shortly thereafter lower rates (pivot.)

Market Expectation on Future Rates – 4-11-2023

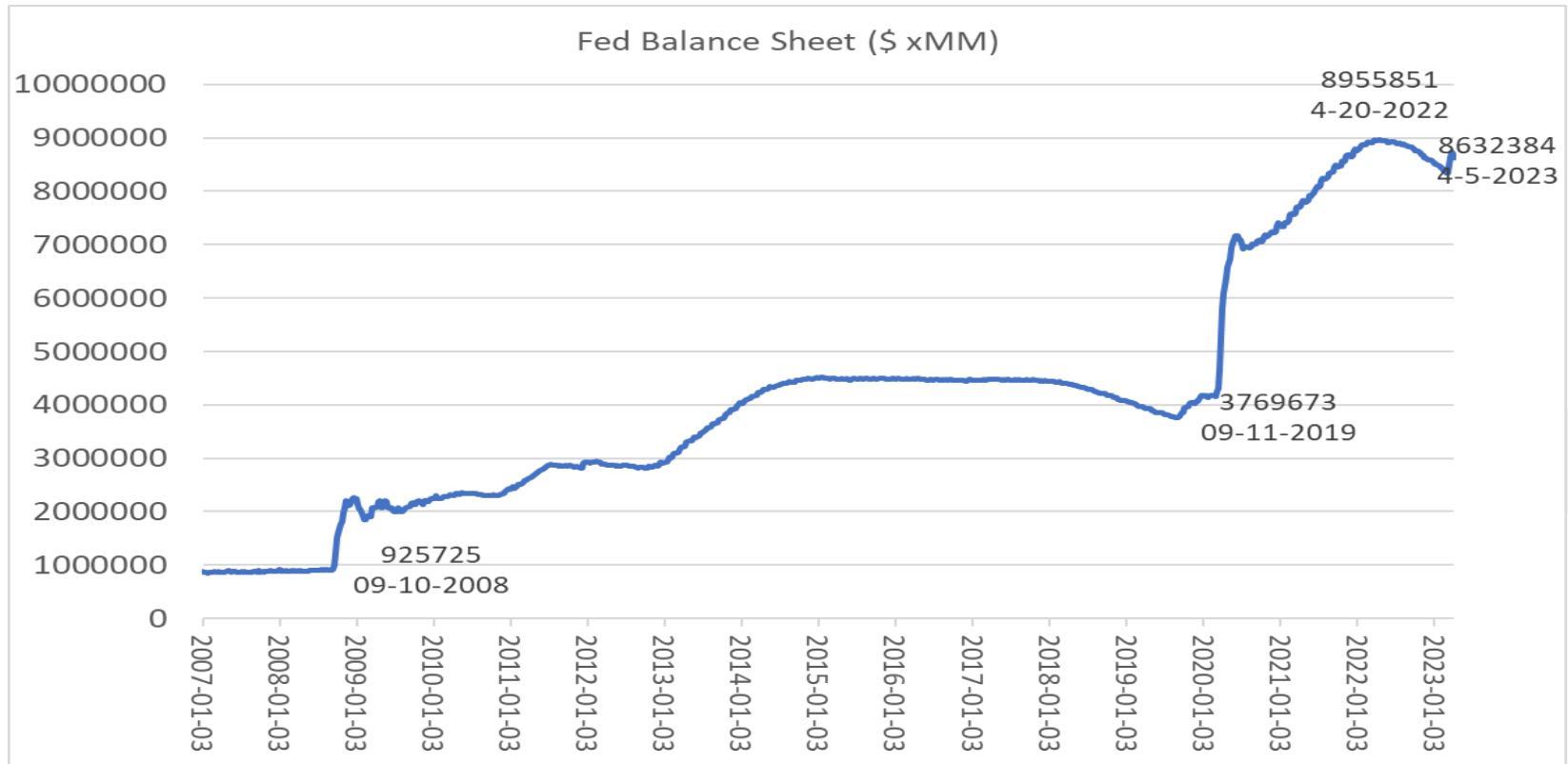
The CME group's FedWatch Tool analyze the probabilities of changes to the Fed rate and U.S. monetary policy, as implied by 30-Day Fed Funds futures pricing data. The Tool shows the likelihood that the Fed will change the Federal target rate at upcoming FOMC meetings, according to interest rate traders. As of the March FOMC meeting the policy rate is now at the 475-500bp range.

1-1-2023									
MEETING PROBABILITIES									
MEETING DATE	350-375	375-400	400-425	425-450	450-475	475-500	500-525	525-550	550-575
2/1/2023	0.0%	0.0%	0.0%	0.0%	68.3%	31.7%	0.0%	0.0%	0.0%
3/22/2023	0.0%	0.0%	0.0%	0.0%	15.9%	59.8%	24.4%	0.0%	0.0%
5/3/2023	0.0%	0.0%	0.0%	0.0%	10.0%	43.5%	37.5%	9.0%	0.0%
6/14/2023	0.0%	0.0%	0.0%	0.0%	8.8%	39.4%	38.2%	12.5%	1.1%
7/26/2023	0.0%	0.0%	0.0%	2.4%	17.1%	39.1%	31.2%	9.4%	0.8%
9/20/2023	0.0%	0.0%	0.9%	8.0%	25.5%	36.1%	22.9%	6.1%	0.5%
11/1/2023	0.0%	0.4%	4.4%	16.5%	30.7%	29.7%	14.7%	3.4%	0.3%
12/13/2023	0.3%	3.1%	12.5%	26.0%	30.0%	19.6%	7.1%	1.3%	0.1%

4-13-2023															
MEETING PROBABILITIES															
MEETING DATE	175-200	200-225	225-250	250-275	275-300	300-325	325-350	350-375	375-400	400-425	425-450	450-475	475-500	500-525	525-550
5/3/2023								0.0%	0.0%	0.0%	0.0%	0.0%	31.3%	68.7%	0.0%
6/14/2023			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	29.5%	66.4%	4.1%
7/26/2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.1%	49.7%	32.4%	1.8%
9/20/2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.6%	38.2%	38.3%	12.2%	0.6%
11/1/2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	28.5%	38.3%	21.4%	4.7%	0.2%
12/13/2023	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	25.0%	36.7%	24.2%	7.5%	1.0%	0.0%
1/31/2024	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.7%	21.4%	34.5%	26.5%	10.5%	2.2%	0.2%	0.0%
3/20/2024	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.3%	20.1%	33.5%	27.1%	11.8%	2.8%	0.4%	0.0%	0.0%
5/1/2024	0.0%	0.0%	0.0%	0.0%	0.5%	6.0%	21.5%	32.8%	25.5%	10.8%	2.6%	0.3%	0.0%	0.0%	0.0%
6/19/2024	0.0%	0.0%	0.0%	0.3%	3.6%	14.7%	27.8%	28.7%	17.3%	6.2%	1.3%	0.2%	0.0%	0.0%	0.0%
7/31/2024	0.0%	0.0%	0.2%	2.9%	12.5%	25.2%	28.5%	19.5%	8.4%	2.3%	0.4%	0.0%	0.0%	0.0%	0.0%
9/25/2024	0.2%	2.5%	11.1%	23.3%	28.0%	20.9%	10.1%	3.2%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%

In January, the Tool shows the traders are expecting the Fed to reach the current 475-500bp range in its March meeting and hold the rate at this range through September meeting and thereafter begin to pivot or ease. As of April 13th, the trader now expects one more 25bp rate hike and hold the rate at 525-550bp range and begins to reduce rates 25bp per meeting through summer of 2024.

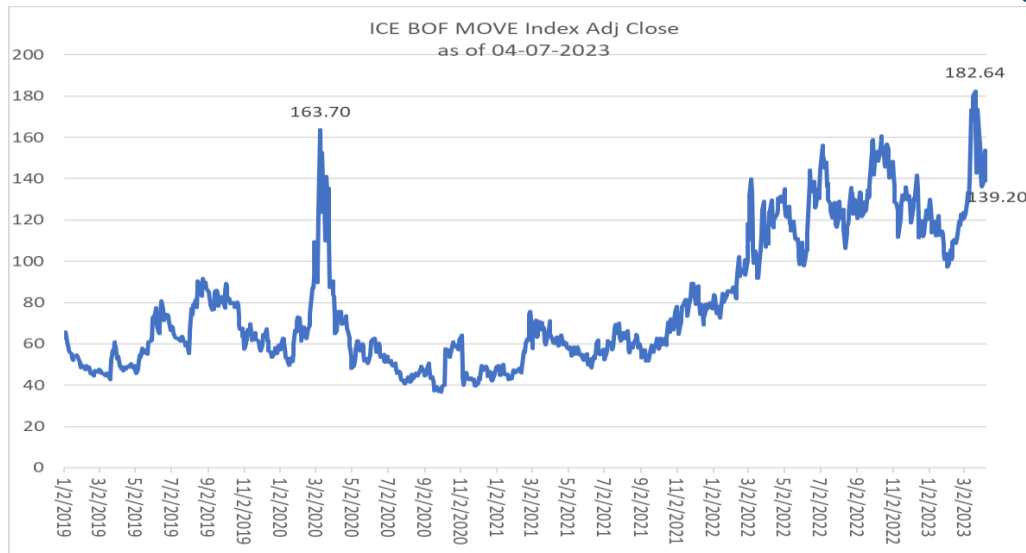
Quantitative Tightening – Temporarily Reversal?



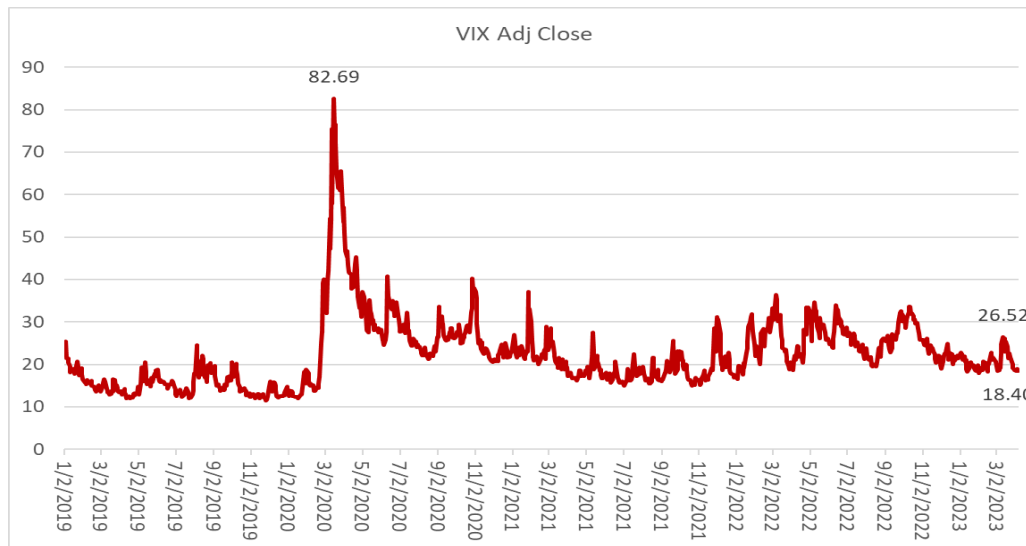
<https://fred.stlouisfed.org/series/WALCL>

Quantitative tightening (QT)², also known as balance sheet normalization, is a part of the central bank monetary policy tool kit. It simply means that a central bank reduces the pace of reinvestment of proceeds from maturing government bonds or takes additional action to trim its assets. This is the exact opposite of the monetary stance of quantitative easing (QE). QT (or reversal of QE) is needed to constrain financial conditions at the rate of \$95 billion per month since September 2022. However, in March 2023, a new Federal Reserve program, the Bank Term Funding Program (BTFP), was set up in response to the bank runs that caused Signature Bank and Silicon Valley Bank to fail. The program intends to shore up banks' liquidity. It is expected to wind down after one year. The BTFP was created. The BTFP offers loans of up to one year in length to eligible borrowers pledging collateral eligible for purchase by Federal Reserve Banks in open market operations.

The Market: Bond and Stock Volatility



<https://finance.yahoo.com/quote/%5EMOVE/history?period1=1523232000&period2=1680998400&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true>



<https://finance.yahoo.com/quote/%5EVIX/history?period1=1546387200&period2=1680998400&interval=1d&filter=history&frequency=1d&includeAdjustedClose=true>

ICE MOVE - Merrill Lynch Option Volatility Estimate- is one measure of U.S. interest rate volatility and can provide a signal for changing risk sentiment in fixed income markets. The recent spike is caused by the bank failures. As the FOMC's interest rate hikes expect to slow and soon pause in the next few months, we expect this index to continue to drift down (lower volatility.)

VIX - Chicago Board Options Exchange Volatility Index is a popular measure of the implied volatility of S&P 500 index options. A high value corresponds to a more volatile market and, therefore, more costly options, which can be used to defray risk from volatility. With most of the interest rate hikes behind us, the market is likely to focus on forward economy activities and the state of the labor economy. The VIX will reflect the uncertainty to come and picks up from here (higher volatility.)

The World Economy – OECD (March 2023)

OECD	Project 2022					Project 2023				
Report Date	Jun-22	Sep-22	Nov-22	Sep v Nov	2022	Jun-22	Sep-22	Nov-22	Mar-23	Nov vs Mar
U.S.	2.50%	1.50%	1.80%	↑	2.10%	1.20%	0.50%	0.50%	1.50%	↑
World	3.00%	3.00%	3.10%	↑	3.20%	2.80%	2.20%	2.20%	2.60%	↑
G-20	2.90%	2.80%	3.00%	↑	3.10%	2.80%	2.20%	2.20%	2.60%	↑
Euro Area	2.60%	3.10%	3.30%	↑	3.50%	1.60%	0.30%	0.50%	0.80%	↑
China	4.40%	3.20%	3.30%	↑	3.00%	4.90%	4.70%	4.60%	5.30%	↑

Source: OECD, Experiential Wealth

<https://www.oecd-ilibrary.org/sites/d14d49eb-en/index.html?itemId=/content/publication/d14d49eb-en>

Global growth slowed to 3.2% in 2022, well below expectations at the start of the year, held back by the impact of the war in Ukraine, the cost-of-living crisis, and the slowdown in China. More positive signs have now started to appear, with business and consumer sentiment starting to improve, food and energy prices falling back, and the full reopening of China.

Global growth is projected to remain at below trend rates in 2023 and 2024, at 2.6% and 2.9% respectively, with policy tightening continuing to take effect. Nonetheless, a gradual improvement is projected through 2023-24 as the drag on incomes from high inflation recedes.

Annual GDP growth in the United States is projected to slow to 1.5% in 2023 and 0.9% in 2024 as monetary policy moderates demand pressures. In the euro area, growth is projected to be 0.8% in 2023, but pick up to 1.5% in 2024 as the effects of high energy prices fade. Growth in China is expected to rebound to 5.3% this year and 4.9% in 2024.

Headline inflation is declining, but core inflation remains elevated, held up by strong service price increases, higher margins in some sectors and cost pressures from tight labor markets.

Inflation is projected to moderate gradually over 2023 and 2024 but to remain above central bank objectives until the latter half of 2024 in most countries.

The improvement in the outlook is still fragile. Risks have become somewhat better balanced, but remain tilted to the downside. Uncertainty about the course of the war in Ukraine and its broader consequences is a key concern. The strength of the impact from monetary policy changes is difficult to gauge and could continue to expose financial vulnerabilities from high debt and stretched asset valuations, and also in specific financial market segments. Pressures in global energy markets could also reappear, leading to renewed price spikes and higher inflation.

IMF (April 2023) - A Rocky Recovery

IMF	Project 2023								Project 2024			
Report Date	Oct-21	Jan-22	Apr-22	Jul-22	Oct-22	Jan-23	Apr-23	Apr v. Jul	Oct-23	Jan-23	Apr-23	Jan v Apr
U.S.	5.20%	4.00%	3.70%	2.30%	1.60%	1.20%	1.10%	↓	1.2%	1.2%	1.1%	↓
World	4.90%	4.40%	3.60%	3.20%	3.20%	3.10%	3.00%	↓	3.2%	3.1%	3.0%	↓
Euro Area	4.30%	3.90%	2.80%	2.60%	3.10%	1.30%	1.40%	↑	1.8%	1.6%	1.4%	↓
Advanced	4.50%	3.90%	3.30%	2.50%	2.40%	1.20%	1.30%	↓	1.6%	1.4%	1.4%	=
China	5.60%	4.80%	4.40%	3.30%	3.20%	5.20%	5.20%	=	4.5%	4.5%	4.5%	=
Emerging	5.10%	4.80%	3.80%	3.60%	3.70%	4.00%	3.90%	↓	4.3%	4.2%	4.2%	=

Source: IMF, Experiential Wealth

<https://www.imf.org/-/media/Files/Publications/WEO/2023/April/English/text.ashx>

According to the IMF's April World Economic Outlook (WEO) the global economy's gradual recovery from both the pandemic and Russia's invasion of Ukraine remains on track. China's reopened economy is rebounding strongly. Supply chain disruptions are unwinding, while dislocations to energy and food markets caused by the war are receding. Simultaneously, the massive and synchronized tightening of monetary policy by most central banks should start to bear fruit, with inflation moving back towards targets.

The IMF forecasts in its WEO that growth will bottom out at 2.8% this year before rising modestly to 3% next year. Global inflation will fall, though more slowly than initially anticipated, from 8.7% last year to 7% this year and 4.9% in 2024.

Inflation is much stickier than anticipated. While global inflation has declined (mostly reflecting the sharp reversal in energy and food prices.) But core inflation has not yet peaked in many countries. More monetary tightening is probable. There are the side effects that the sharp monetary policy tightening of the last year is starting to have on the financial sector. Following a prolonged period of muted inflation and low interest rates, the financial sector had become too complacent about maturity and liquidity mismatches. Financial institutions with excess leverage, credit risk or interest rate exposure, too much dependence on short-term funding, or located in jurisdictions with limited fiscal space could become the next target. So could countries with weaker perceived fundamentals. A sharp tightening of global financial conditions—a so-called 'risk-off' event—could have a dramatic impact on credit conditions and public finances, especially in emerging market and developing economies. It would precipitate large capital outflows, a sudden increase in risk premia, a dollar appreciation in a rush to safety, and major declines in global activity amid lower confidence, household spending and investment.

Our Base Case Forward

- When the back-to-back GDP contraction happened in the 4th quarter 2021 and 1st quarter 2022, it was not recognized as a “true” economic recession. We learned a term known as a “technical” recession. According to market economists, a “true” economic recession must be accompanied by a labor market recession (i.e. high unemployment.) As of the end of March the headline unemployment rate (U3) is back down to 3.5% while the employment to population ratio remains below pre-Covid level. The total “hire” rate remains above the total “termination” rate (voluntary or otherwise) since there still are 5 job openings for every 3 people seeking employment. The strength of the labor market is also evidenced by the stable quit rate which suggests workers are confident in their ability to find new work (likely at a better pay.) However, wage growth has slowed and that is likely a sign of a slowing economy coupled with employer earning pressure resulting from higher input costs due to inflation. The economic indicators are a mix bag of good economic strength and weakening manufacturing sector and sentiment. Also, different financial stress and leading indicators are providing conflicting views. This suggests the economy is transiting from one regime to another.
- It has only been a year since the Fed hiked rates. The Fed was late to tighten but not unusual. This is especially true under the new monetary framework to make sure the return of inflation is real and sustained before raising rates. We expect the Fed to also be late in changing policy stance. Again, the Fed wants to be sure its price stability mandate will be accomplished. So, yes, the Fed will raise rates and will then pause for an extended period time to gain high confidence that inflation is retreating to its 2% target. The dot plot has been clear that to reach its objective would require an increase in unemployment (1% from here) and the economy will be much slower (GDP near or in recession).
- The U.S. stock market remains hopeful that the Fed will stop its hike soon and then in the Fall begins to cut rates. But at the same time, the bond market is beginning to focus on a slowing economy. We do not believe that the expected falling corporate revenue and profit have been included in today’s market prices. After 15-years of excessively supportive monetary policies globally, many companies have been on a debt binge leading to significant financial and real asset inflation. Now the safe rates (i.e. U.S treasuries) near and exceeding 4%, the cost of borrowing and refinancing has gone up significantly from 0%. Also deals that made sense at cheap financing may not be as viable under the current interest rate regime. The repricing of risk (return expectation) is still a work in progress. One known risk is the wall of debt refinancing is coming up for commercial real estate and this is a risk for banks.

Our Base Case Forward

- Small, mid-size and regional banks are sources of credit for small businesses. In the aftermath of Silicon Valley Bank and the sudden disappearance of Credit Suisse, it is likely regulatory lapses were contributing factors. As a result, lending standards will be tougher, the cost will be higher and less credit facilities will be available. Since about 50% of the U.S. labor works for small and mid-size businesses, unemployment will likely increase in the second half of this year. Business will likely be tightening their belts.
- An economic contraction is increasingly more likely a base case and no landing and soft landing are less being considered for 2023. We expect an increasing slow down in the U.S. economy in the third and fourth quarter this year. If an economic recession ensues, it is likely to be mild. It remains likely an average duration of three to five quarters.
- Globally in 2023, advanced economies as a whole are expected to slow with sticky inflation and additional interest rate hikes as well as shrinking central bank balance sheets. These actions continue to challenge world growth. With limited fiscal room for many emerging and frontier economies, coupled with the need to prop up their local currencies (to fight inflation at the cost of high interest rates) are putting additional pressure on making affordable basic necessities for their citizens. When prolonged, this could reignite populism and geopolitical risks.
- After the one-year anniversary of the Russian-Ukraine war, it remains unclear exactly how and when this will end. It is also not clear what happens when there is peace. One thing that is clear is that the (post-collapse of the Soviet Union) peace dividend is over. All sides are now rearming themselves, and substantially more resources will likely be devoted to military build up. This means less resources will be available for civilian infrastructure, social safety nets and investment in people and the environment.
- In the longer run, the trend of reshoring, friend-shoring and near-shoring is real. The Covid-driven debacle and its uneven recovery leading into a shift in the supply chain (efficiency to resilience) coupled with hedging against the risks associated with the great power competition between the U.S. and China will likely see the prices of goods elevated for some time. As a reaction, interest rates are less likely to fall back to pre-Covid era lows. This has ramifications for how investors price risks and manage return expectations and likely lead to a lower return world for stocks.

Our Investment Thinking (not advice)

- Under these expectations, taking less investment risks now continues to make sense. This is especially true when 3-, 6-, 9-month U.S. treasury bills are yielding close to or even exceeding 5%. If the 10-year treasury bond reaches over 4% to 4.5%, it would be another great opportunity to consider these safe and high yielding investments.
- Historically, 6-months prior to the end of a recession would be at or close to the bottom of the stock market for the cycle. However, without knowing when the recession is over, it is impossible to know when the 6-month mark is. As such, dollar-cost-averaging back to the neutral portfolio allocation position when one feels the most “uncomfortable” about the market would be a reasonable time to start investing (this is when capitulation happens and is the exact time to start accumulating.)
- We believe the market participants are not only mispricing the stock market but have consistently underestimating or ignoring the Fed’s resolve to raise and maintain higher rates and not pivoting any time soon. Sustaining a higher interest rate is negative for stocks.
- This is a period of elevated uncertainty and it is difficult to discern noise from signal. The old standbys of diversification across asset classes, lower overall portfolio risk, be patient, and dollar-cost-averaging would make sense. Be clear about portfolio liquidity needs and one’s investment time horizon are also critical. Market timing does not work and beware of our own biases and emotions.
- The return in the secular period will likely be lower than the historical averages. Managing return expectation is important.

Disclosures and Limitations

- Experiential Wealth is an investment advisory¹ firm.
- This quarterly review is prepared for educational and informational purposes only and should not be deemed as this Firm or any member of this Firm offering investment advice to the public.
- Information provided or discussed regarding any one specific issue or trend are insufficient or incomplete for investors to rely upon in making any financial decisions.
- This document is not an offer to buy or sell any investment products and investors should consult with their independent fiduciary investment advisor before taking any related action.
- This Firm has no obligation to update this quarterly commentary going forward.

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