

Equity Research
Economics

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Economics Weekly

Flirting With and Dating Recessions



Timing an economic recession is never easy, as proved this past year. Despite just about all of the leading indicators of growth pointing to a slowdown throughout the year, the economy has continued to stay resolutely resilient. **In response to a surprising number of queries from clients on this topic over the past week, in this *Economics Weekly* we take a snapshot of where we are with regard to the main indicators that the NBER looks at when deciding the business cycle dates, and what some of the more forward-looking data is showing.**

What the Committee Is Looking For

The National Bureau of Economic Research’s (NBER) business cycle dating committee is the unofficial arbiter of U.S. business cycle dates. In most other countries there is no one single body that decides the official dates of expansions and contractions; rather, it is usually a mix of national statistics agencies, central banks, and academic or research institutes that coalesce around the dates.

The NBER does not define a recession as two consecutive quarters of negative GDP growth, which some label a “technical recession,” but as “a decline in economic activity that lasts more than a few months.” However, because the last 2020 recession only lasted for 2 months, the committee also noted that:

[I]n deciding whether to identify a recession, the committee weighs the depth of the contraction, its duration, and whether economic activity declined broadly across the economy (the diffusion of the downturn). The recent downturn had different characteristics and dynamics than prior recessions. Nonetheless, the committee concluded that the unprecedented magnitude of the decline in employment and production, and its broad reach across the entire economy, warranted the designation of this episode as a recession, even though the downturn was briefer than earlier contractions.

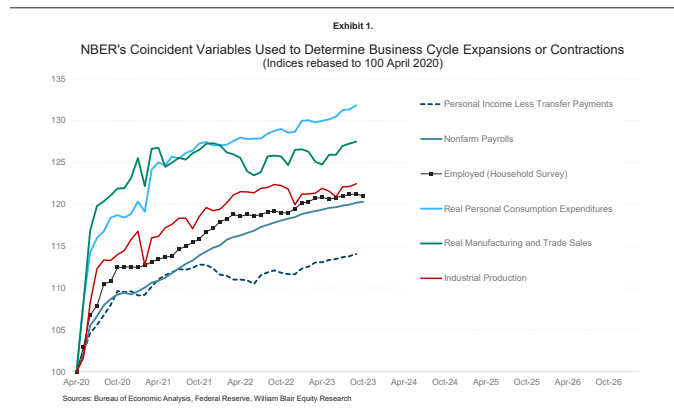
There have been two periods since 1945 when real GDP declined for two consecutive quarters that have not been recessions. The last one was the first and second quarters of 2022, and prior to that was the second and third quarters of 1947. In addition, there have been two recessions—1960 and 2001—where GDP did not fall consecutively for two quarters but they were still designated as economic downturns.

The committee tends to focus on eight main coincident economic indicators (but not exclusively so) when determining expansions and contractions. These include monthly readings on: 1) real personal income less transfers, 2) nonfarm payroll employment, 3) real personal consumption expenditures, 4) wholesale-retail sales adjusted for price changes, 5) employment as measured by the household survey, and 6) industrial production. It also looks at quarterly readings for 7) the gross domestic

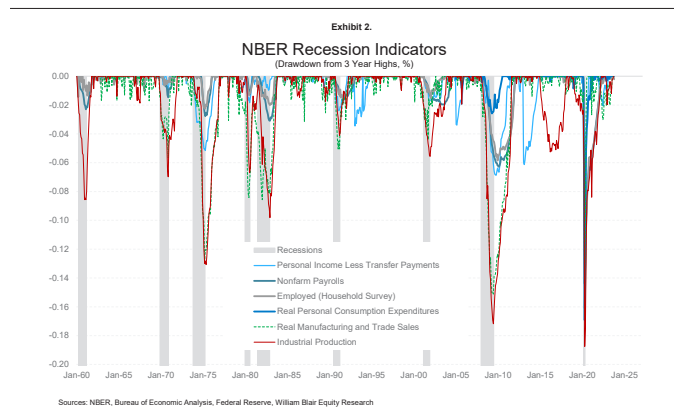
product and 8) gross domestic income data for further confirmation of what it has seen in the monthly data. While the committee has no fixed weighting scheme for these factors, the heaviest weight is often placed on the employment components. And as much as Wall Street would like it to, the NBER does not decide these dates in real time nor does it forecast outcomes. In fact, it often designates the start and end of a cycle more than a year after the event.

What the Data Is Telling Us Today

Exhibit 1 shows that all six monthly NBER indicators are still in expansion mode.

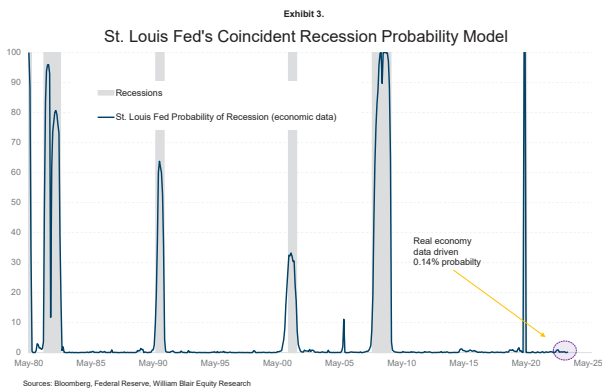


Furthermore, if we look at drawdowns over the previous three years’ highs (exhibit 2), we see that it is also the case that only one indicator—the household measure of employment—is lower than its recent high: in the last employment report for October, this measure showed a decline of 348,000 jobs from September.



Notably, the NBER needs to see “economic activity decline broadly across the economy.” Hence, despite the sharp deterioration in industrial production in 2016 depicted in exhibit 2, which came as a result of the energy sector recession, this was not deemed a recession because the weakness was very much focused in one area—even though it may have felt like one to some at the time.

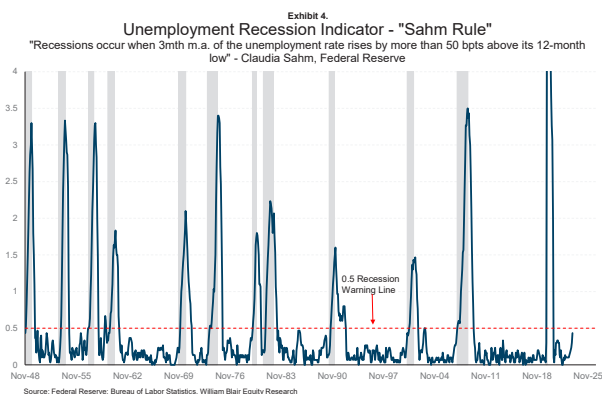
The St. Louis Fed aggregates four of these NBER coincident indicators into a recession probability index (exhibit 3), which again currently suggests just a 0.14% probability that the economy is currently in recession.



As the economist Claudia Sahm pointed out when she came up with the “Sahm Rule,” the problem with relying on the NBER to determine recessions is that often by the time it has labeled one, the recession is over and valuable response time is lost by policymakers.

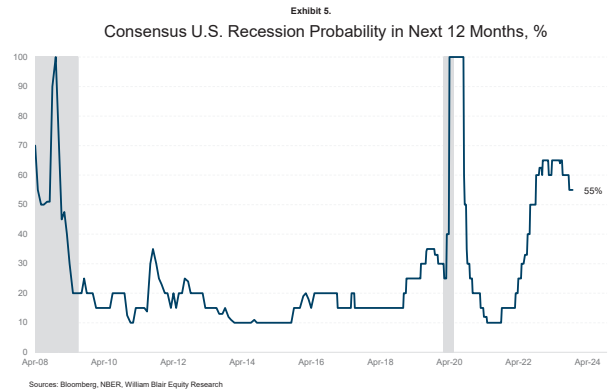
To address this, during her research at the Fed, Sahm found that since the 1970s (and for the most part prior to that as well), the economy has always been in recession whenever “the 3-month moving average of the unemployment rate rises by more than 50 basis points above its 12-month low.” She defines this as not an unbreakable rule, but more of a statistical regularity that has so far always proved correct.

At the moment, with the current unemployment rate at 3.9% and above the low of 3.4%, this recession light is flashing amber but not yet red (exhibit 4).



Looking Forward

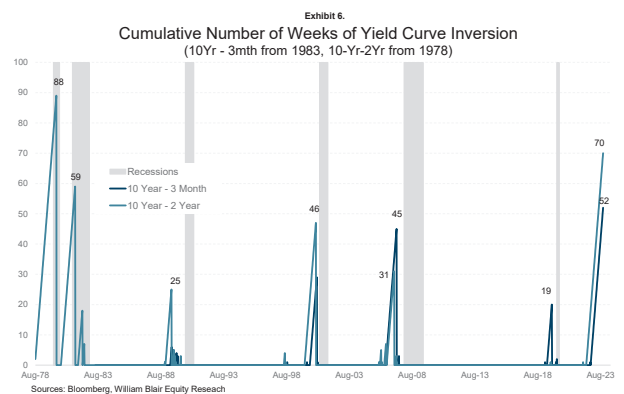
Recession forecasts for 2023 have continued to be pushed forward into 2024. At the start of 2023, the consensus placed a 65% probability on a recession taking place this year. Today, the consensus for the coming 12 months has moved down to 55% (exhibit 5).



Historically, the most accurate forward-looking recessionary indicator has been the yield curve. Yet it is worth remembering that it is not when the yield curve *inverts* that the recession typically takes place, it is when the curve starts to *resteeepen* after the inversion—which it has only recently started to do.

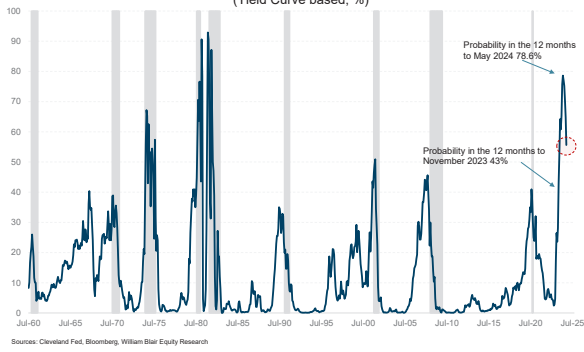
The start of a recession is typically marked when short rates start to fall faster than long rates on the expectation that the central bank will soon start to slash interest rates in response to the slowing, and longer-term rates are slower to respond (bull steepening).

Looking at the 10yr-3mth and the 10yr-2yr, both have been inverted for a historically long time. The 10yr-3mth at 52 weeks of consecutive inversion has never been inverted this long, and the 10yr-2yr at 70 weeks has only ever been inverted longer ahead of the 1980 recession (exhibit 6).



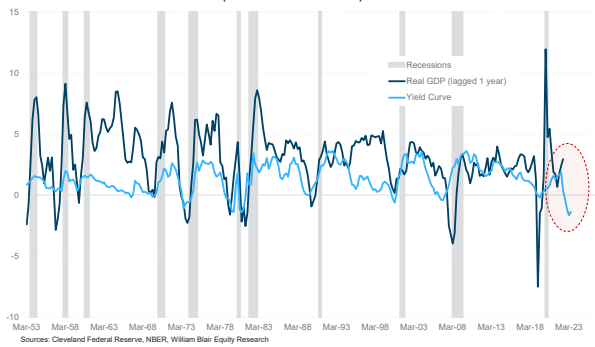
For some, this extended period of inversion without a recession suggests that this time is different and that the yield curve has been sending false signals. However, a look at the Cleveland Fed’s recession probability indicator, based on the 10yr-3mth curve, shows that the probability of being in a recession today was always relatively low at just 43% in the 12 months up to November 2023. The recession probability started to meaningfully ramp up beginning in May 2023, suggesting that the peak recession probability is in the 12 months to May 2024 (exhibit 7).

Exhibit 7.
Cleveland Fed's U.S. Recession Probability Index
(Yield Curve based, %)



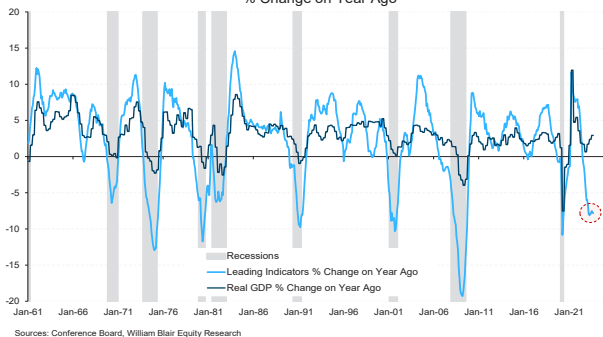
Furthermore, as the Cleveland Fed data shows, the strongest correlation with GDP is 12 months ahead, where this index still shows the potential for a marked deterioration in growth (exhibit 8).

Exhibit 8.
Yield Curve (10 Year - 3 Month) vs Real GDP



Similarly, the Conference Board's Index of Leading Economic Indicators (a basket of 10 indicators, including the yield curve, the money supply, initial jobless claims, etc.) is still at extreme lows and far from flashing the all-clear sign just yet (exhibit 9).

Chart 9.
Leading Economic Indicators & Real GDP Growth
% Change on Year Ago



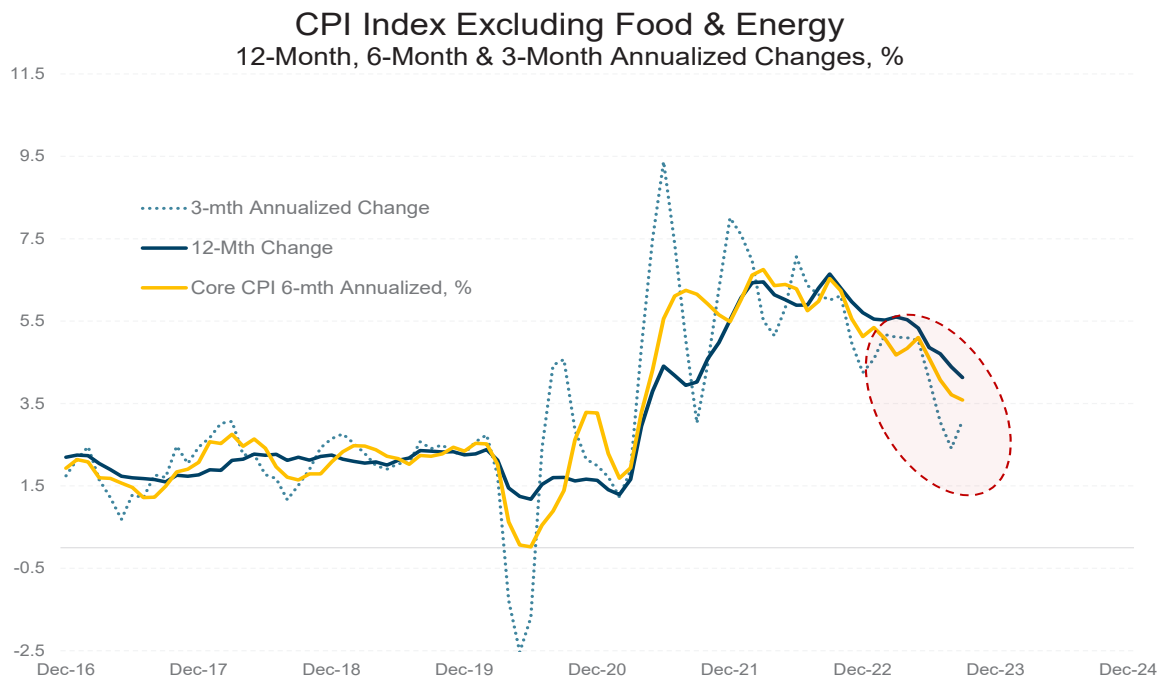
Conclusion

As we near year-end, the coincident economic data and data used by the NBER recession dating committee continue to show that the economy has defied earlier expectations and is still very much in expansion mode. Nevertheless, slightly more forward-looking data such as the Sahm Rule is now flashing amber, suggesting that the economy is starting to flirt with recession. Meanwhile, the most forward-looking indicators—including the Treasury yield curve and the Conference Board's LEI—are still flashing bright red, suggesting a high probability that the economy (and the NBER) will get a little cosier with the recession in the coming year and move from the flirting stage to getting down to actual dating.

Date	Time (EDT)	Indicator	Last	Consensus	WB Estimate	Actual
14 Nov	6.00 a.m.	NFIB Small Business Optimism (Oct)	90.8	NA	NA	
14 Nov	8:30 a.m.	Consumer Price Index (Oct)	0.4%	0.1%	0.2%	
		CPI Less-food & energy	0.3%	0.3%	0.3%	
15 Nov	8:30 a.m.	Advance Retail Sales (Oct)	0.7%	-0.4%	-0.5%	
		Sales Less-autos	0.6%	-0.2%	-0.3%	
15 Nov	8:30 a.m.	Producer Price Index (Oct)	0.5%	0.1%	0.1%	
		PPI Less-food & energy	0.3%	0.3%	0.2%	
16 Nov	9:15 a.m.	Industrial Production (Oct)	0.3%	-0.3%	-0.4%	
		Capacity Utilization	79.7%	79.4%	79.4%	
17 Nov	8:30 a.m.	Housing Starts (Oct)	7.0%	-0.6%	-0.1%	
		Building Permits	-4.4%	-1.4%	-1.0%	

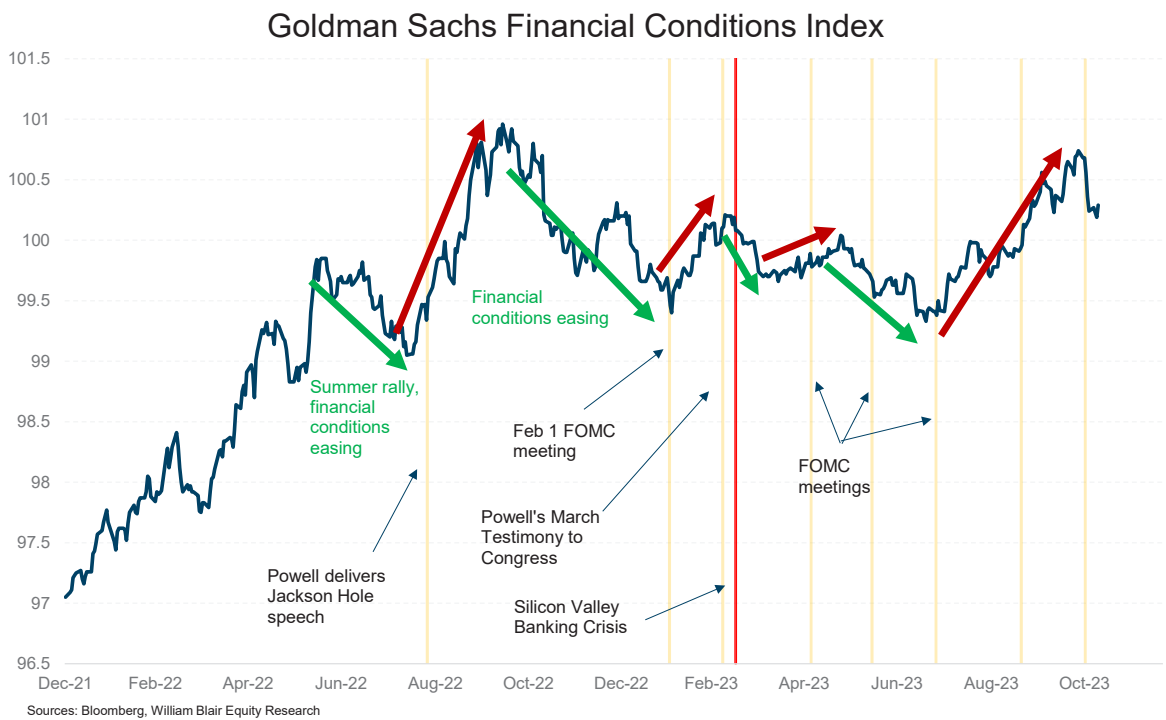
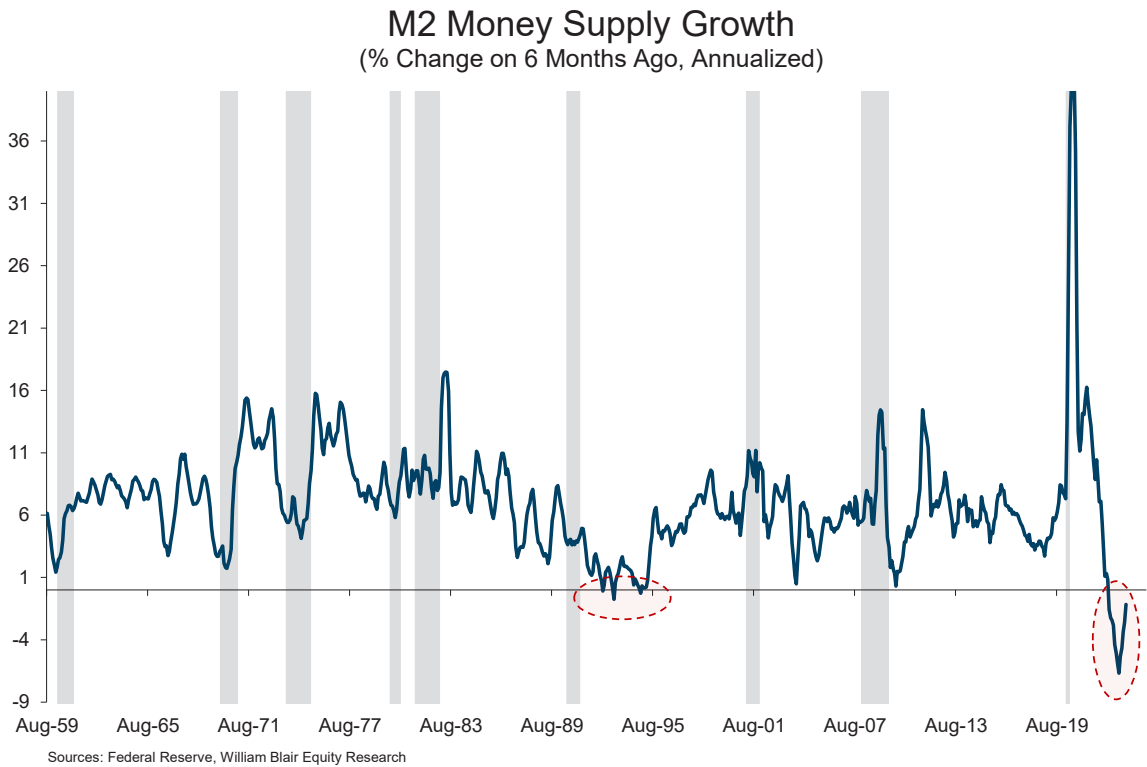
Sources: Bloomberg, William Blair Equity Research

Indicator of the Week: Consumer Price Index

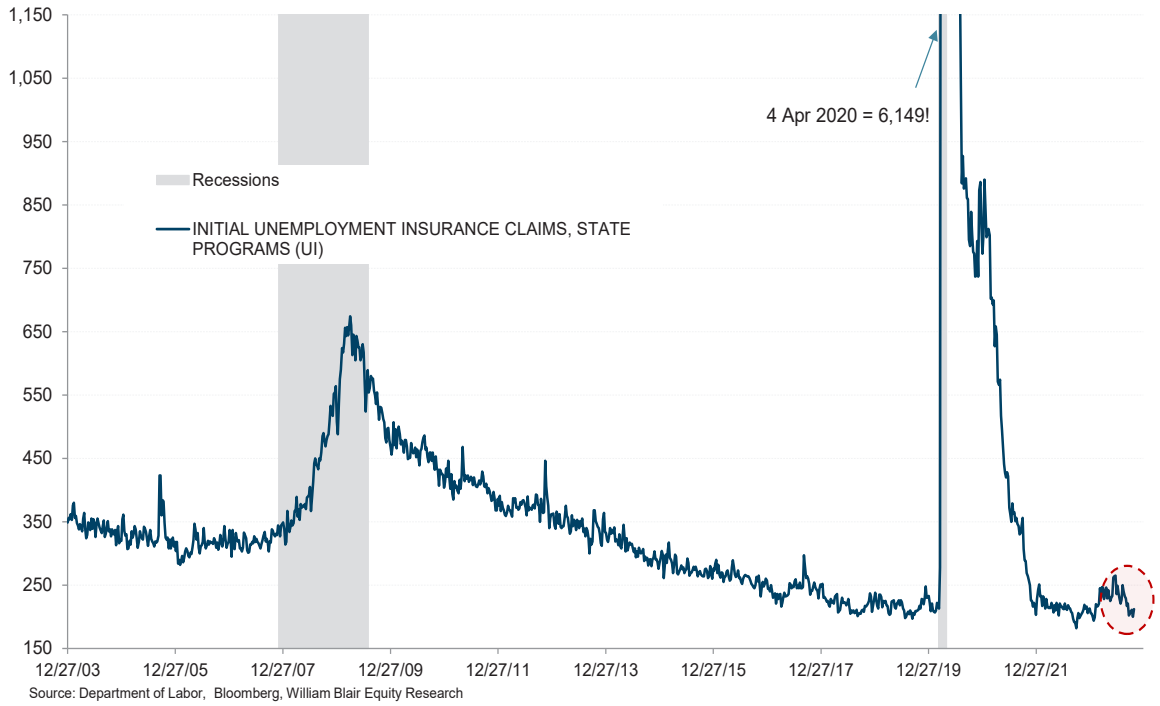


Sources: Bureau of Labor Statistics, William Blair Equity Research

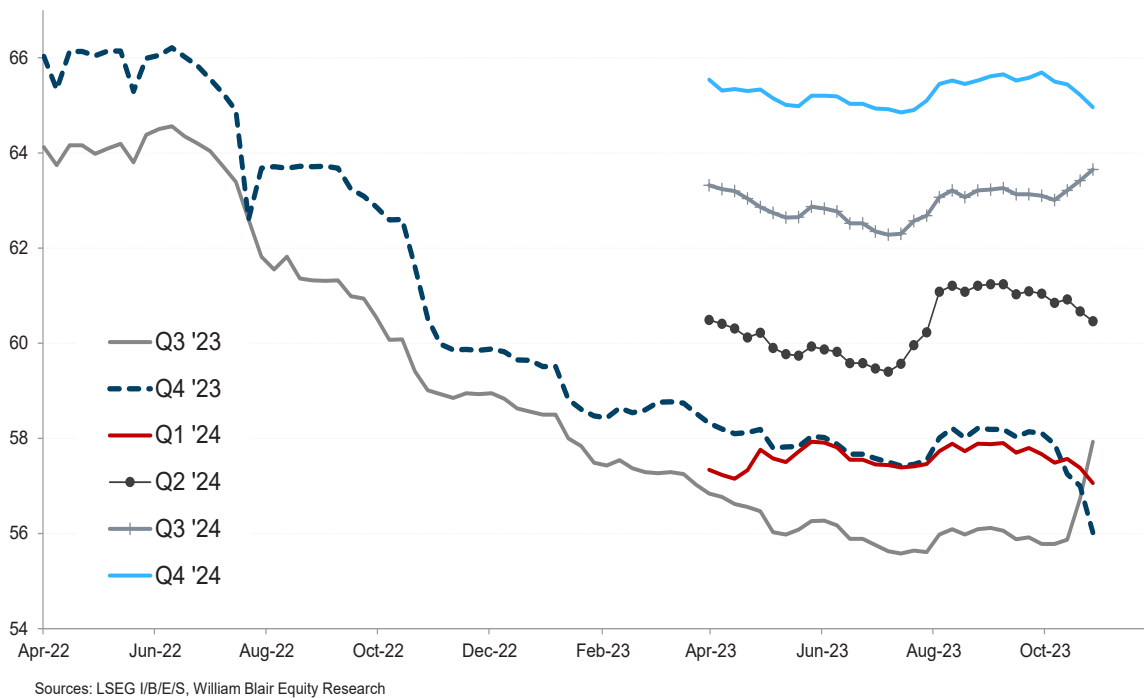
Other Economic Indicators



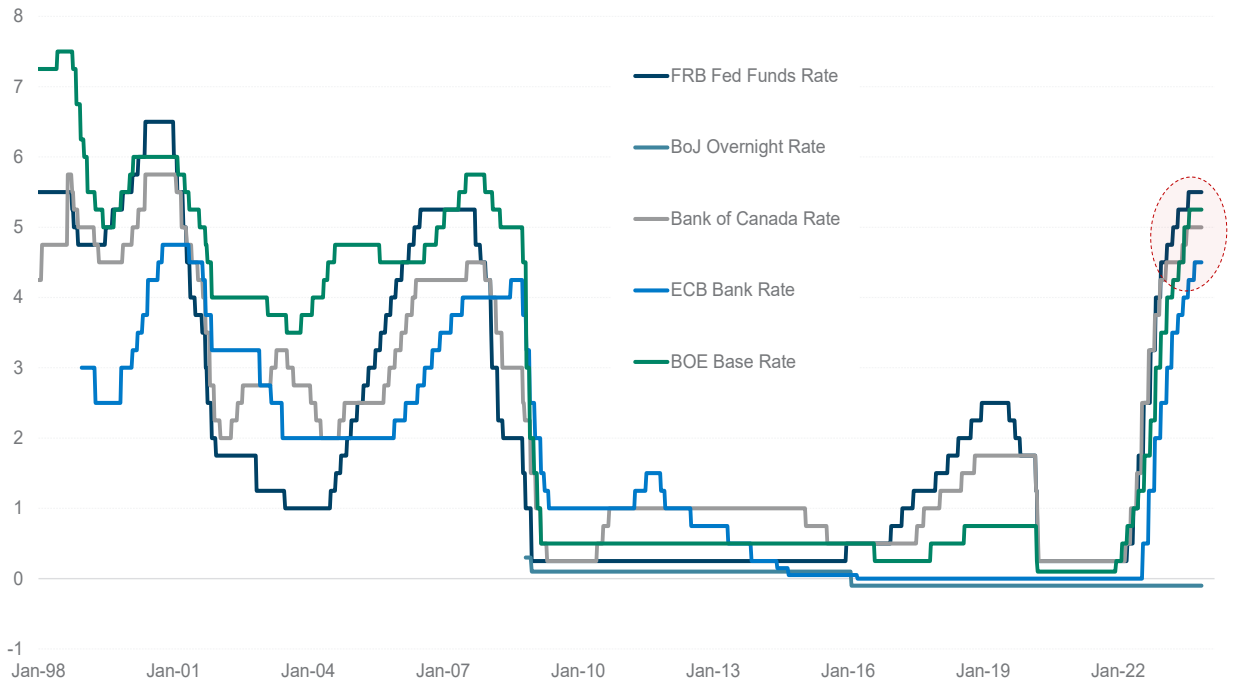
Initial Jobless Claims (‘000s, Seasonally Adjusted)



Progression of S&P 500 Bottom-Up EPS Estimates (2023-2024, \$/Shr)

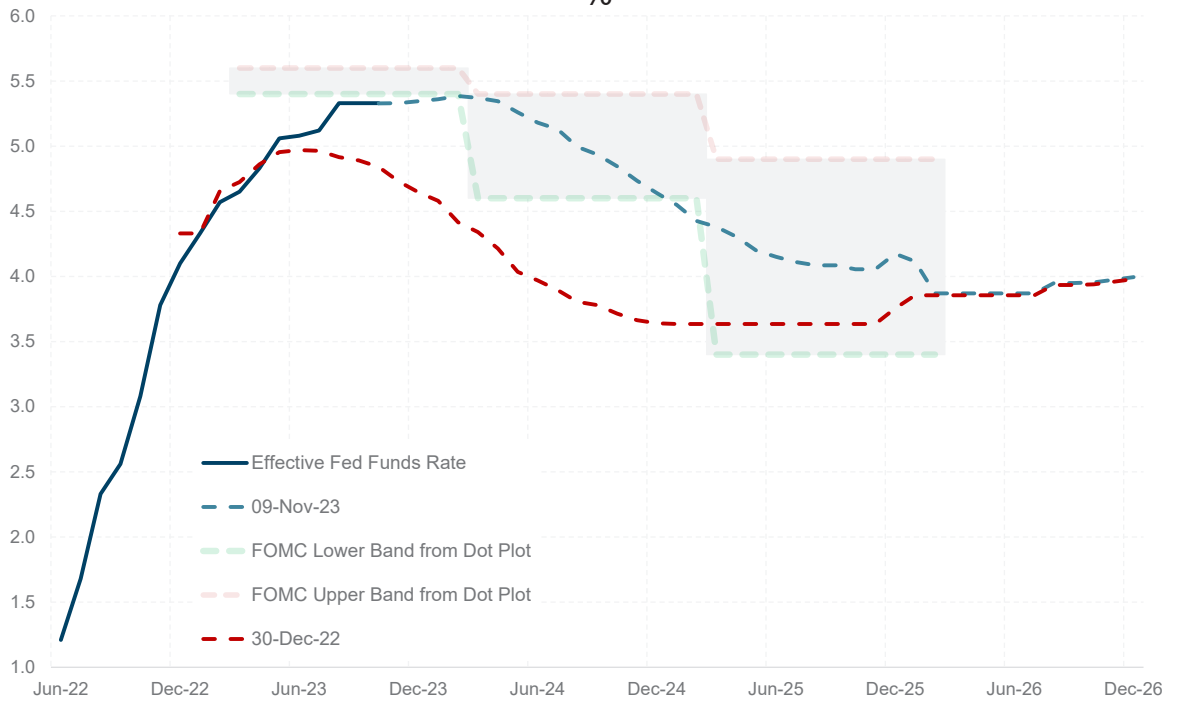


Central Bank Target Short-term Interest Rates, %



Sources: Bloomberg, William Blair Equity Research

Fed Funds Rate, Futures Market Expectations & FOMC Projections, %



Sources: Bloomberg, William Blair Equity Research

S&P 500 Sector Performance

Global Industry Classification System	Current Weight* 09-Nov-23	Week Ago 02-Nov-23	Month Ago 09-Oct-23	Qtr-to-Date 29-Sep-23	Year-to-Date 30-Dec-22
S&P 500 Index	100.00	0.68	0.27	1.38	13.23
S&P400 MidCap Index		-0.88	-2.62	-3.71	-0.87
S&P600 SmallCap Index		-1.31	-2.67	-4.17	-4.69
Dow Jones Industrials		0.16	0.85	1.15	2.25
Nasdaq Composite		1.71	0.28	2.29	29.19
Communication Services	9.03	1.92	-1.34	2.64	43.11
Advertising	0.07	-1.86	-0.94	0.35	-10.71
Broadcasting	0.06	-1.84	-2.11	-5.09	-12.89
Cable & Satellite	0.59	-3.46	-7.54	-7.85	16.05
Integrated Telecommunication Services	0.69	-0.71	10.09	7.33	-12.03
Interactive Home Entertainment	0.16	4.01	2.14	3.83	21.45
Interactive Media & Services	5.93	2.54	-3.81	1.79	72.38
Movies & Entertainment	1.05	3.94	8.30	11.45	22.26
Publishing & Printing	0.03	0.16	5.19	6.10	17.69
Wireless Telecommunication Svcs	0.45	0.27	4.81	4.88	4.92
Consumer Discretionary	11.02	0.48	-0.26	-0.34	25.28
Apparel Retail	0.38	1.87	4.18	4.06	11.67
Apparel & Accessories & Luxury Goods	0.18	1.37	4.10	-1.19	-23.27
Auto Parts & Equipment	0.07	-4.41	-23.31	-24.76	-17.96
Automobile Manufacturers	1.96	-4.14	-18.89	-16.63	50.84
Automobile Retail	0.30	3.57	4.52	4.82	6.79
Broadline Retail	3.91	1.83	9.21	10.11	35.58
Casinos & Gaming	0.18	1.59	0.47	0.00	5.33
Computer & Electronics Retail	0.04	-5.23	-10.49	-9.48	-21.60
Consumer Electronics	0.06	0.80	7.64	9.65	25.00
Distributors	0.12	2.29	-7.80	-7.87	-13.40
Footwear	0.35	1.83	10.45	11.90	-8.55
Home Furnishings	0.01	-4.23	-2.63	-7.34	-22.22
Home Improvement Retail	1.05	-2.18	-3.26	-5.76	-7.59
Homebuilding	0.28	3.58	7.44	7.22	38.35
Hotels, Resorts & Cruise Lines	0.82	4.74	-0.67	-3.74	36.47
Household Appliances	0.02	0.32	-14.23	-19.27	-23.70
Leisure Products	0.02	-6.99	-26.35	-34.59	-29.09
Restaurants	1.15	1.22	8.53	5.47	6.49
Other Specialty Retail	0.12	0.93	-2.07	-4.20	-17.11
Consumer Staples	7.03	-0.35	2.62	-0.54	-7.15
Agricultural Products	0.15	-0.70	-2.12	-4.24	-20.47
Brewers	0.03	0.60	-1.61	-8.51	12.93
Hypermarkets	2.09	-0.17	3.42	1.28	6.00
Distillers & Vintners	0.16	0.51	2.15	-3.66	-0.35
Drug Retail	0.05	-4.88	-8.17	-8.05	-45.26
Food Distributors	0.09	1.59	5.14	0.97	-12.77
Food Retail	0.08	-3.33	-1.63	-1.92	-1.55
Household Products	1.31	-0.41	5.02	2.77	-1.98
Packaged Foods & Meats	0.84	-0.22	2.38	-3.26	-14.90
Personal Products	0.17	0.34	-10.85	-12.12	-51.97
Soft Drinks	1.52	-0.14	5.36	-0.18	-8.48
Tobacco	0.56	-1.30	-3.88	-3.55	-11.60
Energy	4.16	-5.80	-7.19	-9.08	-6.13
Integrated Oil & Gas	1.94	-5.19	-10.00	-13.37	-12.11
Oil & Gas Equipment & Services	0.47	-6.94	-7.65	-7.58	1.39
Oil & Gas Exploration & Production	1.11	-6.33	-5.25	-4.22	-4.09
Oil & Gas Refining & Marketing & Transportation	0.38	-7.55	-3.04	-9.60	7.89
Oil & Gas Storage & Transportation	0.35	-4.14	-1.21	0.36	-0.07
Financials	12.22	0.46	1.28	0.80	-2.31
Asset Management & Custody Banks	0.81	-0.01	-1.12	-2.71	-10.22
Consumer Finance	0.48	0.17	2.59	1.99	1.06
Diversified Banks	2.63	0.67	1.52	-0.24	-4.37
Financial Exchanges & Data	1.16	3.05	2.24	4.83	14.28
Insurance Brokers	0.69	2.31	3.70	5.21	16.93
Investment Banking & Brokerage	0.91	0.69	-0.36	-3.80	-18.03
Life & Health Insurance	0.40	-1.15	-0.78	-1.17	-7.27

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Multi-line Insurance	0.14	-2.22	4.92	5.62	2.20
Multi-Sector Holdings	1.20	-0.24	0.79	-0.60	12.72
Property & Casualty Insurance	0.94	-0.12	6.41	8.15	6.04
Regional Banks	0.27	-1.81	-0.94	-4.00	-40.90
Reinsurance	0.04	-0.49	-2.54	2.28	14.76
Transaction & Payment Processing	2.54	0.09	0.08	0.55	N/A
Health Care	12.67	-1.04	-3.91	-2.66	-7.84
Biotechnology	1.93	-3.43	-5.33	-4.71	-9.34
Health Care Distributors	0.36	4.05	3.74	7.43	19.53
Health Care Equipment	2.26	-2.88	-4.46	-5.24	-8.11
Health Care Facilities	0.18	0.11	-7.60	-6.19	-5.71
Health Care Services	0.56	-5.56	-2.48	-1.08	-18.58
Health Care Supplies	0.10	-1.98	-16.85	-21.20	-7.45
Life Sciences Tools & Services	1.31	0.65	-10.28	-11.07	-19.78
Managed Health Care	1.91	0.97	1.67	5.87	-1.71
Pharmaceuticals	4.07	-0.04	-3.58	-1.29	-5.20
Industrials	8.24	0.33	-1.32	-0.33	2.81
Aerospace & Defense	1.66	-0.19	4.10	7.57	-5.37
Agricultural & Farm Machinery	0.28	-1.05	-3.48	-2.06	-13.79
Air Freight & Logistics	0.50	-1.56	-7.55	-8.87	-4.43
Building Products	0.41	1.49	-0.54	-0.66	9.56
Construction & Engineering	0.07	-3.15	-2.48	-9.35	19.00
Construction Machinery & Heavy Trucks	0.57	-0.78	-8.54	-8.61	2.85
Data Processing & Outsourced Services	0.05	-1.47	-3.14	-1.60	30.24
Diversified Support Svcs	0.26	3.08	4.08	8.92	31.32
Electrical Components & Equipment	0.58	-0.62	-4.20	-3.93	10.61
Environmental & Facilities Services	0.40	1.72	5.19	5.15	6.69
Human Resource & Employment Services	0.43	2.45	-10.32	-6.50	1.13
Industrial Conglomerates	0.78	1.24	0.91	0.34	6.21
Industrial Machinery	0.82	0.54	-0.79	-0.14	8.69
Passenger Airlines	0.16	3.38	-6.70	-10.86	-11.45
Railroads	0.61	-0.30	0.58	0.93	-4.73
Research & Consulting Svcs	0.23	1.52	-1.41	1.07	10.65
Trading Companies & Distributors	0.27	1.05	4.27	6.58	29.45
Information Technology	28.78	3.26	3.63	7.14	43.31
Application Software	2.48	3.04	3.02	6.51	47.57
Communications Equipment	0.91	0.51	-0.08	1.59	16.71
Electronic Components	0.20	1.32	-0.91	-2.68	2.26
Electronic Equipment & Instruments	0.16	-0.76	-10.32	-12.07	-19.93
Electronic Manufacturing Services	0.10	0.05	0.81	0.46	8.10
Internet Software & Services	0.10	3.00	0.81	1.83	11.96
IT Consulting & Services	1.11	2.33	1.68	3.07	10.03
Semiconductor Equipment	0.80	3.09	0.00	0.60	19.29
Semiconductors	6.55	4.81	2.39	5.02	80.04
Systems Software	8.56	3.26	8.20	12.87	48.59
Technology Distributors	0.07	0.88	0.19	3.34	16.76
Technology Hardware, Storage & Peripherals	7.74	2.68	1.85	6.30	39.38
Materials	2.33	-1.45	-2.11	-2.69	-1.70
Commodity Chemicals	0.17	-0.82	-3.37	-4.93	1.43
Construction Materials	0.15	1.75	2.55	6.64	26.10
Copper	0.13	-5.05	-9.75	-10.86	-12.52
Fertilizers & Agricultural Chemicals	0.17	-6.08	-10.86	-11.68	-26.90
Gold	0.10	-10.56	-9.78	-8.12	-28.07
Industrial Gases	0.66	-1.98	1.59	1.95	9.63
Metal & Glass Containers	0.04	-0.41	5.88	-2.29	-4.89
Paper Packaging	0.18	0.66	-0.31	-0.87	-5.78
Specialty Chemicals	0.60	1.32	-2.00	-4.11	-3.79
Steel	0.14	-0.85	-2.02	-1.91	13.46
Real Estate	2.28	-0.92	-0.08	-0.34	-8.30
Data Center REITs	0.29	-1.25	4.78	4.65	N/A
Health Care REITs	0.19	-4.11	1.31	-0.03	4.85
Hotel & Resort REITs	0.03	-0.31	1.44	1.12	1.25
Industrial REITs	0.25	-1.37	-5.64	-7.95	-8.38
Multi-Family Residential REITs	0.10	-1.02	-8.39	-6.08	N/A
Office REITs	0.07	-4.47	-5.14	-7.91	-31.40
Real Estate Service	0.14	3.00	-3.26	-0.49	-6.59
Retail REITs	0.27	-1.65	3.56	2.22	-12.14
Self-Storage REITs	0.18	3.94	-6.32	-5.06	N/A
Single-Family Residential REITs	0.18	3.94	-6.32	-5.06	N/A

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Telecom Tower REITs	0.40	-1.20	9.37	8.41	N/A
Timber REITs	0.06	-1.36	-0.61	-2.96	N/A
Utilities	2.34	-2.52	3.64	1.64	-15.17
Electric Utilities	1.54	-3.32	4.19	1.44	-15.34
Gas Utilities	0.04	-0.08	1.46	5.06	-0.69
Independent Power Producers & Energy Traders	0.03	0.84	23.27	2.82	-45.66
Water Utilities	0.06	-0.17	2.87	0.36	-18.47
Multi-Utilities	0.66	-1.16	1.95	1.98	-13.18

*Current Weight is market cap based, based on calculations by William Blair Intl. Ltd.

IMPORTANT DISCLOSURES

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DOW JONES: 33891.90
 S&P 500: 4347.35
 NASDAQ: 13521.50

Additional information is available upon request.

Current Rating Distribution (as of November 9, 2023):

Coverage Universe	Percent	Inv. Banking Relationships *	Percent
Outperform (Buy)	70	Outperform (Buy)	7
Market Perform (Hold)	29	Market Perform (Hold)	3
Underperform (Sell)	1	Underperform (Sell)	0

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