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Economics

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Economics Weekly
A Perspective on Corporate Earnings

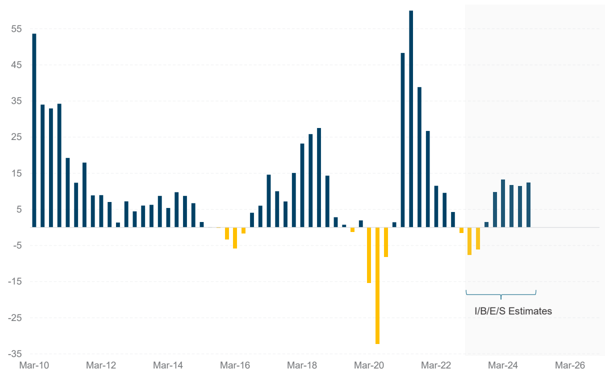
Please refer to important disclosures on pages 14 and 15. Analyst certification is on page 14.

Earnings season kicks off today with the start of the release of earnings reports from the major banks. These reports will be pored over by analysts looking for insights into any impact from the recent volatility across the banking sector, including the slow walk of deposits to money market funds. More broadly, as the rest of the corporate earnings filter through, they will be viewed as a key variable for economic growth, employment, and inflation. **In this *Economics Weekly,* we look at corporate profitability through this prism.**

Near-Term Earnings Picture

Earnings for the first quarter of 2023 are expected to have fallen by 7.6% compared to the same quarter in the previous year. This would be the second consecutive quarter of negative earnings growth—a gauge that is crudely associated with an earnings recession. And, according to the latest I/B/E/S estimates, earnings are also expected to decline a further 6.1% in the second quarter (exhibit 1).

Exhibit 1.
S&P 500 EPS
(% Change on Same Quarter in the Previous Year)



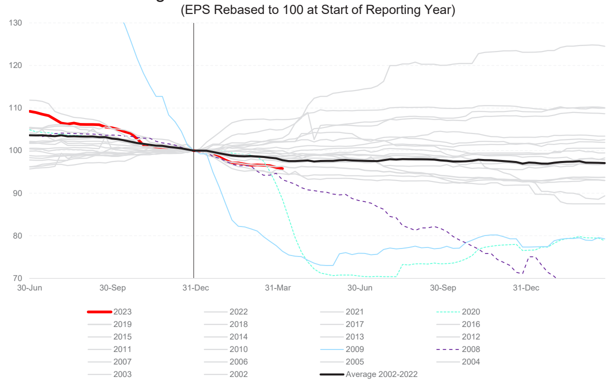
Sources: I/B/E/S Refinitiv, William Blair Equity Research

For 2023 as a whole, EPS growth is anticipated to increase just 0.8% (as a trailing-12-month annual rate of change)—the lowest since 2020's 14.2% drop. This estimate has fallen from 4.4% at the start of the year.

Exhibits 2 and 3 show the progression of earnings this year to be a little below the average of the last 20 years, though well below the average if we exclude 2008, 2009, and 2020.

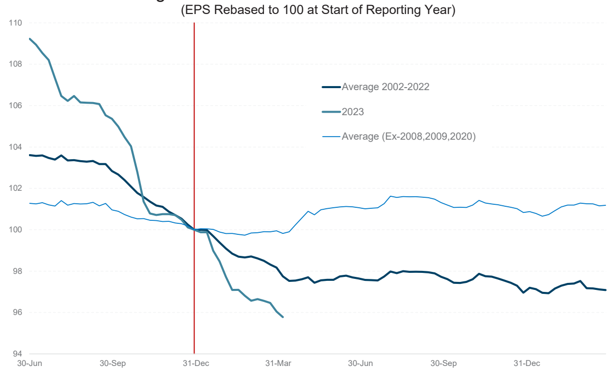
Estimated earnings growth also declined sharply throughout 2022, when expectations for 2023 were previously as high as 8.1% at the end of the third quarter, and 10% at the end of the second quarter. Hence, analysts are pricing in a tangible deceleration in earnings, but not a full recession.

Exhibit 2.
Progression of S&P 500 Annual EPS Estimates
(EPS Rebased to 100 at Start of Reporting Year)



Sources: Refinitiv, William Blair Equity Research

Exhibit 3.
Progression of S&P 500 Annual EPS Estimates
(EPS Rebased to 100 at Start of Reporting Year)



Sources: Refinitiv, William Blair Equity Research

Earnings and Recessions

In the past, a not uncommon question from investors was, why bother with macro? Given ongoing crises in markets, great market involvement from the central banks, more geopolitical issues in a globalized world, and the financialization of the global economy, this question has definitely become less frequent. Nevertheless, macro was always relevant for equity investors, given that corporate earnings are what drive stocks, they are inherently cyclical, and nominal GDP is still the best proxy for aggregate revenue growth for the entire economy.

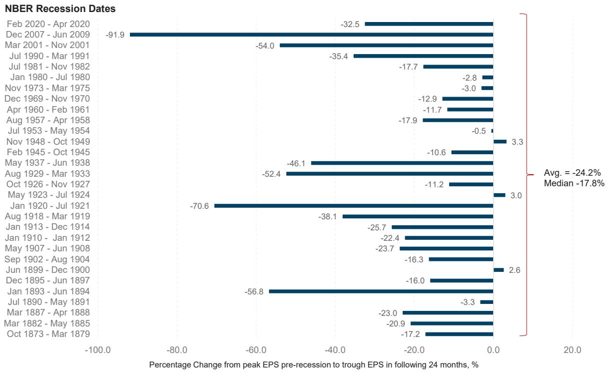
This fact is highlighted in the following exhibit, which looks at what typically happens to earnings around recessionary periods.

Exhibit 4 uses the Shiller trailing-12-month S&P 500 earnings series and shows the changes in earnings from their highest recorded peak in the 12 months before the start of the recession to the lowest level reached in the 24 months after the start of the recession (since 1854, recessions have lasted an average of 17 months, and 10.3 months from 1945). The data shows that the average peak-to-trough change in earnings within this 36-month window has been -24%, though given the wide dispersion it is helpful to also note the median is -17.8%.

Exhibit 4.

What Happens to S&P 500 EPS Around Recessions?

% Change From Peak EPS in the 12 Months Prior to Economic Peak to the Minimum EPS in the 24 Months Post Economic Peak



Sources: NBER, S&P, William Blair Equity Research

There have only been three instances when earnings growth has been positive (i.e., when the peak in earnings before the recession has been below the lowest quarters' earnings in the following 24 months); the highest of these has been 3.3%.

Looking at the current market quarterly estimates for *trailing-12-month* EPS shows that analysts believe that earnings peaked in the third quarter of 2022 ($222.39 per share) and are expected to reach a trough in the second quarter of 2023 ($213.84 per share) for a modest decline of 3.8%.

Hence, if we are heading into a recession—which we think is likely through the second half of 2023—history suggests these estimates have further to fall.

For the moment, however, there are reasons to believe that this expected decline may not be quite as large as the historical average, given that this downturn is also currently expected to be a more mild one. The reason is that this recession is not likely to be associated with a major systemic banking crisis resulting in significant consumer debt deleveraging. Consumer balance sheets are also in good shape and labor market dynamics suggest employment will remain relatively firm. Furthermore, the likelihood that this will not be a major deflationary crisis implies that inflation will continue to provide a supporting cushion for the corporate sector.

Meanwhile, exhibit 5 highlights the typical pattern of earnings around these recessionary periods. It shows that earnings tend to peak 6 months prior to the start of the recession and reach their subsequent trough 12 months following its start. It also shows that after 24 months, profits have tended to be back up to their pre-recession peak.

Exhibit 5.

S&P 500 12-Month Trailing EPS & Recession

(EPS Rebased to 1 at Economic Peak, 1945-2022)

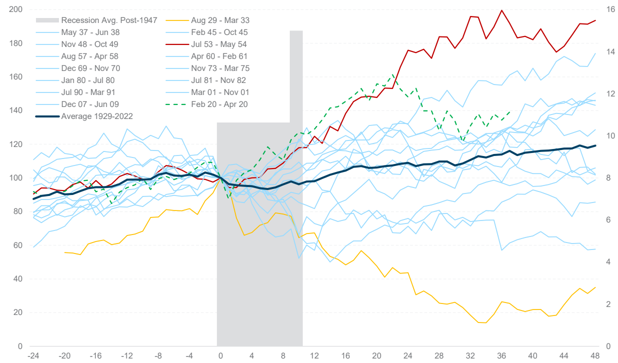
Sources: Robert Shiller, William Blair Equity Research

While there is still a fair amount of dispersion surrounding the stock market's performance around recessions, the data shows that it tends to peak about 8 months prior to the start of recession and trough around the middle of the downturn (exhibits 6 and 7).

Exhibit 6.

S&P 500 Peformance Around Recessions

(Last 15 Recessions Since 1928, Index Rebased to 100 at Cyclical Peak)

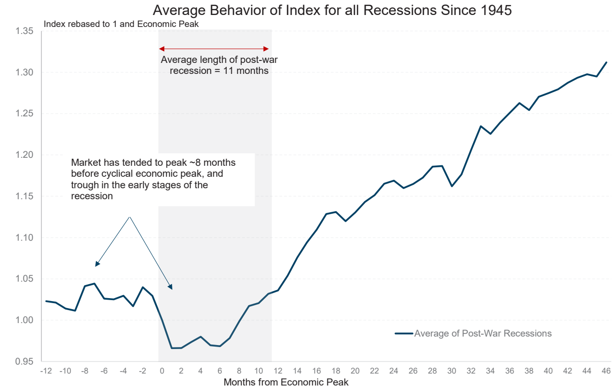


Sources: Bloomberg, William Blair Equity Research

Exhibit 7.

S&P 500 Index Around Recessions

Average Behavior of Index for all Recessions Since 1945



Sources: NBER, Bloomberg, William Blair Equity Research

This seems about right given that management teams are prone to manage earnings-expectations in the months prior to earnings actually being released, while stock analysts are typically adept at tracking firm performance and modeling earnings outcomes.

Similarly, the market trough during the recession takes place prior to the trough in earnings, which likely reflects investors anticipating the results from the typical corporate response to recessions (i.e., to cut costs), as well as the actual and anticipated measures taken to ease the recession by monetary and fiscal policymakers. The market has then typically regained its previous peak 12 months from the start of the recession, or 20 months from its previous peak.

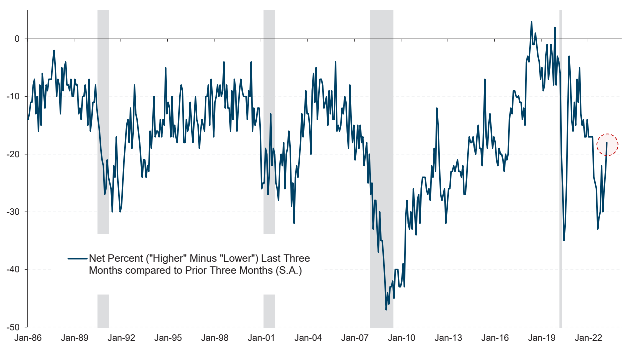
Profits Versus Inflation and Compensation Costs

This week's NFIB small business survey revealed that smaller businesses were a little more upbeat about their earnings than they were through the third quarter of 2022 (chart 8).

Exhibit 8.

Small Business Earnings

(Actual Earnings Changes Percent Higher vs Lower Compared to Prior Three Months)



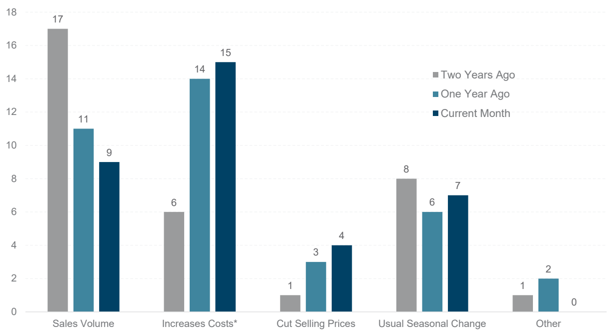
Sources: National Federation of Independent Businesses, William Blair Equity Research

When asked the main reason that they might have lower earnings, the No. 1 issue is still "increased costs," whereas "cuts to selling prices" have been improving (i.e., lower inflation), but are still low at just 4% (exhibit 9).

Exhibit 9.

NFIB Small Business Survey - Most Important Reason for Lower Earnings

(February 2023, %)



*Increased costs include labor, materials, finance, taxes, and regulatory costs

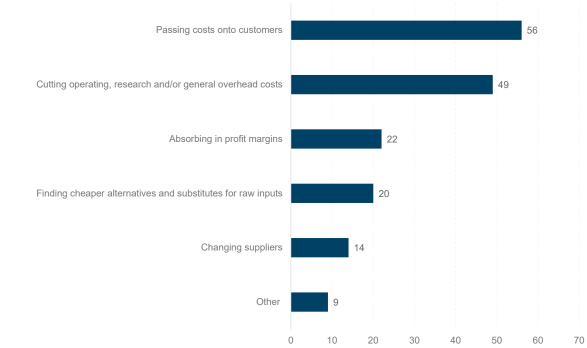
Sources: NFIB, William Blair Equity Research

Similarly, the latest CEO survey from the Conference Board (exhibit 10) asked company heads what actions they were taking to effectively manage input cost. The results from the February survey showed the majority were still passing these along to customers (56%), though a significant share are also cutting costs (49%), and only a smaller share are absorbing these costs into their profit margins (22%).

Exhibit 10.

Conference Board US CEO Survey

What actions are you taking to effectively manage input costs? (%)



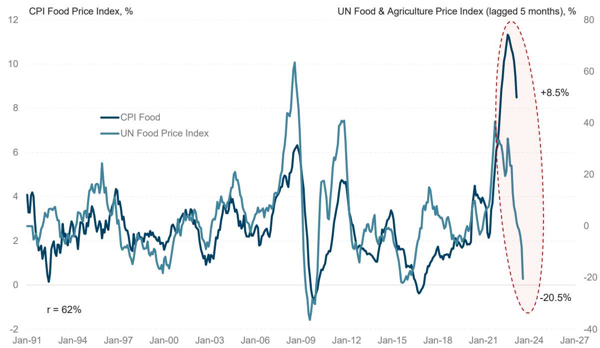
Sources: The Conference Board, The Business Council

While there have been some clear areas of price gouging—for example in the food sector where raw food and agricultural prices have been materially falling for many months now, but retail CPI food prices have been very slow to follow (exhibit 11)—on the whole, as exhibits 12 and 13 suggest, it may be less of an industrywide issue.

Exhibit 11.

CPI Food Prices vs UN Food & Agriculture Price Index

(% Change on Year Ago)



UN Food price index is for raw food export prices excluding retailers mark-ups

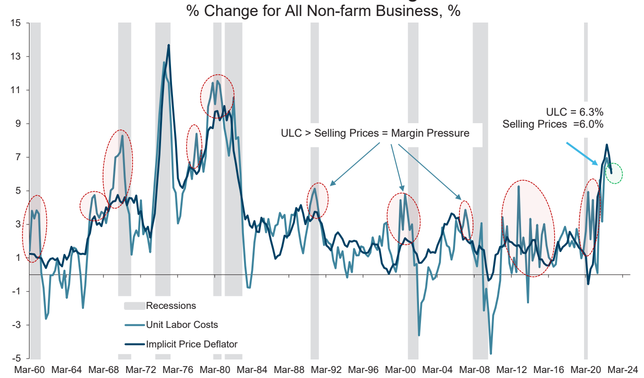
Sources: Bureau of Labor Statistics, UN, Bloomberg, William Blair Equity Research

Exhibit 12 shows the annual rates of change in unit labor costs (ULC, which is employee compensation adjusted for productivity) compared to the growth rate of selling prices by corporations. Periods when growth in ULC are faster than selling prices are normally associated with margin compression, and vice versa when selling prices are above ULC (i.e., when companies can mark up prices).

Exhibit 12.

Unit Labor Costs vs Selling Prices

% Change for All Non-farm Business, %

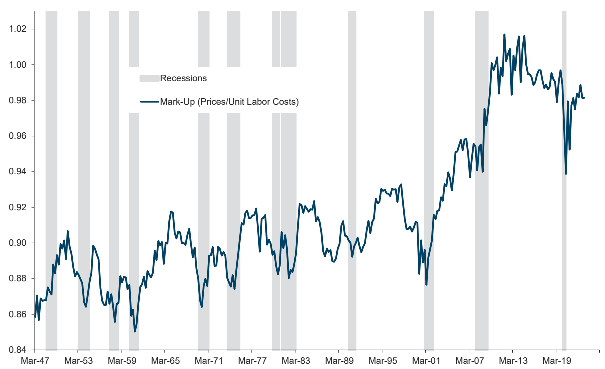


Source: Bureau of Labour Statistics, William Blair Equity Research

Exhibit 13 shows this markup (prices/ULC) and highlights the sharp increase from 2000 onward; however, this was more related to weakness in ULC than strength in pricing. It demonstrates the results of both China joining the WTO and the tendency for companies to aggressively pare back ULCs during recessions (shown in exhibit 12). The chart also highlights that while markup is still very elevated relative to the pre-2000 period, the trend has been downward since 2014, as workers have increasingly demanded a growing share of corporate profitability.

Exhibit 13.

Mark-up: Ratio of Selling Prices to Unit Labor Costs



Source: Bureau of Labor Statistics, William Blair Equity Research

Lastly, chart 14 compares this markup against actual corporate profit margins. It shows the extent to which markups have been helping to maintain margins in the face of the recent growth in compensation costs. However, as inflation moderates on the back of the continued rate increases by the Fed, ongoing supply chain improvements, and consumers starting to balk at higher prices, companies will be under greater margin pressure.

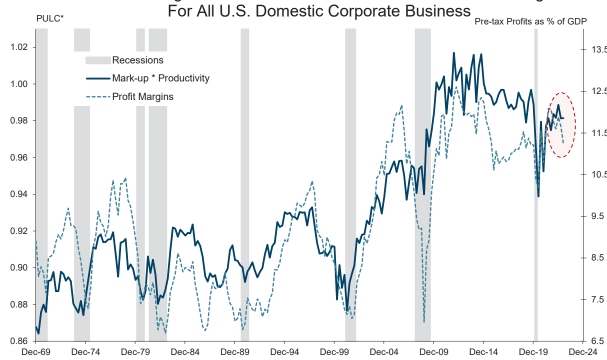
Maintaining these margins (which are already compressing) in the face of weaker nominal GDP growth will likely be achieved through a reduction in ULC (mainly headcount reductions), a ramp-up in productivity where achievable (though not usually viewed as being either a certain or a quick solution for demanding shareholders), or some combination of the two.

The cyclicality of profits should also be a reminder that profits lead employment, and in light of the start of the cyclical compression in earnings, there is every reason to expect employment growth to weaken more tangibly in the coming quarters. To the extent that companies try to hoard labor for fear of being in a structurally tighter labor market, this will only put further pressure on margins.

Exhibit 14.

Ratio of Selling Prices to Unit Labor Costs vs Pre-Tax Profit Margins

For All U.S. Domestic Corporate Business



*PULC = (Implicit Price Deflator/ Unit Labor Costs) * (Output / Hours Worked) or, PULC = (Mark-up) * (Productivity)

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, William Blair Equity Research

Conclusion

As the first-quarter earnings season gets underway, investors will be paying close attention to results with regard to the impact from the recent banking crisis, as well as to what they might be telling us about the cyclical outlook.

If the economy is heading toward a recession, as seems likely, a glance at the past behavior of corporate profits around these downturns relative to current EPS estimates suggests that there is likely to be further downside to earnings growth estimates in the coming months.

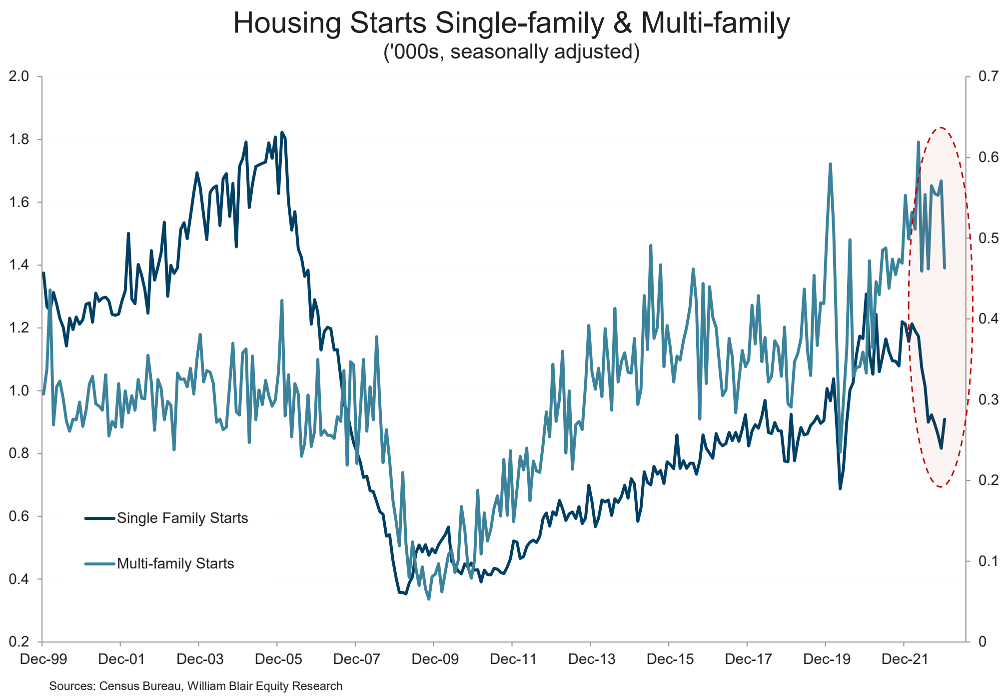
While there have been instances of price gouging in some areas as companies have taken advantage of price surges and have been slow to moderate their retail prices when wholesale prices have fallen—the food industry seemingly a prime example—selling prices overall only marginally outpaced ULC since the pandemic. In fact, the markup ratio is still much lower than the peak during the previous expansion. Lastly, with margins already under greater pressure from a slowing economy, companies will be further incentivized to lower headcount to prevent steeper declines.

Highlights in the Week Ahead

Date	Time (EDT)	Indicator	Last	Consensus	WB Estimate	Actual
18 Apr	8:30 a.m.	Housing Starts (Mar)	9.8%	-2.8%	-2.0%	
		Building Permits	13.8%	-6.1%	-5.0%	
19 Apr	2:00 p.m.	Fed's Beige Book				
20 Apr	10:00 a.m.	Leading Economic Indicators (Mar)	-0.3%	-0.4%	-0.4%	

Sources: Bloomberg, William Blair Equity Research

Indicator of the Week: Housing Starts



Economic Scorecard

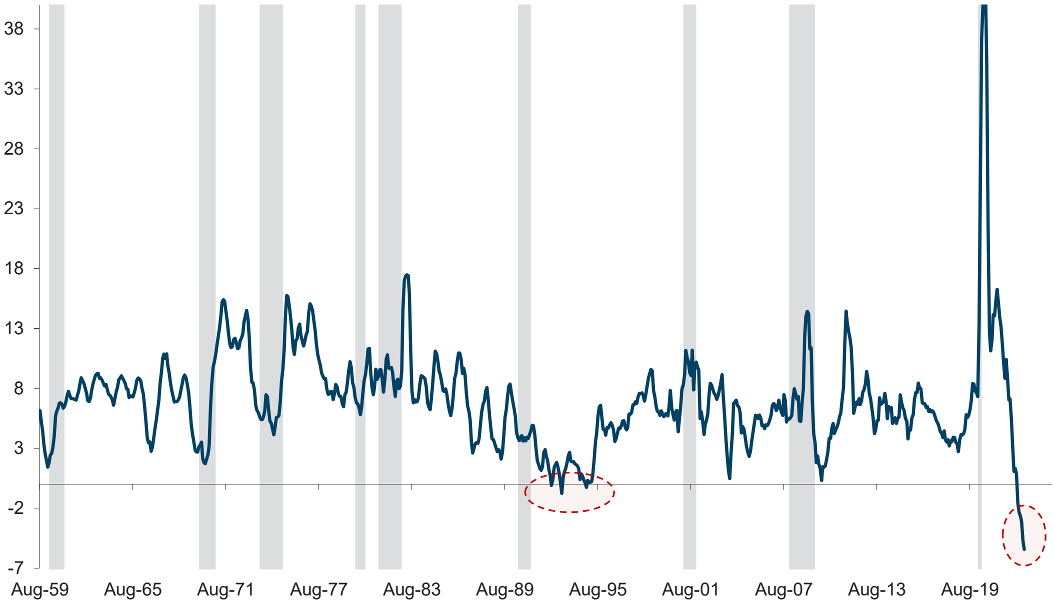
Rolling monthly heat map, % Change on Year Ago (unless otherwise noted)

	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23
Growth																			
US Leading Indicators	7.8	7.8	8.0	6.7	7.0	6.0	4.4	2.8	1.3	-0.3	-1.1	-1.6	-3.2	-4.6	-6.1	-5.9	-6.5		
US Coincident Indicators	3.1	3.5	3.1	3.0	4.1	2.6	2.6	2.4	1.8	2.0	2.2	2.4	2.0	1.4	1.7	1.5	1.4		
US Lagging Indicators	1.1	1.2	1.2	3.8	2.1	6.4	4.8	5.5	6.7	6.6	7.4	7.5	7.4	7.6	7.5	6.8	6.8		
Consumer																			
Total Retail Sales	16.4	18.8	17.7	13.6	17.7	7.1	7.8	8.7	8.8	10	9.7	8.4	8	5.9	6.2	7.7	5.4		
Personal Income	6	7.5	7.1	-2.4	5.6	-12.1	1.4	3.9	4.3	3.9	4.2	5.6	5.7	5.7	5.7	6.4	6.2		
Real Disposable Personal Income	-0.9	0.1	-0.3	-11.5	-3.4	-21.6	-7.4	-4.8	-4.7	-4.6	-4.1	-2.6	-2	-1.4	-0.8	3	3.3		
Real Personal Consumption	7.1	7.4	7	5.6	6.7	2.3	2.4	2.6	2.1	2.2	2.3	2.1	1.7	1.4	1.9	2.7	2.5		
Personal Saving Rate (%)	7.3	7.1	7.5	4.7	4.5	3.8	3.6	3.4	2.7	3.5	3.2	3	3.4	4.1	4.4	4.4	4.6		
Consumer Confidence (Conference Board)**	111.6	111.9	115.2	111.1	105.7	107.6	108.6	103.2	98.4	95.3	103.6	107.8	102.2	101.4	109	106	103.4	104.2	
Employment																			
Employment Growth	4.3	4.5	5.1	5.0	5.2	4.9	4.9	4.8	4.5	4.4	4.2	4.0	3.7	3.4	3.2	3.3	2.9	2.7	
ASA Temporary Staffing Index	24.0	20.3	16.7	17.6	17.9	13.9	11.6	11.2	9.2	9.3	9.3	5.4	1.1	0.2	1.0	-2.1	-6.1	-6.5	
ISM Employment Index Manufacturing*	52	53.7	53.4	53.8	52.7	55.3	51.2	50.2	48.1	49.8	54.2	49.3	49.9	48.9	50.8	50.6	49.1	46.9	
ISM Employment Index Services*	52.9	56.1	54.4	52.2	49	53.5	49.7	50.3	48.7	49.5	50.2	52.3	49.2	50.6	49.4	50	54	51.3	
Unemployment Rate, %	4.5	4.2	3.9	4	3.8	3.6	3.6	3.6	3.6	3.5	3.7	3.5	3.7	3.6	3.5	3.4	3.6	3.5	
Average Hourly Earnings	5.4	5.4	5	5.7	5.3	5.9	5.8	5.5	5.4	5.4	5.4	5.1	4.9	5	4.8	4.4	4.6	4.2	
Initial Jobless Claims (avg. wkly. chg. '000s)	278	240	218	240	222	218	216	212	217	216	210	191	202	213	209	200	219	238	
Jop Openings	66.7	63.4	72.5	60.1	49.5	43.2	26.6	16.3	8.9	4.6	-7.0	-0.3	-7.9	-4.3	-5.0	-8.0	-14.4	-17.4	
Layoff Announcements	-71.7	-77	-75.3	-76	-55.9	-30.1	6	-15.8	58.8	36.3	30.3	67.6	48.3	416.5	129.1	440	410.1	319.4	
Housing Market																			
Housing Starts	2.2	10.7	7.1	4	24.3	0.3	19.9	-2.7	-5.3	-12.5	-4.3	-6	-8.8	-16.8	-23.8	-20.7	-18.4		
New Home Sales	-33	-11.2	-3.7	-8.8	2.9	-19.8	-23.5	-14.1	-20	-25.2	-5.8	-24.9	-12.2	-23	-25.9	-23.8	-19		
Existing Home Sales	-5.8	-1.7	-6.1	-3.4	-4.1	-5.5	-6.5	-8.9	-14.8	-19.9	-20.2	-24.0	-28.2	-35.2	-34.0	-36.9	-22.6		
Median House Price (Existing Homes)	23.2	22.7	12.2	15.4	18.1	21.2	21.7	15.4	15.5	17.8	8.9	15.6	16.3	7.4	14.6	-0.9	2.5		
Existing Homes Inventory (Mths' supply)	2.4	2.2	2	1.9	1.9	2.1	2.2	2.4	2.7	2.9	3	3	3.2	3.4	3.5	3.4	2.9		
New Homes Inventory (Mths' supply)	6.9	6.2	5.6	5.7	6	7	8.4	8.3	9.4	10.1	8.5	10.1	9.5	9.4	8.7	8.3	8.2		
NAHB Homebuilder Sentiment*	80	83	84	83	81	79	77	69	67	55	49	46	38	33	31	35	42	44	
Inflation																			
Consumer Price Index	6.2	6.8	7	7.5	7.9	8.5	8.3	8.6	9.1	8.5	8.3	8.2	7.7	7.1	6.5	6.4	6	5	
CPI Less-food & energy	4.6	4.9	5.5	6	6.4	6.5	6.2	6	5.9	5.9	6.3	6.6	6.3	6	5.7	5.6	5.5	5.6	
Producer Price Index	8.9	9.9	10	10.1	10.4	11.7	11.2	11.1	11.2	9.7	8.7	8.5	8.2	7.4	6.6	5.9	4.9	2.7	
PPI Less-food & energy	7	8	8.7	8.6	8.9	9.7	9	8.6	8.3	7.6	7.2	7.2	6.9	6.3	5.9	5.2	4.8	3.4	
PCE Price Index	5.2	5.9	6	6.1	6.4	6.8	6.4	6.5	7	6.4	6.3	6.3	6.1	5.7	5.3	5.3	5	5	
PCE Prices Less-food & energy	4.3	4.8	5.0	5.2	5.4	5.4	5.0	4.9	5.0	4.7	4.9	5.2	5.1	4.8	4.6	4.7	4.6	4.6	
Business Activity - US																			
Industrial Production	3.6	4.2	2.8	1.8	5.7	3.7	3.8	3.0	2.5	3.0	3.1	4.5	3.1	1.8	0.7	1.0	0.3		
New Cap Gds Orders less-aircraft & parts	11.4	13.9	11.9	12	11.5	10.6	6.4	11.2	9.4	7.3	9.8	8	6.4	5.1	3.2	5.6	3		
Business Inventories	7.2	7.6	8.8	10.9	11.6	12.5	15.1	16.8	17.9	18.5	18.3	18.3	17.6	16.4	15	12.6	11.1		
ISM Manufacturing PMI*	60.4	60.8	58.6	57.6	58.4	57	55.9	56.1	53.1	52.7	52.9	51	50	49	48.4	47.4	47.7	46.3	
Markit US Manufacturing PMI*	58.4	58.3	57.7	55.5	57.3	58.8	59.2	57	52.7	52.2	51.5	52	50.4	47.7	46.2	46.9	47.3	49.2	
ISM Services Index*	66.6	67.6	61.7	60.4	57.2	58.4	57.5	56.4	56	56.4	56.1	55.9	54.5	55.5	49.2	55.2	55.1	51.2	
Markit US Services PMI*	58.7	58	57.6	51.2	56.5	58	55.6	53.4	52.7	47.3	43.7	49.3	47.8	46.2	44.7	46.8	50.6	52.6	
Business Activity - International																			
Germany Manufacturing PMI Markit/BME*	57.8	57.4	57.4	59.8	58.4	56.9	54.6	54.8	52	49.3	49.1	47.8	45.1	46.2	47.1	47.3	46.3	44.7	
Japan Manufacturing PMI Jibun Bank*	53.2	54.5	54.3	55.4	52.7	54.1	53.5	53.3	52.7	52.1	51.5	50.8	50.7	49	48.9	48.9	47.7	49.2	
Caixin China Manufacturing PMI*	50.6	49.9	50.9	49.1	50.4	48.1	46	48.1	51.7	50.4	49.5	48.1	49.2	49.4	49	49.2	51.6	50	
China Manufacturing PMI*	49.2	50.1	50.3	50.1	50.2	49.5	47.4	49.6	50.2	49	49.4	50.1	49.2	48	47	50.1	52.6	51.9	
UK Manufacturing PMI Markit/CIPS*	57.8	58.1	57.9	57.3	58	55.2	55.8	54.6	52.8	52.1	47.3	48.4	46.2	46.5	45.3	47	49.3	47.9	
France Manufacturing PMI Markit*	53.6	55.9	55.6	55.5	57.2	54.7	55.7	54.6	51.4	49.5	50.6	47.7	47.2	48.3	49.2	50.5	47.4	47.3	
Currencies* **																			
Euro (EUR/USD)	-0.8	-4.9	-6.9	-7.4	-7.1	-5.7	-12.3	-12.2	-11.6	-13.9	-14.9	-15.4	-14.5	-8.2	-5.8	-3.3	-5.7	-2.1	
Renmimbi (USD/CNY)	-4.3	-3.3	-2.6	-1.0	-2.5	-3.2	2.1	4.7	3.8	4.4	6.7	10.4	14.0	11.4	8.5	6.2	9.9	8.4	
Yen (USD/Yen)	8.9	8.5	11.5	10.0	7.9	9.9	18.7	17.4	22.1	21.5	26.3	30.1	30.5	22.0	13.9	13.0	18.4	9.2	
Sterling (GBP/USD)	5.7	-0.2	-1.0	-1.9	-3.7	-4.7	-9.0	-11.3	-12.0	-12.5	-15.5	-17.1	-16.2	-9.3	-10.7	-8.4	-10.4	-6.1	
Canadian $ (USD/CAD)	-7.0	-1.7	-0.7	-0.5	-0.5	-0.5	4.6	4.8	3.8	2.6	4.1	9.1	10.0	5.0	7.3	4.7	7.7	8.1	
Mexican Peso (USD/MXN)	-2.9	6.3	3.1	0.3	-1.9	-2.8	0.9	-1.5	0.9	2.5	0.3	-2.4	-3.7	-10.2	-5.0	-8.7	-10.6	-9.2	
US Equities																			
S&P 500	40.8	26.1	26.9	21.6	14.8	14.0	-1.2	-1.7	-11.9	-6.0	-12.6	-16.8	-15.9	-10.7	-19.4	-9.7	-9.2	-9.3	
S&P 400 Midcap	47.0	24.9	23.2	12.6	6.6	3.2	-8.3	-7.8	-15.8	-7.1	-11.7	-16.6	-12.9	-4.8	-14.5	0.7	-2.3	-6.7	
S&P 600 Smallcap	57.0	29.8	25.3	9.3	2.9	-0.1	-9.7	-9.9	-18.0	-7.6	-13.4	-20.0	-13.1	-7.4	-17.4	-2.5	-5.1	-10.4	
Russell 2000	49.3	20.8	13.7	-2.2	-6.9	-6.8	-17.8	-17.8	-26.1	-15.3	-18.9	-24.5	-19.6	-14.2	-21.6	-4.8	-7.4	-12.9	

* Diffusion Index, **1985=100, ***Currencies - green/red = strengthening/weakening foreign currency vs dollar
Source: ISM, Federal Reserve, Census Bureau, Bureau of Labor Statistics, Conference Board, Bloomberg, William Blair

Other Economic Indicators

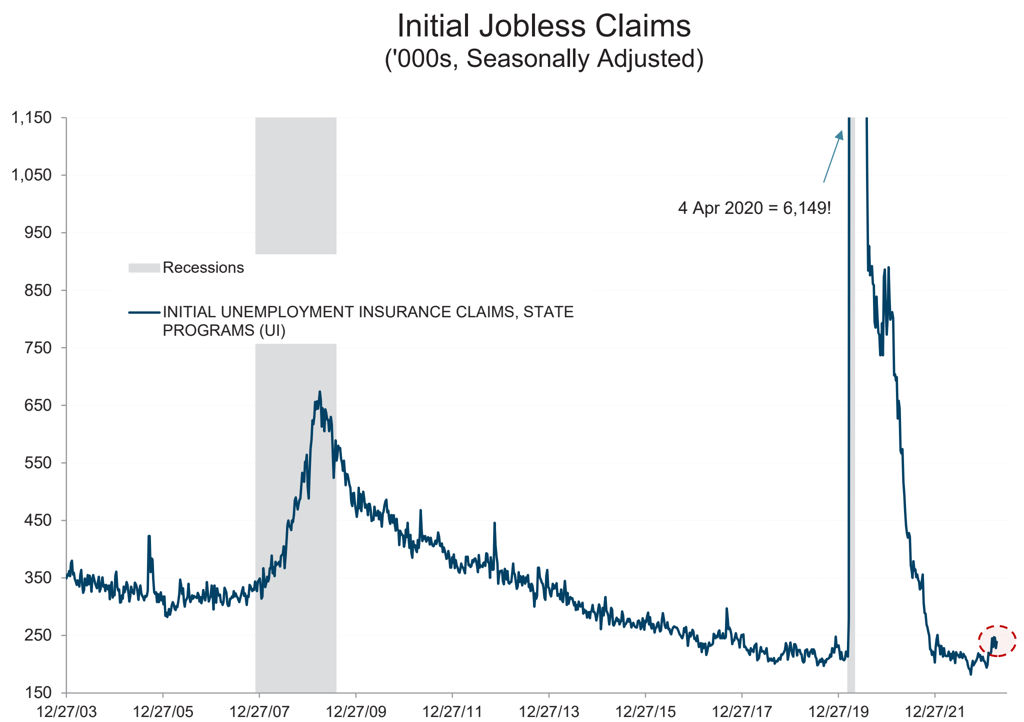
M2 Money Supply Growth
(% Change on 6 Months Ago, Annualized)



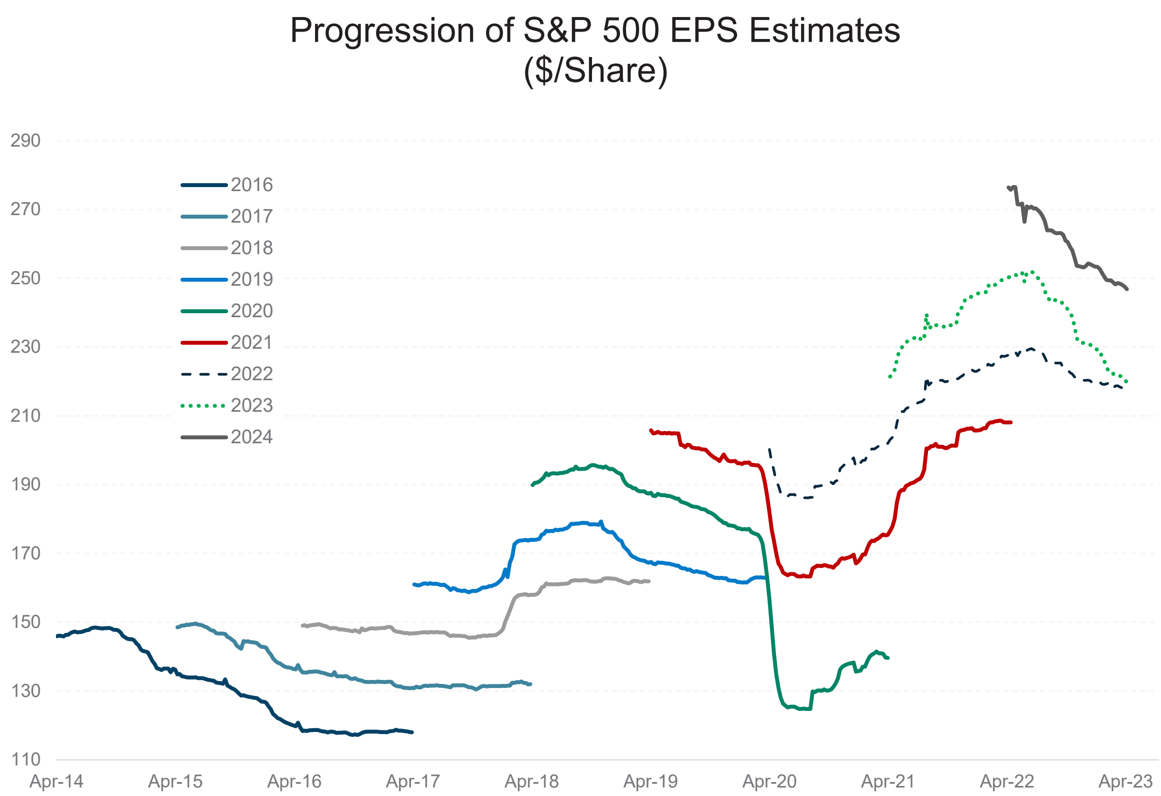
Sources: Federal Reserve, William Blair Equity Research

Goldman Sachs U.S. Financial Conditions Index

Sources: Bloomberg, William Blair Equity Research

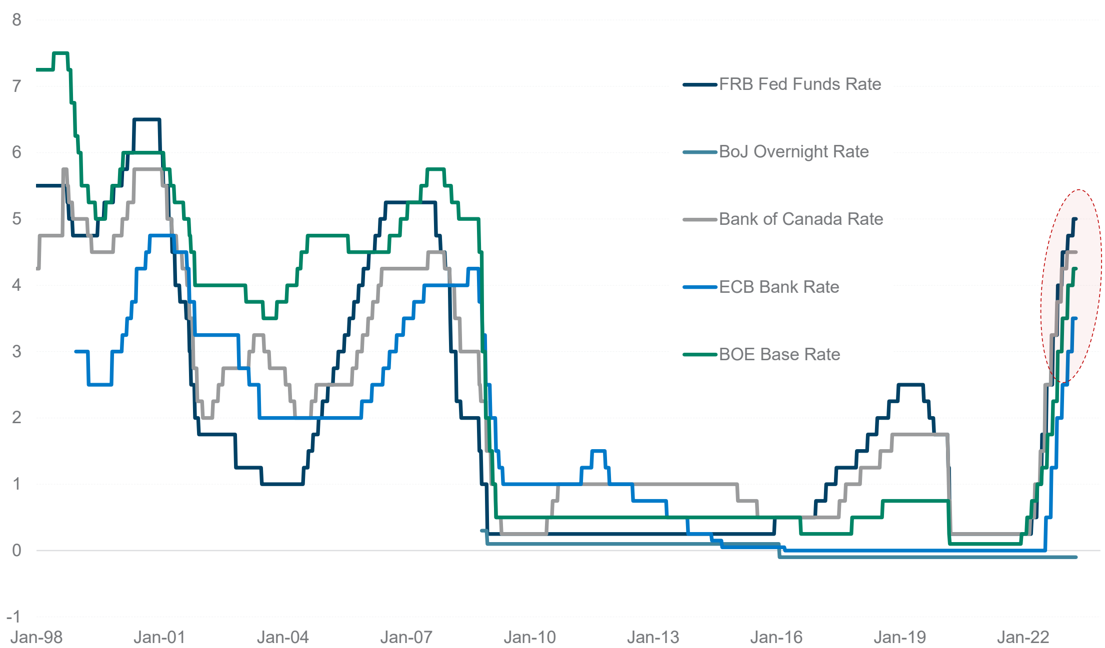


Source: Department of Labor, Bloomberg, William Blair Equity Research



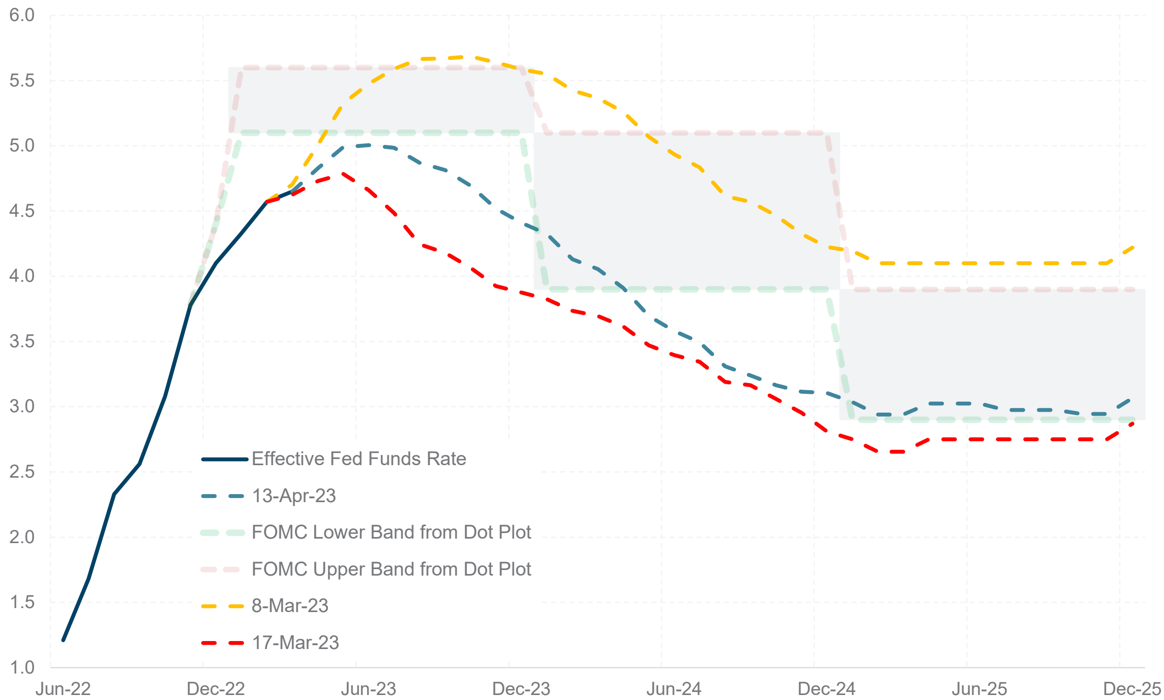
Sources: Refinitiv, William Blair Equity Research

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* 13-Apr-23	Week Ago 06-Apr-23	Month Ago 13-Mar-23	Qtr-to-Date 31-Mar-23	Year-to-Date 30-Dec-22
S&P 500 Index	**100.00**	**1.00**	**7.53**	**0.90**	**7.99**
S&P400 MidCap Index		**2.27**	**3.99**	**-0.38**	**2.97**
S&P600 SmallCap Index		**2.00**	**2.55**	**-0.77**	**1.33**
Dow Jones Industrials		**1.63**	**6.95**	**2.27**	**2.66**
Nasdaq Composite		**0.65**	**8.74**	**-0.46**	**16.24**
Communication Services	**8.56**	**0.29**	**14.87**	**2.63**	**23.34**
Advertising	0.09	1.97	11.98	0.89	14.98
Broadcasting	0.09	1.78	8.84	-0.54	19.02
Cable & Satellite	0.60	0.57	6.14	-0.36	6.68
Integrated Telecommunication Services	0.86	0.50	8.28	2.28	3.61
Interactive Home Entertainment	0.34	1.38	11.51	2.21	10.52
Interactive Media & Services	4.96	-0.01	18.95	3.76	34.48
Movies & Entertainment	1.08	0.66	11.48	-0.17	18.25
Publishing & Printing	0.03	2.02	12.93	2.04	-3.27
Wireless Telecommunication Svcs	0.51	0.50	7.61	3.82	7.41
Consumer Discretionary	**10.23**	**1.18**	**6.33**	**-1.81**	**13.67**
Apparel Retail	0.35	-1.33	3.73	-1.58	-5.21
Apparel & Accessories & Luxury Goods	0.06	4.28	4.51	-2.23	-1.75
Auto Parts & Equipment	0.11	3.36	-1.79	-4.53	15.41
Automobile Manufacturers	1.90	0.46	5.39	-9.34	40.72
Automobile Retail	0.34	3.56	7.97	5.40	4.66
Broadline Retail	3.02	0.28	1.87	-1.01	0.29
Casinos & Gaming	0.23	0.52	2.40	-2.48	22.24
Computer & Electronics Retail	0.04	-2.52	-3.40	-6.49	-8.75
Consumer Electronics	0.05	1.43	3.67	-1.45	7.76
Distributors	0.14	2.46	1.31	-1.41	1.65
Footwear	0.43	5.17	8.19	3.09	8.05
Home Furnishings	0.02	6.43	1.58	-1.67	-3.61
Home Improvement Retail	1.16	1.29	1.97	-0.50	-5.12
Homebuilding	0.25	2.14	4.88	0.00	16.20
Hotels, Resorts & Cruise Lines	0.65	1.29	4.23	-1.26	19.98
Household Appliances	0.02	5.45	1.97	1.80	-4.99
Housewares & Specialties	0.01	1.48	4.23	-0.97	-5.82
Leisure Products	0.02	1.37	10.53	-1.95	-13.72
Restaurants	1.25	2.12	8.96	2.53	9.75
Other Specialty Retail	0.17	0.82	2.47	-1.50	4.83
Consumer Staples	**7.87**	**0.33**	**6.09**	**1.24**	**1.40**
Agricultural Products	0.16	2.60	1.46	0.90	-15.62
Brewers	0.03	7.82	7.97	8.80	9.14
Hypermarkets	2.17	0.56	6.92	0.81	7.08
Distillers & Vintners	0.17	0.68	5.71	-0.36	-2.78
Drug Retail	0.09	0.00	6.58	3.47	-4.23
Food Distributors	0.11	-3.38	1.10	-3.33	-2.34
Food Retail	0.09	-3.03	0.43	-4.70	5.54
Household Products	1.42	-0.02	9.31	1.98	0.73
Packaged Foods & Meats	1.07	-0.21	7.53	1.46	2.83
Personal Products	0.16	4.24	7.04	2.05	1.37
Soft Drinks	1.76	0.20	5.67	1.12	0.81
Tobacco	0.65	0.89	0.27	1.95	-1.50
Energy	**4.71**	**2.28**	**8.53**	**5.38**	**-0.49**
Integrated Oil & Gas	2.37	1.48	8.62	5.43	1.30
Oil & Gas Equipment & Services	0.46	4.01	4.72	5.12	-5.20
Oil & Gas Exploration & Production	1.18	3.72	11.27	8.84	-4.36
Oil & Gas Refining & Marketing & Transportation	0.43	1.67	6.66	-1.35	6.59
Oil & Gas Storage & Transportation	0.35	1.72	5.32	3.08	-1.93
Financials	**12.52**	**1.78**	**2.98**	**1.12**	**-4.99**
Asset Management & Custody Banks	0.73	2.81	6.37	0.92	-1.79
Consumer Finance	0.54	2.28	2.83	-0.54	5.52
Diversified Banks	2.74	2.07	0.01	0.21	-6.68
Financial Exchanges & Data	1.14	0.53	6.25	-0.22	7.31
Insurance Brokers	0.66	1.11	10.03	3.32	4.73
Investment Banking & Brokerage	1.02	2.95	0.83	-0.77	-14.38

Life & Health Insurance	0.42	1.74	3.14	1.95	-13.54
Multi-line Insurance	0.18	1.05	4.10	1.81	-13.63
Multi-Sector Holdings	1.15	1.77	5.00	3.00	2.96
Property & Casualty Insurance	0.85	-1.13	1.95	0.49	-3.45
Regional Banks	0.33	1.65	-6.83	-0.92	-32.21
Reinsurance	0.04	0.17	4.78	1.31	9.49
Transaction & Payment Processing Services					
Health Care	**14.54**	**1.51**	**8.49**	**4.64**	**-0.30**
Biotechnology	2.28	0.65	8.17	2.74	1.30
Health Care Distributors	0.32	-0.49	10.61	3.61	0.12
Health Care Equipment	2.70	1.35	8.26	2.22	4.91
Health Care Facilities	0.23	1.71	11.44	4.13	11.34
Health Care Services	0.61	-1.42	-0.54	2.08	-17.00
Health Care Supplies	0.15	3.84	10.15	2.23	35.86
Life Sciences Tools & Services	1.84	3.26	7.07	2.22	3.52
Managed Health Care	2.03	2.85	12.09	10.64	-1.81
Pharmaceuticals	4.38	1.18	8.82	6.12	-3.35
Industrials	**8.48**	**2.21**	**1.89**	**-1.23**	**1.77**
Aerospace & Defense	1.82	1.82	4.08	2.40	0.99
Agricultural & Farm Machinery	0.32	4.08	-3.39	-6.82	-10.27
Air Freight & Logistics	0.62	1.21	6.76	-0.90	14.22
Building Products	0.40	3.54	-3.56	-4.04	0.72
Construction & Engineering	0.07	3.71	5.88	-0.96	15.82
Construction Machinery & Heavy Trucks	0.56	5.28	-1.03	-2.85	-3.80
Data Processing & Outsourced Services	3.12	3.80	9.85	-0.01	8.34
Diversified Support Svcs	0.23	2.41	9.47	0.56	11.52
Electrical Components & Equipment	0.51	2.59	-1.17	-4.61	-1.40
Environmental & Facilities Services	0.36	1.84	9.68	2.44	6.66
Human Resource & Employment Services	0.38	0.53	-3.33	-3.26	1.26
Industrial Conglomerates	0.81	2.43	3.22	0.81	4.64
Industrial Machinery	0.82	3.05	0.89	-3.55	4.41
Passenger Airlines	0.19	-1.03	-6.19	-4.29	1.40
Railroads	0.64	0.33	1.95	-0.93	-6.38
Research & Consulting Svcs	0.30	1.84	3.50	0.11	-1.76
Trading Companies & Distributors	0.25	2.38	-3.75	-4.89	10.66
Information Technology	**25.52**	**0.14**	**9.76**	**-1.01**	**20.26**
Application Software	2.23	0.58	10.63	-1.58	20.60
Communications Equipment	0.91	0.14	6.97	-1.94	10.41
Electronic Components	0.21	1.71	4.03	-2.77	5.41
Electronic Equipment & Instruments	0.21	2.15	5.82	-2.27	3.14
Electronic Manufacturing Services	0.11	1.65	1.60	-3.93	9.76
Internet Software & Services	0.10	3.19	15.00	4.02	2.72
IT Consulting & Services	1.07	0.41	7.71	-0.98	-0.37
Semiconductor Equipment	0.77	1.48	0.53	-5.60	7.82
Semiconductors	5.15	-0.52	8.93	-4.04	34.23
Systems Software	7.17	-0.38	14.14	0.86	20.82
Technology Distributors	0.07	2.00	0.42	-2.92	5.95
Technology Hardware, Storage & Peripherals	7.53	0.62	10.01	0.42	26.79
Materials	**2.60**	**2.31**	**5.60**	**1.02**	**4.81**
Commodity Chemicals	0.20	3.24	9.40	3.25	13.98
Construction Materials	0.12	2.87	3.25	-1.50	-0.19
Copper	0.17	6.60	14.20	4.99	13.03
Diversified Chemicals	0.03	3.03	4.63	-1.14	2.38
Fertilizers & Agricultural Chemicals	0.25	5.91	4.14	3.54	2.42
Gold	0.11	-1.97	13.08	4.08	8.10
Industrial Gases	0.67	1.68	6.58	1.43	5.76
Metal & Glass Containers	0.05	-1.64	-1.24	-6.06	1.23
Paper Packaging	0.20	0.79	5.48	0.50	-1.17
Specialty Chemicals	0.67	1.98	5.23	0.35	1.95
Steel	0.15	1.15	-7.05	-5.60	10.18
Real Estate	**2.48**	**0.24**	**1.61**	**-0.54**	**0.49**
Health Care REITs	0.18	2.95	3.25	1.91	2.82
Hotel & Resort REITs	0.03	1.37	3.36	-1.15	1.56
Industrial REITs	0.31	-0.67	3.00	-2.28	8.15
Office REITs	0.08	-3.55	-5.91	-4.72	-19.53
Real Estate Service	0.06	0.63	-6.13	-2.83	-8.07
Residential REITs	0.34	0.16	-0.03	0.18	1.28
Retail REITs	0.29	-1.14	-1.43	-2.72	-5.65
Specialized REITs	0.13	1.65	5.84	0.64	4.29

Utilities	**2.85**	**-0.23**	**7.17**	**2.88**	**-1.27**
Electric Utilities	1.87	-0.31	6.92	2.76	-1.78
Gas Utilities	0.05	-0.94	3.45	1.76	2.02
Independent Power Producers & Energy Traders	0.05	4.67	11.53	6.07	-11.20
Water Utilities	0.08	0.08	11.46	3.76	-0.28
Multi-Utilities	0.81	-0.32	7.32	2.94	0.30

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

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DOW JONES: 33646.50
S&P 500: 4146.22
NASDAQ: 12166.30

Additional information is available upon request.

Current Rating Distribution (as of April 13, 2023):

Coverage Universe	**Percent**	**Inv. Banking Relationships ***	**Percent**
Outperform (Buy)	74	Outperform (Buy)	7
Market Perform (Hold)	26	Market Perform (Hold)	4
Underperform (Sell)	1	Underperform (Sell)	0

*Percentage of companies in each rating category that are investment banking clients, defined as companies for which William Blair has received compensation for investment banking services within the past 12 months.

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