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## Economics Weekly

### What Will Drive Interest Rates Over the Next 75 Years?

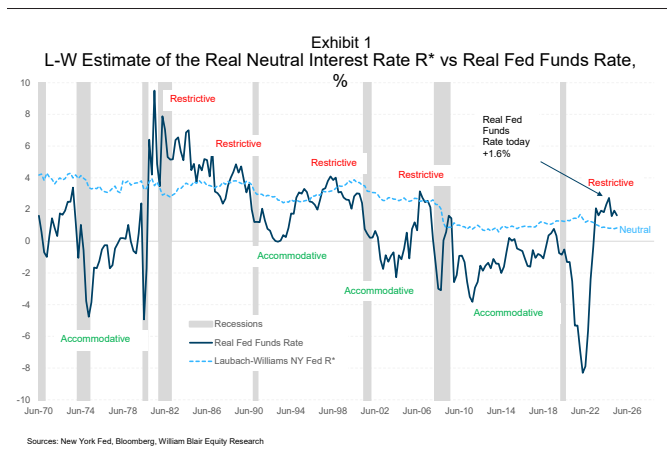


To most of us in the financial markets, the focus of the Kansas City Fed's Annual Jackson Hole Symposium is always on the discourse led by the current Fed Chair. For the initial symposium, those at the Kansas City Fed were canny enough to host it in Jackson Hole to entice the fly-fishing enthusiast Fed Chair Volcker to attend. In subsequent years, Chairs Greenspan, Bernanke, Yellen, and Powell (and even other central bank governors such as Mario Draghi) have all used it as a platform for major policy announcements. This year's symposium was no different; it was used by Chair Powell to likely seal the coffin of the Fed's previous framework shift to the ill-fated "flexible average inflation target" (announced at Jackson Hole in 2020)—and to signal the Fed's intention to lower rates at the upcoming September FOMC meeting.

Often less remarked upon in the financial media are the other papers released during the symposium and the discussions around them. Many of these papers are extremely interesting and offer a big-picture view of the macro landscape, with corresponding implications for the economy and financial markets. **In this *Economics Weekly*, we run through one such paper presented this year that offers a look back and a look forward at the real neutral rate of interest (r-star).** With the rather edgy title, [The Race Between Asset Supply and Asset Demand](#), this paper looks at what drove r-star—the most important interest rate across the domestic economy and abroad—over the last 75 years and projects what the coming 75 years may bring in light of expectations for demographics, fiscal constraints, and productivity growth.

## Where Are We and How Did We Get Here?

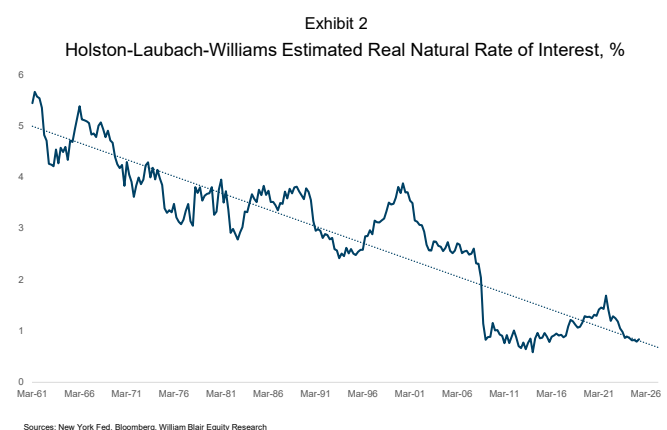
The paper's authors present r-star as the unobserved real short-term neutral rate of interest—i.e., the rate above which the current central bank rate will be deemed restrictive and below which will be stimulative (as estimated in exhibit 1). This is the equilibrium clearing price for the demand for assets against the supply of assets.



The *supply* of assets here is defined as the value of government debt, physical capital, and the value of corporate profits and rent. Asset *demand* is viewed as how many of these assets households and foreigners are willing to hold.

Quite simply, if the demand is greater than the available supply, interest rates fall (prices rise); and if the supply is greater than the current demand, then yields have to increase to encourage buyers to purchase those assets. The authors view the interest rate as being a race between supply and demand, with the winner determining the direction of travel on rates.

In the paper, they quantitatively show that the steady decline in interest rates over the last 75 years—all the way to the zero lower bound—has meant that demand has been definitively winning the race against supply (exhibit 2 shows the Holston-Laubach-Williams estimate of r-star from the New York Fed). This race resulted in the structural decline in interest rates, which has been a tremendous tailwind for financial markets and the global economy.



Driving this increasing demand for assets have been income inequality and an aging population. As populations age, they amass more wealth and, in turn, the demand for assets increases. Asset supply increases have been due to increased government debt issuance in combination with increased supply and valuation for private-sector wealth.

The authors are surprisingly precise in their estimate of just how much demand has increased relative to supply. They estimate that demand since 1950 has increased by 415% of GDP.

This means that at unchanged interest rates, U.S. households and foreigners would have been willing to hold 415% more assets relative to GDP. Conversely, the authors estimate that asset supply has only increased by 31%, hence the steady downward trend in interest rates.

## How Might This Look Over the Next 75 Years?

The authors admit that many of the forces that will impact future demand are unclear, but one trend that will almost certainly continue is an aging population.

They note that even if the fertility rate stabilizes, a growing share of the population will still continue to be over 65 years old in the coming decades. For context, the fertility rate has fallen from 3 children per woman in the 1950s to 1.6 today (2.1 children per woman would be needed for a stable population).

That's good news for bond issuers as it means that demand will similarly continue to increase. As discussed in the paper, the authors estimate that demand will rise by 200% of GDP between 2024 and 2100.

Taken in isolation, this would imply a continued decline in the real neutral rate of interest.

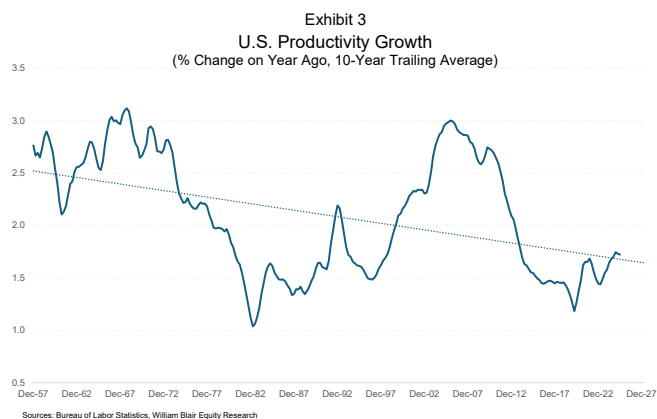
Unfortunately, we also have to look at the supply side here, and according to just about every forecaster of U.S. government debt going forward, as the share of the population over 65 years increases, so does the government expenditure—social security, healthcare costs, etc.—to support them.

They estimate that government debt to GDP will jump from 100% today to 250% by 2100, similar to what has played out in Japan over the last few decades. In addition, they estimate that the total supply of assets will rise by 100% over the same period.

Yet, like Japan, this may still not increase interest rates much, as demand is likely to continue winning the race against supply.

## What About the Coming AI-Driven Productivity Boom?

Interestingly, the authors chose not to forecast the potential future impact from productivity growth (exhibit 3).



This omission would seem to be significant for two reasons. The first is because the authors estimate that the continued weakness in productivity growth over the past 75 years has played a significant role in depressing interest rates. They estimate that productivity weakness knocked fully 118 basis points off the level of interest rates over this period, with 63 basis points from greater asset demand, as households look to save more because future income growth is lower, and 55 basis points due to lower asset supply, driven by weaker productivity and less profitable investments.

Second, we are likely at the forefront of an unfolding great leap forward in productivity growth on the back of AI. If that does prove to be the case, at least some, or all, of that productivity decline would be reversed, adding a not-insignificant possible 118 basis points back to the interest rate.

Would that then make the debt unsustainable? No, because it would also mean that  $r < g$ . In other words, the interest rate on government debt is not growing as quickly as the economic growth rate, which is being spurred by increased productivity growth, meaning the debt ratio remains stable (or possibly even declines).

However, the level of the neutral interest rate would increase, which in turn would result in higher interest rates across the interest rate spectrum. This might not be as harmful for domestic beneficiaries in the U.S. who could be reaping the rewards of the productivity revival, but it will have implications for those asset valuations based on discounted future cash flows. It could also be extremely damaging for those foreign economies that may not be participating in the productivity boom but that are still influenced by the U.S. *r-star* rate, which guides global interest rates.

## Conclusion

One of the discussion papers presented at this year's Jackson Hole Symposium looked at the race between the demand and supply of assets, and what that has meant for the resulting real equilibrium clearing price for those assets—the real neutral interest rate, or *r-star*.

The fact that interest rates have been falling for the last 75 years highlights that the demand for assets was winning the race against the available supply. The authors break down the contributors to that decline on both the demand and the supply sides. They then go on to forecast what those factors might look like over the next 75 years, up to 2100.

The authors believe that the continued aging of the population means demand will remain solid. However, the supply of assets—government debt in particular—is also likely to increase significantly, though not as fast as the demand. While the authors estimate a significant impact from weaker productivity over the last 75 years helped to pull down the level of interest rates by as much as 118 basis points, they do not forecast any impact from what is likely to be much higher productivity growth going forward.

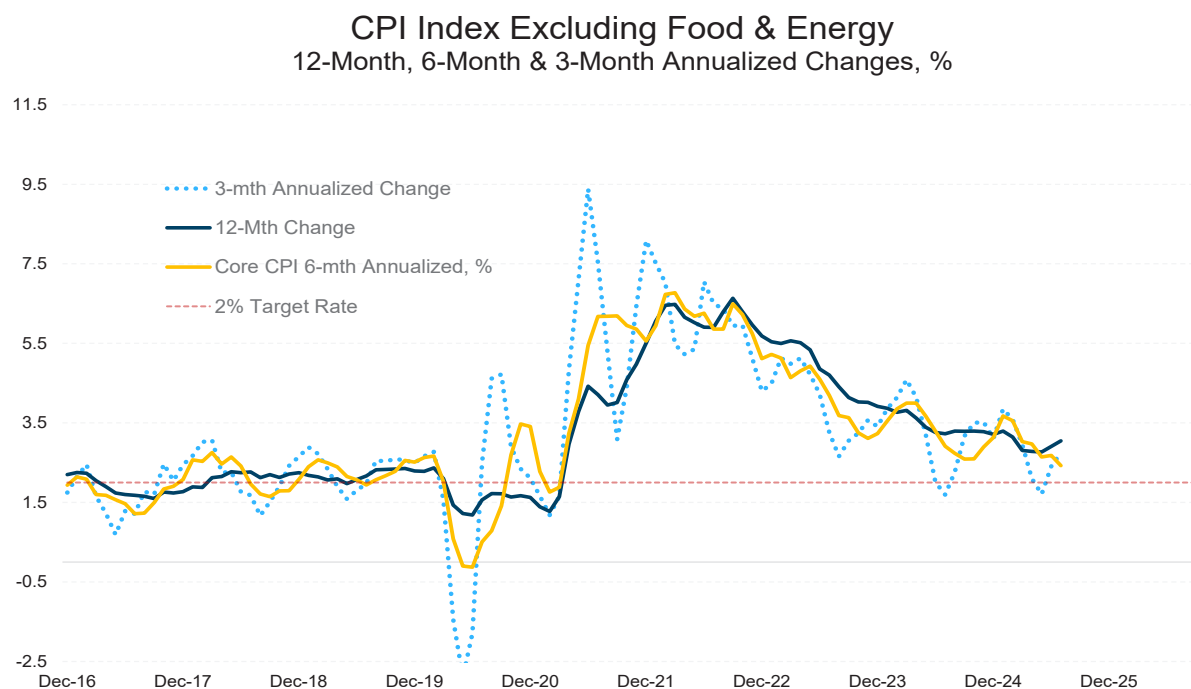
Stronger productivity growth should help raise the level of interest rates, but would not impact debt sustainability because the growth of the interest cost would still be less than the growth of the economy (supported by the surge in productivity). Nevertheless, the rise in the level of interest rates would have implications for asset pricing and growth of foreign economies that might not participate in, or directly benefit from, the U.S. productivity increases, yet would still be faced with higher interest rates given the role of the U.S. in setting the global level of interest rates.

## Highlights in the Week Ahead

Date	Time (ET)	Indicator	Last	Consensus	WB Estimate	Actual
9 Sep	7:00 a.m.	NFIB Small Business Index (August)	100.3	NA	NA	
9 Sep		Preliminary Benchmark Revisions to Nonfarm Payroll Survey Data				
10 Sep	8:30 a.m.	Producer Price Index (August)	0.9%	0.3%	0.2%	
		PPI Less-food & energy	0.9%	0.3%	0.2%	
11 Sep	8:30 a.m.	Consumer Price Index (August)	0.2%	0.3%	0.3%	
		CPI Less-food & energy	0.3%	0.3%	0.3%	

Sources: Bloomberg, William Blair Equity Research

## Indicator of the Week: Consumer Price Index



Sources: Bureau of Labor Statistics, William Blair Equity Research

## Economic Scorecard

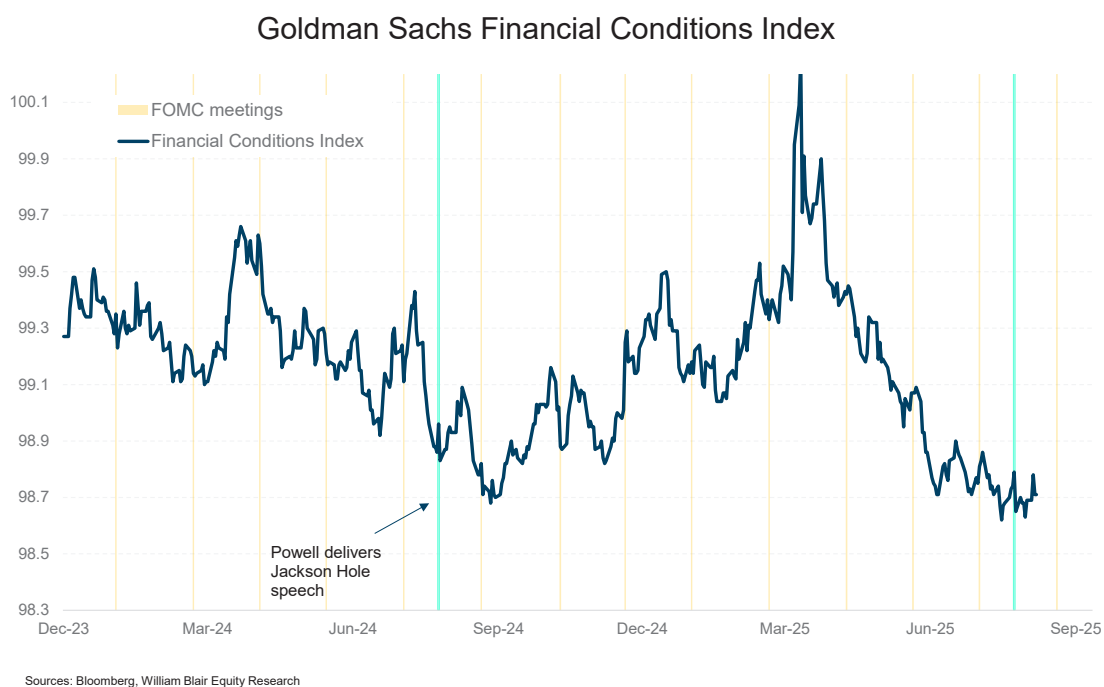
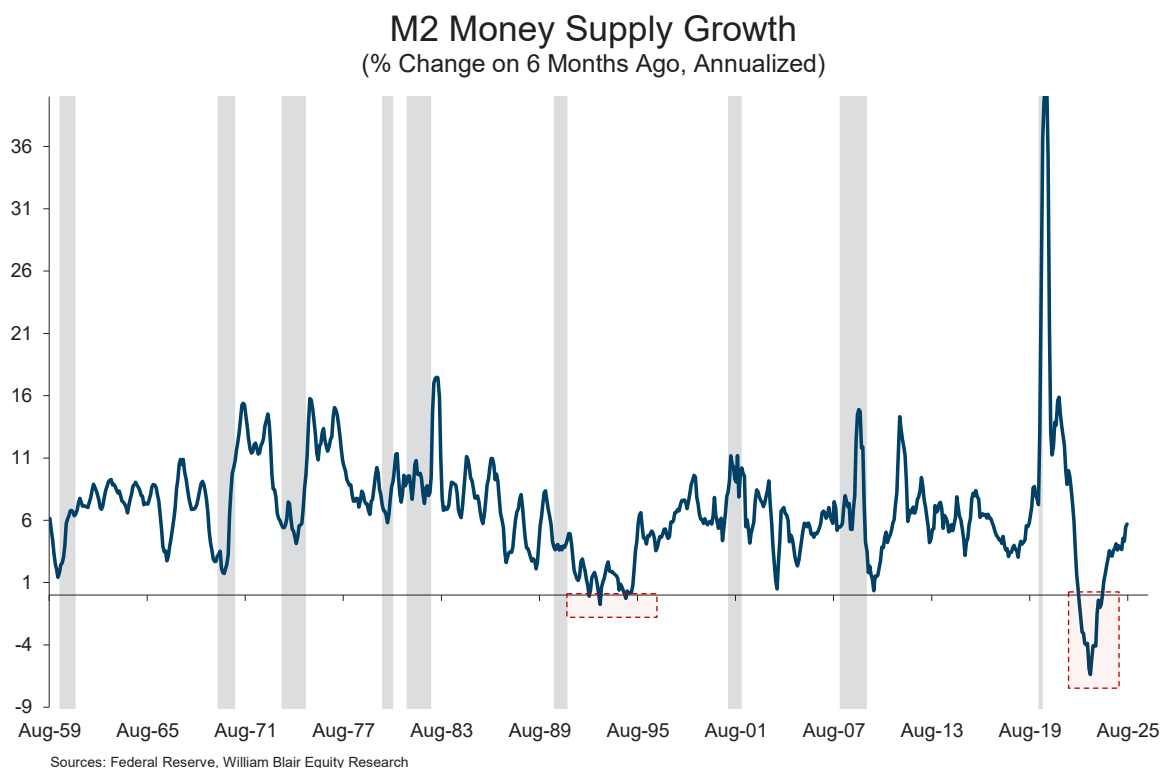
Rolling monthly heat map, % Change on Year Ago (unless otherwise noted)

	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25
<b>Growth</b>																			
US Leading Indicators	-5.5	-5.4	-5.0	-4.5	-4.7	-4.6	-4.3	-3.7	-3.0	-3.0	-2.7	-3.0	-3.6	-4.3	-3.9	-4.0	-3.6		
US Coincident Indicators	2.1	1.7	1.9	2.1	1.7	1.7	1.6	1.6	1.3	1.7	1.5	1.5	1.9	2.0	1.5	1.4	1.5		
US Lagging Indicators	1.2	1.4	1.2	1.1	1.0	0.8	0.3	0.1	0.0	0.1	-0.1	0.1	-0.1	0.0	0.8	0.7	0.8		
<b>Consumer</b>																			
Total Retail Sales	3.4	2.6	2.8	2.3	3	1.9	2	3.1	3.9	4.6	4.6	3.9	5.1	5	3.4	4.4	3.9		
Personal Income	5.9	5.7	5.5	5.4	5.3	5	4.8	5.2	5.1	5.2	4.3	4.6	4.7	5.3	4.6	4.7	5		
Real Disposable Personal Income	3.1	2.8	2.8	2.7	2.6	2.4	2.4	2.5	2.3	2.2	1.3	1.5	1.9	2.7	1.7	1.7	2		
Real Personal Consumption	2.7	2.4	2.8	2.9	2.9	2.9	3.2	3.1	3.1	3.1	2.9	2.5	2.8	2.9	2.2	2.2	2.1		
Personal Saving Rate (%)	5.2	5.1	4.9	4.8	4.3	4.2	3.8	4.1	3.9	3.5	4.2	4.4	4.4	5	4.5	4.4	4.4		
Consumer Confidence (Conference Board)**	103.1	97.5	101.3	97.8	101.9	105.6	99.2	109.6	112.8	109.5	105.3	100.1	93.9	85.7	98.4	95.2	98.7	97.4	
<b>Employment</b>																			
Employment Growth	1.5	1.5	1.4	1.3	1.3	1.2	1.3	1.2	1.3	1.3	1.3	1.2	1.1	1.1	1.0	1.0	1.0		
ASA Temporary Staffing Index	-8.2	-9.3	-10.2	-9.9	-12.5	-12.2	-12.0	-9.5	-6.6	-21.0	-8.2	-7.5	-8.7	-6.4	-5.8	-5.3	-0.8	-0.9	
ISM Employment Index Manufacturing*	47.5	48.2	50.4	48.4	43.6	45.8	44.6	44.8	48.1	45.4	50.3	47.6	44.7	46.5	46.8	45	43.4	43.8	
ISM Employment Index Services*	48.5	46.6	47.5	46.7	51	49.6	48.2	52.2	50.9	51.3	52.3	53.9	46.2	49	50.7	47.2	46.4	46.4	
Unemployment Rate, %	3.9	3.9	4	4.1	4.2	4.2	4.1	4.1	4.2	4.1	4	4.1	4.2	4.2	4.2	4.1	4.2		
Average Hourly Earnings	4.2	4	4.1	3.9	3.6	4	3.9	4.1	4.2	4	3.9	3.9	3.9	3.8	3.8	3.8	3.9		
Initial Jobless Claims (avg. wkly. chg. '000s)	216	210	222	237	237	230	225	236	219	222	218	227	223	226	235	241	221	229	
Jop Openings	-15.5	-23.7	-15.1	-19.4	-12.8	-17.6	-23.5	-10.9	-7.3	-12.5	-8.3	-11.4	-11.0	-2.9	-2.4	-0.7	-4.3		
Layoff Announcements	0.7	-3.3	-20.3	19.8	9.2	1	53.4	50.9	26.8	11.4	-39.5	103.2	204.8	62.7	47	-1.6	139.8		
<b>Housing Market</b>																			
Housing Starts	-4.7	2.3	-16.9	-6.6	-13.4	5.6	-1	-1.2	-14.5	-0.5	-1.7	-4	3.3	0.9	-2.6	2.3	12.9		
New Home Sales	6.3	8.1	-10	-0.4	1.1	7.4	5.3	-8.8	10.7	11.7	-2.8	-2.4	-4.6	-1.8	-5.3	-2.2	-8.2		
Existing Home Sales	-3.3	-2.6	-3.1	-5.1	-2.5	-3.7	-3.0	3.1	6.7	9.7	2.3	-0.9	-2.4	-2.0	-0.5	0.0	0.8		
Median House Price (Existing Homes)	-0.6	-0.5	-1.6	-0.9	-1.6	-8	-1.2	2.1	-7.4	1.1	-0.2	-1.4	-5.4	-0.4	2.1	-1.6	-5.9		
Existing Homes Inventory (Mths' supply)	3.5	3.5	3.5	3.8	3.7	3.9	4	3.9	3.8	3.7	3.9	3.8	4.2	4.3	4.3	4.4	4.3		
New Homes Inventory (Mths' supply)	8.1	7.7	8.5	8.4	7.9	8.2	7.9	9.3	8.7	8.2	9	9.3	9.2	8.5	9.6	9.2	9.2		
NAHB Homebuilder Sentiment*	51	51	45	43	41	39	41	43	46	46	47	42	39	40	34	32	33	32	
<b>Inflation</b>																			
Consumer Price Index	3.5	3.4	3.3	3	2.9	2.5	2.4	2.6	2.7	2.9	3	2.8	2.4	2.3	2.4	2.7	2.7		
CPI Less-food & energy	3.8	3.6	3.4	3.3	3.2	3.2	3.3	3.3	3.3	3.2	3.3	3.1	2.8	2.8	2.8	2.9	3.1		
Producer Price Index	2.0	2.3	2.5	2.9	2.4	2.1	2.1	2.8	2.9	3.5	3.8	3.4	3.2	2.4	2.7	2.4	3.3		
PPI Less-food & energy	2.3	2.5	2.7	3.3	2.6	2.8	3.3	3.6	3.4	3.7	3.9	3.7	3.8	3.1	3.2	2.6	3.7		
PCE Price Index	2.8	2.7	2.6	2.4	2.5	2.3	2.1	2.3	2.5	2.6	2.6	2.7	2.3	2.2	2.4	2.6	2.6		
PCE Prices Less-food & energy	3.0	2.9	2.7	2.6	2.7	2.7	2.7	2.8	2.8	2.9	2.7	2.9	2.7	2.6	2.7	2.8	2.9		
<b>Business Activity - US</b>																			
Industrial Production	-0.3	-0.8	0.0	0.9	-0.5	-0.1	-0.7	-0.4	-0.9	0.4	1.4	1.1	1.1	1.3	0.8	0.8	1.4		
New Cap Gds Orders less-aircraft & parts	-1.5	2.1	-2.8	-4	-0.6	-1.8	0.5	0.2	-1.1	1.9	3.3	-0.9	2.2	0.5	2.2	4.5	4.6		
Business Inventories	0.3	0.2	0.6	1.2	1.6	2.1	2.1	1.9	2.2	2.6	1.9	2.5	2.3	2.5	2.2	1.7	1.6		
ISM Manufacturing PMI*	49.8	48.8	48.5	48.3	47	47.5	47.5	46.9	48.4	49.2	50.9	50.3	49	48.7	48.5	49	48	48.7	
Markit US Manufacturing PMI*	51.9	50	51.3	51.6	49.6	47.9	47.3	48.5	49.7	49.4	51.2	52.7	50.2	50.2	52	52.9	49.8	53	
ISM Services Index*	51.3	49.6	53.5	49.2	51.4	51.6	54.5	55.8	52.5	54	52.8	53.5	50.8	51.6	49.9	50.8	50.1	50.1	
Markit US Services PMI*	51.7	51.3	54.8	55.3	55	55.7	55.2	55	56.1	56.8	52.9	51	54.4	50.8	53.7	52.9	55.7	55.4	
<b>Business Activity - International</b>																			
Germany Manufacturing PMI Markit/BME*	41.9	42.5	45.4	43.5	43.2	42.4	40.6	43	43	42.5	45	46.5	48.3	48.4	48.3	49	49.1	49.8	
Japan Manufacturing PMI Jibun Bank*	48.2	49.6	50.4	50	49.1	49.8	49.7	49.2	49	49.6	48.7	49	48.4	48.7	49.4	50.1	48.9	49.7	
Caixin China Manufacturing PMI*	51.1	51.4	51.7	51.8	49.8	50.4	49.3	50.3	51.5	50.5	50.1	50.8	51.2	50.4	48.3	50.4	49.5	50.5	
China Manufacturing PMI*	50.8	50.4	49.5	49.5	49.4	49.1	49.8	50.1	50.3	50.1	49.1	50.2	50.5	49	49.5	49.7	49.3	49.4	
UK Manufacturing PMI Markit/CIPS*	50.3	49.1	51.2	50.9	52.1	52.5	51.5	49.9	48	47	48.3	46.9	44.9	45.4	46.4	47.7	48	47	
France Manufacturing PMI Markit*	46.2	45.3	46.4	45.4	44	43.9	44.6	44.5	43.1	41.9	45	45.8	48.5	48.7	49.8	48.1	48.2	50.4	
<b>Currencies***</b>																			
Euro (EUR/USD)	-0.5	-3.2	1.5	-1.8	-1.6	1.9	5.3	2.9	-2.9	-6.2	-4.2	-4.0	0.2	6.2	4.6	10.0	5.4	5.8	
Renminbi (USD/CNY)	5.1	4.7	1.9	0.2	1.2	-2.3	-3.8	-2.7	1.6	2.8	1.1	1.2	0.5	0.4	-0.6	-1.4	-0.4	0.6	
Yen (USD/Yen)	13.9	15.8	12.9	11.5	5.4	0.4	-3.8	0.2	1.1	11.5	5.6	0.4	-0.9	-9.3	-8.4	-10.5	0.5	0.6	
Sterling (GBP/USD)	2.3	-0.6	2.4	-0.5	0.2	3.6	9.6	6.1	0.9	-1.7	-2.3	-0.4	2.3	6.7	5.6	8.6	2.7	2.9	
Canadian \$ (USD/CAD)	0.2	1.7	0.4	3.3	4.7	-0.1	-0.4	0.4	3.3	8.6	8.2	6.5	6.3	0.2	0.8	-0.5	0.3	1.8	
Mexican Peso (USD/MXN)	-8.2	-4.8	-3.8	7.0	11.2	15.8	13.0	11.0	17.2	22.7	20.1	20.5	23.6	14.4	14.3	2.3	1.4	-5.4	
<b>US Equities</b>																			
S&P 500	27.9	20.8	26.3	22.7	20.3	25.3	34.4	36.0	32.1	23.3	24.7	16.8	6.8	10.6	12.0	13.6	14.8	14.4	
S&P 400 Midcap	21.3	14.9	23.9	11.7	13.5	16.9	24.8	30.9	31.3	12.2	18.6	7.1	-4.2	-0.3	0.6	5.9	1.7	5.3	
S&P 600 Smallcap	13.8	10.4	18.1	6.6	12.0	15.1	23.5	27.6	30.9	6.8	14.5	4.5	-5.0	-3.6	-3.4	2.8	-6.3	1.8	
Russell 2000	17.9	11.6	18.3	8.4	12.5	16.7	24.9	32.1	34.6	10.0	17.5	5.3	-5.3	-0.5	-0.2	6.2	-1.9	6.7	

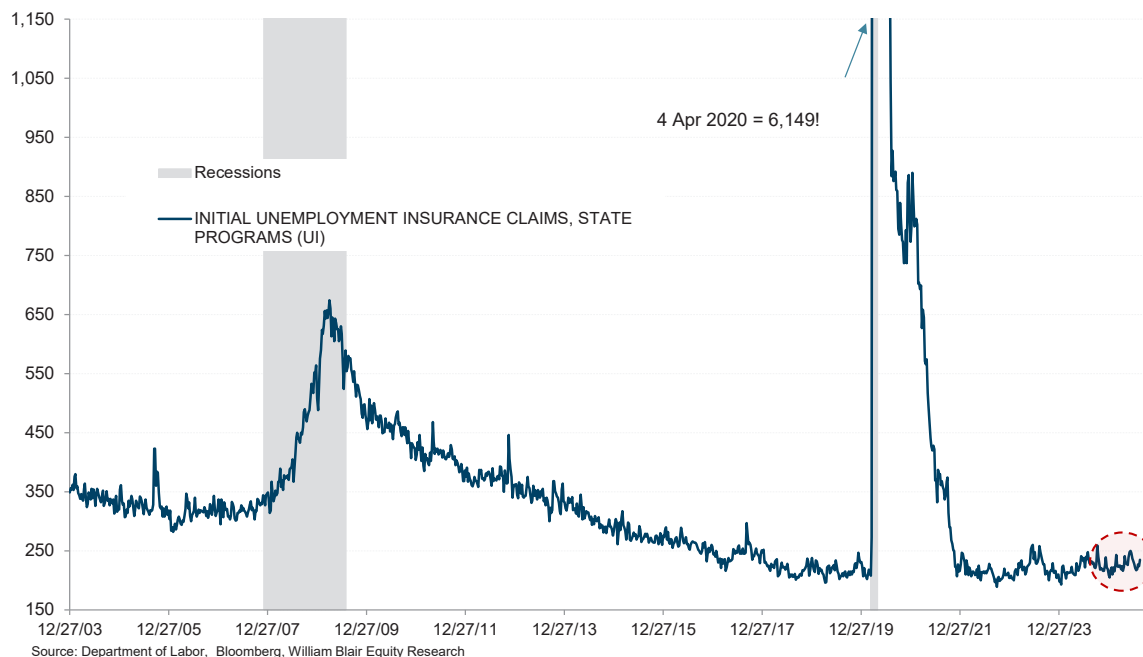
\* Diffusion Index, \*\*1985=100, \*\*\*Currencies - green/red = strengthening/weakening foreign currency vs dollar

Source: ISM, Federal Reserve, Census Bureau, Bureau of Labor Statistics, Conference Board, Bloomberg, William Blair

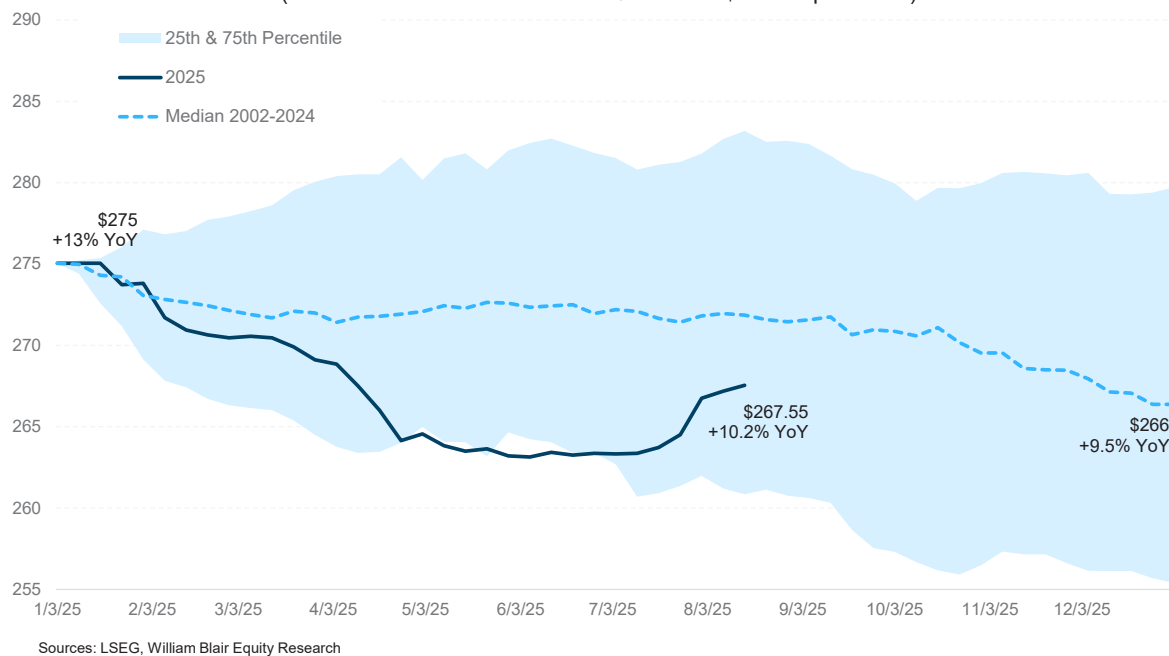
## Other Economic Indicators



### Initial Jobless Claims (‘000s, Seasonally Adjusted)

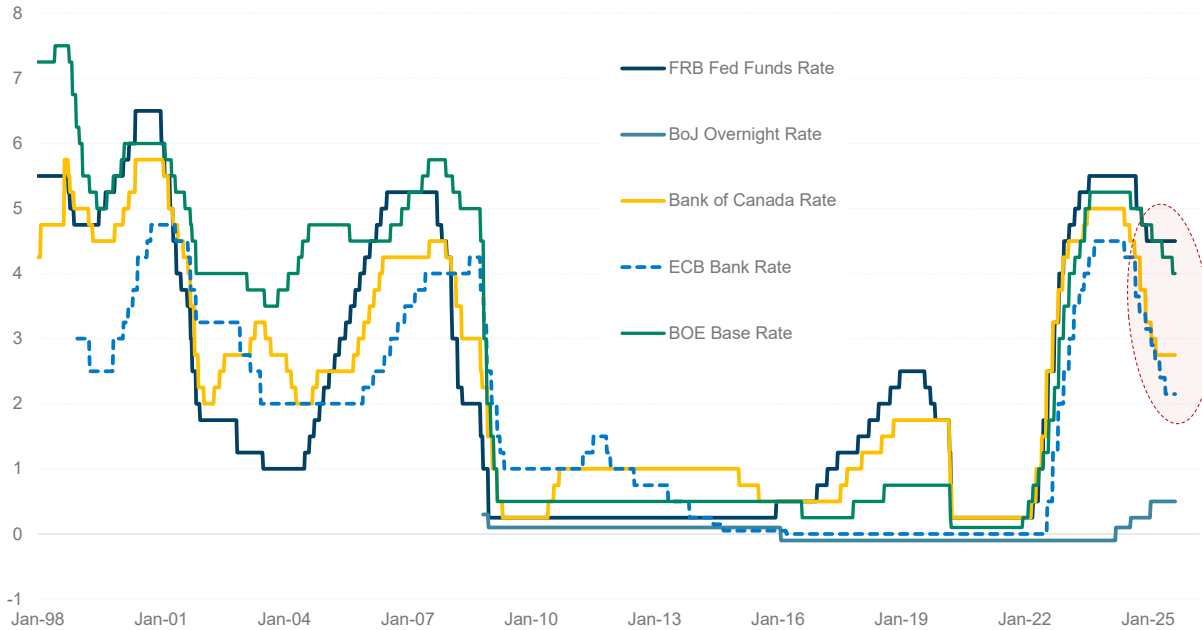


### Progression of S&P 500 2025 EPS Estimates, 2025 vs Median 2002-2024 (Rebased to Estimate at End of Q4 2024 of \$275.05 per share)

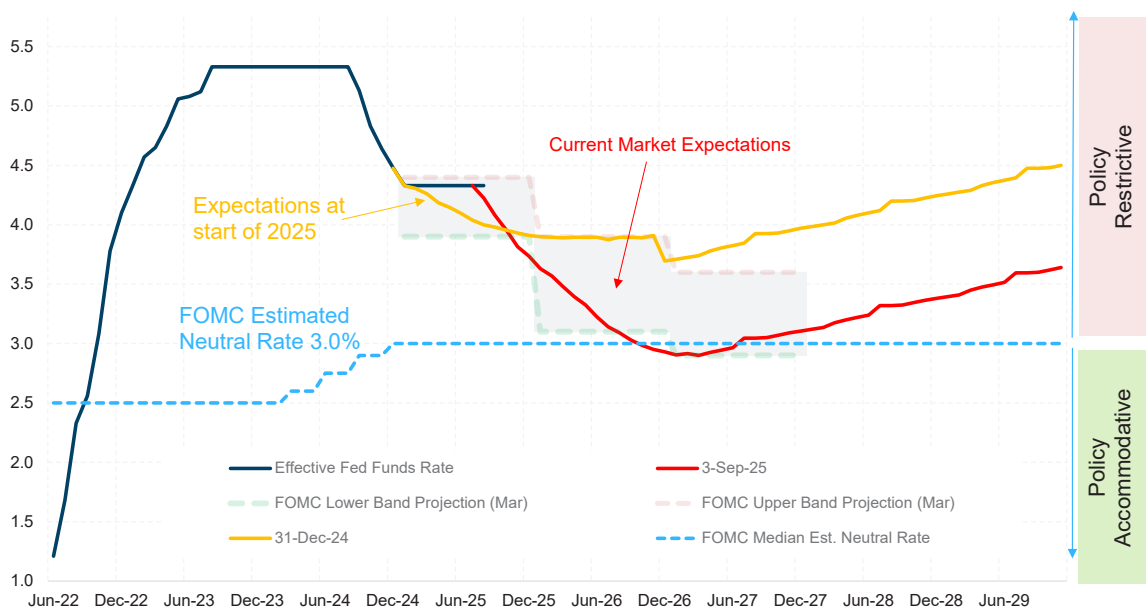




## Central Bank Target Short-Term Interest Rates, %



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



## S&P 500 Sector Performance

Global Industry Classification System	Current Weight* 04-Sep-25	Week Ago 28-Aug-25	Month Ago 04-Aug-25	Qtr-to-Date 30-Jun-25	Year-to-Date 31-Dec-24
<b>S&amp;P 500 Index</b>	<b>100.00</b>	<b>0.00</b>	<b>2.72</b>	<b>4.79</b>	<b>10.55</b>
<b>S&amp;P 400 MidCap Index</b>		<b>0.27</b>	<b>4.39</b>	<b>5.72</b>	<b>5.11</b>
<b>S&amp;P 600 SmallCap Index</b>		<b>0.14</b>	<b>7.54</b>	<b>8.38</b>	<b>2.65</b>
<b>Dow Jones Industrials</b>		<b>-0.03</b>	<b>3.28</b>	<b>3.46</b>	<b>7.23</b>
<b>Nasdaq Composite</b>		<b>0.01</b>	<b>3.11</b>	<b>6.57</b>	<b>12.41</b>
<b>Communication Services</b>	<b>10.39</b>	<b>4.16</b>	<b>7.26</b>	<b>10.72</b>	<b>22.48</b>
Advertising	0.08	-2.67	-23.43	-19.32	-31.38
Broadcasting	0.07	1.80	8.07	7.65	25.83
Cable & Satellite	0.27	0.68	3.39	-12.06	-12.35
Integrated Telecommunication Services	0.68	1.44	4.96	2.16	20.05
Interactive Home Entertainment	0.15	0.38	5.84	1.97	22.00
Interactive Media & Services	7.22	5.44	8.83	17.60	24.54
Movies & Entertainment	1.41	1.49	4.76	-4.80	28.41
Publishing & Printing	0.03	-1.11	-0.86	-1.90	7.03
Wireless Telecommunication Svcs	0.48	0.62	4.61	5.82	14.22
<b>Consumer Discretionary</b>	<b>10.83</b>	<b>0.55</b>	<b>8.30</b>	<b>7.88</b>	<b>3.32</b>
Apparel Retail	0.35	2.77	8.77	15.50	12.50
Apparel & Accessories & Luxury Goods	0.10	3.04	0.80	3.82	-11.32
Auto Parts & Equipment	0.03	0.19	24.04	17.93	27.53
Automobile Manufacturers	2.03	-1.99	9.38	7.17	-13.83
Automobile Retail	0.29	0.78	5.29	13.73	27.15
Broadline Retail	4.34	1.73	11.12	7.71	8.03
Casinos & Gaming	0.11	-4.63	6.80	18.06	8.89
Computer & Electronics Retail	0.03	6.04	16.35	14.78	-10.20
Consumer Electronics	0.08	-1.41	5.38	13.87	15.22
Distributors	0.07	0.79	6.21	6.60	3.35
Footwear	0.18	-1.96	3.34	8.30	-10.27
Home Furnishings	0.01	2.22	13.51	29.17	13.67
Home Improvement Retail	0.95	1.48	9.40	14.06	6.19
Homebuilding	0.23	4.31	13.84	27.88	17.97
Hotels, Resorts & Cruise Lines	0.93	-1.16	4.85	3.13	14.31
Leisure Products	0.02	-1.47	4.57	8.91	43.80
Restaurants	0.95	0.33	0.06	-1.50	3.23
Other Specialty Retail	0.09	-1.96	2.30	14.17	17.31
<b>Consumer Staples</b>	<b>5.62</b>	<b>0.82</b>	<b>0.68</b>	<b>-0.92</b>	<b>4.12</b>
Agricultural Products	0.08	-1.97	10.05	12.49	17.14
Brewers	0.02	-0.62	2.67	3.78	-12.93
Distillers & Vintners	0.06	-7.30	-12.71	-7.84	-32.59
Drug Retail	0.02	0.00	2.74	4.36	28.40
Food Distributors	0.07	3.67	3.83	8.94	7.91
Food Retail	0.08	0.56	-5.24	-5.42	10.94
Household Products	0.89	2.00	3.91	-1.09	-5.99
Packaged Foods & Meats	0.47	0.49	-1.34	-2.66	-6.77
Personal Care Products	0.10	-1.66	-6.74	1.37	2.35
Soft Drinks	1.01	0.07	0.73	1.12	3.71
Tobacco	0.62	-1.87	1.39	-5.04	31.75
<b>Energy</b>	<b>2.87</b>	<b>-0.96</b>	<b>3.67</b>	<b>4.24</b>	<b>3.25</b>
Integrated Oil & Gas	1.44	-0.95	4.74	6.47	5.48
Oil & Gas Equipment & Services	0.20	-0.08	7.13	12.27	-1.93
Oil & Gas Exploration & Production	0.60	-1.89	2.56	2.09	-0.59
Oil & Gas Refining & Marketing & Transportation	0.26	0.46	9.68	10.95	23.21
Oil & Gas Storage & Transportation	0.36	-1.03	-4.37	-7.98	-7.14

<b>Financials</b>	<b>13.15</b>	<b>0.33</b>	<b>4.04</b>	<b>2.94</b>	<b>11.58</b>
Asset Management & Custody Banks	1.10	-1.20	0.03	7.89	6.22
Consumer Finance	0.69	0.45	9.37	5.62	18.51
Diversified Banks	3.16	0.56	5.78	6.25	21.33
Diversified Financial Services	7.82	0.02	3.04	2.39	9.84
Financial Exchanges & Data	1.13	-1.11	-5.05	-2.68	10.25
Insurance Brokers	0.55	0.50	3.91	-2.94	1.17
Investment Banking & Brokerage	1.20	0.27	3.54	6.89	26.50
Life & Health Insurance	0.31	1.26	8.20	2.82	1.42
Multi-Sector Holdings	1.19	1.41	10.41	4.35	11.83
Property & Casualty Insurance	1.01	1.63	4.23	-1.13	6.74
Regional Banks	0.28	0.54	8.76	9.93	11.12
Reinsurance	0.02	1.58	5.90	1.59	-4.75
Transaction & Payment Processing	2.38	-0.02	2.41	-1.07	3.42
<b>Health Care</b>	<b>8.77</b>	<b>0.75</b>	<b>3.21</b>	<b>1.65</b>	<b>-0.39</b>
Biotechnology	1.49	0.87	-0.53	5.70	9.61
Health Care Distributors	0.32	0.89	-2.74	-5.98	23.31
Health Care Equipment	2.00	0.18	1.19	-1.14	8.04
Health Care Facilities	0.18	1.24	13.25	6.77	31.65
Health Care Services	0.39	1.54	13.84	-0.14	28.84
Health Care Supplies	0.06	0.61	-2.90	-12.75	-21.34
Life Sciences Tools & Services	0.82	-0.88	3.44	9.60	-9.79
Managed Health Care	0.70	2.09	24.13	-7.04	-33.34
Pharmaceuticals	2.82	1.13	1.26	3.28	-1.15
<b>Industrials</b>	<b>8.03</b>	<b>-1.42</b>	<b>-0.05</b>	<b>2.31</b>	<b>14.55</b>
Aerospace & Defense	2.11	-0.93	0.19	5.08	32.69
Agricultural & Farm Machinery	0.22	-3.37	-6.98	-6.61	12.08
Air Freight & Logistics	0.25	-2.38	2.49	-5.11	-21.15
Building Products	0.49	-1.74	-1.60	-1.53	10.50
Cargo Ground Transportation	0.08	-0.16	2.84	-5.73	-15.42
Construction & Engineering	0.10	-2.56	-4.45	-0.53	19.00
Construction Machinery & Heavy Trucks	0.57	-2.48	0.36	7.71	10.47
Data Processing & Outsourced Services	0.05	-1.96	1.43	3.70	11.47
Diversified Support Svcs	0.22	0.49	-2.17	-3.94	1.57
Electrical Components & Equipment	0.55	-1.55	-5.89	0.84	7.20
Environmental & Facilities Services	0.37	0.28	-1.23	-1.42	12.59
Heavy Electrical Equipment	0.28	-5.51	-9.65	13.17	82.05
Human Resource & Employment Services	0.33	-0.90	0.51	-1.88	1.61
Industrial Conglomerates	0.37	-2.24	0.23	-4.15	3.42
Industrial Machinery	0.66	-0.66	3.47	2.62	2.89
Passenger Airlines	0.15	-1.79	15.37	19.97	1.91
Passenger Ground Transportation	0.33	-4.15	4.02	-1.41	52.49
Railroads	0.44	0.34	-1.64	0.48	3.16
Research & Consulting Svcs	0.18	-0.55	2.55	-3.55	3.10
Trading Companies & Distributors	0.29	0.80	10.56	15.91	24.13
<b>Information Technology</b>	<b>31.80</b>	<b>-1.24</b>	<b>0.63</b>	<b>5.86</b>	<b>14.01</b>
Application Software	2.43	-1.21	-3.85	-1.37	5.55
Communications Equipment	0.92	0.11	5.23	9.69	16.55
Electronic Components	0.34	0.84	5.43	18.84	57.62
Electronic Equipment & Instruments	0.15	-0.93	-2.14	3.71	3.81
Electronic Manufacturing Services	0.14	-0.07	-0.23	14.62	45.59
Internet Software & Services	0.10	-0.30	-1.60	-10.33	-7.45
IT Consulting & Services	0.76	-0.44	-3.19	-16.58	-12.12
Semiconductor Equipment	0.67	-3.19	-4.84	-3.62	17.58
Semiconductors	11.51	-3.62	-1.63	8.16	26.68
Systems Software	8.32	-1.19	-5.50	0.17	18.29
Technology Distributors	0.04	0.23	-3.42	-6.91	-4.47
Technology Hardware, Storage & Peripherals	6.42	2.99	17.17	16.67	-2.91
<b>Materials</b>	<b>1.78</b>	<b>-0.88</b>	<b>3.95</b>	<b>4.11</b>	<b>9.28</b>
Commodity Chemicals	0.06	-2.74	8.87	-8.14	-34.94
Construction Materials	0.13	0.74	3.25	12.41	16.63
Copper	0.11	3.83	13.98	6.27	20.98

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Fertilizers & Agricultural Chemicals	0.13	-2.74	-2.59	-4.88	19.45
Gold	0.14	2.62	14.46	28.52	101.18
Industrial Gases	0.49	-1.95	1.02	1.15	9.70
Metal & Glass Containers	0.02	-3.17	-12.48	-10.11	-8.54
Paper Packaging	0.17	-1.20	1.95	2.27	-11.26
Specialty Chemicals	0.44	-1.09	4.91	3.56	2.01
Steel	0.09	-2.31	6.51	8.30	20.70
<b>Real Estate</b>	<b>1.89</b>	<b>-0.76</b>	<b>0.15</b>	<b>0.54</b>	<b>2.26</b>
Data Center REITs	0.22	-2.77	-3.22	-4.76	-14.61
Health Care REITs	0.29	0.32	0.45	8.58	19.16
Hotel & Resort REITs	0.02	1.74	12.11	14.52	0.40
Industrial REITs	0.18	-0.03	7.03	7.12	6.53
Multi-Family Residential REITs	0.00	-0.46	4.14	-4.22	-8.97
Office REITs	0.02	5.05	14.53	11.59	1.25
Other Specialized REITs	0.11	-0.44	-2.42	-3.77	0.65
Real Estate Service	0.15	-0.71	-1.84	13.33	23.67
Retail REITs	0.26	0.97	6.11	6.70	4.19
Self-Storage REITs	0.14	0.53	4.17	-1.23	-2.99
Single-Family Residential REITs	0.14	0.53	4.17	-1.23	-2.99
Telecom Tower REITs	0.26	-3.55	-10.09	-11.28	4.47
Timber REITs	0.03	-1.54	1.11	-0.55	-9.24
<b>Utilities</b>	<b>2.19</b>	<b>-1.09</b>	<b>-4.51</b>	<b>2.02</b>	<b>9.92</b>
Electric Utilities	1.40	-1.15	-4.18	1.85	9.46
Gas Utilities	0.04	-0.38	3.35	6.93	18.33
Independent Power Producers & Energy Traders	0.12	-3.73	-10.58	0.33	31.41
Water Utilities	0.05	-0.95	-3.69	1.77	13.72
Multi-Utilities	0.57	-0.39	-4.53	2.46	6.29

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

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S&P 500: 6502.08

NASDAQ: 21707.70

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Outperform (Buy)	73	Outperform (Buy)	11
Market Perform (Hold)	27	Market Perform (Hold)	3
Underperform (Sell)	1	Underperform (Sell)	0

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