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Equity Research
Macroeconomics

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Economics Weekly
Housing's Long Winter



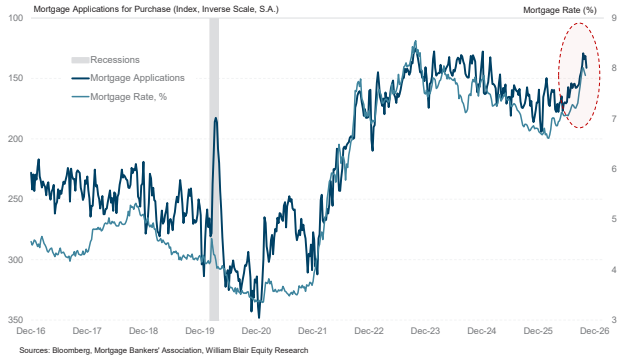
Please refer to important disclosures on pages 17-19. Analyst certification is on page 17.

In May, we cautioned against enthusiasm for a housing recovery after mortgage rates fell below 6% in February for the first time since 2022. Six months later, our case for caution is stronger. Mortgage rates averaged 7.33% in October, their highest monthly level since late 2023, and they have eased only slightly since. Meanwhile, October existing home sales fell to their slowest pace since 2010, after pending sales hit a record low in September. New home sales have been steadier, as builders lean on incentives and toward smaller, less expensive homes to clear bloated inventories. In the rental market, a wave of new apartments pushed vacancies higher and kept shelter inflation in check. However, we believe that buffer is thinning, with new supply falling and high ownership costs keeping would-be buyers renting. **In this *Economics Weekly*, we look at what is holding back the housing market, the road out of the current malaise, and why rents and shelter inflation are likely to firm through 2027.**

Rates Are Back Above 7%

The climb in mortgage rates has been steady. The 30-year fixed rate has risen every month since February's 6.05% average, and even after easing to 7.11% in mid-November, it remains nearly a full percentage point above the year-earlier level. Purchase demand has moved with it. The Mortgage Bankers Association's purchase index has fallen about 20% from its early-February high and is back near its late-2023 lows (exhibit 1).

Exhibit 1
Mortgage Rate vs Mortgage Applications



Sources: Bloomberg, Mortgage Bankers' Association, William Blair Equity Research

Job and income growth can support home buying, but mortgage rates matter more for affordability, and wage gains are slowing. For example, average hourly earnings are up 3.0% from a year ago, the slowest pace since May 2021, even with the labor market still tight. Over the same period, the monthly principal and interest payment on the median-priced existing home is up about 12%, and the higher mortgage rate accounts for almost all of that increase.

Higher rates also deepen the lock-in effect. The average rate on outstanding mortgages was 4.4% in the second quarter, about 2.7 percentage points below the current 30-year fixed rate, and nearly half of borrowers hold loans below 4%. For these owners, moving means giving up a cheap loan for a much more expensive one, so many stay put. Access to credit is also not the problem. In the Fed's October survey of lenders, banks left standards little changed for most residential mortgages and reported weaker demand across every category.

The administration has looked to Fannie Mae and Freddie Mac for relief, but their holdings of mortgage-backed securities are up only about $51 billion this year, well short of the $200 billion purchase the president directed in January. That shortfall will not move mortgage rates much. We believe mortgage rates are close to their peak for this cycle, but we do not anticipate them to fall soon. We think the Fed will likely raise rates twice more and that the 10-year Treasury yields will hold around 5.00%-5.25%. That leaves mortgage rates higher for longer, with little chance of a return to 6%.

Demand Is There, but Buyers Priced Out

Housing demand now depends on who can pay. By the National Association of Home Builders' estimate, 65% of households cannot afford the median-priced new home even at a 6% mortgage rate, and each quarter-point rise in rates prices out about 1.4 million more potential home buyers. At October's average rate, prices may have been too high for some 70% of households.

Younger households are bearing the brunt. The homeownership rate for households under age 35 fell to 36.6% in the third quarter from 39.3% in the third quarter of 2022, and the rate for 35- to 44-year-old homeowners slipped to 60.1%, the lowest since 2019. Ownership among households headed by someone 65 or older, by contrast, has held near 79% (exhibit 2). First-time buyers made up just 22% of purchases in the year to June, according to the National Association of Realtors (NAR), and their median age held at a record 40.

Exhibit 2
Homeownership Rates by Age, %



Sources: Census Bureau, William Blair Equity Research

Exhibit 3
Pending, New & Existing Home Sales
(rebased to 100 June 2009)



Sources: National Association of Realtors, Census Bureau, William Blair Equity Research

The people still buying homes tend to have more income and wealth. The average loan size on MBA purchase applications was about $448,500 in October, up 2.7% from a year earlier, compared with a 0.4% rise in NAR's median existing-home price. NAR data also show that sales of homes priced above $1 million have been more resilient, falling 6.6% over the year to October, compared with declines of about 10% to 12% in lower price ranges. In NAR's latest annual survey of buyers, a record 10% of first-time buyers paid all cash, and 28% of those used an inheritance.

That leaves a large pool of would-be buyers on the sidelines, waiting for lower rates.

Stuck Sellers, Discounting Builders

The resale market has nearly seized up. Existing home sales fell 5.5% in October to a 3.75 million annual rate—the lowest since August 2010 and 8.8% below a year earlier. That is about 30% below the 2019 average. Pending sales, which lead closings by a month or two, fell to a record low in October, which points to more weakness ahead (exhibit 3).

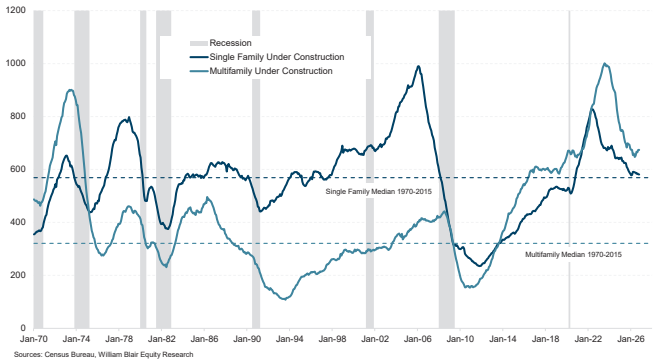
Prices have barely moved. NAR's median existing-home price was up just 0.4% from a year earlier in October, even as sales fell to their lowest level since 2010. Sellers would rather wait than cut, so sales fall and prices hold. Inventory is building as a result. Existing homes for sale reached 5.1 months of supply in October, up from 4.4 months a year earlier.

On the other side, builders have been willing and able to adjust to meet buyers where they are. New home sales, at 676,000 in September, were close to their 2019 pace, and new homes now make up about 14.5% of all home sales, compared with a 1999-2019 average of about 11%. The median new-home price has been below the existing-home median for seven straight months. Builders have supported sales by cutting prices, offering incentives, and building smaller homes. With new-home supply at 8.4 months, compared to existing homes at 5.1 months, builders have an incentive to keep inventory moving. In November, the NAHB reported that 46% of builders cut prices and 68% offered incentives, both at post-COVID highs.

Land, Labor, and Credit Hold Back Builders

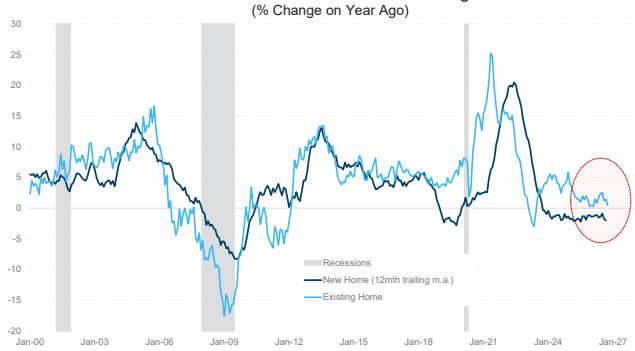
Construction is slowing along with sales. Total housing starts averaged a 1.30 million annual rate in the six months to October—the slowest pace since September 2020—and single-family starts are down 3.2% so far this year. The pipeline is shrinking from an unusually high level. Total units under construction fell to 1.27 million in October, 34% below their October 2022 peak. Single-family units, at 581,000, are now back near their 1970-2015 median, while multifamily units, at 674,000, remain roughly double their historical norm (exhibit 4).

Exhibit 4
Housing Units Under Construction: Single Family vs. Multifamily
('000s)



Sources: Census Bureau, William Blair Equity Research

Exhibit 5
Growth in Median Prices for New & Existing Homes
(% Change on Year Ago)



Sources: National Association of Realtors, Census Bureau, Bloomberg, William Blair Equity Research

Apartment supply is returning to normal after a three-year glut. Completions in buildings with five or more units are down 26% from a year earlier on a six-month basis, close to their 2019 average. Multifamily starts have recovered this year, averaging an annualized pace of 430,000 through October, up from a 2024 low of 336,000. These projects typically take two years or more to complete, so they will add to supply starting in 2028.

Costs are a constraint. The pressure is coming more from land and labor than from materials, although tariffs are still exerting pressures. For example, D.R. Horton reported that stick-and-brick costs fell 4% in its latest fiscal year, while its lot costs rose 6%. The NAHB says stepped-up immigration enforcement is "keeping legal workers off job sites, deepening labor shortages and driving up costs."

Financing is tighter as well. Banks tightened standards on construction and multifamily loans in the Fed's October survey, and delinquencies on multifamily commercial mortgage-backed securities loans rose to 8.09% from 7.12% a year earlier. With new homes already oversupplied, builders have little reason to break ground faster.

Prices Hold Until Layoffs Rise

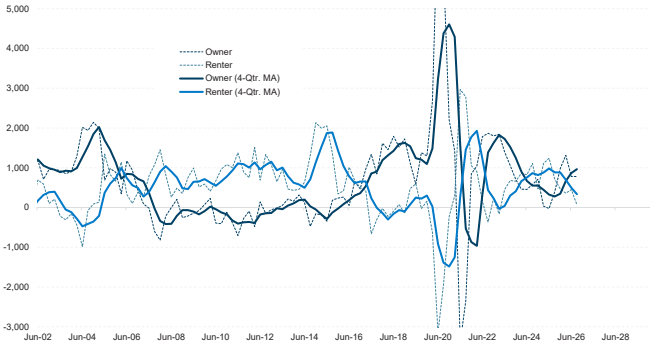
Home price growth has stalled overall. NAR's median existing-home price was up just 0.4% from a year earlier in October, down from 2.6% in July. The median new-home price fell 3.9% over the year to September and has been below the existing-home median for seven straight months (exhibit 5). The decline reflects both price cuts and a shift toward smaller, less expensive homes: homes priced below $300,000 gained 1.7 percentage points of new-home sales share over the past year.

Existing-home prices are holding up because few owners are forced to sell. Delinquency rates on residential mortgages at banks rose to 1.86% in 2Q26 from 1.78% a year earlier but remain below their long-term median of 2.3%. Historically, prices have fallen after sales volumes, once job losses force owners to sell. Until that happens, we expect prices to stay flat to lower in nominal terms, which means further declines after inflation. What gains remain are at the top of the market, where buyers with higher incomes and more wealth are less sensitive to prices and mortgage rates.

Rents Firm, Shelter Stops Easing

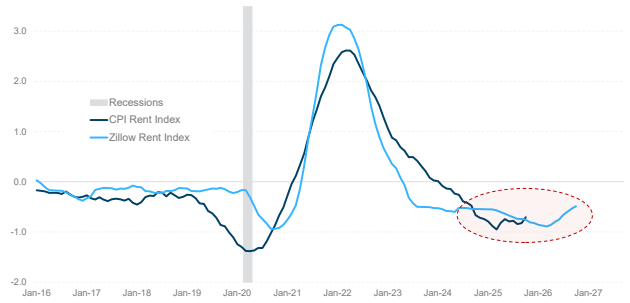
The rental market still has slack. The rental vacancy rate rose to 7.6% in the third quarter, its highest since 2014, up from 7.1% a year earlier and a low of 5.6% in late 2021. This is above the 2015-2019 average of 6.9%. Demand is the main reason. Renter household growth slowed to about 336,000 over the past year on a four-quarter average basis, down from about 880,000 a year earlier and below the 2015-2019 average of 430,000 (exhibit 6). Lower immigration numbers account for part of the slowdown, because recent immigrants are far more likely to rent than to buy.

Exhibit 6
Occupied Housing: Owners & Renters
(Change on Year Ago, '000s, NSA)



Sources: Census Bureau, William Blair Equity Research

Exhibit 8
CPI Rent Price Index vs. Zillow Rent Price Index
(z-scores of % Change on Year Ago, CPI Rent Index lagged 12 months)

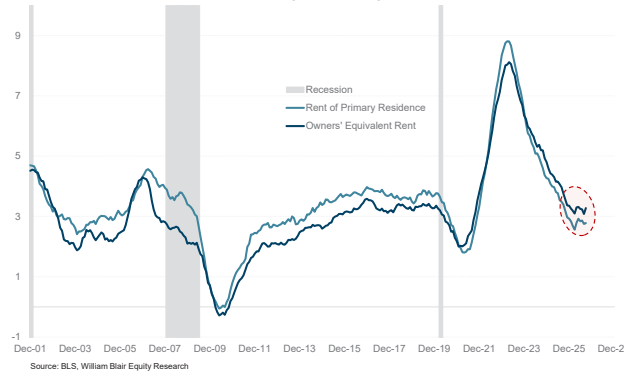


Sources: Zillow, Bloomberg, William Blair Equity Research

Even so, we expect rents to firm modestly through 2027. Supply is no longer adding to the slack. Apartment completions are back near their 2019 pace after three years of heavy deliveries. Owning has also become more expensive relative to renting, which keeps would-be buyers in the rental market. Market rent measures have already turned. Zillow's index of rents for new leases rose 2.9% over the year to October, faster than the CPI measure of rents (exhibits 7 and 8). Industry forecasters are moving the same way. CoStar raised its apartment rent growth forecast for the fourth quarter of 2027 to 2.6% from 1.9%.

Shelter inflation follows market rents with a lag of about a year. In October, rent of primary residence rose 0.2% and owners' equivalent rent rose 0.3%. Over the three months to October, rent rose 0.6% and owners' equivalent rent 0.9%, or roughly 2.4% and 3.6% at an annual rate.

Exhibit 7
CPI Rent of Primary Shelter & Owners' Equivalent Rent
% Change on Year Ago



Source: BLS, William Blair Equity Research

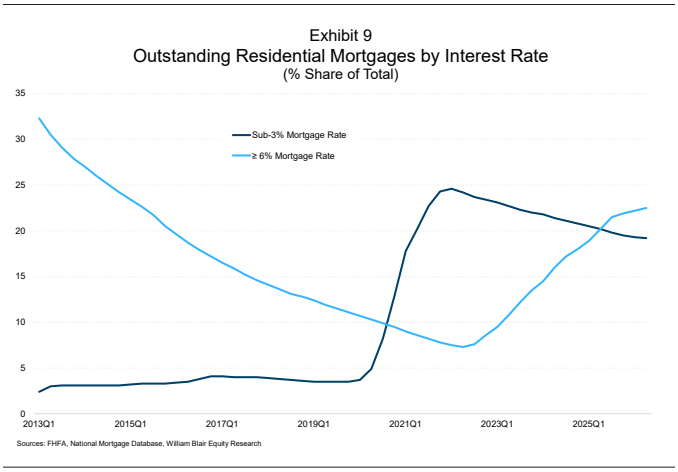
The risk to this view is demand. If renter household growth stays this weak, rising vacancies could keep rents flat even as supply normalizes.

The Road Out

A housing recovery will depend on lower mortgage rates. Our building products team estimates that rates would need to stay at or below 6% to restart the housing cycle. Even at 6%, by our estimate above, about two-thirds of households would still be priced out of the median new home. The question is how rates get there, and how quickly.

The most direct route is lower inflation, which would allow long-term rates to fall. Part of this year's inflation came from the energy shock, which will fade, and an end to the war could bring energy prices down. But we do not expect that to happen quickly. In our view, 10-year Treasury yields will stay anchored near 5.00%-5.25% until inflation shows a sustained decline, which would keep mortgage rates near 7%.

Time will help, but slowly. As low-rate loans are paid off or homeowners move, the share of mortgages with rates of 6% or more may rise above 25% by mid-2027, from 23% in the second quarter of this year (exhibit 9). That should gradually loosen the lock-in effect, making higher mortgage rates a more normal part of housing turnover and bringing more existing homes onto the market. With demand still constrained by affordability, rising supply would increasingly favor buyers and put downward pressure on prices.



The bigger near-term question is AI investment. Heavy borrowing to fund the buildout is one reason long-term rates are high, and data centers are competing with homebuilders for skilled labor. A gradual slowdown in the buildout would ease both, bringing mortgage rates down and lowering building costs. A sharp correction would also lower rates, but it would cut into the stock market wealth that many of today's buyers rely on, and any job losses that followed could force the sales that have so far kept home prices from falling.

Housing weakness alone is unlikely to stop the Fed. The tightening that matters most for housing comes from long-term rates. The 10-year Treasury yield rose 111 basis points over the first nine months of the year. With inflation still above target and shelter inflation set to stop easing, we expect the Fed to raise rates by 25 basis points in December and again early next year.

What the Corporate Sector Is Saying

Companies across the housing chain describe the same squeeze. Builders are stretching to keep buyers qualified, higher rates have cut into purchase and refinancing activity, and suppliers see the softness spreading into remodeling. Landlords are the exception, and they expect low new supply and high ownership costs to support rents into 2027. For example, Stuart Miller, CEO of homebuilder Lennar, said on the company's September call:

> *At our last call, the 30-year fixed rate was sitting between 6.4% and 6.5%. Today, it is at approximately 7%, with the 10-year Treasury hovering right around 5%.... As in many of our markets, almost 50% of our visitors cannot immediately qualify. Buyers are clearly stretching to try to afford the stability of a home and, of course, we are adjusting our price and incentives in order to enable them.... [L]abor availability has started to become more of an issue. Immigration enforcement and enthusiastic data-center construction continue to create tightness in certain geographies.*

The weakness reaches suppliers as well. Paul De Cock, CEO of flooring maker Mohawk Industries, noted:

> *In residential repair and remodel, which we estimate represents approximately half of our U.S. sales, consumers continue to defer larger projects.... In residential new construction, which we estimate represents about one-fourth of our U.S. sales, the builder market continues to soften. Single-family starts have fallen with higher mortgage rates and declining builder confidence.... This is the most challenging environment across our end-markets and we expect it to remain so in the near term.*

Apartment landlords, by contrast, are turning more upbeat. David Bragg, CFO of UDR, said:

> *[W]e don't need material job growth improvement from here for rent growth to accelerate in 2027 based on how we see the landscape. As we look into 2027, we see an incrementally favorable supply outlook. We see sustained high homeownership costs, and we see residents continuing to stay in place, both for cyclical and structural reasons.*

Conclusion

Six months on, housing remains caught between buyers who cannot afford today's payments and owners who have little reason to sell. Mortgage rates above 7% pushed existing home sales to their lowest pace since 2010 in October, and by our estimate roughly 70% of households are priced out of the median new home. Builders are holding on to volume at the expense of margins. Prices are flat in nominal terms and falling after inflation.

So far, the adjustment has come through volumes rather than prices. That can last for some time while the labor market holds and few owners are forced to sell. It also leaves the market exposed if job losses rise.

The rental market will turn first. Apartment supply is returning to normal after a three-year glut, high ownership costs are keeping would-be buyers renting, and market rents have begun to firm. We expect rents to firm modestly through 2027 and shelter inflation to stop easing. Weaker renter household growth is the main risk to that view.

For the Fed, that means shelter will no longer help pull inflation lower. With 10-year Treasury yields near 5%, mortgage rates are unlikely to return to the 6% level that would restart the housing cycle until inflation comes down. Until then, we continue to curb our enthusiasm.

Recent Economic Research

Economics Weekly

Fed and Monetary Policy

18 Sep Where Are Rates Heading? A Look at Tightening Cycles and 10 Year Yields
Two more hikes; 10-year near 5.0%–5.25%

7 Aug Let the Market Decide
Less forward guidance, more bond volatility

Inflation

4 Sep AI Might Not Be as Disinflationary as the Market Hopes
AI will not restore the low-inflation regime

2 Jul Choose Your Own Inflation Metric
A dashboard of measures shows inflation rising

Fiscal Policy, Politics, and Trade

4 Sep Is the QRA Becoming the Treasury's Equivalent of an FOMC Meeting?
Treasury financing choices now move yields

2 Jul Betting on Growth
AI growth alone may not fix the fiscal outlook

Bonds, Credit, and the Dollar

28 Aug The Path of Least Resistance for Yields Is Still Higher
Structural forces keep yields elevated

10 Jul The Dollar – Where to From Here?
Near-term strength, medium-term weakness

Equity Markets and Strategy

30 Oct The Small-Cap Rotation Continues
Leadership may be turning to small caps

16 Oct Where Have All the Foreign Profits Gone
Equities lean more on domestic profits

Economic Growth and AI

11 Sep Record Margins, the AI Capex Cyle, and the Warning Signs to Monitor
AI investments enters a riskier midcycle phase

31 Jul Poetry in Numbers
Investors want proof of AI returns

Labor, Consumer, and Housing

9 Oct Record Profits, Lagging Pay
Real pay trails productivity and margins

14 Aug The Great Wealth Transfer Flows to the Few
Inherited wealth concentrated at the top

Weekly Market Monitor

16 Nov FOMC divisions and guidance

9 Nov Equity selloff and AI investment

2 Nov Fed schedule changes and AI scrutiny

26 Oct Strong third-quarter earnings

Quarterly Analyst Survey

13 Nov Third Quarter 2026
Composite index 74.1, up from 70.2; costs rising

21 Aug Second Quarter 2026
Composite index 70.2, up from 66.3; earnings beat

Economic Indicators

6 Nov Employment Situation

30 Oct Employment Cost Index

5 Oct Productivity and Costs

10 Nov Consumer Price Index

13 Nov Producer Price Index

17 Nov Retail Sales

29 Oct Personal Income and Spending

29 Sep Consumer Confidence

2 Nov ISM Manufacturing

4 Nov ISM Services

17 Nov Industrial Production

27 Oct Durable Goods Orders

18 Nov Housing Starts

27 Oct New Home Sales

30 Jul Gross Domestic Product

Special Reports and Podcasts

4 Nov Special Report: Democrats Win Big in the Midterms

3 Nov Monthly Macro: AI Infrastructure (Part 2): Powering the AI Buildout

3 Nov Monthly Macro: AI Infrastructure (Part 1): What to Expect as Data Centers Head to the Ballot Box

28 Oct FOMC Meeting: A Strong Economy Requires More Monetary Medicine to Return Inflation to 2% Target

2 Oct Special Report: Run-Up to the 2026 Midterms

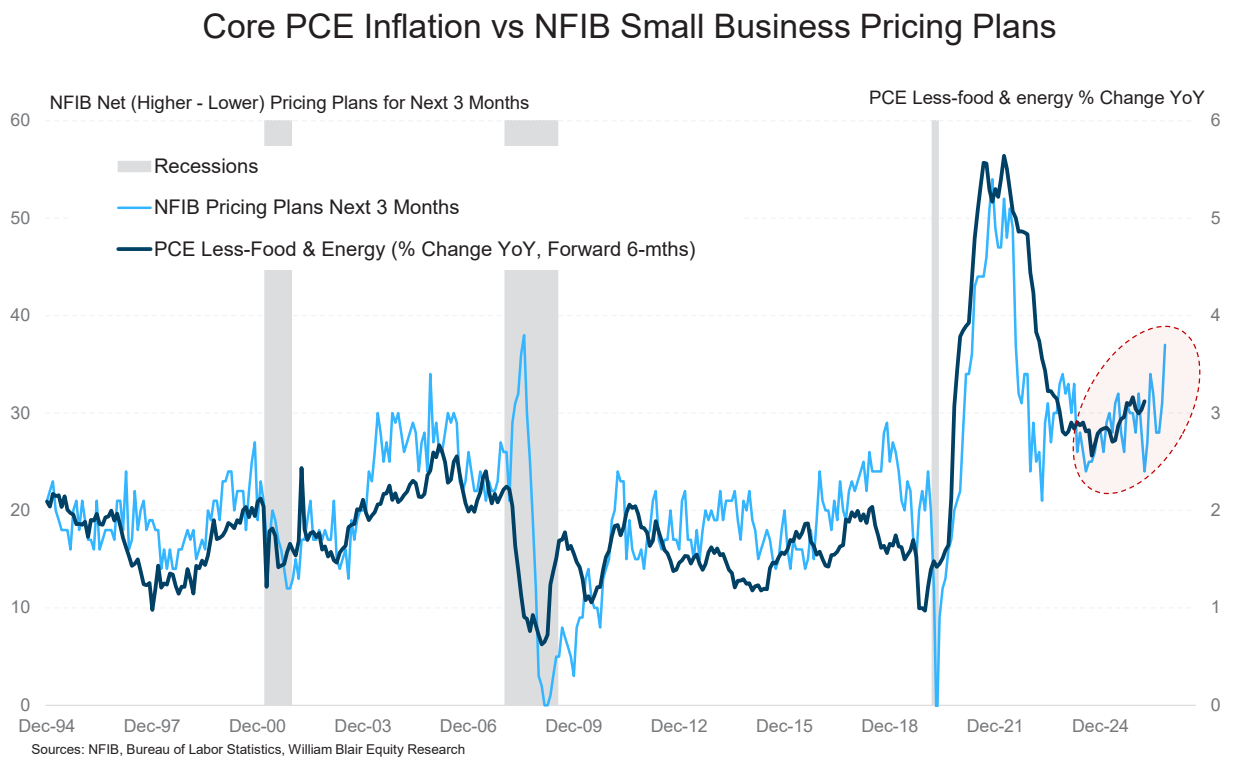
30 Sep Monthly Macro: Higher for Longer? Inflation, Interest Rates, and the AI Investment Cycle

Highlights in the Week Ahead

Date	Time (ET)	Indicator	Last	Consensus	WB Estimate	Actual
23 Nov	9:45 a.m.	S&P Global US Manufacturing PMI (Nov)	54.9	54.5	NA	
23 Nov	9:45 a.m.	S&P Global US Services PMI (Nov)	56.1	55.7	NA	
24 Nov	10:00 a.m.	Consumer Confidence (Nov)	91.7	92.1	92.5	
25 Nov	8:30 a.m.	Personal Income (Oct)	0.2%	0.4%	0.3%	
		Personal Spending	0.5%	0.4%	0.3%	
25 Nov	8:30 a.m.	GDP (Q3 S)	3.4%	3.5%	3.4%	
25 Nov	10:00 a.m.	New Home Sales (Oct)	0.6%	-4.6%	-3.5%	

Sources: Bloomberg, William Blair Equity Research

Indicators of the Week: PCE Price Index



Economic Scorecard

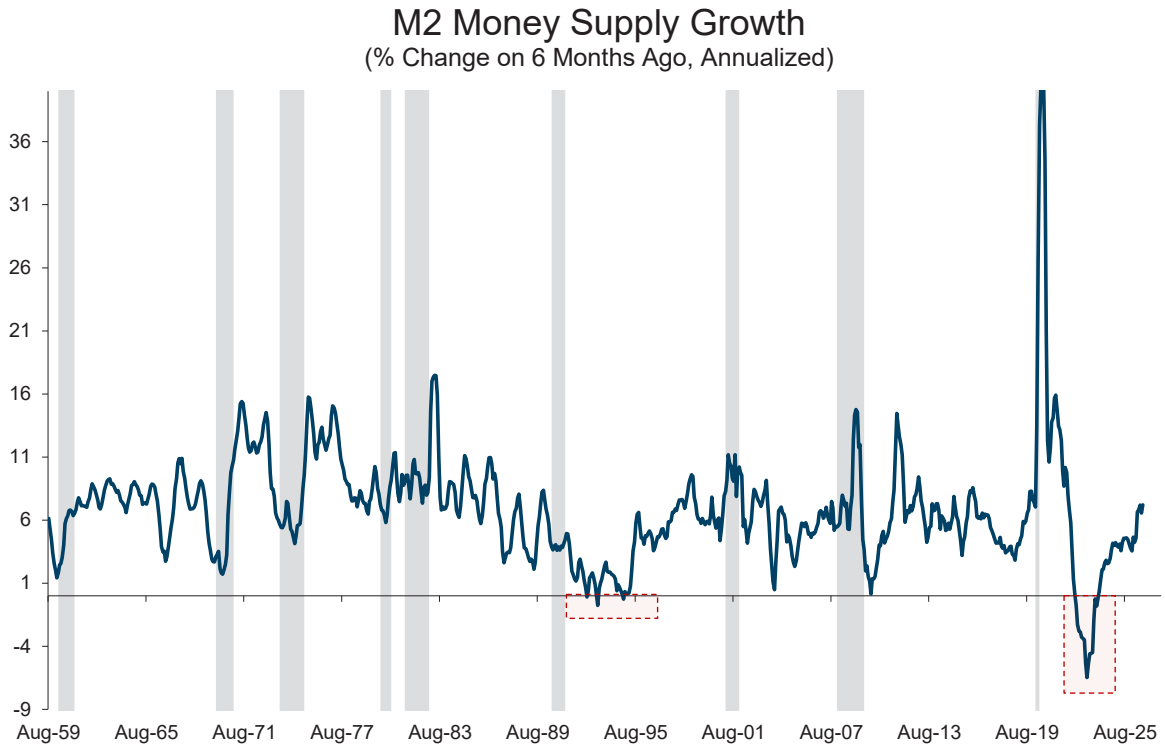
Rolling monthly heat map, % Change on Year Ago (unless otherwise noted)

	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Sep-26	Oct-26	Nov-26
Growth																			
US Leading Indicators	-3.7	-3.8	-3.4	-3.5	-3.2	-3.1	-3.7	-3.7	-3.6	-3.1	-3.0	-1.6	-1.4	-1.1	-0.9	-0.6	-0.5	-0.5	
US Coincident Indicators	1.1	1.1	1.4	1.2	1.2	1.0	0.8	0.6	0.9	0.8	0.3	0.3	0.7	0.8	0.6	0.8	0.9	1.1	
US Lagging Indicators	-0.1	-0.3	-0.5	-0.4	0.2	0.3	0.3	0.7	0.9	0.6	1.1	1.3	0.7	0.7	1.1	1.2	1.7	1.6	
Consumer																			
Total Retail Sales	2.7	3.9	3.7	4.4	3.6	2.7	2.9	2.1	2.2	3.5	3.6	4.1	6.7	5.9	4.5	5.7	6.6	6.8	
Personal Income	4.9	4.8	5.1	5.3	5.4	4.9	4.8	4.8	4.8	4.5	4.4	3.7	4.8	4.7	4.5	4.4	4.1		
Real Disposable Personal Income	1.4	1.2	1.6	1.7	1.8	1.4	1.4	1.4	2	1.8	1.3	0.2	1.2	1.5	1.5	1.3	1		
Real Personal Consumption	2.4	2.5	2.7	2.9	2.4	2.5	2.3	1.5	2	2.3	1.9	2.2	2.7	2.7	2.4	2.7	2.5		
Personal Saving Rate (%)	5.7	5.5	5.3	5.2	5.1	4.9	4.9	5	5.6	5.3	5.1	4.4	4.4	4.4	4.5	4	3.8		
Consumer Confidence (Conference Board)**	98.4	95.2	98.7	97.8	95.6	95.5	92.9	94.2	89	91	92.2	93.8	90.6	92.2	90.2	88.6	84.2	91.7	
Employment																			
Employment Growth	0.6	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.4	0.4	0.6	
ASA Temporary Staffing Index	-5.8	-5.3	-0.8	-0.9	0.8	1.5	4.5	7.3	2.3	3.2	6.1	5.4	5.1	6.5	2.5	6.3	5.3	2.6	
ISM Employment Index Manufacturing*	46.1	45.1	44.9	44.3	45.4	45.8	44.1	44.8	48.1	48.8	48.7	46.4	48.6	49.7	52.8	51.2	52.7	52.4	
ISM Employment Index Services*	50.4	47.7	46.9	46.9	47.6	48.1	48.7	51.7	50.3	51.8	45.2	48	47.9	51.2	47.4	47.8	50.1	51.4	
Unemployment Rate, %	4.3	4.1	4.3	4.3	4.4		4.5	4.4	4.3	4.4	4.3	4.3	4.3	4.2	4.1	4.1	4.2	4.1	
Average Hourly Earnings	4	3.9	4	4	3.8	3.9	3.9	3.7	3.7	3.7	3.4	3.6	3.3	3.4	3.2	3.1	3.2	3.1	
Initial Jobless Claims (avg. wkly. chg. '000s)	233	239	222	231	234	226	221	219	213	216	208	208	215	223	199	208	201	195	
Jop Openings	-6.1	-2.9	-4.5	-8.0	3.3	-2.8	-9.5	-10.2	-2.6	-4.4	-0.9	6.9	3.1	-0.3	3.5	3.9	4.9		
Layoff Announcements	47	-1.6	139.8	13.3	-25.8	175.3	23.5	-8.3	117.8	-71.9	-78	-20.9	3.4	-4.5	-46.1	-38.5	-19.9	-71.3	
Housing Market																			
Housing Starts	-3	4.6	12.8	-7.4	-2.8	-7.1	1.5	-7.8	2.4	-9.7	13.1	1	-8.3	4.4	-4.4	-0.9	-9.7	2.8	
New Home Sales	-7.2	-2.6	-11.5	1.6	-0.1	3.2	13.2	3	-13.4	-1.7	0.5	-8.6	2.3	2.3	-0.2	-2.6	-5.3		
Existing Home Sales	-0.5	0.5	0.8	2.3	4.4	2.2	-1.2	1.9	-1.7	-0.5	-0.3	0.5	3.7	3.8	0.7	-2.5	-2.7	-8.8	
Median House Price (Existing Homes)	2.5	-1.2	-7.4	3	-1	-5.2	1.2	1.4	-3.1	-0.7	-3.4	0.5	-2.5	0.2	-0.8	-7.8	-3.9		
Existing Homes Inventory (Mths' supply)	4.3	4.3	4.3	4.3	4.3	4.3	4.2	4	4.2	4.3	4.3	4.3	4.2	4.3	4.3	4.5	4.6	4.9	
New Homes Inventory (Mths' supply)	9.7	9	9.2	8.5	8.2	9	7.7	7.9	9.9	9.3	8.7	9	9.2	8.5	8.9	8.5	8.4		
NAHB Homebuilder Sentiment*	34	32	33	32	32	37	38	39	37	37	38	34	37	36	34	35	32	29	25
Inflation																			
Consumer Price Index	2.4	2.7	2.7	2.9	3		2.7	2.7	2.4	2.4	3.3	3.8	4.2	3.5	3.4	3.4	3.7		
CPI Less-food & energy	2.8	2.9	3.1	3.1	3		2.6	2.6	2.5	2.5	2.6	2.8	2.9	2.6	2.5	2.4	2.6		
Producer Price Index	2.7	2.4	3.2	2.7	3	2.8	3.1	3.1	3.1	3.4	4.3	5.7	5.9	5.6	4.9	5.5	6.3	6.5	
PPI Less-food & energy	3.2	2.7	3.5	2.9	3	3	3.2	3.4	3.7	3.8	3.9	4.9	4.5	4.8	4.3	4.7	5	5	
PCE Price Index	2.5	2.6	2.6	2.7	2.8	2.7	2.7	2.8	2.7	2.8	3.4	3.6	3.8	3.5	3.4	3.4	3.6		
PCE Prices Less-food & energy	2.8	2.8	2.8	2.9	2.8	2.7	2.7	2.9	2.9	3.0	3.1	3.1	3.2	3.0	3.0	3.0	3.1		
Business Activity - US																			
Industrial Production	0.1	0.6	1.9	1.2	1.9	1.8	1.8	1.2	1.0	0.8	0.7	1.4	1.7	1.5	1.3	1.5	2.1	2.2	
New Cap Gds Orders less-aircraft & parts	2.2	4.5	4.4	2.5	5.3	6.2	4.1	8	2.9	5.9	10.8	11.1	10	14.9	13.4	14.7	13.9		
Business Inventories	1.8	1.4	1.4	1.2	0.8	1.1	1.3	1.3	1.7	1.3	1.7	2.6	3.2	3.7	3.5	4.3	4.9	5.1	
ISM Manufacturing PMI*	48.6	49	48.4	48.9	48.9	48.8	48	47.9	52.6	52.4	52.7	52.7	54	53.3	55.6	54.6	54.5	55.5	
Markit US Manufacturing PMI*	52	52.9	49.8	53	52	52.5	52.2	51.8	52.4	51.6	52.3	54.5	55.1	53.9	53.9	53.9	55.9	54.9	
ISM Services Index*	50.2	50.8	50.5	51.9	50.3	52	52.4	53.8	53.8	56.1	54	53.6	54.5	54	54.1	55.4	54.9	54.5	
Markit US Services PMI*	53.7	52.9	55.7	54.5	54.2	54.8	54.1	52.5	52.7	51.7	49.8	51	50.7	51.2	54.6	56.5	58.8	56.1	
Business Activity - International																			
Germany Manufacturing PMI Markit/BME*	48.3	49	49.1	49.8	49.5	49.6	48.2	47	49.1	50.9	52.2	51.4	50.1	50.3	52.2	54.3	53.9	54.2	
Japan Manufacturing PMI Jibun Bank*	49.4	50.1	49	49.7	48.5	48.2	48.7	50	51.5	53	51.6	55.1	54.5	54.8	54.5	54.9	54.1	53.3	
Caixin China Manufacturing PMI*	48.3	50.4	49.5	50.5	51.2	50.6	49.9	50.1	50.3	52.1	50.8	52.2	51.8	51.7	50.9	51.5	52.1	52	
China Manufacturing PMI*	49.5	49.7	49.3	49.4	49.8	49	49.2	50.1	49.3	49	50.4	50.3	50	50.3	49.2	49.8	50.1	49.3	
UK Manufacturing PMI Markit/CIPS*	46.4	47.7	48	47	46.2	49.7	50.2	50.6	51.8	51.7	51	53.7	53.9	52.5	51.9	51.7	51.9	52.8	
France Manufacturing PMI Markit*	49.8	48.1	48.2	50.4	48.2	48.8	47.8	50.7	51.2	50.1	50	52.8	49.7	51.2	49.8	51.1	50.6	49.5	
Currencies* **																			
Euro (EUR/USD)	4.6	10.0	5.4	5.8	5.4	6.0	9.7	13.4	14.4	13.9	6.8	3.6	2.7	-3.1	1.0	-0.6	-3.4	-3.3	
Renmimbi (USD/CNY)	-0.6	-1.4	-0.4	0.6	1.5	0.0	-2.4	-4.3	-4.0	-5.7	-5.0	-6.1	-6.0	-5.3	-6.2	-5.8	-5.8	-6.5	
Yen (USD/Yen)	-8.4	-10.5	0.5	0.6	3.0	1.3	4.3	-0.3	-0.3	3.6	5.8	9.4	10.6	12.9	4.4	8.6	6.4	2.3	
Sterling (GBP/USD)	5.6	8.6	2.7	2.9	0.5	2.0	3.9	7.7	10.4	7.2	2.4	2.1	0.0	-3.4	2.1	0.3	-1.3	1.8	
Canadian $ (USD/CAD)	0.8	-0.5	0.3	1.8	2.9	0.5	-0.2	-4.6	-6.4	-5.7	-3.3	-1.6	0.4	4.3	1.2	0.8	2.2	-0.3	
Mexican Peso (USD/MXN)	14.3	2.3	1.4	-5.4	-7.0	-7.4	-10.2	-13.5	-15.6	-16.2	-12.4	-11.0	-10.7	-6.7	-8.1	-8.9	-1.3	1.3	
US Equities																			
S&P 500	12.0	13.6	14.8	14.4	16.1	19.9	13.5	16.4	14.9	15.5	16.3	29.4	28.2	20.9	18.1	19.0	14.4	10.8	
S&P 400 Midcap	0.6	5.9	1.7	5.3	4.5	4.8	-1.7	5.9	6.1	15.5	15.7	27.6	24.1	24.2	19.3	15.6	10.2	12.8	
S&P 600 Smallcap	-3.4	2.8	-6.3	1.8	1.9	3.8	-4.0	4.2	7.0	15.9	18.5	36.6	31.2	35.3	31.5	22.1	14.2	18.9	
Russell 2000	-0.2	6.2	-1.9	6.7	9.3	12.9	2.7	11.3	14.3	21.7	24.1	42.6	41.3	39.0	32.5	24.9	14.8	13.4	

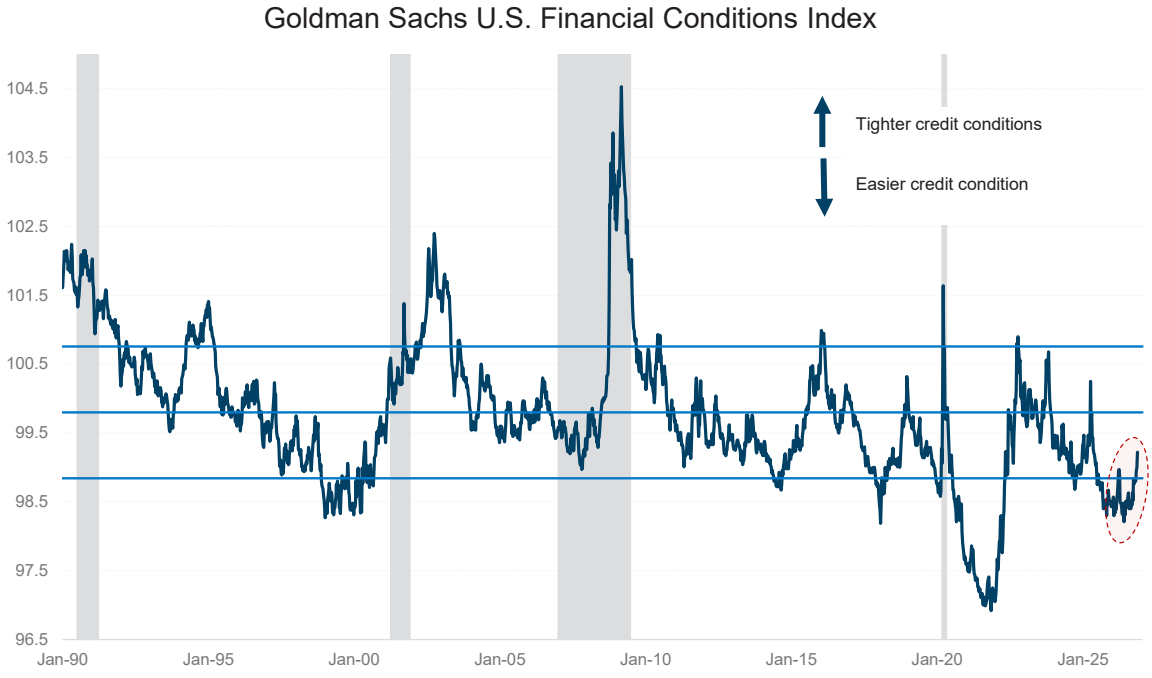
* Diffusion Index, **1985=100, ***Currencies - green/red = strengthening/weakening foreign currency vs dollar

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

Other Economic Indicators

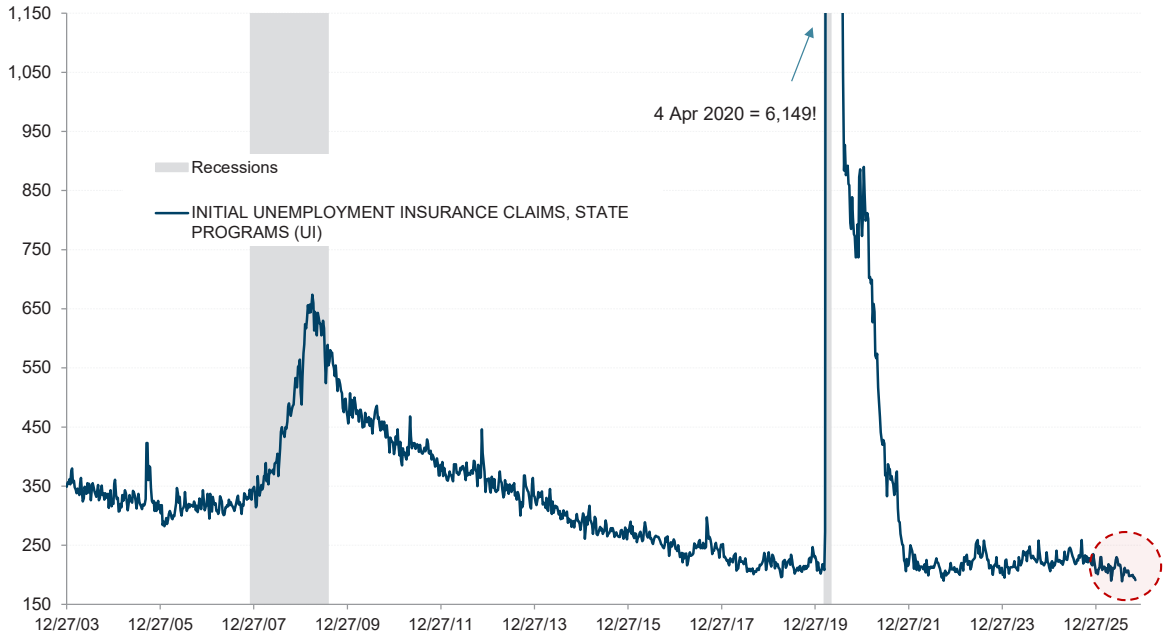


Sources: Federal Reserve, William Blair Equity Research



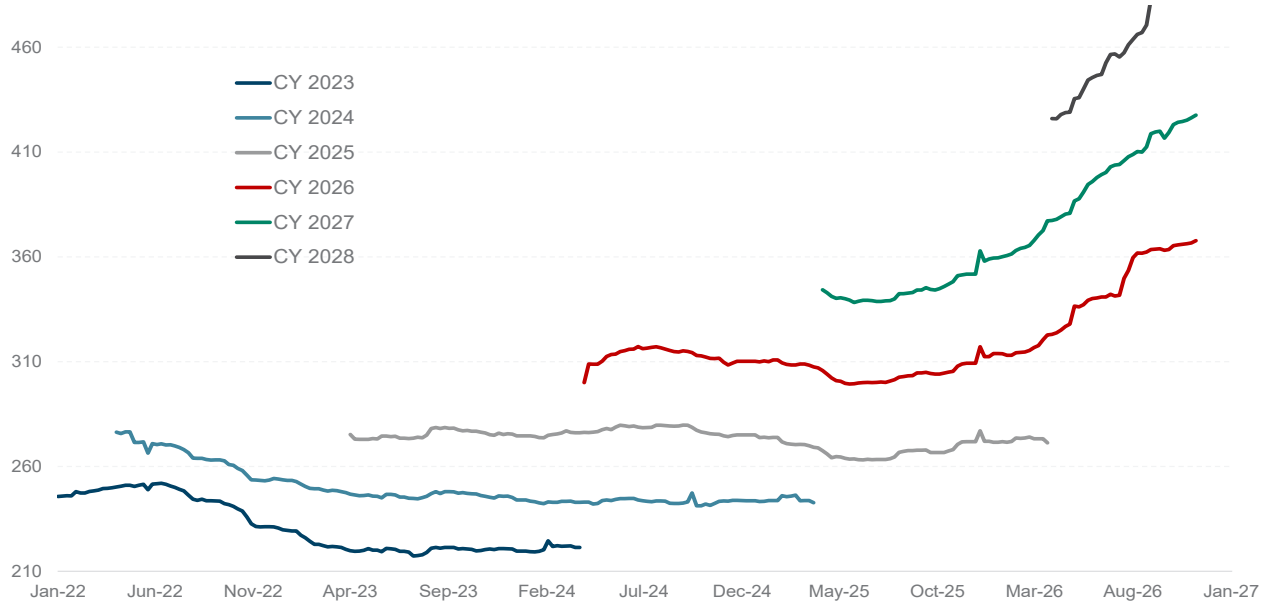
Sources: Bloomberg, William Blair Equity Research

Initial Jobless Claims
('000s, Seasonally Adjusted)



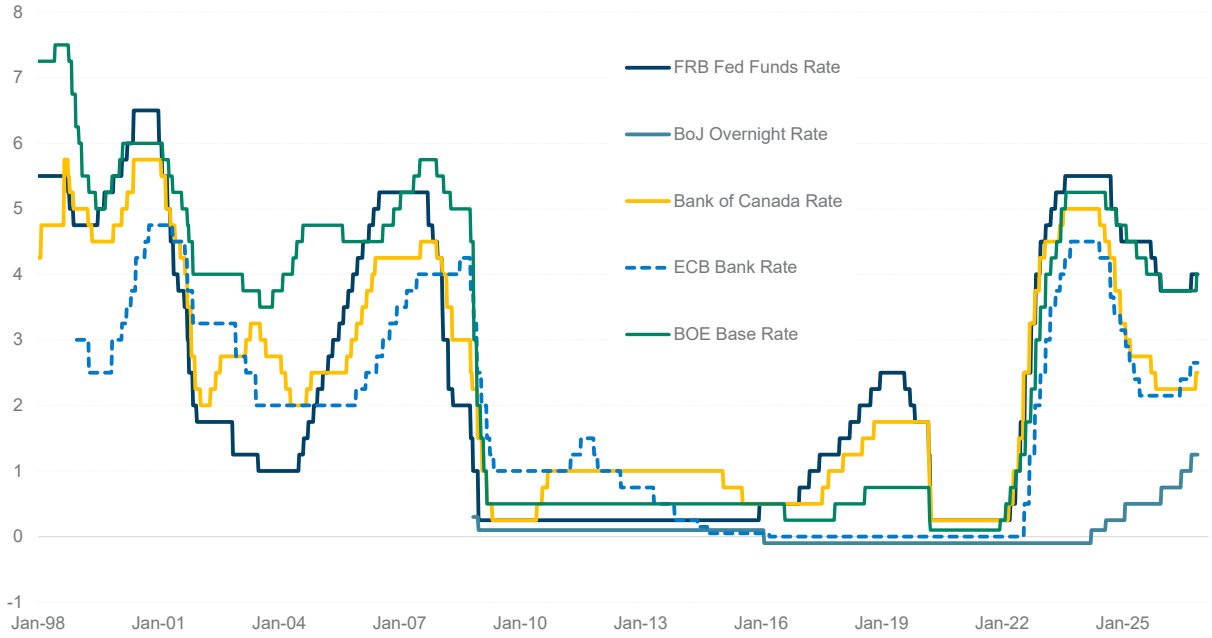
Source: Department of Labor, Bloomberg, William Blair Equity Research

Progression of Calendar Year S&P 500 EPS Estimates
($ per share)



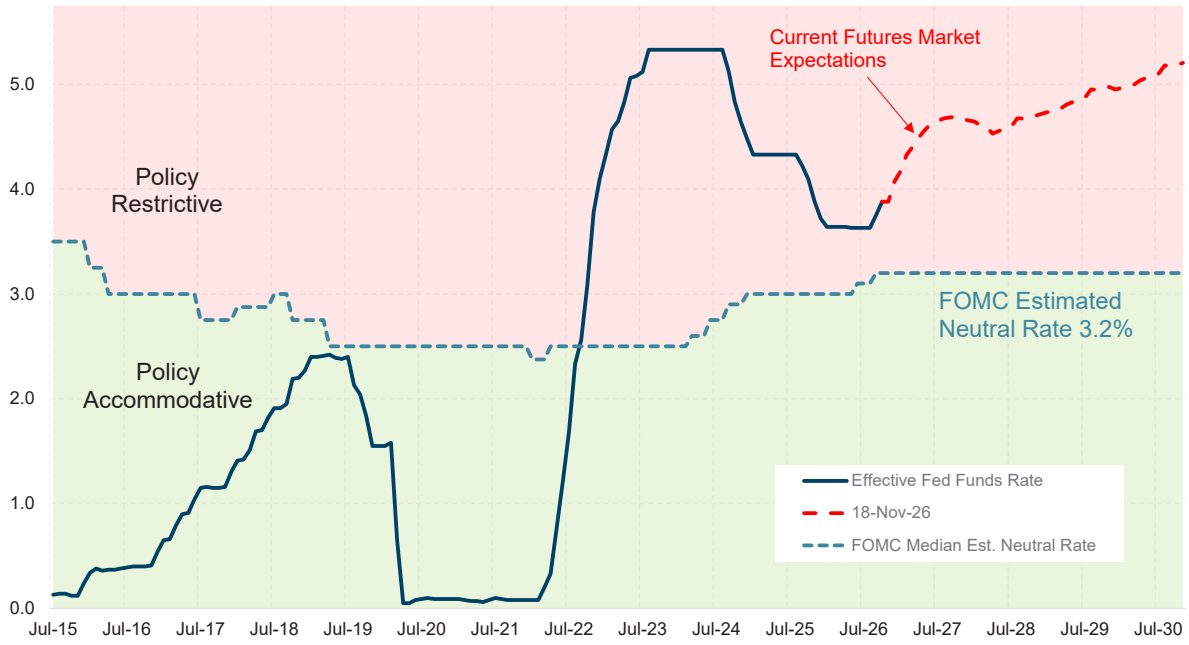
Sources: LSEG, I/B/E/S, William Blair Equity Research

Central Bank Target Short-Term Interest Rates, %



Sources: Bloomberg, William Blair Equity Research

Fed Funds Rate, Futures Market Expectations & FOMC's Estimated Neutral Rate, %



Sources: Bloomberg, William Blair Equity Research

S&P 500 Sector Performance

Global Industry Classification System	Current Weight* 19-Nov-26	Week Ago 12-Nov-26	Month Ago 19-Oct-26	Qtr-to-Date 30-Sep-26	Year-to-Date 31-Dec-25
S&P 500 Index	**100.00**	**-5.49**	**-6.70**	**-6.22**	**4.83**
S&P 400 MidCap Index		**-4.53**	**-2.68**	**-2.14**	**6.47**
S&P 600 SmallCap Index		**-4.30**	**-1.00**	**-1.17**	**11.43**
Dow Jones Industrials		**-6.12**	**-5.52**	**-3.55**	**2.15**
Nasdaq Composite		**-5.86**	**-9.65**	**-11.10**	**2.74**
Communication Services	**8.80**	**-6.28**	**-15.30**	**-16.06**	**-12.75**
Advertising	0.21	-3.31	33.22	27.58	-24.11
Broadcasting	0.10	-4.66	-2.31	-1.24	-15.99
Cable & Satellite	0.05	-2.63	14.97	11.67	-28.27
Integrated Telecommunication Services	0.64	-1.25	1.87	-1.62	-2.78
Interactive Home Entertainment	0.06	-8.06	1.82	0.55	-14.63
Interactive Media & Services	6.72	-7.26	-19.15	-19.82	-12.30
Movies & Entertainment	0.75	-2.98	-5.27	-3.29	-18.39
Publishing & Printing	0.02	-3.67	-15.49	-11.60	-3.67
Wireless Telecommunication Svcs	0.26	-4.97	4.13	-0.34	-19.95
Consumer Discretionary	**10.12**	**-3.91**	**0.49**	**5.69**	**-0.96**
Apparel Retail	0.34	-0.79	-6.19	1.59	-1.26
Apparel & Accessories & Luxury Goods	0.07	-4.21	3.79	7.60	-17.59
Auto Parts & Equipment	0.01	-3.74	-16.01	-13.16	-43.56
Automobile Manufacturers	2.39	-5.76	1.15	5.04	-15.73
Automobile Retail	0.26	-0.44	7.57	10.64	-6.40
Broadline Retail	4.26	-3.74	-1.95	3.42	11.89
Casinos & Gaming	0.06	-0.17	8.13	4.77	-31.49
Computer & Electronics Retail	0.03	-4.00	8.93	12.50	48.32
Consumer Electronics	0.08	-5.03	-5.02	-5.25	33.98
Distributors	0.03	-1.06	-6.64	-3.34	-1.64
Footwear	0.08	-8.58	-8.11	-2.21	-42.47
Home Furnishings	0.01	-2.59	23.38	14.54	30.70
Home Improvement Retail	0.69	-3.41	9.49	18.50	-4.13
Homebuilding	0.14	-3.06	4.71	0.84	-8.91
Hotels, Resorts & Cruise Lines	0.79	-5.39	-0.48	5.78	-0.34
Leisure Products	0.02	-5.57	16.47	30.83	39.89
Restaurants	0.76	-1.47	6.15	10.95	-4.19
Other Specialty Retail	0.07	0.36	11.07	18.75	-9.18
Consumer Staples	**5.72**	**-1.33**	**3.41**	**12.32**	**16.95**
Agricultural Products	0.14	-6.13	-10.95	-10.39	18.80
Brewers	0.01	1.01	1.60	9.57	-14.40
Consumer Staples Merchandise Retail	2.58	0.09	7.24	18.59	19.52
Distillers & Vintners	0.05	-1.70	7.67	22.93	4.87
Food Distributors	0.06	1.19	-5.44	-1.04	4.70
Food Retail	0.10	-2.80	4.03	14.60	6.04
Household Products	0.86	-0.58	5.74	14.93	17.06
Packaged Foods & Meats	0.32	0.68	5.59	12.03	2.40
Personal Care Products	0.04	-7.91	-3.86	5.51	1.65
Soft Drinks	1.11	-1.95	2.07	10.61	19.99
Tobacco	0.62	-4.89	-4.99	1.32	19.94
Energy	**3.35**	**-5.78**	**-10.82**	**-1.54**	**35.31**
Integrated Oil & Gas	1.66	-5.77	-9.93	-1.10	33.24
Oil & Gas Equipment & Services	0.22	-4.95	-7.63	-6.16	14.44
Oil & Gas Exploration & Production	0.63	-4.58	-9.62	2.66	25.19
Oil & Gas Refining & Marketing & Transportation	0.43	-9.48	-20.36	-8.29	106.99
Oil & Gas Storage & Transportation	0.40	-3.62	-5.51	1.42	20.77

Financials	**11.78**	**-4.51**	**0.81**	**3.92**	**1.30**
Asset Management & Custody Banks	0.96	-5.26	3.06	2.02	-1.90
Consumer Finance	0.51	-3.81	-4.98	-1.29	-19.66
Diversified Banks	2.80	-5.97	-3.22	-4.69	-3.95
Diversified Financial Services	7.01	-4.59	1.53	5.86	1.69
Financial Exchanges & Data	0.89	-5.14	2.89	9.10	-2.28
Insurance Brokers	0.44	-0.06	9.51	19.63	2.66
Investment Banking & Brokerage	1.20	-6.43	-4.24	-9.88	-7.15
Life & Health Insurance	0.30	-2.90	1.62	4.65	15.01
Multi-Sector Holdings	1.21	-3.02	7.48	14.88	13.80
Property & Casualty Insurance	0.96	-1.55	4.33	12.93	12.36
Regional Banks	0.25	-5.77	-1.14	-1.57	-3.28
Reinsurance	0.02	-0.09	8.06	15.55	24.34
Transaction & Payment Processing	2.15	-4.46	0.57	11.74	9.34
Health Care	**10.05**	**-5.49**	**0.98**	**5.26**	**14.47**
Biotechnology	1.97	-4.28	2.90	7.47	32.45
Health Care Distributors	0.39	-1.80	4.38	20.21	21.11
Health Care Equipment	1.46	-2.46	3.87	9.95	-13.01
Health Care Facilities	0.16	-8.26	0.56	6.94	-3.97
Health Care Services	0.36	-7.58	-6.73	0.11	9.61
Health Care Supplies	0.06	-3.55	3.70	4.04	-7.95
Life Sciences Tools & Services	1.03	-2.08	0.18	0.68	15.47
Managed Health Care	0.69	-15.71	-15.30	-6.33	8.27
Pharmaceuticals	3.87	-6.01	3.68	5.45	23.14
Industrials	**7.88**	**-4.82**	**-3.32**	**-3.48**	**3.88**
Aerospace & Defense	1.98	-3.81	-0.65	1.48	-3.99
Agricultural & Farm Machinery	0.25	-7.94	-0.34	-6.95	34.22
Air Freight & Logistics	0.30	-0.97	7.10	10.44	18.21
Building Products	0.39	-4.39	-6.96	-5.48	2.99
Cargo Ground Transportation	0.11	-0.46	-0.49	3.46	14.77
Construction & Engineering	0.23	-2.80	-11.66	-17.28	26.14
Construction Machinery & Heavy Trucks	0.61	-9.03	-20.31	-25.97	-4.61
Data Processing & Outsourced Services	0.03	-4.98	3.89	12.94	-18.47
Diversified Support Svcs	0.17	-3.72	5.30	12.46	3.25
Electrical Components & Equipment	0.62	-6.84	-9.43	-14.43	0.84
Environmental & Facilities Services	0.33	-2.01	8.19	18.63	6.90
Heavy Electrical Equipment	0.38	-9.56	-18.68	-25.03	9.84
Human Resource & Employment Services	0.24	-2.44	3.90	15.86	13.28
Industrial Conglomerates	0.27	-3.44	8.19	7.24	14.53
Industrial Machinery	0.60	-3.82	0.47	3.47	2.34
Passenger Airlines	0.17	-3.35	12.32	0.01	8.91
Passenger Ground Transportation	0.20	-5.09	-6.23	-4.24	-19.71
Railroads	0.50	-4.60	1.37	6.04	24.87
Research & Consulting Svcs	0.12	-3.86	7.07	16.64	-13.12
Trading Companies & Distributors	0.36	-5.26	5.69	9.15	32.84
Information Technology	**33.36**	**-7.04**	**-13.08**	**-16.37**	**6.93**
Application Software	1.64	-9.51	-15.18	-10.71	-24.87
Communications Equipment	1.18	-7.52	-8.30	-12.32	24.78
Electronic Components	0.48	-7.12	-10.35	-19.06	10.68
Electronic Equipment & Instruments	0.14	-5.51	-11.74	-15.09	30.72
Electronic Manufacturing Services	0.17	-4.00	-7.28	-13.21	-16.93
Internet Software & Services	0.17	-1.86	-8.97	-13.38	-9.83
IT Consulting & Services	0.57	-10.20	-7.29	6.68	-24.16
Semiconductor Equipment	1.15	-11.44	-20.27	-33.82	23.03
Semiconductors	12.05	-10.91	-22.12	-28.04	1.28
Systems Software	7.24	-3.73	-7.09	-5.77	4.44
Technology Distributors	0.03	-3.00	9.80	30.79	23.06
Technology Hardware, Storage & Peripherals	8.54	-2.59	-2.20	-3.01	32.57
Materials	**1.63**	**-5.83**	**-4.01**	**0.38**	**7.95**
Commodity Chemicals	0.06	-8.81	-3.41	6.17	31.42
Construction Materials	0.20	-2.82	6.20	9.17	-19.79
Copper	0.11	-18.74	-29.58	-29.83	-3.29

Fertilizers & Agricultural Chemicals	0.03	-7.72	0.84	4.90	24.73
Gold	0.16	-11.18	-15.22	-13.26	0.20
Industrial Gases	0.45	-2.70	1.43	7.87	20.40
Metal & Glass Containers	0.02	-2.19	-0.55	13.31	19.86
Paper Packaging	0.14	-6.17	-2.79	-2.20	-1.36
Specialty Chemicals	0.33	-3.26	1.33	4.41	6.78
Steel	0.13	-6.10	-7.21	3.20	42.95
Real Estate	**1.79**	**-3.36**	**2.86**	**4.40**	**7.26**
Data Center REITs	0.25	-5.12	2.88	0.06	24.69
Health Care REITs	0.37	-1.50	3.89	3.86	24.77
Hotel & Resort REITs	0.03	-4.04	1.24	9.38	42.24
Industrial REITs	0.18	-4.03	-0.58	-4.99	-3.37
Multi-Family Residential REITs	0.00	-1.93	1.57	1.43	-5.20
Office REITs	0.01	-0.99	7.47	1.89	-7.72
Other Specialized REITs	0.09	-3.90	0.64	1.20	6.28
Real Estate Service	0.07	-3.54	-3.90	1.01	-34.20
Retail REITs	0.25	-2.80	7.74	9.03	13.18
Self-Storage REITs	0.14	-1.78	11.35	16.64	23.38
Single-Family Residential REITs	0.14	-1.78	11.35	16.64	23.38
Telecom Tower REITs	0.21	-6.23	-1.38	12.87	-2.12
Timber REITs	0.02	-4.51	1.76	2.56	-17.52
Utilities	**2.05**	**-2.05**	**3.58**	**8.71**	**0.39**
Electric Utilities	1.35	-1.95	4.33	9.27	-0.04
Gas Utilities	0.04	-4.11	2.39	7.83	0.63
Independent Power Producers & Energy Traders	0.08	-6.02	-13.85	-8.10	-18.41
Water Utilities	0.04	0.47	11.01	14.53	13.63
Multi-Utilities	0.53	-1.74	4.20	9.73	3.88

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

IMPORTANT DISCLOSURES

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DOW JONES: 49097.10
S&P 500: 7175.83
NASDAQ: 23879.20

Additional information is available upon request.

Current Rating Distribution (as of November 20, 2026):

Coverage Universe	Percent	Inv. Banking Relationships *	Percent
Outperform (Buy)	71	Outperform (Buy)	15
Market Perform (Hold)	29	Market Perform (Hold)	6
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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