ECONOMIC NEWSLETTER

for the Construction Industry

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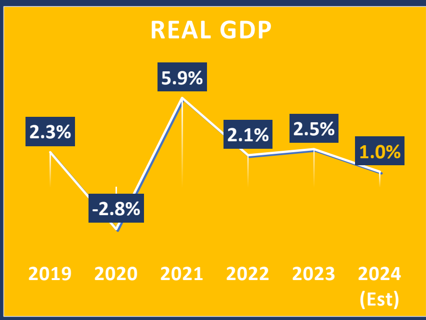
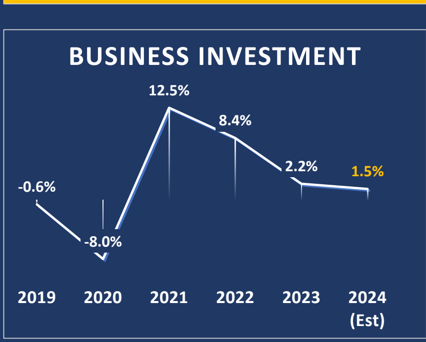
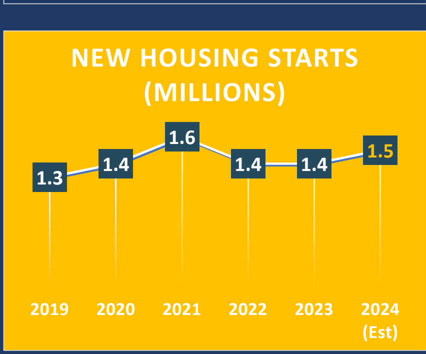
Quarterly Economic Report

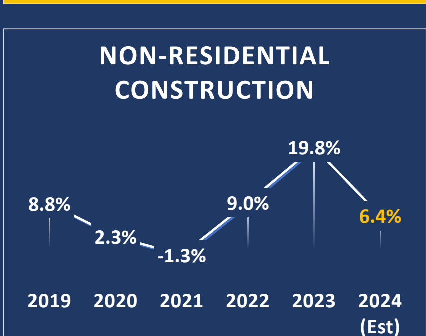
Executive Summary – November 2024

Selected Indices









Big Items

Real GDP: The Q3 GDP ended up splitting the difference between the optimists and the pessimists. A month or so ago the consensus view was that Q3 would finish below 2.0% and perhaps as low as it was in Q1. Then the data from GDPNow started to indicate a growth rate above 3.0%. In the end, the Q3 numbers came in at 2.8% - at least for the first iteration. This is very good news for those seeking a decent end to the 2024 data as the fourth quarter is generally strong if the retail season is healthy.

Raw Material Prices/Availability: There has been an increase in commodity prices of late although they have not hit anything close to all time (or even recent) highs. These hikes have affected copper, aluminum, steel and even lumber. There are always reasons for volatility but the major driver at the moment is increased demand in some key markets (US, Europe and even China to an extent). There is a longer-term concern evolving, however. It is not clear how much of the Trump tariff policy will actually be implemented but there will definitely be some kind of retaliatory reaction on the part of affected nations that produce these commodities and raw materials.

Labor Situation / Labor Costs: In general, the costs of labor in construction continued to increase. In the last twelve months, the cost of labor has risen by 3.8% and the cost of benefits rose by 3.3%. Union compensation rose by 5.8% and non-union compensation rose by 3.4%. Wages for state and local employees rose by 4.7%. The overall reading from the Employers Cost Index was at 163.6 for the year and this is an increase. The construction sector is not alone in this trend as wages are still driving up faster than overall inflation. To be fair, the last few years of inflation still left many people behind where they were four years ago in terms of purchasing power.

Manufacturing: The latest manufacturing data has declined a little, but it has yet to sink to what many would assert is a crisis level. It is important to note that there are differing versions of the purchasing managers' index. We use the one produced by S&P Global as it has a broader sample than the one used by the Institute for Supply Management. The S&P Global assessment for the US has a reading of 48.5 as compared to the previous month at 47.3. It improved but remains in mild contraction. Currently there are 15 nations around the world that are below the 50 line and in contraction.

Risks

Geopolitics and Inflation: This has been a non-factor thus far and that shocks analysts. The question is how long this lasts? It would have been expected that oil prices would rise sharply due to the Middle East threats coupled with the impact of hurricanes, but prices are still in the low $70s. Now the concern is a continuing trade war between the US and China that could intensify as well as put strains between the US and European trading partners. On the positive side, there is a surplus when looking at commodities such as oil and food and that may temper inflation reactions.

Trade Tensions and Rivalries: The global trend has become decidedly protectionist and that will have an impact on global trade. The US is heading towards more isolationism with the threat of high tariffs on many trading partners. Europe has been moving in a similar direction with higher regulatory barriers and many nations will retaliate against high US tariffs. China has always been protective and that will accelerate. The relationship to watch most closely is between the US and Mexico and differences of opinion on trade there. There is also concern regarding the US trade commitment to Taiwan and South Korea.

ARMADA
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Macroeconomic Viewpoints

- Dr. Chris Kuehl

What Are the Expectations Now? - The campaigns are over (at least for a few weeks) and we now have Trump's return and the Republicans in control of Congress (probably based on metrics at the time of writing). What can we realistically expect going forward? For now, let's consider the country's changing approach to economic policy. Despite the intensity of the campaign, it is interesting to note how many similarities there are when it comes to economic policy. Both the GOP and Democrats are best described as "populists"—one from a left-leaning perspective and one from a right-leaning one. The roots of populism are in nationalistic responses to politics, economics, and social issues. This manifests in policies such as strict immigration control, strict trade protectionism, and general isolationism. It contrasts with concepts such as globalization, free trade, and engagement in global affairs. In past years, the Democrats were more likely to espouse populist ideas as they objected to global trade, doing business with repressive regimes, and engaging in global conflicts. The GOP championed free trade; the role of the U.S. in global security; and a wide-open, consumer-centric economy. That is no longer the stance of the GOP. With Trump entering the White House, the U.S. could shift further away from globalization and toward protectionist policies (based on his prior administration).

The immediate need is to extend the growth pattern the U.S. has enjoyed over the last few years while at the same time adapting to the very rapid changes that have been introduced by technology and innovation. Part of this process involves removing the barriers that have inhibited the expansion of economic growth in the U.S. Some of these are regulatory and some are related to tax policy, but the most consistent issues have included labor shortages, poor infrastructure, commodity shortages, and lack of government support for R&D.

Another challenge is debt and deficit. The U.S. is now running a debt that is 120% of its GDP, and that is unsustainable. Debt service is now costing the U.S. close to $1.3 trillion a year, and that category is the fifth largest in the total federal budget. Neither candidate discussed this at all. If anything, both made suggestions that would make the situation worse—tax cuts when more revenue is needed, and more spending programs when the U.S. can't pay for the ones it already has.

Yet another issue is the role of the US in the world. There is no appetite for the U.S. to continue the role of world policeman. The attempts in the last few years have been failures, but the U.S. now plays a profoundly negative role in global economics. The chosen weapon has been economic, and the U.S. now has sanctions against two thirds of the nations in the world—three times as many as any other country. This is forcing nations away from the dollar and away from the U.S.

The last challenge is communication. There has been nothing resembling a cohesive position on economic issues, and that confuses markets and consumers. It seems that nobody quite knows who is in charge or what they plan. There has to be far less political pandering for votes and more actual leading in a stated direction. To be frank, there was little in the campaign rhetoric that provides a clue as to what happens next. It can only be assumed that these issues are addressed, but they have been issues for years and precious little progress has been made.

There is a serious disconnect between what consumers are feeling and what the economic data suggests. There has been above average quarterly growth through 2023 and 2024 (exceeding expectations every quarter). The rate of unemployment is near record lows and the rate of inflation has fallen (although prices are going to stay high for a while). From a data perspective, the US economy has been performing better than expected but the consumer is not convinced – at least not those that are in the bottom third of income earners.

Regional MSA Construction Potential Index

The following section shows the Construction Potential Index developed by Armada in conjunction with Pioneer IQ for the largest Metropolitan Statistical Areas (MSAs) in the country. This index measures growth potential and construction spending per capita to create a construction potential index. The score itself is not as important as the index in relation to all other markets, which is important in understanding and the index incorporates both residential and nonresidential construction potential. Q2 data is the latest available.

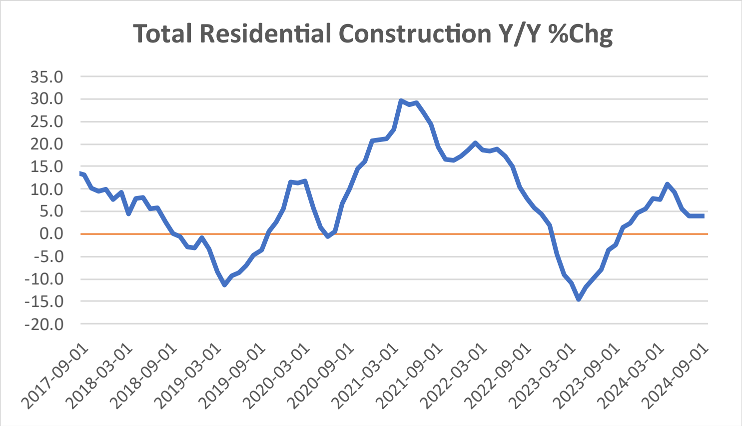
		PIQ Construction Scoring System	Change in Gross Construction GDP		
Rank	MSA	Construction Potential Score	Q2 2024 Q/Q Change in Gross Construction GDP	Q2 2024 Y/Y Change in Gross Construction GDP	BEA Region
1	Dallas-Fort Worth-Arlington, TX	2679.8	1.6%	16.0%	SW
2	Houston-The Woodlands-Sugar Land, TX	2487.8	1.6%	16.0%	SW
3	New York-Newark-Jersey City, NY-NJ-PA	2463.7	1.1%	6.4%	ME
4	Chicago-Naperville-Elgin, IL-IN-WI	2462.1	1.1%	9.4%	GL
5	Washington-Arlington-Alexandria, DC-VA-MD-WV	2318.0	1.3%	7.0%	ME
6	Los Angeles-Long Beach-Anaheim, CA	2152.2	0.5%	8.6%	FW
7	Phoenix-Mesa-Scottsdale, AZ	1868.6	0.2%	17.7%	SW
8	Atlanta-Sandy Springs-Roswell, GA	1693.9	-0.2%	10.4%	SE
9	Miami-Fort Lauderdale-West Palm Beach, FL	1478.3	2.1%	12.2%	SE
10	San Francisco-Oakland-Hayward, CA	1411.8	0.5%	8.6%	FW
11	Seattle-Tacoma-Bellevue, WA	1325.2	2.6%	3.7%	FW
12	Boston-Cambridge-Newton, MA-NH	1220.0	1.6%	9.9%	NE
13	Minneapolis-St. Paul-Bloomington, MN-WI	1211.3	0.5%	8.8%	GL
14	Denver-Aurora-Lakewood, CO	1083.9	0.0%	5.3%	RM
15	Las Vegas-Henderson-Paradise, NV	1068.8	0.7%	3.2%	FW
16	Riverside-San Bernardino-Ontario, CA	1015.3	0.5%	8.6%	FW
17	Baltimore-Columbia-Towson, MD	1005.8	0.3%	2.3%	ME
18	Austin-Round Rock, TX	959.5	1.6%	16.0%	SW
19	Orlando-Kissimmee-Sanford, FL	954.2	2.1%	12.2%	SE
20	Portland-Vancouver-Hillsboro, OR-WA	910.4	2.0%	3.8%	FW
21	Tampa-St. Petersburg-Clearwater, FL	908.1	2.1%	12.2%	SE
22	Salt Lake City, UT	852.0	1.6%	14.8%	RM
23	Nashville-Davidson-Murfreesboro-Franklin, TN	776.9	0.5%	13.2%	SE
24	Indianapolis-Carmel-Anderson, IN	773.1	1.0%	13.6%	GL
25	Sacramento-Roseville-Arden-Arcade, CA	725.0	0.5%	8.6%	FW
26	Charlotte-Concord-Gastonia, NC-SC	700.8	1.2%	12.5%	SE
27	Detroit-Warren-Dearborn, MI	687.4	2.2%	15.7%	GL
28	St. Louis, MO-IL	684.1	1.9%	9.9%	P
29	San Diego-Carlsbad, CA	677.9	0.5%	8.6%	FW
30	Raleigh, NC	644.6	1.2%	12.5%	SE
31	Columbus, OH	631.4	2.3%	11.7%	GL
32	San Antonio-New Braunfels, TX	629.1	1.6%	16.0%	SW
33	Kansas City, MO-KS	550.6	2.6%	13.4%	P
34	San Jose-Sunnyvale-Santa Clara, CA	547.4	0.5%	8.6%	FW
35	Baton Rouge, LA	541.8	3.0%	20.5%	SE
36	Cincinnati, OH-KY-IN	538.7	1.8%	12.7%	GL
37	Jacksonville, FL	509.7	2.1%	12.2%	SE
38	Provo-Orem, UT	412.7	1.6%	14.8%	RM
39	Charleston-North Charleston, SC	386.1	0.1%	11.6%	SE

Rank	MSA	PIQ Construction Scoring System	Change in Gross Construction GDP		BEA Region
		Construction Potential Score	Q2 2024 Q/Q Change in Gross Construction GDP	Q2 2024 Y/Y Change in Gross Construction GDP	
40	Boise City, ID	383.4	0.5%	12.0%	RM
41	Richmond, VA	357.1	2.3%	11.8%	SE
42	Louisville-Jefferson County, KY-IN	354.1	1.3%	13.7%	SE
43	Grand Rapids-Wyoming, MI	328.0	2.2%	15.7%	GL
44	North Port-Sarasota-Bradenton, FL	313.1	2.1%	12.2%	SE
45	Urban Honolulu, HI	309.1	0.6%	12.5%	FW
46	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	308.9	0.6%	5.9%	ME
47	Cape Coral-Fort Myers, FL	304.7	2.1%	12.2%	SE
48	New Orleans-Metairie, LA	304.4	3.0%	20.5%	SE
49	Ogden-Clearfield, UT	302.6	1.6%	14.8%	RM
50	Reno, NV	300.1	0.7%	3.2%	FW
51	Milwaukee-Waukesha-West Allis, WI	284.1	0.5%	6.9%	GL
52	Greenville-Anderson-Mauldin, SC	277.3	0.1%	11.6%	SE
53	Des Moines-West Des Moines, IA	276.9	-0.5%	13.0%	P
54	Oklahoma City, OK	266.9	1.3%	12.8%	SW
55	Colorado Springs, CO	250.8	0.0%	5.3%	RM
56	Omaha-Council Bluffs, NE-IA	230.0	-0.2%	11.7%	P
57	Columbia, SC	223.8	0.1%	11.6%	SE
58	Memphis, TN-MS-AR	211.6	0.4%	14.0%	SE
59	Lakeland-Winter Haven, FL	210.6	2.1%	12.2%	SE
60	Tucson, AZ	210.1	0.2%	17.7%	SW
61	Birmingham-Hoover, AL	208.7	2.4%	13.9%	SE
62	Durham-Chapel Hill, NC	201.7	1.2%	12.5%	SE
63	Myrtle Beach-Conway-North Myrtle Beach, SC-NC	194.5	0.9%	12.2%	SE
64	Tulsa, OK	194.4	1.3%	12.8%	SW
65	Madison, WI	183.9	0.5%	6.9%	GL
66	Greensboro-High Point, NC	179.0	1.2%	12.5%	SE
67	Fresno, CA	174.9	0.5%	8.6%	FW
68	Naples-Immokalee-Marco Island, FL	171.3	2.1%	12.2%	SE
69	Deltona-Daytona Beach-Ormond Beach, FL	168.9	2.1%	12.2%	SE
70	Albuquerque, NM	168.0	-0.9%	9.0%	SW
71	Fayetteville-Springdale-Rogers, AR-MO	162.1	2.0%	14.1%	SE
72	Palm Bay-Melbourne-Titusville, FL	160.6	2.1%	12.2%	SE
73	Lancaster, PA	160.1	0.7%	8.9%	ME
74	Stockton-Lodi, CA	159.1	0.5%	8.6%	FW
75	Bridgeport-Stamford-Norwalk, CT	159.0	1.2%	15.9%	NE
76	Albany-Schenectady-Troy, NY	157.9	1.4%	5.5%	ME
77	Knoxville, TN	152.2	0.5%	13.2%	SE
78	Greeley, CO	151.5	0.0%	5.3%	RM
79	Augusta-Richmond County, GA-SC	148.6	-0.1%	10.7%	SE
80	Little Rock-North Little Rock-Conway, AR	147.3	0.0%	15.3%	SE
81	Santa Rosa, CA	146.8	0.5%	8.6%	FW
82	Rochester, NY	144.8	1.4%	5.5%	ME
83	Bakersfield, CA	136.3	0.5%	8.6%	FW
84	Huntsville, AL	135.7	3.0%	20.5%	SE
85	Lexington-Fayette, KY	134.9	2.1%	13.9%	SE
86	Corpus Christi, TX	134.3	1.6%	16.0%	SW
87	Oxnard-Thousand Oaks-Ventura, CA	127.4	0.5%	8.6%	FW
88	Fort Collins, CO	125.4	0.0%	5.3%	RM
89	Salisbury, MD-DE	123.4	0.3%	3.2%	ME
90	Pensacola-Ferry Pass-Brent, FL	120.7	2.1%	12.2%	SE
91	Anchorage, AK	118.9	1.7%	23.1%	FW
92	Vallejo-Fairfield, CA	117.3	0.5%	8.6%	FW
93	Spokane-Spokane Valley, WA	116.8	2.6%	3.7%	FW
94	Wichita, KS	113.0	2.1%	12.7%	P
95	Port St. Lucie, FL	110.0	2.1%	12.2%	SE
96	Killeen-Temple, TX	100.7	1.6%	16.0%	SW
97	Savannah, GA	100.7	-0.2%	10.4%	SE
98	Fargo, ND-MN	99.6	0.5%	9.6%	P
99	Kennewick-Richland, WA	96.5	2.6%	3.7%	FW

Rank	MSA	PIQ Construction Scoring System	Change in Gross Construction GDP		BEA Region
		Construction Potential Score	Q2 2024 Q/Q Change in Gross Construction GDP	Q2 2024 Y/Y Change in Gross Construction GDP	
100	McAllen-Edinburg-Mission, TX	93.8	1.6%	16.0%	SW
101	Sioux Falls, SD	91.5	0.1%	10.6%	P
102	Modesto, CA	84.3	0.5%	8.6%	FW
103	Santa Maria-Santa Barbara, CA	74.8	0.5%	8.6%	FW
104	Lafayette, LA	69.6	3.0%	20.5%	SE
105	Visalia-Porterville, CA	48.1	0.5%	8.6%	FW

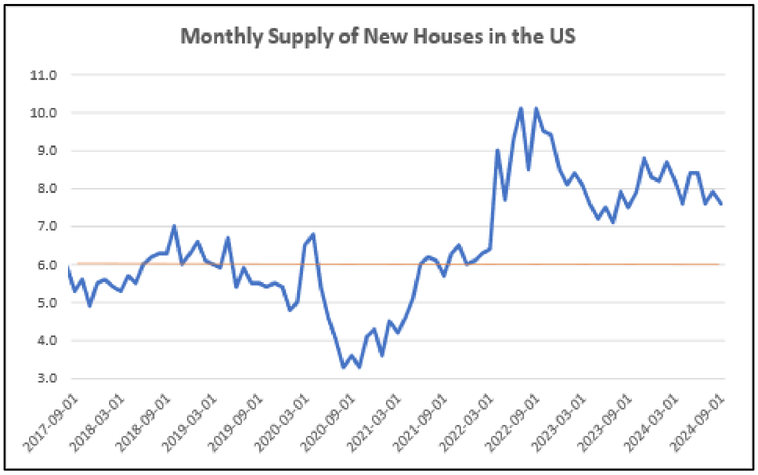
Residential Construction

The following section includes viewpoints on factors in the residential construction sector.



Total Residential Construction (PRRESCONS)

- Total residential construction in September (latest available), was up by 4.1% Y/Y (up 4.1% last month). It was down 0.0% M/M (0.0% last month).
- **Outlook**: We were concerned about trends in bond rates (mortgage rates are closely tied to the 10-Year Treasury). As bond auctions work harder to find investors, they push yield rates higher which pulls mortgage rates higher with them. The current yield rate on the 10-year treasury is 14% higher than it was just thirty days ago, and the 30-year mortgage rate has moved from 6.12% to 6.72% (based on Federal estimates). That is a 9.8% change in the rate in the past 30 days. This is the biggest hindrance to new home sales and buyers jumping back into the market. It is also why spec home builders are slow to jump back in, despite the Federal Reserve trimming interest rates (which generally should help with interest rates but in this cycle isn't moving it).



Monthly Supply of Homes (MSACSR)

- The monthly supply of homes came in at 7.6, which is down from the 7.9 registered last month. But it is still higher than the 7.5 months registered a year ago. A balanced market would be roughly 6 months of inventory on hand.
- **Outlook:** New home inventories have softened of late and are coming back down to a level that is considered to be "balanced". This is likely going to absorb any spare capacity in the market. If one were to speculate and just consider that 1) the Federal Reserve is likely to keep trimming interest rates and 2) the US needs about 2.5 million new homes (units) to meet current demand, that should bode well for the residential construction market in the quarters ahead.

Month	United States				
	Total	1 unit	2 units	3 to 4 units	5 units or more
Sep 2023	116.7	76.5	2.3	1.7	36.2
Oct 2023	125.3	79.8	2.8	1.7	41.0
Nov 2023	108.8	69.6	2.3	1.4	35.5
Dec 2023	104.9	64.9	2.0	1.5	36.6
Jan 2024	114.8	75.9	2.1	1.7	35.1
Feb 2024	119.1	79.4	2.5	1.6	35.6
Mar 2024	124.3	85.2	2.8	1.5	34.8
Apr 2024	132.3	93.6	3.5	1.6	33.7
May 2024	132.4	94.1	3.5	1.7	33.1
Jun 2024	125.7	83.7	2.6	1.5	37.8
Jul 2024	126.5	85.8	2.8	1.7	36.1
Aug 2024	131.9	86.1	3.4	1.9	40.5
Sep 2024	113.5	76.7	3.3	1.5	32.1

Housing Permits (https://www.census.gov/construction/bps/)

- Housing Permits were down 3.1% M/M in September (latest available) vs. August and were 5.9% lower year-over-year. Single-family permits were down 0.4% M/M and were 1.9% lower vs. Sept of last year. Multi-family was a bigger story, permits were down 9.2% M/M in Sept and were down sharply by 16.0% Y/Y.
- **Looking Ahead**: Permits are our best gauge looking forward into the future. The problem is that mortgage rates have been inching up in recent weeks. One of the challenges is the US has had to issue a lot of new bonds into the global market to help finance the debt. Despite trimming of rates by the Federal Reserve, higher yield rates on the 10-year Treasury (driven higher as the US Treasury tries to lure investors to buy US debt) has pushed mortgage rates higher. That could be a factor near-term with permits and new starts.

The following section shows housing permits authorized by region for total, single-family, and multi-family.

Month	Northeast											
	Total	Y/Y	3-Month Moving Avg.	M/M	1 unit	Y/Y	3-Month Moving Avg.	M/M	5 unit	Y/Y	3-Month Moving Avg.	M/M
Sep 2023	8.4	-18.4%	-5.1%	-23.6%	4.6	-13.2%	-6.1%	-11.5%	3.8	-24.0%	-3.0%	-34.5%
Oct 2023	10.5	26.5%	8.3%	25.0%	4.9	14.0%	3.5%	6.5%	5.6	40.0%	14.9%	47.4%
Nov 2023	7.1	-27.6%	-10.3%	-32.4%	4.3	7.5%	-5.8%	-12.2%	2.8	-51.7%	-12.4%	-50.0%
Dec 2023	8.1	-23.6%	2.2%	14.1%	3.5	-10.3%	-8.1%	-18.6%	4.6	-31.3%	20.6%	64.3%
Jan 2024	10.7	42.7%	4.6%	32.1%	4.4	18.9%	-1.7%	25.7%	6.3	65.8%	17.1%	37.0%
Feb 2024	14.3	95.9%	26.6%	33.6%	4.2	27.3%	0.9%	-4.5%	10.1	152.5%	53.9%	60.3%
Mar 2024	12.4	-1.6%	17.5%	-13.3%	4.4	-2.2%	8.6%	4.8%	8.0	-1.2%	25.5%	-20.8%
Apr 2024	12.1	42.4%	6.0%	-2.4%	5.6	19.1%	9.2%	27.3%	6.5	71.1%	6.9%	-18.8%
May 2024	10.9	-11.4%	-8.5%	-9.9%	5.8	5.5%	11.9%	3.6%	5.1	-25.0%	-20.4%	-21.5%
Jun 2024	11.8	12.4%	-1.4%	8.3%	5.7	-1.7%	9.7%	-1.7%	6.1	29.8%	-6.9%	19.6%
Jul 2024	12.3	38.2%	0.9%	4.2%	5.4	20.0%	-1.1%	-5.3%	6.9	56.8%	3.7%	13.1%
Aug 2024	12.6	14.5%	5.0%	2.4%	6.0	15.4%	1.4%	11.1%	6.6	13.8%	9.5%	-4.3%
Sep 2024	10.1	20.2%	-4.4%	-19.8%	5.1	10.9%	-3.1%	-15.0%	5.0	31.6%	-5.2%	-24.2%

Month	Midwest											
	Total	Y/Y	3-Month Moving Avg.	M/M	1 unit	Y/Y	3-Month Moving Avg.	M/M	5 unit	Y/Y	3-Month Moving Avg.	M/M
Sep 2023	17.2	-13.6%	-0.6%	-15.7%	10.5	2.9%	-2.4%	-9.5%	6.7	-30.9%	5.2%	-23.9%
Oct 2023	16.6	-16.6%	4.4%	-3.5%	10.6	9.3%	1.7%	1.0%	6.0	-41.2%	11.6%	-10.4%
Nov 2023	14.9	-4.5%	-9.8%	-10.2%	8.6	17.8%	-9.1%	-18.9%	6.3	-24.1%	-9.8%	5.0%
Dec 2023	11.8	2.6%	-11.5%	-20.8%	6.9	25.5%	-12.6%	-19.8%	4.9	-18.3%	-9.2%	-22.2%
Jan 2024	12.3	25.5%	-8.9%	4.2%	6.6	37.5%	-14.3%	-4.3%	5.7	14.0%	-0.3%	16.3%
Feb 2024	14.3	34.9%	-0.1%	16.3%	8.8	49.2%	3.1%	33.3%	5.5	17.0%	-3.1%	-3.5%
Mar 2024	15.9	-9.7%	10.6%	11.2%	10.6	14.0%	16.5%	20.5%	5.3	-36.1%	3.1%	-3.6%
Apr 2024	16.2	6.6%	9.8%	1.9%	12.2	22.0%	23.0%	15.1%	4.0	-23.1%	-10.6%	-24.5%
May 2024	18.3	-3.7%	8.7%	13.0%	11.8	3.5%	10.8%	-3.3%	6.5	-14.5%	11.4%	62.5%
Jun 2024	18.1	-4.2%	4.6%	-1.1%	11.2	-2.6%	2.2%	-5.1%	6.9	-6.8%	14.7%	6.2%
Jul 2024	17.3	12.3%	2.5%	-4.4%	11.3	10.8%	-2.5%	0.9%	6.0	15.4%	18.5%	-13.0%
Aug 2024	19.8	-2.9%	3.0%	14.5%	11.6	0.0%	-0.5%	2.7%	8.2	-6.8%	9.9%	36.7%
Sep 2024	18.3	6.4%	0.8%	-7.6%	11.6	10.5%	1.2%	0.0%	6.7	0.0%	1.8%	-18.3%

Month	South											
	Total	Y/Y	3-Month Moving Avg.	M/M	1 unit	Y/Y	3-Month Moving Avg.	M/M	5 unit	Y/Y	3-Month Moving Avg.	M/M
Sep 2023	64.1	-6.8%	-3.5%	-16.2%	45.7	10.9%	-4.3%	-13.0%	18.4	-33.3%	-0.8%	-23.3%
Oct 2023	70.6	4.4%	3.0%	10.1%	47.8	21.9%	1.7%	4.6%	22.8	-19.7%	6.5%	23.9%
Nov 2023	56.2	1.4%	-8.8%	-20.4%	41.1	23.1%	-7.5%	-14.0%	15.1	-31.4%	-11.1%	-33.8%
Dec 2023	59.1	5.3%	-1.7%	5.2%	39.4	28.3%	-4.5%	-4.1%	19.7	-22.4%	6.9%	30.5%
Jan 2024	66.7	7.2%	-0.8%	12.9%	48.0	39.5%	1.2%	21.8%	18.7	-32.7%	-2.8%	-5.1%
Feb 2024	64.9	-0.9%	5.1%	-2.7%	49.5	31.0%	6.9%	3.1%	15.4	-44.4%	2.6%	-17.6%
Mar 2024	67.2	-6.4%	4.6%	3.5%	51.2	4.5%	9.5%	3.4%	16.0	-29.8%	-6.3%	3.9%
Apr 2024	77.5	17.6%	5.4%	15.3%	56.0	23.6%	5.3%	9.4%	21.5	4.4%	6.9%	34.4%
May 2024	73.2	-3.7%	4.4%	-5.5%	55.8	6.1%	4.2%	-0.4%	17.4	-25.6%	6.4%	-19.1%
Jun 2024	67.2	-8.3%	0.5%	-8.2%	48.3	-9.7%	-1.5%	-13.4%	18.9	-4.5%	8.0%	8.6%
Jul 2024	69.9	5.1%	-3.2%	4.0%	50.7	9.5%	-2.9%	5.0%	19.2	-5.0%	-3.0%	1.6%
Aug 2024	72.6	-5.1%	-0.1%	3.9%	50.1	-4.6%	-3.2%	-1.2%	22.5	-6.3%	9.1%	17.2%
Sep 2024	59.1	-7.8%	-3.6%	-18.6%	43.0	-5.9%	-3.5%	-14.2%	16.1	-12.5%	-3.2%	-28.4%

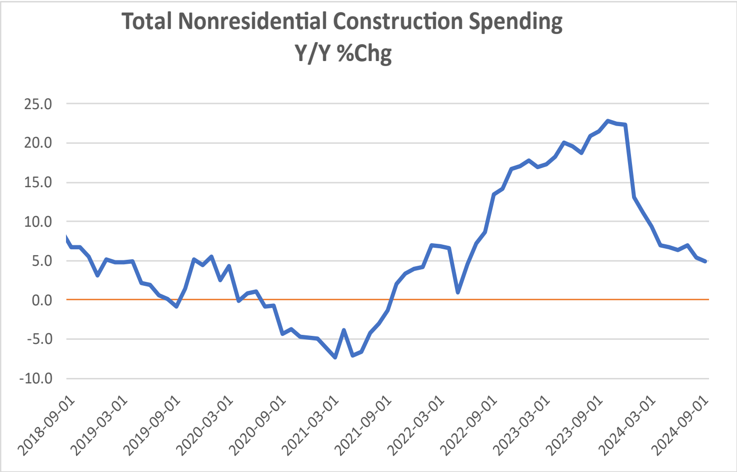
Month	West											
	Total	Y/Y	3-Month Moving Avg.	M/M	1 unit	Y/Y	3-Month Moving Avg.	M/M	5 unit	Y/Y	3-Month Moving Avg.	M/M
Sep 2023	27.1	-11.4%	-4.5%	-20.1%	15.7	11.3%	-7.0%	-17.4%	11.4	-30.9%	-0.5%	-23.5%
Oct 2023	27.6	10.4%	1.2%	1.8%	16.5	31.0%	0.3%	5.1%	11.1	-10.5%	3.1%	-2.6%
Nov 2023	30.6	41.7%	-2.4%	10.9%	15.6	44.4%	-5.9%	-5.5%	15.0	38.9%	3.0%	35.1%
Dec 2023	26.0	-1.1%	-0.8%	-15.0%	15.1	49.5%	-1.2%	-3.2%	10.9	-32.7%	1.7%	-27.3%
Jan 2024	25.1	16.7%	-2.5%	-3.5%	17.0	66.7%	1.3%	12.6%	8.1	-28.3%	-6.0%	-25.7%
Feb 2024	25.6	-6.6%	-5.5%	2.0%	16.9	45.7%	2.9%	-0.6%	8.7	-44.9%	-15.2%	7.4%
Mar 2024	28.8	-1.7%	3.7%	12.5%	18.9	13.9%	7.9%	11.8%	9.9	-22.0%	-1.5%	13.8%
Apr 2024	26.5	-5.4%	2.2%	-8.0%	19.8	30.3%	5.3%	4.8%	6.7	-47.7%	-3.7%	-32.3%
May 2024	30.0	-6.8%	5.9%	13.2%	20.6	5.6%	6.9%	4.0%	9.4	-26.0%	7.3%	40.3%
Jun 2024	28.6	-13.1%	0.2%	-4.7%	18.5	-8.4%	-0.5%	-10.2%	10.1	-20.5%	5.1%	7.4%
Jul 2024	27.1	-2.5%	1.1%	-5.2%	18.5	10.1%	-2.1%	0.0%	8.6	-21.8%	11.0%	-14.9%
Aug 2024	26.9	-20.6%	-3.5%	-0.7%	18.3	-3.7%	-3.8%	-1.1%	8.6	-42.3%	-2.5%	0.0%
Sep 2024	25.9	-4.4%	-3.2%	-3.7%	17.0	8.3%	-2.7%	-7.1%	8.9	-21.9%	-3.8%	3.5%

NAHB Housing and Interest Rate Forecast, 09/13/2024

	2020	2021	2022	2023	2024	2025	2026
Housing Activity (000)							
Total Housing Starts	1,394	1,605	1,552	1,421	1,333	1,350	1,489
Single Family	1,000	1,131	1,006	949	998	1,019	1,104
Multifamily	393	474	546	473	335	331	385
New Single Family Sales	831	770	637	666	679	727	781
Existing Single-Family Home Sales	5,057	5,425	4,533	3,674	3,759	4,118	4,417
Interest Rates							
Federal Funds Rate	0.36%	0.08%	1.68%	5.03%	5.25%	4.10%	3.16%
Ten Year Maturity	0.89%	1.44%	2.95%	3.96%	4.12%	3.53%	3.32%
Fixed Rate Mortgages	3.11%	2.96%	5.34%	6.81%	6.64%	5.86%	5.49%
Prime Rate	3.54%	3.25%	4.85%	8.19%	8.42%	7.25%	6.29%

For more forecast details, visit www.nahb.org.

Nonresidential Construction



Total Non-Residential Construction (TLNRESCONS)

- Total Non-Residential Construction activity in September (latest available) was 4.9% higher than it was a year ago (5.4% higher last month) and was 0.5% lower M/M (-1.6% in the last report). Overall spending was still near all-time highs at $1.223T (the prior annualized run rate peak of $900B was in September of 2022).
- **Outlook**: When adjusted for inflation again this month, Office, highway and street, health care, communication, religious, conservation, lodging, and commercial sectors contracted vs. last year's levels. But other sectors were growing, even after inflation adjustments. Manufacturing was still among the strongest, but infrastructure spending was also strong and helping drive growth in the sector.

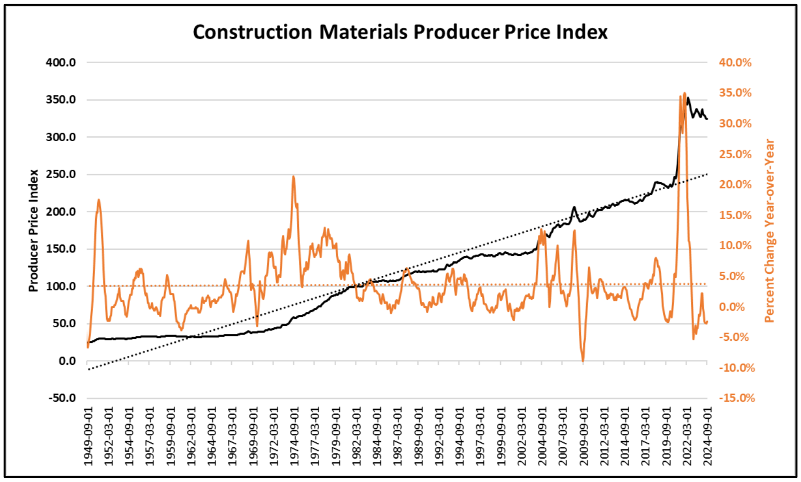
Non-Residential Spending by Sector

(https://www.census.gov/construction/c30/c30index.html)

Type of Construction	Sep 2024[p]	Aug 2024[r]	Sep 2023	Percent change Sep 2024 from - Aug 2024	Percent change Sep 2024 from - Sep 2023
Total Construction	**2,148,805**	**2,146,048**	**2,055,216**	**0.1**	**4.6**
Residential[2]	913,632	912,186	877,629	0.2	4.1
New single family	418,867	417,229	415,287	0.4	0.9
New multifamily	127,045	127,171	138,249	-0.1	-8.1
Nonresidential	1,223,447	1,222,402	1,166,763	0.1	4.9
Public safety	19,552	19,570	14,654	-0.1	33.4
Manufacturing	235,347	235,755	195,384	-0.2	20.5
Water supply	33,551	33,333	28,667	0.7	17.0
Amusement and recreation	41,525	41,570	37,261	-0.1	11.4
Transportation	70,127	69,552	65,400	0.8	7.2
Power	146,275	146,558	137,584	-0.2	6.3
Educational	129,245	128,825	124,592	0.3	3.7
Sewage and waste disposal	45,821	45,575	44,263	0.5	3.5
Office	100,546	100,598	98,950	-0.1	1.6
Highway and street	141,948	141,361	139,813	0.4	1.5
Health care	66,508	66,898	65,905	-0.6	0.9
Communication	28,551	28,649	28,480	-0.3	0.2
Religious	3,910	3,815	3,961	2.5	-1.3
Conservation and development	11,754	11,935	12,197	-1.5	-3.6
Lodging	23,483	23,411	25,202	0.3	-6.8
Commercial	125,304	124,999	144,449	0.2	-13.3

- The fastest growing non-residential construction sector has continued to be connected to manufacturing. It is still growing at a 20.5% pace year over year. This has been driven by factors such as reshoring and the need to add technological capacity. Inflation has played a role in this growth rate, but actual spending is still nearly 4 times higher than at any time in the decade prior to the pandemic. These new facilities are landing in broad swaths of the country, largely in areas with inexpensive electricity, ample labor supply, good distribution systems, and available water (among other factors).
- Slowing infrastructure spending may begin to show up in 2025 and funds that were not allocated under the Inflation Reduction Act (IRA) could get cut as a result of what appears to be a push to reduce government spending under the new administration. Spending in other areas could offset those reductions however, and spending under other government programs like the infrastructure Bill and CHIPS Act could continue.
- Some notable sluggishness has continued to decelerate since Q2 and through Q3. When adjusted for inflation, Office, Highway and Street, Health Care, and communications sectors are actually contracting at a faster rate. Four sectors were actually contracting, including religious (the smallest sector), conservation and development, lodging, and commercial.
- The Federal Reserve continues to trim interest rates and is expected to approach their long-term rate of 2.9% by the end of next year. That means that there could be at least another 100-150 basis points in cuts between December and the rest of 2025. That will bring many projects off of the sidelines (assuming that material costs remain at current levels - at worst - but could ease if supply surges at best).

Raw Materials



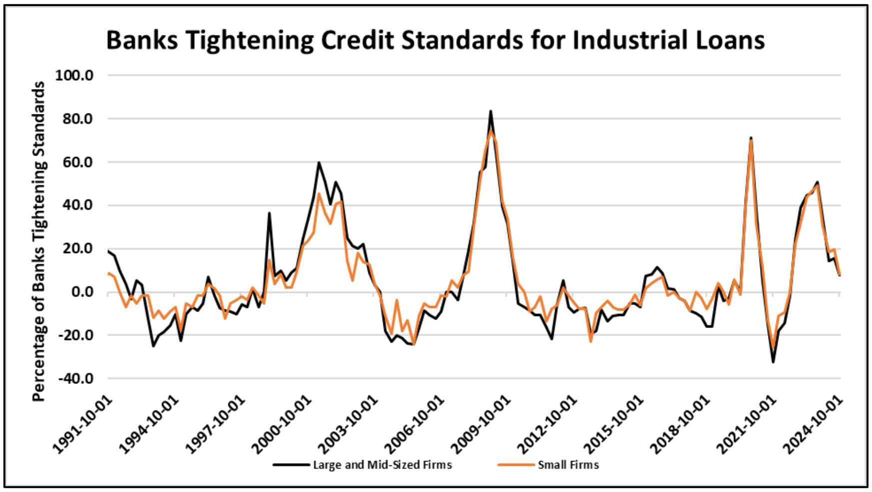
Construction Materials Price Index (WPUSI012011)

- The Producer Price Index for Construction Materials fell by 0.2% M/M and were down 2.4% Y/Y through September (latest available). The current index is at 324.1 points; the peak in the index was 349 in May of 2022.
- **Outlook**: Some material prices are still remaining elevated on a historical basis and are well above the long-term trend (black dotted line in the chart at left). Global competition for raw materials is slightly weaker at this time but is expected to pick up early in 2025 as Europe and parts of Asia start to see general economic improvement. China is pumping hundreds of billions of dollars into its economy to try and stimulate growth. That can create some near-term inflationary pressure on some raw and intermediate commodities.

Producer Price Index - Key Industry Products						
Category	PPI Code	Sep-24	Aug-24	M/M% Chg	Sep-23	Y/Y % Chg
Core Materials						
Copper	WPUSI019011	556.1	548.7	1.4%	500.3	11.2%
Lumber	WPU081	255.0	251.5	1.4%	256.5	-0.6%
Nickel	WPU102504	213.8	215.9	-1.0%	220.1	-2.9%
Cement	PCU32732032732	395.2	393.9	0.3%	378.3	4.5%
Pipe, Valves and Fittings						
Metal valves, except fluid power	WPU114902	445.6	441.4	1.0%	437.0	2.0%
Gates, globes, angles and check valves	WPU114902011	173.5	171.5	1.2%	165.8	4.6%
Ball valves	WPU11490202	584.2	570.2	2.5%	590.0	-1.0%
Butterfly valves (formerly W2421490203)	WPU11490203	318.0	318.0	0.0%	306.1	3.9%
Industrial plug valves	WPU11490204	325.4	325.4	0.0%	308.7	5.4%
Plumbing and heating valves (low pressure)	WPU11490205	389.8	389.8	0.0%	389.8	0.0%
Solenoid valves	WPU11490208	372.2	372.2	0.0%	372.2	0.0%
Other industrial valves, including nuclear	WPU11490209	407.9	407.9	0.0%	406.2	0.4%
Automatic valves	WPU11490211	263.7	263.7	0.0%	249.1	5.9%
Metal pipe fittings, flanges and unions	WPU11490301	509.7	509.8	0.0%	477.3	6.8%
Steel pipe and tube	WPU101706	360.0	364.8	-1.3%	383.5	-6.1%
Steel pipe and tube, alloy	WPU10170673	109.5	109.5	0.0%	109.5	0.0%
Steel pipe and tube, stainless	WPU10170674	132.6	133.7	-0.8%	143.7	-7.7%
Copper & copper-base alloy pipe and tube	WPU10250239	440.7	440.7	0.0%	343.7	28.2%
Plastic pipe	WPU07210603	186.0	188.1	-1.1%	195.3	-4.8%
Plastic pipe fittings and unions	WPU07210604	323.5	322.1	0.4%	316.8	2.1%
Plumbing Fixtures, Fittings and Trim	WPU105402	402.0	402.0	0.0%	395.0	1.8%
Bath and shower fittings	WPU10540211	286.7	286.7	0.0%	286.7	0.0%
Lavatory and sink fittings	WPU10540218	207.9	207.9	0.0%	204.6	1.6%
Enameled iron and metal sanitary ware	WPU1056	284.5	284.5	0.0%	283.5	0.3%
Steam and Hot Water Equipment	WPU1061	456.2	456.2	0.0%	428.5	6.5%
Cast iron heating boilers, radiators and convectors	WPU10610106	309.7	309.7	0.0%	289.7	6.9%
Domestic water heaters	WPU106601	590.6	590.6	0.0%	570.6	3.5%
Electric water heaters	WPU10660101	586.6	586.6	0.0%	564.3	4.0%
Non-electric water heaters	WPU10660114	359.0	359.0	0.0%	347.7	3.3%
Warehousing, Storage and Relates Services	WPU321	139.8	139.5	0.2%	138.5	0.9%

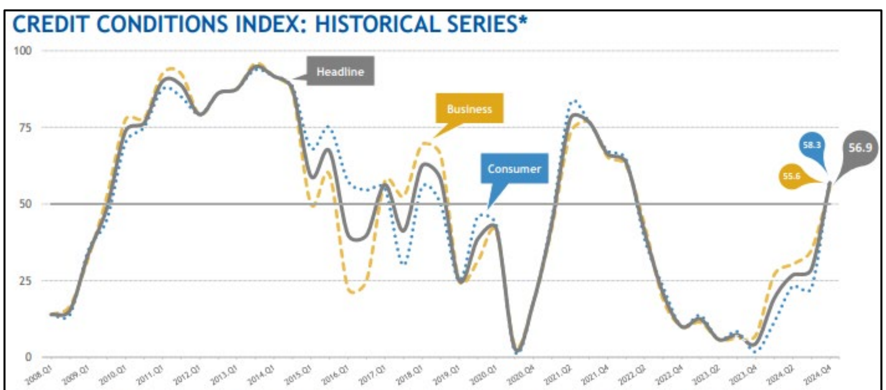
Banking Credit and Finance

Overall Observations: The Federal Reserve has cut interest rates 75 basis points since September. According to the Fed dot plot, most members expect at least one more quarter point cut before the end of the year. The Fed's long-term target rate is currently 2.9%, but that could adjust higher if conditions warrant. Most anticipate hitting that target rate by the end of 2025 – which suggests a strong trim rate in the quarters ahead.



Banks Tightening Conditions (DRTSCILM; DRTSCIS)

- Fewer banks were tightening credit standards through Q3, only 7.9% of large and medium-sized commercial firms and 8.2% of smaller firms were tightening. This compares to -2.8% and -5.8% in 2019 respectively. Note that this is down from levels of 50.8% and 49.2% a year ago.
- **Outlook**: Banks continue to ease their standards for lending, but many projects are still finding financing difficult. The type of project, location, and size of project makes a significant difference at this time (perhaps more sensitivity to some of those conditions than in years past). But generally, conditions remain slightly tighter than in years past. But unlike the first and second quarter, banks are now entertaining new project concepts. Many have set aside significant resources to cover potential loan defaults, and with mortgage and home equity defaults at low levels, they want to get money working again and are looking for deals.

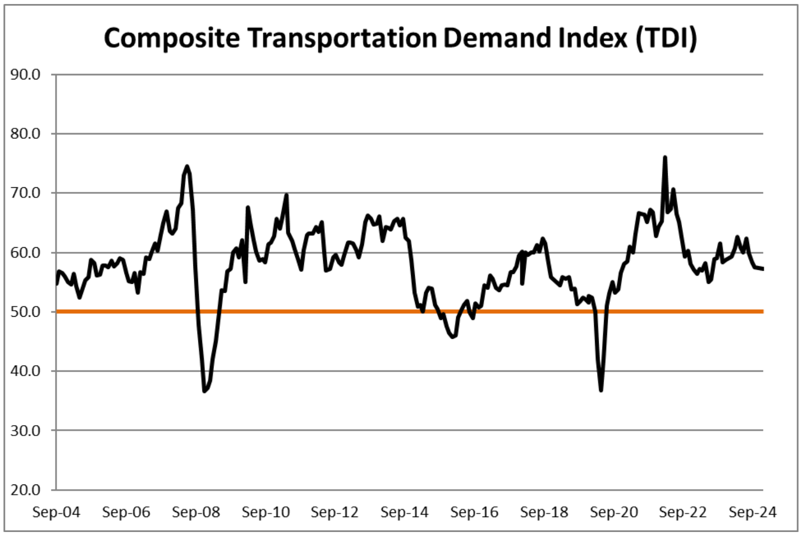


Source: American Bankers Association. *The EAC credit market outlook was conducted twice a year (Q1 and Q3) until 2020, at which point the frequency was increased to quarterly.

ABA Credit Conditions (ABA)

- The American Bankers Association's Credit Conditions Index for business credit increased by 28.2 points to 56.9 in early Q4. This was the highest reading since 2022 according to the ABA and since it is above the 50 level, it suggests that bankers believe credit conditions will improve over the next 6 months.
- **Outlook**: Credit conditions for consumers and consumer loans are also above 50 early in Q4, posting 58.3 and a sharp improvement over a reading of 35.8 points in Q3. Less than half of the respondents in the survey thought that credit conditions would deteriorate in the next six months. The ABA mentioned that this was the second fastest jump in the index in more than 20 years. Business Credit also surged to 55.6 and positive sentiment concerning business access to credit improved. Most economists and banking executives expect credit conditions to improve over the next six months overall as the Federal Reserve eases interest rates and the proverbial "soft landing" allows moderate growth to keep conditions improving.

Supply Chain and Transportation Situation



	24-Sep	24-Aug	23-Sep	Y/Y Change %	M/M Change %
Composite	57.5	58.3	61.5	-6.5%	-1.4%
Rail	55.3	56.5	58.8	-6.0%	-2.1%
Trucking	57.4	58.2	61.9	-7.3%	-1.4%
Air	67.3	66.8	64.6	4.2%	0.7%
Maritime	65.6	65.2	62.8	4.5%	0.6%

Transportation Demand Normalizing

- The Transportation Demand Index shows the current demand environment for freight services, and it slipped again in the last 30 days. But it continued to show demand in a range commensurate with the ten-year trend prior to the pandemic.
- The composite TDI index came in 1.4% lower M/M (-2.7% last month) and was 6.5% lower Y/Y (-1.2% last month).
- **Outlook:** This month there was a tremendous amount of "noise" in the index. It was being hit by hurricanes Helene and Milton and the East Coast Port Strike. All of which were changing market dynamics and changing some of the metrics monitored for demand. But, as the headline says, transportation demand is still in the process of "normalizing". Looking at the index on a historical basis, it was still showing demand levels commensurate with those seen in prior cycles, and better than some (such as the 2014-2016 period).

Mode Demand Slowing

- Each mode of transportation was mixed headed into the fourth quarter. This index measures demand but does not have a capacity component to it. Rail and trucking were both down 6% and 7.3% Y/Y respectively while air cargo and maritime were both marginally higher at 4.2% and 4.5% respectively. Some trade lanes were showing air cargo pricing nearly 14% higher year-over-year as supply chain managers use smaller tuck-in orders to refill stockouts instead of moving full containers full of freight. This is part of the lean inventory strategy many are using.

What we are Watching in Transportation

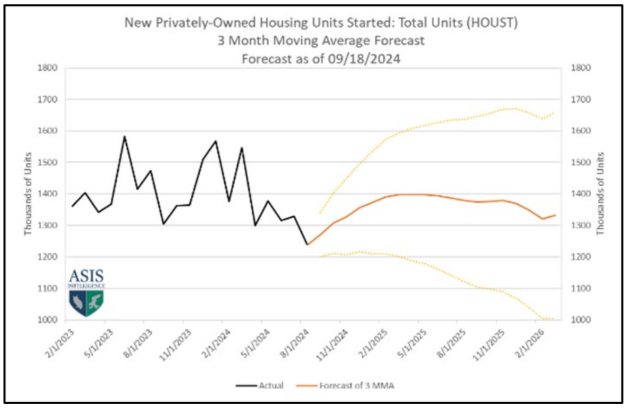
- **Maritime Rates Still High.** Drewry was still reporting (in their latest release) that shipments running between Asia and the US West Coast are 110% higher (to move a 40ft container) versus rates at this time last year. Shanghai to New York was also up 97% Y/Y. Prices are softening late in the peak shipping season; every lane experienced a softening of prices week-over-week in the last reading in early November. High maritime rates are tied almost entirely on the situation in the Middle East, and specifically the Red Sea situation. Being unable to transit the Suez Canal is still striking approximately 20% of global capacity out of the market, and until the Middle East calms down and Houthi Rebel strikes stop, this tighter capacity situation will continue to be a problem. A recent US attack on key Houthi weapon stockpiles could help slow down attacks, and perhaps restart some transits.

- **East Coast Port Strike Impact.** The anticipated strike lasted about a day less than we had expected, but the ports are still trying to unravel the impacts of the strike. The timing of the strike was also unfortunate because it hit in sync with two significant east coast storms. Storm recovery and reconstruction efforts are going to push more volume into the ports and inland distribution that was impacted by each of the hurricanes is tightening the market. We don't yet see the data reflecting this tightening of capacity across Florida, Georgia, South Carolina, North Carolina, and Tennessee, but it is likely coming. Other areas along the East and Gulf coasts are also going through tighter conditions because of the process of trying to clear backlogs. Storage of materials for reconstruction and recovery will create some longer-term contract opportunities because of the storm damage alone. And with any delays in getting cargo unloaded from the ports, that will also tie up current trailer capacity in the area. By mid-October, some ports were back in cycle and congestion was already easing.

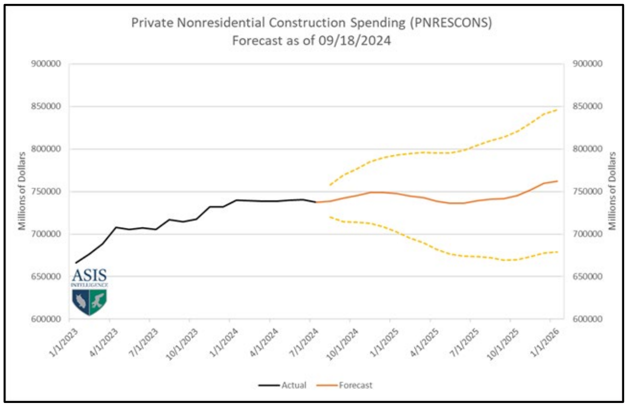
Construction Industry Outlook

	2023				2024				2019	2020	2021	2022	2023	2024	2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4							
Real GDP	1.1	2.4	5.2	2.5	1.3	2.8	3.0	1.3	2.3	-2.8	5.9	2.1	2.1	2.0	1.6
Unemployment rate (%)	3.5	3.6	3.7	3.7	3.8	3.9	4.1	4.2	3.7	8.1	5.4	3.6	3.6	4.0	4.0
PCE Inflation (%Y/Y)	4.6	3.9	3.3	2.8	2.8	2.8	2.5	2.5	1.5	1.1	4.0	5.6	3.7	2.5	2.5
Core PCE Inflation (%Y/Y)	4.8	4.6	3.8	3.2	3.1	2.9	2.8	2.5	1.7	1.3	3.5	4.8	4.1	2.5	2.2
Fed Funds Rate	4.9	5.1	5.3	5.4	5.4	5.2	5.0	5.0	1.6	0.1	0.1	4.4	5.4	5.0	3.0
Canada Real GDP	2.0	1.3	0.7	1.0	0.5	-	-	-	1.8	-5.2	4.5	3.4	1.1	1.0	1.5
Unemployment rate (%)	5.1	5.4	5.6	5.8	6.1	6.4	-	-	5.8	9.7	7.5	5.3	5.8	6.4	6.0
Mexico Real GDP	3.5	3.4	3.0	2.4	-	-	-	-	-1.8	-8.2	5.0	2.7	1.6	2.4	1.4
Unemployment rate (%)	3.6	3.6	3.8	4.0	3.9	3.8	-	-	5.0	7.9	7.1	4.1	3.8	3.8	4.0

There still remain three legs in the proverbial "growth stool" for US economic activity. Through Q3 and into Q4, 1) consumer spending, 2) government spending, and 3) nonresidential construction are still the primary drivers of GDP growth. Job openings are still high at more than 8 million, wage growth is outpacing inflation and the look ahead is expected to continue this trend. Total GDP growth should slow to 1.7% in 2025 after touching 2.5% this year.



Total construction activity is still trending higher than expected. Residential construction is still growing at a 2.7% annual rate, and spending on single-family residential was growing at just 0.8% year-over-year through August (latest available). The model at right shows the next 18 months of outlook for the residential construction market. It shows some slight improvement in the outlook throughout most of 2025.



Nonresidential construction is still surging, growth in the sector is up 5.2% year-over-year. The chart at right (below) is our forecast for nonresidential construction based on data algorithms and it shows little downside risk in the outlook over the next 18 months (solid orange line). Most of this growth is still being driven by heavy industrial manufacturing construction activity. That sector is growiong at an 18.3% annual rate and is expected to continue at nearly $238B in annual spending.

Manufacturing and industrial construction is still finding some momentum, and the industries experiencing this expansion are diverse and varied. The growth continues to be broad-based and stretches well beyond the data center industry (which has grown sharply and at historic rates), but in reality, it spreads across food and beverage, durable goods manufacturing capacity expansion, consumer staples, defense, aerospace, and many other sectors. One of the key aspects of where these projects are landing can be tied to 1) states with cheap energy prices; 2) good rail and truck distribution network access; 3) states offering tax incentives; 4) access to water; 5) reasonable cost of living for employees; and 6) those with decent labor availability.

Material prices have been mixed. Macro level construction material price indexes still show prices remaining near all-time highs – but they are flattening and could continue to improve with a strong US dollar and slowing of global activity elsewhere. China is the wildcard and the Chinese Government is pumping significant liquidity into its economy to stimulate it. That may increase demand for commodities and could push overall costs higher in the near term (perhaps in the first half of 2025).