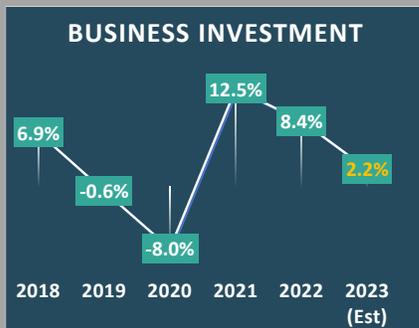
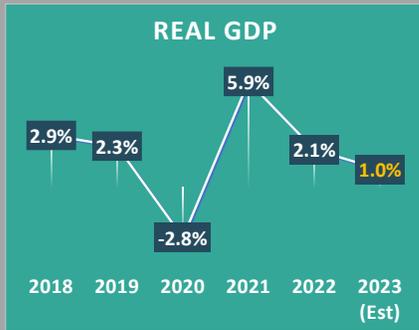


Selected Indices



Executive Summary – September '23

Big Items

GDP: The GDP estimates for the third quarter continue to be high at 4.9%. The final figures will likely come in around 3%-3.5%. In the past few quarters, the economy has been propped up by “three legs of a stool”. Consumer spending has been steady, nonresidential construction has exceeded expectations, and government spending has contributed to a strong growth curve. The fourth quarter traditionally shows some general slowing as companies slow down inventory building activity (expecting strong Christmas Season sell-through).

Industrial Production: Industrial production recovered a bit again in August (latest available) with an increase of just 0.4%. Manufacturing rose by 0.1% and this was tied primarily to a big surge in machinery (+2.0%) and aerospace (+3.3%). Mining also increased by 1.4% and this was due to continued increases in the oil and gas sector. Overall, industrial production is still running slightly cooler than last year as companies burn off excessive inventories.

Housing Starts: This was a volatile month for housing data. New housing starts came in at a 1.283-million-unit rate on an annualized basis (sharply lower from last month’s adjusted 1.452 million annual rate); and the outlook for the rest of 2023 is weaker based on current industry trends. Single family starts were lower in August by 4.3% M/M (latest available) but were up 2.4% Y/Y. Multi-family starts are volatile and were down 26.3% M/M and down 41% Y/Y. Permits were also weaker, total permits fell by 2.8% Y/Y; single family permits were up 7.1% versus last year and multi-family were down 17.8% against difficult comparisons. Builder sentiment was weakening on the back of slowing consumer interest in new homes and rising interest rates. The 30-year mortgage rate nationally continues to inch up and was above 7.3% at the time of writing.

Home Improvement Retail: Although seasonal activity should be improving, the macro data shows home improvement retail activity remaining sluggish. As mentioned last month, consumer sentiment is changing a bit and those that are deciding to wait on a new home are opting to start renovating their existing home. The only headwind in this scenario is some concerns with financing. Large projects that would normally require some home equity borrowings are slow because of higher interest rates and more difficult consumer debt pressures.

Manufacturing: The latest PMI reading for the US (from S&P Global) is back up at 49.8 in September. This is still below the critical 50 mark that signals expansion/contraction, but the direction is improved. The automotive strike will likely pull production down in the next month, a ripple through the entire automotive sector will have a dampening effect until the strike is over. After that period, production will be robust after a small restart period until inventories are back up to “normal” levels.

Big Risks

Inflation and Recession Potential: Unfortunately, this remains one of the largest risks. Again, average inflation was trending down, but at 3.9% is still well above the Fed’s target rate of 2%. This will keep the Federal Reserve “higher for longer” throughout 2024, with less projected easing of interest rates next year.

What to Watch

Supply Issues – The UAW surgical strike on the largest US automakers is still the heavy focus. Production slowdowns are still rippling across the entire industry and if the strike continues longer than expected, the prospects of a quick recovery will start to weigh heavily on Q4 output.

Macroeconomic Viewpoints

- Dr. Chris Kuehl

Three Legs of the Economic Stool – Looking at data from Q2 and partially through Q3, it is apparent that there are three legs to the economic stool creating this growth environment. The first, and accounting for 70% of GDP, is consumer spending and it continued to be strong through Q3 (although cracks are starting to show in the US consumer).

Households have been fighting inflation and net disposable income has been getting squeezed. For the first time in nearly a year, wage growth in the US finally outpaced inflation. With an estimated 61% of US households living check-to-check, it is important for wage growth to outpace inflation. Otherwise, nearly 75 million households begin to find it difficult to make debt payments, pay for essentials, and have anything left over for discretionary spending. That seems to be the Federal Reserve’s number one priority right now, keeping inflation below wage growth rates.

The second leg of the stool is nonresidential construction activity. Luckily for ASA members, this has been one of the bright spots in the economy. With multiple government acts starting to coalesce with spending hitting the street, even the public side of nonresidential construction is surging. Reshoring of manufacturing has led to a 70% year-over-year increase in manufacturing construction activity (on more than \$200 billion in spending vs. a normal year in the decade prior to the pandemic of about \$50 billion). Even sectors like commercial construction are trending higher than levels seen prior to the pandemic. The concern is that higher interest rates and tightening banking standards are going to start to squeeze projects that are not yet funded. Statistics show that approximately 70% of the project starts that get delayed are now due to lack of financing.

The final leg of the stool is government spending. Aside from normal federal spending, the latest effort to try and support Ukraine has helped increase defense appropriation spending. But other spending as mentioned stretched across the Infrastructure Act, Inflation Reduction Act, and CHIPS Act will continue to boost economic activity.

Headwinds are developing, mostly on the global front. Some countries experienced a mild uptick in their manufacturing and services sector activity in September headed into the peak retail season, but it wasn’t enough to pull us out of concern over global growth. With more than 19 countries with manufacturing sectors in contraction, and several European countries with services sectors in contraction, there is a global economic headwind that is slowing corporate growth. Many multi-national corporations will adjust their cost structures based on global sales volumes, and slowing in other parts of the world could lead to a reduction of spending and hiring in the US. – KP

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Reader Question of the Month

Q: How big of an Impact is the Autoworker Strike on the Supply Chain?

A: It is difficult to fully gauge how large the impact will be on the supply chain. Historically, when autoworker strikes end, the industry recovers relatively quickly, but that was at a time when dealer inventories were already flush headed into a strike. This time around, dealer inventories were still generally lower than historical levels. This will ensure that many lots will once again empty of the most popular new vehicles.

The ripple is already being felt across the supplier market. Several large assembly line operations have been shut down because of parts shortages (a result of strikes in other production facilities). As of Thursday, October 5th, approximately 25,000 of the UAW's 146,000 autoworkers were on strike at approximately 43 facilities.

Negotiations are typically kept confidential, and it is difficult to tell whether real progress is being made. Macro data showing the impact on parts suppliers, transportation firms, raw materials demand, and other industry participants is not yet showing significant stress from the strike. We believe that will begin to show up more predominantly in data released this month. Surveys conducted at the end of September show that many manufacturers that support the automotive sector are obviously concerned about their own wherewithal and ability to keep their employees employed, suppliers paid, etc.

Not to be outdone, it looks like the government will face another showdown in 40 days. And this time around, leadership in the House is in question and the ability to "get a deal" could be more difficult. - KP

Key Commodity Outlook

The following section includes viewpoints on key commodities. Wherever possible, the Producer Price Index (PPI) is used as a gauge of prices for specific commodities. The PPI is derived from monthly Government surveys of those that purchase specific products and services. The PPI includes views on both spot and contract pricing for a given product or service and is more representative of general changes in street-level pricing trends.



Copper Prices (WPUSI019011)

- The price of copper has been fluctuating since last month and is trading at \$3.59/lb. (\$3.79/lb. last month).
- The Producer Price Index (PPI) for August (latest PPI available) was 497.109, down month-over-month by 2.4% (+11.7% last month). It was up 2.5% year-over-year (+5.9% last month). The ten-year index high was 572.0 in May 2022 and the low was 302.9 in 2016.
- **Looking Ahead:** A drop in global demand is the primary factor slowing down copper prices. Inventories are still tighter than historical norms, and small improvements in manufacturing activity, as was seen in some markets this month, will help to stabilize copper prices and tighten supply. For now, copper prices are roughly 5.9% lower YTD but remain 7.2% higher than this time last year.

General Commodities Discussion:

Nickel:

- LME Nickel Prices have slipped over the past 30 days and were @\$8.28 per lb. (\$9.27 in the last update). And warehouse levels inched up this month to 42,204 tons (36,936 tons in the last update) and are still near lows not seen since 2007 (and well off the peak inventory level hit in 2021 of 260,000 tons).
- **Outlook:** “While LME nickel prices have continued to fall near two-year lows, there are reports this week that upstream producers in Taiwan may announce their third consecutive month of price increases for 300-series stainless in October. Their reasons include increased costs of nickel pig iron (NPI) and other alloys and a weakening New Taiwan dollar. In short, the price gap between LME nickel and Class 2 nickel continues to widen. Reports persist regarding significant shortages of NPI in Indonesia, but the present market impact has been somewhat muted in the face of declining market sentiment driven primarily by the aforementioned macro-economic issues and China’s struggling property and construction sectors.”

Carbon Steel: (WPU101706)

- NYMEX Domestic Hot-rolled Coil steel prices ([CRU-HRCc1](#)) were lower again over the past 30 days and were \$695 per ton in early October (\$727 per ton in the last update). This is down from a peak of \$1,943 hit in August of 2021.
- Producer Prices for steel pipe and tube were lower in the latest data from the end of August (latest available). They were down 1.6% month-over-month (down 2.8% last month). Year-over-year, the PPI was 22.5% lower (-22.0% Y/Y in the last update) against much more difficult comparisons.
- **Outlook:** “On the mergers and acquisition front, both Cleveland-Cliffs and Esmark Steel Group have made offers for US Steel in recent months. Neither deal has been accepted, but a resulting deal would have major effects on the carbon steel producing world, especially as it relates to the supply of iron ore. On the global market, Chinese prices have risen slightly, while Korean prices have closely mirrored the fall we are seeing in the U.S.”

Stainless Steel: (WPU10170674)

- The Producer Price Index for stainless pipe and tube were down in August (latest available). Producer prices for stainless pipe fell by 2.9% month-over-month (down 1.0% last month); and they were down 9.5% Y/Y (down 9.0% last month).
- **Outlook:** “The market continues to show some softness in pricing, but project activity remains strong. The markets have pockets of strength especially for semiconductor chip production, and infrastructure projects. We expect the business levels to be steady through the end of the year.”

Ferrous Metal Scrap: (PPI: PCU4299304299301)

- Producer prices for ferrous metal scrap increased in August vs. the prior month, coming in with an index of 487.2 (452.6 last month). This was higher by 4.6% M/M (-3.5% last month). Year-over-year it was up by 2.5% Y/Y (-12.4% in the last update). The highest producer price prior to this was in July of 2008 when the index hit 731.4 points.
Outlook: Scrap prices took a mild rebound. There was also some evidence in the global Baltic Dry Index showing a sharp rebound in the movement of early-stage raw material inputs in the world’s busiest trade lanes. Some building of inventory is helping to push some near term demand, and some bargain shopping is taking place. Whether it can be sustained or not is another question as global manufacturing activity remains sluggish.

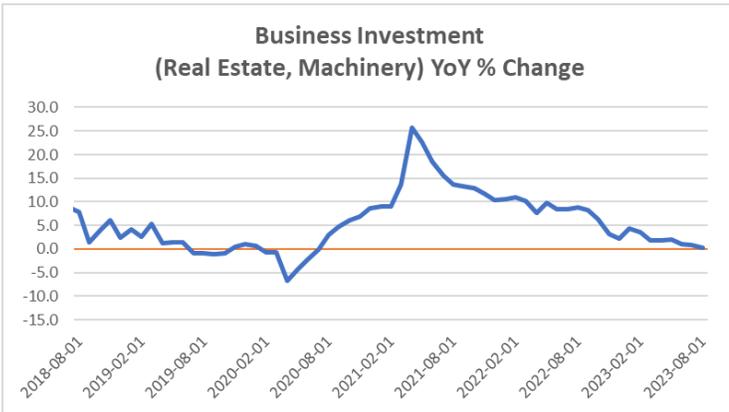
Additional commodities and finished product pricing are addressed in the Producer Price Index review on the next page.

Producer Price Index – Key Industry Products

The Producer Price Index (PPI) for key supply industry metrics is listed in the chart below including month-over-month and year-over-year comparisons. To the degree that the PPI is derived from monthly Government Surveys of actual purchasers and users of the following products, it provides a more accurate street-level pricing viewpoint. Some data is delayed and may not have been updated by the time of publication.

Producer Price Index - Key Industry Products						
Category	PPI Code	Aug-23	Jul-23	M/M% Chg	Aug-22	Y/Y % Chg
Pipe, Valves and Fittings						
Metal valves, except fluid power	WPU114902	438.0	434.7	0.8%	414.5	5.7%
Gates, globes, angles and check valves	WPU114902011	165.8	165.8	0.0%	159.6	3.9%
Ball valves	WPU11490202	590.1	557.9	5.8%	554.8	6.4%
Butterfly valves (formerly W2421490203)	WPU11490203	306.1	306.1	0.0%	285.2	7.3%
Industrial plug valves	WPU11490204	308.7	308.7	0.0%	269.6	14.5%
Plumbing and heating valves (low pressure)	WPU11490205	389.8	389.8	0.0%	376.4	3.6%
Solenoid valves	WPU11490208	372.2	372.2	0.0%	372.2	0.0%
Other industrial valves, including nuclear	WPU11490209	409.4	403.8	1.4%	391.5	4.6%
Automatic valves	WPU11490211	249.1	249.1	0.0%	232.0	7.4%
Metal pipe fittings, flanges and unions	WPU11490301	484.5	484.1	0.1%	475.7	1.8%
Steel pipe and tube	WPU101706	389.6	395.9	-1.6%	502.6	-22.5%
Steel pipe and tube, alloy	WPU10170673	109.5	109.5	0.0%	109.5	0.0%
Steel pipe and tube, stainless	WPU10170674	144.0	148.3	-2.9%	159.2	-9.5%
Copper & copper-base alloy pipe and tube	WPU10250239	351.9	347.6	1.3%	356.3	-1.2%
Plastic pipe	WPU07210603	196.8	198.6	-0.9%	221.0	-10.9%
Plastic pipe fittings and unions	WPU07210604	319.5	314.6	1.6%	324.0	-1.4%
Plumbing Fixtures, Fittings and Trim	WPU105402	395.0	395.0	0.0%	386.5	2.2%
Bath and shower fittings	WPU10540211	286.7	286.7	0.0%	286.7	0.0%
Lavatory and sink fittings	WPU10540218	204.6	204.6	0.0%	196.3	4.2%
Enameled iron and metal sanitary ware	WPU1056	290.6	290.4	0.1%	281.9	3.1%
Steam and Hot Water Equipment	WPU1061	428.5	428.5	0.0%	390.7	9.7%
Cast iron heating boilers, radiators and convectors	WPU10610106	289.7	289.7	0.0%	269.9	7.3%
Domestic water heaters	WPU106601	570.6	570.6	0.0%	569.1	0.3%
Electric water heaters	WPU10660101	564.3	564.3	0.0%	563.9	0.1%
Non-electric water heaters	WPU10660114	347.7	347.7	0.0%	346.3	0.4%
Warehousing, Storage and Related Services	WPU321	135.6	133.8	1.3%	128.8	5.3%

PHCP & PVF



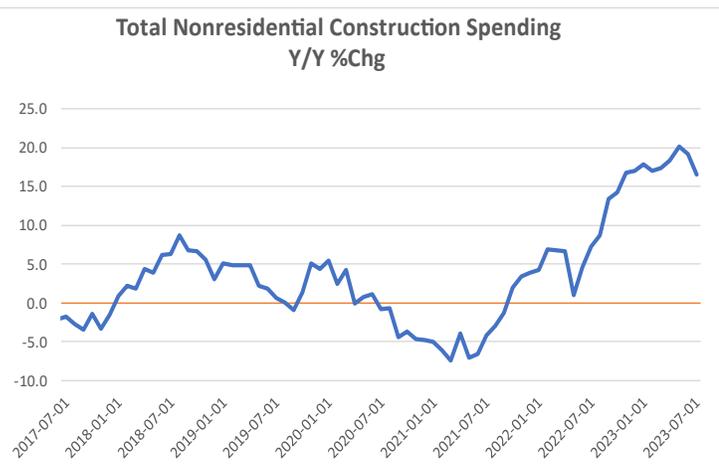
Capital Goods New Orders (NEWORDER)

- The value of manufacturers' new orders for capital goods was up slightly in August (latest available), spending was up by 0.9% sequentially M/M (down 0.3% last month). But they remained up by 0.3% Y/Y (up 0.8% last month) and continued to be stable overall.
- **Outlook:** Concerns are growing that capital spending could continue to slow as higher interest rates and bank tightening of lending standards begin to work through the marketplace. And yet, some spending remains strong. Investments in segments of high tech, defense, automotive, aerospace, pockets of energy production, and nonresidential construction are still generating interest, and investment is following.

Total Non-Residential Construction

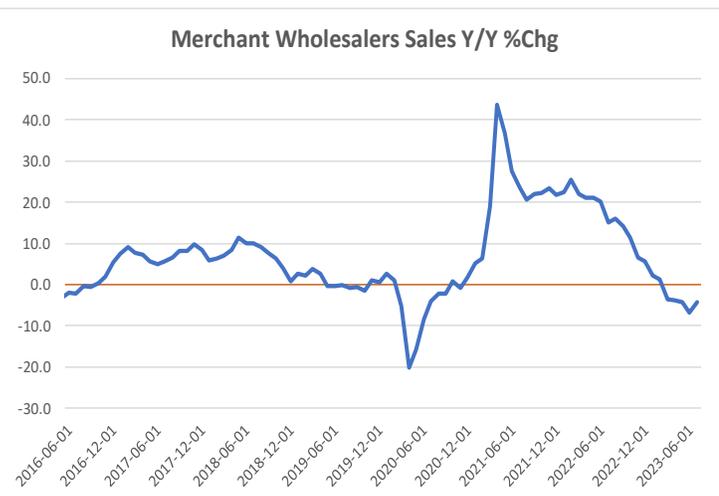
(TLNRESCONS)

- Total Non-Residential Construction activity in July (latest available) was 16.5% higher than it was a year ago (19.2% higher last month) and was 2.7% lower M/M (down 0.9% in the last report). Overall spending was at a new all-time high of \$1.071T (the prior annualized run rate peak of \$900B was in September of 2022).
- **Outlook:** Nonresidential construction is partially leading the economy. Among the primary components of US GDP growth, nonresidential construction is carrying a lot of the growth (in addition to consumer and government spending). Leading the non-residential construction sector in growth is the manufacturing construction sector, which is still 70% higher Y/Y on nearly \$200 billion in spending.



Wholesale Trade (WHLSLRMSA, WHLSLRMSA)

- Merchant wholesalers' sales were down 4.2% Y/Y through July (latest available; down 6.8% Y/Y in the last update). Month-over-month, sales were increasing by 2.6% (-2.5% last month).
- Wholesale inventories were up 0.5% year-over-year in July (latest available; up 1.1% last month).
- **Outlook:** Wholesalers across many sectors of the economy are struggling to get inventory levels down far enough to restart more aggressive reorder programs. Coming out of the pandemic, congested supply chains released, and many companies overbuilt inventories. Broad measures of the inventory to sales ratios across the wholesale sector show many industries still near multi-decade high inventory levels (relative to sales volumes). But construction is still doing well (and many projects are missing a few key items that would also help deplete other wholesale inventories more quickly as projects were able to continue without delays).





Manufacturing (AMTMNO)

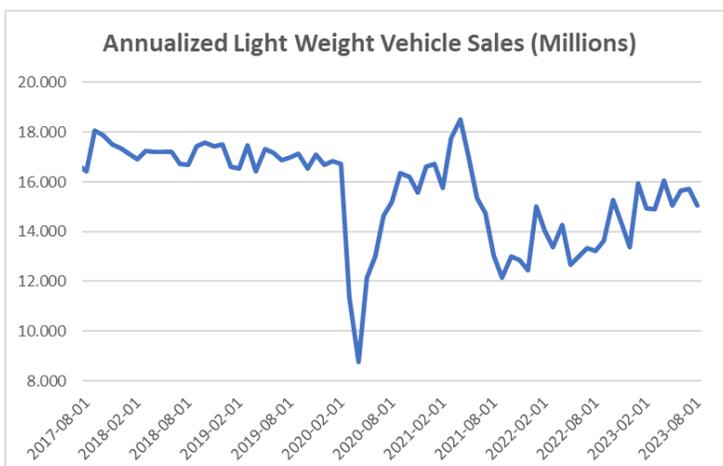
- Federal data on manufacturing was down 0.7% Y/Y (down 0.2% last month) through July (latest available). It was also down sequentially by 0.5% month-over-month (+0.7% last month).
- The S&P Global US manufacturing PMI came in at 49.8 in September, up from 47.9 in August.
- **Outlook:** The data for the purchasing managers' indices (all of them) remained in the contraction zone. It is unclear what the current automotive strike will do to manufacturing PMIs, but thousands of suppliers are feeling the ripple effect. It is estimated that the industry has lost nearly \$5 billion in lost productivity in the current strike period. That could quickly change, and other segments of manufacturing are lifting the industry into the peak retail season.



Business Inventory to Sales Ratio (ISRATIO)

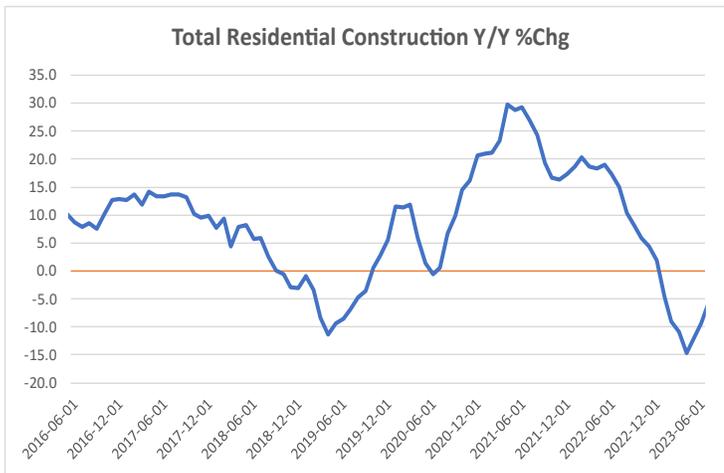
- The current inventory to sales ratio for all businesses is at 1.39 months of inventory on hand in July (latest available; 1.40 last month). Relative to sales, inventories are elevated, once again this month's ratio was 3.0% higher Y/Y (5.3% higher last month).
- **Outlook:** It is difficult to get a full picture of the entire industry with this macro view. When looking at sub-sectors across the industry, approximately 64% of the goods producing and moving industry are facing inventory levels that are between 3% and 25% higher than they were in the entire decade prior to the pandemic (when supply chains were in-cycle). Again, this overstock situation continues to shut off a lot of ordering in the "upstream" portion of the supply chain (raw material inputs, labor, energy consumption, etc.).

PHCP



Auto Sales (ALTSALES; AISRSA)

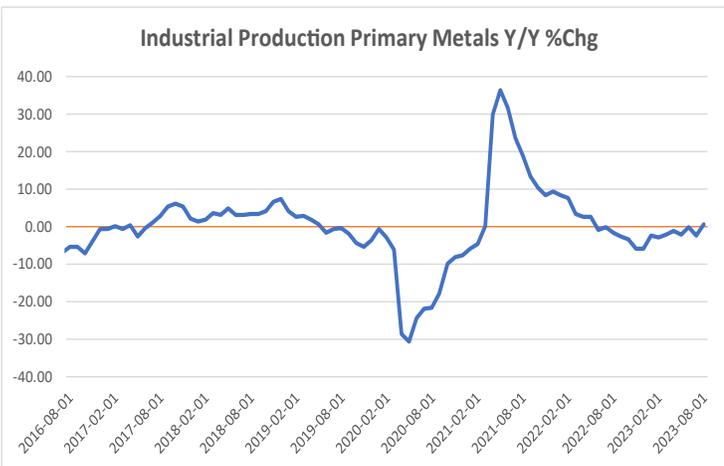
- US auto sales were trending at a 15.035-million-unit annual rate (15.732M last month) through August (latest available). This is up 13.6% year-over-year (+18.2% in the last update).
- The domestic auto inventory to sales ratio was up 51.0% Y/Y in July (latest available). On a monthly basis, it was 1.7% lower (up 3.3% last month).
- **Outlook:** Although the inventory to sales ratio in this sector shows strong year-over-year growth, it remains near all-time lows and nearly 67% lower than it was prior to the pandemic. The UAW strike will certainly have an impact on this data as survey data catches up with strike activity (next month's data). It may take another 30-60 days for the full impact to show up in macro data. Again, as mentioned, the ripples are spreading throughout the supplier sector.



Total Residential Construction (PRRESCONS)

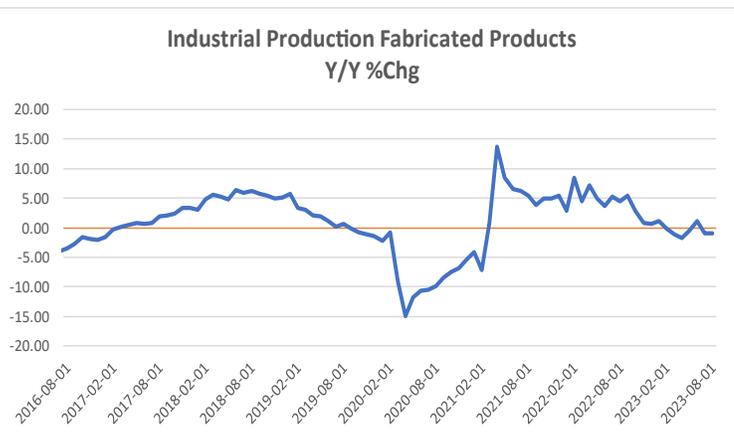
- Total residential construction in July (latest available), was down by 5.5% Y/Y (down 9.3% last month). It was up 3.8% M/M (2.6% last month).
- **Outlook:** Housing starts and permits are starting to show the strains of higher interest rates, and tightening credit standards. As mentioned, many times, homeowners that are already in low interest rates are not in the market for homes at this time. The gap between their current rates (sub 3%) and current rates above 7% is too severe a gap. Those buyers that are forced to move (work relocations, family issues) have no choice but to purchase currently, and first-time home buyers have not completely fallen out of the market. Builders are trying to respond to higher interest rates by reducing the square footage of new homes, reducing costs of construction, and using incentives to spur sales. But volumes are sluggish.

PVF



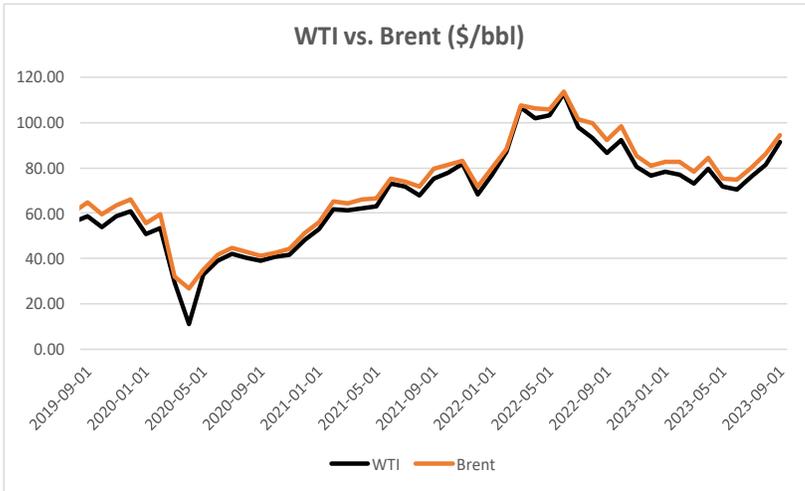
Industrial Production Primary Metals (IPG331S)

- Industrial production for primary metals was up 0.7% Y/Y through August (-2.3% in the last update). It was down 3.0% M/M (down 2.1% M/M in the last update).
- **Outlook:** As mentioned, there are five primary sectors that are driving demand, which is creating enough activity to keep the sector essentially stable year-over-year (despite now slowing by 3%). The infrastructure bill is finally contributing \$50 billion a year in incremental spending across many different segments of infrastructure. And despite the current automotive strike, the automotive, aerospace, defense, and nonresidential construction sectors are keeping demand stable. And that should continue into 2024.



Industrial Production Fabricated Metals (IPG332S)

- Fabricated metal industrial production was down 0.9% Y/Y through August (down 1.0% last month). It was up 0.1% on a month-over-month basis, (down 2.2% in the last update).
- **Outlook:** Fabricated metal production is a key feeder into other sectors of manufacturing and activity through August was still trailing slightly behind last year's volumes. As mentioned last month, many sectors that feed the fabricated metals sector are showing some slight improvements in demand heading into the peak retail season. But inventories are still high across most sectors, which is affecting new orders for raw materials.



WTI and Brent

- WTI is currently at \$89.22 a barrel (\$81.39 in the last update) and Brent is at \$90.83 (\$86.15 in the last update).
- **Outlook:** Crude oil prices had surged to nearly \$95 in the week prior to writing this month's economic update. Since then, some dips in the stock market and a slightly strengthening US dollar have pushed volumes down slightly, but just temporarily. The big driving factor in pushing oil prices higher over the past 60 days is a weak inventory picture. US crude inventories in Cushing, Oklahoma are showing volumes less than 21% of their total capacity (the real figure could be lower). Sitting at decade lows, this and a low Strategic Petroleum Reserves is keeping the petroleum supply side of the industry uncertain, and prices have reacted accordingly. If the dollar weakens, prices could push above \$100 a barrel temporarily.

<https://bakerhughesrigcount.gcs-web.com/rig-count-overview>

	Last Count	Count	Change from Prior Count	Change from Last Year
U.S.	29-Sep-23	623	-7	-142
Canada	29-Sep-23	191	1	-22
International	Aug-23	982	-9	92

Rotary Rig Counts (Baker Hughes)

- Baker Hughes US active rig counts were down 142 Y/Y (-133 in the last update) at 623 (1,049 in 2019); Canadian counts were down by 22 Y/Y (also down -11 in the last update). International counts are up by 92 Y/Y (+128 in the last update).
- **Outlook:** The oil market is being battered by a fluctuating dollar, low supply inventories and an uncertain demand environment. Prices for WTI fluctuate between \$85 a barrel and \$94 a barrel. But with large stockpiles low on inventory and OPEC+ members agreeing to keep inventories lower through the end of the year, production will need to stay stable regardless of the demand environment. Well counts are staying low because of the efficiency of modern technologies, the volume of output and the need to keep those wells in top maintained condition is paramount currently. Overall, well counts are down substantially from where the market was a year ago in the US, and they have begun to soften on an international basis.

Construction Outlook

Residential construction: 30-year national average mortgage rates continued to rise in early October, at 7.31% (7.23% in the last update). Home builder confidence fell M/M in September by 10.0% according to the NAHB/Wells Fargo index, it fell to 45 points (down from the August reading of 50) and the weakest since April. The all-time high was 90 points in November of 2020. Builders' confidence has started to wane with the Federal Reserve keeping rates likely "higher for longer", and some cracks showing up in consumer spending activity. Additional banking pressure is tightening lending standards, creating an additional headwind for the industry.

NAHB/Wells Fargo National and Regional Housing Market Index (HMI)												
NATIONAL												
(Seasonally Adjusted)	2022	2023									M/M	Y/Y
	Sep.	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep.		
Housing Market Index	46	35	42	44	45	50	55	56	50	45	-10.0%	-2.2%
Housing Market Index Components												
Single Family Sales: Present	54	40	47	49	51	56	61	62	57	51	-10.5%	-5.6%
Single Family Sales: Next 6 Months	46	37	48	47	50	56	62	59	55	49	-10.9%	6.5%
Traffic of Prospective Buyers	31	23	28	31	31	33	37	40	35	30	-14.3%	-3.2%
REGIONAL HMI												
(Seasonally Adjusted)	2022	2023									M/M	Y/Y
	Sep.	Jan.	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep.		
Northeast	47	34	46	46	44	45	52	60	55	48	-12.7%	2.1%
Midwest	42	32	36	36	40	42	48	46	42	38	-9.5%	-9.5%
South	52	39	46	50	50	56	60	58	55	49	-10.9%	-5.8%
West	34	29	37	36	40	48	50	54	46	42	-8.7%	23.5%

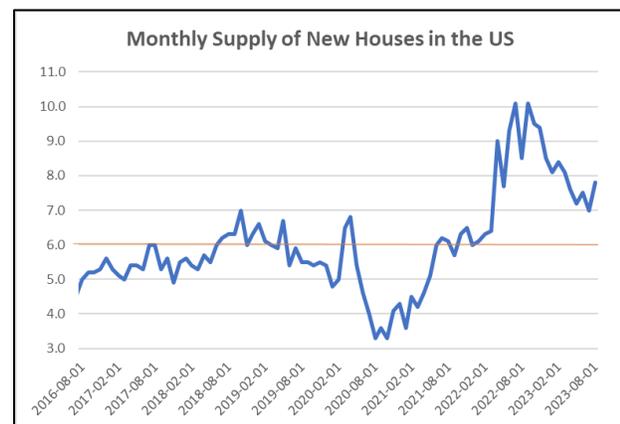
On a year-over-year basis, the NAHB/Wells Fargo Housing Market Index is now down 2.2% against September of 2022 (up 2.0% last month).

Adjusted housing inventories increased in August (latest available), coming in at 7.8 months of inventory on hand. This is higher than the "ideal range" of 6 months of inventory on hand and is still lower than the 9.5 month peak we saw last October. The increase in inventory could be a worrisome sign.

The housing market is highly regionalized, and each region has different levels of housing activity, but macro demand is still being tempered by lack of affordable single-family housing inventories and steep housing prices which are only easing in some markets. But new permit and starts data is weak.

New housing starts are volatile right now and came in at a 1.283-million-unit rate on an annualized basis (sharply lower from last month's adjusted 1.452 million annual rate); and the outlook for the rest of 2023 is weaker based on current industry trends.

Single family starts were lower in August by 4.3% M/M (latest available) but were up 2.4% Y/Y. Multi-family starts are volatile and were down 26.3% M/M and down 41% Y/Y.



National Outlook: The Federal Reserve paused rate hikes in September as expected, but debate rages about the need for a hike in November. Inflation is cooling, but at a slower than expected pace. At the same time, economic growth remains stable, despite some slowing in consumer spending beginning to show up. With rates approaching levels that we have not seen since 1999, the threat of tighter financial factors is weighing more heavily on construction forecasts. Surveys continue to show that lack of access to financial funding is the primary hindrance to many non-residential projects' starts (roughly 62% of project start delays are now due to funding difficulties). That has superseded the lack of availability of labor and products used in construction activity.

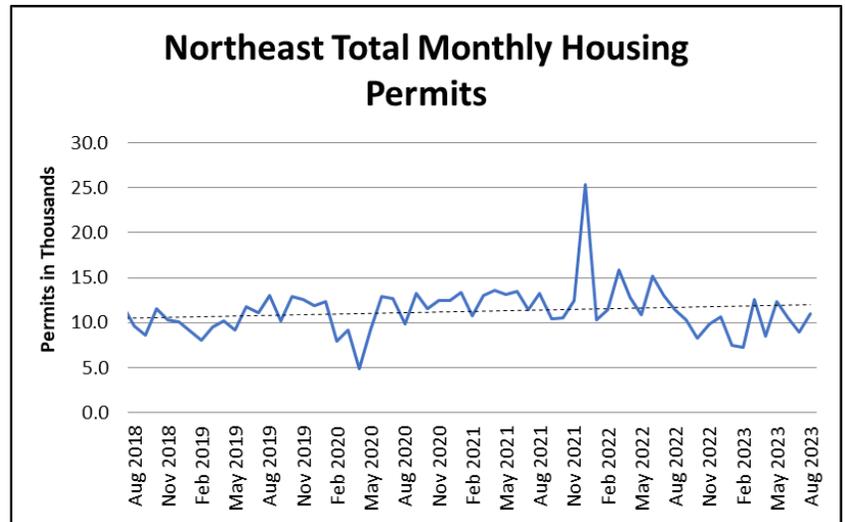
Housing and Interest Rate Forecast, 09/06/2023							
	2019	2020	2021	2022	2023	2024	2025
Housing Activity (000)							
Total Housing Starts	1,292	1,397	1,606	1,551	1,402	1,355	1,449
Single Family	889	1,003	1,132	1,004	904	946	1,027
Multifamily	403	394	474	547	498	409	423
New Single Family Sales	685	833	769	637	687	731	792
Existing Single-Family Home Sales	4,746	5,057	5,420	4,530	3,790	4,222	4,452
Interest Rates							
Federal Funds Rate	2.16%	0.36%	0.08%	1.68%	5.07%	5.08%	3.52%
Fixed Rate Mortgages	3.94%	3.11%	2.96%	5.34%	6.80%	6.40%	5.57%
Prime Rate	5.28%	3.54%	3.25%	4.85%	10.23%	11.48%	9.09%

[For more forecast details, visit www.nahb.org.](http://www.nahb.org)

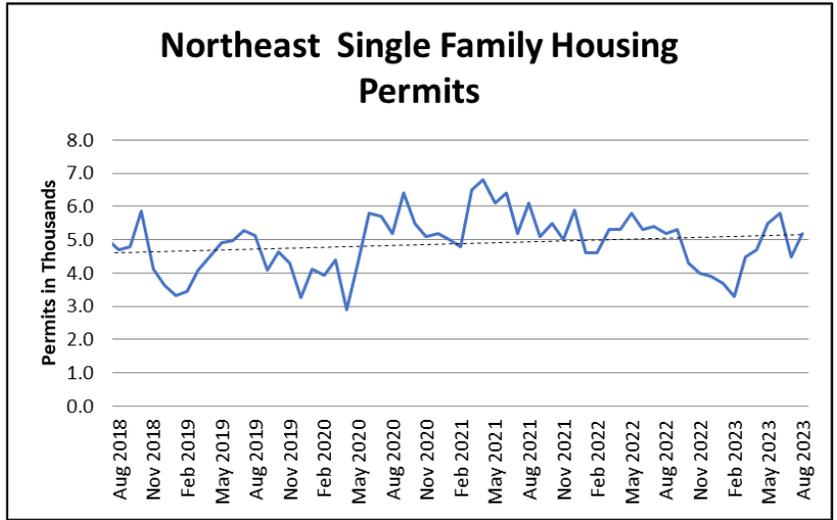
The following section provides monthly housing permit data for each major region in total, single family, and multi-family units.

Regional market outlook: Northeast

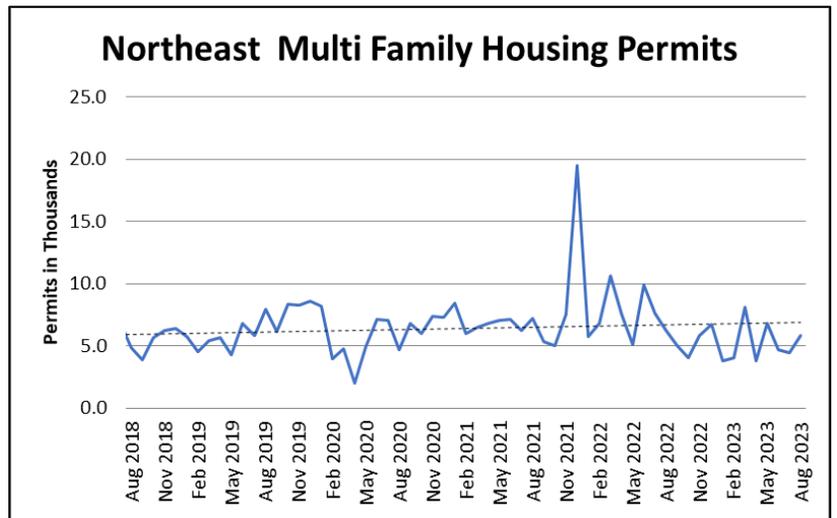
- Northeast total housing units authorized for construction were up in August by 23.6% M/M (-15.2% last month). August was the latest regional data available throughout this series.
- The 3-month moving monthly average was down 2.1% (+4.9% last month).
- On a year-over-year basis, permits were down 3.5% (-31.5% in the last update).



- Month-over-month single family permits were up 15.6% (-22.4% last month).
- On a 3-month moving average basis, permits were down 0.5% (unchanged last month).
- Year-over-year permits were unchanged (-16.7% last month).

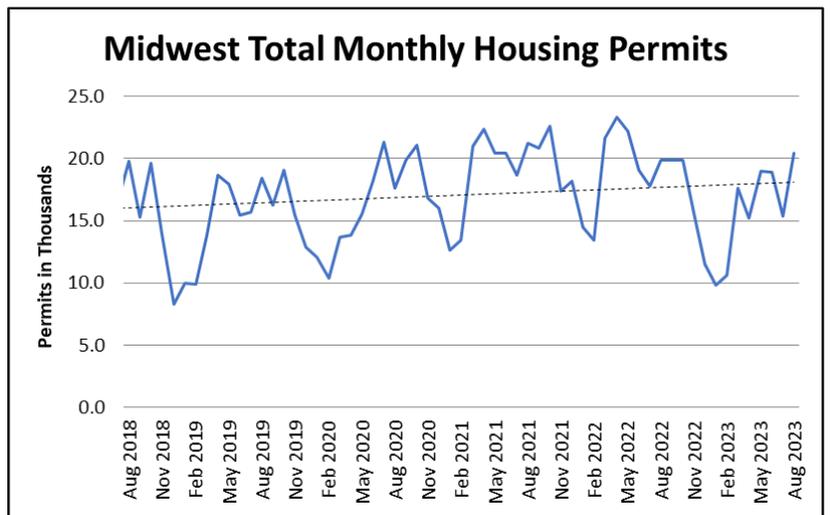


- Multi-family housing permits authorized for construction were up 31.8% M/M (-6.4% in the last update).
- They were down 1.8% on a rolling 3-month average (+13.9% last month).
- On a year-over-year basis, they were down 6.5% (-42.1% in the last update).
- These figures are based on a small number of units so the percentages can seem higher and more volatile.

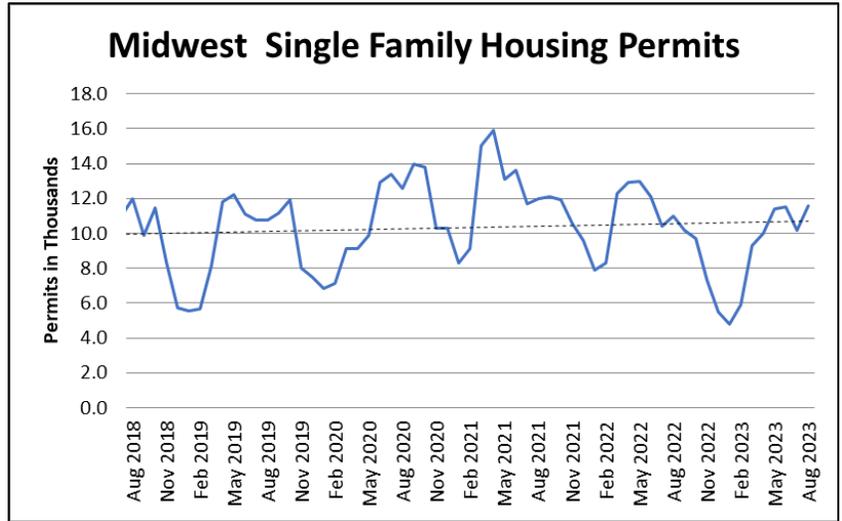


Regional market outlook: Midwest

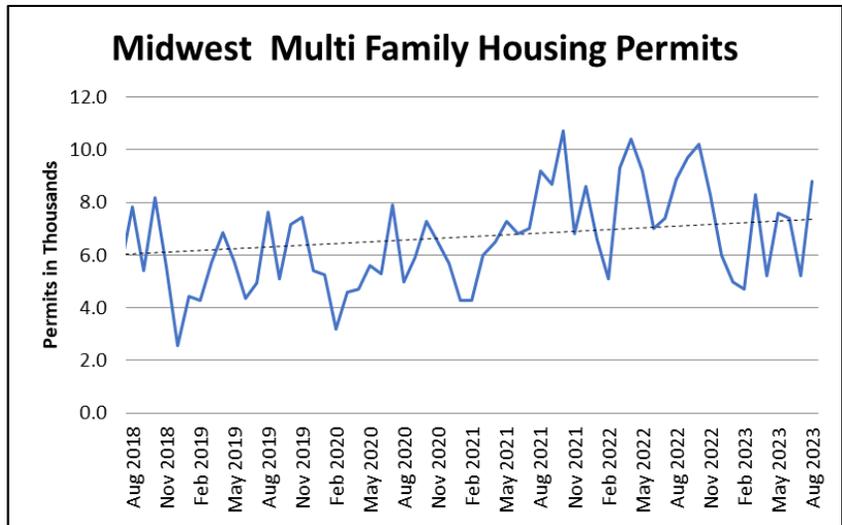
- Midwest total housing permits were up 32.5% month-over-month (-18.5% in the last update).
- The 3-month average was up 4.5% (+2.0% in the last update).
- On a year-over-year basis, permits were up 2.5% (-13.5% in the last update).



- M/M permit volumes were up 13.7% (+11.3% last month).
- The 3-month rolling average shows that permits were up 1.1% (1.2% in the last update).
- Year-over-year, single family homes authorized by permits were up 5.5% (-1.9% in the last update).

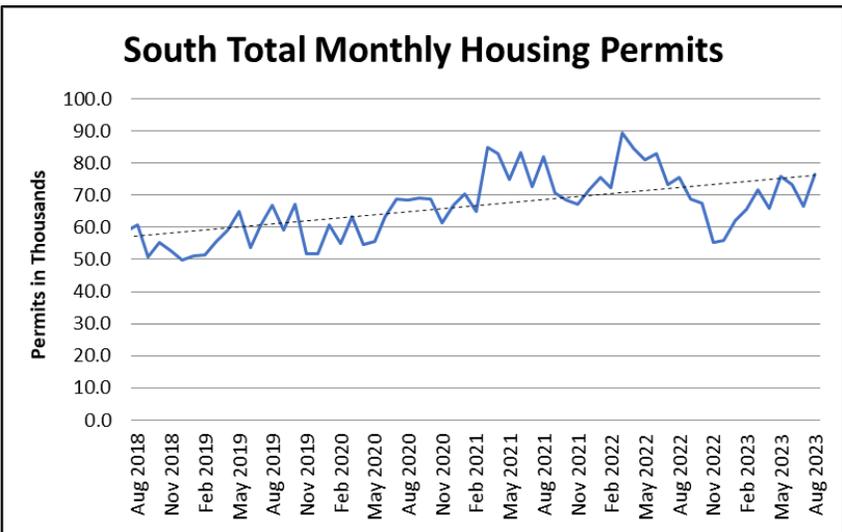


- Multi-family housing permits, again, are volatile month-over-month. This month, they were up 69.2% (-29.7% last month).
- On a 3-month rolling average basis, they were up 12.3% (4.6% in the last update).
- On a year-over-year basis, permits were down 1.1% (-29.7% in the last update).

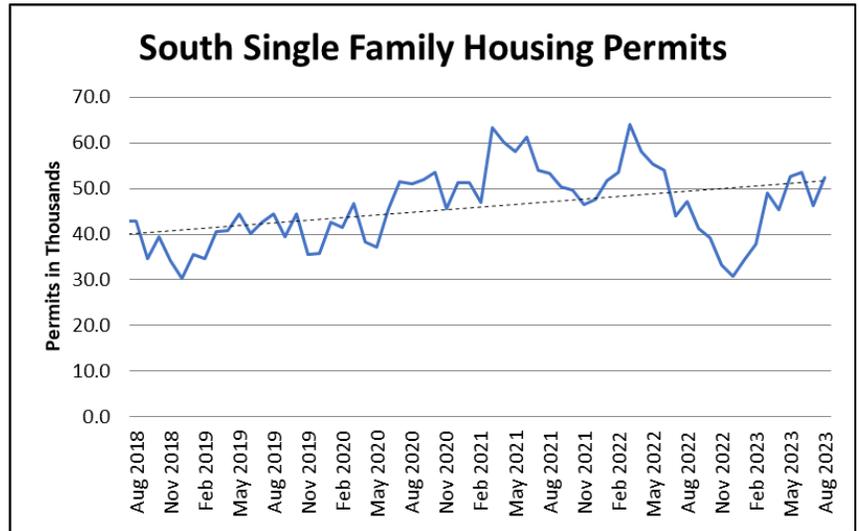


Regional market outlook: South

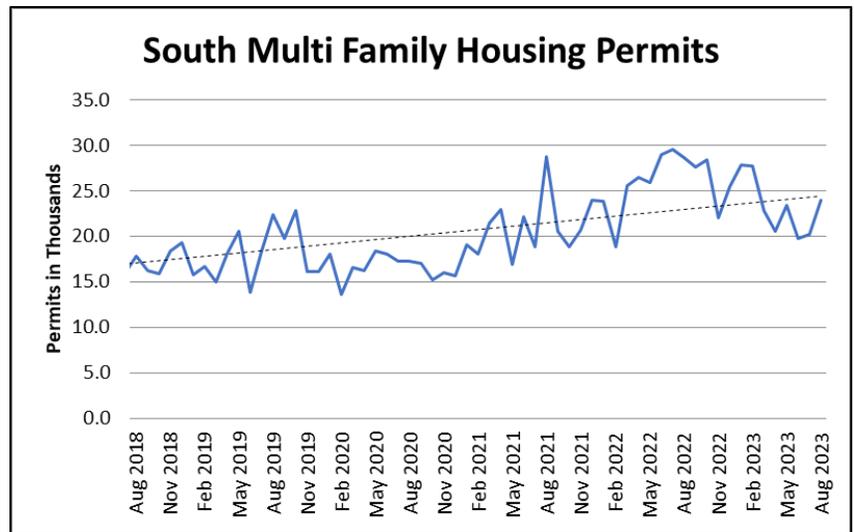
- Southern region housing permits were up 15.0% month-over-month (-9.3% in the last update).
- On a 3-month rolling average basis, permits were up 0.7% (0.8% in the last update).
- On a year-over-year basis, total permits were up 1.1% (-9.4% in the last update).



- Southern region single family home permits were up 13.4% M/M (-13.5% last month).
- On a 3-month rolling average, they were up 0.5% (1.5% in the last update).
- On a year-over-year basis, single family permits were up 11.5% (5.5% in the last update).

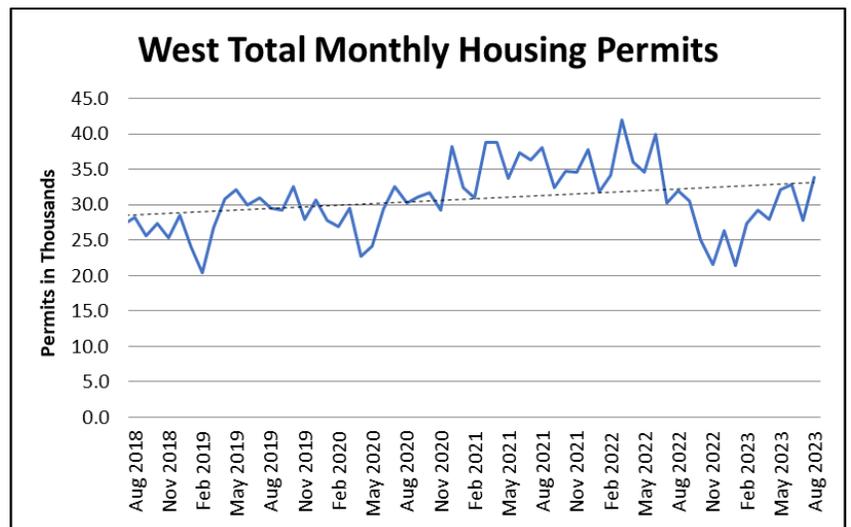


- Southern multi-family permits were up 18.8% M/M (2.0% last month).
- On a 3-month rolling average basis, permits were up 1.8% (0.1% last month).
- On a year-over-year basis, permits for multi-family housing were down 16.1% (-31.5% in the last update).

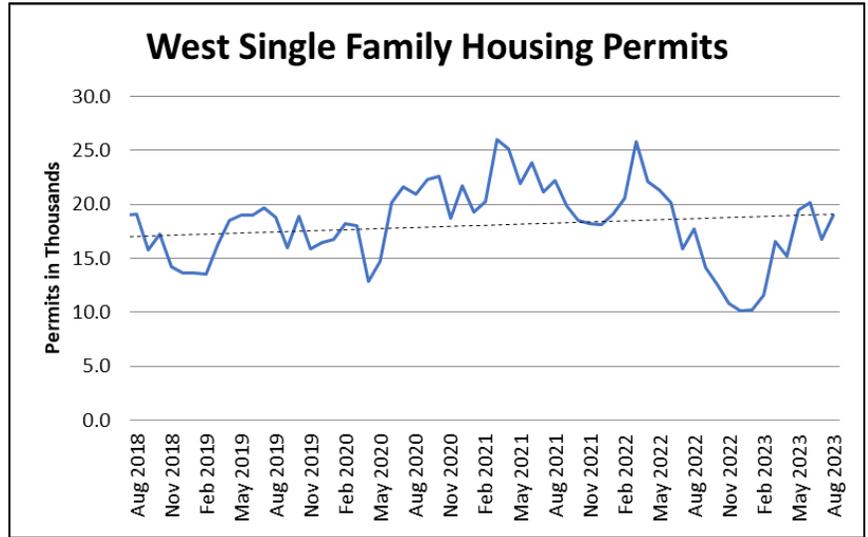


Regional market outlook: West

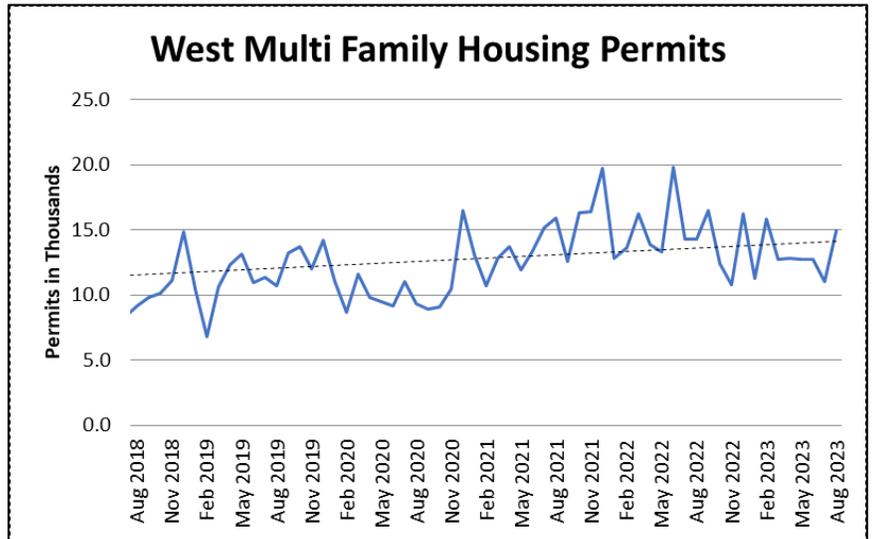
- Western region total monthly housing permits were up 21.9% M/M (-15.5% last month).
- On a 3-month rolling average basis, they were up 2.9% (0.6% last month).
- On a year-over-year basis, permits were up 5.9% Y/Y (-7.9% in the last update).



- Single-family permits were up 13.1% M/M (-16.8% last month).
- On a 3-month moving average basis, permits were flat (5.0% in the last update).
- Year-over-year, single family permits were up 7.3% (+5.7% in the last update).



- Multi-family permits were up 35.5% M/M (-13.4% in the last update).
- On a 3-month rolling average, it was up 7.4% (-4.7% in the last update).
- Year-over-year, multi-family unit permits were up 4.2% (-23.1% last month).



Industry Outlook

ASA Sales were stronger by 2.7% Y/Y (+2.0% last month) in August (latest available). Year-to-date through August, sales were up 5.9% (+4.5% in the last update). For the trailing twelve months prior, sales were up 7.6% (9.0% in the last update). ASA Pulse Report findings are reported monthly. The following chart shows the breakdown by primary business type and region.

	August Y/Y % Change in Total Dollar Sales	YTD % Change vs. YTD 2022	Trailing Twelve Months % Change
All Businesses	2.7%	5.9%	7.6%
By Primary Business			
PHCP	2.1%	5.2%	5.3%
PVF	7.9%	8.7%	9.4%
PHCP & PVF	0.1%	5.1%	11.0%
By Region			
1 (SWPD & WSA)	3.0%	0.9%	4.2%
2 (ASA Central)	6.6%	5.0%	9.0%
3 (SWCD)	0.2%	9.4%	3.1%
4 (NCWA)	2.9%	9.6%	8.2%
5 (ASA Northeast)	-2.7%	6.1%	7.4%
6 (SWA)	4.7%	6.3%	9.8%
*ISD - Insufficient Data			

The US Transportation Services Freight Index (TSIFRGHT), which typically leads ASA Sales by about five months, was delayed this month with the new release. The last report available was still from June and it showed that the TSI was at 139.0 for freight, up 1.6% M/M but was down by 0.9% Y/Y (down 1.4% Y/Y last month).

More recent data (comparing similar industry data to the TSI) from other sources show much weaker data. DAT Trendlines was reporting at the end of September (latest available) that spot truck freight demand was **43.4% lower than it was a year ago**. Spot trucking rates have fallen 13.9% Y/Y, and now fuel surcharges are down -8.6% Y/Y.

Forecast data still shows that oil production in the US is expected to hit 12.6 million barrels per day and will touch 12.8 million in 2024. Total oil inventories are running in the middle of the 5-year range, and the Strategic Petroleum Reserves are still at the lowest levels since the mid 1980's and rebuilding activity are slow to start in earnest. More recent data suggests that Cushing, Oklahoma is running at just 21% of capacity and could be even lower.

OPEC continues to cut production as expected, and those cuts are now expected to be extended through the end of the year. That aside, oil prices were rising through the beginning of October with prices per barrel in the low \$80 per barrel range and the EAI expects them to hover at about that rate through the end of the year and potentially fall into the mid-\$70's through much of next year.

Retail sales inched up again in August across many categories month-over-month, but some sectors continued to show some pressures on both a month-over-month and year-over-year basis. Total retail sales were 0.6% higher month-over-month and were 2.5% higher year-over-year.

When adjusted for inflation, sales were slightly lower month-over-month in August by 0.1% and were lower by 1.2% compared to last year at this time (they were lower by 0.1% year-over-year last month).

Home improvement retail sales volumes were slightly higher in August, rising by 0.1% M/M but they remained marginally lower by 4.9% against last year. Again, when adjusted for inflation, sales were even lower year-over-year.

Economic growth is still outpacing expectations and is still expected to be higher by just 1% for all of 2023. That could be adjusted upward if Q3 continues to remain hot, current GDP growth is nearly 4.9% based on economic releases to-date.

Non-residential construction is still doing well, and that momentum will continue to keep the supply industry chasing opportunities. Many durable goods sectors are also still experiencing growth and consumer spending was still stable through most of Q3 on the back of a strong jobs market. Job openings even surged with the fall wave of new hiring taking place. Openings are now back up above 9.5 million positions, 6 million is a balanced labor environment.

The Federal Reserve could still increase interest rates again before the end of the year after the September pause, but most believe that the Fed is at, or is approaching, its peak rate hikes in this cycle. Again, many new projects are facing some difficulties in getting funding in place, that will carry over into the early half of 2024.

Kind of Business	Percent Change Aug. 2023 Advance from --	
	Jul. 2023	Aug. 2022
Retail & food services,		
total	0.6	2.5
Retail	0.6	1.6
Motor vehicle & parts dealers	0.3	4.4
Furniture & home furn. stores	-1.0	-7.8
Electronics & appliance stores	0.7	-1.8
Building material & garden eq. & supplies dealers	0.1	-4.9
Food & beverage stores	0.4	2.1
Grocery stores	0.4	2.1
Health & personal care stores	0.5	7.8
Gasoline stations	5.2	-10.3
Clothing & clothing accessories stores	0.9	1.3
Sporting goods, hobby, musical instrument, & book stores	-1.6	-1.4
General merchandise stores	0.3	2.0
Department stores	0.3	-3.4
Nonstore retailers	0.0	7.2
Food services & drinking places	0.3	8.5