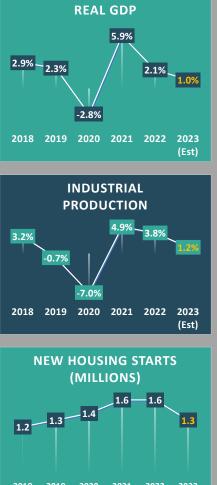


June 2023

Selected Indices



2018 2019 2020 2021 2022 2023 (Est)

BUSINESS INVESTMENT

Executive Summary – June '23

Big Items

GDP: The final reading for Q1 GDP came out and it showed a surprising 2% growth rate on the back of stronger consumer spending and improved US exports of energy. Second quarter GDP was still trending at 1.8% based on the latest estimate from the GDP Now study conducted by the Atlanta Fed. Remember that this is a running estimate and changes almost daily. Full year GDP is expected to now come in at about 1.0% with Q3 and Q4 still showing the possibility of contraction.

Industrial Production: Industrial production was a little lower in May. It slipped month-overmonth by 0.2% but was 0.2% higher vs. last year. The manufacturing sector was also fairly flat at 0.1% M/M and slightly lower by 0.3% vs. last year. Automotive was still the leading sector, rising by 10% vs. last year. Mining remained 5% stronger than last year but utilities were 3.8% weaker. Hot temperatures spread across 70% of the US in late June and power consumption surged in many markets. This will help create more demand for energy products and boost production demand.

Housing Starts: Housing starts had a blowout month and builder confidence soared. Total residential starts were up 21.7% vs. April and were 5.7% higher than last year. Single family starts were up 18.5% in May M/M but were down 6.6% vs. last year at this time. Multi-family had another very strong month, starts rose by 28.1% M/M and were 39.6% higher vs. the same month last year. Buyers are still entering the market and are looking for affordable housing, despite interest rates likely headed for their highest levels since 1999 by the end of the year.

Home Improvement Retail: There were some slight seasonal improvements in home improvement spending across a broader range of product categories. Retail sales in the home improvement category were up 2.2% month-over-month and were showing some momentum building into the summer months. With planting season largely over, spending is transitioning to smaller home improvement projects and many DIY projects are gaining popularity since commercial home improvement firms are still busy and lacking sufficient labor.

Manufacturing: The Purchasing Managers' Index for manufacturing continues to drop. The last measure from May from S&P Global shows the index for the US at 48.4, down from 50.2 in the prior month and slightly in contraction. The US continued to be one of 19 countries that had manufacturing sectors in contraction. Most countries were seeing some slight deceleration in both input and finished goods prices. New order demand was generally weaker across the board, only a few countries had improving domestic demand (India, China, Japan for example).

Big Risks

Inflation and Recession Potential: The Federal Reserve is signaling that it might have to take two more rate increases before the end of the year. Jobs remain plentiful and economic growth is stable for now. With inflation still outpacing wage growth, the Fed is still holding firm to its 2% inflation target. The latest readings show average inflation and core inflation both at 4.7%.

What to Watch

Drought: Conditions in Germany along the Rhine River are starting to limit the movement of materials in a key chokepoint area near Kaub. Barges are trimming capacity by 40% for heavier shipments. China is also experiencing low water levels along the Yangtze River and warnings of energy shortages this summer in key industrial production zones is once again being circulated.

ARMADA



Macroeconomic Viewpoints - Dr. Chris Kuehl

The Global Economy and Why This Matters – Faithful listeners to the ASA podcasts I do weekly will know that many ASA members have a lot of questions that pertain to the global economy. I seem to get several of these every week, and the reasons are obvious enough. The supply chain for many ASA members is truly global – from commodities to the intermediate parts and assemblies needed. The consumer base is international as well – either directly or indirectly. The bottom line is that global matters. This brings some questions to the forefront. Is globalization really dead? Is Europe heading for a long and deep recession? Will China lose influence and if so, which nations will benefit?

Globalization is not dead, but it is changing focus. The motivation for the globalization surge was the desire to take advantage of much lower production costs and lower labor costs. Over the last decade these costs have risen in many of the nations the manufacturer moved to (especially

in China as they have seen a 314% increase in wages in the last ten years – an average of 14% annually). There are always going to be products needed from a global supply chain and there will always be trade rationales. The difference is that domestic production is far more competitive, and businesses no longer must deal with transportation, communication, and management issues as vexing as they have been.

Europe remains a key trading partner for the US. Only the UK and Germany are still in the top ten of trade partners but Germany is number 4 and Britain is number 7. Both of these nations are in recession and still sinking. The German consumer has withdrawn and that has pushed the economy into reverse. Exports account for over 50% of German GDP and they have been reduced as the EU struggles. They have also seen a decline in demand from China. The UK has not managed to rebalance the economy after the decision to withdraw from the EU. Brexit has not done the UK any favors and the expectation is that recession there will be deep and will likely extend into next year.

China is suffering on a variety of fronts. The expectation had been the Chinese economy would surge as the lockdown ended but this has not been the case. The consumer sector has been slow to recover and the diplomatic tensions between the US and China have affected trade. China has lost its position as the #1 exporter to the US to some degree. They used to supply over 50% of total Us imports and that percentage has fallen to slightly more than 40%. The other Asian states have picked up that market share. The fastest growing of those Asian states would include India, Vietnam, Thailand and Taiwan. The "sword of Damocles" that hangs over the region is China's intentions regarding Taiwan. An actual invasion is not all that likely although the possibility can't be dismissed. The more likely option will be economically devastating to Taiwan and harder for the US to react to. China may stage an actual blockade or a quasiblockade created by a series of "military drills" that force the diversion of commercial shipping.

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ASA MER Contents:

ARMADA

Reader Question of the Month

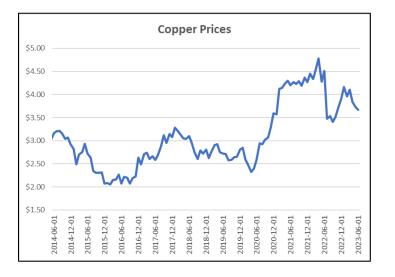
$oldsymbol{Q}_{:}~$ How much will the Federal Reserve Raise Interest Rates This Year?

A: This is a very basic and obviously common query. There is hardly a business or individual that doesn't want a definitive answer to this. Too bad we economists can't give you one. Remember the comment from John Kenneth Galbraith – "economic forecasting's sole function is to make astrology look respectable". The fact is that even the Fed itself has no definitive answer. What we can offer is the rationale for more hikes and the rationale for a reduction in that activity. The key of course is the performance of inflation but that is a more complex issue than it would appear at first glance. The goal is to bring inflation as measured by the TMPCE to between 2.0% and 2.5%. This is personal consumption expenditures and it is more accurate than Consumer Price Index. The problem is that the data lags and right now the Fed is working with April numbers. They are at 4.8%.

The mantra of the central bank is that they raise rates until something breaks and then they start to lower rates to fix what was broken. Generally, the clue that enough has been broken comes from the unemployment rate. If this goes up substantially, they know their efforts to slow the economy are working but the rates have stayed stubbornly low and that leaves the Fed with less to base their decisions on. At their last meeting they held steady but commented that rate hikes were not over. There could be another two or even three hikes of either a quarter point or half point. The trick is what will motivate a move. If inflation stays about where it is the Fed would likely hike but what if it starts to dip – even a little? If the jobless rate rises will that be the trigger to stop? The bottom line is that we will all have to monitor both of these factors to determine the direction the Fed goes. - CK

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 \$3.67/lb. (\$3.73/lb. last month).
- The Producer Price Index (PPI) for May (latest PPI available) was 511.65, down month-over-month by 2.7% (-0.71% last month). It was down 6.8% year-over-year (-9.06 last month). The ten-year index high was 572.0 in May 2022 and the low was 302.9 in 2016.
- Looking Ahead: Copper inventories at the LME continue to be near multi-year lows. The latest data shows inventories at 80,000 tons, just before the pandemic in 2018 inventories were above 280,000 tongs and touched 340,000 tons in November of 2019. Since the pandemic, inventories have not recovered. Prices are low because global demand is weaker.





General Commodities Discussion:

Nickel:

- LME Nickel Prices have fallen over the past 30 days and were @\$8.90 per lb. (\$9.35 in the last update). Warehouse levels inched up this month to 39,348 tons (37,590 tons in the last update) and are below lows not seen since 2007.
- **Outlook**: "It looked as if nickel, which has been the worst performer among all base metals this year, was pulling itself off the mat in the middle of June, but the nearly 10% gain in prices that week was nearly all wiped away the following week." Nineteen countries still have manufacturing sectors in contraction and European manufacturing sectors are in deep recession, demand on a global basis has slipped for nickel in the short term. Long term, forecasts will still show that nickel demand is likely to outpace supply for many categories of the metal. But until this global slowdown is worked through, there is still pressure on nickel prices which should start to help pull down input prices.

Carbon Steel: (WPU101706)

- NYMEX Domestic Hot-rolled Coil steel prices (<u>CRU-HRCc1</u>) were lower over the past 30 days and were \$887 per ton in late June (\$940 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 somewhat flat in the latest data from the end of May (latest available). They were up 0.5% month-over-month (down 0.7% last month). Year-over-year, the PPI was 15.9% lower (-13.9% Y/Y in the last update) against much more difficult comparisons.
- **Outlook**: "The last month has seen carbon steel pricing stay relatively flat. Technically, Hot Rolled Coil saw a less than 1% increase after a slide over the first 2/3 of June, while scrap prices have fallen a small amount. Currently, inventories are very low, as are transactions. This is important because a small flurry of activity or rush pf buying could stress the market causing pricing to rise quickly. One recent development is the decision to allow Indian steel imports for the first time since 2018, when Section 232 tariffs and associated restrictions were put in place."

Stainless Steel: (WPU10170674)

- The Producer Price Index for stainless pipe and tube were down in May (latest available). Producer prices for stainless pipe fell by 3.0% month-over-month (down 0.7% last month); and they were down 12.4% Y/Y (down 3.7% last month).
- **Outlook**: The market pricing for stainless fittings remains stable with plenty of inventory available. There is some softness showing for raw material coming from U.S. mills, which may end up affecting future pricing. Activity remains strong with both quoting and orders. The year has been overall positive.

Ferrous Metal Scrap: (PPI: PCU4299304299301)

Producer prices for ferrous metal scrap finally dipped in May vs. the prior month, coming in with an index of 523.7 (569.2 last month). This was lower by 8.2% M/M (-4.2% last month). Year-over-year it was down by 21.1% Y/Y (-24.6% in the last update). The highest producer price prior to this was in July of 2008 when the index hit 731.4 points.

Outlook: Weaker demand continued to weigh on the scrap market. Inventories continue to grow. And as mentioned in prior reports, despite prices falling overall, they remain higher than any pre-pandemic period dating back to 2011.

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



Producer Price Index – Key Industry Products

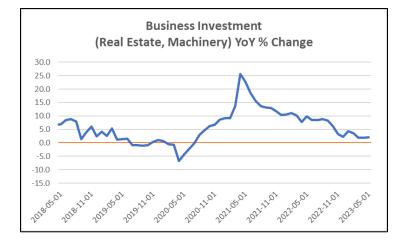
The Producer Price Index (PPI) for key supply industry metrics is listed in the chart below including month-overmonth and year-over-year comparisons. To the degree that the PPI is derived from monthly Government Surveys of actual purchasers and users of the following products, it provides a more accurate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

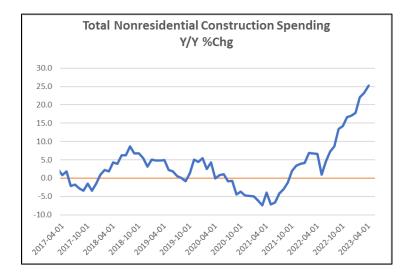
Producer Price Index - Key Industry Products						
				M/M%		Y/Y %
Category	PPI Code	May-23	Apr-23	Chg	May-22	Chg
Pipe, Valves and Fittings						
Metal valves, except fluid power	WPU114902	435.2	429.5	1.3%	404.4	7.6%
Gates, globes, angles and check valves	WPU114902011	165.9	165.6	0.1%	154.7	7.2%
Ball valves	WPU11490202	557.9	557.9	0.0%	536.7	3.9%
Butterfly valves (formerly W2421490203)	WPU11490203	303.1	301.7	0.5%	273.1	11.0%
Industrial plug valves	WPU11490204	317.1	297.7	6.5%	268.2	18.2%
Plumbing and heating valves (low pressure)	WPU11490205	393.4	393.4	0.0%	372.9	5.5%
Solenoid valves	WPU11490208	372.2	372.2	0.0%	372.2	0.0%
Other industrial valves, including nuclear	WPU11490209	405.8	395.9	2.5%	370.7	9.4%
Automatic valves	WPU11490211	248.9	248.4	0.2%	230.2	8.1%
Metal pipe fittings, flanges and unions	WPU11490301	484.2	484.3	0.0%	460.4	5.2%
Steel pipe and tube	WPU101706	427.4	425.2	0.5%	507.9	- 15.9%
Steel pipe and tube, alloy	WPU10170673	109.5	109.5	0.0%	109.5	0.0%
Steel pipe and tube, stainless	WPU10170674	148.8	153.4	-3.0%	169.9	-12.4%
Copper & copper-base alloy pipe and tube	WPU10250239	366.5	372.8	-1.7%	384.1	- 4.6 %
Plastic pipe	WPU07210603	201.9	205.7	- 1.9%	216.7	- 6.8 %
Plastic pipe fittings and unions	WPU07210604	316.8	324.3	- 2.3 %	307.9	2.9%
Plumbing Fixtures, Fittings and Trim	WPU105402	395.0	394.6	0.1%	382.7	3.2%
Bath and shower fittings	WPU10540211	286.7	286.7	0.0%	286.7	0.0%
Lavatory and sink fittings	WPU10540218	204.6	203.5	0.5%	192.3	6.4%
Enameled iron and metal sanitary ware	WPU1056	290.6	279.4	4.0%	288.6	0.7%
Steam and Hot Water Equipment	WPU1061	419.6	419.6	0.0%	380.1	10.4%
Cast iron heating boilers, radiators and convectors	WPU10610106	289.7	289.7	0.0%	261.1	11.0%
Domestic water heaters	WPU106601	570.6	570.6	0.0%	567.5	0.5%
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%	344.6	0.9%
Warehousing, Storage and Relates Services	WPU321	134.8	140.1	- 3.8 %	120.4	12.0%





PHCP & PVF







Capital Goods New Orders (NEWORDER)

• The value of manufacturers' new orders for capital goods was mixed in May (latest available), spending was up by 0.7% sequentially M/M (-2.4% last month). But they remained up by 2.1% Y/Y (up 1.2% last month) and continued to be stable overall.

• **Outlook**: Businesses were still spending at an annual rate of @\$73.9 billion in capex. But as mentioned last month, it was beginning to show the pressures of higher interest rates and tightening bank credit conditions on small and medium-sized industrial firms. Spending was rising at just a 2.1% rate year-over-year, and when adjusted for inflation, it was once again lower vs. 2022 levels.

Total Non-Residential Construction (TLNRESCONS)

• Total Non-Residential Construction activity in April (latest available) was 25.3% higher than it was a year ago (23.2% higher last month) and was 1.9% higher M/M (1.0% in the last report). Overall spending was at a new all-time high of \$1.053T (the prior annualized run rate peak of \$900B was in September of 2022).

• **Outlook**: Nonresidential construction continues to set new records (with some inflation impact involved). But there are undoubtedly some strong trends pushing areas like industrial manufacturing construction, commercial, lodging and entertainment, and multi-family construction trends. But there is also a surge in infrastructure spending across all of those sectors as Infrastructure Bill funds finally start to hit projects.

Wholesale Trade (WHLSLRSMSA, WHLSLRIMSA)

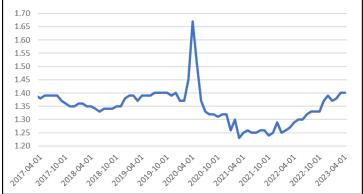
• Merchant wholesalers' sales were down 3.4% Y/Y through April (latest available; down 2.9% Y/Y in the last update). Month-over-month, sales were declining by 0.2% (down 2.7% last month).

• Wholesale inventories were up 6.3% year-over-year in April (up 9.1% last month).

• **Outlook**: Relative to sales, the inventory to sales ratio for wholesalers is 10.2% higher year-over-year (12.0% higher last month) through April (latest available). Hardware, plumbing, and heating wholesalers are still sitting 20.5% heavier with inventory than they were in the 10-year average prior to the pandemic. Construction material wholesalers were also 13.4% higher than they were in the 10-year average prior to the pandemic. Mentioned last month, some are still reporting many materials backordered 10-12 months or more, especially electronics. This is holding back growth in other areas.







Manufacturing (AMTMNO)

• Federal data on manufacturing was up 0.2% Y/Y (up 0.3% last month) through April (latest available). It was also up sequentially by 0.4% month-over-month (-1.8% last month).

• The S&P Global US manufacturing PMI came in at 48.4 in May, down from 50.2 I April.

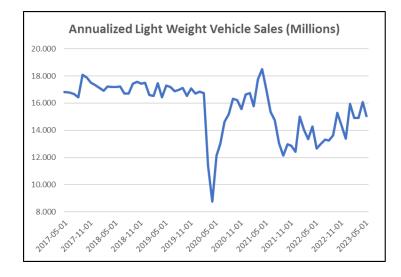
• **Outlook**: There was not much change month-overmonth in any of the readings. A PMI reading over 50 is evidence of a sector that is expanding and growing, and this measure continued to contract slightly in May. Some inflationary softening was noted, but Flash reports on manufacturing in mid-June suggested that conditions may have continued to get worse during the month. New orders were notably slower going into the peak retail season, which was concerning.

Business Inventory to Sales Ratio (ISRATIO)

• The current inventory to sales ratio for all businesses is at 1.40 months of inventory on hand in April (latest available; 1.39 last month). Relative to sales, inventories are elevated, once again this month's ratio was 6.9% higher Y/Y (also 6.9% higher last month).

• **Outlook:** There are a lot of crosscurrents and data discrepancies right now in inventories. Although top line inventory levels appear to be outstripping sales volumes, some construction firms and automotive manufacturers, aerospace, and parts of the machinery sector are still complaining of stockouts and problems getting certain components. Electrical equipment is still a significant problem and is holding back many construction projects.

PHCP



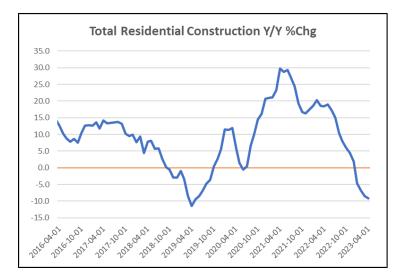
Auto Sales (ALTSALES; AISRSA)

• US auto sales were trending at a 15.045-million-unit annual rate (15.914 M last month) through May (latest available). This is up 19.6% year-over-year (+11.4% in the last update).

• The domestic auto inventory to sales ratio was up 42.2% Y/Y in April (latest available). On a monthly basis, it was 5.4% lower (down 5.4% last month).

• **Outlook**: Auto prices are still historically high, despite softening from their peaks. Used vehicle prices increased again in the latest CPI reading. OEMs are going to continue to manufacture products until dealer inventories are fully replenished, and right now those inventories are still near historic lows. This will keep the manufacturing side of the industry continuing to remain active well into 2024.



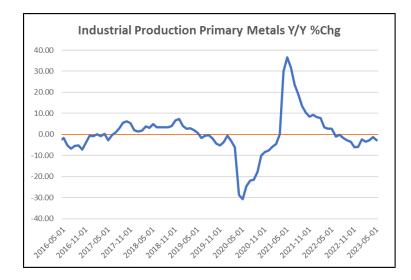


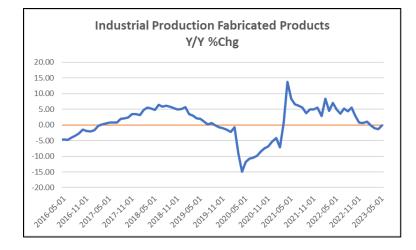
Total Residential Construction (PRRESCONS)

• Total residential construction in April (latest available), was down by 9.2% Y/Y (down 8.5% last month). It was up 0.5% M/M (flat last month).

• **Outlook**: Data on housing continues to show that lack of inventory could be having a bigger impact on the industry than rising interest rates. As the briefing shows later, housing starts, permits, and builder confidence all improved over the past thirty days. This is further proof that rising interest rates are changing the market but may not be depressing demand as much as was originally expected. Again, some factors like higher prices for finished homes are working against many categories of buyers and lack of inventories for affordable homes is slowing actual sales.

PVF





Industrial Production Primary Metals (IPG3315)

• Industrial production for primary metals was down 2.7% Y/Y through May (-2.5% in the last update). It was down 0.6% M/M (up 0.4% M/M in the last update).

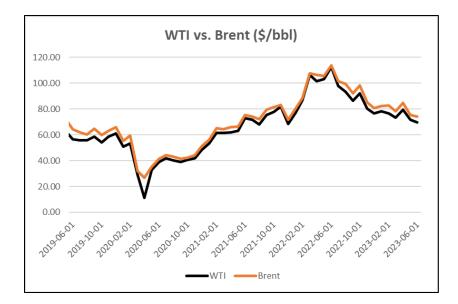
• **Outlook**: Primary metals demand continued to be sluggish again this month on the back of global manufacturing slowdowns. Nineteen countries showed that manufacturing sectors were in contraction. New orders were slower, and the cost of raw material inputs was starting to soften. As mentioned earlier, many durable goods sectors are still experiencing strong demand for products. New orders for aircraft, automotive, certain categories of machinery, computers and parts, and electrical equipment were still showing growth year-over-year.

Industrial Production Fabricated

Metals (IPG332S)

- Fabricated metal industrial production was down 0.1% Y/Y through May (down 1.5% last month). It was also down 0.7% on a month-over-month basis, (-1.2% in the last update).
- **Outlook**: Fabricated metal production is a key feeder into other sectors of manufacturing and activity through May was flat year-over-year but was still trailing slightly behind last year's volumes. Many sectors that feed the fabricated metals sector are showing some slight improvements in demand heading into the peak retail season. That could boost overall activity.





WTI and Brent

• WTI is currently at \$69.79 a barrel (\$71.91 in the last update) and Brent is at \$74.28 (\$76.71 in the last update).

• **Outlook:** The latest data from the Energy Information Administration shows that 2023 and 2024 are likely to show some balanced petroleum conditions. Global output is expected to keep pace with demand resulting in a balanced market condition from current levels. Currently, oil inventories are in the middle of the 5-year range suggesting that the US is adequately supplied with oil at the moment. Fuel prices are also stable with gasoline inventories being sufficient to meet increased summer demand. Diesel, however, is a different story. Diesel inventories are still sitting just below the 5-year average but a drop in total demand from the trucking and rail industry is helping to keep prices moderated.

https://bakerhughesrigcount.gcs-web.com/rig-count-overview_							
	Last Count	Count	Change from Prior Count	Change from Last Year			
U.S.	23-Jun-23	682	-5	-71			
Canada	23-Jun-23	169	10	15			
International	May-23	965	18	148			

Rotary Rig Counts (Baker Hughes)

• Baker Hughes US <u>active</u> rig counts were down 71 Y/Y (-31 in the last update) at 682 (1,049 in 2019); Canadian counts were up by 15 Y/Y (-20 in the last update). International counts are up by 148 Y/Y (also +148 in the last update).

• **Outlook**: New forecasts for global oil production show it rising throughout 2023 and into 2024 and we can see the global markets outpacing the US. The US has reduced the number of active rigs, but new data suggests that total oil output is still stable, and oil inventories remain in the middle of the 5-year average. The EIA reported that oil production averaged 12.6 million barrels per day midway through 2023 and it will approach 12.8 million barrels per day in 2024. The bottom line is that there no forecasts currently showing a slowdown in production. Weather systems also appear to be favorable for continuous production, an expected lack of storms in the Gulf will keep production stable.



Construction Outlook

<u>Residential construction</u>: 30-year national average mortgage rates were essentially flat in early June at 6.71% (6.79% in the last update). Home builder confidence moved up again M/M in June by 10.0% according to the <u>NAHB/Wells Fargo index</u>, it increased to 55 points (up from the May reading of 50). The all-time high was 90 points in November of 2020. Builders are feeling more optimistic despite continued Federal tightening of interest rates. Input prices are also still elevated, and reports suggest some materials are still in short supply. But demand continues to be better than expected.

NAHB/Wells Fargo National and Reg	ional Housin	g Market	Index (H	MI)					
			NATION	۹L					
	2022		2023						
(Seasonally Adjusted)	Jun.	Jan.	Feb.	Mar.	Apr.	May	Jun	м/м	VM
						Revised	Prelim.	101/101	Y/Y
Housing Market Index	67	35	42	44	45	50	55	10.0%	-17.9%
Housing Market Index Components									
Single Family Sales: Present	76	40	47	49	51	56	61	8.9%	-19.7%
Single Family Sales: Next 6 Months	61	37	48	47	50	56	62	10.7%	1.6%
Traffic of Prospective Buyers	48	23	28	31	31	33	37	12.1%	-22.9%
		R	EGIONAL	нмі					
	2022				20)23			
(Seasonally Adjusted)	Jun.	Jan.	Feb.	Mar.	Apr.	May	Jun	м/м	Y/Y
						Revised	Prelim.	141/141	171
Northeast	62	34	46	46	44	45	52	15.6%	-16.1%
Midwest	55	32	36	36	40	42	48	14.3%	-12.7%
South	75	39	46	50	50	56	60	7.1%	-20.0%
West	64	29	37	36	40	48	50	4.2%	-21.9%

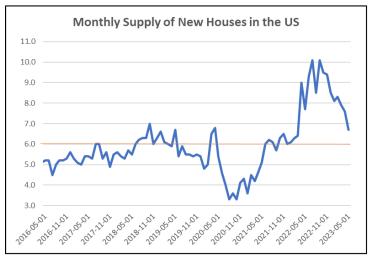
On a year-over-year basis, the NAHB/Wells Fargo Housing Market Index was down 17.9% against June of 2022 (down 21.0% last month).

Adjusted housing inventories were unchanged in

April (latest available), coming in at 6.7 months of inventory on hand. This is closer to the "ideal range" of 6 months of inventory on hand and is much lower than the 9.5 months we saw in October.

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

But new housing starts came in at a 1.631-million-unit rate on an annualized basis (a surge from last month's



adjusted 1.340 million annual rate); but the outlook for the rest of 2023 is mixed based on lack of inventory of affordable homes.

Single family starts were up sharply in May by 18.5% M/M (latest available) but were down 6.6% Y/Y. Multi-family starts are volatile and were up 28.1% M/M but remained 39.6% higher Y/Y.



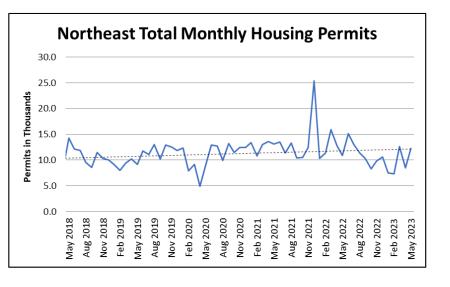
National Outlook: The economy is doing well enough, and inflation is still hot enough that the Federal Reserve signaled that two more quarter-point hikes could still be in the works, which would push the Fed Funds rate to as much as 5.5%. Banks are still tightening credit standards at the fifth fastest rate in the last 20 years. Unfortunately, statements in the past two weeks would indicate that the Federal Reserve collectively is turning more hawkish in the current environment.

Housing and Interest Rate Forecast, 06/06/2023								
	2019	2020	2021	2022	2023	2024	2025	
Housing Activity (000)								
Total Housing Starts	1,292	1,397	1,606	1,551	1,342	1,327	1,475	
Single Family	889	1,003	1,132	1,004	859	928	1,053	
Multifamily	403	394	474	547	483	399	423	
New Single Family Sales	685	833	769	637	670	730	807	
Existing Single-Family Home S	4,746	5,057	5,420	4,530	3,931	4,308	4,543	
Interest Rates								
Federal Funds Rate	2.16%	0.36%	0.08%	1.68%	5.05%	4.83%	3.41%	
Fixed Rate Mortgages	3.94%	3.11%	2.96%	5.34%	6.48%	6.01%	5.45%	
Prime Rate	5.28%	3.54%	3.25%	4.85%	10.73%	10.85%	8.86%	
For more forecast details, visit www.nahb.org.								

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

Regional market outlook: Northeast

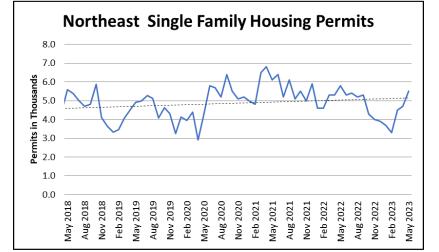
- Northeast total housing units authorized for construction were up in May by 44.7% M/M (-32.5% last month). May was the latest regional data available throughout this series.
- The 3-month moving monthly average was up 28.3% (12.5% last month).
- On a year-over-year basis, permits were up 12.8% (-33.6% in the last update).



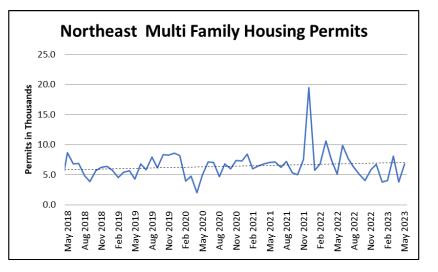


June 2023

- Month-over-month single family permits were up 17.0% (4.4% last month).
- On a 3-month moving average basis, permits were up 19.3% (10.0% last month).
- Year-over-year permits were down 5.2% (-11.3% last month).

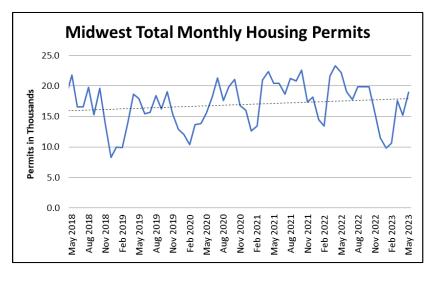


- Multi-family housing permits authorized for construction were up 78.9% M/M (-53.1% in the last update).
- They were up 42.8% on a rolling 3-month average (18.2% last month).
- On a year-over-year basis, they were up 33.3% (-49.3% in the last update).
- These figures are based on a small number of units so the percentages can seem higher and more volatile.



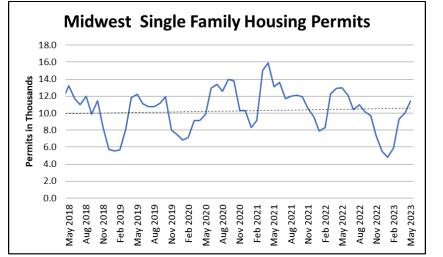
Regional market outlook: Midwest

- Midwest total housing permits were up 25.0% month-over-month (-13.6% in the last update).
- The 3-month average was up 25.8% (20.2% in the last update).
- On a year-over-year basis, permits were down 14.4% (-34.8% in the last update).

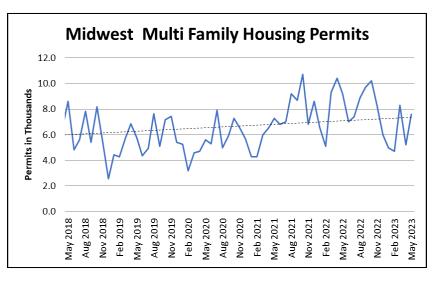




- M/M permit volumes were up 14.0% (+7.5% last month).
- The 3-month rolling average shows that permits were up 26.4% (29.4% in the last update).
- Year-over-year, single family homes authorized by permits were down 12.3% (-22.5% in the last update).

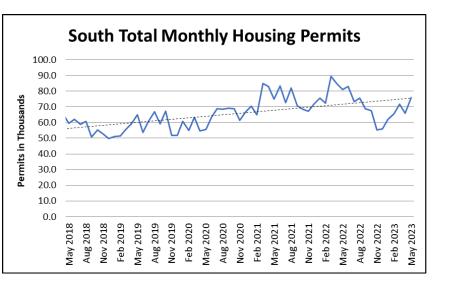


- Multi-family housing permits, again, are volatile month-over-month. This month, they were up 46.2% (-37.3% last month).
- On a 3-month rolling average basis, they were up 28.5% (11.1% in the last update).
- On a year-over-year basis, permits were down 17.4% (-50.0% in the last update).



Regional market outlook: South

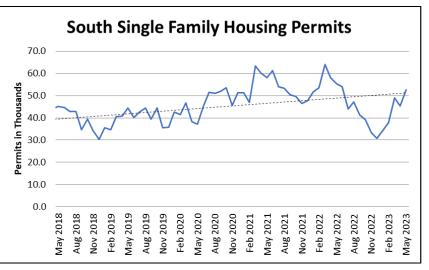
- Southern region housing permits were up 15.3% month-over-month (-8.2% in the last update).
- On a 3-month rolling average basis, permits were up 5.6% (+2.2% in the last update).
- On a year-over-year basis, total permits were down 6.4% (-22.0% in the last update).



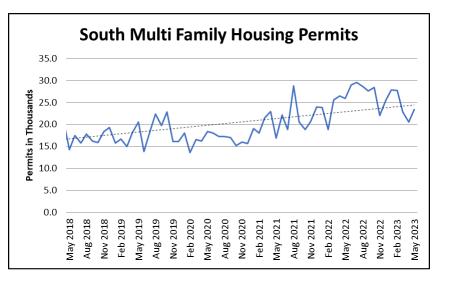




- Southern region single family home permits were up 16.1% M/M (-7.6% last month).
- On a 3-month rolling average, they were up 12.7% (+10.7% in the last update).
- On a year-over-year basis, single family permits were down 4.9% (-21.9% in the last update).

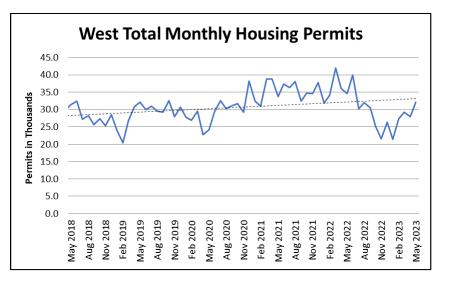


- Southern multi-family permits were up 13.6% M/M (-9.6% last month).
- On a 3-month rolling average basis, permits were down 4.6% (-9.2% last month).
- On a year-over-year basis, permits for multi-family housing were down 9.7% (-22.3% in the last update).



Regional market outlook: West

- Western region total monthly housing permits were up 15.0% M/M (-4.4% last month).
- On a 3-month rolling average basis, they were up 5.8% (10.0% last month).
- On a year-over-year basis, permits were down 6.9% Y/Y (-22.2% in the last update).

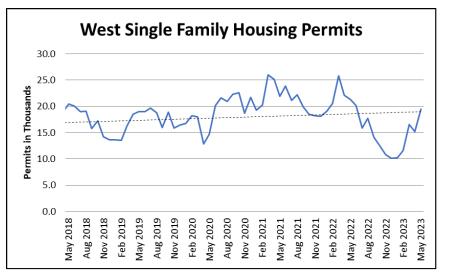




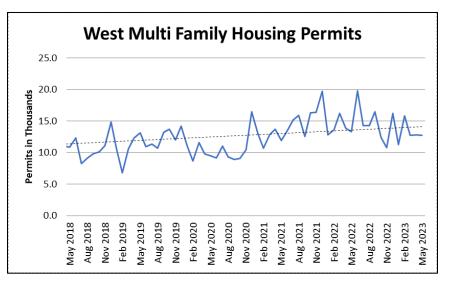
ARMADA



- Single-family permits were up 28.3% M/M (-8.4% last month).
- On a 3-month moving average basis, permits were up 21.0% (16.1% in the last update).
- Year-over-year, single family permits were down 8.5% (-31.2% in the last update).



- Multi-family permits were down 0.8% M/M (+0.8% in the last update).
- On a 3-month rolling average, it was down 6.5% (+7.0% in the last update).
- Year-over-year, multi-family unit permits were down 4.5% (-7.9% last month).



Industry Outlook

ASA Sales were stronger by 7.6% Y/Y (+0.5% last month) in May (latest available). Year-to-date through May, sales were up 7.0% (+7.3% in the last update). For the trailing twelve months prior, sales were up 12.5% (13.5% in the last update). ASA Pulse Report findings are reported monthly. The following chart shows the breakdown by primary business type and region.

	May Y/Y % Change in Total Dollar Sales	YTD % Change vs. YTD 2022	Trailing Twelve Months % Change
All Businesses	7.6%	7.0%	12.5%
By Primary Business			
РНСР	5.4%	5.7%	9.8%
PVF	12.3%	8.1%	17.9%
PHCP & PVF	8.1%	8.4%	12.8%
By Region			
1 (SWPD)	7.5%	2.0%	9.5%
2 (MWD)	11.1%	7.4%	12.3%
3 (SWCD)	14.8%	9.3%	25.4%
4 (NCWA)	3.9%	7.3%	9.8%
5 (ASA Northeast)	3.4%	4.3%	8.8%
6 (SWA)	10.3%	11.7%	15.8%
*ISD - Insufficient Data			

The US Transportation Services Freight Index (TSIFRGHT), which typically leads ASA Sales by about five months, was down in April (latest available yet to be updated). The report showed that the TSI was at 135.6 for freight, down 1.2% M/M and was down by 2.5% Y/Y (down 0.8% 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 May that spot truck freight demand was <u>61.2% lower than it was a year</u> <u>ago</u>. Spot trucking rates have fallen 23.8% Y/Y, and now fuel surcharges are down -29.7% Y/Y.

New data shows that oil production in the US is expected to now 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 must begin at some point.

With global demand for oil dropping of late, OPEC has decided to cut another 1 million barrels of oil per day. Oil prices as mentioned were under pressure because of a drop in global demand estimates.

June 2023



Retail sales inched up in May across many categories month-over-month, but some sectors were starting to show some pressures on a year-over-year basis (even with inflation still boosting some of them).

When adjusted for inflation, sales were 0.2% higher month-over-month in May, but were lower by 2.4% yearover-year.

Home improvement retail sales volumes were slightly better in May on seasonal spending, rising by 2.2% M/M but they remained marginally lower by 0.9% against last year. Again, when adjusted for inflation, sales were likely lower year-over-year.

Economic growth is still expected to be flat in 2023 (roughly 0.7% for the full year). Construction is still doing well for non-residential, 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 very strong through Q1 and that continued in Q2 on a strong jobs market. That is expected to continue in Q3 and if the labor market holds steady, will likely push further into Q4.

The Federal Reserve will likely increase interest rates

	Percent Change				
	May 2023 Advance				
Kind of Business	from				
	Apr. 2023	May 2022			
Retail & food services,					
total	0.3	1.6			
Retail Excluding Fuel and Autos	0.3	0.7			
Motor vehicle & parts dealers	1.4	4.4			
Furniture & home furn. stores	0.4	-6.4			
Electronics & appliance stores	0.2	-5.0			
Building material & garden eq. &					
supplies dealers	2.2	-0.9			
Food & beverage stores	0.3	3.1			
Grocery stores	0.2	3.1			
Health & personal care stores	0.0	7.8			
Gasoline stations	-2.6	-20.5			
Clothing & clothing accessories					
stores	0.0	-0.2			
Sporting goods, hobby, musical					
instrument, & book stores	0.3	1.2			
General merchandise stores	0.4	2.0			
Department stores	0.3	-3.5			
E-Commerce retailers	0.3	6.5			
Food services & drinking places	0.4	8.0			

again before the end of the year, and that could have an impact on investment and spending in 2024.