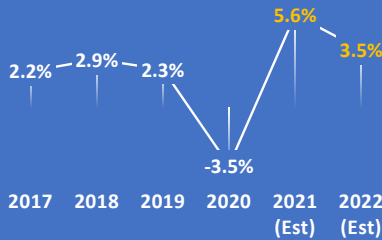


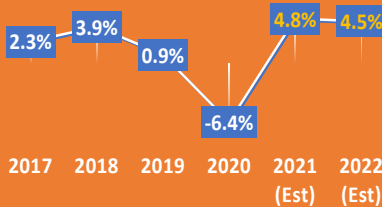
Executive Summary – January '22

Selected Indices

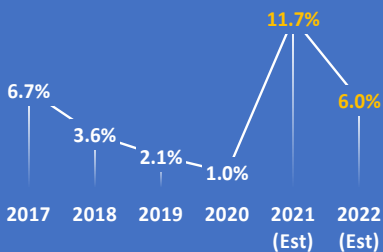
REAL GDP



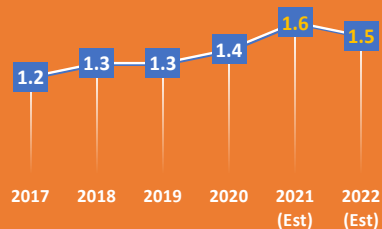
INDUSTRIAL PRODUCTION



BUSINESS INVESTMENT



NEW HOUSING STARTS (MILLIONS)



Big Items

GDP: The Q4 GDP data was more than unexpected. Even the optimists were asserting that growth of maybe 4.0% would be ambitious for the year but the latest figures showed a gain of 5.7% on an annual basis and that is the highest rate of growth since 1984. The Q4 gain was 1.7% and many had expected much less. Much of the growth in the last quarter of 2021 was driven by inventory build rather than by consumer activity.

Industrial Production: Industrial production fell in December by 0.1%. The biggest decline was in manufacturing with a 0.3% reduction, but utilities were also down by 1.5%. The gains were seen in mining as there was a 2.0% increase driven by higher prices for oil and gas. Even with this dip total industrial production in December was 3.7% higher than it was at the end of 2020 and 0.6% higher than before the pandemic affected the economy.

Housing Starts: Housing starts were at a rate of 1.7 million and this was 1.3% above the November estimate. It is also 2.5% above the rate at the end of 2020. The bottom line is the housing sector is still growing and still robust but there are concerns about the future when the Fed starts to hike rates. The Case Shiller index indicates that house prices are starting to come down slightly but not in all areas.

Home Improvement Retail: Home improvement and remodeling activity remains strong and is expected to continue expanding through the year at a 1.8% pace. The projects that are driving this growth are still related to home offices, conversions to accommodate elderly parents and preparing a home for sale. There has been a drop off in large projects and growth among smaller projects, but kitchen and bathroom projects continue to dominate with over two thirds of all activity.

Manufacturing: The latest IHS Markit PMI was at 57.7 in December and the ISM version was at 58.7. The January numbers are expected to fall a bit more but will remain comfortably in the expansion zone. The global data has been tracking similarly although China saw a much deeper decline than expected. The issues weighing on the data are the same as they have been for the last year – labor shortage, supply chain disruption and higher priced commodities. The good news is that demand for manufactured goods continues to hold.

Big Risks

Inflation the Primary Factor: Inflation remains the number one issue going into 2022. The dual question is how high and for how long. The real rate has hit 7.0% and core is at 5.5% - marking the largest increase since February of 1991. The immediate drivers have been higher commodity costs and higher labor costs. The long-term motivator has been the shift away from globalization as companies are not shifting production offshore to find lower wage and production costs as often as was once the case.

What to Watch

Global Economies: Geopolitics is now at the forefront of concerns regarding the global economy. Russia continues to withhold gas from Europe and that has driven the price of this fuel up by over 549%. The potential for an invasion of Ukraine has all of Europe on edge. China has become more and more threatening towards Taiwan and the South China Sea and that has created additional trade tension between the US and China. Tariffs are expected to tighten and broaden along with sanctions directed at Russia.

Macroeconomic Viewpoints

- Dr. Chris Kuehl

The hallmark of a good (and cautious) economist is to make a case for both a negative and positive outlook so that all the bases get covered. Given all the variables at work in the 2022 economy, that is simpler than usual. First the positives. Three of the major issues from 2021 could be less of an issue as the year progresses – inflation, supply chain issues and labor. All three are related. The stress on the supply chain has amplified the inflation issue but there are some signs of relief appearing. The cost of containers shipped from Asia have fallen but remain far higher than was the case before the pandemic. The load to truck ratio is still high but starting to trend in the right direction in some parts of the country. The producers that had been hesitating to boost output are now catching up a bit. The optimists see supply chain order restored by the second quarter.

That means that some of the inflation threat fades by that point as well. Analysts assert that peak inflation has likely been reached and now there will be a slow retreat. Even the most upbeat assert that rates will remain higher than was the case in 2019 and that retreat will be slow. The labor cost issue is likely the most persistent but as the overhang of stimulus money continues to dissipate the number of people opting to stay out of the workforce declines. There are also major moves towards increased use of robotics and automation that will allow reduced numbers in the workforce. The bottom line is that optimism is based on a form of return to normal – less impact from the pandemic, more consumers back to old spending habits, less government help, more people back to normal work patterns.

The case for pessimism is just as strong (unfortunately). The supply chain is still in shambles and much of the problem stems from the challenges facing China. The costs of freight have fallen a little but not drastically and the producers have yet to commit to building inventory back to pre-pandemic levels. Logistics costs are still very high, and it could be months before there is a significant fade. Inflation is as high as it has been in thirty years primarily due to the supply chain breakdown and the erosion of the globalization impact. Over the last three decades, businesses could reduce inflation risk with the decision to move overseas where labor costs and production costs were lower. That is harder to do now. The money supply driver for inflation has faded as much of that stimulus cash has been spent but there is still plenty of fuel in the economy.

The most worrisome aspect of the 2022 economy is the potential for a wage/price spiral. As prices go up there will be a quite natural demand for wages and salaries to go up as well. This prompts producers to hike prices again to cope with the higher labor costs and the cycle keeps repeating. The big losers are those people and businesses that are unable to adjust their incomes or revenues. The expectation is that wages will rise by another 3.5% to 4.0% in 2022 after rising by 4.0% last year. Given the shortage of skilled labor the wage issue could hit ASA members harder than in many other sectors.

What it comes down to is whether there is a period of “normalcy” expected in 2022? We thought that might manifest in early 2021 when growth rates hit 6.5%, but then virus variants reappeared, and expectations dimmed again. Is this the year we escape that recurring trap?

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Reader Question of the Month

Q: Why Aren't People Returning to Work?

A: This has been a question that has emerged all over the country in the last year or two. Millions of people were thrown out of work by the 2020 recession and pandemic, and it was assumed they would all eagerly resume their jobs as soon as the restrictions started to lift. It didn't really happen. There are now 10.4 million job openings going unfilled and yet there are 6 million people unemployed (formally). If one counts the people defined as "discouraged workers" or working part time the numbers are perhaps double. Why aren't there more people seeking to fill those millions of jobs?

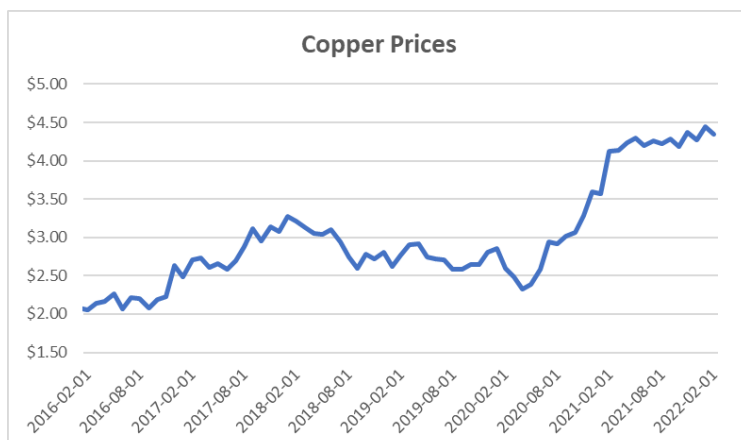
The first issue is that most of the available jobs require skills and training that many people lack. It is estimated that two thirds of the 10.4 million jobs require experience, certification, or formal educational credentials. The remaining third are often jobs that do not pay all that well. This limits the appeal.

On top of this there are unique issues that stem from the pandemic. Some seven to nine million women have not been able to enter the workforce because they must stay at home educating their children remotely or providing after school care.

The other development that will have a much greater future impact is the alternative presented by the "gig economy". We know it best as the ride share option over a taxi but there are thousands of jobs that can be done as "gigs". A collection of part time jobs that add up to an income. Given that a \$15 an hour worker pulls down just \$120 for an eight-hour day it is not hard to conjure up jobs that pay more. Internet laundry has exploded as those stay-at-home moms advertise their willingness to do other people's laundry. Studies have shown they take home between \$250 and \$350 a day. - 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 fallen since last month and is now trading at \$4.34/lb.
- The Producer Price Index (PPI) for December copper (latest PPI available) was 534.8, down month-over-month by 3.0% (+2.5% last month). It was higher year-over-year, rising by 20.5% Y/Y (up 32.2% last month). The ten-year index high was 563.0 in May 2021 and the low was 302.9 in 2016.
- **Looking Ahead:** Copper warehouse levels have improved slightly since last month but remain in a range that is arguably among the lowest in nearly two decades. And yet, the price for copper is not responding to those low inventory levels. China dumped copper stores earlier in the fall and China's domestic inventories are stable for now.

General Commodities Discussion:

Nickel:

- Nickel Prices have increased over the past 30 days at @\$10.52 per lb. (\$9.59 in the last update). LME warehouse levels are also sharply lower again this month at 91,716 tons (101,886 tons in the last update).
- **Outlook:** Warehouse levels continued to fall in early February as global supply chain challenges continue and new viral outbreaks continued to affect global distribution. Inventory levels are not recovering on a global scale, although some localized availability was improving slightly. Seasonal drops in demand may not play a usual role in 2022, although a cut in Chinese demand in February is certain.

Carbon Steel: (WPU101706)

- NYMEX Domestic Hot-rolled Coil steel prices (CRU-HRCc1) have dove over the past 30 days and were \$1,175 per ton in early February (\$1,882 per ton in the last update).
- Producer prices for steel pipe and tube remain strong in the latest data from the end of December. They were up 2.3% month-over-month in December (latest available) (up 2.8% last month). Year-over-year, the PPI is still 80.0% higher (73.5% higher Y/Y in the last update).
- **Outlook:** “Nickel continues to rise in price. Increases over the last 2 weeks are 14%. More manufacturers have increased 304L, 316L and A20 prices. The weighted averages are 25% for stainless high-pressure forged steel fittings. Carbon-steel bar prices from steel mills have put pressure on manufacturers of A105 forged steel fittings as well. Another major manufacturer announced an A105 price Increase of a weighted average of 8%. Increases announced over the last 90 days have ranged from 8% to 12.5%. Availability of carbon and stainless forged steel fittings remains stable as demand has improved.”

Stainless Steel: (WPU10170674)

- The Producer Price Index for stainless pipe and tube hit all-time highs again in December. Producer prices for stainless pipe were up 1.6% month-over-month through December (up 1.3% last month); they were also up 34.3% Y/Y (up 33.7% last month).
- **Outlook:** “The year is starting out with stainless material pricing holding strong, supported by nickel surging on the spot price market. Freight continues to be a headache across the spectrum for both costs and timing. There are holes in available inventories of raw and finished material. It would be good advice to lock into placing orders to secure available items rather than delay and risk losing that stock.”

Ferrous Metal Scrap: (PPI: PCU4299304299301)

- Producer prices for ferrous metal scrap eased slightly in December, coming in at an index of 646.5 (670.1 last month). This was down 2.7% M/M (+10.9% last month). Year-over-year it was still sharply higher, rising by 37.1% Y/Y (77.5% in the last update). The highest price prior to this was in July of 2008 when the index hit 731.4 points.
- **Outlook:** Scrap metal prices held steady in December as Omicron spread around the globe. Many of the disassembly and scrapping operations in third world countries were impacted, and domestically the US was still not demolishing older buildings, ships, or other primary forms of recycled metals. We expect this to improve significantly in 2022 toward the end of the year when more construction activity takes place. But, with steel demand likely increasing in 2022 as the commercial construction sector improves, lower scrap prices may not yield lower steel prices.

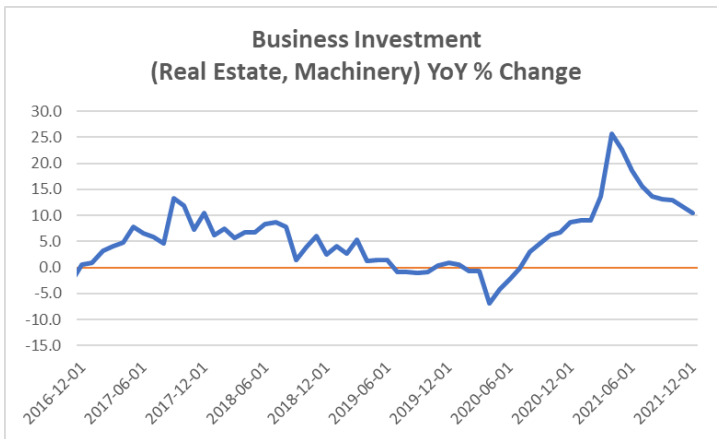
Additional commodities and finished product pricing are addressed in the Producer Price Index review on the next page.

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.

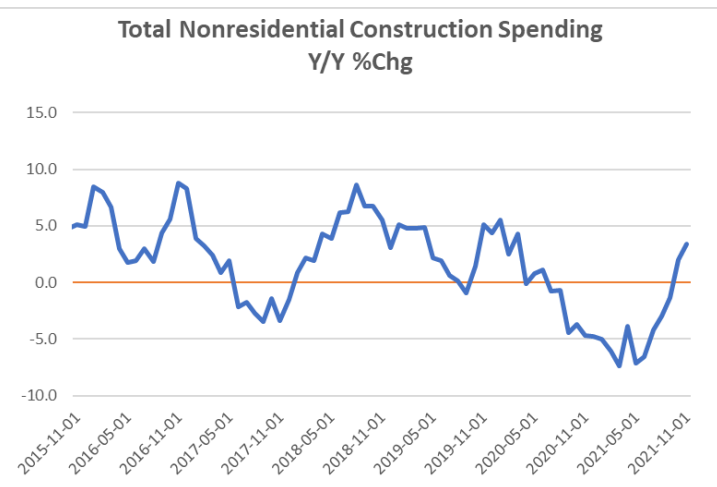
Producer Price Index - Key Industry Products						
Category	PPI Code	Dec-21	Nov-21	M/M% Chg	Dec-20	Y/Y % Chg
Pipe, Valves and Fittings						
Metal valves, except fluid power	WPU114902	368.7	368.0	0.2%	349.7	5.4%
Gates, globes, angles and check valves	WPU114902011	145.7	145.7	0.0%	137.7	5.8%
Ball valves	WPU11490202	462.8	462.1	0.1%	447.4	3.4%
Butterfly valves (formerly W2421490203)	WPU11490203	255.3	255.3	0.0%	245.4	4.0%
Industrial plug valves	WPU11490204	257.3	257.3	0.0%	234.6	9.7%
Plumbing and heating valves (low pressure)	WPU11490205	354.3	354.3	0.0%	329.4	7.6%
Solenoid valves	WPU11490208	372.2	372.2	0.0%	366.1	1.7%
Other industrial valves, including nuclear	WPU11490209	341.7	340.2	0.5%	318.8	7.2%
Automatic valves	WPU11490211	219.6	218.0	0.8%	205.9	6.6%
Metal pipe fittings, flanges and unions	WPU11490301	409.7	403.6	1.5%	354.2	15.7%
Steel pipe and tube	WPU101706	493.4	471.2	4.7%	274.1	80.0%
Steel pipe and tube, alloy	WPU10170673	109.5	109.5	0.0%	104.0	5.3%
Steel pipe and tube, stainless	WPU10170674	135.9	133.8	1.6%	101.2	34.3%
Copper & copper-base alloy pipe and tube	WPU10250239	357.9	364.1	-1.7%	249.0	43.7%
Plastic pipe	WPU07210603	194.7	191.2	1.8%	121.0	60.9%
Plastic pipe fittings and unions	WPU07210604	273.1	268.9	1.6%	183.0	49.2%
Plumbing Fixtures, Fittings and Trim	WPU105402	354.4	353.6	0.2%	339.8	4.3%
Bath and shower fittings	WPU10540211	286.7	286.7	0.0%	278.1	3.1%
Lavatory and sink fittings	WPU10540218	177.7	176.4	0.7%	171.3	3.7%
Enameled iron and metal sanitary ware	WPU1056	266.8	247.6	7.8%	245.9	8.5%
Steam and Hot Water Equipment	WPU1061	349.0	326.2	7.0%	303.5	15.0%
Cast iron heating boilers, radiators and convectors	WPU10610106	212.3	212.3	0.0%	194.5	9.1%
Domestic water heaters	WPU106601	588.4	549.4	7.1%	410.6	43.3%
Electric water heaters	WPU10660101	583.7	540.6	8.0%	400.3	45.8%
Non-electric water heaters	WPU10660114	357.7	336.3	6.4%	253.2	41.3%
Warehousing, Storage and Related Services	WPU321	120.3	115.8	3.8%	108.1	11.2%

PHCP & PVF



Capital Goods New Orders (NEWORDER)

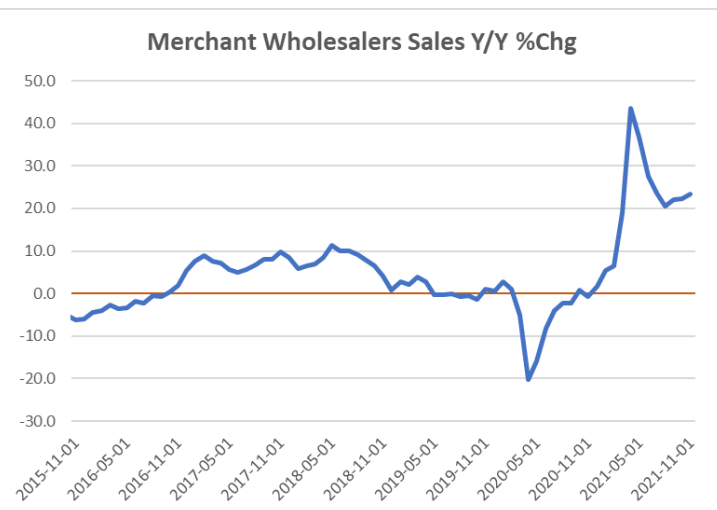
- Value of manufacturers new orders for capital goods remained strong again in December (latest available) but flat sequentially (0.1% higher last month). But they were up by 10.4% Y/Y (up 11.7% last month) and continued to be strong overall.
- Outlook:** Corporate investments in structures and equipment hit \$79.1 billion in December and remained at an all-time high on a seasonally adjusted basis. Inflation does play a role here, but demand for products of all types remains very strong as mentioned last month. Even against what should be tougher comparisons to last year, total spending has shown no signs of slowing despite these inflationary pressures. Some of this could be corporate spending aimed at getting ahead of Federal Reserve interest rate hikes.



Total Non-Residential Construction

(TLNRESCONS)

- Total Non-Residential Construction was 3.4% higher than it was a year ago (2.0% higher last month) and was flat M/M (+0.9% in the last report). Overall spending was at an annual rate of \$820B (down slightly from the January 2020 annualized run rate peak of \$840B).
- Outlook:** The November data continued October's growth trend. As mentioned last month, new project start activity (warehousing, logistics, multi-use commercial, and manufacturing construction) was once again accelerating in some markets. Total construction spending is starting to return to some stronger levels, and the outlook for non-residential construction spending in 2022 is generally positive. The infrastructure bill is expected to boost the annual growth rate to nearly 7% in each of the next 5 years.



Wholesale Trade (WHLRLRMSA, WHLSLRMSA)

- Merchant wholesalers' sales were up 23.3% Y/Y through November (latest available; up 22.2% Y/Y in the last update). Month-over-month, sales were up 1.3% (2.2% last month).
- Wholesale inventories were up 15.9% year-over-year in November (up 14.4% last month).
- Outlook:** Wholesale inventory to sales ratios were 6.2% lower year-over-year, a product of a continuation of difficult supply chain issues. The building of inventories was part of the Q4 growth story for the US, but current levels of inventory will not fully meet sales demand. Again, an inbound wave of ships from Asia could help fill some inventory gaps, but the chronic inventory shortage issues are likely to extend into the second half of 2022 for many sectors.



Manufacturing (AMTMNO)

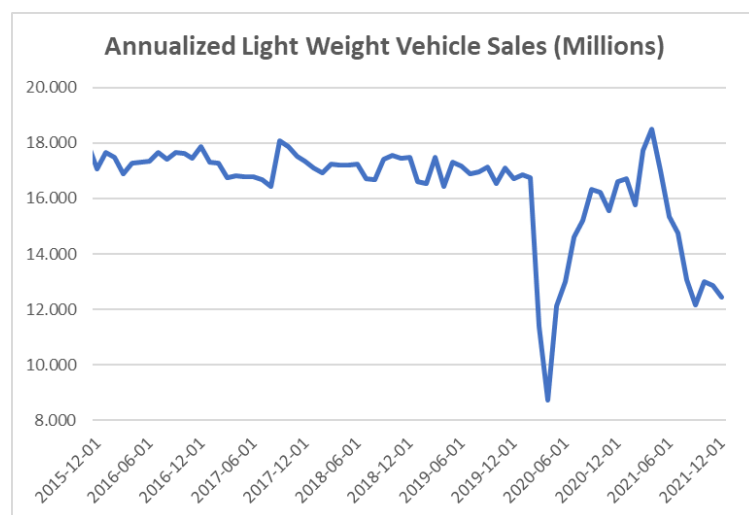
- Federal data on manufacturing was up 15.5% Y/Y (up 15.2% last month) through November (latest available). It was up 1.6% sequentially month-over-month (+1.0% last month).
- The IHS Markit Composite PMI was expected to remain strong in January, despite likely dipping slightly as Omicron and seasonal headwinds took a bit of a toll on output. Supply chain issues continued to be a factor and labor availability was still hampering full output. Last month's PMI was at 57.7 points, down slightly from November's levels.
- **Outlook:** A PMI reading over 50 is evidence of a sector that is expanding and growing. Despite manufacturing slipping in the Markit monthly survey again month-over-month, the sector is still expanding, and demand remains strong across nearly every sector. New inbound components will help foster more growth.



Business Inventory to Sales Ratio (ISRATIO)

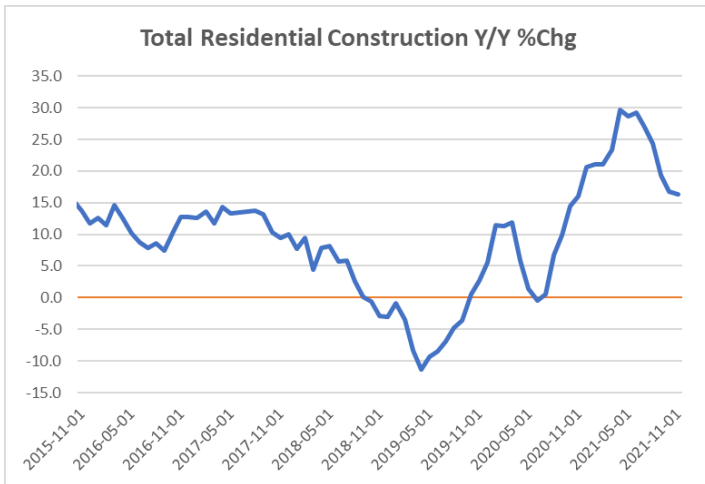
- The current inventory to sales ratio for all businesses increased slightly to 1.25 months of inventory on hand in November (latest available) (1.24 last month). Relative to sales, inventories are still low, this month's ratio was 7.4% lower Y/Y (8.1% lower also last month).
- **Outlook:** Although a lagging indicator, supply chain activity is starting to slowly improve, and the end of the holiday season should help with some of the backlogs. But port congestion is starting to spread and ports across the US are now facing significant backlogs. There are still nearly 190 ships that have to be unloaded, and what is essentially a million or more containers will need to be processed. This will help bring up the inventory to sales ratio in Q1 – slightly.

PHCP



Auto Sales (ALTSALES; AISRSA)

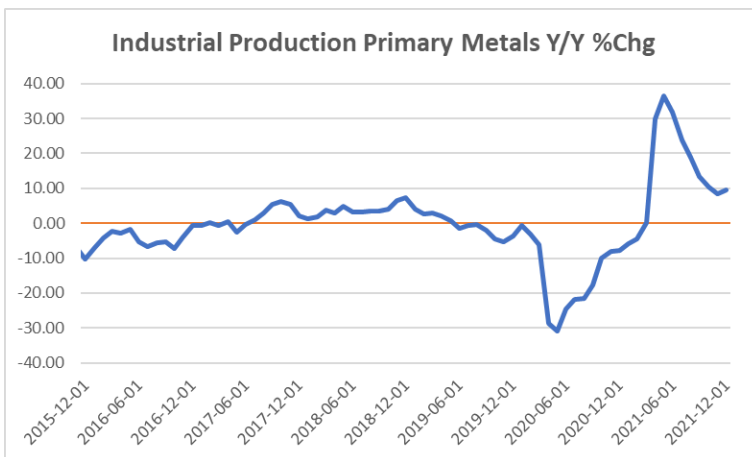
- US auto sales were trending at a 12.435-million-unit annual rate (12.857M last month) through December (latest available). This is down 23.8% year-over-year against moderate comps (down 19.0% in the last update).
- The domestic auto inventory to sales ratio was down 87.1% Y/Y in November (latest available). On a monthly basis, it was 37.6% lower than it was last month.
- **Outlook:** Microchip shortages continue to be the primary factor in reduced auto output and inventory to sales ratios continue to be at all-time lows. Demand for autos remain strong and most component parts (those without a chip requirement) are available. Chip deliveries (once again) are forecasted to improve in the first half of 2022, but many analysts were saying the same thing in the summer of last year. Unfortunately, conditions are on a "wait and see" standpoint at this stage.



Total Residential Construction (PRESCONS)

- Total residential construction in November (latest available), was up by 16.3% Y/Y (up 16.7% last month). It was up 0.9% M/M (-0.5% last month).
- **Outlook:** Estimates still suggest that the US needs to build more than 5.4 million homes over the next several years to meet projected demand. The current monthly supply of homes according to the Census Bureau is 6.5 months on hand; 6 months on hand is a well-balanced market. The problem is that many of the housing surplus is in markets where it isn't needed and there is not enough inventory in markets where migration is growing, or younger generations are trying to get into their first home. Do not mistake a larger inventory datapoint as a sign that the housing market is approaching a problematic period in this particular period – that is not likely the case.

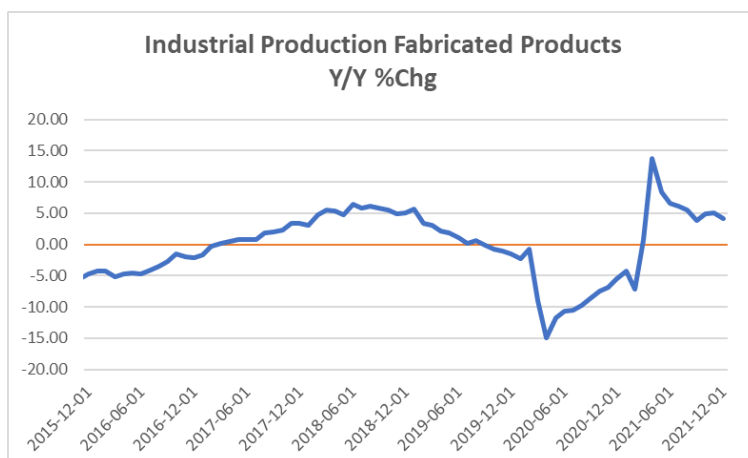
PVF



Industrial Production Primary Metals

(IPG331S)

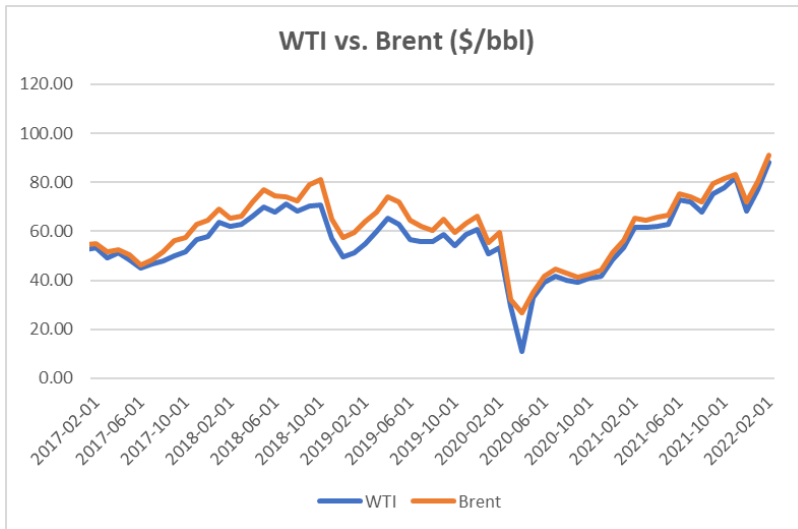
- Industrial production for primary metals were up 9.4% Y/Y through December (8.4% in the last update). It was down 0.2% M/M (+0.5% M/M in the last update).
- **Outlook:** As many sectors in the industrial production complex start to increase production, as a primary feeder of material to those industries, the primary metals component of it will continue to see increased demand. There is some softening in the growth rate, but it remains slightly above 2019 pre-pandemic levels.



Industrial Production Fabricated

Metals (IPG332S)

- Fabricated metal industrial production was up 4.2% Y/Y through December (up 5.0% last month). It was down 1.2% on a month-over-month basis, (+0.9% in the last update).
- **Outlook:** Fabricated metal demand is driven by other categories of manufacturing. Most of those sectors have started to accelerate again and most are projected to show strong new growth periods in Q2 and Q3 of this year (2022).



WTI and Brent

- WTI is currently at \$88.12 a barrel (\$77.18 in the last update) and Brent is at \$91.29 (\$80.16 in the last update).
- **Outlook:** A combination of factors is pushing oil prices higher. Production is not keeping pace with demand and geopolitical risks in Ukraine have pushed speculation trades higher. The US has been asked by the Europe Union to provide a backstop if oil supplies from Russia are interrupted during a Ukraine conflict. Russia produces 12% of the world's oil and China has agreed to take as much of it as they can. Domestically, despite coming out of the holiday season, Omicron variants have pushed many travelers to return to vehicle travel once again, which has increased demand for oil and gasoline. Commuter traffic is still down, but that could also start to reverse course as early as March 1st based on statements made by many large employers and their plans for a return to the office.

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

	Last Count	Count	Change from Prior Count	Change from Last Year
U.S.	28-Jan-22	610	6	226
Canada	28-Jan-22	217	5	43
International	Dec-21	834	17	169

Rotary Rig Counts (Baker Hughes)

- Baker Hughes US active rig counts were up 226 Y/Y (up 235 in the last update) at 610 (1,049 in 2019); Canadian counts were up by 43 Y/Y (up 31 in the last update). International counts are up by 169 Y/Y (up by 148 in the last update).
- **Outlook:** Oil producers are still being cautious amid green initiatives and legislation that will start to reduce the number of fossil fuel using vehicles by 2030. Although the share of the overall market will remain low, it will eventually start to chip away at fuel demand. With wells having a 25-35 useful asset value, many producers are reticent to start new production for fear that they may not be able to get their investments back. Investments in oil production could be 25% lower than they should be, given where demand is trending. The EIA has global oil consumption returning to pre-pandemic levels by Q2 of this year.

Construction Outlook

Residential construction: 30-year national average mortgage rates inched up through early February and are now at 3.55% (3.11% in the last update). Home builder confidence fell M/M in January, it slipped to 83 points (down from December’s reading of 84). The all-time high was 90 points in November of 2020. Builders continue to be concerned about building material costs and perhaps more importantly, labor cost and worker availability. But demand remains stable, which has kept sentiment improving monthly.

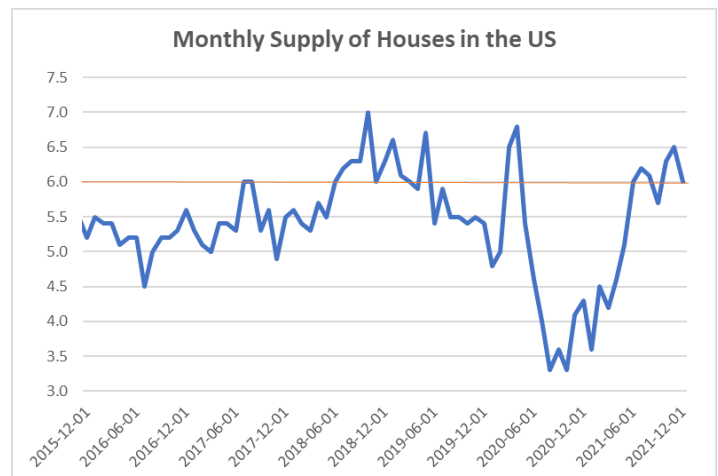
NATIONAL															
(Seasonally Adjusted)	2021												2022		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	M/M	Y/Y
Housing Market Index	83	84	82	83	83	81	80	75	76	80	83	84	83	-1.2%	0.0%
Housing Market Index Components															
Single Family Sales: Present	90	90	87	88	88	87	86	81	82	86	89	90	90	0.0%	0.0%
Single Family Sales: Next 6 Months	83	80	83	80	81	79	81	81	81	84	84	85	83	-2.4%	0.0%
Traffic of Prospective Buyers	68	72	72	74	73	71	65	59	61	65	69	71	69	-2.8%	1.5%
REGIONAL HMI															
(Seasonally Adjusted)	2021												2022		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	M/M	Y/Y
Northeast	68	87	86	84	78	74	73	76	67	73	69	80	71	-11.3%	4.4%
Midwest	80	81	78	75	71	70	70	64	69	72	75	76	74	-2.6%	-7.5%
South	82	82	82	84	86	85	83	77	80	84	87	89	87	-2.2%	6.1%
West	92	91	88	91	91	86	84	85	80	85	88	87	88	1.1%	-4.3%

On a year-over-year basis, the NAHB/Wells Fargo Housing Market Index was flat against January of 2021 (down 2.3% last month).

Housing inventories fell back into a good range in December on a national basis, coming in at 6.0 months of inventory on hand. This is right in the “ideal range” of 6 months of inventory on hand, which typically leads to more home sales, stable prices, and good new home starts volume when the supply chain is in cycle.

Construction costs for both labor and materials are still high, despite some slight softening just starting across some commodities. Softwood lumber prices have started to inch back up after falling solidly over the past two quarters. The good news is that new housing starts are still moving at a 1.7 million units on an annualized rate (near 15-year highs) and the outlook for 2022 seems to be in the same range.

Again, many factors will begin to improve in the housing market over the next three quarters. Material supplies should improve as waves of inbound freight help domestic manufacturers get their assembly lines back in cycle and foreign sourced products will also help fill inventory stockouts.

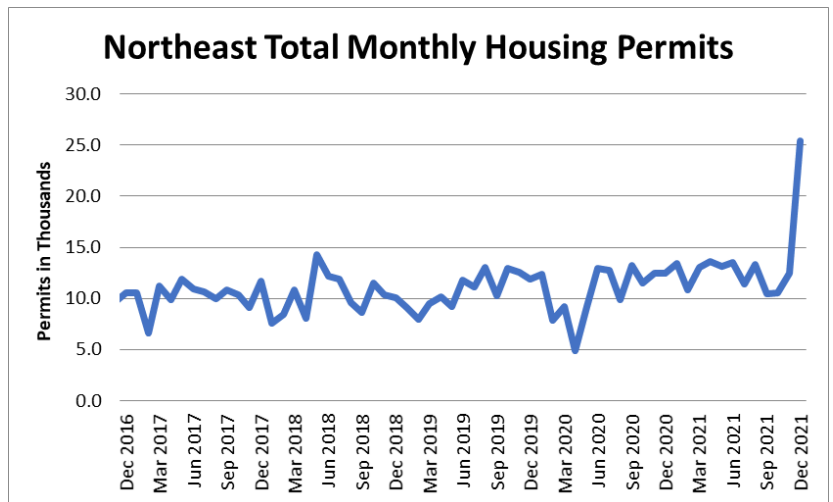


National Outlook: The Federal Reserve reiterated in January that a more aggressive approach to inflationary pressure will be taken in 2022. The Federal Reserve will continue to taper their purchases of mortgage-backed securities and should end infusions of liquidity by March. It will also go through 3, quarter point rate increases in 2022 with the potential for a fourth now looming. This will keep rates low on a historical basis. Residential housing forecasts for 2022 and 2023 are now stable and slightly growing with total new home starts expected to remain above 1.6 million units a year over the next three years.

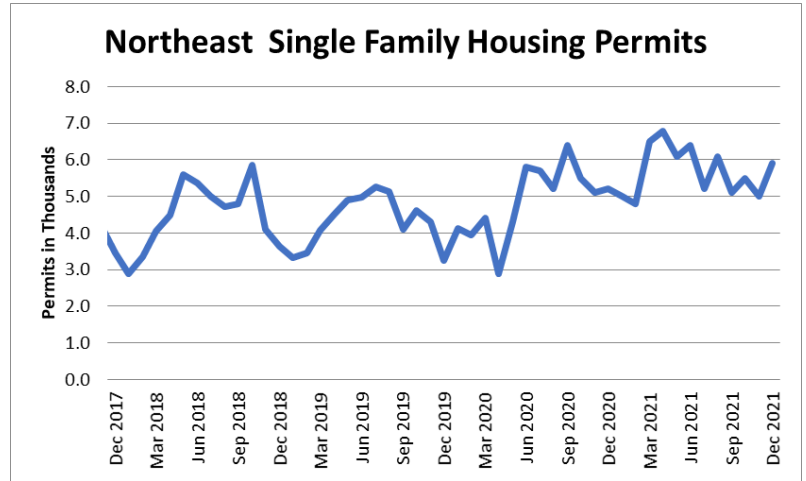
Housing and Interest Rate Forecast, 01/04/2022							
	2017	2018	2019	2020	2021	2022	2023
Housing Activity (000)							
Total Housing Starts	1,205	1,247	1,292	1,397	1,585	1,625	1,604
Single Family	849	871	889	1,004	1,118	1,129	1,116
Multifamily	356	376	403	393	467	496	488
New Single Family Sales	616	614	683	828	759	830	860
Existing Single-Family Home Sal	4,904	4,736	4,749	5,076	5,440	5,492	5,565
Interest Rates							
Federal Funds Rate	1.00%	1.83%	2.16%	0.36%	0.08%	0.40%	1.23%
Prime Rate	4.10%	4.90%	5.28%	3.54%	3.25%	3.87%	5.61%
For more forecast details, visit www.nahb.org.							

Regional market outlook: Northeast

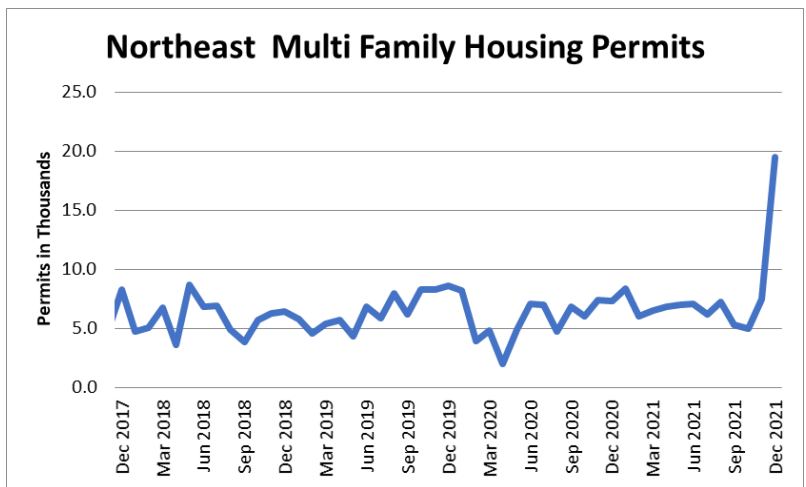
- Northeast total housing units authorized for construction surged in December by 103.2% (19.0% last month) M/M. December was the latest regional data available throughout this series.
- The 3-month moving monthly average was up 41.1% (-0.6% last month).
- On a year-over-year basis, permits were up 103.2% (unchanged in the last update).



- Month-over-month single family permits were up 18.0% (-9.1% last month).
- On a 3-month moving average basis, permits were up 5.6% (-5.9% last month).
- Year-over-year permits were up 13.5% (-2.0% last month).

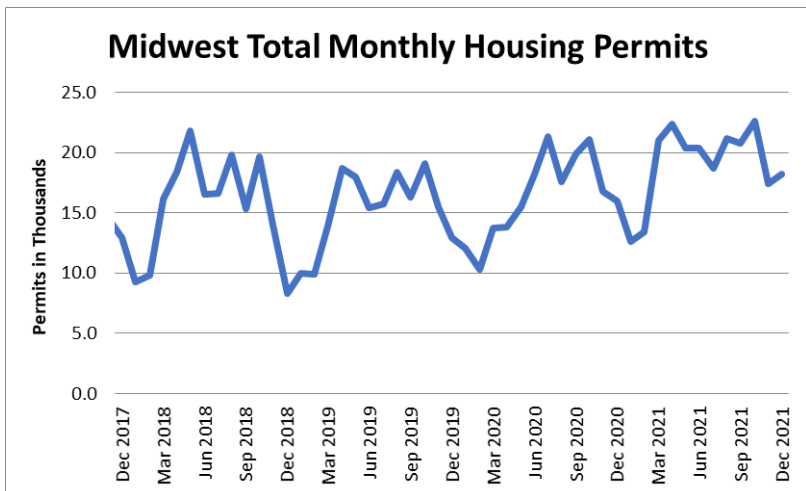


- Multi-family housing permits authorized for construction were up 160.0% M/M (+50.0% in the last update).
- They were up 68.1% on a rolling 3-month average (+6.0% last month).
- On a year-over-year basis, they were up 167.1% (+1.4% in the last update).
- These figures are based on a small number of units so the percentages can seem higher and more volatile.

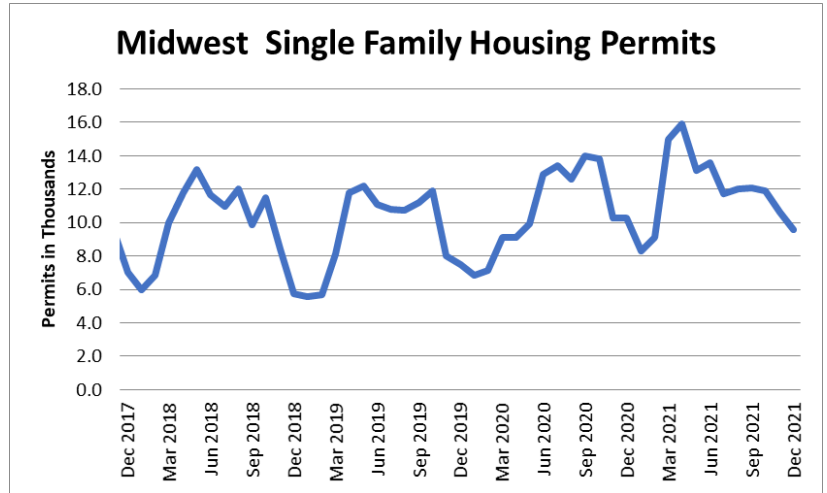


Regional market outlook: Midwest

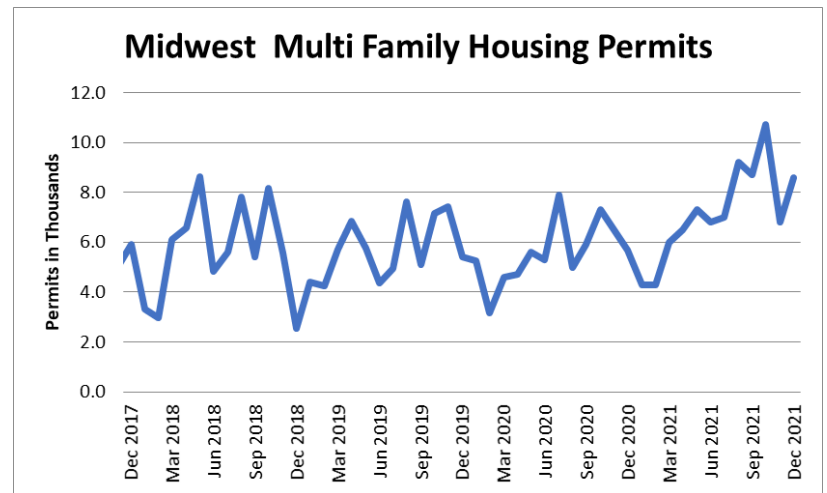
- Midwest total housing permits were up 4.6% month-over-month (-23.0% in the last update).
- The 3-month average was down 3.3% (-5.4% in the last update).
- On a year-over-year basis, permits were up 13.8% (+3.6% in the last update).



- M/M permit volumes were down 9.4% (-10.9% last month).
- The 3-month rolling average shows that permits were down 7.3% (-3.9% in the last update).
- Year-over-year, single family homes authorized by permits were down 6.8% (+2.9% in the last update).

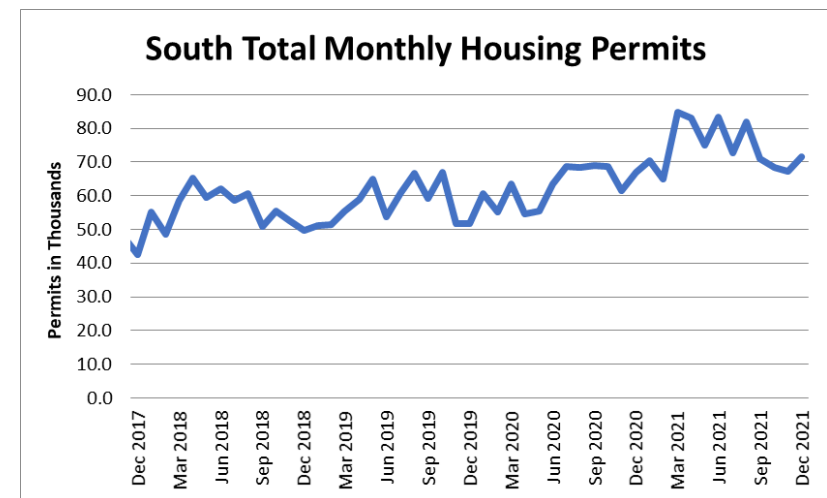


- Multi-family housing permits, again, are volatile month-over-month. This month, they were up 26.5% (-36.4% last month).
- On a 3-month rolling average basis, they were up 4.3% (-6.3% in the last update).
- On a year-over-year basis, permits were up 50.9% (+4.6% in the last update).

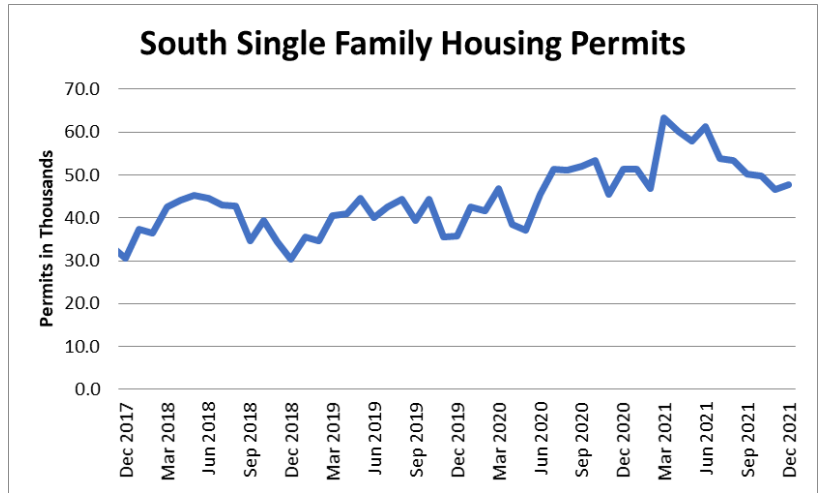


Regional market outlook: South

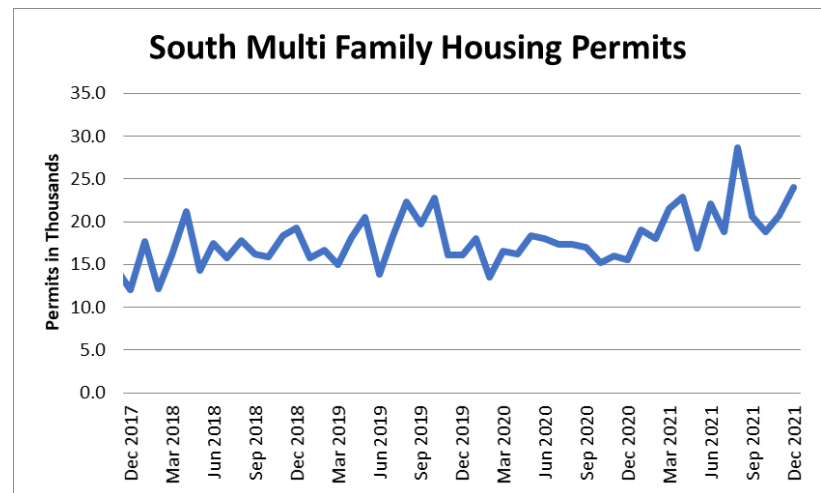
- Southern region housing permits were up 6.5% month-over-month (-1.8% in the last update).
- On a 3-month rolling average basis, permits were up 0.5% (-6.2% in the last update).
- On a year-over-year basis, total permits were up 7.2% (+9.4% in the last update).



- Southern region single family home permits were up 2.4% M/M (-6.2% last month).
- On a 3-month rolling average, they were down 1.7% (-4.4% in the last update).
- On a year-over-year basis, single family permits were down 7.0% (+2.4% in the last update).

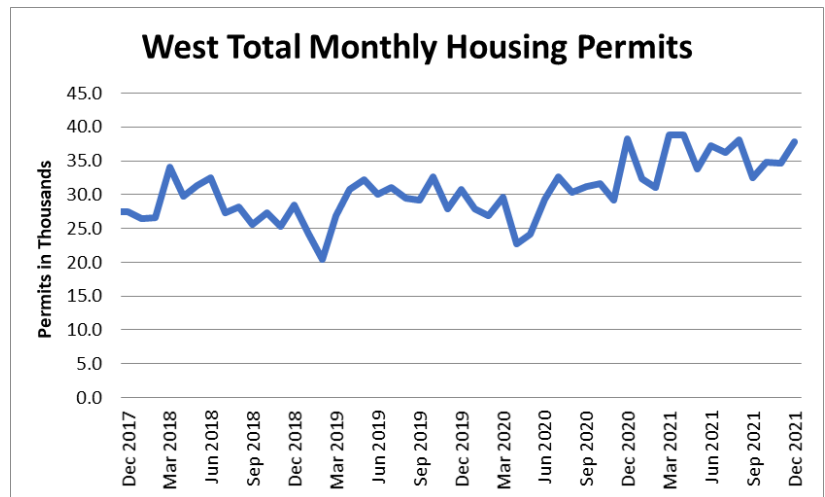


- Southern multi-family permits were up 15.9% M/M (+10.1% last month).
- On a 3-month rolling average basis, permits were up 5.8% (-9.0% last month).
- On a year-over-year basis, permits for multi-family housing were up 53.8% (+29.4% in the last update).

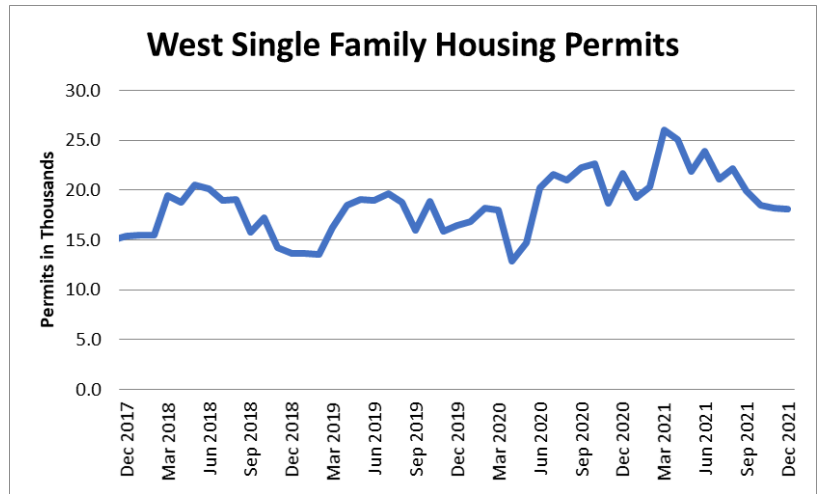


Regional market outlook: West

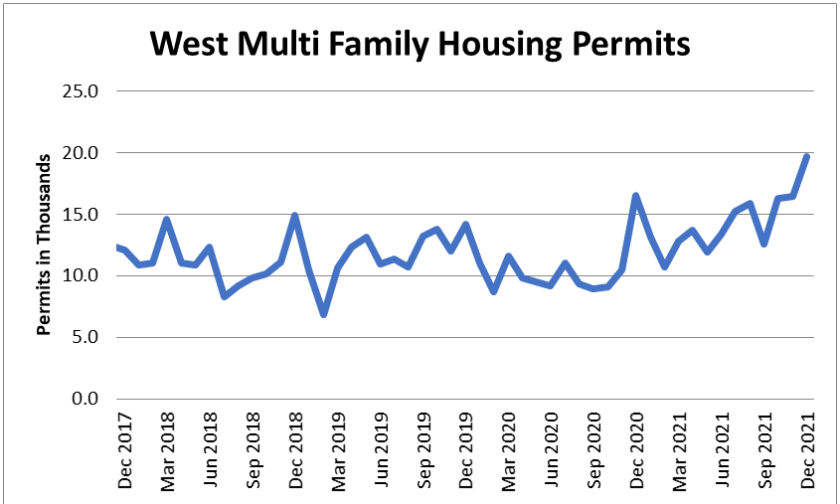
- Western region total monthly housing permits were up 9.2% M/M (-0.6% last month).
- On a 3-month rolling average basis, they were up 5.3% (-2.7% last month).
- On a year-over-year basis, permits were down 1.0% Y/Y (+18.5% in the last update).



- Single-family permits were down 0.5% M/M (-1.6% last month).
- On a 3-month moving average basis, permits were down 3.1% (-6.3% in the last update).
- Year-over-year, single family permits were down 16.6% (-2.7% in the last update).



- Multi-family permits were up 20.1% M/M (+0.6% in the last update).
- On a 3-month rolling average, it was up 16.7% (+3.1% in the last update).
- Year-over-year, multi-family unit permits were up 19.4% (+56.2% last month).



Industry Outlook

ASA Sales were again stronger by 22.1% Y/Y (33.1% last month) in December (latest available). Year-to-date through December, sales were up 20.3% (20.9% in the last update). For the trailing twelve months prior, sales were up 20.3% (19.4% in the last update). ASA Pulse Report findings are now being reported monthly. The following chart shows the breakdown by primary business type and region.

	December Y/Y % Change in Total Dollar Sales	YTD % Change vs. YTD 2020	Trailing Twelve Months % Change
All Businesses	22.1%	20.3%	20.3%
By Primary Business			
PHCP	20.6%	19.9%	19.9%
PVF	27.6%	23.8%	23.8%
PHCP & PVF	22.1%	19.3%	19.3%
By Region			
1 (SWPD)	27.5%	22.4%	22.4%
2 (MWD)	27.0%	23.1%	23.1%
3 (SWCD)	ISD	ISD	ISD
4 (NCWA)	21.4%	17.6%	17.6%
5 (ASA Northeast)	22.2%	20.5%	20.5%
6 (SWA)	15.1%	15.9%	15.9%

*ISD - Insufficient Data

The US Transportation Services Freight Index (TSIFRGHT), which typically leads ASA Sales by about five months, improved in November (latest available). The report showed that the TSI was at 136.9 for freight, up 0.6% M/M but stronger by 3.0% YoY (1.9% Y/Y last month).

More recent data (comparing similar industry data to the TSI) from other sources are continuing to show strong activity. DAT was reporting at the end of December that spot truck freight demand was **48.4% higher than it was a year ago**. Spot trucking rates have increased 21.9% Y/Y, and fuel surcharges are now up 40.9% Y/Y.

Retail segments were lower month-over-month in December (latest data available), but were much higher against very strong comparisons from a year ago. Many consumers spent additional funds in November trying to get ahead of potential stockouts during the busy holiday season. Many also believe that consumers issued a significant amount of gift cards this year, which would still get redeemed in January/February when certain products are once again in stock.

	Percent Change	
	Nov. 2021	Dec. 2020
Retail & food services,		
total	-1.9	16.9
Retail (less fuel and auto).....	-2.1	14.4
Motor vehicle & parts dealers	-0.4	10.2
Furniture & home furn. stores	-5.5	11.1
Electronics & appliance stores	-2.9	14.6
Building material & garden eq. & supplies dealers	0.9	12.5
Food & beverage stores	-0.5	8.4
Grocery stores	-0.7	8.2
Health & personal care stores	0.5	8.4
Gasoline stations	-0.7	41.0
Clothing & clothing accessories stores	-3.1	29.5
Sporting goods, hobby, musical instrument, & book stores	-4.3	18.1
General merchandise stores	-1.5	14.6
Department stores	-7.0	22.5
Nonstore retailers	-8.7	10.7
Food services & drinking places	-0.8	41.3

Home improvement volumes were one of the best performing sectors this past month, rising by 0.9% month-over-month and were up a stronger 12.5% on a year-over-year basis. Despite this strong growth rate, some stockouts of key materials continued to hamper sales volumes in some categories (especially appliances).

Looking forward over the next 18 months, tailwinds continue to be favorable for the broader industry. Getting the global supply chain back in cycle will be a big factor in full recovery. Most transportation companies expect to be back in a more accommodating capacity environment by Q2 and early Q3 of 2022.

The Russian/Ukraine risk of conflict has surfaced as one of the bigger near-term threats to global growth. The impact would be felt on a global scale through higher energy prices especially in Europe and North America. US energy supplies would be needed to help close a supply gap that could develop if Russian supplies are disrupted. Russia provides nearly 12% of the global crude oil produced and consumed every year and its natural gas supplies are the primary source of energy for many European countries. US LNG would be expected to help fill that gap but diverted supplies would push energy prices up on a broad basis. On a positive note, demand for US energy production would surge and the industry would hopefully respond by increasing output.

Omicron is still a factor in global economics, but it is starting to move into a potential endemic stage in many parts of the world, including the US when this current wave is over and warmer spring weather emerges over the next two months. But disruptions continue, especially in China where a zero-case policy is still in place and disruptions to output and distribution are significant.

The Kastle Back-to-Work barometer is currently showing the 10-city average occupancy rates hit a 30.1% high in January (39.5% in the last update). Many companies have once again put their return-to-the-office plans on hold while the Omicron variant remains wide-spread.

Commercial construction is expected to increase in 2022 and the infrastructure bill is already seeing appropriations being designated for early project starts. Total construction spending is expected to get boosted by 7% annually each year over the next 5 years as a result of the \$550 billion in additional spending that will likely be front-loaded into the first 5 years.

Automotive production is still in trouble, the US was producing at just a 12.4 million unit rate through January, one of the weakest years of output in more than a decade. Microchip availability is still lagging and hasn't caught up as quickly as many expected. The disruptions to secondary production markets in Southeast Asia after a super typhoon in December was still weighing on overall chip production. Still, most analysts believe that some relief will be felt by summer.