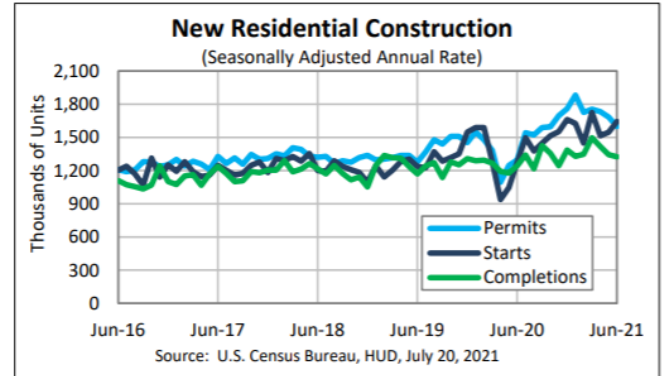


Newspaper headlines about the construction supply chain seem extremely focused on lumber and while some of the product challenges had similar origin, the current dynamics in every product category are very different. We believe it is important to understand that lumber is not necessarily a good indicator of what is going on in all products. So, we are focusing this update on the unique elements of each different product category to provide specifics to help provide greater clarity of what is happening and what may be on the horizon.

DEMAND

- US Housing Starts (seasonally adjusted) averaged nearly 1.6 Million in the past 12 months (7/20 - 6/21). Starts were 1.3M Jan - June of 2020 and 1.3M in 2019.
- U.S. Commercial Put in Place Construction is down 7-10% from Q1 2020, but has remained steady in the past 6-9 months.
- The June Architectural Billings Index was above 50 (represents growth in billings) for the fifth straight month.

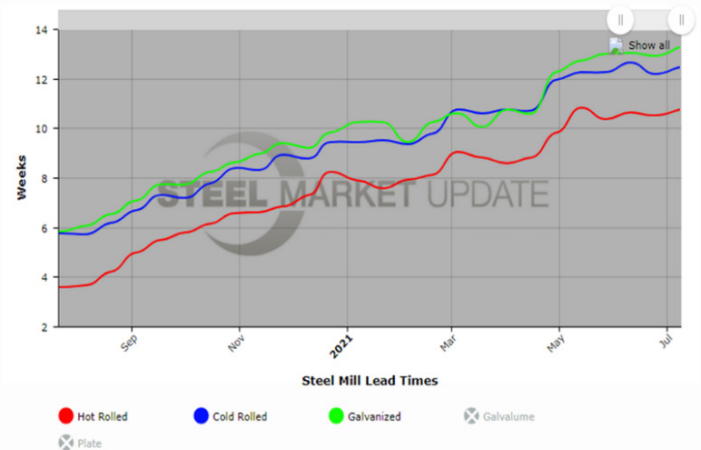


WALLBOARD

- Our estimate of theoretical/nameplate wallboard industry capacity is roughly 32-33 BSF. Operational capacity is around 28 BSF. 2020 industry shipments were 26.1 BSF and YTD 2021 shipments are at nearly 28 BSF rate. Manufacturers are shipping all that their current staffing levels will support.
- No additional plant capacity coming online in 2021. Plants trying to hire additional staff where they can, but struggling to get labor given the current hiring environment. We expect near term output to remain relatively consistent. Some plant capacity (GP - Texas, Panel Rey-Juarez) planned for 2022.
- Manufacturers were able to complete some needed maintenance in Q2 and operations were strong with limited disruptions from storms, COVID, production issues, etc.
- Certain products (glass mat, shaftwall, 54", mold resistant board, etc.) have experienced hiccups from raw material availability (54" paper, glass mat, silicone) and higher than expected demand (shaftwall).
- Underlying raw material inflation (paper, rock, freight) creating some long-term pressure on costs.

STEEL

- Metal framing manufacturer lead times are at or near pandemic highs of 6-10 weeks depending on product and facility based on steel coil availability, labor shortages, and transportation constraints.
- Steels costs (HRC & Galvanized) continue to hit all time highs with price quadrupling since August 2020 and up more than 70% YTD 2021.
- US steel production continues to remain below US steel demand. Relief from imports remain limited to strong global demand, long lead times and transportation (ocean freight) constraints.
- Lead times on steel coils remain at historic levels with current lead times hovering between 10 - 14 weeks based on reports from Steel Market Update.
- Demand for metal framing sees continued strength in the 2nd half of the year as commercial construction continues to rebound from COVID impacts.
- Tighter manufacturer quote policy enforcement making 6+ month quotes challenging to secure.



CEILINGS

- Grid costs are being pushed up by similar dynamics to what is outlined above for steel.
- Manufacturers have announced controlled distribution, price increase and/or quote policy changes on grid.
- Supply/Demand on ceiling tile largely remains in balance. Two categories of tile to watch:
 - » Gypsum Lay-in Panels (aka, GLIP, Vinylrock) are produced on wallboard lines and will be impacted by wallboard production.
 - » Fiberglass Panels may experience some impact based on fiberglass availability, but overall this is a small segment of the market.
- Improvements in Architectural Billings Index provide optimism about 2022 demand levels.

INSULATION

- US Fiberglass demand continues to be extremely high and new production capacity not offsetting higher demand levels. Several Manufacturers communicated they expect planned availability to continue into at least Q4 2021.
- Production outage at CT Kansas City and fire in JM Pemberton plant added challenges to an already tight supply.
- Increasing comments from manufacturers that they need to complete maintenance/rebuilds to ensure supply.
- Chemicals for foam products are in short supply, so price/availability has made foam a less attractive alternative.
- Announced Plant Additions (JM McPherson, KS | Knauf Albion, MI | OC Eloy, AZ | OC Nephi, UT | Rockwool Ranson, WV) will have minimal to no impact on 2021 supply.

INTERIOR FINISHING

- Interior Finishing production improved through the second quarter. Expect supply/demand to be in better balance for the second half of the year.
- Manufacturers have announced multiple increases in 2021 to offset rising raw material costs.

EXTERIORS

- Exterior finishes have been negatively impacted since the Texas chemical plant issues in February. Raw material supplies have improved slightly for both wet/dry goods, but expect 30-90 more days of less than normal supply.
- Exterior metal has seen significant supply issues. Lath and certain types of stucco wire have had extended lead times and experienced significant supply inflation. There is limited domestic supply of 20 gauge wire and container freight has experienced significant delays and price inflation as well raising prices for 20 gauge substantially.

LOOKING AHEAD

- Supply chain issues are slowly being worked out by manufacturers, but taking a while to get to stability.
- Infrastructure bill would create incremental demand for labor, materials, and keep pressure on supply chains.
- Raw material inflation, freight costs and labor will likely keep costs escalated in the near term.
- The U.S. has spent \$5.3 Trillion on stimulus efforts (not including the Infrastructure Bill) generating higher risk of inflation of those stimulus dollars are spent.

Economic Indicator	Last 6 Months	Next 12 Months
GDP Growth	↑	→
Employment Level / Non-farm Job Additions	↑	↑
Consumer Confidence	↑	↑
Median Household Income	↑	→
Single Family Home Sales	↑	↑
Median Home Price	↑	→
Housing Starts	↑	↑
Supply of Homes	↓	↓
Architectural Billings Index	↑	→
Commercial Construction Starts	→	→

Expect growth to continue, but pace of growth to slow