

Economy at a Glance

Prepared by Alex Carrick, ConstructConnect® Chief Economist

Little letup in U.S. and Canadian construction material cost increases (Part I)

The headlines are no longer screaming about steeply climbing lumber prices. The ultra-sharp gains are over and a pullback phase has settled in.

A moderation in price was expected due to housing starts leveling off and home renovation projects being put on the back burner, as the leisure-time days of summer are replaced by the more frenetically paced days of fall.

July's Producer Price Index (PPI) for softwood lumber, shown in Table 1, was -16.3% compared with three months ago in April. The latest month-to-month price change was -29.0%.

As Table 1 and Graph 1 set out, however, the price advances for other forestry products, and for a multitude of other inputs used in the building process, have not let up much.

Prices for plywood and particle board/OSB are both higher by double year over year and by one-third over the latest three months (which will be referred to as quarter over quarter or q/q). Month to month in July, plywood was +3% and particle board/OSB, +7%.



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Steel bars, plates and structural shapes in July were +43.7% year over year, +10.5% over the latest three months and +6.0% month to month. Iron and steel scrap used in electric-arc steelmaking furnaces was +103.8% y/y, +16.3% q/q and +0.8% m/m.

Interestingly, the Consumer Price Index (CPI) for used cars and trucks, the eventual primary source of steel scrap, was also higher by an extraordinary amount in July, +41.7%.

The 'steel pipe and tube' PPI in July was +48.8% y/y, +16.4% q/q and +9.0% m/m.

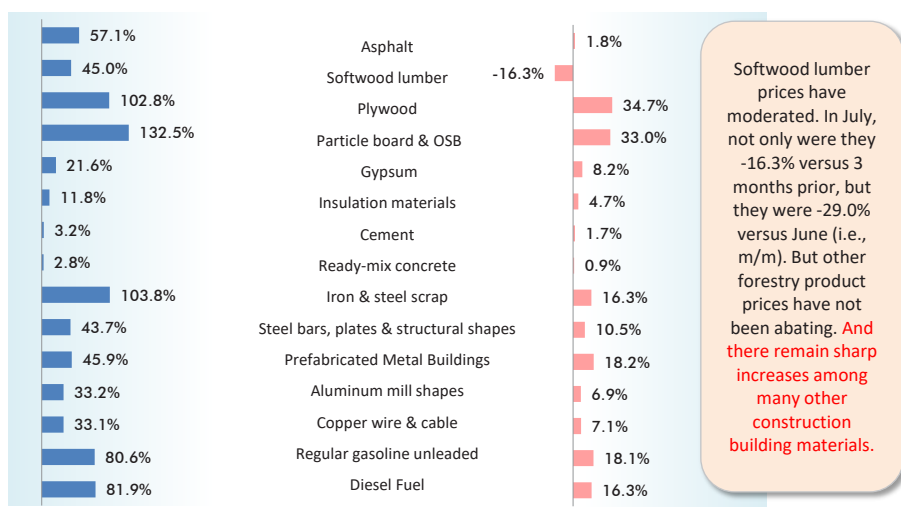
July's aluminum mill shapes PPI was +33.2% y/y, +6.9% q/q and +1.5% m/m.

To be continued in *Economy at a Glance*, Vol. 17, Issue 128.

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Graph 1: U.S. Construction Material Cost Changes From Producer Price Index (PPI) Series – July 2021



Data source: Bureau of Labor Statistics (BLS) / Chart: ConstructConnect — CanaData.

Table 1: U.S. Producer Price Index (PPI) Results % Change in the July 2021 Index from:

	3 Years Ago	1 Year Ago	6 months Ago	3 months Ago	1 month Ago
Final Demand/Service/Commodity/Energy/Input:					
Final Demand Construction	12.8%	4.5%	4.6%	2.8%	1.5%
New warehouse building construction	13.5%	6.5%	6.3%	4.2%	2.6%
New school building construction	13.1%	3.3%	3.8%	2.5%	2.4%
New office building construction	13.5%	5.9%	5.3%	2.8%	1.3%
New industrial building construction	14.2%	3.9%	3.9%	3.0%	2.6%
New health care building construction	11.2%	3.2%	4.1%	1.4%	-0.2%
Architectural & engineering services	5.2%	3.3%	0.5%	0.6%	0.2%
Construction machinery & equipment	12.1%	4.5%	2.7%	3.0%	1.2%
Asphalt	0.7%	57.1%	52.1%	1.8%	6.5%
Plastic construction products	29.3%	26.7%	20.1%	10.8%	4.5%
Softwood lumber	47.9%	45.0%	-1.0%	-16.3%	-29.0%
Hardwood lumber	27.4%	45.8%	27.8%	10.4%	6.3%
Millwork	25.9%	21.8%	13.4%	8.0%	0.1%
Plywood	93.7%	102.8%	67.7%	34.7%	2.6%
Particle board & oriented strandboard (OSB)	132.0%	132.5%	56.1%	33.0%	6.8%
Gypsum	13.3%	21.6%	14.3%	8.2%	2.6%
Insulation materials	12.4%	11.8%	7.7%	4.7%	-0.1%
Construction sand, gravel & crushed stone	13.4%	4.1%	2.5%	1.2%	0.2%
Cement	7.1%	3.2%	2.8%	1.7%	-0.1%
Ready-mix concrete	8.5%	2.8%	3.3%	0.9%	0.0%
Precast concrete products	16.9%	9.2%	5.8%	3.5%	1.3%
Prestressed concrete products	12.7%	9.3%	9.8%	7.8%	-0.1%
Brick (clay)	8.9%	4.3%	2.8%	2.2%	0.4%
Coal	-3.3%	2.6%	3.3%	0.3%	0.3%
Iron ore	28.6%	23.7%	19.4%	18.6%	14.6%
Iron & steel scrap	35.4%	103.8%	11.3%	16.3%	0.8%
Steel bars, plates & structural shapes	26.1%	43.7%	35.3%	10.5%	6.0%
Steel pipe & tube	33.7%	48.8%	36.4%	16.4%	9.0%
Fabricated structural metal products	29.2%	28.8%	24.7%	14.0%	2.8%
Prefabricated Metal Buildings	39.6%	45.9%	31.7%	18.2%	8.4%
Aluminum mill shapes	9.9%	33.2%	18.4%	6.9%	1.5%
Flat glass	9.5%	7.3%	4.3%	3.3%	0.6%
Paints, architectural coatings	21.6%	9.9%	10.4%	5.7%	4.5%
Lighting fixtures	12.3%	5.0%	4.4%	2.1%	0.9%
Plumbing fixtures & fittings	10.0%	3.5%	2.4%	0.7%	0.2%
Elevators & escalators	9.5%	3.7%	3.5%	1.9%	-0.1%
Heating equipment	16.5%	10.7%	10.2%	3.9%	0.7%
Air conditioning equipment	14.5%	9.0%	6.0%	3.5%	0.8%
Copper wire & cable	23.0%	33.1%	15.4%	7.1%	-1.6%
Regular gasoline unleaded	9.4%	80.6%	53.0%	18.1%	8.5%
Diesel Fuel	26.9%	81.9%	40.0%	16.3%	4.0%
Inputs to new construction					
Inputs to new residential construction	25.7%	25.4%	15.6%	9.2%	0.9%
Inputs to new residential construction	28.7%	27.8%	16.9%	10.1%	0.8%
Inputs to new non-res construction	22.8%	23.1%	14.3%	8.4%	1.0%
Inputs to commercial construction	22.1%	22.3%	14.0%	8.3%	1.1%
Inputs to healthcare structures	22.8%	22.3%	13.8%	7.9%	0.8%
Inputs to industrial structures	22.8%	20.4%	12.5%	7.5%	1.5%
Inputs to highways & streets	18.3%	20.9%	13.6%	8.4%	1.1%
Inputs to power & communication structures	21.7%	23.8%	15.1%	8.7%	1.0%
Inputs to educational & vocational structures	24.2%	22.9%	13.8%	7.7%	0.5%
Construction materials (PPI 'Special Index')	31.6%	33.1%	23.0%	8.8%	0.2%

The 'final demand' indices (at top) reflect the prices paid by owners for the construction of projects. They include material, labor & markups.

The 'service', 'commodity' and 'energy' indices (in the middle section of the table) are based on 'factory-gate' sales prices. The 'input' indices (at bottom) reflect costs faced by contractors. They exclude capital investment (i.e., machinery & equipment), labor & imports.

The 'input' indices are built up from the 'service' (design, legal, transport & warehousing, etc.) 'commodity' and 'energy' indices.

Data source: Producer Price Index (PPI) series from Bureau of Labor Statistics (BLS) / Table: ConstructConnect — CanaData.

Economy at a Glance

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Little letup in U.S. and Canadian construction material cost increases (Part 2)

Continued from *Economy at a Glance*, Vol. 17, Issue 127.

Some of the other dramatic year-over-year PPI sub-category increases in July were: gasoline and diesel fuel, a little more than +80%; gypsum, +22%; insulation materials, +12%; air conditioning and heating equipment, about +10%; paints and architectural coatings, also +10%; and flat glass, +9.5%.

The only PPI sub-index registering a decline beyond just -0.1% month to month in July, other than softwood lumber's -29.0%, was copper wire and cable, at -1.6%. On a year-over-year basis, though, 'copper wire and cable' was ahead by one-third, +33.1%.

The bottom line is that bid prices are still failing, in epic fashion, to keep up with material cost increases. This is most clearly spelled out in Graph 2, where two PPI measures of material prices are currently ranging from plus one-quarter to plus one-third (+25.4% to +33.1%), while the y/y 'bid price index' is only +4.5%.



Alex Carrick

The historical performances of the PPI series for 28 building inputs are set out in seven cluster charts (of four graphs each) online: <https://bit.ly/39zFe4z>.

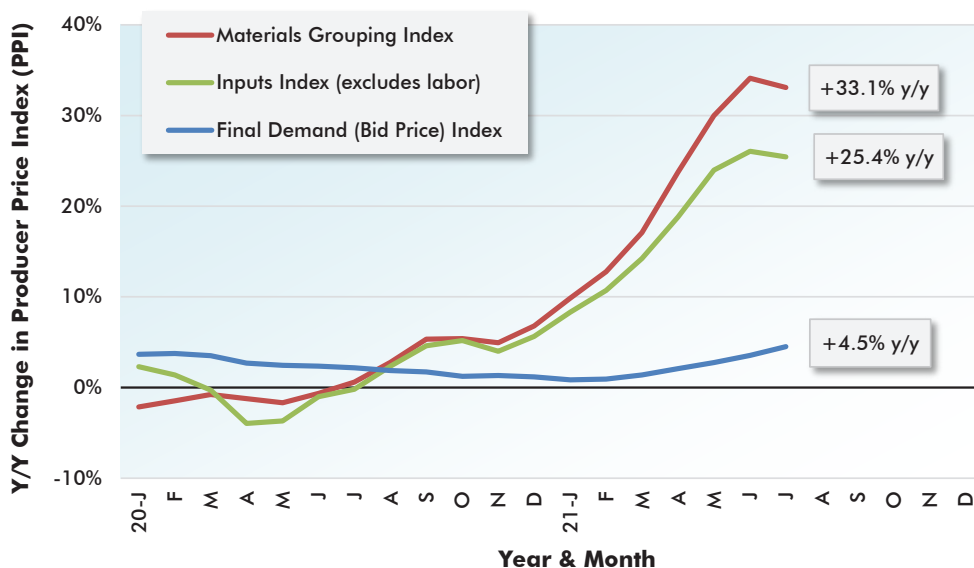
At the end of this article is Table 2 with Canadian building product prices. The most stunning gains are pointed out with red arrows. The Canadian results generally mirror what has been transpiring in the U.S.

The major exception is that the Canadian data only runs through June, a month behind the U.S. figures. Therefore, the recent pullback in lumber prices has not yet been captured.

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Graph 2: U.S. Construction Bid Prices vs Material Input Costs – July 2021



Through much of 2021, material costs have been on a tear, most recently climbing in a range of +25% to +33% y/y (i.e., from 1/4 to 1/3), according to 2 PPI measures. The 'final demand' or bid price index in July 2021, however, rose to nothing like the same degree, +4.5% y/y.

Data source: Producer Price Index Series (BLS)/Chart: ConstructConnect — CanaData.

Table 2: Canadian Construction Material Costs Based on Industrial Product Price Index (IPPI) Series from Statistics Canada

The most dramatic increases are denoted with red arrows.

	Year over Year Jun 2021/Jun 2020	Latest 3 Months Jun 2021/Mar 2021
Paints, coatings, and adhesive products	0.7%	1.4%
Plastic and foam building and construction materials	11.7%	12.7%
Hardwood lumber	25.0%	11.0%
Softwood lumber	➔ 169.7%	➔ 21.5%
Wood trusses and engineered wood members	32.6%	3.8%
Veneer and plywood	➔ 136.5%	➔ 24.8%
Wood windows and doors	13.7%	7.3%
Wood cabinets and counter tops	2.5%	1.6%
Coke and other coke oven products (for steelmaking)	-10.5%	-25.2%
Motor gasoline	➔ 59.8%	9.9%
Diesel and biodiesel fuels	➔ 53.9%	2.0%
Asphalt (except natural) and asphalt products	27.9%	11.8%
Iron or steel pipes and tubes	➔ 57.3%	➔ 23.8%
Waste and scrap of iron and steel	➔ 54.9%	7.6%
Metal building and construction materials	28.3%	12.6%
Fabricated steel plate & other fabricated structural metal	26.9%	9.0%
Metal windows and doors	17.3%	8.9%
Hardware	5.8%	7.3%
Heating & cooling equipment (except home fridges & freezers)	1.0%	1.3%
Industrial & commercial fans, blowers, air purification equipment	3.8%	3.5%
Communication and electric wire and cable	➔ 74.9%	➔ 29.0%
Electric lamps & lighting fixtures (except bulbs and tubes)	-10.8%	-11.4%
Glass and glass products (except automotive glass)	12.8%	7.7%
Cement	0.6%	3.7%
Ready-mixed concrete	2.1%	1.7%
Lime and gypsum products	-3.2%	5.4%

Data source: Statistics Canada's Industrial Product Price Index (IPPI) series, Table 18-10-0266-01/Table: ConstructConnect — CanaData.