

# Economy at a Glance

Prepared by Alex Carrick, ConstructConnect® Chief Economist

## Latest PPI results show construction material cost increases still alarming (Part I)



Alex Carrick

The most accessible single-source resource on construction material price movements is the Producer Price Index (PPI) data set from the Bureau of Labor Statistics (BLS). The PPI series monitors prices charged by producers as they exit through factory gates.

One drawback of a government statistical series, however, is that it will inevitably lag what is occurring in the real world, due to a time delay in collecting and tabulating results. For example, the latest PPI figures are for May. Therefore, they don't factor in some of the decreases in final demand (e.g., some possible moderation in housing start activity) and increases in supply (e.g., more sawmill production of lumber) that may, according to 'word of mouth', be taking place.

Nevertheless, the PPI numbers are the best that's available and the remainder of this article showcases them in tables and charts.

For 15 of the most important building materials or construction-related inputs, Table 1 highlights year-over-year and latest-three-months price changes.

More than doubling in price over the past year have been **softwood lumber**, +154.3%; **particle board and OSB**, +121.5%; **regular gasoline**, +151.9%; and **diesel fuel**, +199.2%. With cost lifts lying between +50% and +99% are **plywood**, +98.4%; **iron and steel scrap** +76.6%; and **asphalt**, +62.3%.

Asphalt also has the distinction, however, of being one of only two items that experienced a price drop month to month in May, -13.8%. **Coal**, as a base material going into steel production, was the other, -0.3% m/m.

### 'Rocket launch' cost take-offs

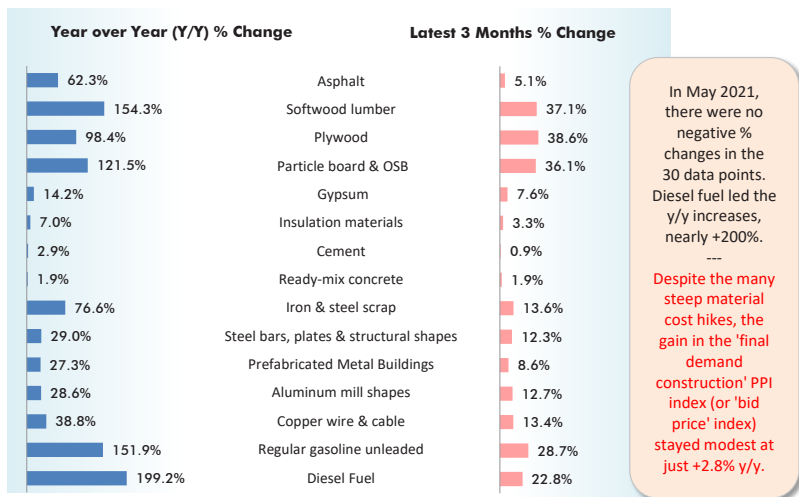
Below Table 1 are seven cluster charts of four graphs each. These almost double the number of building materials and construction-related inputs being studied to 28. The 28 graphs in the seven cluster charts show the histories of the PPI numbers from the turn of the century (January 2000) to the present.

Many of the series (e.g., in the cement/concrete field and in equipment) trend higher gradually and steadily, establishing new peaks along the way. Some others (e.g., among forestry products) take far more varied paths, with wide amplitudes up and down.

Finally, it bears stating that from Cluster Chart 1, the 'rocket-launch' take-offs in forestry product prices since mid-2020 have been in a league of their own.

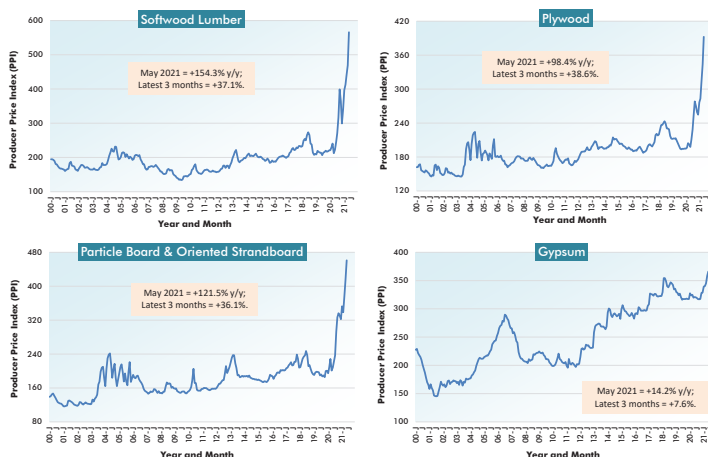
To be continued in *Economy at a Glance*, Vol. 17, Issue 92.

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

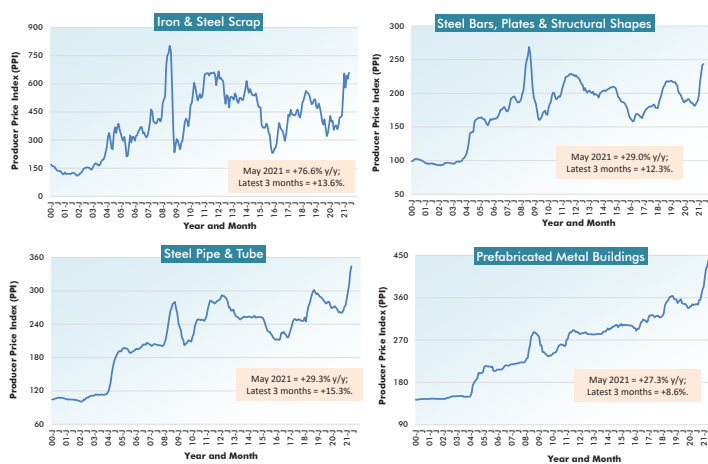


Data source: Bureau of Labor Statistics (BLS) / Chart: ConstructConnect — CanaData.

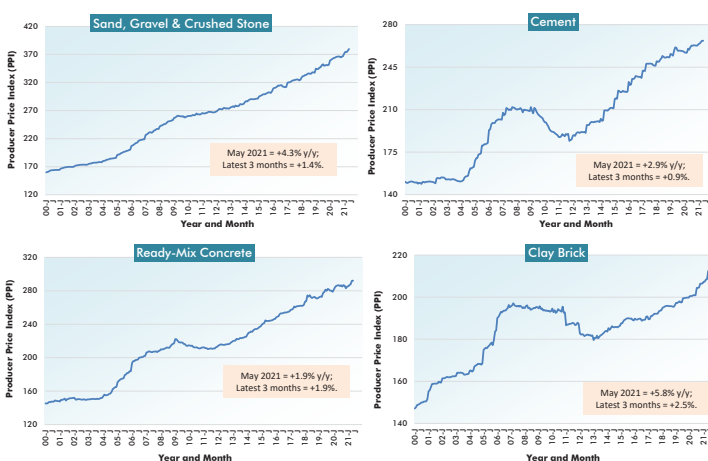
### Cluster Chart 1 – Forestry Products: U.S. Construction Material Costs (1) – From Producer Price Index (PPI) Series



### Cluster Chart 2 – Steel Products: U.S. Construction Material Costs (2) – From Producer Price Index (PPI) Series



### Cluster Chart 3 – Cement, Concrete and Brick: U.S. Construction Material Costs (3) – From Producer Price Index (PPI) Series



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The last data points are for May, 2021.

Data source: U.S. Bureau of Labor Statistics (BLS), Producer Price Index (PPI) series, not seasonally adjusted (NSA) / Charts: ConstructConnect — CanaData.

# Economy at a Glance

Prepared by Alex Carrick, ConstructConnect® Chief Economist

## Latest PPI results show construction material cost increases still alarming (Part 2)



Alex Carrick

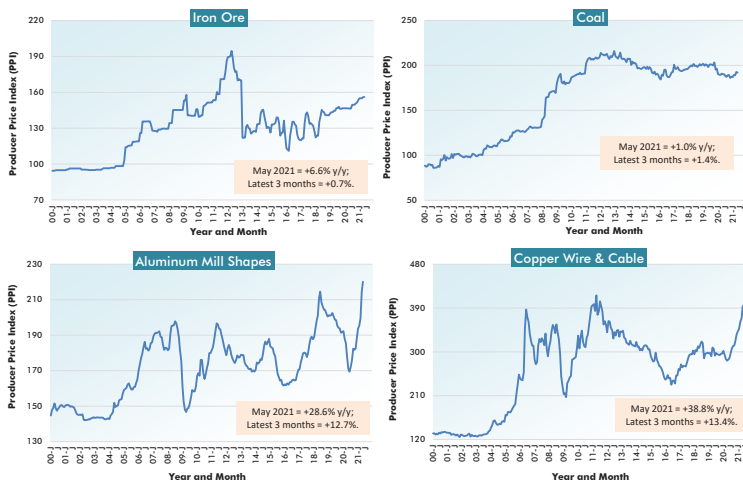
Continued from *Economy at a Glance, Vol. 17, Issue 91*.

Among the material inputs with significant market swings in their histories, besides forestry and steel-related products, notice from Cluster Chart 4 the recent steep slopes for **aluminum mill shapes** (+28.6% y/y) and **copper wire and cable** (+38.8%).

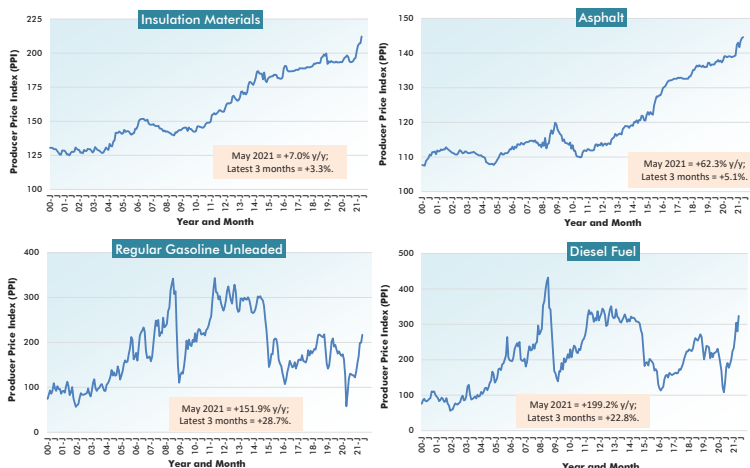
(To view Cluster Chart 6 – Accessories and Arterial and Cluster Chart 7 – Equipment and Machinery, visit <https://bit.ly/3xxyiyG>)

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### Cluster Chart 4 – Base Materials: U.S. Construction Material Costs (4) – From Producer Price Index (PPI) Series



### Cluster Chart 5 – Energy-related Products: U.S. Construction Material Costs (5) – From Producer Price Index (PPI) Series



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The last data points are for May, 2021.

Data source: U.S. Bureau of Labor Statistics (BLS), Producer Price Index (PPI) series, not seasonally adjusted (NSA) / Charts: ConstructConnect — CanaData.

**Table 2: U.S. Producer Price Index (PPI) Results % Change in the May 2021 Index from:**

	3 Years Ago	1 Year Ago	6 months Ago	3 months Ago	1 month Ago
<b>Final Demand/Service/Commodity/Energy/Input:</b>					
Final Demand Construction	11.0%	2.8%	2.6%	2.1%	0.6%
New warehouse building construction	10.4%	3.2%	3.2%	3.2%	0.8%
New school building construction	10.8%	1.3%	1.4%	1.0%	0.1%
New office building construction	12.4%	4.4%	4.1%	3.0%	1.0%
New industrial building construction	11.9%	1.7%	1.4%	0.9%	0.1%
New health care building construction	11.2%	3.1%	3.3%	3.5%	0.7%
Architectural & engineering services	5.5%	3.1%	2.1%	0.5%	0.3%
Construction machinery & equipment	10.9%	2.8%	2.7%	1.5%	1.3%
Asphalt	7.8%	62.3%	44.1%	5.1%	-13.8%
Plastic construction products	19.7%	17.5%	12.4%	9.7%	2.8%
Softwood lumber	113.1%	154.3%	89.0%	37.1%	20.6%
Hardwood lumber	17.7%	36.4%	27.4%	17.2%	3.9%
Millwork	23.2%	19.2%	12.0%	8.5%	4.8%
Plywood	63.6%	98.4%	51.4%	38.6%	14.0%
Particle board & oriented strandboard (OSB)	94.7%	121.5%	39.6%	36.1%	11.4%
Gypsum	7.6%	14.2%	11.6%	7.6%	2.1%
Insulation materials	10.0%	7.0%	8.4%	3.3%	2.4%
Construction sand, gravel & crushed stone	13.8%	4.3%	3.7%	1.4%	0.8%
Cement	5.7%	2.9%	1.5%	0.9%	0.0%
Ready-mix concrete	6.4%	1.9%	3.3%	1.9%	0.0%
Precast concrete products	16.6%	7.7%	6.3%	3.8%	2.0%
Prestressed concrete products	8.3%	2.0%	3.7%	3.0%	1.1%
Brick (clay)	8.5%	5.8%	3.0%	2.5%	1.9%
Coal	-4.8%	1.0%	3.2%	1.4%	-0.3%
Iron ore	11.4%	6.6%	3.0%	0.7%	0.1%
Iron & steel scrap	18.9%	76.6%	53.4%	13.6%	5.0%
Steel bars, plates & structural shapes	18.9%	29.0%	30.5%	12.3%	0.7%
Steel pipe & tube	24.5%	29.3%	26.8%	15.3%	2.7%
Fabricated structural metal products	19.7%	18.3%	17.9%	11.4%	4.9%
Prefabricated Metal Buildings	24.5%	27.3%	19.5%	8.6%	2.9%
Aluminum mill shapes	4.3%	28.6%	20.7%	12.7%	2.7%
Flat glass	6.2%	4.0%	3.7%	2.0%	0.2%
Paints, architectural coatings	15.8%	4.8%	4.3%	4.4%	0.4%
Lighting fixtures	12.2%	3.5%	3.3%	2.6%	0.8%
Plumbing fixtures & fittings	9.2%	2.2%	1.7%	1.2%	0.0%
Elevators & escalators	9.0%	2.6%	2.5%	1.0%	0.8%
Heating equipment	15.4%	6.8%	6.5%	4.5%	0.1%
Air conditioning equipment	12.3%	6.6%	5.0%	2.7%	0.9%
Copper wire & cable	27.9%	38.8%	22.1%	13.4%	6.8%
Regular gasoline unleaded	0.4%	151.9%	78.0%	28.7%	8.8%
Diesel Fuel	29.0%	199.2%	61.1%	22.8%	15.6%
Inputs to new construction	20.9%	24.0%	15.8%	9.2%	4.3%
Inputs to new residential construction	23.0%	25.4%	16.4%	9.9%	4.5%
Inputs to new non-res construction	18.8%	22.2%	15.1%	8.5%	4.1%
Inputs to commercial construction	18.0%	20.5%	14.1%	8.2%	3.9%
Inputs to healthcare structures	19.0%	21.0%	14.2%	8.3%	3.8%
Inputs to industrial structures	18.5%	18.1%	12.3%	6.6%	2.9%
Inputs to highways & streets	14.6%	20.9%	14.4%	8.0%	4.3%
Inputs to power & communication structures	17.9%	23.2%	16.0%	9.2%	4.4%
Inputs to educational & vocational structures	20.6%	21.9%	14.7%	8.7%	3.9%
Construction materials (PPI 'Special Index')	28.1%	30.0%	24.2%	15.1%	4.6%

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.