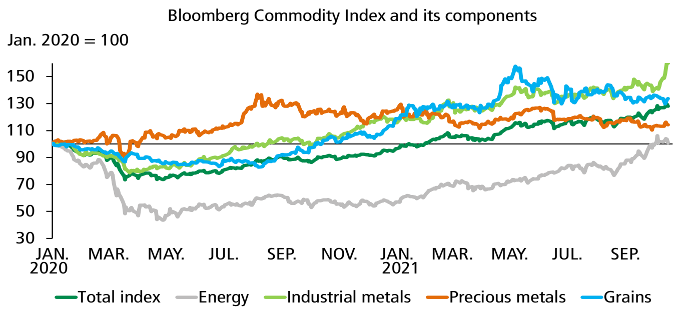
COMMODITY TRENDS

An Energy Crisis Looms in Europe

Commodities continue to perform well despite a slight slowdown in global economic activity and pandemic-related concerns, primarily in Asia. As a result, the total Bloomberg Commodity Index has gained 10% since June (graph 1). However, the results posted by the index components are varied; industrial metals and energy grew 14% and 33%, respectively, while precious metals and grains both fell 10%. The limited supply of natural gas and oil as well as certain base metals, such as aluminum, has put upward pressure on their respective prices. However, risks inherent to the pandemic persist and could harm the economic outlook in the event of uneven or incomplete global vaccination coverage, lower-than-expected vaccine effectiveness and the spread of new variants. Conversely, economic growth, still buoyed by fiscal and monetary policies, could be stronger than expected.

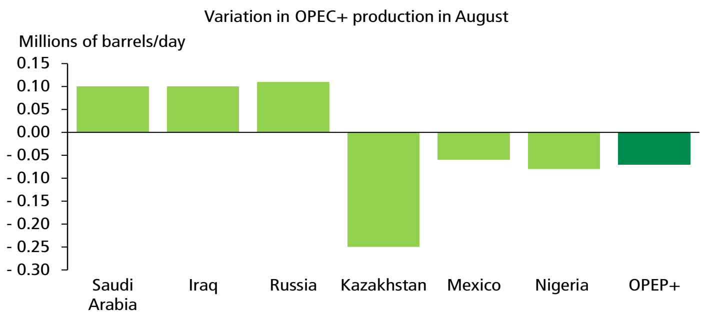
In a context where the global supply of natural gas is insufficient, Europe is potentially facing an energy crisis, with record energy prices. Thus, oil prices rose further, as the Organization of the Petroleum Exporting Countries and its partners (OPEC+) refused the market's request to revise its production agreement upward for November. This request stems from the group's failure to increase production due to maintenance work and Hurricane Ida in August. Production disruptions in Kazakhstan, Mexico and Nigeria offset the increases in Saudi Arabia, Russia and Iraq, resulting in a drop of 0.07 mbd (million barrels per day) in the group's production in August (graph 2). However, production started to grow again in September with a gain of 0.5 mbd according to preliminary data from the International Energy Agency. Although the supply was still limited for September, OPEC+ is confident in its ability to fulfill its production agreement, which provides for a 0.4 mbd increase per month, up to 5.8 mbd.

GRAPH 1
Bloomberg Commodity Index and its components



Sources: Datastream and Desjardins, Economic Studies

GRAPH 2
Despite expected increases, OPEC+ production declined in August



Sources: International Energy Agency and Desjardins, Economic Studies

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Energy

Rising Prices as supply is limited

FORECASTS

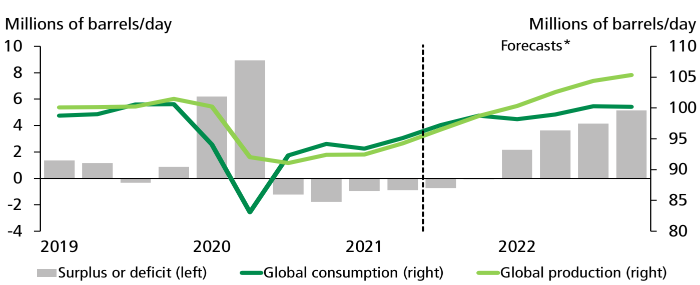
Oil supply fails to keep up with demand, as both U.S. and OPEC+ production struggle to increase. We therefore revised our oil scenario upward to include the production constraints and now estimate that WTI (West Texas Intermediate) will end the year at around US$75, with an annual average of US$68 a barrel. However, an inadequate response on the supply side or a worsening of the European energy shortage could put upward pressure on prices. The natural gas market is in deficit due to strong demand and, especially, limited supply. Despite the recommissioning of wells that had been temporarily shut down by Hurricane Ida in the United States, the upward pressure from supply is expected to last until new production capacities are deployed around mid-2022. As a result, we estimate that the price of natural gas will be sustained by the situation in Europe and will end the year around US$5/MMBTU (Million British Thermal Units).

OIL

Amid demand for oil has been buoyed by summer activities and the gradual reopening of many economies, supply has been limited. Production constraints stemming from Hurricane Ida and maintenance work in some OPEC+ countries limited the potential for growth in oil supply. Nevertheless, the gradual increase in OPEC+ production is expected to continue this fall with the addition of 1.6 mbd on the market by the end of the year and a further 3.6 mbd in 2022. With growth in oil demand projected to slow in 2022, the organization's current agreement could put the market in a surplus situation in the first quarter of 2022 (graph 3). Although the return of large surpluses could put downward pressure on prices, OPEC+ is highly likely to reassess its production agreement at the December meeting to avoid this scenario and keep its promise of oil price stability.

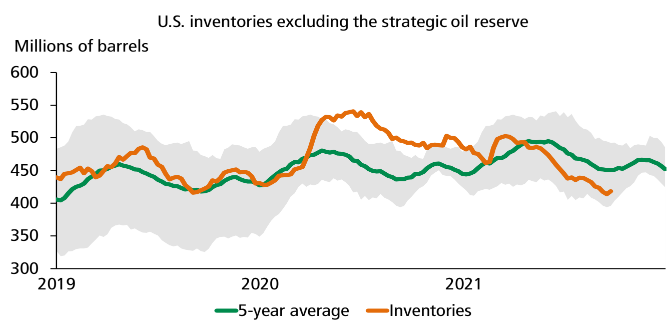
In the United States, production was limited due to Hurricane Ida, which forced many wells in the Gulf of Mexico to shut down, in addition to damaging a considerable amount of transport infrastructure, such as ports and pipelines, in its wake. U.S. production therefore fell by 1 mbd in September, and it will take until the repairs are done in October for the situation to normalize. U.S. and OPEC+ supply limitations therefore put downward pressure on oil inventories, as evidenced by U.S. reserves, which are closing in on the five-year minimum (graph 4). It is not much of a surprise that supply constraints and low inventories have supported 70% growth in the price of WTI since early January 2021, exceeding US$80 per barrel (graph 5 on page 3). Although our scenario calls for a gradual decrease in prices as production normalizes, an extension in supply constraints or the addition of new constraints could keep the pressure up on the price of the black gold. Difficulties in supplying some power plants with natural gas have also forced them to turn to oil, typically a last resort during a cold winter, adding to the upward pressure on crude prices.

GRAPH 3
OPEC+ could bring the market back to a surplus situation in 2022



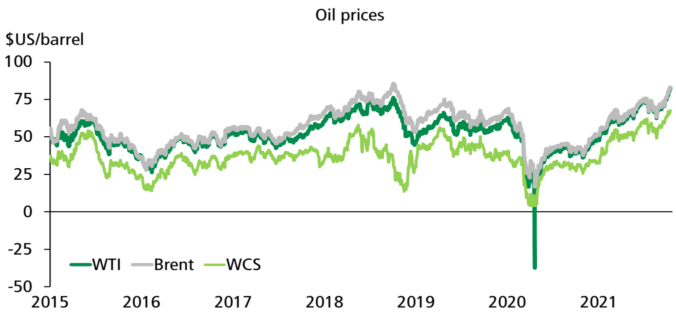
* International Energy Agency (IEA) outlook assuming members' compliance with the August 2021 production agreement and the continuation of sanctions against Iran.
Sources: AIE and Desjardins, Economic Studies

GRAPH 4
Hurricane Ida and the decline in OPEC+ production drive oil inventories down



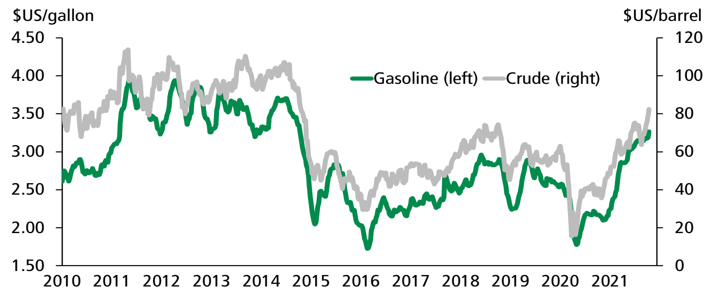
Sources: U.S. Energy Information Administration, Datastream and Desjardins, Economic Studies

GRAPH 5
Rapid growth in oil prices



WTI: West Texas Intermediate; WCS: Western Canadian Select
Sources: Datastream, Bloomberg and Desjardins, Economic Studies

GRAPH 6
Limited crude and gasoline production benefit gasolines price

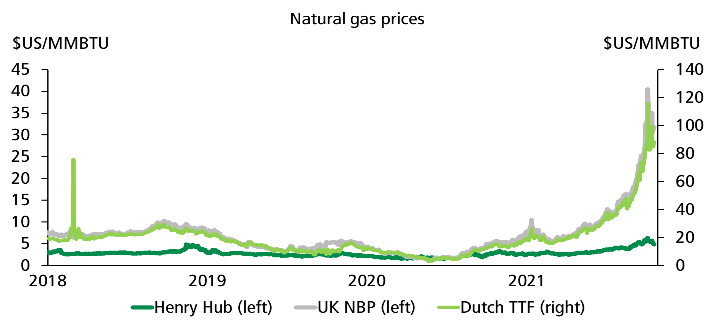


Sources: Datastream and Desjardins, Economic Studies

GASOLINE

While it fell 13% in 2020, the price of gasoline maintained its upward trend during the summer, posting a gain of over 45% since the start of the year (graph 6). We have to look back to 2014, when crude prices were above US$70 a barrel, to find a gasoline price similar to today's. Limitations in the supply of gasoline and crude put upward pressure on prices. Gasoline could still make some gains due to disruptions in the global production of oil and gasoline, but the normalization of the situation in the United States and the gradual increase in the supply of crude may cause it to lose some steam in the coming quarters.

GRAPH 7
Remarkable surge in natural gas prices



MMBTU : Million British Thermal Units
Sources: Bloomberg and Desjardins, Economic Studies

NATURAL GAS

Fears of a natural gas shortage are reflected in the prices, with the Henry Hub price in the United States appreciating roughly 90% since June to over US$5.60/MMBtu in October (graph 7). Although these fears are nothing new, Hurricane Ida added to them by severely limiting production in the region. Supply disruptions are therefore slowing the increase in inventories in preparation for winter temperatures when demand is already strong, particularly in Asia. In other words, the growth in supply, although notable, is currently insufficient to keep up with demand. U.S. production should nevertheless recover with the gradual reopening of the last of the natural gas wells in the coming weeks.

Moreover, Europe is potentially facing an energy crisis, with record natural gas prices. The prices of UK NBP in the United Kingdom and Dutch TTF in Continental Europe have appreciated 310% and 370%, respectively, since January 2021. Unfavourable weather in recent months has hampered the production of renewable energies, such as wind turbines, forcing the EU to turn to natural gas to meet its demand. In fact, the continent's energy needs were greater than expected over the past few quarters. This has occurred at a time when global supply was limited, and geopolitical and external factors further curtailed European supply. First, the Nord Stream 2 pipeline had yet to begin operation despite the fact that construction had been completed a few weeks earlier. A bureaucratic dispute between the EU and Russia is preventing this pipeline from being opened, exacerbating European supply constraints. Then, Hurricane Ida crippled U.S. production, restricting the substitution's effect between Russian and U.S. gas, in addition to putting upward pressure on prices. Therefore, an upside risk on natural gas prices persists for should the European crisis spread to the global market or if difficulties in increasing production intensify. In the worst-case scenario, that is a cold winter and limited supply, prices could jump to a level that might causing even more disruption and uncertainty in already-strained supply chain.

Base Metals

China's Intervention Causes Various Market Disruptions

FORECASTS

High demand and limited supply continue to drive growth in base metal prices. Inflationary pressures stemming from soaring prices caught the attention of Chinese authorities, which stepped up their efforts to normalize commodity prices. The policies introduced, the sale of metals from strategic reserves and the curtailing of energy production led to various market disruptions, at times causing an effect opposite of the desired outcome, such as higher aluminum prices. China's efforts and the economic slowdown should result in the LME Index losing some steam by the end of the year. Nevertheless, the index should remain fairly high, with an annual average of approximately 4087. China's interventions could however put upward pressure on prices.

China's sale of 570,000 tonnes of aluminum, copper and zinc from its strategic reserves is in line with its promise to combat inflationary pressures due to high metal prices (table 1). In addition, China is currently curbing its energy production from polluting sources to reduce greenhouse gas emissions. Power cuts are therefore common in some regions, and many metal consumers and producers must decrease their production to reduce their need to draw energy from the grid. The impact of this strategy, coupled with the slowdown in the global economy, is reflected in the sluggish Chinese manufacturing sector (graph 8). Despite a bleaker outlook for demand for industrial metals, the supply disruptions continue to support growth in the LME Index, which has gained 6% since June (graph 9). Limitations on power generation are rekindling fears of a limited supply of industrial metals.

ALUMINIUM

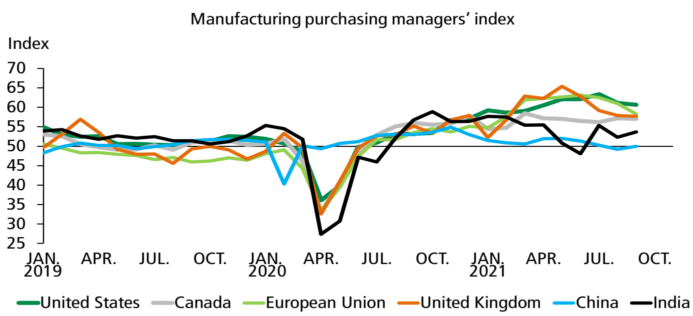
The price of aluminum increased 24% since June 2021, reaching a level not seen since 2008 after fears of a severely constrained supply suddenly heightened (graph 10 on page 5). First, the market had a strong reaction to the coup d'état in Guinea, fearing a major disruption in supply because this country has the largest reserves of bauxite, an ore used in aluminum production. Then, Chinese government interventions in the base metal market forced aluminum smelters to curtail their production, putting upward pressure on the price. The sale of aluminum from China's strategic reserves was insufficient to prevent these gains. Aluminum could therefore still make some gains owing to production constraints, but the Chinese government's

TABLE 1
The auction sale of some metals from Chinese strategic reserves puts downward pressure on prices

DATE	ALUMINUM	COPPER	ZINC
2021-07-05	50,000	20,000	30,000
2021-07-29	90,000	30,000	50,000
2021-09-01	70,000	30,000	50,000
2021-10-01	70,000	30,000	50,000
TOTAL	**280,000**	**110,000**	**180,000**

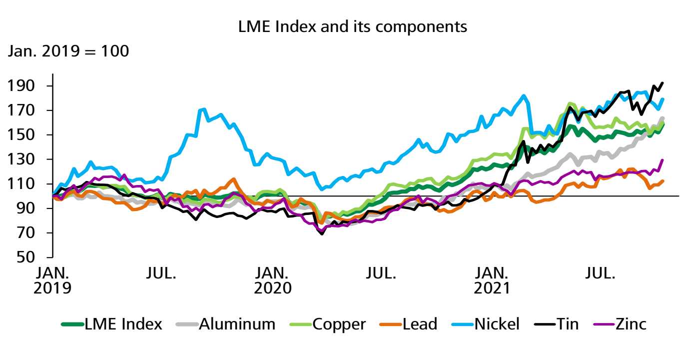
Sources: National Food and Strategic Reserves Administration and Desjardins, Economic Studies

GRAPH 8
Chinese interventions disrupt its industrial sector



Sources: Datastream and Desjardins, Economic Studies

GRAPH 9
LME index jumps on tight supply fears



Sources: Datastream and Desjardins, Economic Studies

interventions and the adjustment in supply should put downward pressure on its price, mainly in 2022.

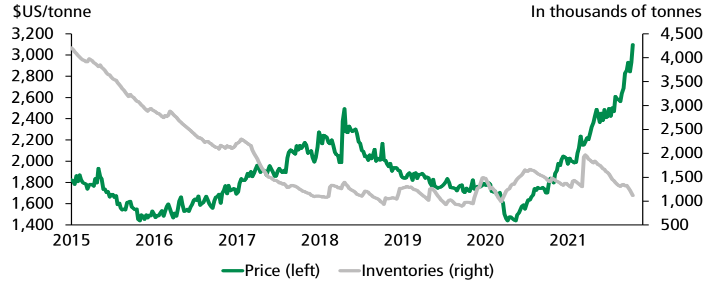
COPPER

Unlike for aluminum, whose production has been curtailed by the power cuts in China, in the case of copper, these cuts have had more of an effect on manufacturers, driving down demand. As its largest consumer, this drop in demand and the sale of 110,000 tonnes of the country's strategic reserves put downward pressure on the price of copper. Thus, its price experienced a slight decline before rebounding, with a gain of 8% since its peak in May (graph 11). The price of copper may nevertheless remain volatile, as concerns surrounding the situation with Evergrande continue to weigh on the market and China maintains its policy to reduce emissions and combat high commodity prices.

NICKEL

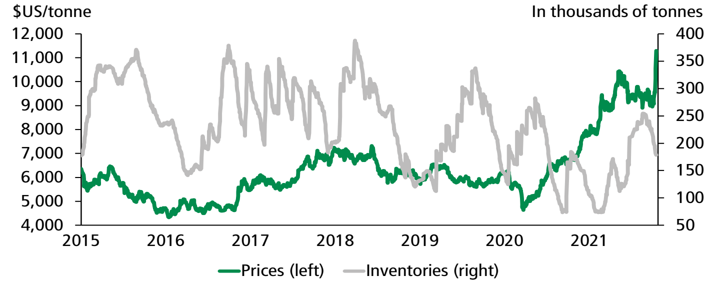
Nickel's strong performance in recent months completely wiped out the loss from the beginning of the year, with annual growth now sitting at 21% (graph 12). Nickel prices could, however, be somewhat volatile due to the Chinese government's interventions in the market and the new measures announced by the Indonesian government, which unveiled its plan to ban or tax nickel exports. Although a complete export ban is not very likely, a more flexible form of taxation could be introduced. With Indonesia representing 40% of mining production of the metal, tighter nickel policies could put upward pressure on the metal's price.

GRAPH 10
Aluminum prices and inventories



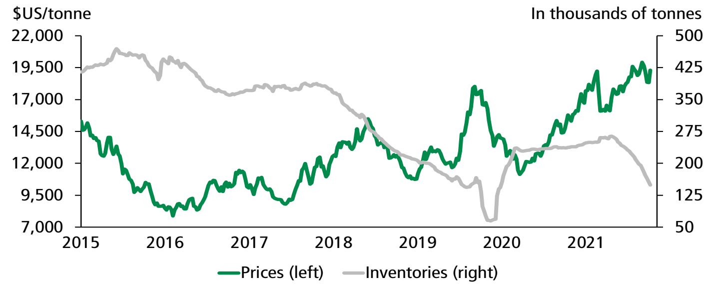
Sources: Datastream and Desjardins, Economic Studies

GRAPH11
Copper prices and inventories



Sources: Datastream and Desjardins, Economic Studies

GRAPH 12
Nickel prices and inventories



Sources: Datastream and Desjardins, Economic Studies

Precious Metals

Generalized Decline in Precious Metal prices

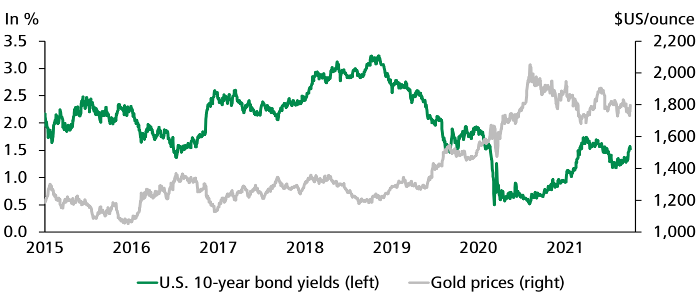
FORECASTS

As economic growth continues and bond yields rise, the price of gold should stay on its downward trend until the end of the year. We therefore estimate the average annual price for an ounce of gold to be around US$1,790. However, inflationary pressures or an extension of the pandemic could put upward pressure on the price.

GOLD & SILVER

As expected, gold's rebound in the spring due to inflationary pressures and lower bond yields was short-lived. The fundamentals, that is, an improvement in the economic situation and a rise in bond yields, put downward pressure on the price of the yellow metal, which fell by just under 5% from its peak in June (graph 13). Although rising bond yields and the strength of the U.S. dollar are currently putting downward pressure on the price of gold, the uncertainty surrounding the pandemic, the slowdown in economic growth and inflationary pressures could put upward pressure on its price. The price of silver, meanwhile, has seen a significant drop of more than 15% since June (graph 14). Given that it plays a dual role as both a precious and an industrial metal, the same factors as those influencing gold prices are also putting downward pressure on silver, in addition to slower industrial activity. However, silver should stay high.

GRAPH 13
Rising bond yields hurt gold

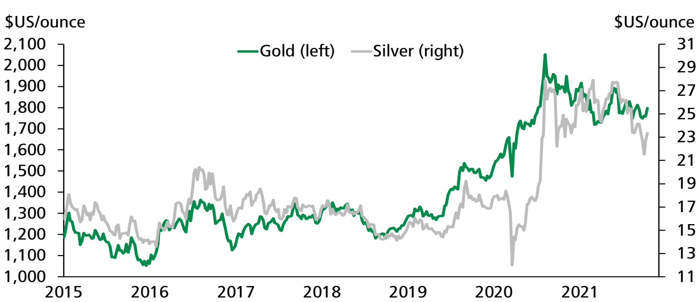


Sources: Datastream and Desjardins, Economic Studies

PLATINUM & PALLADIUM

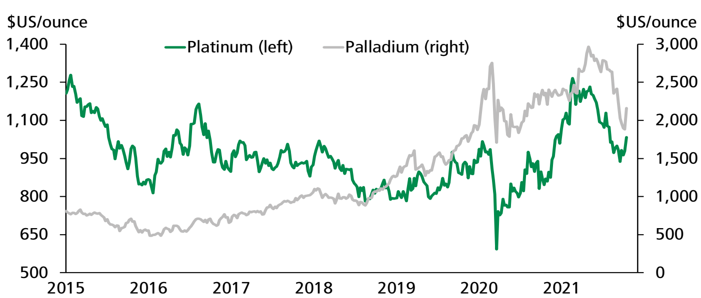
Both platinum and palladium saw substantial declines of 16% and 24%, respectively, from their spring peaks (graph 15). This drop in prices is partly due to the disappointing overall performance of precious metals, but also the difficulties encountered by the auto industry, since these metals are used to manufacture catalytic converters. Auto makers have been forced to restrain their production due to a global shortage of microchips (for more details, refer to our *Economic Viewpoint* on the U.S. auto industry's problems). Demand for platinum and palladium in this industry has therefore weakened, putting downward pressure on the prices of these metals. The economic environment may therefore remain unfavourable to an appreciation in the price of platinum and palladium until production in the auto industry normalizes.

GRAPH 14
Gold and silver prices



Sources: Datastream and Desjardins, Economic Studies

GRAPH 15
Platinum and palladium prices



Sources: Datastream and Desjardins, Economic Studies

Other Commodities

Forest Product Price Increases and Agricultural Commodities stabilize

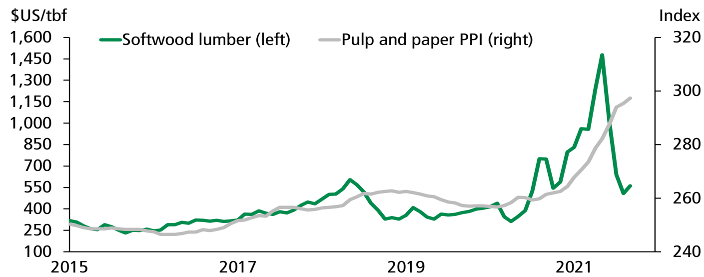
FOREST PRODUCTS

The pulp and paper industry is still grappling with the fallout from the pandemic and the economic reorganization (graph 16). Lockdowns and telework reduced demand for some types of paper (printing, writing), but boosted demand for others (packing, in particular). Many factors contributed to the increase in prices and will continue to do so until mid-2022, namely the slow conversion of some machines to more popular productions and tight inventories. Added to this is the increased cost for plants and transport, whether by boat or truck, among other things. In terms of lumber, the very deep price correction that started in May is over. A rebound has been noted since the end of the summer similar to the one observed last fall. Some of the contributing factors are slower production in British Columbia and lively activity in new construction and renovations (graph 17). The scarcity of existing homes for sale and demand that has not been met thus far are additional factors. **These conditions will be in place for some time still, and we should expect them to buoy softwood lumber prices until 2022. It would, however, be surprising for new records to be set.**

AGRICULTURAL COMMODITIES

Although soybean, maize and wheat prices have dropped since the spring, they are still higher than those set a year ago. Some plateauing was observed in September, and the current hesitation is due to uncertainties surrounding both supply and demand (graph 18). On the wheat side, prices remain high and low stocks are a concern due to weather conditions which affected crops around the world. However, conditions for winter wheat look quite favorable. At the same time, uncertainty about inflation is causing some countries to stockpile more, adding pressure to prices. For soybeans, stocks, like crops, are abundant. Concerns about the lack of compliance with the China-U.S. soybean purchase agreement are fueling price pessimism. For corn, stocks are high. On the demand side, U.S. exports have picked up, ethanol production has increased and there is some question as to whether high wheat prices will shift demand to corn and support prices.

GRAPH 16
Forest product prices

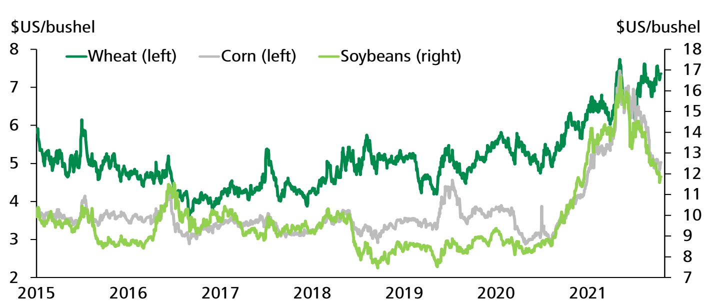


tbf : thousand board feet
Sources: U.S. Bureau of Labor Statistics, Datastream and Desjardins, Economic Studies

GRAPH 17
Demand for building materials remains strong

Sources: Datastream and Desjardins, Economic Studies

GRAPH 18
Grain prices



Sources: Datastream and Desjardins, Economic Studies

TABLE 2
Commodities

	SPOT PRICE	VARIATION (%)				LAST 52 WEEKS		
	October 16	-1 month	-3 months	-6 months	-1 year	High	Average	Low
Index								
Reuters/Jefferies CRB	239.3	6.8	12.6	23.8	58.0	239.3	193.3	144.7
Bloomberg Commodity Index	104.7	6.2	10.9	21.0	42.7	104.7	87.2	71.6
Bank of Canada	635.8	7.3	6.3	15.0	50.5	635.8	537.9	400.3
Energy								
Brent oil (US$/barrel)	85.0	12.1	15.3	27.0	97.7	85.0	64.0	37.5
WTI oil (US$/barrel)	82.4	13.4	14.8	34.8	102.4	82.6	61.1	35.6
Gasoline (US$/gallon)	3.27	3.2	4.3	14.7	50.8	3.32	2.75	2.10
Natural gas (US$/MMBTU)	5.41	1.4	47.3	101.9	95.1	6.31	3.33	2.31
Base metals								
LME index	4,763	10.5	13.8	20.8	56.4	4,763	3,883	3,033
Aluminium (US$/tonne)	3,149	10.2	27.6	36.8	69.4	3,149	2,318	1,797
Copper (US$/tonne)	10,538	12.7	12.2	14.2	56.7	11,300	8,816	6,708
Nickel (US$/tonne)	20,066	3.3	5.3	23.0	28.6	20,427	17,671	15,123
Zinc (US$/tonne)	3,847	25.3	28.7	35.7	59.0	3,847	2,861	2,420
Precious metals								
Gold (US$/ounce)	1,773	0.9	-2.2	-0.3	-6.8	1,952	1,814	1,682
Silver (US$/ounce)	23.2	-1.0	-11.0	-11.1	-4.6	29.6	25.3	21.5
Platinum (US$/ounce)	1,049	12.0	-7.5	-12.5	20.6	1,294	1,080	852
Palladium (US$/ounce)	2,121	4.5	-21.6	-23.3	-9.0	3,000	2,482	1,871
Other commodities								
Lumber (US$/tbf)	758	27.4	41.4	-41.5	42.1	1,686	847	454
Wheat (US$/bushel)	7.34	2.9	5.9	12.4	17.4	7.74	6.63	5.64
Corn (US$/bushel)	4.96	-3.5	-21.8	-14.6	31.2	7.44	5.48	3.78
Soybean (US$/bushel)	11.80	-7.2	-18.8	-17.9	14.8	16.69	13.43	10.28

CRB: Commodity Research Bureau; WTI: West Texas Intermediate; MMBTU: Million British Thermal Units; LME: London Metal Exchange; tbf: thousand of board feet
NOTE: Currency table base on previous day closure.

TABLE 3
Commodities prices: History and forecasts

ANNUAL AVERAGE	2019	2020	2021f	2022f
WTI oil (US$/barrel)	57	39	68 (range: 60 to 75)	67 (range: 40 to 85)
Natural gas Henry Hub (US$/MMBTU)	2.53	2.13	Target: 3.85 (range: 3.50 to 4.00)	4 (range: 3.00 to 5.50)
Gold (US$/ounce)	1,393	1,771	1,790 (range: 1,700 to 1,850)	Target: 1,665 (range: 1,200 to 2,000)
LME index—base metals	2,854	2,810	Target: 4,090 (range: 3,850 to 4,300)	Target: 3,870 (range: 3,400 to 4,500)

f: forecasts; WTI: West Texas Intermediate; MMBTU: Million British Thermal Units; LME: London Metal Exchange
Sources: Datastream and Desjardins, Economic Studies