

COMMODITY TRENDS

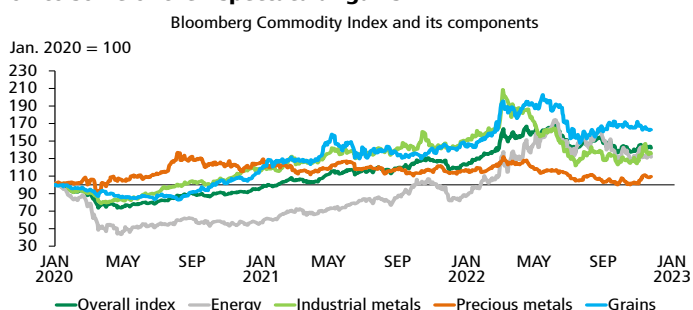
How Far Will Prices Fall?

As a global recession looms in 2023, the prices of several commodities remain at historically high levels. However, prices have declined in recent months, with the Bloomberg Commodity Total Return Index down 16% from its June peak (graph 1). Energy and metals have been the main contributors, falling 24% and 35%, respectively. We expect prices to drop more, while economic activity is likely to slow further in the coming months, particularly in industrial production and consumption of goods. Still, limited commodity supply could mitigate the slump. In terms of energy, industrial metals and agricultural commodities, producers are still facing production constraints. In addition, some producers, particularly OPEC+, are willing to quickly adjust production if demand falls, limiting the potential for a price correction. However, there is uncertainty about when this recession will hit and how severe it will be. As a result, commodity prices may correct more sharply in the event of a deeper economic contraction. On the other hand, economic growth could remain positive and commodity prices would then rebound.

Surging input costs forced manufacturers to raise their prices. These increases spread throughout the economy, contributing to the high inflation we've seen for nearly two years now. Yet, the goods component of the US consumer price index shows that this trend has reversed (graph 2). The commodity price declines in our scenario should help slow inflation in 2023. However, we're not forecasting a return to pre-pandemic prices. As a result, commodity prices—and production costs as a result—are expected to hold on to part of their spectacular gains.

GRAPH 1

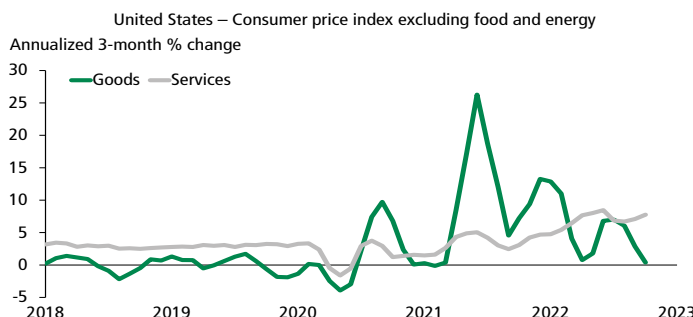
Although prices are declining, commodities are expected to hold on to some of their spectacular gains



Sources: Datastream and Desjardins Economic Studies

GRAPH 2

Pressure has eased on goods prices but not service prices



Sources: Bureau of Labor Statistics and Desjardins Economic Studies

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NOTE TO READERS: The letters k, M and B are used in texts and tables to refer to thousands, millions and billions respectively.

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Energy

Vulnerable Supply and Low Government Inventories

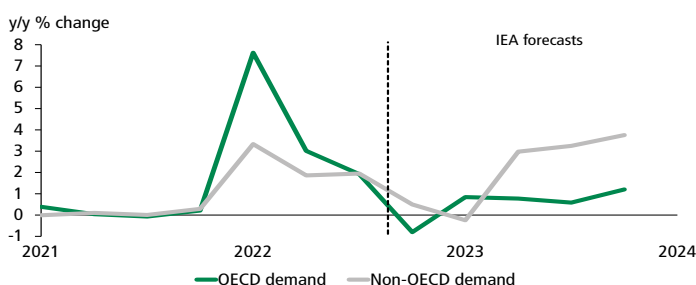
FORECASTS

Uncertainty around global supply remains strong as OPEC+ announced a reduction in its production target, while emergency deployments of the US government's strategic oil reserves are coming to an end. Meanwhile, the European Union's embargo on Russian crude oil also came into effect in December as well as the introduction by the G7 of a price cap for Russian crude. Nevertheless, weaker demand is likely to be the dominant price driver as economic growth is expected to turn negative in early 2023. As such, our scenario is for a decline in the price of WTI (West Texas Intermediate) to an average of US\$78 per barrel in 2023, followed by a rebound in 2024 to an average of US\$85. On the natural gas side, the situation remains highly uncertain and dependent on winter temperatures, which can cause prices to vary one way or the other. We're therefore forecasting an average price of US\$5.40/MMBTU (Million British Thermal Units) in 2023.

OIL

Demand in OECD countries (graph 3) is expected to decline in the fourth quarter of 2022, as the eurozone begins to experience a series of contractions in real GDP, marking the beginning of the recession in Europe. In the United States, data on gasoline consumption has been somewhat disappointing recently, and rising interest rates are increasingly hobbling manufacturing activity. As a result, US demand for oil is expected to continue its downward trend. In the emerging economies, the situation appeared to be slightly more favourable. However, the stronger outlook for these countries was largely due to a rebound in economic activity in China. The news of the past few weeks, as well as the poor performance of certain Chinese indicators—especially industrial production, retail sales and PMIs—suggest a decline in economic activity and therefore weak growth in oil demand. Global oil demand is expected to weaken further in early 2023 as more and more economies, including the US and Canada, fall into recession. We'll have to wait until the second half of 2023 to see a rebound in demand and 2024 for growth to pick up.

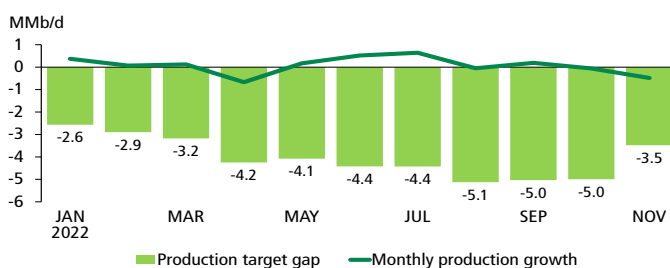
GRAPH 3
OECD oil demand is expected to contract in the fourth quarter of 2022



OECD: Organisation for Economic Co-operation and Development; IEA: International Energy Agency
Sources: IEA and Desjardins Economic Studies

OPEC+ announced a 2 MMb/d cut to its November production target, but the decline was only 0.5 MMb/d according to the International Energy Agency (IEA). However, further declines are expected in December. As such, the cartel should be able to reduce its production target gap from -5.0 to -3.5 MMb/d (graph 4). The organization is reaffirming its intention to keep oil prices high. Moreover, market fragmentation is continuing as the European Union (EU) embargo on Russian crude oil comes into effect this month. The G7 also introduced a price cap of US\$60 per barrel on Russian crude oil. This new measure allows the import of Russian crude oil within the G7 if the cap price is respected. However, this does not affect the EU embargo. The effect on prices is already visible as Urals (the reference price for Russian crude) is already below US\$60. However, Putin's government was quick to state that a plan to counter this measure will be announced later in December. The market could therefore be very volatile in the coming weeks.

GRAPH 4
OPEC+ closes part of the gap with its production target



OPEC+: Organization of the Petroleum Exporting Countries and its partners;
MMb/d: million barrels per day
Sources: Datastream, IEA and Desjardins Economic Studies

In this challenging economic environment, WTI continued to decline and is now down 27% from its June peak (graph 5). It is expected to resume its downward trend in early 2023. On the Canadian side, fierce competition for global heavy crude refining capacity remains limited while supply is still strong. The gap between WCS (Western Canadian Select) and WTI has therefore widened to US\$30 recently. Fundamentals indicate that this gap will persist over the coming months. However, this won't be a major drag on Canadian production for now given the limited global supply, the drop in OPEC+ production and the entry into force of the embargo on Russian oil.

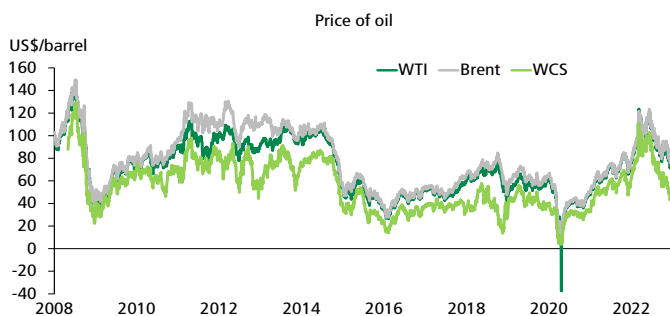
GASOLINE

US gasoline prices also continued to decline and have fallen 24% from their peak (graph 6). We're seeing a similar situation in Canada, where average monthly prices have dropped 18.5%, although the weaker Canadian dollar—which made imports more expensive—mitigated the decline. The anticipated deterioration in the economic climate should continue to push down gasoline prices. However, limited refining capacity, as mentioned above, and low commercial inventories could curb the potential for lower prices.

NATURAL GAS

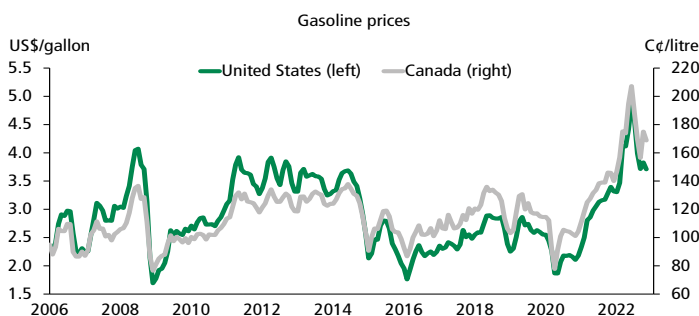
With natural gas inventories in the EU reaching full capacity and warmer than normal temperatures, the price of Dutch TTF declined by 91% (graph 7). Since then, the weather has returned to its seasonal pattern, which increases the demand for electricity for heating and drives up natural gas prices. For Europe, winter temperatures will be crucial. A harsh winter would result in a surge in prices, while a mild winter would ease the pressure. In addition, the price cap of €275/megawatt hour adopted by the EU is a measure of last resort, since the price has never exceeded this threshold for more than two weeks since the start of the crisis. In North America, the Henry Hub price also declined and is down 18.5% from its peak. Since natural gas prices are more regional than global, the North American market is less exposed to the situation in Europe. Nevertheless, the price is expected to remain volatile and then decline after the winter.

GRAPH 5
Weaker demand is dragging down oil prices



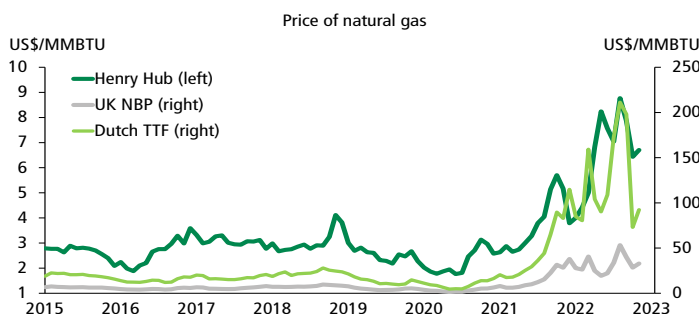
WTI: West Texas Intermediate; WCS: Western Canadian Select
Sources: Datastream, Bloomberg and Desjardins Economic Studies

GRAPH 6
Gasoline prices have fallen from their spring peaks



Sources: Datastream, Bloomberg and Desjardins Economic Studies

GRAPH 7
The return of cold temperatures has pushed prices up



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

Base Metals

The economic slowdown weighs on base metal prices

FORECASTS

While global demand for industrial metals is weakening and the Chinese and European economies are showing signs of slowing, supply remains tight and inventories are low. As a result, there's limited potential for lower prices for several metals such as aluminum and copper. The LME (London Metal Exchange) average is around 3,450 for 2023. However, uncertainty about the onset and depth of the recession and geopolitical risks could cause prices to move in either direction.

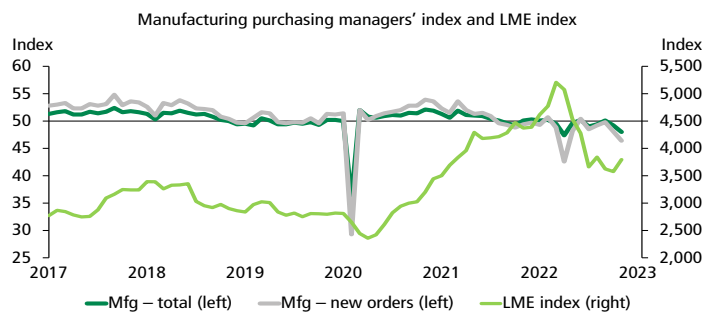
Widespread protests against China's zero-COVID policy caused authorities to relent and further relax public health measures. However, November's strict snap lockdowns have already damaged the economy, and the ISM manufacturing PMI has dropped below 50 points, indicating a contraction in manufacturing activity (graph 8). The PMI's new orders component also declined from 48.1 in October to 46.4 in November, reflecting deteriorating economic conditions in China and globally. Although the easing of public health measures should allow the Chinese economy and metal prices to recover some ground, uncertainty remains high and the outlook for the start of 2023 continues to point to lower prices. However, inventories of many metals are at multi-year lows with aluminum, copper and nickel at -51 %, -45% and -76% below their respective normal levels (graph 9). As a result, the LME index remains high at around 4,000 and the market is still volatile.

ALUMINUM

Weaker economic conditions have driven down the price of aluminum, and it has now fallen 21% since the start of the year (graph 10). However, there has been a slight rebound in recent weeks, highlighting upward pressures on prices due to low inventories and global supply constraints. In Europe, high energy prices continue to hamper production. In addition, little relief is likely to come from Chinese supply, as the country's production growth is projected to decelerate due to its economic challenges. The price of aluminum is expected to resume an upward trend in the second half of 2023. The medium-term outlook remains favourable, with expectations of increased aluminum use in manufacturing as part of the energy transition.

GRAPH 8

Industrial activity in China is slowing

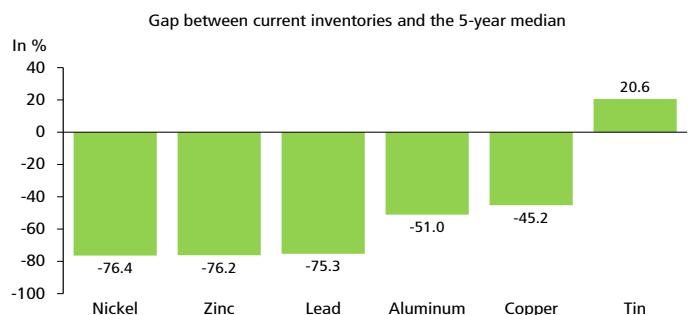


LME: London Metal Exchange

Sources: National Bureau of Statistics of China, Datastream and Desjardins Economic Studies

GRAPH 9

Metal inventories are low



Sources: Datastream and Desjardins Economic Studies

COPPER

Optimism about future demand, especially due to continued growth expectations in China and limited supply, underpinned the price of copper. As a result, it rebounded and has surpassed the US\$8,000 threshold (graph 10). As mentioned earlier, recent developments in China point to a further decline in demand for industrial metals. Against this backdrop, the price of copper is expected to decline modestly until early 2023. Much like with aluminum, the energy transition is expected to drive growing demand for copper over the medium term. As a result, we expect the price of copper to remain high.

NICKEL

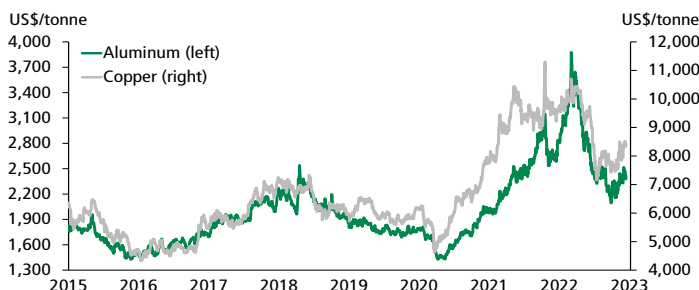
Last winter, the short squeeze pushed the price of nickel to an all-time high of US\$48,241 per tonne (graph 11). Since then, confidence in the LME nickel market has eroded, reducing the market's trading volume and thereby making nickel prices more sensitive to the vagaries of demand and supply. So when news circulated about an explosion at an Indonesian nickel factory, the price momentarily increased even though the story turned out to be false. The nickel market is expected to remain highly volatile. For 2023, a market surplus suggests that the price may drop slightly but remain above its pre-pandemic level. Additionally, the inherent risks of the war in Ukraine, supply chain disruptions and China's economy could all put upward or downward pressure on nickel prices.

OTHER METALS

High energy prices should continue to underpin the price of zinc, which already has limited production and low inventories. However, the decline in demand exerted more downward pressure, with prices falling 18% in 2022 (graph 12). With the market in deficit, zinc prices are expected to start rising again in the coming quarters. Meanwhile, steel prices have dropped 50% year-to-date as economic activity slows. However, several foundries, particularly in Europe and China, are at risk of reducing their production due to the difficulties encountered in these regions. Thus, some rebound in prices is possible in the short term, but the fundamentals continue to point to a contraction in prices.

GRAPH 10

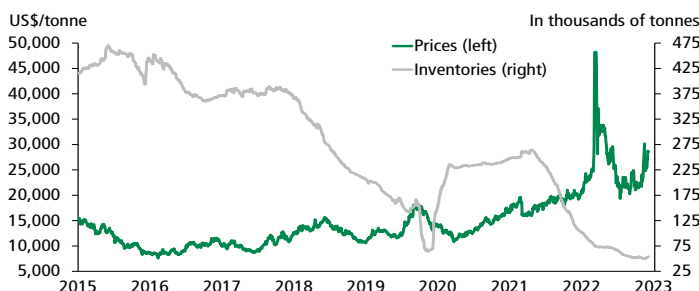
Increasing supply and gradual inventory replenishment should push copper prices down



Sources: Datastream and Desjardins Economic Studies

GRAPH 11

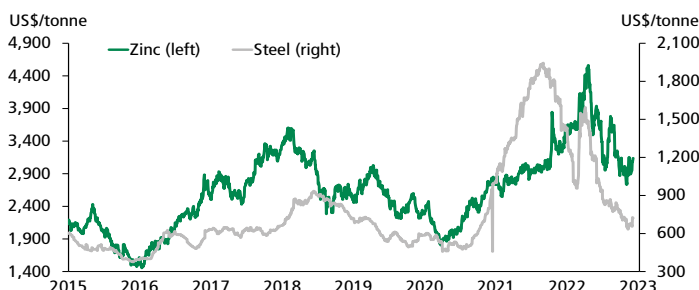
Low nickel inventories are limiting price declines



Sources: Datastream and Desjardins Economic Studies

GRAPH 12

Demand for steel is on the decline



Sources: Datastream and Desjardins Economic Studies

Precious Metals

Gold prices should rise

FORECASTS

Deteriorating economic conditions, the end of US monetary tightening and the plateauing US dollar are all factors that should contribute to the rise in gold prices in the first half of 2023. Gold is expected to average around US\$1,770 per ounce in 2023, but the price may be lower if the stock and bond markets perform better than expected.

GOLD & SILVER

In line with our scenarios, the price of gold has made up some ground in recent months, limiting its year-to-date decline to 5% (graph 13). With the Federal Reserve likely approaching its terminal rate and the US dollar expected to depreciate over the next few months, the price of gold should continue its upward trend for the remainder of 2022 and into the first half of 2023. In addition, geopolitical tensions and the related uncertainty should continue to drive investors and central banks toward precious metals. That said, less concern about high inflation is

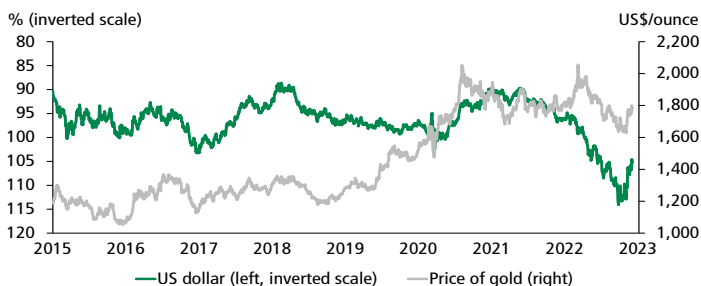
likely to have the opposite impact on gold prices, which could limit its gains. Silver had underperformed gold over the last three quarters, but this gap has since closed, and silver is now down 6% year-to-date (graph 14).

PLATINUM & PALLADIUM

Platinum and palladium prices remain volatile. At the time of writing, their performance was a mixed bag, at 6% and -3% respectively for 2022 (graph 15). We expect the price of palladium to remain high, with Russia accounting for roughly 40% of global mining production and obvious supply chain disruptions. However, non-Russian production is expected to pick up in the second half of 2023.

GRAPH 13

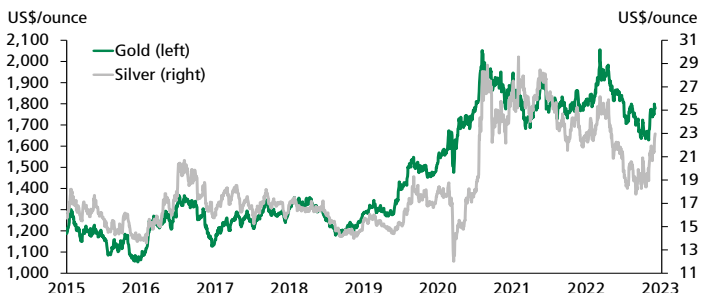
The strength of the US dollar is hurting gold



Sources: Datastream and Desjardins Economic Studies

GRAPH 14

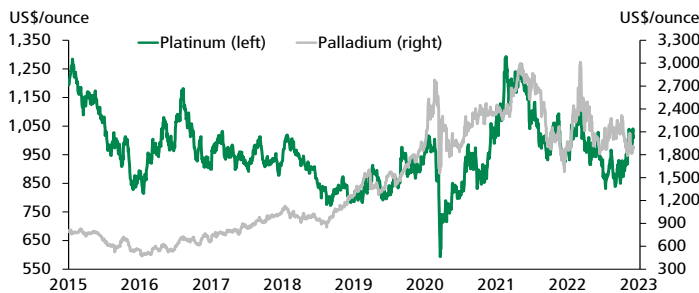
Silver has taken a steeper plunge



Sources: Datastream and Desjardins Economic Studies

GRAPH 15

Platinum and palladium prices remain highly volatile



Sources: Datastream and Desjardins Economic Studies

Other Commodities

Softwood Lumber Prices Have Slumped, While It's Wait-and-See for Grain Prices

FOREST PRODUCTS

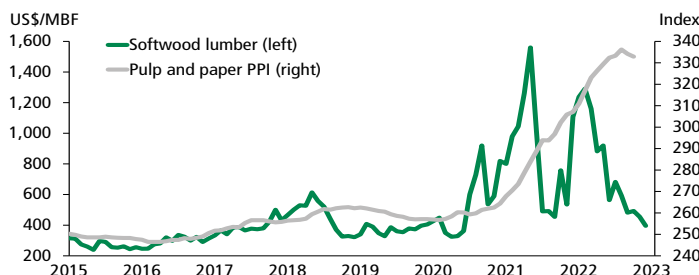
Softwood lumber prices have been declining since peaking in the spring. Prices in early December were close to June 2020 levels, below the September 2021 trough (graph 16). The decline is both cyclical—due to inflation, rising interest rates and the real estate sector slowdown—and seasonal. The economic slowdown in Canada and the US in 2023 may temper price growth, but unmet latent demand—especially for renovations—remains strong south of the border. Supply could also be reduced due to difficulties at plants in British Columbia. **These factors are likely to support some recovery in lumber prices starting in the summer of 2023. In the pulp and paper sector, production prices remain high, particularly due to energy and raw material costs, including wood chips. However, the prospect of a global economic slowdown and increased production capacity are driving down demand and prices for 2023.**

AGRICULTURAL COMMODITIES

The uncertainty created by the war in Ukraine is dragging on and influencing both grain and fertilizer prices. Still, one positive is that the agreement on Ukrainian maritime corridors was renewed for 120 days from November 19, allowing Ukraine to continue to export grain. Fertilizer prices are below their spring 2022 peak, but remain high and volatile (graph 17). Grain and oilseed prices have stalled in recent months, providing some respite after surging in early 2022 and gradually declining in the middle of the year (graph 18). Harvest yields in the Northern Hemisphere are now known, which makes things less uncertain. All eyes are now primarily on South America, where planting has started. It's difficult at this time to say what the trend will be in the coming months. **Many intangible factors could influence grain prices in the weeks and months ahead. These include the war in Ukraine, where risks surround both production, transportation and the state of corn and wheat infrastructure. Demand from China, where there's much uncertainty about how COVID-19 will be managed, could also change the game and drag down prices.**

GRAPH 16

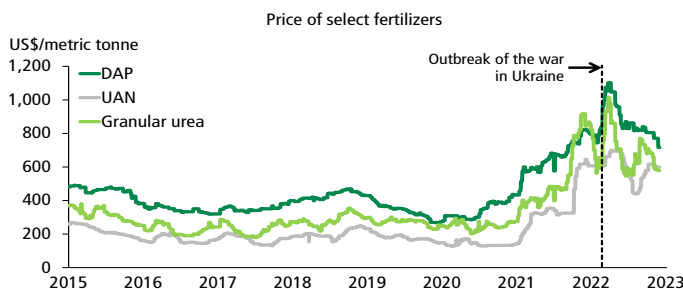
As of early December, softwood lumber prices were below their September 2021 trough



MBF: thousand board feet; PPI: Producer price index
Sources: Datastream and Desjardins Economic Studies

GRAPH 17

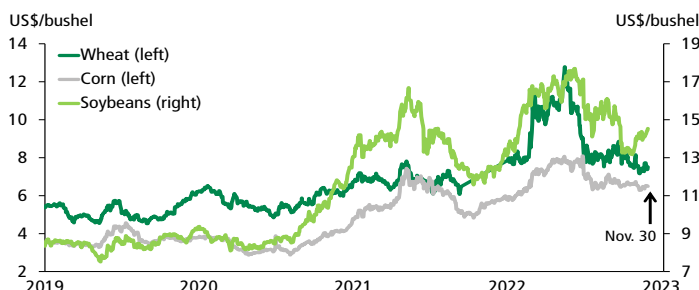
The prices of several fertilizers are still higher than in 2019–2020



NB: Granular urea and UAN (urea ammonium nitrate) are nitrogen fertilizers. DAP (diammonium phosphate) is a phosphate fertilizer.
Sources: Datastream and Desjardins Economic Studies

GRAPH 18

Grain and oilseed prices remain volatile



Sources: Datastream and Desjardins Economic Studies

TABLE 1
Commodities

	SPOT PRICE	VARIATION (%)				LAST 52 WEEKS		
	Dec. 13	-1 month	-3 months	-6 months	-1 year	High	Average	Low
Index								
Reuters/Jefferies CRB	275.0	-3.8	-3.8	-14.4	22.0	329.6	282.1	221.8
Bloomberg Commodity Index	115.0	-1.6	-4.3	-13.7	19.1	136.6	118.0	95.4
Bank of Canada	605.2	-9.7	-13.0	-31.8	0.1	907.4	750.8	604.5
Energy								
Brent oil (US\$/barrel)	80.6	-16.2	-13.6	-34.1	8.3	128.2	98.6	71.7
WTI oil (US\$/barrel)	75.3	-15.4	-14.3	-37.7	5.6	123.7	94.5	68.6
Gasoline (US\$/gallon)	3.24	-14.7	-12.2	-35.3	-2.3	5.01	3.95	3.24
Natural gas (US\$/MMBTU)	6.94	18.0	-16.3	-19.4	82.8	9.68	6.44	3.56
Base metals								
LME index	4,036	1.7	7.6	-7.3	-6.8	5,506	4,270	3,453
Aluminium (US\$/tonne)	2,420	-1.1	5.3	-7.0	-9.4	3,878	2,724	2,092
Copper (US\$/tonne)	8,449	-0.6	5.7	-9.0	-10.4	10,702	8,889	7,160
Nickel (US\$/tonne)	28,007	4.3	15.5	8.4	41.4	48,241	25,746	19,163
Zinc (US\$/tonne)	3,346	9.9	3.0	-7.8	0.1	4,563	3,507	2,736
Precious metals								
Gold (US\$/ounce)	1,813	2.9	6.4	-0.7	1.4	2,056	1,802	1,628
Silver (US\$/ounce)	23.4	8.9	17.4	8.5	5.3	26.2	21.7	17.8
Platinum (US\$/ounce)	1,037	-0.3	15.9	9.2	10.9	1,151	958	831
Palladium (US\$/ounce)	1,952	-3.9	-9.2	4.9	10.8	3,015	2,109	1,576
Other commodities								
Lumber (US\$/tbf)	406	-8.7	-28.4	-23.1	-63.6	1,464	779	392
Wheat (US\$/bushel)	7.29	-10.4	-13.5	-31.9	-7.3	14.25	9.02	7.06
Corn (US\$/bushel)	6.43	2.4	-6.0	-17.2	12.2	8.09	6.83	5.73
Soybean (US\$/bushel)	14.64	4.5	-6.3	-15.3	18.7	17.70	15.25	12.33

CRB: Commodity Research Bureau; WTI: West Texas Intermediate; MMBTU: Million British Thermal Units; LME: London Metal Exchange; tbf: thousand board feet

NOTE: Commodity table based on previous day's closing prices.

TABLE 2
Commodities prices: History and forecasts

ANNUAL AVERAGE	2021	2022f	2023f	2024f
WTI oil (US\$/barrel)	68	95	Target: 78 (range: 50 to 100)	Target: 85 (range: 50 to 100)
Natural gas Henry Hub (US\$/MMBTU)	3.72	6.60	Target: 5.40 (range: 3.00 to 10.00)	Target: 4.70 (range: 2.00 to 7.00)
Gold (US\$/ounce)	1,790	1,795	Target: 1,730 (range: 1,400 to 2,000)	Target: 1,615 (range: 1,200 to 1,800)
LME index—base metals	4,090	4,230	Target: 3,440 (range: 2,600 to 4,000)	Target: 3,675 (range: 2,900 to 4,000)

f: forecasts; WTI: West Texas Intermediate; MMBTU: Million British Thermal Units; LME: London Metal Exchange

Sources: Datastream and Desjardins, Economic Studies