Commodity Price Report
Supply Disruptions Revive the Rally

Omar Abdelrahman, Economist | 416-734-2873

October 21, 2021

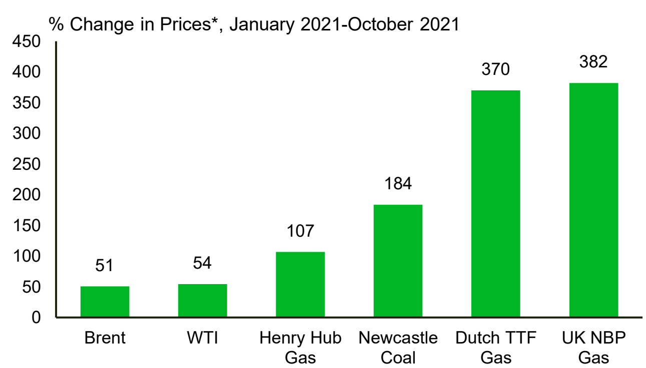
Highlights

- Following a synchronous rally in 2021-H1, the demand outlook for commodities has turned more mixed. The supply side is playing a more prominent role in driving the recent leg up in prices across some commodities.
- As recent months have proven, supply chain disruptions can take time to resolve. Against this backdrop, we expect a modest, but gradual downtrend in commodity prices through 2022, though to profiles that are still solid relative to pre-pandemic levels.
- An energy "supply squeeze" has upended natural gas prices. Ripple effects are being seen in oil prices. Both areas are anticipated to witness volatility and elevated prices through the winter before moderating next year on higher supply.
- In a similar vein, weather-induced supply constraints are leaving their mark on agricultural commodities. North American drought conditions have markedly tightened wheat inventories. An easing in prices is predicated on supportive weather conditions in the next crop season.
- Precious metals have been trading sideways since the global economy began its recovery in late 2020. Tightening monetary policy and a continued uptick in bond yields should keep a lid on prices. Meanwhile, production constraints are putting renewed upward pressure on base metals. But with China's industrial demand growth slowing, prices should modestly ease in 2022.
- Lumber prices creeped upwards after whipsawing from their unsustainable record levels. The demand impetus from housing markets has moderated, though to still supportive levels.

What a year it's been for commodity prices. The rally that characterized the first half of 2021 was underpinned by synchronous drivers. Demand was accelerating across the board, in tandem with sizeable fiscal impulses and vaccine-led reopening plans. The supply-side was slower to catch up. And financial drivers, including a weaker US dollar, further buoyed the complex.

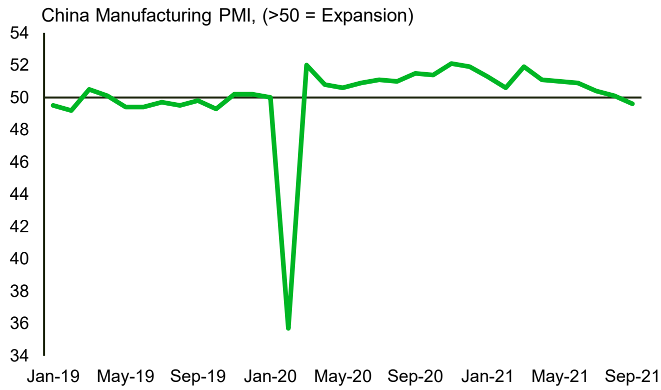
Since the summer, there has been a fragmentation in general price trends and demand drivers. Still, most of the commodities tracked in Table 1 have embarked on a renewed uptrend since stalling over the summer, but some (lumber, precious metals, livestock) remain below their early 2021 peaks. In terms of the outperformers, supply-side fundamentals appear to be the predominant force. Nowhere is this more evident than in energy markets (Chart 1), where a "supply squeeze" pushed European and Asian natural gas benchmarks, as well as coal prices, into uncharted territory. Ripple effects are being

Chart 1: Energy Prices Steal the Spotlight During This Run Up



*Front-Month Futures. Change from January-October monthly average prices
Source: CME, ICE, Bloomberg, TD Economics.

Chart 2: China's Manufacturing Sector Facing Setbacks



Source: China Federation of Logistics and Purchasing, Bloomberg, TD Economics.

seen across other energy commodities, including crude oil. Energy cost inflation is impacting production and leaving its mark elsewhere in the commodity complex. For instance, European and Chinese zinc and aluminum smelters are reportedly cutting production due to higher power costs. In response, base metal prices have also surged in recent weeks. In agriculture markets, prices are especially at the whim of large swings in global supply. Drought conditions in North America are having a severe impact on wheat crop output. In turn, wheat inventories in North America have tumbled to multi-decade lows.

With the exception of energy, the demand trajectory is less supportive this time around, with focus recently shifting to growing headwinds in China's economy (Chart 2). Power outages, a related slowdown in factory output, and heightened risks in its real estate sector have been tempering demand expectations for base metals. Meanwhile, the global economic recovery and tightening monetary policy are keeping a lid on precious metal ETF flows and prices. Elsewhere, a moderation in the pace of housing activity and renovation trends have tamed the unsustainable lumber rally. Finally, China's torrid pace of imports for some agricultural commodities (for instance, soybeans, hogs) has slightly cooled.

As recent months have shown, supply disruptions can take time to ease. With a working assumption that they only gradually dissipate in 2022, prices are likely to hold onto their recent gains in the near term (Q4) before gradually downshifting in 2022. A looming slowdown in China's economic growth – alongside an ongoing transition in global spending from goods to services – is likely to check demand growth in the months ahead for some commodities.

With the path of several commodities highly dependent on volatile drivers, such as weather and other supply-related setbacks, we may be updating these forecasts as more information comes to light. While China's current challenges top the list of downside risks to commodities, an upside risk surrounds a more persistent-than-expected inflation environment in 2022 and beyond, which would be supportive for commodity prices.

Oil Markets Buoyed by Elevated Supply Concerns

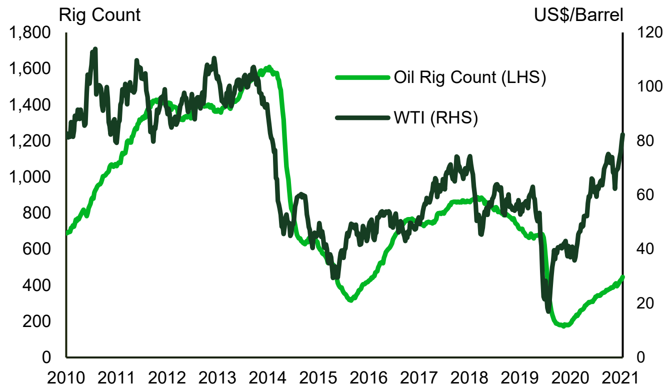
After a temporary stalling in the late summer, WTI prices have recently surged past the US$80 mark – the highest since 2014. For one, demand has proven to be more resilient than anticipated against Delta variant concerns. More recently, the energy supply "squeeze" narrative has further boosted prices. The International Energy Agency (IEA), in its latest monthly Oil Market Report, suggested that crude oil demand could rise by as much as 500K bpd on gas-to-oil power switching. From an oil products perspective, jet fuel -- previously lagging in the recovery process -- is set to receive a lift from rising vaccinations. Overall gasoline demand should witness seasonal headwinds in North America. Still, it should remain on a solid footing as more economies move to the endemic stage of the virus.

One area of emerging uncertainty has revolved around China's near-term growth path. In our September outlook, we had already imbedded a reasonably cautious view that real GDP growth would slow from 8%+ this year to around 5.5% in 2022. A miss on the downside could impact oil demand both through direct impacts on Chinese consumption and indirect effects on global economic growth. The risks to oil demand appear low in the near term amid broader energy supply worries in that country and recovering global mobility trends.

The combination of resilient demand and gradually rising production are likely to keep crude oil markets in deficit territory for the remainder of the year. OPEC+ is taking a cautious approach in releasing its previously curtailed barrels, maintaining its previous plan to increase production by 400K bpd each month. At the same time, some smaller producers have reportedly not been able to ramp up production as quickly as anticipated. In the U.S., production in the Gulf coast took a temporary but significant hit from Hurricane Ida. Production there is only gradually rebounding.

Looking ahead into 2022, the anticipated supply additions should take some steam away from the market. There is more

Chart 3: The U.S. Oil Rig Count is Only Gradually Creeping Up



Source: Baker Hughes, CME, Bloomberg, TD Economics. Last observation: October 15, 2021.

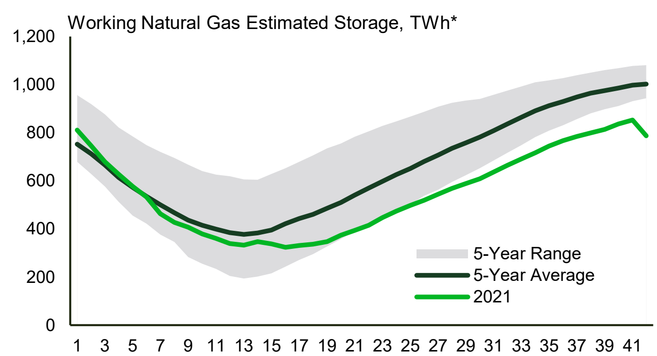
than enough spare capacity, based on reported estimates, to satisfy current demand levels. For instance, estimates from the Energy Information Administration (EIA) peg OPEC capacity at slightly more than 5 million bpd. Outside OPEC, beyond the expected rebound from the Hurricane impacts, the U.S. production outlook remains clouded. The capital restraint theme continues to be front and center for producers. Indeed, responses to recent Dallas Fed Energy surveys highlighted broad-based caution around new investment. Yet, current prices are well above operating and investment break-evens in the U.S. Firms have been maintaining /increasing production by exhausting their inventory of drilled but uncompleted wells (DUCs). This inventory is now well below pre-pandemic levels. More recently, the rig count has started to show increasing signs of life (Chart 3). At the same time, reports from the EIA point to increasing productivity in recent years. All told, while the pace of production growth seen prior to the pandemic appears to be out of the cards for the foreseeable future, some incremental supply should still come from the U.S. (EIA estimates around total production of 12 million by the fourth quarter of 2022, more than 600K bpd above current levels). Incremental production is also expected to come from Canada, where drilling and production have been gradually recovering, as well as from some smaller non-OPEC+ producers.

Natural Gas Markets Dramatically Turn the Corner

Natural gas prices have become the poster child for the latest wave of the commodity price rally. A perfect storm of demand and supply drivers sent European benchmark futures and Asian LNG prices to new records. European storage levels are running at markedly low levels heading into the winter withdrawal season (Chart 4A). This comes at a time when global markets for LNG are tight.

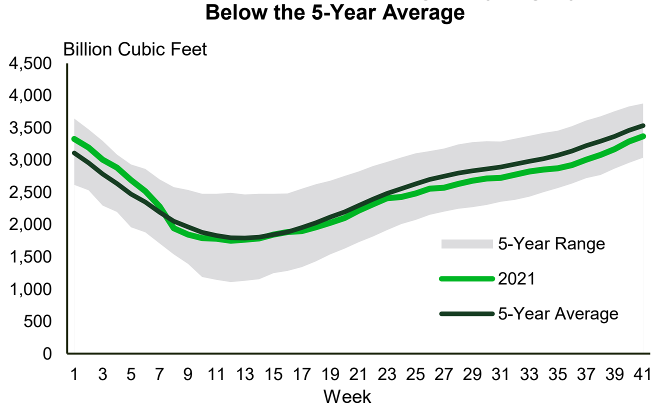
North American gas price benchmarks were not left unscathed. Henry Hub futures are still trending above US$5 mark – a far cry from the sub-US$3 dollars seen in recent years. Storage levels in the U.S. are running slightly below the five-year average, but remain in far better shape than Europe's (Chart 4B). This tightness implies that prices in the fourth quarter may display continued strength and volatility, but the path is highly dependent on weather surprises. Part of this tightening in inventories can be explained by the hurricane-driven drop in production at the Gulf of Mexico, which is slowly rebounding. The exposure of U.S. markets to global LNG markets may also be leaving some impact on prices. Still, the U.S. has ample production capacity, with the EIA anticipating an increase of more than 5 billion cubic feet per day by late 2022. At the same time, prospects for additional LNG exports are constrained by terminal capac-

Chart 4A: Gas Storage Low in Europe Heading into the Winter Heating Season



*End-of-week data. Source: Gas Infrastructure Europe, Bloomberg, TD Economics. Last week ending on October 17, 2021.

Chart 4B: U.S. Natural Gas Storage Only Slightly Below the 5-Year Average



*End-of-week data. Source: U.S. Department of Energy, Bloomberg, TD Economics. Last week ending on October 10, 2021.

ity limits (around 11% of production), lessening the risk of a substantial increase in flows to more lucrative markets.

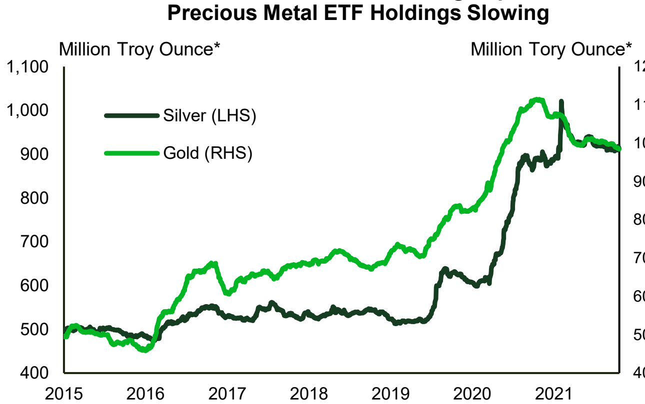
Tightening Monetary Policy Not Supportive for Precious Metals

Precious metals were the earliest to the pandemic-driven commodity rally. They were also the earliest to reverse course, bucking the overall trend in the first half of the year. Peak accommodative monetary policy globally has been in the rearview mirror for a while. And with economic uncertainty ebbing and bond yields troughing late last year, prices have remained range-bound since. ETF flows have slowly downshifted (Chart 5). More recently, the U.S. Federal Reserve has provided more signals that it is poised to start tapering its asset purchases later this year. This lifted benchmark yields and the value of the trade-weighted U.S. dollar – variables that are both typically inversely correlated with precious metals. There appears room for both areas to trend lower as the Fed continues to unwind its quantitative easing program in 2022 and as markets price in more interest rate hikes. Other central banks are likely to remove accommodation more quickly, with some having already incorporated rate hikes, and with the Bank of England now expected to start hiking its benchmark rate by end of this year. And with peak economic uncertainty (pandemic-related) in the rearview mirror, this confluence of drivers should keep a lid on precious metal prices. Persistently higher than expected inflation could present an upside risk to this view.

Base Metal Supply Pressures Mount, but Demand Outlook Turning More Mixed

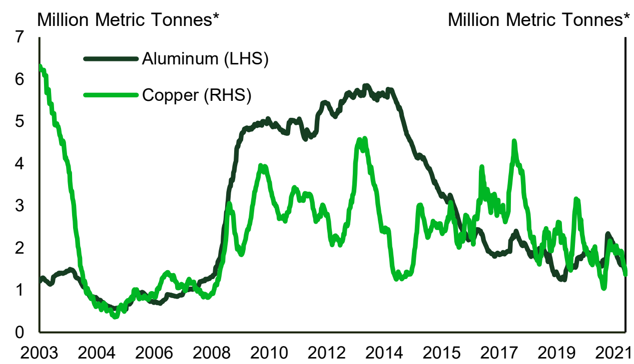
Base metal prices are hitting all-time highs once again. This time around, the supply-side is the culprit. Inventories are running tight (Chart 6). Recently, the London Metal Exchange (LME) has intervened to restore balance to markets after short-term spreads for copper spiked. In aluminum markets, a combination of regulatory changes and factory shutdowns (due to power shortages) have hit aluminum production in China – a key global producer. In Europe, zinc smelters have reportedly scaled back production on the back of surging energy costs. This supply hit should keep prices elevated through the fourth quarter in tandem wit the energy supply squeeze narrative. However, prices are anticipated to moderate thereafter as a slowdown in demand growth starts to act as a headwind. Even then, prices are expected to remain above where they were just prior to the pandemic. Globally, the impetus from fiscal policy is slowing. The rotation from goods to services spending, particularly in China, should also temper demand. A key source of downside risk is the slowdown in the pace of China's economic growth, driven by power shortages and a slowdown in the real estate sector. In the recently-released third quarter GDP reading, industrial production and fixed asset investment were the biggest disappointments. These followed a contractionary PMI reading for the manufacturing sector in September (Chart 2).

Chart 5: Even with Inflation Beating Expectations, Precious Metal ETF Holdings Slowing



*Total Known ETF Holdings from Bloomberg.
Source: Bloomberg, TD Economics. Last observation: October 19, 2021.

Chart 6: Base Metal Inventories Running Low

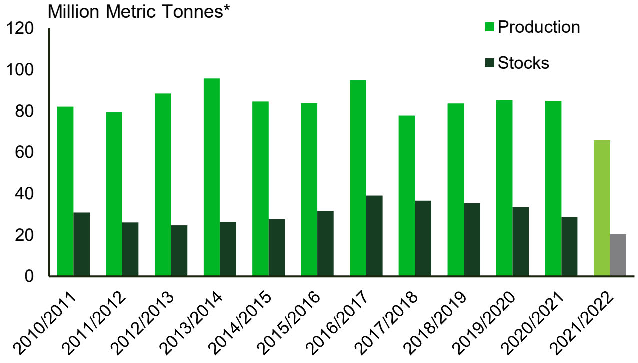


*Inventories on all major exchanges (aggregated by Bloomberg). End of week data. Source: Bloomberg, LME, Comex, Shanghai Futures Exchange, TD Economics. Last observation:

North American Drought Conditions Tighten Crop Markets

Wheat prices, long subdued, have turned the corner on drought conditions in North America. This production hit is centered in North America, where output in Canada and the U.S. is projected to significantly drop this crop year (-35% and -10%, respectively). As a result, inventories are falling to multi-year lows in both countries (Chart 7). A moderation in prices could take some time, and would be predicated on a return to normal weather conditions and yields in the

Chart 7: North American Wheat Supplies Tumble



*Sum of U.S. and Canada.
Source: USDA, TD Economics.

next crop season. Canola output in Canada is also slated to tumble by 24% this year. Prices remain elevated, but an increase in soybean production in the U.S this year may help provide some respite.

Livestock prices, as expected, showed signs of life as economies reopened. Cattle holds a more favourable outlook. Rising incomes and demand from the restaurant and hospitality industries should keep the outlook on a solid footing. The same drivers apply for hogs. However, for the latter, a previous tailwind to prices (African Swine Fever) is turning into a headwind, as rebounding domestic production in China works to cool domestic prices, and consequently, the torrid pace of imports seen in recent years.

Lumber a Far Cry from Record Levels, but Still Elevated

Lumber is an example of where fortunes can quickly reverse in commodity markets. After reaching record highs, the commodity's price whipsawed as housing and renovation demand began to moderate. Additional supply in the U.S. was likely also supportive in cooling markets. In response, some sawmills in Canada had announced temporary curtailments. Prices have since started to creep up and remain solidly above pre-pandemic levels, though a far cry from the record levels reached earlier in the year. We expect U.S. and Canadian homebuilding trends to decline only slightly from current levels in the coming two quarters (See our September Quarterly Economic Forecast). In turn, lumber prices could downshift modestly. However, a level shift in homebuilding trends in the U.S. (relative to pre-pandemic levels) and lumber production constraints in Canada suggest that prices will remain above where they were pre-pandemic.

Commodity	Spot Price October 19	Q4 2020	Q4 2021F	Q4 2022F	Q4 2023F	Annual Average 2020	Annual Average 2021F	Annual Average 2022F	Annual Average 2023F
Energy*									
WTI Oil	84	42	79	71	69	39	68	73	70
Natural Gas***	4.81	2.53	5.75	4.00	3.75	2.03	4.15	4.30	3.69
Precious Metals*									
Gold	1778	1874	1750	1600	1550	1768	1787	1638	1568
Silver	24.32	24.45	22.50	21.00	20.00	20.52	24.96	21.38	20.38
Non-Precious Metals**									
Aluminum	139	87	140	102	94	77	116	111	97
Copper	461	326	445	374	355	280	424	395	363
Nickel	9.09	7.24	8.75	7.94	7.10	6.24	8.32	8.00	7.40
Zinc	163	119	150	132	125	103	136	133	128
Agriculture & Forestry*									
Lumber	707	667	700	600	550	524	883	638	565
Wheat	11.00	6.84	10.75	9.00	8.00	6.57	9.24	9.38	8.36
Canola	819	467	790	600	450	393	719	656	488
Cattle	125	109	124	128	130	106	121	128	131
Hogs	77	68	80	76	74	60	92	79	78

Table 1: Commodity Price Forecast Summary

Source: *Forecasts by TD Economics as of October 2021, **Forecasts by TD Securities and TD Economics as of October 2021.

MEASURES & QUOTED PRICES
($ is US$ unless stated otherwise; C$ prices converted to US$ using daily C$/US$ exchange rate).

FORESTRY
Lumber: Random Lengths' Framing Lumber Composite ($/1000 Bd Ft)

ENERGY
Oil: Domestic Spot Market Price: West Texas Intermediate, Cushing ($/Barrel); Natural Gas: Henry Hub, LA ($/mmbtu)

PRECIOUS METALS
Silver: Cash price: Silver, Troy Oz, Handy & Harman Base Price ($/Troy oz); Gold: Cash Price: London Gold Bullion, PM Fix ($/Troy oz)

NON-PRECIOUS METALS & MINERALS
Aluminum: LME Aluminum, 99.7% Purity: Closing Cash Price (Cents/lb); Copper: LME Copper, Grade A: Closing Cash Price (Cents/lb); Nickel: LME Nickel: Closing Cash Price ($/lb); Zinc: LME Zinc: Closing Cash Price (Cents/lb)

AGRICULTURE
Wheat: Spring,14%Protein: Minneapolis ($/bu); Canola: Canada: Cash Pr: Canola: Instore Vancouver: Grade 1 Canada NCC (C$/mt); Cattle: Live Cattle Futures Price: 1st Expiring Contract Open (Cents/lb); Hogs: Lean Hogs Futures Price: 1st Expiring Contract Open (Cents/lb)
Sources: WSJ, FT, Random Lenghts, CME, FRBNY / Haver Analytics, Bloomberg.

Commodity	Q4 2020	Q4 2021F	Q4 2022F	Q4 2023F	Annual Average 2020	Annual Average 2021F	Annual Average 2022F	Annual Average 2023F
Energy*								
WTI Oil	-25.4	86.1	-10.1	-2.8	-31.2	74.5	7.0	-5.1
Natural Gas	5.6	127.5	-30.4	-6.3	-20.8	104.2	3.6	-14.2
Precious Metals*								
Gold	26.4	-6.6	-8.6	-3.1	27.1	1.1	-8.4	-4.3
Silver	41.0	-8.0	-6.7	-4.8	26.5	21.6	-14.3	-4.7
Non-Precious Metals**								
Aluminum	9.4	60.9	-27.1	-7.8	-5.1	50.3	-4.5	-12.4
Copper	22.0	36.5	-16.0	-5.1	2.8	51.6	-6.9	-8.2
Nickel	3.6	20.9	-9.3	-10.6	-0.9	33.2	-3.8	-7.5
Zinc	10.0	26.1	-12.0	-5.3	-11.3	32.4	-2.0	-4.1
Agriculture & Forestry*								
Lumber	70.8	4.9	-14.3	-8.3	45.6	68.4	-27.8	-11.4
Wheat	1.1	57.2	-16.3	-11.1	-0.3	40.8	1.4	-10.8
Canola	29.0	69.2	-24.1	-25.0	8.9	82.9	-8.7	-25.7
Cattle	-6.7	13.8	3.2	1.6	-8.8	14.2	6.3	2.1
Hogs	4.9	17.6	-5.0	-2.6	-14.7	54.2	-14.4	-1.6

Table 2: Commodity Price Forecast Summary % Change

Source: * Forecasts by TD Economics as of October 2021, **Forecasts by TD Securities and TD Economics as of October 2021.