



COMMODITY FUTURES TRADING COMMISSION

Aluminum Futures Markets Report
to
U.S. House and Senate Appropriations Committees

September 22, 2022

Disclaimer

This report is a review of Aluminum derivatives markets conducted by the Market Intelligence Branch of the Division of Market Oversight at the Commodity Futures Trading Commission (“CFTC”). The report analyzes broad market trends and various demand, supply, and other fundamental factors affecting Aluminum derivatives markets. The report does not evaluate any proprietary reference contracts or the underlying methodologies used to create, calculate or measure benchmarks.

Aluminum is a global metal and flows from mines and processors to many final products. As a matter of course, it is traded readily across U.S. state and international borders. Many of the movements, trades, and subsequent values are independent transactions. These transactions occur outside the purview of U.S. exchanges and are not cleared by CFTC registrants. However, certain cash market activity can fall under CFTC’s enforcement authority to prevent fraud and manipulation in interstate commerce. Additionally, several price reporting agencies use these bilateral transactions for publishing daily price assessments. Certain futures contracts under CFTC regulation settle to these published price assessments. Platts and Harbor Aluminum publish several daily price assessments. Neither Platts nor Harbor are registrants with the CFTC.

This analysis is based on longer-term trends in futures, cash, and aluminum prices (both physical and premiums) and does not provide an opinion on individual price points, fixings, or other non-public information.

The report does not contain data or information that would separately disclose the business transactions or market positions of any person or the trade secrets or names of customers or any other data confidentially submitted to the CFTC. *See* Sections 8(a) and 8(e) of the Commodity Exchange Act (“CEA”), 7 U.S.C. §12(a), (e). This report is based upon publicly-available cash and futures markets information available to Staff at the time the report was prepared, and any different, changed, or omitted facts or circumstances may require additional analysis. Staff also notes that access to proprietary data or use of different calculations or methodology could lead to different conclusions. Finally, while Staff has endeavored to ensure data accuracy, corrections to underlying data may occur and could also result in different conclusions.

This report is being presented pursuant to language outlined in the explanatory statements found in the Congressional Directives of Division A - Agriculture, Rural Development, Food and Drug Administration, and related Agencies Appropriations Act 2022, accompanying H.R. 2471, the Consolidated Appropriations Act 2022, (P.L. 117-103). Specifically, within 180 days of enactment of this Act, the CFTC is directed to issue a public report on factors affecting the aluminum commodities market.

This report has been prepared by the Market Intelligence Branch in the Division of Market Oversight of the CFTC and is being submitted to the House and Senate Appropriations Committees. The information in the report is current as of June 30, 2022.

Metals Markets Overview

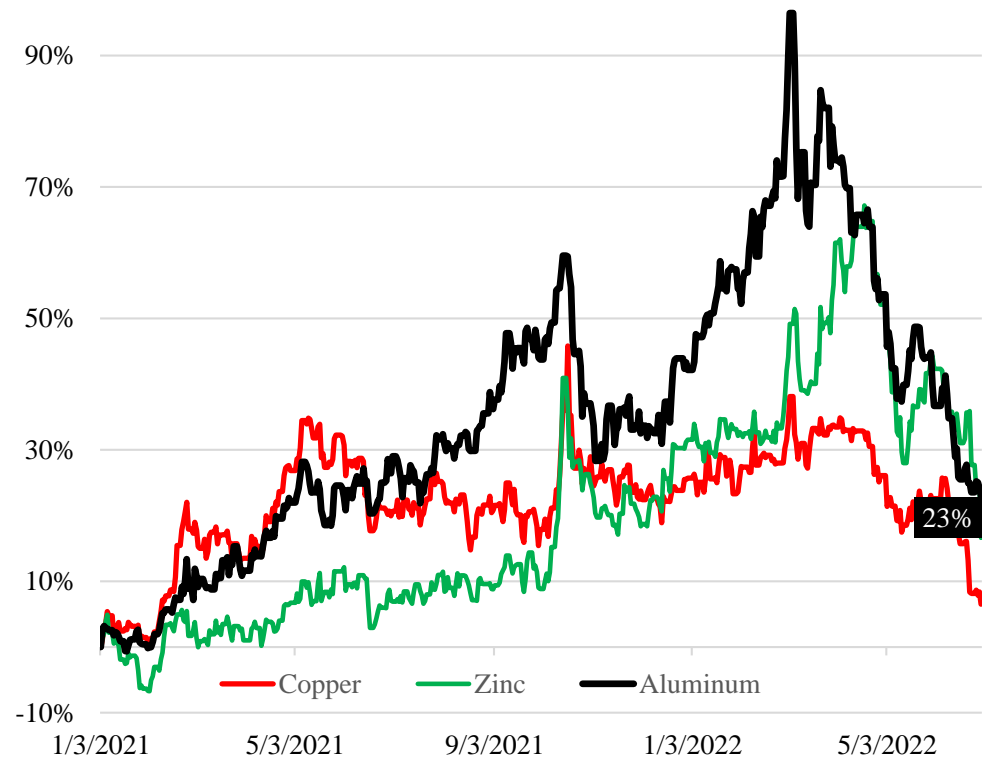
Base Metals

Copper, aluminum and zinc each hit all-time record high prices in March 2022 due to the post-pandemic global economic recovery, fears of sanctions against Russian entities, tight physical stocks, and supply chain disruptions.

Since then, demand for these metals has decreased, attributed to the global economic slowdown.

Recent central bank interest rate hikes, China's zero-Covid policy, rising energy prices and a strong dollar have put downward pressure on metal prices, including aluminum.

**LME Official Cash prices
percent changes since start of year**



Source: Bloomberg

[https://www.reuters.com/markets/europe/lme-aluminium-holds-firm-russian-supply-risks-2022-03-01/#:~:text=LONDON%2C%20March%201%20\(Reuters\),over%20shipping%20disruptions%20boosted%20nickel.](https://www.reuters.com/markets/europe/lme-aluminium-holds-firm-russian-supply-risks-2022-03-01/#:~:text=LONDON%2C%20March%201%20(Reuters),over%20shipping%20disruptions%20boosted%20nickel.)
<https://www.mining.com/web/column-metals-melt-down-as-recession-fears-overwhelm-supply-woes>
<https://www.reuters.com/markets/commodities/vanishing-lme-shadow-stocks-add-metals-market-turmoil-2022-04-13/>
<https://www.reuters.com/markets/commodities/metals-melt-down-recession-fears-overwhelm-supply-woes-2022-07-04/>
https://www.wsj.com/articles/strong-dollar-fuels-pullback-in-commodity-markets-11658223085?mod=Searchresults_pos2&page=1
<https://www.reuters.com/business/covid-curbs-bite-chinese-ports-threatening-global-supply-chains-2022-03-16/>

- The approximate value of Open Interest in the Commodity Exchange (COMEX) metals futures markets was \$126 billion on June 30, 2022.
- Gold futures had the highest Open Interest at \$89 billion, followed by copper and silver.
- Total base metal futures contracts are valued at approximately \$17.7 billion.
- Aluminum futures had an Open Interest of \$34 million.

Open Interest of selected COMEX metal contracts (\$ million, as of 6/30/2022)

Precious Metals	
Gold	\$ 89,612
Silver	\$ 14,239
Platinum	\$ 3,111
Palladium	\$ 1,418

Base Metals	
Copper	\$ 16,966
Steel	\$ 449
Iron Ore	\$ 157
Ferrous Scrap	\$ 66
Aluminum	\$ 34

Source: Bloomberg

Aluminum Markets

Major Aluminum Futures Markets

London Metal Exchange (LME)

- LME is the world's largest metal exchange.
- LME primary aluminum contract (25t) is considered the global benchmark.
- LME is a registered Foreign Board of Trade (FBOT) with the CFTC.

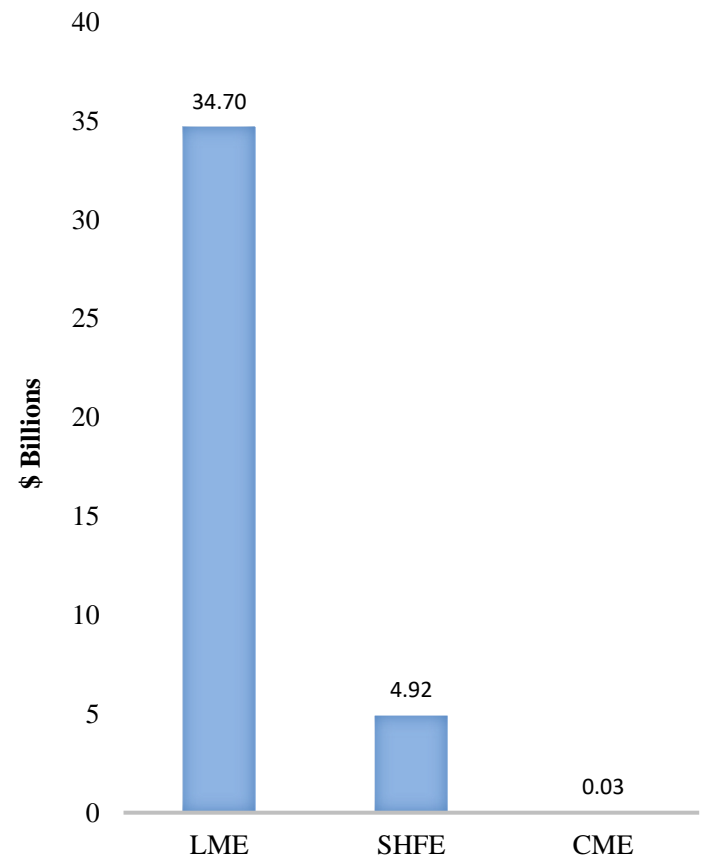
Shanghai Futures Exchange (SHFE)

- Shanghai Futures is the second largest market for aluminum futures.
- SHFE Primary aluminum contract is 1/5th the size of the LME and COMEX contracts.
- SHFE is not registered as an FBOT with the CFTC.

Commodity Exchange (COMEX)

- Primary aluminum had the smallest volume (431) and open interest (570) of the major exchanges.
- COMEX is registered with CFTC as a Designated Contract Market (DCM).

Major Aluminum Futures Markets Value of Open Interest as of 6/30/2022



Source: Bloomberg

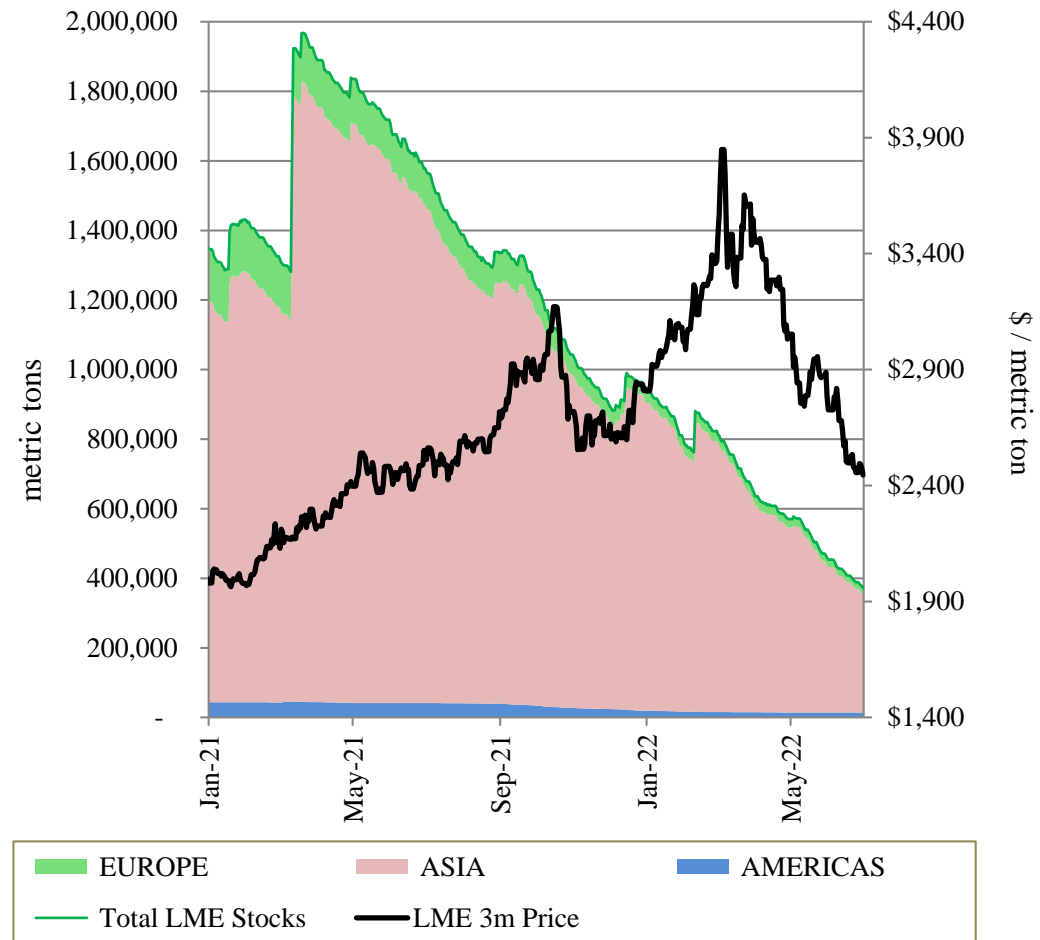
London Metal Exchange Aluminum Stocks

There are over 500 LME-approved storage facilities in 32 locations across the U.S., Europe, and Asia.

Aluminum stocks at LME warehouses have decreased 81% since March 2021 and are at their lowest level since 2001.

In June, LME warehouses in Port Klang, Malaysia and Singapore reported load-out queues of 139 and 28 days, respectively. Load-out queues represent the time it takes for physical metal to be removed from a warehouse and loaded for transport. No queues were reported for U.S. warehouses.

LME Aluminum Stocks
Regional inventory breakdown



Source: Bloomberg

<https://www.lme.com/Physical-services/Warehousing/Warehouse-network>
<https://www.lme.com/en/Market-data/Reports-and-data/Warehouse-and-stocks-reports/Warehouse-and-queue-data>
<https://www.recyclingtoday.com/article/understanding-the-lme/>
<https://www.reuters.com/markets/commodities/collapsing-metal-inventories-clash-with-plunging-prices-2022-07-13/>

The U.S. Midwest Aluminum Premium

Regional Premiums

The LME cash price represents a global price for aluminum and is not specific to any particular location. Each delivery market has one or more local pricing points that are priced as differentials to the LME cash price. These regional differentials are known as premiums.

U.S. Midwest Premium

The U.S. Midwest Premium is the regional differential for aluminum delivered into the Midwest (the primary pricing point in the U.S.). Platts and Harbor Aluminum publish daily price assessments of the Midwest Premium.

U.S. Midwest Premium Futures Contract

COMEX lists a financially settled Midwest premium futures contract. The Aluminum MW U.S. Transaction Premium (AUP) contract settles to the average of Platts's daily price assessments for the month. See Addendum for contract specs.

Regional Premiums

Besides U.S. Midwest premium contract, COMEX also lists premium contracts for Europe (European Duty-Unpaid and European Duty-Paid) and Japan.

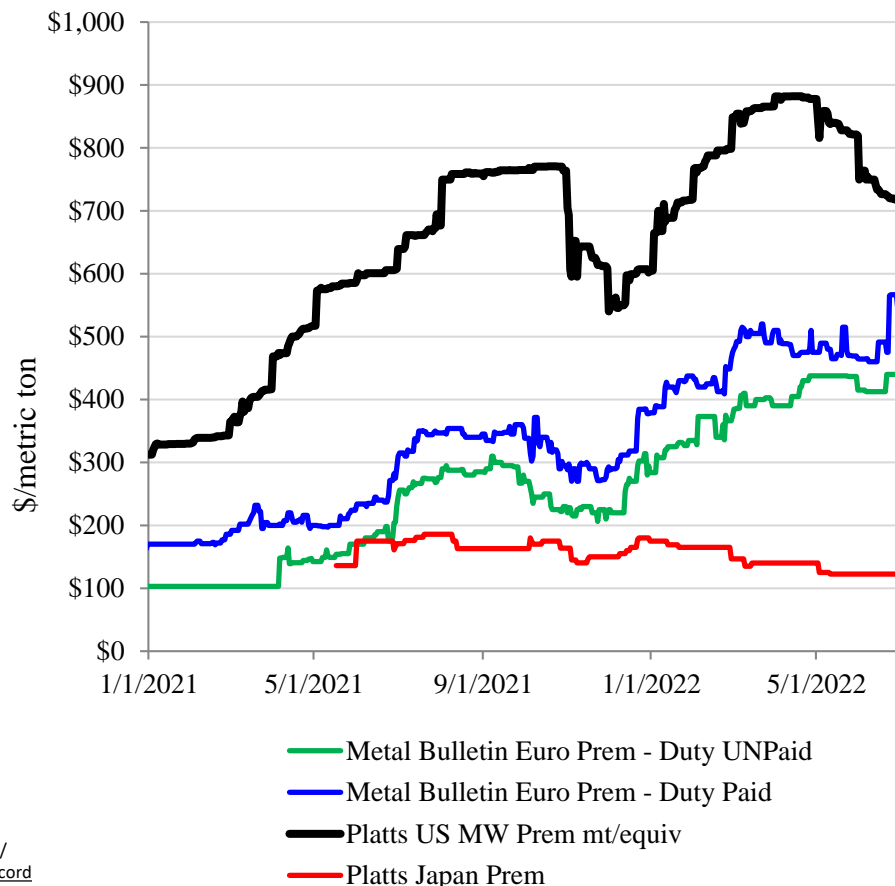
The Platts U.S. Midwest premium assessment hit an all-time record high of 40.1 cents/lb. in April 2022 attributed to increased demand, tight supplies, tariffs, supply chain disruptions and increased freight rates. Since April, the U.S. MW premium has decreased, with decreases attributed to dampened demand and recession fears.

European premiums also hit all-time highs in 2022 attributed to tight supplies, smelter curtailments attributed to high energy costs, and logistics challenges. European premiums continue to remain elevated.

<https://www.bloomberg.com/news/articles/2022-02-07/americans-face-record-metals-prices-as-shipping-costs-surge>
<https://www.reuters.com/markets/commodities/vanishing-lme-shadow-stocks-add-metals-market-turmoil-2022-04-13/>
<https://www.bloomberg.com/news/articles/2021-04-22/u-s-aluminum-premium-surpasses-merry-go-round-scandal-record>
<https://agmetalmine.com/mmwp/2022/06/17/aluminum-stocks-prices-and-delivery-premiums-metalminer/>
<https://www.fastmarkets.com/insights/aluminium-premiums-reach-new-highs-in-europe-steady-in-us-japan-brazil>
<https://www.fastmarkets.com/insights/european-aluminium-market-tightness-worsens-as-logistics-issues-plague-ports>
<https://www.bloomberg.com/news/articles/2022-04-29/aluminum-orders-stall-as-u-s-buyers-fear-looming-recession>
<https://www.recyclingtoday.com/article/isri2022-aluminum-session-spotlights-challenges/>
<https://www.fastmarkets.com/insights/bearish-sentiment-builds-in-european-base-metals-markets> <https://www.fastmarkets.com/insights/us-midwest-aluminium-premium-falls-from-peak> <https://www.spglobal.com/commodityinsights/en/market-insights/podcasts/focus/071522-alumina-aluminum-china-trade-flows-australia-japan-russia-ukraine>

September 22, 2022

COMEX regional aluminum premium contracts

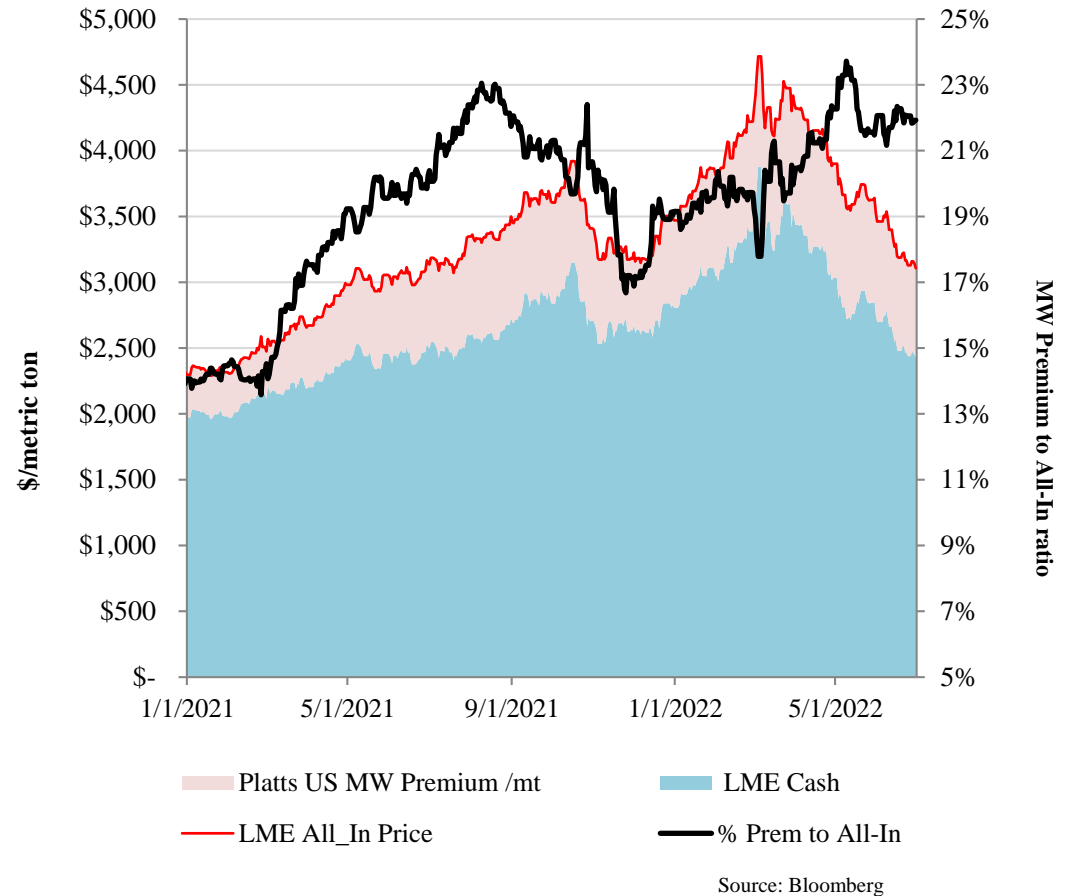


Source: Bloomberg

U.S. Midwest aluminum all-in price

- The “all-in” price for aluminum is the LME Official Cash price plus the regional differential. For example, in the U.S. the all-in would be LME plus the Platts Midwest assessment.
- The U.S. all-in aluminum price hit an all-time high (approx. \$4,716) in March 2022.
- Since hitting its peak in March 2022, the U.S. Midwest aluminum all-in price declined 34% to \$3,107/ton.

LME All-in Price



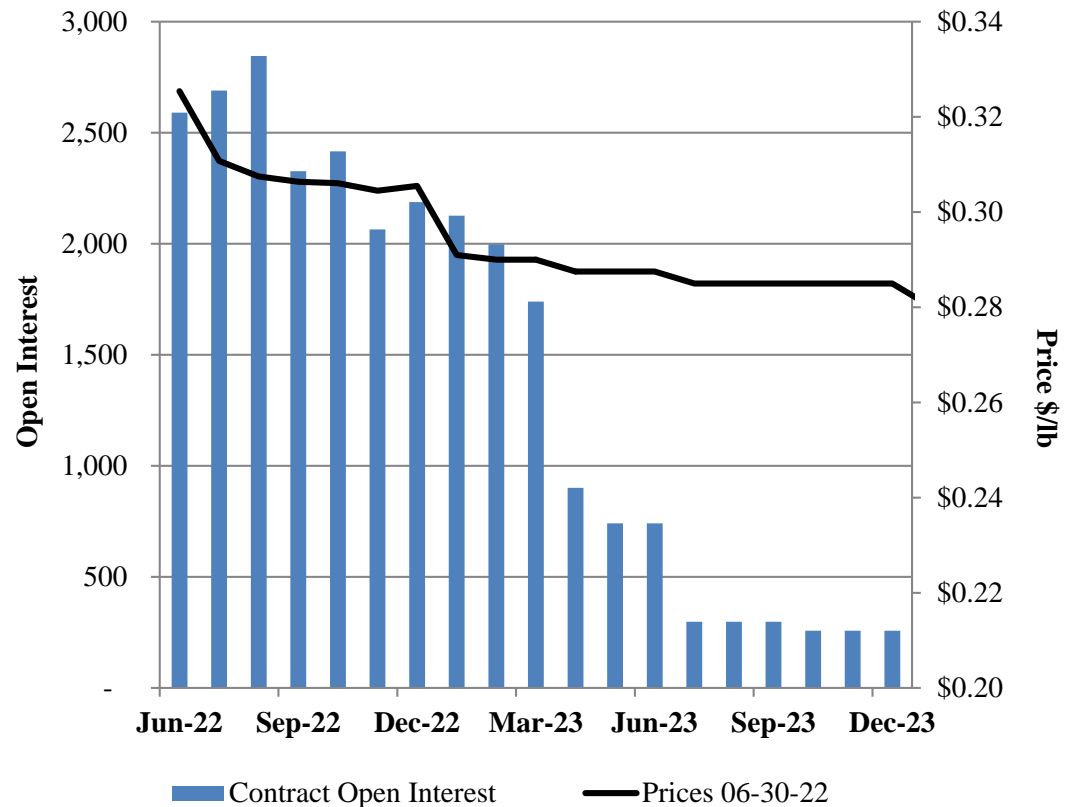
All-In calculation $\$3,107.2 = \text{LME Cash } \$2,426.0 + \text{Midwest Premium } = \681.2 or 30.90 Cents

COMEX Aluminum MW U.S. Transaction Premium contract

The COMEX Aluminum MW U.S. Transaction Premium contract (AUP) held an aggregate open interest of 27,114 as of 6/30/2022. Average AUP open interest since the start of 2021 was 23,559 contracts.

The front part of the AUP forward curve is in backwardation (i.e. prices for deferred months are lower than nearby prices), an economic signal that suggests tight supply in the near term.

COMEX Aluminum MW U.S. Transaction Premium
AUP Forward curve and Open Interest



Source: Bloomberg

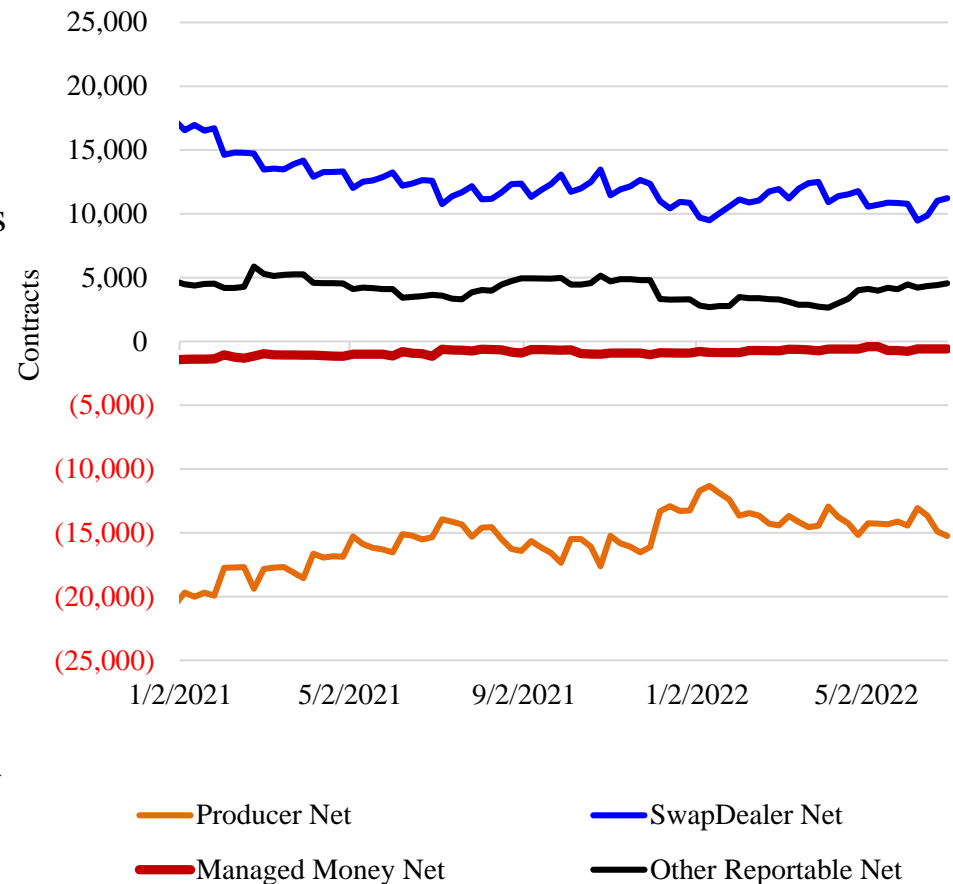
Midwest Premium Futures: Commitments of Traders

Every week the CFTC publishes the Commitments of Traders (COT) and the Disaggregated COT (DCOT) reports. These reports contain information on futures and options positions held by different categories of traders. The COT report classifies traders into two categories: Commercial and Non-Commercial. The DCOT report classifies traders into four categories: Producer/Merchant/Processor/User; Swap Dealers; Managed Money; and Other Reportables.

For AUP, on a net basis, Producers tend to hold short positions while Swap Dealers tend to hold long positions. As shown in the chart, Managed Money positions are nearly flat.

Since the start of 2021, Producers have generally decreased their net short holdings and Swap Dealers have decreased their net long holdings.

Disaggregated Commitments of Traders COMEX AUP net positions



Source: Bloomberg

<https://www.cftc.gov/MarketReports/CommitmentsofTraders/index.htm> (disaggregatedcotexplanatorynot.pdf)

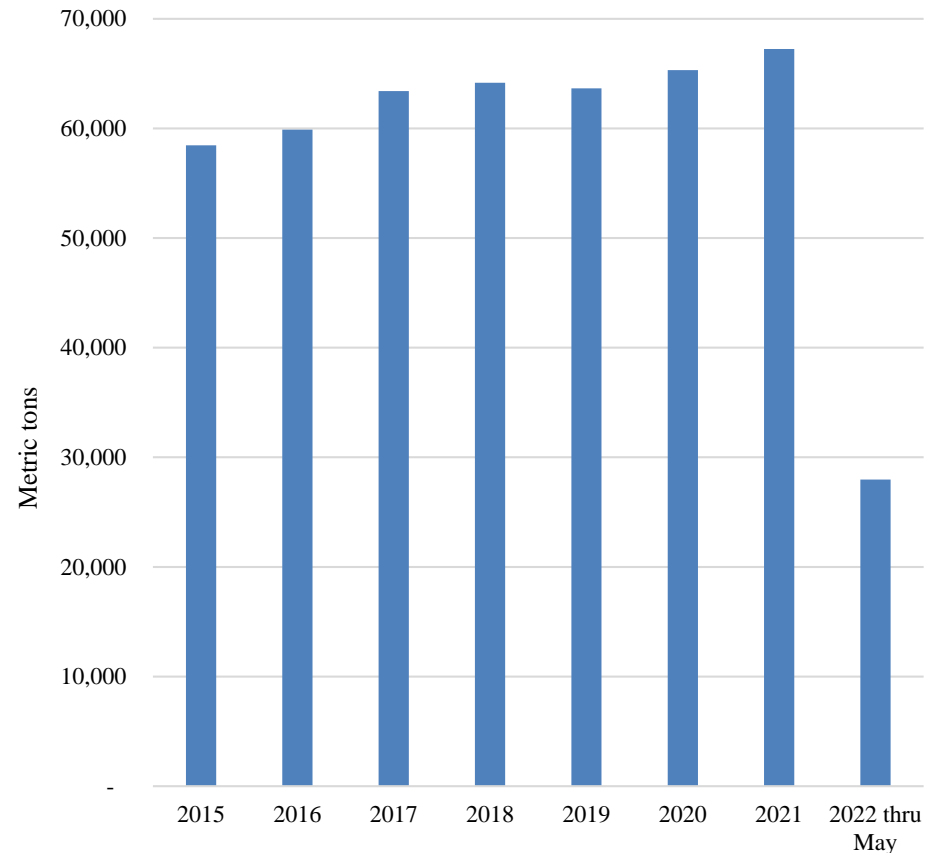
<https://www.cftc.gov/MarketReports/CommitmentsofTraders/HistoricalCompressed/index.htm>

Aluminum Market Fundamentals

Fundamental Factors - Production

- Global aluminum production is forecasted to grow to nearly 69 million tons in 2022.
- China, the world's largest producer and consumer of aluminum, has restarted capacity shuttered during the pandemic.
- European production fell 11.5% in the first half of 2022, attributed to high power costs and uncertainty surrounding the Russia-Ukraine war.
- Through May, North American primary aluminum production is down 4.5% in 2022 compared to the same period last year.

Global Primary Aluminum Output

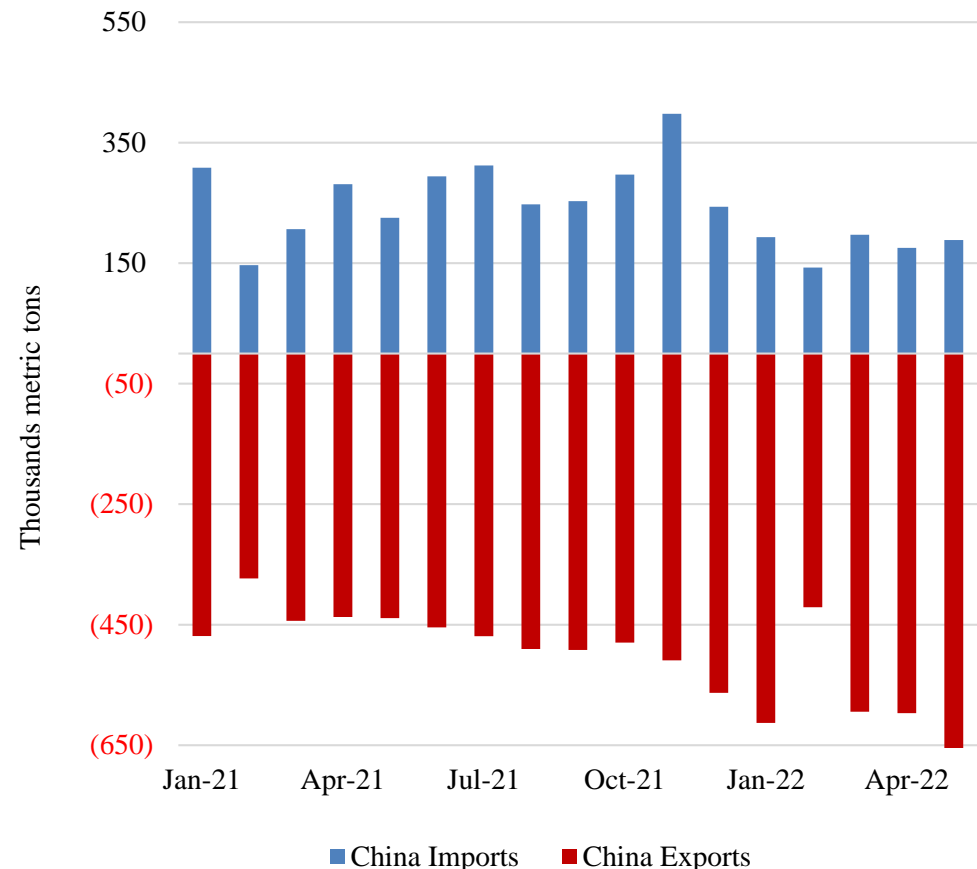


Source data: <https://international-aluminium.org/statistics/primary-aluminium-production/>
<https://amers2.apps.cp.thomsonreuters.com/Apps/news-monitor#savedinstance=true>
<https://www.sdexec.com/sourcing-procurement/sourcing-solutions/article/22018008/aranca-commodity-price-risk-in-2022-aluminum>

Fundamental Factors – China Imports and Exports

- China imports remained strong in 2021 as domestic production failed to match demand from domestic manufacturers.
- China exports of unwrought aluminum have increased 34% this year compared to the same period in 2021 (Jan-May) despite a 15% duty.
- Much of what is leaving China is heading for Europe where smelters have curtailed output as electricity prices have soared in the wake of Russia's invasion of Ukraine.

China's Aluminum Imports & Exports
Unwrought Aluminum and Aluminum Products

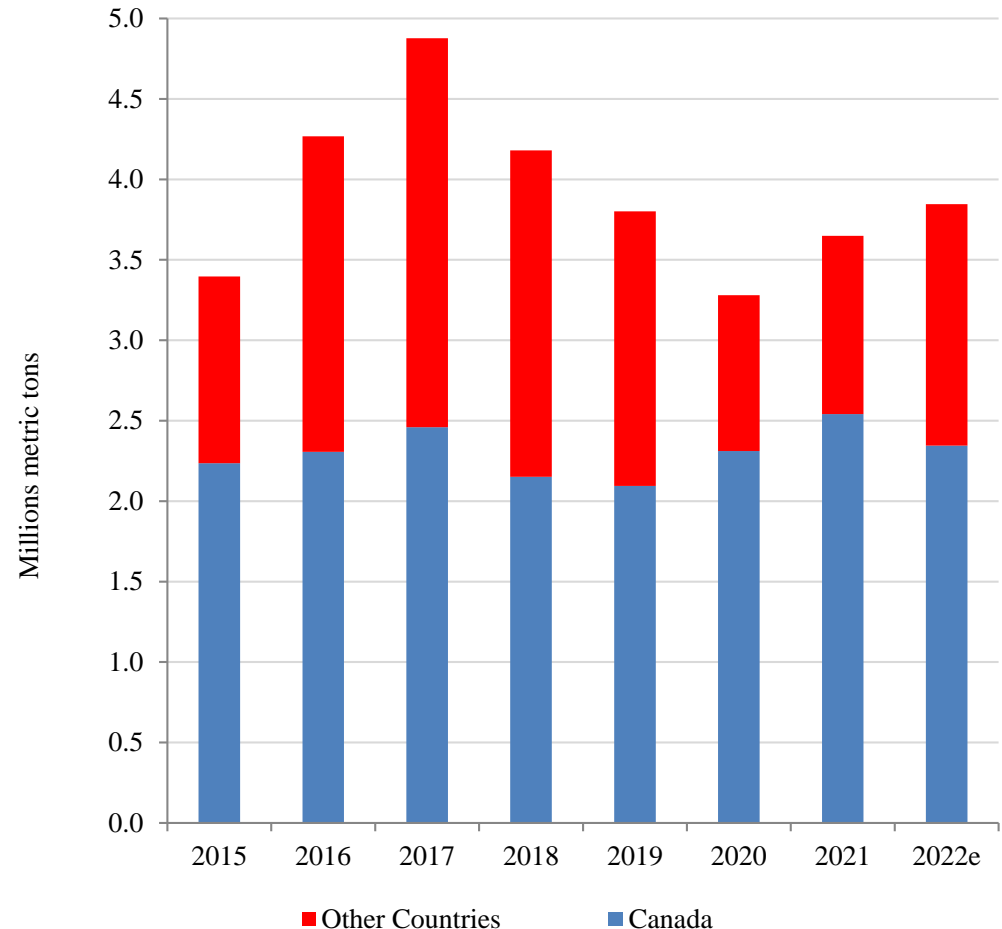


<https://www.reuters.com/markets/commodities/global-aluminium-production-pendulum-swings-back-china-2022-06-21/>
<https://www.reuters.com/markets/commodities/china-lifts-metals-exports-western-supply-chains-buckle-2022-05-12/>
<https://www.reuters.com/markets/commodities/china-lifts-aluminium-exports-western-production-slides-2022-04-01/>

Source: Bloomberg

- The U.S. imported over 2.5 million metric tons of unwrought (ingots, slabs, blocks) aluminum from Canada in 2021, or about 70% of its total imports.
- The U.S. imported 5.3% of its unwrought metal from Russia and 0.05% from China.
- U.S. unwrought imports have increased 17% (566k mt) since 2020.

U.S. Unwrought Aluminum Imports



<https://www.spglobal.com/platts/en/market-insights/latest-news/metals/021022-us-p1020-imports-fall-as-supply-remains-tight>, <https://www.usgs.gov/centers/national-minerals-information-center/aluminum-statistics-and-information> - Mineral Commodity Summaries 2022. (mcs2022-aluminum & mis-202112-alumi)

Source: (HS 7601) usatrade.census.gov

Fundamental Factors - Tariffs

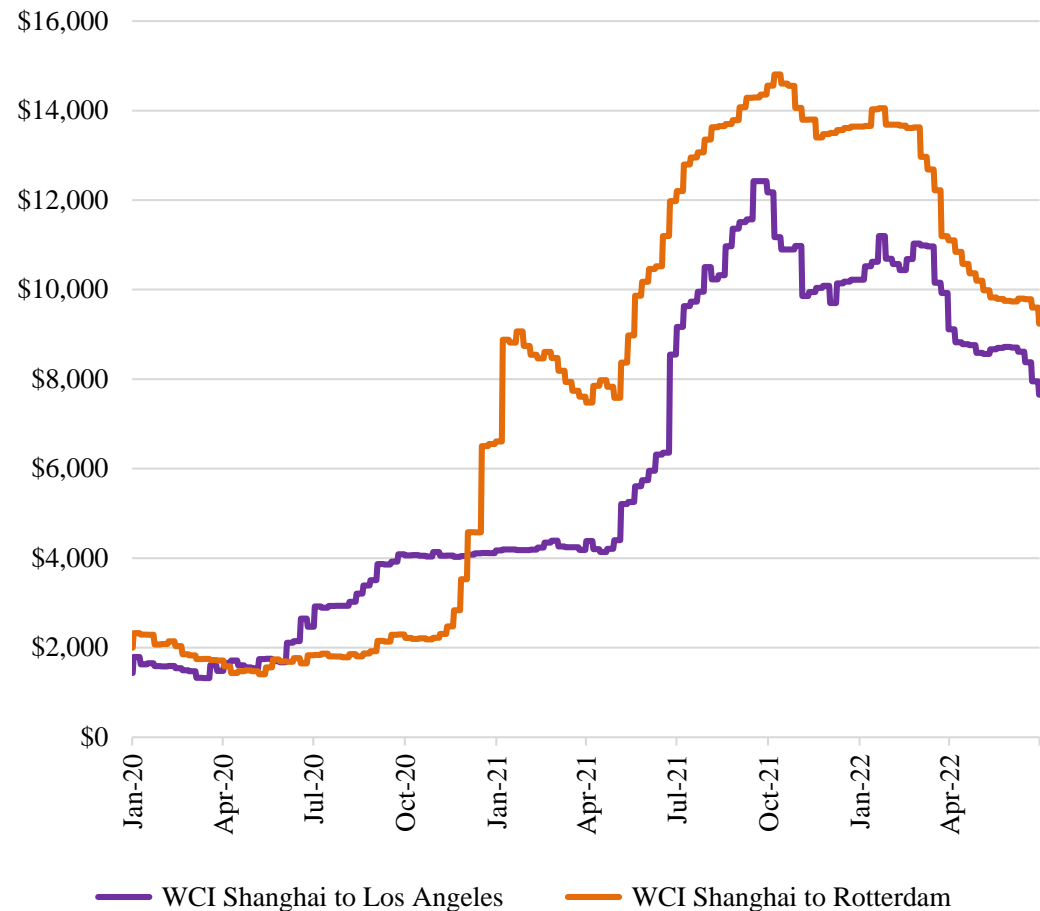
- In 2018, the United States imposed a 10% tariff on aluminum imports under Section 232 of the Trade Expansion Act of 1964. Canada and Mexico were granted exemptions in May 2019 amid negotiations surrounding the U.S.-Mexico-Canada Agreement.
- The Aluminum Import Monitoring and Analysis (AIM) system was launched June 2021. AIM is intended to aid in enforcement of trade agreements and circumvent evasion of tariffs and quotas on aluminum and aluminum products.
- In October 2021, an agreement was reached between the United States and the European Union (“EU”) to remove the 10% ad valorem tariff on aluminum imports that was imposed in 2018 under the authority of Section 232.
- Starting in January 2022, the tariff was applied only on imports from countries in the EU that exceed specified quotas.
- In May 2022, the U.S. International Trade Commission (USITC) announced a fact-finding investigation into the economic impact of the Section 301 China tariffs and the Section 232 steel and aluminum tariffs. In July, aluminum industry groups testified at a public hearing on the economic impact of the tariffs. The USITC must submit a report on U.S. trade, production, and prices in the industries directly and most affected by these tariffs to Congress by March 15, 2023.

<https://www.usgs.gov/centers/national-minerals-information-center/aluminum-statistics-and-information> - Mineral Commodity Summaries 2022 (mcs2022-aluminum)
<https://www.federalregister.gov/documents/2020/12/23/2020-28166/aluminum-import-monitoring-and-analysis-system>,
<https://btlaw.com/en/insights/alerts/2022/shaping-the-future-of-tariffs-usitc-investigating-economic-impact-of-section-301-and-232-actions>

Global Supply Chain - Freight Rates

- Availability of container ships, trucks, and drivers impact shipping costs across the supply chain and are important factors in aluminum prices.
- Global container rates began falling at the end of 2021; however, they are still more than quadruple pre-pandemic levels.
- Shanghai-Rotterdam container rates have dropped 38% since their record high in October 2021.
- The spread of Covid-19 caused lockdowns, resulting in port congestion and shipping delays.

Container Freight Rates
40-Foot Box Rates



[Americans Face Record Metals Prices as Shipping Costs Surge 2/7/202 Bloomberg](https://www.reuters.com/business/covid-curbs-bite-chinese-ports-threatening-global-supply-chains-2022-03-16/)
<https://www.reuters.com/business/global-port-congestion-high-shipping-rates-last-into-2023-execs-2022-06-16/>

Source: Bloomberg

Alumina

Alumina is an intermediate product in the conversion of bauxite (aluminum ore) to aluminum metal.

In March 2022, Russian aluminum producer Rusal halted alumina shipments from its Nikolaev refinery in Ukraine due to logistical challenges in the Black Sea.

China has increased its exports of alumina to Russia by 1000% to meet Russia's shortfall.

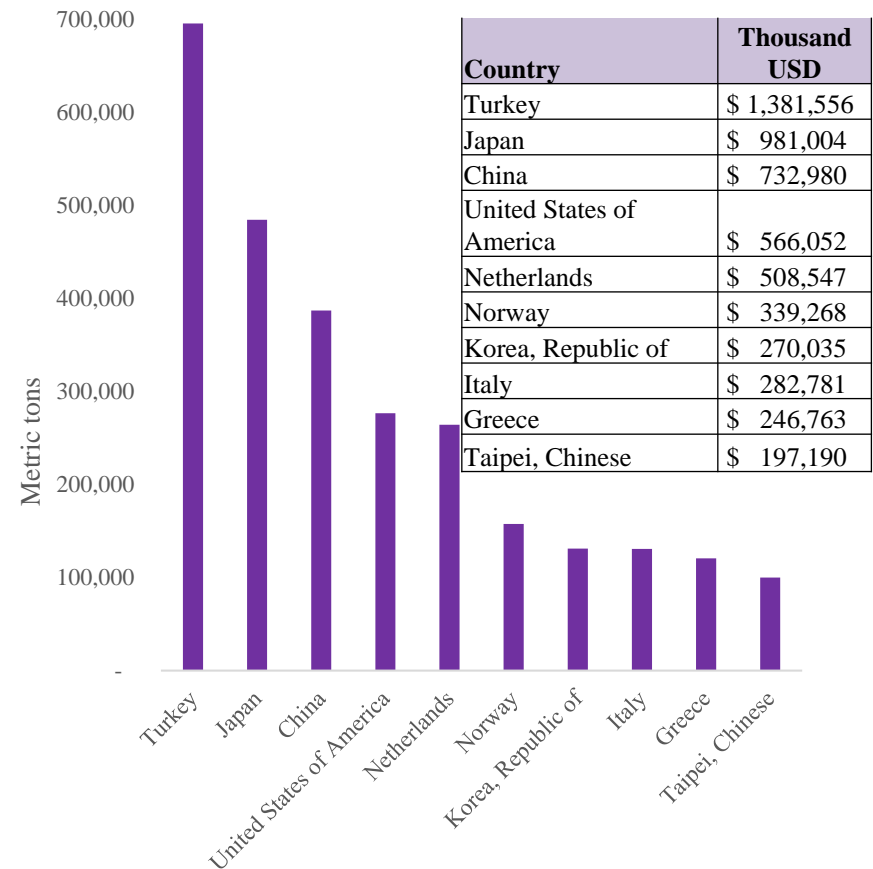
Aluminum

Rusal produces 5.6% of the world's primary aluminum. Partly due to alumina exports from China, Russian aluminum production has not been disrupted as was expected when the war in Ukraine began.

Russian aluminum has not been sanctioned by either the U.S. or the E.U. However, effective July 27, U.S. has imposed a 35% tariff on imports of certain aluminum and steel products from Russia. Additionally, some private companies have announced plans to stop importing aluminum from Russia.

Sources: Bloomberg Intelligence., <https://www.bloomberg.com/news/articles/2022-06-20/china-s-alumina-exports-soar-to-fill-russian-shortages>
<https://www.reuters.com/markets/commodities/europes-aluminium-output-slides-energy-crunch-bites-2022-05-24/>, <https://news.metal.com/newscontent/101766319/rusal-shuts-down-ukraine-alumina-plant-supply-disturbance-continues-to-push-up-aluminum-price-agency-review>, [List of importing markets for a product exported by Russian Federation in 2021 | Product : 7601 Unwrought aluminium \(trademap.org\)](https://www.tradingeconomics.com/russia/imports), ITC calcs based on [Federal Customs Service of Russia](https://www.itc-trade.com) statistics since Jan 2015. ITC calculations based on [UN COMTRADE](https://www.uncomtrade.org) statistics until Jan 2015
<https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/metals/063022-us-lists-russian-aluminum-steel-products-now-subject-to-35-duty>
<https://gmk.center/en/news/european-novelis-plants-will-refuse-russian-aluminum/>

Russia Unwrought Exports Top 10 Countries (2021)



Addendum

U.S. Midwest Premium Futures Contract Key Specifications

The COMEX MWP contract specifications:

- Contract size is 55,116 pounds (25 metric tons).
- Priced in U.S. cents per pound.
- Listed for 60 consecutive months.
- Last trading day (LTD) is the last business day of the contract month.
- The floating price for each contract month is equal to the average price calculated for all available price assessments and is published by Platts Aluminum MW U.S. Transaction Premium assessment for that given calendar month.
- The contract is financially settled.

Source: <https://www.cmegroup.com/markets/metals/base/aluminum-mw-us-transaction-premium-platts-swap-futures.contractSpecs.html>