



Weekly Precious Metals News Articles: June 10, 2022

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Below is a cross section of relevant news article to the world of Precious Metals:

Markets, Supply & Demand, Investment, and Industrial Applications.

[Printable PDF version attached.](#) Enjoy-

Gold

- [Fed reloads gold stocks](#)
 - The gold miners' stocks collapsed into mid-May, exasperating contrarian traders. Plunging gold stocks were amplifying a sharp gold selloff, which was driven by heavy gold-futures selling fueled by a monster US-dollar rally. That anomalous carnage gutted sentiment, leaving this sector grinding along near lower support and mired in herd bearishness. But that major drawdown reloaded the gold stocks for big upside.
- [Gold rates today fall for third time in 4 days, silver prices drop](#)
 - Global financial markets continue to be very volatile as sentiment remains fragile with investors worrying that global central banks could raise interest rates aggressively rein in inflation. US consumer prices reading for May is due on Friday and traders will be watching it keenly to discern the Federal Reserve's rate path. The US Federal Reserve is expected to raise its benchmark funds rate by 50 basis points next week
- [Gold ETFs Shrink, Price 'Caught in Tug-of-War' Between Fed Rates and Inflation](#)
 - Gold prices held little changed on Monday after New York's largest gold ETFs recorded their first monthly outflow in 5 amid growing expectations that the European Central Bank will join the US Federal Reserve in tightening its monetary policy to try pulling consumer-price inflation back from 4-decade highs, writes Atsuko Whitehouse at BullionVault.

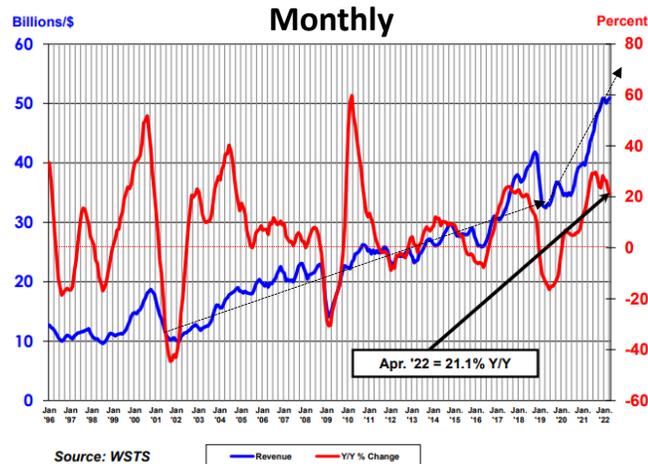
Semiconductor Related Articles (impacting Precious Metals electronics):

- [Chip crisis easing early as growth slows](#)
 - Automakers are filling backlogged orders, as concerns now turn to how demand might hold up amid inflation and higher interest rates
- [Taiwan talks show EU urgency on chips](#)
 - The talks between Minister of Economic Affairs Wang Mei-hua and EU Director-General for Trade Sabine Weyand on Thursday were the first under the new EU-Taiwan Trade and Investment Dialogue.
 - The Bureau of Foreign Trade said in a statement that the dialogue was aimed at creating a platform to further promote bilateral trade and cooperation, most notably in the semiconductor sector.
- [The US-China battle for the semiconductor industry](#)

- But the grade of chip sophistication and design is currently beyond China's technological capabilities. China is forced to depend on semiconductor imports. Assembly is the only phase of production, the one with the lowest added value, in which Chinese companies manage to carve out a slice of the market.
- The largest US federal agencies have moved on national security grounds to block many strategic investments or acquisitions in the sector. This is thanks to the strengthened powers of the Committee on Foreign Investment in the United States (CFIUS) and the imposition of export controls on Chinese companies through the Entity List maintained by the Bureau of Industry and Security (BIS). The wide discretion enjoyed by these apparatuses is due to the flexible notion of 'national security'.
- **TSMC Commits to Nanosheet Technology at 2 nm Node**
 - Further along TSMC's technology roadmap are new materials under research like **tungsten disulfide**. The material provides better conduction and more energy-efficient computation, Zhang said. **Also under evaluation is carbon nanotube**, a material that moves electrons more efficiently, he added.
 - The company will start production of its industry-leading 3 nm node later this year, which will mark the end of the FinFET process technology that provided TSMC a 90% share of the 5 nm business, according to market research firm Gartner. There will be an approximate 3-year cadence between 3nm and 2nm.
- **Over 20 Semiconductor Plants Under Construction in Taiwan**
 - According to the Japanese newspaper, TSMC has recently completed the construction of four new plants and is building four additional plants for 3-nm processes.
 - "The nationwide construction has to do with the one China policy," it said, adding, "The United States is essential for Taiwan to counter China, the plants are essential for Taiwan to get the help it needs, and this is why Taiwan previously refused to build plants in the United States."
- **TSMC again plans to spend more than US\$40bn**
 - The contract chipmaker's chairman said that it is entering a high-growth phase, forecasting that revenue this year would increase 30 percent annually
- **Global Semiconductor Sales Increase 21.1% Year-to-Year, 0.7% Month-to-Month in April**
 - "Global semiconductor sales have increased by more than 20% on a year-to-year basis for 13 consecutive months, indicating consistently high and growing demand for semiconductors across a range of critical sectors," said John Neuffer, SIA president and CEO. "High global chip demand will necessitate more semiconductor research, design, and manufacturing in the years ahead, and we urge leaders in Washington to enact innovation and competitiveness legislation that ensures more of this chip production and innovation occurs on U.S. shores."
 - *Matt: Monthly trend in semiconductor revenue illustrates a new post COVID gear. Good monthly growth from 2002, then in mid-2019 the growth accelerates as EV's, 5G, IoT Connected Devices all up.*

Worldwide Semiconductor Revenues

Year-to-Year Percent Change



Silver

- [Silver Price Analysis: XAG/USD drops 1.0% following ECB, but well within recent ranges pre-US CPI/Fed meeting](#)
 - Silver fell to fresh weekly lows under its 21DMA after a hawkish ECB announcement but remains within recent ranges.
 - XAG/USD was last trading near \$21.80, down 1.0% as focus turns to Friday's US CPI and next week's Fed meeting.
- [Silver production in Peru down 4.4% in April - report](#)
 - According to the Ministry of Energy and Mines of Peru (MINEM), silver production in Peru in April 2022 declined -4.4% compared to April 2021.
 - MINEM said that similarly, Peru's silver production achieved in January-April 2022 showed a contraction of -6.1% compared to the previous year, primarily due to the lower production reported by Compañía Minera Ares S.A.C. (-6.2%) and Compañía de Minas Buenaventura S.A.A. (-48.3%).
- [\(Solar PV\) Rising costs affecting LSS \(Large Scale Solar farm\) progress](#)
 - From record lows in 2020, solar panel prices, which make up more than half of project costs if the land costs are excluded, had risen 30% to 40% to its three-year high in late 2021 as prices of polysilicon and aluminium jumped multifold to near decade highs.
 - The situation is significant enough that for certain LSS4 projects with a financial close deadline of December 2021, the government has stepped in to extend the date to March 2022.

Precious Metals Mining:

- [Russia exits Zimbabwe's biggest platinum project \(Darwendale\)](#)
 - The long-delayed \$3bn project was expected to have annual production capacity of 860,000oz of platinum group metals.
 - Russia's Vi Holding has pulled out from Zimbabwean platinum company Great Dyke Investments, marking a new challenge for Zimbabwe's biggest platinum project, reported Bloomberg News.
 - A 50-50 JV between Vi Holding and Zimbabwe's Kuvimba Mining House, Great Dyke Investments is developing the \$3bn Darwendale platinum project.
 - Located on the mineral-rich Great Dyke of Zimbabwe, the long-delayed project was expected to have a peak production capacity of 860,000oz of PGM's a year.

- [Strike called off at Sibanye-Stillwater after 6.3% wage lift over three years accepted](#)
 - “The strike is off, thank goodness,” said James Wellsted, senior vice president of corporate affairs at the gold and platinum group metal producer. “This is extremely good news.”
 - A coalition of the Association of Mineworkers & Construction Union (AMCU) and the National Union of Mineworkers (NUM) met with members in Pretoria today to seek a mandate for ending the strike which has affected about 31,000 employees at mines west of Johannesburg and in the Free State.
- [An asteroid mining startup will soon launch on a SpaceX rideshare mission](#)
 - Astroforge's co-founders, Gialich and Jose Acain, claim they have developed a novel method for refining materials in space, though they have yet to reveal much in the way of concrete details. All we know so far is that their technology requires a high-rated vacuum and it only works in zero gravity. The company will be targeting smaller asteroids — between 20 meters and 1.5 km in diameter — that likely won't have a gravitational field, meaning they won't be landing on any space rocks.

E-Waste & Precious Metals Recycle Related:

- [28 arrested, 112 stolen catalytic converters recovered from Inland Empire auto repair shops, recycling businesses - CBS Los Angeles](#)
 - Inspections of dozens of vehicle repair shops throughout the Inland Empire turned up more than 100 stolen catalytic converters and resulted in 28 arrests, authorities said Thursday.
 - Catalytic converter thefts skyrocketed during the pandemic across Southern California. A number organized theft rings have been taken down, but the Vehicle Dismantler Industrial Strike Team — a task force made up of investigators from the DMV and law enforcement officers from Chino Hills, Chino, Upland, Montclair, Ontario and San Bernardino — recently focused its efforts on the automotive repair shops and recycling facilities that are purchasing the stolen catalytic converters.
- [Tanaka Launches "RE Series" Using 100% Recycled Precious Metals](#)
 - Tanaka Kikinzoku Kogyo K.K. which operates the TANAKA Precious Metals manufacturing business, announced today the launch of its RE Series of recycled precious metals, which uses 100% recycled materials as the source of gold, platinum, and other precious metals.
- [Aurubis smelter plans opposed by environmentalists](#)
 - A large copper smelter slated to be built in Georgia has run into resistance from a local group, even as a judge signed off on millions in bond authority for the construction.
 - Germany-headquartered Aurubis announced in November 2021 that it planned to build a \$345 million secondary smelter in Augusta, Ga. to process printed circuit boards, cables and other scrap materials into an intermediate copper product.
 - Construction was scheduled to begin in summer 2022 with commissioning set for early 2024. The Augusta plant would be capable of processing 90,000 metric tons of recovered materials and would annually produce up to 35,000 metric tons of blister copper at full capacity.

Platinum

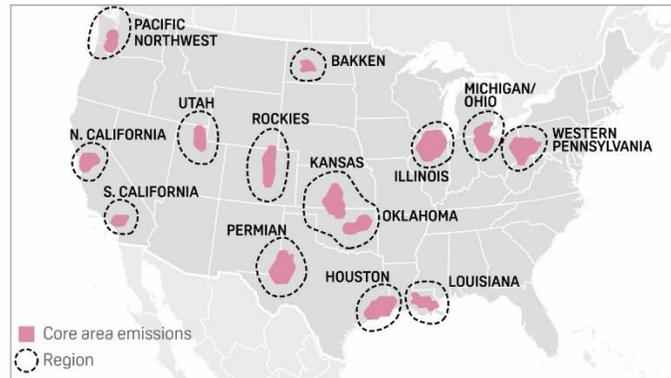
- [WPIC: Critical Mineral](#)
 - Platinum’s strategic and economic importance is underlined with the United States, European Union and China recognising its critical mineral status.
 - It is increasingly being appreciated that having a secure stake in the value chains of climate-safe energy technologies, such as green hydrogen production, can boost a country’s economic competitiveness, national security and energy independence. Russia’s invasion of Ukraine has shone a further spotlight on this need, with the European Union looking to accelerate and expand its capacity to generate green hydrogen as one means of improving its energy independence.

- [FCA US Takes Plea Deal in Diesel Emissions Case](#)
 - The U.S. subsidiary of Fiat Chrysler Automobiles has a settlement agreement with the U.S. Dept. of Justice concerning a criminal investigation into “a multi-year scheme to mislead U.S. regulators and customers” -according to assistant attorney general Kenneth Polite – by evading emissions requirements for more than 100,000 EcoDiesel V-6 engines installed in 2014-2016 Ram pickup trucks and Jeep SUVs. The Stellantis holding agreed to plead guilty to a criminal conspiracy charge, pay a fine of \$96.1 million, and forfeit \$203.6 million of revenue reported from the affected products.
 - A U.S. District Court in Detroit will pronounce the sentence in a hearing July 18.
 - According to the Justice Department, FCA US LLC installed deceptive software in the emissions systems of the engines during the federal test procedures, to avoid regulatory scrutiny and fraudulently help the vehicles meet diesel emissions standards.
- [Automotive drivetrain outlook and the implications for sustained long term platinum demand](#)
 - WPIC forecast automotive demand for platinum from ICE vehicles alone to peak in 2028, but with sustained growth thereafter due to FCEVs.

Fuel Cells/Hydrogen Economy Related Articles:

- [Toyota unveils new hydrogen cartridge that could revolutionise transport](#)
 - Portable, affordable, and convenient energy that makes it possible to bring hydrogen to where people live, work, and play without the use of pipes. Swappable for easy replacement and quick recharging
 - Volume flexibility allows for a broad variety of daily use applications. Small-scale infrastructure can meet energy needs in remote and non-electrified areas and be swiftly dispatched in the case of a disaster.
- [Bosch push ‘hydrogen economy’: Engineering firm backs plan for 4000 hydrogen filling stations by 2030](#)
 - The announcement includes plans to set up 4000 H₂ filling stations by 2030, accounting for a third of the world’s total H₂ stations. These will use new compressors, jointly developed by Bosch’s ‘Bosch Rexroth’ subsidiary, alongside Maximator Hydrogen, that will allow vehicles to be filled directly with compressed hydrogen rather than using intermediate storage tanks.
 - It’s a technology that’s expected to halve the costs of H₂ filling stations when compared to existing alternatives.
- [Liquide opens Las Vegas facility to meet rising hydrogen fuel cell vehicles demand](#)
 - The plant is a 30-ton liquid H₂ production facility. Air Liquide intends to use it to move ahead with its intentions to capitalize on rising demands from H₂ FCEV’s. As the transitions to H₂ economies continues, the company intends to ensure that it has secured a top spot in meeting those needs.
- [Westinghouse and Bloom Energy to team up for pink hydrogen](#)
 - The energy companies will work together to develop an optimized, large-scale high temperature integrated electrolysis pink hydrogen solution for use in the commercial nuclear industry. Nuclear plants can operate 24/7 and generate a high-quality steam input. This makes them a practical choice for powering electrolyzers for the production of substantial amounts of clean pink hydrogen with little disruption to their existing operations.
 - *Matt: Recall key mineral constraint with SOFC’s is the RRE Scandium (Sc), where Bloom dominates 70+% of the Sc market.*
- [Green hydrogen project receives \\$504 million DOE loan guarantee](#)
 - A green H₂ project in Utah has received a \$504.4 million loan guarantee from the Department of Energy’s Loan Programs Office, the 1st guarantee awarded to a clean energy project in nearly a decade.
 - The Advanced Clean Energy Storage project will combine 220 MW of alkaline electrolysis with two 4.5-million-barrel salt caverns to store clean H₂.
- [Fast Flow Future for Heavy-Duty Hydrogen Trucks](#)

- The ultimate goal is to compete with conventional fueling times of diesel vehicles (roughly 10 minutes), which translates to an ambitious hydrogen gas mass flow rate of 10 kg/min average (20 kg/min peak) based on a maximum onboard vehicle storage potential of 100kg hydrogen gas. This rate is roughly 10 times the average mass flow rate currently used for light-duty FCEVs.
- [**DOE launches \\$8bn H2Hubs program to build regional clean hydrogen hubs across US**](#)
 - However, the DOE's version of clean energy could be up for debate. While the Notice of Intent, says at least one hub will focus on making H₂ using renewable energy, and another will explore nuclear, a third aims to make clean H₂ from fossil fuels by pairing it with carbon capture and sequestration.
- [**Announcement puts US Regional Clean Hydrogen Hubs on the horizon**](#)
 - The Bipartisan Infrastructure Law was announced in November 2021 and promises \$8bn to regional hydrogen hubs, \$1bn for clean hydrogen electrolysis and development, and \$500m for clean hydrogen manufacturing and recycling. Stay informed Hydrogen for America



Palladium

- [**New Car Sales Keep Dropping Because There Just Aren't Enough Cars**](#)
 - Supply chain issues stemming from the COVID-19 pandemic have hit the auto industry hard, with little sign of the issues abating any time soon. The latest May sales figures from automakers are trickling in and the numbers look bleak, as reported by Automotive News.
 - Toyota is normally a star performer when it comes to US sales, but the company has faced major headwinds as it struggles to build enough cars to meet demand. Sales were -27% in May 2021, dropping to just 175,990 over the past month. It marks the 10th straight month of decline for Toyota's US sales.
- [**Automakers side with EPA and California on emissions standards**](#)
 - Several automakers are siding with the Biden administration in its effort to restore the state of California's authority to set its own emissions standards.
- [**Suppliers get creative to battle raw materials and semiconductor shortages**](#)
 - The Russia-Ukraine War and the lingering impact on production cycles due to COVID-19 are still influencing the supply of new automotive vehicles. Materials like carbon black, platinum, palladium, rhodium, and semiconductor chips are still lagging. The current conflict in Europe could lead to even more shortages that might put a more significant hold on the auto industry within the United States. Will there be a rebound, and if so, when?

PGM Minor Metals (Rhodium, Iridium, Ruthenium, Osmium)

- **IrCl Compound Demand Risk:** [**PCMag: MSI's Latest Monitor Uses Samsung's QD-OLED Display Tech**](#)
 - MSI is teasing a 34-inch gaming monitor that incorporates a QD-OLED panel. It's called the MEG 342C QD-OLED and it features a curved display... The upcoming MEG 342C QD-OLED monitor signals the

technology is gaining greater adoption among PC manufacturers. MSI's product will also boast a 0.1-millisecond response time, along with a 175Hz refresh rate.”

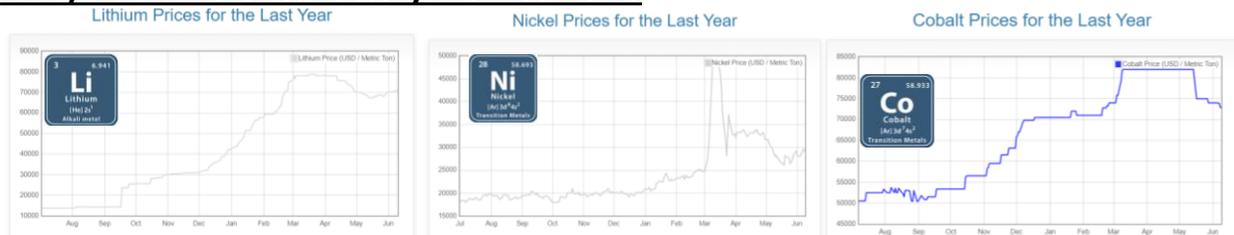
- *Matt: From a display technology perspective, QDot or micro-LED are likely to supplant Iridium chloride compound-based OLED technology.*
- **Ultrafine ruthenium nanocrystals as an alternative to platinum for a pH-universal hydrogen evolution reaction**
 - Recently, a research team led by Prof. Yu Chen from Shaanxi Normal University, China designed a high-quality N-doped graphene aerogel supporting Ru nanocrystal (Ru-NCs/N-GA) nanocomposites. The reaction precursors of graphene oxide (GO) and ruthenium(III)-polyallylamine (RuIII-PAA) complex uniformly anchored in a graphene aerogel serve as the N source and Ru source.
 - The uniform adsorption of the RuIII-PAA complex can lead to the homogeneous dispersion and ultrafine size of Ru nanocrystals on the graphene aerogel under high-temperature processing. Ru-NCs/N-GA with a porous structure and low Ru content (10 w.t.%) exhibits a comparable HER activity with 20 w.t.% Pt/C in both alkaline and acidic mediums.
- **Iridium Crucibles: Maxscend to commercialize production of SAW filters**
 - China-based Maxscend Microelectronics, dedicated to supplying RF frontend chips such as RF switches and low-noise amplifiers, is set to kick off trial production of SAW (surface acoustic wave) filters as a new offering later in 2022
- **Iridium and Platinum Catalyst: US producer to generate 35 tons of green hydrogen daily in Belgium**
 - New York-based Plug Power announced Wednesday it will produce 35 tons of green hydrogen a day at a new plant in the Port of Antwerp-Bruges in Belgium, starting in 2025.
 - The agreement includes plans to build a 100-MW green H₂ plant on 28 acres of land that can produce up to 12,500 tons of liquid and gaseous green H₂ annually. Green H₂ is produced by using electrolyzers powered by renewable electricity to split water into H₂ and oxygen.
- **Platinum and Ruthenium alloy PVD: Microsoft wants to get rid of HDD boot drives by 2023**
 - According to a report from analytics company Trendfocus (via Tom's Hardware), Microsoft is pushing those OEMs who use HDDs as the primary storage device in pre-built Windows 11 PCs to switch to SSDs. *It's even set a deadline for when it wants the transition to take place: 2023.*
 - *Matt: Rotatable storage (HDDs) for video is still the lowest cost, highest volume needs in data centers. The HDD will stay around for some time serving those lower cost storage markets.*

Clean Energy General News

- **EU lawmakers endorse ban on combustion-engine cars in 2035**
 - The European Union assembly voted in Strasbourg, France to require automakers to cut carbon-dioxide emissions by 100% by the middle of the next decade. The mandate would amount to a prohibition on the sale in the 27-nation EU of new cars powered by gasoline or diesel.
 - EU lawmakers also endorsed a 55% reduction in CO₂ from automobiles in 2030 compared with 2021. The move deepens an existing obligation on the car industry to lower CO₂ discharges by 37.5% on average at the end of the decade compared to last year.
 - *Matt: So the EU2035 Vehicle Demand: 22.5M Light Duty, + 420k Motorcycles, + 1.2M On-Road Heavy Duty + 680k Off-Road equates to ~2.4TWh's of Li-Batteries and their minerals. This EU declaration increases global LiB Mineral demands by +84% by 2035.*
- **Critical minerals: price spikes are affecting Wind, Solar, Batteries, EVs**
 - Clean energy technology costs had been falling, but that is now at risk
- **Traders in China Rush to Check Metal Stocks on Pledging Concerns**
 - Glencore and Trafigura among firms checking aluminum stocks

- Traders claim metal inventory they lent against may not exist
- **Controversial policy to reconcile mining and biodiversity conservation demonstrates success**
 - Ambatovy is a major industrial operation mining and refining nickel and cobalt in Madagascar. It is the largest-ever foreign investment in the country – and one of the biggest in sub-Saharan Africa. It ranks among the largest lateritic nickel mining companies in the world.

BEV / LiB Mineral & Battery Market News



Friday Fix: Lithium \$70,700/mt Nickel \$27,946/mt Cobalt \$72,900/mt

- **Elliott Sues the LME For \$456 Million Over Nickel Chaos**
 - Paul Singer’s Elliott Investment Management is seeking \$456 million in damages from the London Metal Exchange over its decision in March to cancel billions of dollars worth of nickel trades after a massive short squeeze.
 - The move by the activist investor ratchets up pressure against the LME, which has been widely criticized for its handling of the crisis in nickel. The exchange is also facing a review by UK regulators, while the nickel market has been stuck in an extended limbo of low liquidity and volatility.
- **Jane Street Follows Elliott in Suing LME Over Nickel Trades**
 - Wall Street powerhouse is seeking \$15 million in damages
 - HKEX, the owner of the LME, says the claim is without merit
- **How a Battery Metals Squeeze Puts EV Future at Risk**
 - The world’s epic shift into EVs needs to overcome a major obstacle: how to meet rocketing demand for batteries, the vital component, while cutting the cost to help the cars go mainstream. Factory lines churning out power packs to fuel a clean energy future are being built faster than strained supply chains can keep up. A global rush to lock in stocks of lithium, nickel, cobalt and other key ingredients from a handful of nations has sent prices hurtling higher. There are major concerns over China’s industry-wide dominance and moves in some other countries to restrict mineral exports in hopes of building their own manufacturing base. It’s a scenario that risks slowing the pace of EV adoption.
 - Miners and refiners were wary of big investments after a spending wave last decade swamped demand and triggered a years-long slump. Now, battery production is being ramped up so fast there have been shortages of specialist materials like copper foil, and more importantly metals needed for battery chemicals. While factories can be built in about 18 months, mines can typically take seven years or longer to come online. Then there’s pandemic-related disruptions, shipping snarls and trade restrictions. Thus, the current scarcity — and high prices.
- **Behind the Nickel Mess on the London Metal Exchange**
 - (The LME) decided to cancel \$3.9 billion in trades, effectively rewinding the market to the closing price on March 7 of \$48,078 per metric ton, down from a high of more than \$100,000. Matthew Chamberlain, the LME’s chief executive, said prices were “becoming disconnected” from “physical reality.” The move rescued brokers pushed to the brink by margin calls, while serving as a bailout for Tsingshan and its banks. It also wiped-out huge profits of investors who held bullish bets. It wasn’t the first time the LME had stepped in. Safeguards were introduced in the wake of the 1985 “Tin Crisis,”

when a cartel of producers collapsed, and after a copper trading scandal at Japanese trading house Sumitomo Corp. in 1996.

- [The World Is Scrambling For Lithium Supply](#)
 - The surge in gasoline prices has sparked an increase in electric vehicle demand.
 - As a crucial component in EV batteries, lithium prices have skyrocketed.
 - The world is racing to secure new sources of lithium, and Africa is getting a lot of attention.
- [Australia's Allkem flags lower lithium production on tight labour market](#)
 - Australian lithium miner Allkem Ltd said on Monday its annual production of spodumene, a source of lithium, would be lower than a prior guidance, but expected higher prices for its products on improved market conditions.
- [JM sells Battery Materials](#)
 - JM has exited from the batteries market by selling most of its Battery Materials business to EV Metals Group for £50 million and the Canadian part to Nano One Materials for C\$10.25 million.
 - EV Metals is taking the battery technology centres at Oxford and Billingham, UK, and Moosburg, Germany; a pilot plant and laboratories also at Billingham; a cathode active materials plant under construction in Konin, Poland; JM's eLNO technology; and associated patents, licences and other IP.

Regards –