



Weekly Precious Metals News Articles: July 24, 2020

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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. Enjoy-

Gold

- **Gold has surged due to the pandemic, and it could keep going. Here's what to know about investing now**
 - As global stock markets tick further into uncharted territory, another asset class has been catching investors' eyes: Gold. Gold prices inched higher earlier this month to trade over \$1,800 per ounce, crossing a major psychological milestone not reached since 2011.
<https://www.msn.com/en-us/money/markets/gold-has-surged-due-to-the-pandemic-and-it-could-keep-going-heres-what-to-know-about-investing-now/ar-BB16WYWi?ocid=uxbndbing>
- **Europe Has Been Preparing a Global Gold Standard Since the 1970s**
 - Research reveals that European central banks have prepared a new international gold standard. Since the 1970s, policies that paved the way for an equitable and durable monetary system have gradually been implemented.
<https://www.voimagold.com/insight/europe-has-been-preparing-a-global-gold-standard-since-the-1970s>
- **Turkey scrambles for gold, overtaking Russia as top buyer**
 - Russia's gold purchases for the January-May period plunged roughly 60% on the year to around 28 tons. The country's central bank said in late March that it would halt domestic gold purchases, starting April 1, without explaining why. "Looking from the outside, it's highly likely that the plunge in crude oil prices impacted Russia's stance on gold purchases," said Takahiro Morita of financial research firm Morita & Associates. If Russia is generating less from oil exports, the country has less money for gold.
 - Instead, Turkey's central bank has emerged the world's largest buyer of gold for reserves. It purchased about 148 tons in the January-May period, roughly triple the year-earlier figure.
<https://asia.nikkei.com/Business/Markets/Commodities/Turkey-scrambles-for-gold-overtaking-Russia-as-top-buyer>
- **Semiconductor Related Articles (impacting Precious Metals electronics):**
 - **TSMC raises capex to US\$17bn**
 - ON THE RIGHT TRACK: The world's largest contract chipmaker said it should have no problem filling up the vacuum left by Huawei Technologies, its second-largest client
 - Matt: \$17B USD in CAPEX spend is 5.5% of TSMC's \$306B Market Capitalization. Key consumer of precious metals products used in semiconductor.
<https://www.tweaktown.com/news/73854/tsmc-market-cap-hits-record-level-now-beating-nvidia-and-samsung/index.html>
 - **TSMC expects 3Q20 revenue to increase 9%, raises outlook**

- TSMC expects to post revenues of between US\$11.2 billion and US\$11.5 billion in the third quarter of 2020, which is a 9.3% sequential increase at the midpoint. Gross margin and operating margin for the third quarter are estimated at 50-52% and 39-41%, respectively. <https://www.digitimes.com/news/a20200716VL201.html>
 - **Reporter's notebook: Auto outlook; auto VC panel; SEMI board**
 - By 2030, though, ~50% of all vehicles will include some form of electrification. As we move from internal combustion engines to better electric vehicles, that really drives about a **2X to 3X increase in semiconductor content**. In the electric power train, for example, the semiconductor content increases by about 300 to 700 units.
 - Matt: Auto electrification will drive more electronics precious metals. <https://semiengineering.com/semicon-west-day-three/>
 - **Peering into Second Half of 2020**
 - Matt: A great article with good graphs and data about the macro-economic outlook as it relates to electronics. <https://blog.semi.org/business-markets/peering-into-the-second-half-of-2020>

Silver

- **Silver Price Daily Forecast – Silver Failed To Gain Momentum Above \$23.00**
 - (Thursday) Silver made another attempt to gain momentum above \$23.00 but faced resistance at \$23.25 and pulled back as the U.S. dollar started to rebound against a broad basket of currencies while gold gained some ground in continuation of current upside momentum. <https://finance.yahoo.com/news/silver-price-daily-forecast-silver-140948761.html>
- **Here's what's behind the 'perfect storm' sending silver prices surging**
 - Matt: It's all investment driven. Potential Solar PV uptick will not impact 2020. <https://www.marketwatch.com/story/heres-whats-behind-the-perfect-storm-sending-silver-prices-surging-2020-07-22>
- **Silver logs highest finish since 2014, up more than 80% from 2020's low**
 - Silver futures rallies by nearly 7% Tuesday
 - Ross Norman, chief executive officer of precious metals news and information provider Metals Daily, said now that silver has rallied, "this frees gold up to continue what has already been an impressive rally," and both metals are "better aligned."
 - "Silver has seen very strong inflows into both the [exchange-traded funds] and in the futures market on Comex, prompting a breakout on the charts," he told MarketWatch. Given that, Metals Daily has adjusted its second-half 2020 forecast on the metal to \$25, up from a previous forecast of \$23. <https://www.marketwatch.com/story/silver-trades-at-levels-not-seen-since-2014-and-is-up-more-than-80-from-2020s-low-2020-07-21>
- **Silver Rises Above \$20 an Ounce for First Time Since 2016** <https://www.bloomberg.com/news/articles/2020-07-20/silver-futures-surpass-20-oz-for-first-time-since-2016>
- **Gold gains, silver powers to 4-year peak Monday**
 - Gold and silver prices are higher in midday U.S. trading Monday, with silver hitting a nearly four-year high just of \$20.30. There has been a steady flow of safe-haven and chart-based buying in the two precious metals recently. August gold futures were last up \$7.10 an ounce at \$1,817.20. September Comex silver prices were last up \$0.421 at \$20.185 an ounce. https://www.kitco.com/news/2020-07-20/Gold-gains-silver-powers-to-4-year-peak-Monday.html?utm_campaign=Wish+for+the+best%2C+but+prepare+for+the+worst&utm_content=Kitco+News%3A+Daily+Recap&utm_medium=email&utm_source=kitco
- **High-performance large area (Silver) electrode system developed for artificial photosynthesis**

- This type of technology removes carbon dioxide from the environment, decreasing pollution, and converts it to obtain useful chemical substances. The electrochemical carbon dioxide conversion field, in particular, has recently been receiving much interest from the scientific community.
- Compared to other silver catalysts, the newly developed catalyst requires a low amount of energy to achieve a reaction and can produce over 100 times more carbon monoxide than liquid-based systems. The electrodes of the carbon dioxide reducing system were also successfully applied to large areas (50 cm²), showing great promise for commercialization.
<https://phys.org/news/2020-07-high-performance-large-area-electrode-artificial.html>

Precious Metals Mining:

- **With precious metals surging, Robert Friedland wants to unlock Platreef**
 - As precious metals jump higher, Robert Friedland's Ivanhoe Mines (TSX:IVN) is planning more work to advance its Platreef project. Located in South Africa's Bushveld Complex, Platreef has an indicated mineral resource showing an estimated 41.9 million oz of platinum, palladium, rhodium and gold with an additional 52.8 million oz of platinum, palladium, rhodium and gold in inferred resources.
<https://www.kitco.com/news/2020-07-23/With-precious-metals-surging-Robert-Friedland-wants-to-unlock-Platreef.html>
- **Top 10 US-based mid-tier and junior precious metals companies**
 - 1. Coeur Mining - Market cap: US\$1.44B, 2. Argonaut Gold \$418M, 3. Gold Resource - \$289 million, 4. Gold Reserve \$181M, 5. Gold X Mining \$104M, 6. Fiore Gold \$103M, 7. Vista Gold \$88M, 8. Golden Minerals \$60M, 9. Tristar Gold \$54M, 10. Paramount Gold Nevada \$38M
<https://www.northernminer.com/news/top-10-u-s-based-mid-tier-and-junior-precious-metals-companies/1003819414/>
- **Northam completes first phase of raise-bore drilling for third Zondereinde shaft**
 - The new shaft system will provide additional access from surface to the underground workings for hoisting of men, material, services and ore.
<https://www.miningweekly.com/article/northam-completes-first-phase-of-raise-bore-drilling-for-third-zondereinde-shaft-2020-07-21>
- **Russia's Nor Nickel to cooperate with Russian Platinum on Arctic deposit**
<https://www.nasdaq.com/articles/russias-nor-nickel-to-cooperate-with-russian-platinum-on-arctic-deposit-2020-07-16-0>
- **IAMGOLD, Sumitomo Metals building Ontario mine**
 - AMGOLD Corporation along with its joint-venture partner Sumitomo Metals Mining announced that they are moving forward with the construction plan for its Côté gold project in Northern Ontario. The gold producer said that they expect construction to start in the third quarter of 2020 and ramping up in the fourth-quarter of 2020.
<https://www.kitco.com/news/2020-07-21/IAMGOLD-Sumitomo-Metals-building-Ontario-mine.html>
- **Mine study begins on Marathon palladium deposit**
 - An study has started on an almost construction-ready Marathon Palladium and Copper Project, north of the town of Marathon near the north shore of Lake Superior
<https://www.northernontariobusiness.com/regional-news/northwestern-ontario/mine-study-begins-on-marathon-palladium-deposit-2569781>

E-Waste & Precious Metals Recycle Related:

- **Recovering Platinum Group Metals: Heraeus And BRAIN Successfully Complete Development Of An Environment-Friendly Process**

- BRAIN has established a technology platform for PGM recovery, in which optimized microorganisms bind PGM metals via specific chemical surface interactions and enable them to be separated from industrial process water at a high recovery rate - even at high PGM concentrations and extreme pH values.
<http://www.publicnow.com/view/F4A7CF90682A77FFE5E873019D49D1ECF1D15DDC?1595486854>
- **Global electronic waste up 21 percent in five years, and recycling isn't keeping up**
 - In 2019 alone, the world generated 53.6 million tonnes of e-waste, ~7.3 kilograms per person and equivalent in weight to 350 cruise ships. Asia 24.9, Americas 13.1, EU 12, Africa 2,9 and Oceania 0.7 million tonnes
<https://www.thejakartapost.com/life/2020/07/23/global-electronic-waste-up-21-in-five-years-and-recycling-isnt-keeping-up.html>
- **UNEP Calls for Metal Recycling Rethink**
 - UNEP has called for a rethink of recycling practices following the publication of two reports which found that rising global demand for metals could see needs rise by almost ten times current levels.
<https://waste-management-world.com/a/unep-calls-for-metal-recycling-rethink>
- **Report into Critical Material Recycling Opportunities**
 - Amid increasing demand and tightening supply, a new report has identified the rare earths, and other critical metals that show the most potential for recycling.
<https://waste-management-world.com/a/report-into-critical-material-recycling-opportunities>
- **Gold prices approach nine-year highs**
 - Gold is a key metal for e-scrap processors. There is about 10 ounces of gold per metric ton of circuit boards from phones.
<https://resource-recycling.com/e-scrap/2020/07/16/gold-prices-approach-nine-year-highs/>
- **Are we ready to recycle the “rare earths” behind an energy revolution?**
 - New mines are coming, but the potential for recycling is huge.
 - I prefer my earths medium rare.
<https://arstechnica.com/science/2020/07/are-we-ready-to-recycle-the-rare-earth-behind-an-energy-revolution/>

Platinum

- **Bargain In The Platinum Industry, The Worst-In-Breed In Precious Metals**
 - Bull markets in gold, silver, and palladium. Platinum continues to lag other precious metals. Unimpressive performance in IMPUY. Mine closures and lower output in primary platinum mines. Impala could be a hidden jewel at below \$10 per share.
<https://seekingalpha.com/article/4359318-bargain-in-platinum-industry-worst-in-breed-in-precious-metals>
- **WPIC: Platinum is part of a breakthrough that could lead to the development of artificial kidneys**
 - To simulate the filtration process, researchers applied a porous mesh made of platinum to create a ‘wafer’ that uses an electric field to force ions through membranes. The platinum mesh serves as an electrode when voltage is applied. The mesh electrode allows independent control of transport chambers within the device, which in turn enables researchers to select different ions and adjust transport rates independently, successfully mimicking the specific control of ion transport by the kidney.
https://platinuminvestment.com/about/60-seconds-in-platinum/2020/07/22?utm_source=newsletter&utm_medium=email&utm_campaign=60%20Seconds%20in%20Platinum%2022%20July%202020
- **Trade Release: DNV GL Approves Shell Carbon Capture Technology to Bring Down Emissions from Fortum Waste-to-Energy Plant**

- DNV GL has approved as qualified technology for a full-scale demonstration project to remove carbon emissions at a waste-to-energy plant in Oslo, Norway.
<https://www.shell.com/business-customers/catalysts-technologies/resources-library/trade-release-dnv-gl-approves-shell-carbon-capture-technology-to-bring-down-emissions-from-fortum-waste-to-energy-plant.html>
- **Fuel Cells/Hydrogen Economy Related Articles:**
 - **US Department of Energy Announces Approximately \$64M in Funding for 18 Projects to Advance H2@Scale**
 - Today, the U.S. Department of Energy (DOE) announced approximately \$64 million in Fiscal Year 2020 funding for 18 projects that will support the H2@Scale vision for affordable hydrogen production, storage, distribution, and use.
<https://www.energy.gov/articles/energy-department-announces-approximately-64m-funding-18-projects-advance-h2scale>
 - **Scientists solve a durability issue in fuel cells for hydrogen cars**
 - Materials Science and Engineering Researchers at POSTECH used a catalyst (Pt/HxWO3) that combines platinum and hydrogen tungsten bronze to solve the corrosion in fuel cells that occur when hydrogen cars are shut down. The has been shown to promote hydrogen oxidation and selectively suppress oxygen reduction reactions (ORR).
<https://phys.org/news/2020-07-scientists-durability-issue-fuel-cells.html>

Palladium

- **The rebound of car sales and heavy-duty vehicle sales in China bodes well for platinum group metals demand as the world's coronavirus lockdowns ease.**
 - Amazingly, the car sales in China in April 2020 were more than those of April 2019
 - In February, factory shutdowns in China reduced heavy-duty vehicle production by 51% year-on-year and led automotive market commentators to forecast double digit contractions for 2020. However, cumulative Chinese heavy-duty vehicle production from January to May 2020 was almost 8% higher than in 2019. So, both car production and truck production are up.
<https://www.polity.org.za/article/chinas-vehicle-sales-rebound-bodes-well-for-platinum-group-metals-demand-2020-07-19>

PGM Minor Metals (Rhodium, Iridium, Ruthenium)

- **Possible New Ruthenium Demand: Report: TSMC to enter risk production for 3nm chips in 2021**
 - Matt: TSMC is on fire, leading the advancement of advanced CPU's and AI technology. Pulling in 3nm lead demonstration builds to 2021 is a rapid acceleration of next generation fine pitch semi tech. Ruthenium barrier layers of solid Ru wiring in the Pole or base interconnect of the device is a real possibility that we will need to track. Of course, no formal announcements on new technologies.
<https://www.theburnin.com/industry/tsmc-3nm-risk-production-2021-2020-07-22/>

BEV / Li-Ion Battery Market News

- **Tesla Model 3 battery change for China will free up cells for China**
 - Tesla's Gigafactory Shanghai will make some Model 3 sedans with lithium iron phosphate (LFP) batteries starting later this year.
 - CEO Elon Musk confirmed the move, which had been reported by business press and insiders for months, during a Q2 financial update call Wednesday. And he clarified the motivation behind the move: to free up more energy-dense nickel-cobalt-aluminum cells Tesla otherwise uses for its Semi, as production ramps up for 2021 deliveries.

- Matt: As predicted, Ni is one of several LiB materials that will climb into structural deficit as BEV's ramp globally. Co, Li, V, and Graphite supply is also thought to be additional supply limiting pinch points for the BEV ramp over the next decade.
https://www.greencarreports.com/news/1128968_tesla-model-3-battery-change-for-china-will-free-up-cells-for-semi
- **Elon Musk to miners: bring me more nickel**
 - Electric vehicle visionary, Elon Musk, said he is asking mining companies to produce more nickel.
<https://www.kitco.com/news/2020-07-23/Elon-Musk-to-miners-bring-me-more-nickel.html>
- **U.S. and Japan Seeking to Break China's Grip on Rare Earths Production**
 - Japan is mining deep sea mud and the U.S. is developing biotech to extract REEs in an environmentally responsible way
<https://spectrum.ieee.org/tech-talk/semiconductors/materials/us-and-japan-seeking-to-break-chinas-grip-on-rare-earths>
- **Battery Breakthrough Gives Boost to Electric Flight and Long-Range Electric Cars**
 - Key to the design of these new soft, solid-electrolytes was the use of soft polymers of intrinsic microporosity, or PIMs, whose pores were filled with nanosized ceramic particles. Because the electrolyte remains a flexible, soft, solid material, battery manufacturers will be able to manufacture rolls of lithium foils with the electrolyte as a laminate between the anode and the battery separator. These lithium-electrode sub-assemblies, or LESAs, are attractive drop-in replacements for the conventional graphite anode, allowing battery manufacturers to use their existing assembly lines
<https://newscenter.lbl.gov/2020/07/20/battery-electric-planes-cars/>
- **Tesla secret project Palladium: new Model S and Model X are coming**
 - The new Palladium update is going to involve new battery modules and drive units that are going to serve as the basis of the upcoming "Plaid" version of Model S and Model X.
 - The new powertrain is going to enable a tri-motor configuration for plaid and feature increased performance and efficiency. We don't have the final numbers just yet, but it should be impressive.
<https://electrek.co/2020/07/21/tesla-secret-project-palladium-new-model-s-model-x/>

Regards –