



Weekly Precious Metals News Articles: April 2, 2021

Distribution: If you no longer wish to be on this mailing list, send me a note. If others want to be added to distribution, again let me know.

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

- **Gold slides almost 2% to near 3-week trough after U.S. yields jump**
 - Spot gold was down 1.7% at \$1,682.81 per ounce in afternoon trading. Earlier in the session, bullion fell about 2% to its lowest since March 8 at \$1,678.40. U.S. gold futures settled 1.7% down at \$1,686.
 - Benchmark U.S. 10-year Treasury yields rose to a 14-month peak on Tuesday morning before pulling back, bolstered by hopes of stronger growth and inflation ahead of U.S. President Joe Biden's multitrillion-dollar infrastructure plan.
<https://www.cnbc.com/2021/03/30/gold-markets-us-yields-dollar.html>
- **Legislation introduced to recognize gold, silver as U.S. currency**
 - Tuesday, U.S. Representative Alex Mooney (R-WV) introduced the Monetary Metals Tax Neutrality Act (H.R. 2284) bill in the House. According to the bill, the proposed legislation would remove capital gains, losses, or any other type of federal income calculation on gold and silver bars and coins. The legislation would effectively recognize gold and silver as forms of currency.
<https://www.kitco.com/news/2021-03-31/Legislation-introduced-to-recognize-gold-silver-as-U-S-currency.html>
- **50-year gold price vs stocks chart shows bullion fair value above \$2,500**
 - Gold has been flirting with a bear market this week with the price down nearly 20% from the intraday high of \$2,089 an ounce reached in August last year. Still, bullion remains up nicely from a year ago and on a longer time horizon has performed in a way that should satisfy most gold bugs. But in comparison to stock markets, gold doesn't quite look like the store of value or lucrative investment it is made out to be. Gold underperformance relative to the S&P 500 Index is striking and even at its record high was a bargain on an historical basis.
[https://markets.businessinsider.com/commodities/news/50-year-gold-price-vs-stocks-chart-shows-bullion-fair-value-above-\\$2-500-9970241](https://markets.businessinsider.com/commodities/news/50-year-gold-price-vs-stocks-chart-shows-bullion-fair-value-above-$2-500-9970241)
- **Gold suffers back-to-back declines on bond yield surge, dollar strength**
<https://www.marketwatch.com/story/gold-prices-tumble-2-as-10-year-treasury-surges-above-1-75-and-dollar-rises-11617109614>
- **Gold is in demand as price drops, with Asian shoppers buying more bars and jewellery**
 - In China, gold jewellery sales at big urban retailers more than doubled during the Lunar New Year holiday compared with last year

- Jewellers in India see the gold momentum lasting until the auspicious gold-buying day of Akshaya Tritiya, an annual spring time festival, in May
<https://www.scmp.com/lifestyle/fashion-beauty/article/3127078/gold-demand-price-drops-asian-shoppers-buying-more-bars>

Semiconductor Related Articles (impacting Precious Metals electronics):

- **Chip supply crunch to last two years, Macronix says**
 - Macronix International Co. yesterday said that the chip crunch could persist for two years, as the world's major suppliers have been cautious about expanding capacity while demand for NOR flash memory chips has been mounting, especially for vehicles.
 - Macronix, the world's biggest supplier of NOR flash memory chips, said its factories have been running at full capacity and are dealing with additional requests for chips.
 - "Our factories are all full... Our principle is to support our long-term clients. New customers have to try their luck," Macronix chairman Miin Wu told reporters. "What we need to do is make as many chips as we can."
<https://www.taipeitimes.com/News/biz/archives/2021/03/30/2003754713>
- **TSMC announces US\$100bn plan for R&D and expansion**
 - TSMC to invest US\$100 billion to expand capacity and fund research and development of advanced technologies in the next three years to keep up with rising demand, it said yesterday. "We are entering a period of higher growth as the multiyear megatrends of 5G and HPC [high-performance-computing] are expected to fuel strong demand for our semiconductor technologies in the next several years," TSMC said in a statement.
<https://www.taipeitimes.com/News/front/archives/2021/04/02/2003754941>
- **Intel Drops a Bomb, Not the Ball**
 - But in terms of turning manufacturing around in the US, it was really the courting of TSMC to build a plant in Arizona that may have started this ball rolling. That was arguably the tipping point when everyone realized the US government's awakening to the strategic importance of domestic semiconductor manufacturing. Considering the risks with manufacturing in Taiwan, TSMC may have been looking to get a toehold in a more secure location. This targets Intel's 2023 product roadmap, but the relationship with TSMC appears set to flourish.
<https://www.eetimes.com/intel-drops-a-bomb-not-the-ball/>
- **Renesas says normal production at fire-hit chip plant to take 100-120 days**
 - Renesas, which commands nearly a third of the global market share for microcontroller chips used in cars, said 23 machines were damaged in the fire and needed to be replaced or fixed, nearly double its initial estimate of 11.
 - Renesas' Chief Executive Officer Hidetoshi Shibata told a news conference that while production at the plant looked likely to resume within a month, recovery to pre-fire levels was expected to take around 100 to 120 days from the incident.
<https://www.reuters.com/article/us-japan-renesas-taiwan-idUSKBN2BM09M>

Silver

- **IHS Markit forecasts 181 GW of new PV capacity for this year**
 - In the white paper IHS Markit Top 10 Cleantech Trends in 2021, the analyst said this growth would represent a 27% year-on-year increase compared to 2020 and would materialize in a scenario that the analysts described as characterized by strong demand despite increased module prices, long lead times, and rising freight costs.
 - "Leading module manufacturers are sold out for the first half of the year," said Josefin Berg, research manager for clean energy technology at IHS Markit. "There is no indication of price weakness for July

shipments yet, manufacturing capacity remains sufficient and no major material bottlenecks have arisen to change our forecast for 181 GW in global solar PV installations.”

<https://www.pv-magazine.com/2021/03/29/ihs-markit-forecasts-181-gw-of-new-pv-capacity-for-this-year/>

- **Chinese PV Industry Brief: More module and glass capacity**
 - Risen Energy is planning to add 6 GW of module capacity to its factory in Jiangsu province and Flat Glass wants to add six production lines to its facility in Zhejiang. Meanwhile, JA Solar says it shipped 15.88 GW of solar products last year.
 - JA Solar 2020 results: Shipments 15.88 GW and Wafer & cell capacity stood at 18.4 GW for each. 2021 expecting 40 GW Wafer and 32 GW cell capacity.
<https://www.pv-magazine.com/2021/03/30/chinese-pv-industry-brief-more-module-and-glass-capacity/>
- **Re: Silver Ethylene Oxide Catalyst: Clariant, India Glycols tap into green renewables megatrend**
 - Clariant, a sustainable and innovative specialty chemical company, and India Glycols Limited, a leading company in the manufacturing of green technology-based chemicals, has announced a strategic partnership to establish a 51-49% joint venture in renewable ethylene oxide derivatives.
<https://www.printweek.in/News/clariant-india-glycols-tap-into-green-renewables-megatrend-54347>

Precious Metals Mining:

- **Why Pressure to Replace Mined Reserves May Be A Big Driver For M&A Of Gold Mining Operations In 2021**
 - In a recent report, BOA analyst Michael Jalonen said his team believes the pressure to replace reserves that have been mined will be one of the big drivers for mergers and acquisitions this year. They noted that gold reserves have been falling since 2012, while gold output has remained stable. Further, their coverage universe must replace 50 million ounces of reserves mined each year. He added that the team expects more interest in targets in the U.S., Canada, Australia and other parts of the world that are politically safe.
<https://www.marketwatch.com/press-release/why-pressure-to-replace-mined-reserves-may-be-a-big-driver-for-ma-of-gold-mining-operations-in-2021-2021-03-30>
- **Platinum mining rises in importance once more due to hydrogen fuel tech**
 - As H₂-powered vehicles become a popular part of decarbonization plans, the metal's prices soar.
https://www.hydrogenfuelnews.com/platinum-mining/8543965/?mc_cid=6322f420f7&mc_eid=70c1246d58
- **(AMPLATS) Green hydrogen to be produced from solar power at platinum mine**
 - Although PGM mining and marketing company Anglo American Platinum will be starting with a 75 MW solar photovoltaic powered plant at its Mogalakwena mine, planned is an eventual 320 MW of solar power generation, the excess from which will be used to produce green hydrogen.
 - “That’s certainly work on the go,” said Viljoen of the hydrogen that will be used to power the 300 t PGM-catalysed hydrogen fuel cell truck that is under development. The company hopes to see it on the ground by the end of the year.
 - AMPLATS stated that the proof-of-concept trial on the first hydrogen fuel cell truck is planned for the second half of this year, and that it will be followed by the rollout of about 40 trucks, to replace diesel consumption entirely at Mogalakwena.
 - <https://m.miningweekly.com/article/one-ton-a-day-of-hydrogen-envisaged-from-320-mw-at-platinum-mine-2021-02-22>

E-Waste & Precious Metals Recycle Related:

- **Automotive Manufacturers Need To Make Converter Theft More Difficult**
 - Automotive manufacturers have a responsibility to create vehicles that meet safety, emission, performance, and durability standards. But what about protection from catalytic converter theft? In this blog we address what automotive manufacturing companies should do to make stealing

converters more difficult and make their customers happier knowing they will not have to be a victim of this crime.

<https://pgmrecovery.com/automotive-manufacturers-need-to-make-converter-theft-more-difficult/>

- **Auto recycling – processes, scrappage scheme and challenges in Finland**
 - He said in the past and in previous scrappage schemes, the average age of a vehicle being brought in was over 20 years, the average age of a vehicles on road in Finland is 12.4 years, and thanks to the campaign younger vehicles are being brought in which provide better quality parts. He said that the reason for such elderly cars on the road comes down to high Finnish taxation.
<https://autorecyclingworld.com/auto-recycling-processes-scrappage-scheme-and-challenges-in-finland/>
- **URG – Competing in an ever-changing market**
 - Don Porter, CEO at United Recyclers Group, LLC (URG), based in Texas, US, tells Auto Recycling World about the products their association offers and what benefits their tools can have for automotive recycling businesses.
<https://autorecyclingworld.com/urg-competing-in-an-ever-changing-market/>
- **Know the Value of Your Catalytic Converters – Different Types & Platinum Group Metals Loading**
 - Finding out and learning about the different types of catalytic converters out there and their value in terms of PGM (Platinum Group Metals) loading can be daunting. So, to make things much easier for you, we have gathered all the relevant information into this article for you.
<https://www.brmetalsltd.com/blog/2021/03/31/know-the-value-of-your-catalytic-converters-different-types-platinum-group-metals-pgm-loading/>
- **University of Birmingham builds UK's first recycling plant for high-performance rare earth magnets**
 - The project is part of a £28.5 million investment from the Driving the Electric Revolution Challenge at UK Research and Innovation (UKRI) to support the creation of a competitive electrification supply chain in the UK. UKRI has awarded the University of Birmingham £4.3 million to establish the plant, which will be located at Tyseley Energy Park (TEP), a research and development facility dedicated to delivering clean energy innovation.
<https://www.birmingham.ac.uk/news/latest/2021/03/first-recycling-plant-for-rare-earth-magnets.aspx>

Platinum

- **WPIC: Platinum Perspectives - In 2021, 400 koz more platinum could replace palladium in addition to the 150 koz of expected 'substitution'**
 - We believe levels of platinum replacing palladium in China could rise quicker than elsewhere as the automakers in China, state-owned JVs, do not have a forward book to soften price impacts as is the case in Europe and North America. The cost of palladium in autocatalysts in China alone has risen from \$2.1 billion in 2018 to \$5.7 billion in 2020.
https://platinuminvestment.com/files/432755/WPIC_Platinum_Perspectives_March_2021.pdf
- **Platinum ETFs Will Benefit from Advances in Hydrogen Fuel Cell Tech**
 - “We feel quite excited about the potential of the hydrogen economy,” Natascha Viljoen, chief executive of Anglo American Platinum Ltd., the world’s No. 1 platinum refiner by volume, told the WSJ. “We do see quite significant support from government and private sector.”
<https://www.nasdaq.com/articles/platinum-etfs-will-benefit-from-advances-in-hydrogen-fuel-cell-tech-2021-03-26>
- **Pandemic Provides Catalyst for Higher Platinum Prices**
 - We believe that this Platinum pricing support will continue in the months ahead. Here, we examine how the platinum market was affected by COVID-19 and what we expect in the coming months.
<https://sprott.com/insights/pandemic-provides-catalyst-for-higher-platinum-prices/#>
- **WPIC: Platinum “Moment”um - What is behind the recent recovery in platinum jewellery demand**

- While it is a mere coincidence that New York jeweller Le Vian has chosen platinum as ‘metal of the year for 2021’ in its annual trend analysis, the latest platinum demand forecasts* also highlight platinum’s potential, indicating that annual global platinum jewellery demand will bounce back in 2021, reaching just over two million ounces, a 13 per cent year on year growth, with improved trading across all major markets.

https://platinuminvestment.com/files/sixtysecs/WPIC_60seconds_Platinummomentum_03_31_2021.pdf

Fuel Cells/Hydrogen Economy Related Articles:

- **Italy launches ‘hydrogen valley’ to strengthen supply chain**
 - Italian research agency ENEA is planning to build a €14 million ‘hydrogen valley’ in the province of Rome. pv magazine has spoken with its director of the department of energy technologies and renewable sources, Giorgio Graditi, and has found out that the project will also include the production of hydrogen from photovoltaics.

<https://www.pv-magazine.com/2021/03/18/italy-launches-hydrogen-valley-to-strengthen-supply-chain/>
- **Major (1 GW Blue) hydrogen plant (with 98% carbon capture) announced by BP**
 - BP has announced plans to build the UK’s largest ‘blue hydrogen’ plant at its Teesside site.
 - The new facility would target production of 1GW of hydrogen production by 2030 and would capture and store two million tonnes of CO₂ a year – the equivalent carbon emissions of one million homes. Blue hydrogen is produced by converting natural gas into hydrogen and CO₂, which is then captured and permanently stored.

<https://www.constructionnews.co.uk/sustainability/major-hydrogen-plant-announced-by-bp-19-03-2021/>
- **Now is time to get going on hydrogen economy opportunity – PIC**
 - South Africa has got a massive opportunity to participate in the hydrogen economy and it would be a national travesty if the country failed to do so, says Public Investment Corporation (PIC) sector specialist mining, beneficiation and energy Heidi Sternberg.

<https://www.miningweekly.com/article/now-is-time-to-get-going-on-hydrogen-economy-opportunity-pic-2021-03-29>
- **The development of China's hydrogen energy industry**
 - The development of China's hydrogen energy industry by Ye He | Mar 31, 2021

<https://www.linkedin.com/pulse/development-chinas-hydrogen-energy-industry-ye-he>
- **The Hydrogen Stream: Siemens targets \$1.50/kg by 2025, BP and Saudi Aramco bet on blue hydrogen**
 - Siemens to roll out its in-house PEM electrolysis technology to implement a gigawatt production of electrolyzers (~13 koz Iridium). BP partners with UK gas distributor Northern Gas Networks (NGN) to develop blue hydrogen and Saudi Aramco teams up with Hyundai Heavy Industries to do the same. Italy’s Snam wants to build hydrogen projects in the United Arab Emirates.

<https://www.pv-magazine.com/2021/03/26/the-hydrogen-stream-siemens-targets-1-50-kg-by-2025-bp-and-saudi-aramco-bet-on-blue-hydrogen/>
- **Hyzon Motors to build US’ biggest fuel cell material production unit**
 - Picks Chicago Area as location for High-Volume Fuel Cell Membrane Electrode Assembly Production Line. The Hyzon Innovation Center is expected to produce enough MEAs to cover the production needs for up to 12,000 hydrogen fuel cell powered trucks every year.

<https://automotiveleadnews.com/2021/03/04/hyzon-motors-to-build-us-biggest-fuel-cell-material-production-unit/>
- **Toyota to build fuel cell systems in Beijing with local partner SinoHytec Co**

- The automaker and local fuel cell system developer SinoHytec Co. will establish a 50-50 joint venture later this year
<https://www.autonews.com/china/toyota-build-fuel-cell-systems-beijing-local-partner>

Palladium

- **China car sales forecast at 26.3 million units in 2021**
 - There will be 26.3 million cars sold in China in 2021, growing 3.8% on year, according to China Association of Automobile Manufacturers (CAAM).
<https://www.digitimes.com/news/a20210324PD202.html>
- **Stimulus checks help drive up car sales**
 - Another 37 million Americans received their \$1400 stimulus payments from the IRS this week, with a total of 127 million payments now distributed from the latest COVID relief package.
 - The extra cash is already bringing a boost in business to several industries, including car sales.
<https://www.keloland.com/news/your-money-matters/stimulus-checks-help-drive-up-car-sales/>

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

- **Ruthenium, iridium set to be price "winners" as supply elasticity tempers platinum, palladium - Miningmx**
 - The minor platinum group metals (PGMs) ruthenium and iridium, would be the “winners” in terms of average price performance in 2022 whilst the average prices for platinum and palladium would be tempered by new supply, according to research house, SFA Oxford.
 - Commenting at the Joburg Indaba PGM Industry Day, an online conference, SFA Oxford executive chairman, Stephen Forrest, said South African PGM supply would be elastic; that is, it would respond to higher average prices, especially with a lot of mothballed capacity that could be switched on.
<https://www.miningmx.com/top-story/45700-ruthenium-iridium-set-to-be-price-winners-as-supply-elasticity-tempers-platinum-palladium/>
- **Iridium, the rare commodity outperforming Bitcoin year-to-date**
 - “Iridium has the longest processing time of all the PGMs, so supply is set to be impacted (by the Amplats closure) well into 2021, providing support for sustained high prices,”
<https://www.valuethemarkets.com/2021/03/30/iridium-rare-commodity-outperforms-bitcoin-price/>

BEV / LiB Battery Market News

- **Gigascrap: The Path To Matching Li-ion Production & Recycling Capacity In Europe**
 - The European Union/European Economic Area (EU) proposed battery regulation seeks to create a closed-loop, cradle to cradle battery production ecosystem with mandatory, traceable recycling and recycled content in lithium-ion batteries.
 - Production scrap from new EU factories will necessitate a rapid ramp-up in recycling capacity. A mix of incumbent recyclers and startups will deploy newly developed technology native to lithium-ion through acquisitions, licensing, and public financing.
 - Second-life, early scrap age, total loss accidents, and “vestigial hybrids” will shift the majority of recycling feedstock away from OEM repair shops and towards “orphan” or “stranded” batteries. Point of collection diagnostic and processing which reduce hazardous shipping will provide solutions to expensive and complex logistics arising from an increasing number of collection points.
<https://medium.com/batterybits/gigascrap-the-path-to-matching-li-ion-production-recycling-capacity-in-europe-c9d26dc28e07>
- **Legislators in 11 states push for more fees on electric, hybrid vehicles**
 - Steps are being taken at statehouses around the country to supplement transportation funding via electric and hybrid vehicles. Popularity for such vehicles is expected to grow in the coming decades.

As a result, state officials are taking steps to make sure they will be able to capture needed transportation revenue from owners of fuel-efficient vehicles.

- About 30 states impose a special registration fee for plug-in electric and/or plug-in hybrid vehicles. Fees range from about \$50 annually for plug-in hybrid vehicles in Iowa to \$225 yearly for plug-in electric vehicles in Washington.
<https://landline.media/legislators-in-11-states-push-for-more-fees-on-electric-hybrid-vehicles/>
- **Warren Buffett-backed electric automaker hit by rising battery costs, analysts trim price targets**
 - BYD announced late Monday that net profits attributable to shareholders in the first quarter will be between 200 million yuan (\$30.4 million) and 300 million yuan.
 - The lower-than-expected first quarter guidance only accounts for 3% to 5% of what analysts are expecting for the full year, Credit Suisse analysts said in a note Tuesday.
 - They attributed the decline in profit guidance to seasonal weakness in car sales, lower government subsidies and rising prices for battery raw materials.
<https://www.cnbc.com/2021/03/31/warren-buffett-backed-electric-automaker-hit-by-rising-battery-costs.html>
- **Biden proposes \$174 billion investment in electric vehicles – Electrek**
 - It will establish grant and incentive programs for state and local governments and the private sector to build a national network of 500,000 EV chargers by 2030, while promoting strong labor, training, and installation standards. His plan also will replace 50,000 diesel transit vehicles and electrify at least 20 percent of our yellow school bus fleet through a new Clean Buses for Kids Program at the Environmental Protection Agency, with support from the Department of Energy.
<https://electrek.co/2021/03/31/biden-proposes-174-billion-investment-electric-vehicles/>
- **Tesla delivers 184,800 cars in Q1 on strong reception in China**
 - Tesla Inc. delivered 184,800 cars worldwide in the first quarter of 2021, up from 180,570 in the fourth quarter, the maker of electric vehicles said in a statement Friday.
 - “We are encouraged by the strong reception of the Model Y in China and are quickly progressing to full production capacity,” the company said. The new Model S and Model X have also been “exceptionally well received,” it said, adding that it’s in the early stages of ramping production.
<https://www.mercurynews.com/2021/04/02/tesla-delivers-184800-cars-in-1q-on-strong-reception-in-china>
- **Chinese EV sales to soar 15-fold by 2035, WoodMac**
 - “The country’s evenly split target for NEVs and HEVs is a strong endorsement of the hybrid-electric technology as a pragmatic enabler for vehicle efficiency gains and emissions control. An HEV could be less carbon-intensive on a well-to-wheel basis than a battery electric vehicle (BEV) that runs on coal-generated electricity.”
<https://thedriven.io/2021/03/25/chinese-ev-sales-to-soar-15-fold-by-2035-woodmac/>
- **Rare Earth Metals Production is No Longer Monopolized by China**
<https://elements.visualcapitalist.com/rare-earth-metals-production-not-monopolized-china/>



RARE EARTH METALS

PRODUCTION IS DIVERSIFYING AGAIN

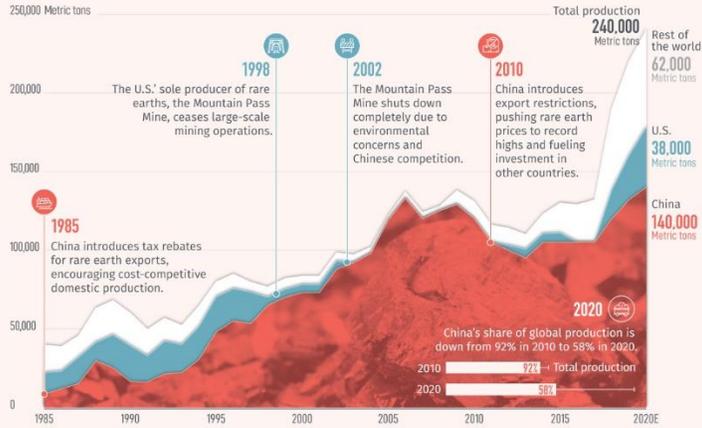


China has been the world's primary source of rare earth elements since the late 1990s. However, other countries have recently ramped up their production in a bid to reduce reliance on China.

WHAT ARE RARE EARTH ELEMENTS?

A group of 17 minerals that power several modern technologies. In fact, it's likely the screen you're viewing this on contains a few of them.

MINE PRODUCTION OF RARE EARTH OXIDES (1985-2020)



Source: USGS Mineral Commodity Summaries, Bureau of Mines Minerals Yearbook (1932-1993)



Regards –