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## The next uranium?

Evan Lorenz writes:

"The transition to electric vehicles will take longer than we assumed five years ago," Porsche A.G. admitted on July 22 after reporting a 51% collapse in first-half sales of the \$100,000-and-up electric Porsche Taycan sedan. Nor, the front office added, would the luxury-car maker achieve its goal of fielding a product lineup by 2030 in which four out of every five vehicles sold are emission-free. Automakers, ranging from Ford Motor Co. to Aston Martin, find themselves in much the same predicament.

Not that a lengthy stay of execution for the internal-combustion engine is nobody's idea of good news. Long-suffering bulls on the platinum-group metals are strong candidates to spot the silver lining. In preview, *Grant's* is bullish on platinum and on Anglo American Platinum Ltd., the world's No. 1 platinum miner (AMS on the Johannesburg exchange; ANGPY is the ticker for the American depository receipt. Management says it's planning a London listing next year.)

The platinum group comprises six elements in the periodic table that share such attributes as a high melting point, mechanical strength and stable electrical properties. The half-dozen—ruthenium, rhodium, palladium, osmium, iridium and platinum—are concentrated in geographies that rarely figure in Western vacation itineraries these days. Last year, Russia, South Africa and Zimbabwe accounted for 90% of all platinum mined and 85% of all palladium mined.

It's the catalytic properties that commend PGMs for use in car exhausts; to catalyze means to accelerate chemical reactions while not destroying the catalyzer. Four of the PGMs can be found in systems that convert harmful substances into wholesome (or, as the case may be, less harmful) ones: unburnt hydrocarbons, carbon monoxide and nitrogen oxides into water, carbon dioxide and nitrogen. Thanks to such converters, a new car today produces less than a hundredth of the noxious fumes that a brand-new vehicle in 1960 belched.

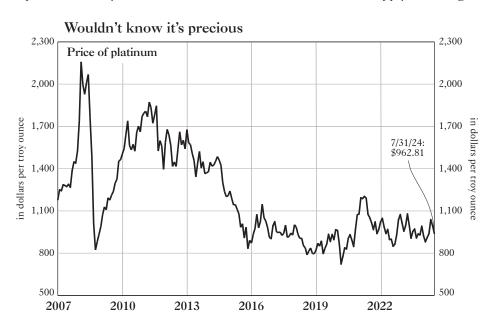
Investors worry that as EV sales grow, demand for PGMs will fall, while the supply of the metals from recycled catalytic converters will increase—in short, a vision of secular decline in PGM mining along with permanently depressed metals prices.

However, not all EVs are created equal. Yes, battery electric vehicles use

no PGMs, but hybrid and plug-in hybrid EVs do. Both types of hybrids mount smaller engines than legacy gasoline-powered cars, but because those engines run cooler and more intermittently than the legacy kind, automakers can't skimp on the PGMs; similar amounts of platinum, palladium and rhodium are required to achieve the same reduction in emissions in plug-in hybrid emission cars as in old-style gas guzzlers.

According to Anglo American Platinum, battery EV sales will chip in 13% of worldwide fleet sales in 2024, up from 12% last year but below expectations at the start of the year for a 14%—16% share. Plug-in hybrids will contribute 6% of 2024 global sales, more than double their share in 2022.

Covid-related supply shortages,



source: The Bloomberg

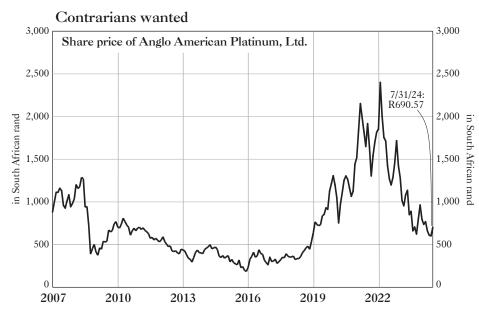
supply-chain snafus and Russia's invasion of Ukraine combined initially to send palladium and rhodium prices to the moon. The metals have long since fallen back down to Earth, with palladium trading at \$893 per ounce today from a peak of \$3,172 in early 2022 and rhodium at \$4,650, down from \$29,800 in early 2021.

Platinum, which is more commonly found in diesel engines than in gasoline-powered ones, is quoted at less than half the peak carved out in 2008. The regulators' discovery in 2015 that Volkswagen A.G. had been programming its diesel engines to turn on emission-control systems during laboratory tests—and to turn them off on the highway—did nothing to attract and hold environmentally conscious consumers, and the proportion of lightvehicles sales in the European Union powered by diesel engines plunged to 13.6% in 2023 from 53% in 2014.

While metals prices are low, production costs remain high. The pandemiccum-lockdown pushed up worldwide mining inflation to 25% a year, Henk de Hoop, the CEO of mineral consulting firm SFA Oxford, tells me. "Do that for three to four years in a row, and your costs double," he said. "That is what has happened." Combining low metal prices and inflated costs, the World Platinum Investment Council (WPIC) estimates that one-quarter of all PGM mines operate in the red. "My sense is that over the next 6 to 12 months, given the cash burn that is happening, miners probably will have to start taking production out of the system," de Hoop says.

The supply of recycled metal is likewise a threat to PGM prices, especially to palladium and rhodium, though not an immediate one. Used vehicles are condemned to the scrapyard at around the 15-year mark. During the 2008-09 Global Financial Crisis and its aftermath, auto sales collapsed, limiting near-term supply. As newcar prices have inflated over the past four years while financing costs have lurched higher, consumers are driving used cars longer, which is also lowering scrap rates. On top of this, the high price of palladium and rhodium in 2021-22 pulled forward some catalytic-converter recycling, while early scrapping incentives for diesel engines in Europe did the same last decade.

Putting this all together, the WPIC forecasts that palladium will be in a



source: The Bloomberg

deficit of 1.3 million ounces this year versus demand for 10 million ounces but will flip to being in a surplus in 2026 and remain so thereafter. Platinum, in bullish contrast, will be in a deficit of 476,000 ounces this year versus estimated demand for 7.6 million ounces and will remain in a deficit of over 500,000 ounces per year at least through 2028; the platinum-advocacy group ventures no forecast beyond that year.

With the world consuming more PGMs than it produces, users are drawing down inventory. "For most commodities, six months of demand in above-ground stocks is normally when you begin to see some level of tightness emerge in the market," Edward Sterck, the director of research at the WPIC, tells me. "That's when you begin to see the friction with residual holders of those above-ground stocks having incrementally higher value expectations in order to put material into the market. We expect to hit that point in platinum in the second half of this year."

Longer term, platinum also benefits from the variety of end uses it serves. While catalytic converters accounted for 83% of demand for palladium and 90% of rhodium last year, they made up only 40% of platinum consumption; other industrial applications provided 33%, jewelry 23% and investment demand 4%.

Then, too, new uses for platinum may present themselves, including that for green hydrogen. With the caveats that hydrogen is currently growing from a "small base" and that the hydrogen story "has been around for years," Sterck says that he's "seen quite a sea change over the past two years. Subsidies available around the world have gone from around \$50 billion to over \$300 billion today. Those dollars are being deployed. We're seeing money being spent in Europe on hydrogen auctions. The Inflation Reduction Act is deploying capital in the U.S." While the WPIC does not include China in its subsidies tally, the People's Republic is developing hydrogen capacity as well.

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A platinum bull, if so inclined, could buy the physical metal, speculate in platinum futures or invest in PGM miners. The miners boast operating leverage to upside (and downside, too, of course) movements in prices.

Let's not forget the downside. "If there is a recession, it is going to be devastating for PGMs," Marcelo López, a senior portfolio manager at L2 Capital Partners, observes. "If you look at PGM prices, you're going to see that they crash during a recession. Obviously, they are linked to car sales, so this is expected. But then they recover very strongly after the recession."

Looking for a miner with a good balance sheet and with platinum-focused production narrows our search to Anglo American Platinum Ltd. (Amplats to its friends), the publicly traded South African PGM producer that is 78.6% owned by mining conglomerate Anglo

American plc. Declares López of its place among PGM miners: "Amplats is like the cream of the cream."

Anglo American was founded in 1917 in Johannesburg by Ernest Oppenheimer with funds raised in both the United States and the U.K. (hence the allusion to dual corporate citizenship of the now-London-based enterprise). From gold and diamonds, Anglo American diversified into copper (in 1926), platinum (1928), coal (1945) and uranium (1953).

Following an unsolicited bid from BHP Group Ltd. earlier this year, Anglo American is downsizing to pursue its core operations in copper, iron ore and crop nutrients. The diamond division, De Beers, is on the auction block, while a 78.6% stake in American Anglo Platinum will be spun off to shareholders by the end of 2025. As a part of the demerger, Amplats says it plans to list a London share class in addition to the South African line.

Amplats is the biggest producer of PGMs, accounting for 19% of platinum and 13% of all palladium mined globally last year. In the 12 months ended June 30, Amplats produced 2.2 million ounces of PGMs, including 1.1 million ounces of platinum and 831,600 ounces of palladium, as well as 72,100 ounces of gold from five mines in South Africa and one in Zimbabwe. While extracting those precious metals, Amplats also turned out 21,021 metric tonnes of nickel, 14,142 tonnes of copper and 977 tonnes of chrome. At year-end 2023, Amplats reported 149.8 million ounces in PGM reserves, which would give the company 66.8 years of production at its current pace.

In dollar terms, the price of a basket of the PGMs that Amplats mines fell 24% in the first half of 2024, over the corresponding period a year ago, to an average of \$1,442 per ounce—and that's after having slumped by 35% in full-year 2023. To protect margins, the company unveiled a cost-cutting program last year that featured a reduction in headcount by 3,700, or 12% of the 2023 total, and a status review of the 620 contractors that Amplats retains. Through June 30, 75% of the pink slips had been mailed and 60% of the con-

Anglo American Platinum, Ltd. at a glance all figures in mns of South African rand except per share data

	$\underline{\mathbf{TTM}}^*$	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>
revenue	112,109	124,583	164,090	214,568	107,771
Ebitda	23,312	24,434	73,913	108,438	41,583
net income	9,099	13,040	49,153	78,978	30,342
earnings per share	49.47	49.47	186.49	297.70	115.19
shares outstanding	264	263	264	265	263
cash	26,892	24,353	29,593	51,483	19,991
debt	11,742	7,631	458	612	843
total assets	179,013	169,215	176,914	180,149	144,377

<sup>\*12</sup> months ended June 30, 2024.

source: company reports

tractor review had been completed, which has resulted in price renegotiations and some terminations.

Thanks to these actions, Amplats's all-in sustaining costs dropped to \$957 per ounce of PGMs in the first six months of the year, a 19% decline from the year earlier. The net of it was that, despite a 19% year-over-year slump in revenues in the first half, Ebitda slipped by just 8%. On the July 22 earnings call, CEO Craig Miller said that the search is on for "additional cost savings."

And there are signs that the physical market for platinum metals may be tightening. "We're seeing more frequent spot purchases from our automotive colleagues, as their production requirements surprise them to the upside," Hilton Ingram, head of marketing at Amplats, said on last week's call, adding that "inventories, particularly in the West, aren't as high as what people were anticipating."

Commenting on Amplats's future as an independent company, said Miller,

we will continue to be a leading PGM producer with a world-class portfolio of mining and processing assets and global marketing capability. Starting with our mining assets, we have the largest PGM mineral resource with an outstanding development potential and diverse PGM metal mix. This has enabled us to remain highly competitive. We have a leading PGM processing capability to leverage our position as a market

leader, [and] significant value-chain synergies have been realized over the year.

As of June 30, Amplats reported a cash balance, net of debt and lease liabilities, of \$791 million. Even excluding a customer's \$693 million early-bird remittance, the corporate balance sheet is in a net cash position.

On depressed PGM prices, too, Amplats is cheap. It trades at 12.3 times estimated 2024 earnings, six times enterprise value to 2024 consensus Ebitda and offers a 2.8% dividend yield. If earnings returned to 2021 levels, the current EV-to-Ebitda multiple would tumble to 1.5 times.

With 5 of the 11 analysts covering Amplats saying sell and only two saying buy, the Street is bearish. Not even management is bullish, to judge from the insiders' sale of 9,543 shares over the past 12 months for proceeds of \$397,174.

The set-up in platinum-group metals "is pretty much the same case as uranium five years ago," López, whose prescient view on uranium six years ago informed our bullish analysis of that radioactive element (see the issue of *Grant's* dated June 1, 2018). "We look at demand, and demand is actually increasing compared to what people expected," says López. "Production is decreasing because the prices are really wrong. There is no substitute for PGMs."

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