

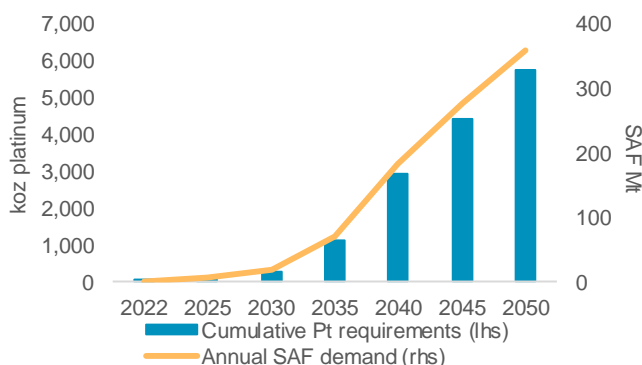
Shanghai Platinum Week 2023: Key platinum demand takeaways and points of note

WPIC co-hosted the third annual Shanghai Platinum Week (SPW) in the last week of June. This report highlights details of the conference as well as three key takeaways from the presentations that may influence future demand for platinum.

SPW statistics: The main event occurred over two and a half days during which there were 39 presentations and panel discussions covering topics ranging from green transportation, through PGM catalysts to global economics. A 'fly-through' of the event and WPIC's presentation on 'The importance of China to the investment case for platinum' can be viewed [here](#). The conference was attended by more than 650 delegates from over 400 organisations, with around 90 thousand online viewers. Future SPW's are scheduled for the second week of July (8-12 July 2024). Alongside the conference were displays of platinum products ranging from bars and coins, through jewellery to fuel cells and medicines containing platinum. There were too many topics for us to cover them all. However, three topics; sustainable aviation fuel (SAF), automotive production forecasts for China, and projected fuel cell loadings stood out as having a bearing on future demand.

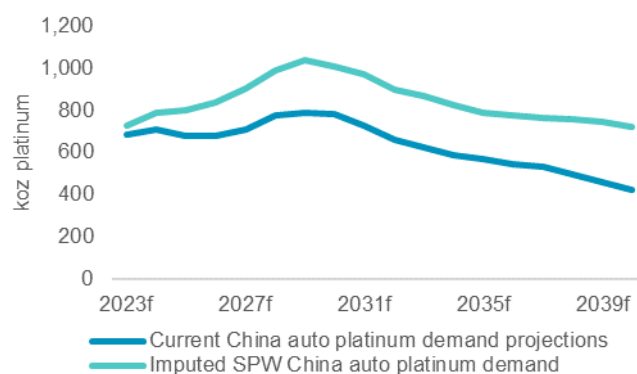
Although SAF production today is relatively limited, IATA estimates that it must reach 360 Mtpa by 2050 in order for the industry to achieve net zero. Using data presented by the Dalian Institute of Chemical Physics, we estimate that this will require almost 6 Moz of platinum in catalysts. **The timing of SAF additions would see annual platinum demand between 172 koz to 358 koz during the 2030's (fig. 2 overleaf).**

SAF projections require almost 6 Moz of platinum



Source: WPIC Research, IATA, Dalian Institute of Chemical Physics

China's auto demand could be much higher than forecast



Source: WPIC Research, Tongji University

Turning to the **automotive industry**, the presenter from Tongji University presented forecasts for China's auto production to increase from ~30 million units today to 45 million by 2030 and 45-60 million by 2040. Whilst this is only likely if some market share is captured from other producers, it is still way in excess of our forecasts for China's production to peak at 35 million vehicles. Adjusting our estimates for China's automotive demand for platinum to use the higher projections, would result in platinum demand being 200-300 koz p.a. higher than our base case estimates.

The International Hydrogen Fuel Cell Association (IHFCFA) presented some detailed projections for **fuel cell loadings**. They expect platinum loadings of 0.125 g/kW in light duty fuel cell vehicles by 2030, which is above our estimate of 0.11g/kW. In contrast, heavy duty vehicle fuel cell loadings of 0.25g/kW are significantly less than our projection of 0.41g/kW, showing the industry is reaching technological maturity. On a net basis, using the IHFCFA estimates, FCEV demand for platinum in 2030 would be about 190 koz lower than on our base case projections.

SPW statistics:

- **39 presentations**
- **650 delegates**
- **400 organisations**
- **90 thousand online viewers**

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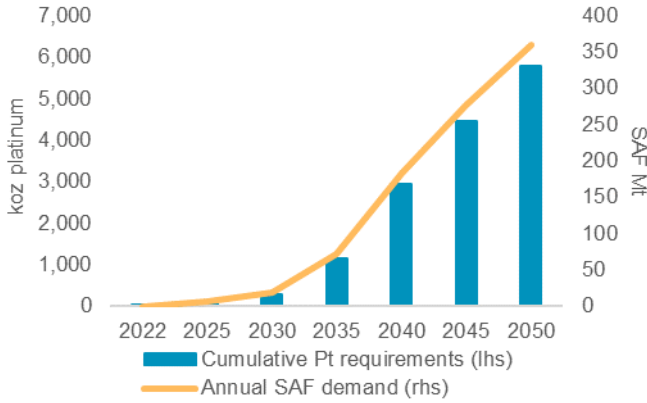
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Platinum's attraction as an investment asset arises from:

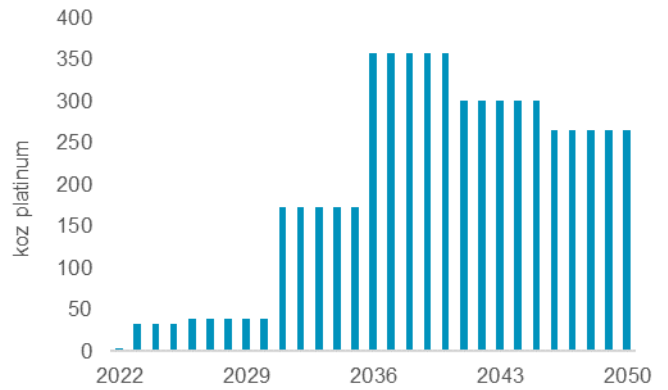
- WPIC research indicates platinum market entering a period of consecutive deficits from 2023.
- Platinum can be considered a proxy of investing in the growing hydrogen economy given its use in PEM and fuel cell technologies.
- Platinum supply remains challenged, hampered by electricity shortages in South Africa and sanctions against Russia
- Automotive platinum demand growth should continue due principally to substitution in gasoline vehicles.
- The platinum price remains historically undervalued and significantly below both gold and palladium.

Figure 1: SAF requirements are expected to reach 360 Mtpa by 2050, producing which will require almost 6 Moz of platinum in catalysts



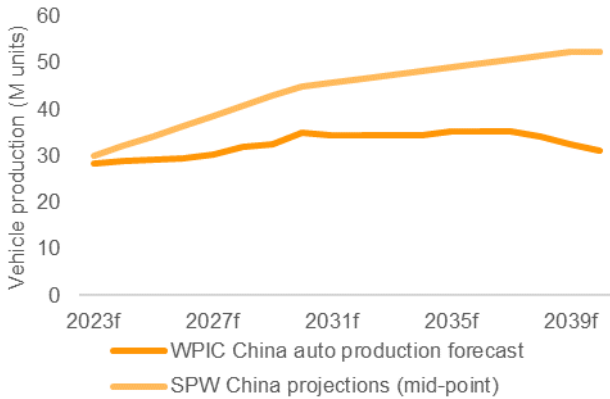
Source: WPIC Research, IATA, Dalian Institute of Chemical Physics

Figure 2: SAF capacity additions would see annual platinum demand peaking at 358 koz in the late 2030's



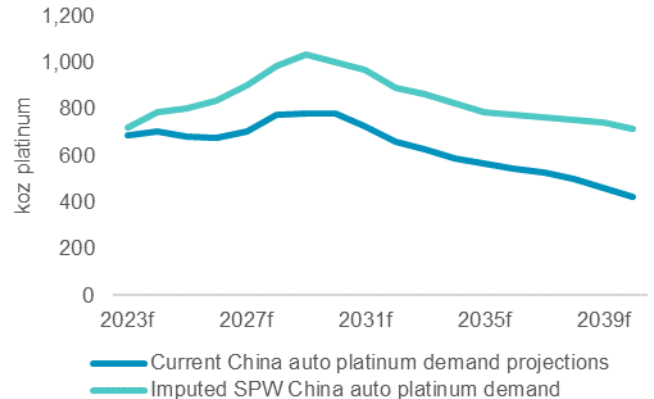
Source: WPIC Research, IATA, Dalian Institute of Chemical Physics

Figure 3: Tongji University project China's automotive production to reach 45 million units by 2030 and 45-60 million units by 2040



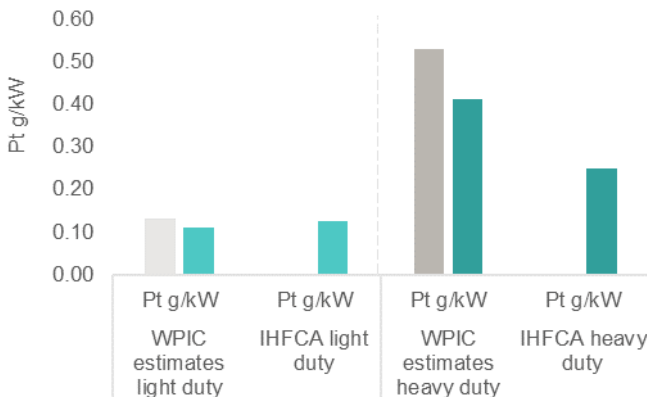
Source: WPIC Research, Tongji University

Figure 4: Reaching Tongji Universities automotive production would raise Chinese platinum automotive demand by 200-300 koz p.a. versus our base case



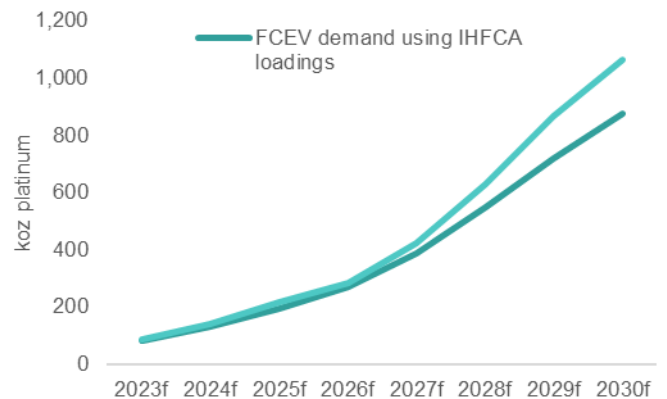
Source: WPIC Research, Tongji University

Figure 5: The IHFCA presented 2030 fuel cell loadings that were higher than our estimates for light duty vehicles, but lower for heavy duty vehicles



Source: WPIC Research, International Hydrogen Fuel Cell Association (IHFCA)

Figure 6: Using IHFCA estimates, projected 2030 FCEV demand for platinum would be around 190 koz lower than on our base case assumptions



Source: WPIC Research

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