PLATINUM ESSENTIALS

January 2026 five-year supply/demand outlook; market deficits to narrow compared to the past three years

Edward Sterck
Director of Research
+44 203 696 8786
esterck@platinuminvestment.com
Wade Napier
Analyst
+44 203 696 8774
wnapier@platinuminvestment.com
Kaitlin Fitzpatrick-Spacey
Associate Analyst
+44 203 696 8771
kfitzpatrick@platinuminvestment.com

Brendan Clifford
Head of Institutional Distribution
+44 203 696 8778
bclifford@platinuminvestment.com

World Platinum Investment Council
www.platinuminvestment.com
Foxglove House, 166 Piccadilly
London W1J 9EF

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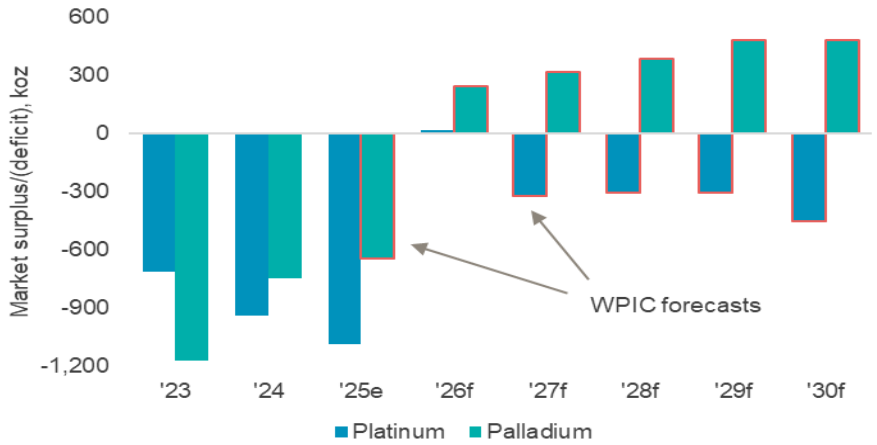
This Platinum Essentials updates our five-year forecasts for the platinum and palladium markets. With the 2026f market forecast now included in our Platinum Quarterly (provided by Metals Focus), we extend our forecast period to 2030f. We expect platinum market deficits to average 348 koz from 2027f to 2030f, which equates to ~4% of demand and less than the ~8% previously forecast. The narrower deficits stem from platinum's upward price momentum (2025: +127%) supporting supply and eroding some demand at the margins.

A challenge in producing a longer-term supply/demand outlook is marrying up the underlying fundamentals with the near-term market dynamics. This is particularly acute at present given the macropolitical landscape, with significant uncertainties and fractious international relations creating a highly supportive environment for the broader precious metals complex. In combination with multi-year deficits eroding platinum's above ground stocks by 49% since 2022, this supported platinum's significant price rally from less than US$1,000/oz in May 2025 to over US$2,400/oz today.

Precious metals (including platinum) will continue to serve as defensive assets in 2026 since external shocks are continuing to occur, with the US's actions in Venezuela and demands over Greenland being the latest. However, platinum's price increase, as well as the other PGMs', will have some bearing on the longer-term supply demand outlook. We forecast that total platinum supply will increase by a 0.9% CAGR from 2025e to 2030f, underpinned by higher recycling. Mine supply is better described as likely to record less erosion since there are structural limitations to "how much" and "how quickly" miners can respond to prices. Platinum demand will be constrained, declining by a -0.7% CAGR from 2025e to 2030f. Higher prices should impact platinum jewellery demand and promote palladium for platinum automotive substitution.

The net impact is for the platinum market to record average deficits of 348 koz p.a. from 2027f through 2030f. Although we forecast a broadly balanced platinum market in 2026f, this is insufficient to rebuild depleted above ground stocks and we expect market tension to persist with ongoing elevated lease rates and strong OTC backwardation. We continue to expect palladium to trend towards a surplus, supported by growing recycling supply.

Figure 1. Platinum and palladium market balances 2023 to 2030f



Source: Metals Focus 2023 to 2024 (palladium) and 2023 to 2026f (platinum), Company guidance, WPIC Research, 2025e within the latest PQ has been updated to reflect reported ETF and CME holdings

WPIC's updated five-year supply demand outlook for platinum incorporates only modest changes, with deficits expected to perpetuate for the foreseeable future.

**WPIC in-house supply data is based solely on publicly published supply data, including forward looking guidance, with any adjustments noted. It does not represent the views of any WPIC members or those of Metals Focus which independently prepare our Platinum Quarterly reports. Demand data is based on public data but includes WPIC in-house analysis.*

Figure 2. Platinum and palladium supply and demand summary tables

	METALS FOCUS PUBLISHED				WPIC PLATINUM ESTIMATES			
	2023	2024	2025e	2026f	2027f	2028f	2029f	2030f
PLATINUM SUPPLY					Production at mid-point of aggregate guidance ranges			
Refined mine production								
- South Africa	3,957	4,133	3,945	4,055	3,930	3,959	3,979	3,979
- Zimbabwe	507	512	493	518	536	528	526	526
- North America	278	265	203	186	198	193	193	193
- Russia	674	677	672	666	654	654	654	654
- Other	190	191	198	195	193	193	193	193
- Producer inventory movement	14	10	0	0	0	0	0	0
Total mining supply	**5,620**	**5,787**	**5,510**	**5,622**	**5,511**	**5,527**	**5,545**	**5,545**
Recycling								
- Autocatalyst	1,114	1,143	1,198	1,322	1,433	1,463	1,451	1,439
- Jewellery	331	298	339	373	328	329	346	352
- Industrial	71	76	81	87	105	116	121	124
Total recycling	**1,515**	**1,516**	**1,619**	**1,782**	**1,866**	**1,908**	**1,918**	**1,916**
Total supply	**7,135**	**7,303**	**7,129**	**7,404**	**7,377**	**7,436**	**7,463**	**7,461**
PLATINUM DEMAND								
Automotive	**3,208**	**3,109**	**3,020**	**2,915**	**2,802**	**2,749**	**2,664**	**2,611**
Jewellery	**1,850**	**2,008**	**2,157**	**2,036**	**1,997**	**2,016**	**2,082**	**2,150**
Industrial	**2,389**	**2,423**	**1,902**	**2,076**	**2,269**	**2,344**	**2,392**	**2,522**
Total investment	**397**	**702**	**1,137**	**358**	**633**	**633**	**633**	**633**
- Bar and coin	*322*	*194*	*336*	*462*	*349*	*349*	*349*	*349*
- China bars ≥500g	*134*	*162*	*186*	*216*	*216*	*216*	*216*	*216*
- ETF	*-74*	*296*	*234*	*-170*	*68*	*68*	*68*	*68*
- Stocks held by exchanges	*14*	*50*	*381*	*-150*	*0*	*0*	*0*	*0*
Total demand	**7,844**	**8,243**	**8,216**	**7,385**	**7,701**	**7,742**	**7,770**	**7,916**
Supply/demand balance	**-710**	**-939**	**-1,087**	**20**	**-325**	**-306**	**-307**	**-455**

	PUBLISHED		WPIC PALLADIUM ESTIMATES					
	2023	2024	2025e	2026f	2027f	2028f	2029f	2030f
PALLADIUM SUPPLY								
Refined mine production								
- South Africa	2,315	2,354	2,468	2,356	2,359	2,405	2,446	2,446
- Zimbabwe	428	424	440	449	445	441	441	441
- North America	847	789	621	573	489	429	429	429
- Russia	2,692	2,762	2,703	2,703	2,703	2,703	2,703	2,703
- Other	229	228	234	234	234	234	234	234
- Producer inventory movement	13	69	0	0	0	0	0	0
Total mining supply	**6,524**	**6,625**	**6,466**	**6,315**	**6,230**	**6,212**	**6,253**	**6,253**
Total recycling	**2,561**	**2,692**	**2,904**	**3,270**	**3,536**	**3,814**	**3,803**	**3,786**
- Autocatalyst	2,071	2,211	2,439	2,818	3,097	3,387	3,388	3,383
- Jewellery	93	95	88	85	80	77	73	70
- Industrial	397	386	377	367	359	350	341	333
Total supply	**9,085**	**9,317**	**9,370**	**9,585**	**9,766**	**10,026**	**10,056**	**10,039**
PALLADIUM DEMAND								
Automotive	**8,507**	**8,128**	**7,740**	**7,721**	**7,649**	**7,825**	**7,727**	**7,712**
Jewellery	**232**	**235**	**226**	**229**	**231**	**234**	**236**	**239**
Industrial	**1,431**	**1,426**	**1,403**	**1,421**	**1,455**	**1,466**	**1,499**	**1,495**
Total investment	**85**	**274**	**646**	**-27**	**115**	**115**	**115**	**115**
- Bar & coin	*-1*	*3*	*2*	*1*	*1*	*1*	*1*	*1*
- ETF	*86*	*286*	*472*	*114*	*114*	*114*	*114*	*114*
- Change in exchange stocks	*0*	*-15*	*171*	*-143*	*0*	*0*	*0*	*0*
Total demand	**10,256**	**10,063**	**10,015**	**9,343**	**9,450**	**9,640**	**9,577**	**9,561**
Supply/demand balance	**-1,170**	**-746**	**-645**	**242**	**316**	**386**	**479**	**478**

Source: Metals Focus 2023 to 2026f (platinum) and 2023 to 2024 (palladium), Company guidance, WPIC Research. The latest PQ forecast for 2025e which was published in November 2025 has been amended to reflect full year 2025 ETF and exchange stock movements.

Contents

Introduction

The WPIC's medium-term platinum supply and demand projections are intended to complement the estimates and forecasts published in our *Platinum Quarterly*, but they look further into the future and allow for longer-term scenario analysis. Similarly, our palladium forecasts complement our platinum forecasts.

The *Platinum Quarterly* report and data are prepared independently for the WPIC by Metals Focus, with Metals Focus's estimates provided on a one year forward basis (currently 2026). For the avoidance of doubt,

- All estimates for platinum from 2027f to 2030f included in this report are WPIC forecasts, with the exception of mine supply which is based solely upon publicly published company guidance.
- Palladium estimates from 2025e to 2030f in this report are WPIC forecasts, again with the exception of public company guidance for mine supply.

WPIC's base case published supply/demand projections for 2027f to 2030f provide the ability to run scenario analysis on different parts of the supply/demand landscape for platinum and palladium.

Specifically, WPIC has made no use of any forward-looking data or views included in Metals Focus's separate five-year forecast available to its clients, that provides an outlook for all the major PGMs.

WPIC's research is predominantly desk based. The information and sources used to develop our supply/demand model are typically all in the public domain.

Please see the appendix for a complete description of the methodologies we have used to develop each model and section of this report as well as a risk analysis for our forecasts.

Key projections

Our revised outlook is compared to the supply/demand *Platinum Essentials* published in September 2025 (*link*). Since our last update, platinum prices have increased by around 60% from US$1,500 to US$2,400/oz. Platinum prices have benefitted from robust fundamentals where three years of consecutive and substantial markets deficits have cumulatively reduced above ground stocks (AGS) by 2,736 koz or 49% from 2022 to 2025e. In conjunction with fundamentals, platinum has participated in a broader re-rating of all precious metals' valuations where silver and gold prices increased by 147% and 64% in 2025 respectively.

In general, we expect narrower platinum market deficits from 2027f as current price levels support some supply growth and some demand softness.

Higher platinum prices and an unwind of elevated exchange stock holdings are expected to push platinum markets to a balance in 2026f. However, from 2027f, platinum market deficits are expected to return and continue through to at least 2030f. It is worth noting that the price increase is supportive of both primary mine supply and recycling supply. Equally, higher prices will begin to price demand out of the market in some end-uses. Although there are limited lower cost alternatives to PGMs in most applications, platinum jewellery cost inflation may impact demand, albeit platinum remains relatively more affordable than gold from a jewellery perspective (platinum jewellery holds a significant component of the relatively more robust bridal market). Within the automotive segment, substitution for palladium is like given platinum's price premium. Whilst we factor palladium substitution into our models, headwinds to increasing palladium loadings include increased Russia supply chain risk and the ongoing USITC anti-dumping investigation in the US, which is expected to run through to at least the second half of 2026.

The combination of platinum's robust fundamentals and ongoing supportive sentiment towards all precious metals to support platinum's investment case.

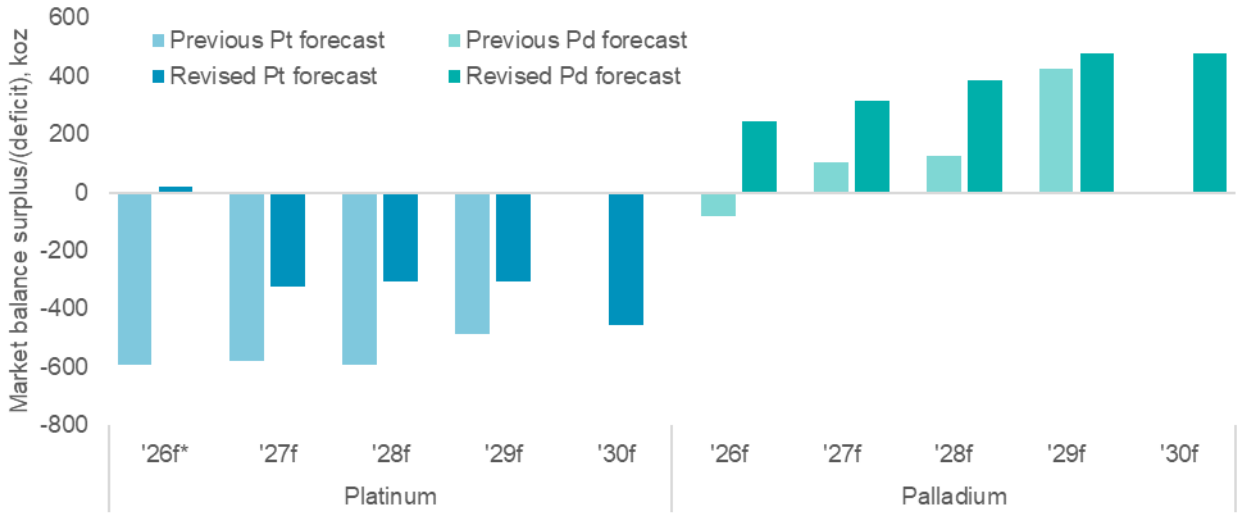
For platinum, we expect market deficits to average 348 koz from 2027f to 2030f (551 koz previously). In summary,

1. **Total supply** has increased by 1.3% on average, with upward revisions to mining and recycling supply.
2. **Total demand** is forecast to be -1.9% lower on average than previously estimated, primarily driven by a reduction in jewellery demand.

For palladium, we now expect markets to be in a surplus from 2026f.

1. **Total supply** has been increased by an average of 2.0% on the same basis as platinum supply upgrades, albeit with more emphasis on recycling.
2. **Total demand** has been decreased by -0.2% on average. Palladium's milder demand revision results from less exposure to jewellery markets, with demand elasticity being lower in automotive and industrial applications.

Figure 3. Platinum market deficits are forecast at around 350 koz from 2027f to 2030f, while palladium markets will be in surpluses over the forecast horizon



*Source: *Metals Focus provides the 2026 platinum forecasts in WPIC's Platinum Quarterly, WPIC Research*

Economic overlay

In the context of platinum, 2025e investment demand was encouragingly robust. With the platinum price increasing by 127% through 2025, there were ample profit taking opportunities. However, platinum's physical bar and coin demand (including large bars) reached a five-year high and ETFs recorded 234 koz of inflows (a 7.1% increase to total ETF holdings).

Heading into 2026, the macro uncertainty which characterised 2025 is seemingly set to persist with the new year already seeing Iran flare up with fresh anti-regime and economic protests, a US intervention in Venezuela, including arresting its president, and the independence of the US Federal Reserve's independence come under renewed pressure. Accordingly, the appeal of precious metals to the global investment community appears sustainable particularly if interest rates trend lower and the US dollar weakens further.

The global sentiment towards precious metals improved through 2025 with investors initial preference for gold shifting to silver and platinum, both of which have robust supply and demand fundamental backdrops.

While the WPIC utilises historic average investment demand for forecasting purposes, the abovementioned landscape offers upside risk to platinum investment demand in 2026 and beyond. This may offset some of the price driven response we expect to see from supply and demand.

Higher PGM prices support supply

The platinum price increased by 127% in 2025 and this underpinned a 100% increase in the 6E PGM basket prices for the year. Rising PGM prices will incentivise increasing supply, however, increasing PGM supply is not straight forward. PGM supply comprises of mining and recycling, with mine supply contributing around 70% and recycling around 30% of total volumes annually. PGM recycling supply is more price elastic than mining and therefore more likely to be able to respond to higher prices quicker.

Mine supply

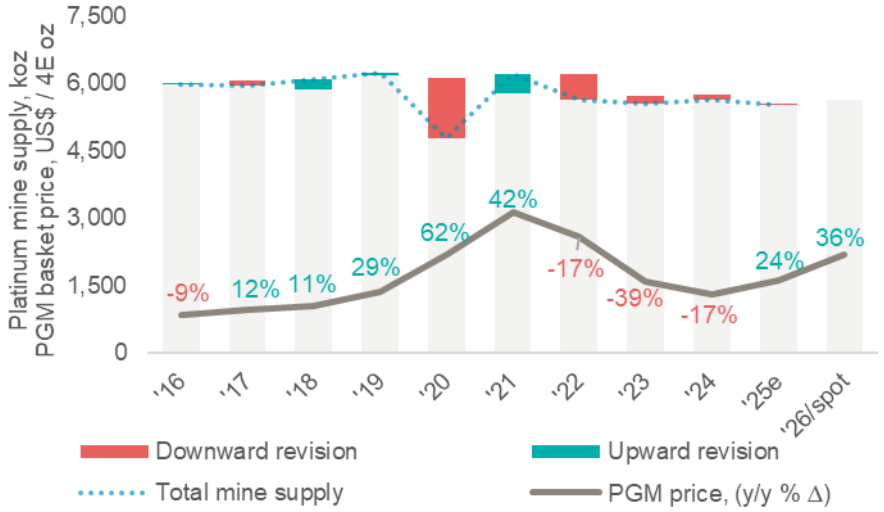
The WPIC's medium-term mine supply forecast methodology uses the mid-point of public guidance. Where guidance does not extend to our forecast horizon of five-years, public Resource and Reserve statements are used

(where life of mine profiles are often detailed) or alternatively the latest annual guidance is rolled forwards. We expect platinum mine supply will increase by 0.1% CAGR from 2025e to 2030f, while palladium mine supply decreases 0.7% CAGR due to the closure of a palladium biased mine in Canada. Higher prices offer the incentive to raise supply, which could imply upside risks to our forecasts.

Mine supply risks are weighted to the upside.

Historically, when comparing initial mine supply forecasts for a given year to the final supply outcome of that year, platinum mine supply typically outperforms initial expectations during periods of rising PGM basket prices (Fig. 8). Conversely, when average annual PGM prices are declining, platinum mine supply tends to underperform initial forecasts.

Figure 4. Upward revisions to platinum typically align to annualised basket price appreciation whereas downward supply revisions tend to occur as prices trend lower

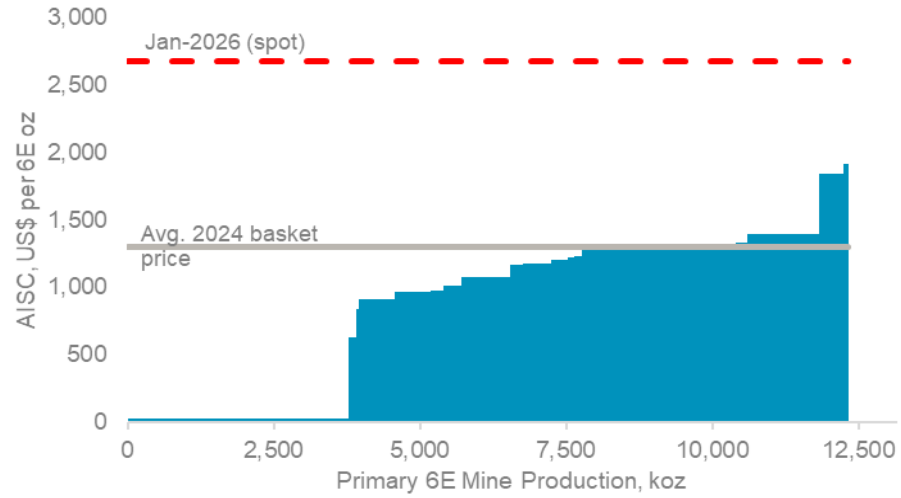


Source: SFA (Oxford) (2016 – 2018), Metals Focus (2019 – 2026f), Bloomberg, WPIC research

Mining profitability has substantially improved with higher prices and this may incentivise growth investments, assuming this aligns with capital allocation frameworks.

Given average annual PGM prices likely to reflect growth in 2026 (due to base effects), supply risks are likely to the upside. Supply side incentives are further illustrated by the PGM cost curve where we estimate that all producers are generating free cash flow at spot prices compared to a year ago where around one third were loss making (Fig. 9).

Figure 5. Miners are expected to benefit from a marked improvement in margins which may in turn incentivise growth investments



Source: Company data (Aug/Sept 2025 financials), WPIC research

In recognising supply risks may be to the upside in a higher price environment (Fig. 8), the average one-year difference between initial mine supply forecast and outcome is 2.8% (excl. 2020 and 2021 which were impacted by COVID). Based on our 2026f platinum mine supply forecast from the latest *Platinum Quarterly*, upside of 2.8% of 5 622 koz is 159 koz.

Beyond 2026f, it is worth considering how increasing mine supply may arise. Our supply forecasts to 2030f already includes some incremental ounces from growth projects. Within the public domain of announced projects, we estimate that,

PGM mine supply growth is limited to a handful of projects that are, in general, replacing aging mines.

- Over the next twelve months, only three mines; Platreef (Phase 1), Eland and Styldrift; are expected to add incremental "growth" ounces to the market, while
- Over the next two- to five-years, ongoing construction and development of Platreef (Phase 2) and Karo will see those mines ramp-up and commission incremental growth ounces.

In addition to the above greenfield ounces, there is some brownfield growth expected from the Tharisa underground mining transition, Zondereinde's shaft 3 optimisation and Mogalakwena's grade uplift. We note that Marikana's K4 shaft is replacing depleting ounces elsewhere within the broader complex.

We reiterate that all the above is within public guidance. However, considering that platinum prices only began their rally from May 2025, we believe miners' guidance (i.e. the basis of our forecasts) does not fully reflect their capacity to 1) mitigate production erosion at existing mines or 2) commit to new projects (be they green- or brownfield). As such, there is potential for revisions to production guidance to be issued with the next round of financial reporting in February and March of 2026. This would reflect the miners 1) gaining confidence in the sustainability of higher PGM prices, and 2) reassessments of their portfolios of prospective investment options.

Mitigating eroding production profiles

PGM miners have historically shown they are able to extend production profiles during times of higher prices. Reflecting this, the primary revisions to mine supply estimates since our prior five-year outlook have stemmed from announced life extensions. Impala Platinum has decided upon a one-year life extension of its Lac des Iles mine in Canada. Moreover, we have also reflected upgraded guidance to Sibanye-Stillwater's SA PGM operations which management previously suggested would see production volumes decrease from 1.8 Moz (4E) to around 1.2 Moz by 2030f without significant further capital investment. However, Sibanye-Stillwater has suggested that in a mid-cycle price environment, production of 1.5 Moz (4E) is sustainable through funding brownfield projects such as.

- Marikana's E3 deepening (feasibility commenced), E4 (previously Pandora) and Saffy Deeps (feasibility commenced).
- Rustenburg's Siphumelele UG2 project.

We expect Sibanye-Stillwater to offer clearer medium-term PGM production guidance at its Strategy Day, scheduled for 29 January 2026. Over time and if returns justify, we may get further announcements of life extensions to PGM profiles. While life extensions may maintain mine supply, they will not cause a step change higher in output.

Mine supply growth

As geologically economic concentrations of PGMs are relatively scarce, there is not an extensive list of new projects available to be greenlit despite the higher prices. Amongst prospective projects (Fig. 10), Impala Platinum and Africa Rainbow Minerals' Two Rivers joint venture expansion into the Merensky reef is arguably the only "shovel ready" option which could ramp-up with meaningful volumes within our forecast period to 2030f. The Two Rivers Merensky project was paused mid-development in 2024 to conserve capital whilst PGM prices were depressed. Two Rivers' Merensky is not in our forecasts, however, based on the previous development plan, we believe the outstanding construction would take one-year and the 180 koz (6E) per annum mine would take two-years to ramp up. The mine's Pril split suggests it could add an incremental platinum supply of 80-90 koz pa (~1.5% total mine supply).

Risk adverse miners may opt for brownfield replacement projects to invest in ahead of capital intensive and long-lead time greenfields.

Beyond Two Rivers, there are currently a handful of projects actively undertaking feasibility studies of one stage or another (Fig. 10). Collectively, projects currently undertaking advanced feasibility studies (Bokoni, Mogalakwena underground, Platreef Phase 3 and Bengwenyama) could increase global PGM mine supply by ~10% (ceteris paribus).

We estimate that if current PGM prices are used within ongoing feasibility studies, these are likely to advocate for committing to the project. However, feasibility studies are probably using more conservative pricing to evaluate project economics. Moreover, if a positive investment decision is recommended, the feasibility study's outcome needs to be evaluated within the context of a firm's capital allocation framework which may favour shareholder returns or debt reduction over growth. Finally, if a favourable final investment decision does occur for projects currently undertaking a feasibility study over the next 24-months, it is unlikely that any these would contribute meaningful supply by the end of this decade. New mines typically take 8-12 years to fully ramp-up and that ignores execution risks and the need for the non-integrated mines to secure processing offtake agreements.

Figure 6. There are a number of projects under evaluation globally, which could be advanced towards production if prices support investment decisions

Firm	Project	Status
Wesiswe	Bakubang	Ramp-up
Ivanplats	Platreef - Phase 2	Construction
Tharisa	Karo	Construction
Tharisa	Tharisa underground	Approved
Impala	Two Rivers Merensky	Paused construction
ARM	Bokoni	Feasibility study (ongoing)
Valterra	Mogolakwena Underground	Feasibility study (2027)
Ivanplats	Platreef - Phase 3	Feasibility study (ongoing)
Southern Palladium	Bengwenyama	Definitive feasibility (Q2 2026)
Platinum Group Metals	Waterberg	Pre-construction program
Bravo	Luanga	Pre-economic assessment (complete)
Podium	Parks Reef	Late stage exploration
Nickel Creek Platinum	Nickel Shaw	Exploration
Sibanye-Stillwater	Akanani	Exploration
New Age Metals	River Valley	Exploration

Source: Company data, WPIC research

In summarising the upside risks to PGM mine supply given higher prices, we have aimed to outline prospective growth possibilities. Miners may be able to

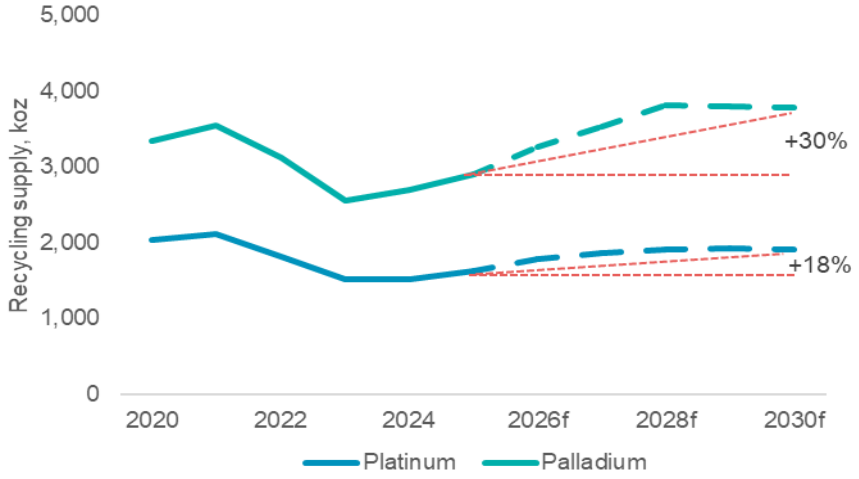
extend operational lives of mines at the margin. However any meaningful mine supply growth only appears possible well beyond 2030f and this would likely be necessary to offset natural resource depletion elsewhere. The primary challenge for advancing these projects towards construction is marrying up the long development timelines with access to capital and confidence in the long-term outlook for not only platinum but all of the PGMs.

Recycling supply

PGM recycling supply is historically more price elastic than mining.

We have previously discussed the fundamental market drivers for automotive recycling in detail in a *Platinum Essentials* (*link*). We expect recycling supply, largely underpinned by automotive, to increase in response to higher PGM prices with platinum recycling supply increasing by 18% from 2025e to 2030f (3.4% CAGR) and palladium recycling supply increasing by 30% over the same period (Fig. 4).

Figure 7. Both platinum and palladium are forecast to record recycling supply growth through 2030f, underpinned by the automotive sector

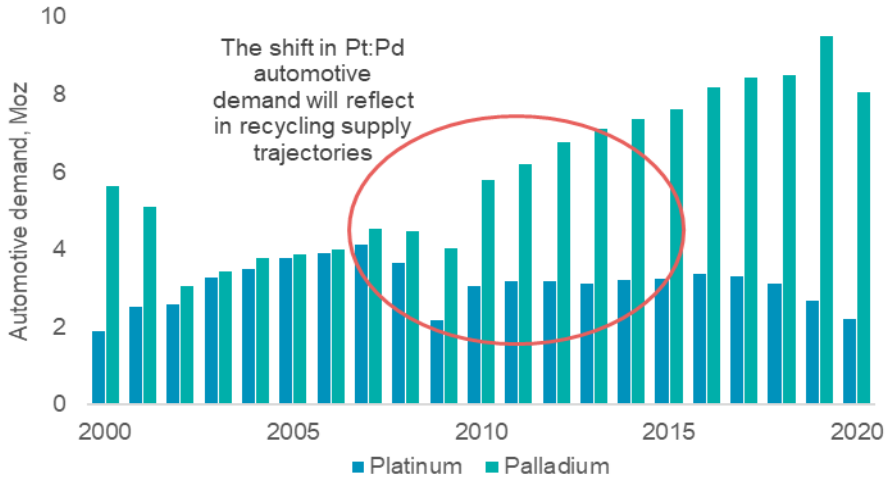


Source: Metals Focus (2020 – 2025e (Pd), 2020 – 2026f (Pt)), WPIC research

Functionally, the different growth rates between platinum and palladium recycling supply reflect the increasingly prominent role palladium played in automotive demand through the 2000s and 2010s (Fig. 5). Those vehicles and autocatalysts are entering the automotive recycling value chain in increasing volumes and driving palladium recycling supply growth.

The automotive industry's increasing use of palladium rich autocatalysts from the mid-2000s translates in greater recycling supply potential for palladium during the 2020s.

Figure 8. Automotive palladium demand accelerated though the mid- 2000s and 2010s on increased gasoline vehicles sales and tightening emission legislation

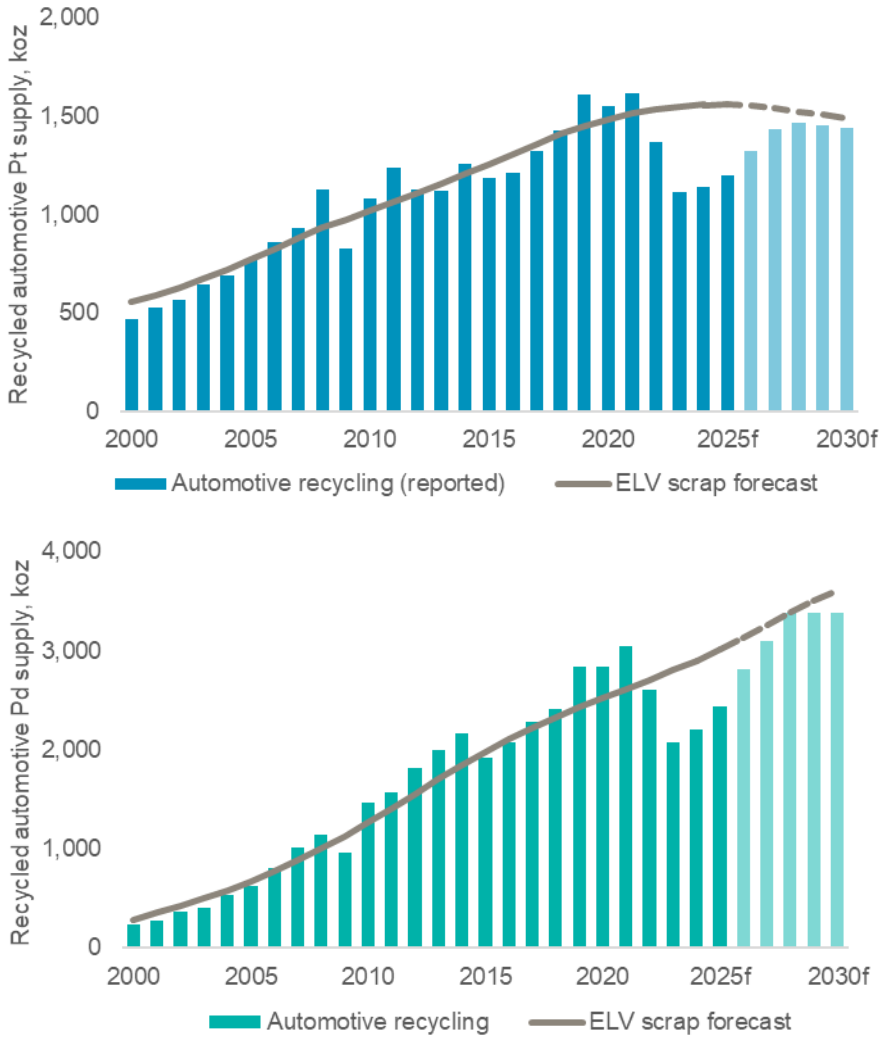


Source: Johnson Matthey (2000–2012), SFA (Oxford) (2013-2018), Metals Focus (2019-2020)

Notably, our recycling supply growth forecasts highlight two distinct periods. We expect rapid supply growth to 2028f, where automotive recycling rates approach the implied supply availability suggested by our end-of-life vehicle (ELV) scrappage model (Fig. 6). From 2029f, we do not expect automotive recycling rates to be sustained at the implied ELV scrappage curve which leads to broadly stable automotive recycling supply. Our rationale for capping automotive recycling supply growth is palladium's transition into a surplus from 2026f. A sustained palladium market surplus may constrain prices and therefore supply. We model palladium recycling supply growth to limit the scale of palladium market surpluses to 5% of total demand by 2029f. This simultaneously constrains platinum's automotive recycling supply growth since palladium is the primary economic metal underpinning the majority of autocatalyst recycling.

Automotive platinum recycling is not forecast to recover to pre-pandemic levels.

Figure 9. Automotive recycling volumes are expected to approach the implied End-of-Life Vehicle (ELV) scrap volumes by 2028f before relatively tapering thereafter



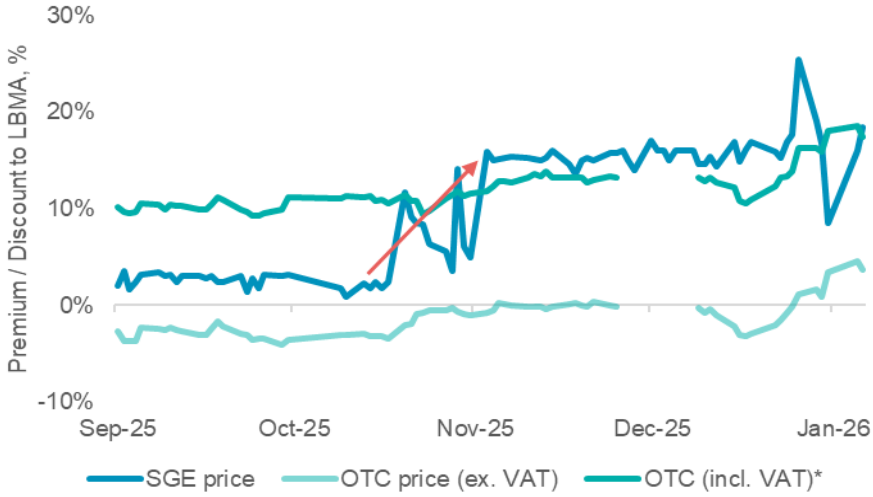
Source: Johnson Matthey (2000 – 2012), SFA (Oxford) (2013 – 2018), Metals Focus (Pt: 2019 – 2026, Pd 2019 – 2024), WPIC research

We note that China's PGM recycling industry enters 2026 as somewhat of a wildcard in terms of its supply growth potential. Firstly, China has accounted for an average of 59% of recycled platinum jewellery supply over the past five-years, and the domestic market may respond more rapidly than expected to the higher platinum price.

China's VAT harmonisation between SGE platinum sales and the OTC market may support higher than expected domestic recycling supply.

Secondly, and more fundamentally, will be to see how supply responds to the removal of the Shanghai Gold Exchange's (SGE) historic VAT exemption on platinum. Given that China's OTC platinum sales are subject to VAT, OTC prices, which included VAT, were historically higher than SGE prices which led buyers to favour SGE and only use the OTC market as a last resort. With tax treatment now aligning SGE and OTC prices in China (Fig. 7), Chinese platinum recycling supply may surprise to the upside with more demand flowing to the OTC market.

Figure 10. The removal of the VAT exemption on SGE platinum sales from 1 November 2025 caused SGE prices to broadly align with OTC prices



*Source: SPW, Bloomberg, WPIC research, *OTC indices refer to Rong Tong Gold data prior to 25 Nov 2025 and Bai De Jin data from 6 Dec 2025, *VAT is 13% in China*

In aggregate, we believe higher PGM prices should incentivise a supply response, however, this may take time to materialise. As discussed, mine supply guidance will be updated in the coming months by producers and they may highlight some short-term opportunities. However, we do not expect any mine supply step-change since new growth projects will take 8-12 years to construct and ramp-up. Where recycling supply can more nimbly respond to prices, we reiterate that historic trends in autocatalyst loadings would imply palladium is more meaningly impacted than platinum. Looking forward, we expect total platinum supply growth of 0.9% CAGR from 2025e to 2030f and total palladium supply growth of 1.4% CAGR.

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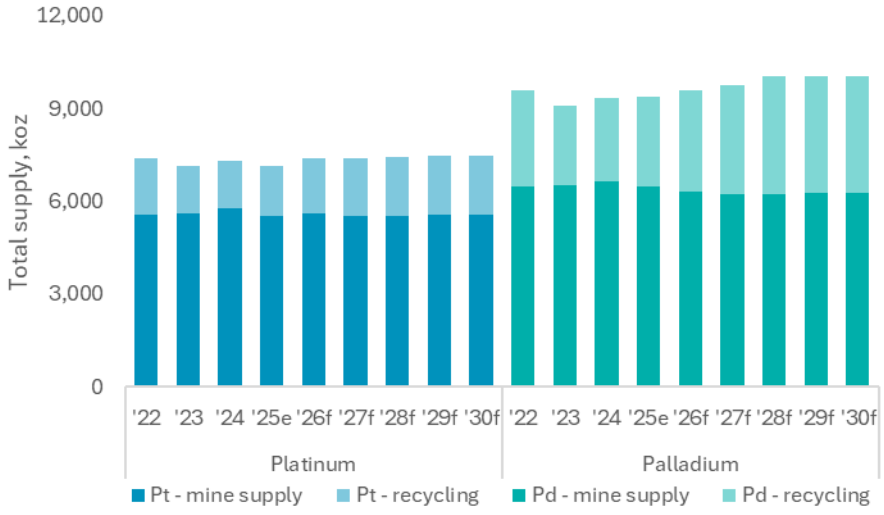
Figure 11. Structural challenges should limit the potential for higher prices to lead to supply growth in platinum markets



Source: Metals Focus (Pt: 2022 to 2026f, Pd 2022 to 2024), WPIC research thereafter

Diverse end markets supportive of demand

At a broad-level, the diversified demand profile for PGMs and platinum more specifically, provides some resilience to price linked demand curtailment.

- Over the past two years, the pace of Battery Electric Vehicle (BEV) demand growth has slowed which supports our long-standing expectation for automotive PGM demand to have a long tail.
- Chinese platinum jewellery demand has inflected since 2023, adding to steady, albeit modest, demand growth in the rest of the world. Despite the price increase, platinum's continued absolute price differential to gold supports its relative attractiveness in high-end jewellery segments.
- Platinum investment demand is benefitting from investor's flight to safety, de-dollarisation trends and the broader expectation for future interest rate cuts.

Barring jewellery, demand is generally inelastic to price changes given few economic alternatives to PGMs in the automotive and industrial segments.

Against the backdrop of this constructive demand sentiment, it is nonetheless prudent to acknowledge that there are elements of PGM demand which could be impacted by higher prices. In general, automotive and industrial PGM demand are somewhat inelastic to prices since PGMs typically account for a minor cost component in a car or chemicals complex for instance. Platinum jewellery demand (ex. China) is more price elastic that platinum automotive and industrial demand. Jewellery has exhibited price elasticity, with an inverse correlation of -0.74 between demand and price dating back to 1987 (Fig. 12).

Figure 12. Platinum jewellery demand is inversely correlated to platinum prices

Source: Johnson Matthey (1987-2012), SFA (Oxford) (2013-2018), Metals Focus (2019 onwards), Bloomberg, WPIC

Gold jewellery demand is similarly inversely correlated to prices. Indicatively, since gold prices sustainably broke out above the US$2,000/oz level in 2024, and further consolidated gains, gold jewellery demand decreased by 11% in 2024 and by further 20% in the first three quarters of 2025.

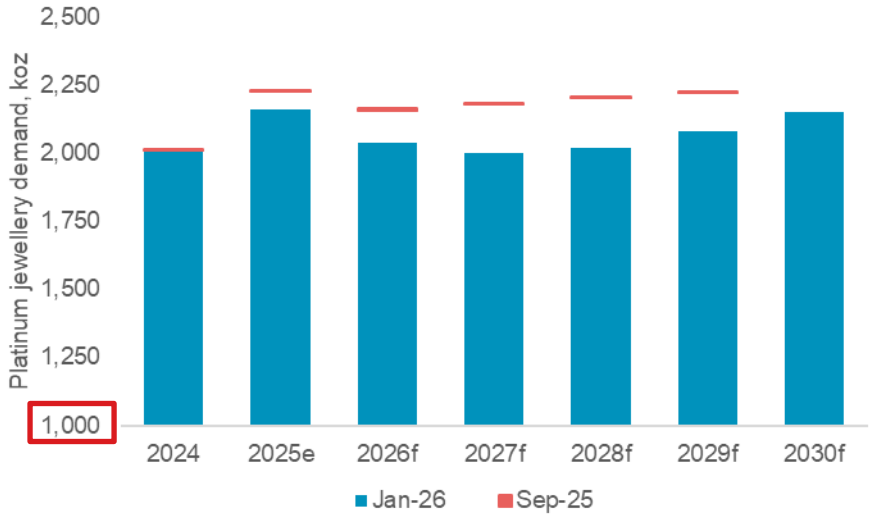
Platinum jewellery demand forecasts have been reduced by 7% on average within our five-year outlook.

Platinum jewellery demand is forecast to decline by 6% in 2026f and we forecast a further -2% to 1,997 koz in 2027f. Since our last five-year outlook, platinum jewellery demand expectations have been reduced by an average of 7%. This nevertheless still suggests that platinum jewellery demand proves more resilient than gold had over the past two years. In our view, several

factors may help offset price driven downside risks to platinum jewellery demand,

- The price of gold and the large absolute price differential with platinum (still ~US$2,000/oz) supports jewellery price parity between platinum and white gold. We expect platinum may gain market share as consumers opt for platinum over white gold if presented with negligible price differentials, particularly in North American and European markets.
- Platinum jewellery has an outsized exposure to gemset and bridal markets which are seen as less cyclical than discretionary segments.

Figure 13. We have revised forecast platinum jewellery demand lower to reflect the impact of rising platinum prices through 2025



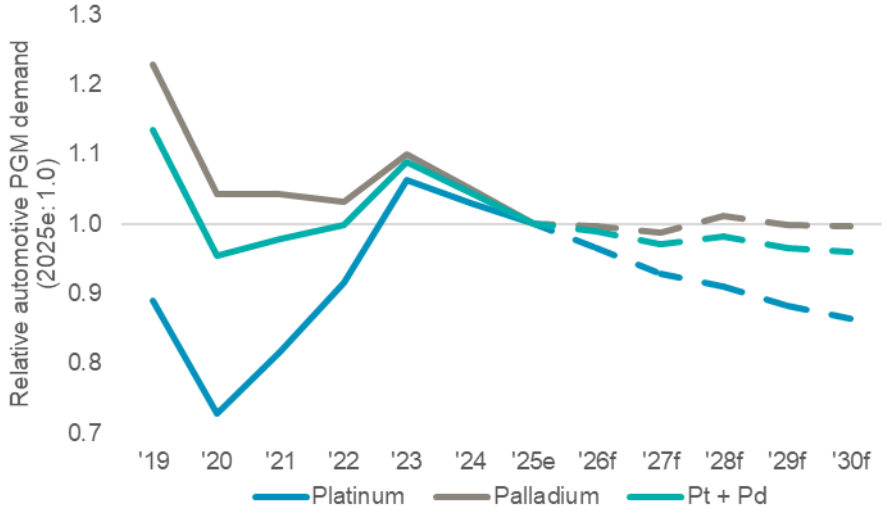
Source: Metals Focus (2024-2026f), WPIC research

Platinum jewellery demand forecasts have been reduced by 7% on average within our five-year outlook.

Automotive demand

Intuitively one could expect automotive PGM thrifting initiatives to intensify during a rising price environment. However, thrifting is, practically speaking, an ongoing effort regardless of price. Thus, with no reasonable alternatives to PGMs in autocatalysts, automotive PGM demand is effectively price inelastic. We therefore expect 2E PGM automotive demand to decrease at a CAGR of -1% from 2025e to 2030f (Fig. 14) due to rising BEV market share (from 15% in 2025e to 28% by 2030f). We note that our automotive forecasts had for the most part expected some regulatory relaxation of BEV targets. Therefore, the EU's decision to water-down its 2035 ban on ICE and hybrid vehicle sales (announced Dec 2025) was anticipated and does not impact our automotive PGM demand forecasts.

Figure 14. Automotive PGM demand (Pt + Pd) is forecast to decline at a 1% CAGR from 2025e to 2030f (2025e = 1)



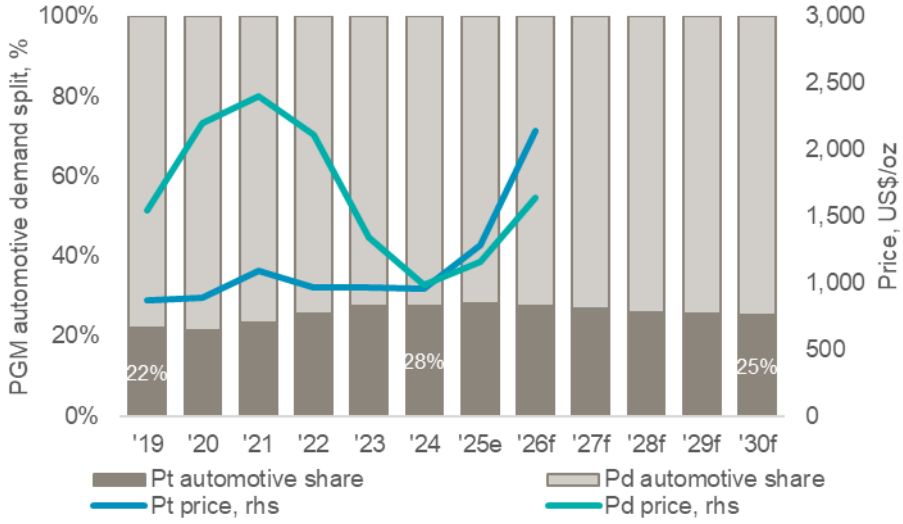
Source: Metals Focus (Pt: 2019-2026f, Pd: 2019 - 2024), WPIC research

Platinum prices have established a sustainable premium to palladium prices, and this is likely to incentive substitution within autocatalysts.

Although total automotive PGM demand is price inelastic, OEMs do have flexibility to substitute between PGMs to improve economic returns. Platinum and palladium are largely interchangeable when prices diverge from one another. The most recent meaningful trend of substitution occurred from around 2019 to 2024 where palladium was substituted with platinum (at a 1:1 ratio) in gasoline vehicles (Fig. 15). The scale of substitution reached an estimated 845 koz per annum.

Against the backdrop of platinum prices reestablishing a premium to palladium, we expect around two thirds of platinum's gains from substitution to reverse by 2030f (i.e. palladium for platinum substitution). Accordingly, palladium automotive demand is expected to be broadly stable at 7.7 Moz from 2025e to 2030f, while platinum automotive demand is expected to decrease from 3.0 Moz in 2025e to 2.6 Moz by 2030f.

Figure 15. Automotive platinum demand is expected to relatively underperform palladium as platinum's higher prices incentivises reverse substitution



Source: Metals Focus (2019-2026f), Bloomberg, WPIC research

Automakers may face increased supply chain risks via Russia if they substitute platinum with palladium in gasoline autocatalysts.

It is worth noting that moving to higher palladium content comes with additional Russian supply chain exposure and risks. For US automakers this raw material sourcing risk could be compounded by the ongoing USITC

investigation into alleged dumping of Russian origin palladium. Accordingly, some automakers may stick to platinum over palladium.

Investment demand

For forecasting purposes, the WPIC uses the historic average platinum investment demand for future demand estimates. Accordingly, total platinum investment demand is expected to be 633 koz p.a. from 2027f to 2030f (+34 koz on avg. since our previous publication).

Having noted our forecasting methodology for platinum investment demand, it is nevertheless prudent to recognise investment demand as being platinum's most volatile end market.

Platinum investment demand could exceed our forecasts due to:

- **The ongoing polarisation of the East and the West:** A move to hard assets and de-dollarisation has benefitted precious metals and looks set to persist. While gold has been a clear beneficiary, there has been significant spillover into silver and platinum.
- **Protectionist trade policies:** Whether it is trade wars, tariffs, anti-dumping investigations or technology arms races; security of supply for critical minerals (often regardless of price) is at the forefront of national and private procurement strategies and platinum may continue to be a beneficiary.
- **The inclusion of Guangzhou Futures Exchange (GFEX) exchange stocks:** In November 2025, trading launched for platinum futures and forwards contracts on GFEX. GFEX exchange stock holdings are expected to be made publicly available by June 2026, following which they will be included in our forecasts.
- **High conviction in the platinum investment case:** Platinum price increases during 2025 are expected to lead some investors to take profits. However, profit taking may not materialise if the holders of metal believe that future platinum market deficits could support further price appreciation.

Investment demand is historically platinum's most volatile end market.

Platinum investment demand could similarly fall short of our forecasts due to:

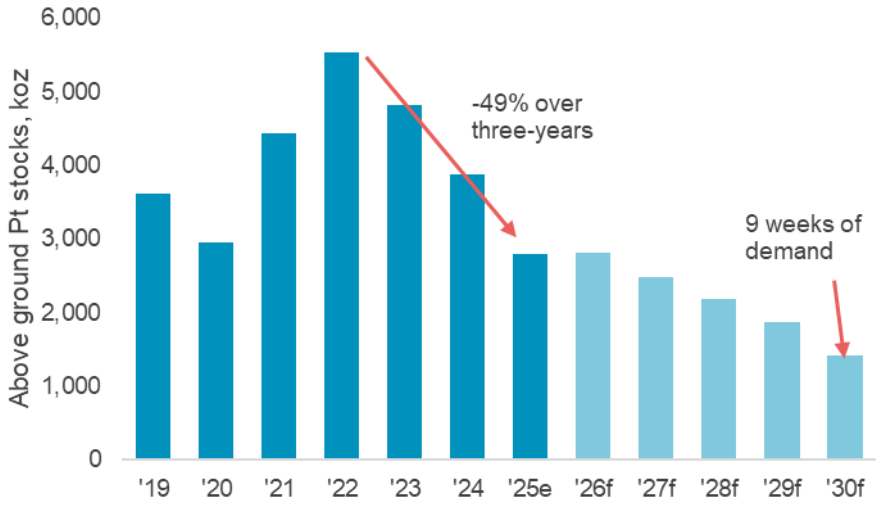
- **Investor profit taking:** We have noted that platinum prices increased by 127% in 2025. Investors may choose to sell platinum and take profits. Since WPIC's time series commenced in 2013, bar and coin investment demand has only been negative in one year, while ETF outflows have occurred in six of the thirteen years.
- **Depletion of exchange stocks:** Our forecasts expect CME stocks to reach around 275 koz in 2026f, which is assumed to be a stable equilibrium level. In the past two-years CME stocks have been at levels as low as 130 koz and as high as 700 koz.
- **Working capital constraints:** Several mints utilise lease markets to source platinum for bar and coin production. However, high lease rates have increased the costs for mints, with their response being to restrict output of physical platinum investment products. A lack of product constrained North American bar and coin demand to 57 koz in 2025e, well below the annual average of 198 koz from 2019 to 2024.

Conclusion

The platinum investment case is compelling. After three-years of consecutive market deficits AGS have declined by 49% since the end of 2022 (Fig. 16). These robust supply demand fundamentals combined with external macroeconomic factors propelled platinum's price performance in 2025 (+127%).

Narrower platinum market deficits will not solve for depleted AGS which has shown in tight physical markets with elevated lease rates.

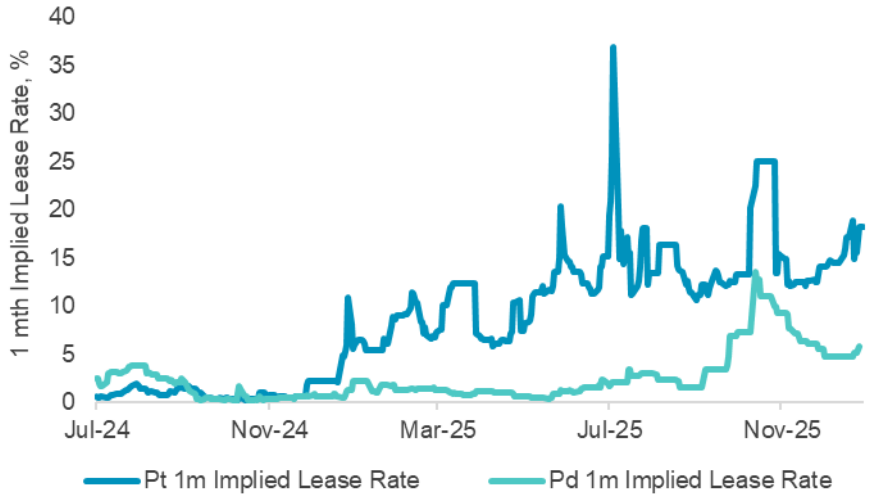
Figure 16. Platinum market deficits are rapidly depleting above ground stocks



Source: Metals Focus (2019-2026f), WPIC Research

While we have revised our supply forecasts higher and demand forecasts lower, higher platinum prices do not appear to have solved longer-term market imbalances. Despite narrowing platinum market deficits, we continue to project an ongoing drawdown of AGS through 2030f even though current lease rates (Fig. 17) and strong OTC forward curve backwardation would suggest current levels of physical stock are already unsustainably low.

Figure 17. Platinum's implied lease rates begun trending higher from the start of 2025 indicating a tightening physical market



Source: Bloomberg, WPIC Research

WPIC aims to increase investment in platinum

World Platinum Investment Council - WPIC- was established by the leading South African PGM miners in 2014 to increase investment ownership in platinum. This is done through both actionable insights and targeted development. We provide investors with information to support informed decisions e.g. through *Platinum Quarterly, Platinum Perspectives* (monthly) and *Platinum Essentials*. We also analyse the platinum investment value chain by investor, product, channel and geography and work with partners to enhance market efficiency and increase the range of cost-effective products available to investors of all types.

WPIC is not regulated to provide investment advice: see *Notice and Disclaimer*.

Appendix I – Risks to forecasts

- Small changes can have significant impacts on supply/demand balances. For example, a 5% change in total mine supply moves the supply/demand balance by an average of 275 koz p.a. over the years 2026-2029.
- The most significant risks to our outlook derive from macroeconomic factors which would similarly impact the demand for all commodities. Principally the risks that the combination of slowing economic growth and inflation bring to bear on consumer demand for goods that either contain platinum or for which the manufacturing process uses platinum.
- The evolution of the drivetrain in transport remains uncertain. Accelerating battery vehicle market share gains would negatively impact platinum demand. We think battery vehicle market share gains will decelerate versus the period between 2020 to 2024 given base effects and headwinds such as costs, slow charging infrastructure rollouts and a lack of feature parity (e.g. range).
- The impact of a recessionary environment on industrial and jewellery demand could be more severe than we have allowed for.
- Investment demand is potentially where the greatest risks lie. We are most confident in our projections for bar and coin demand and exchange stocks, but the risk of a return to ETF disinvestment is potentially significant US policies drive a return to inflation and result in a sustained higher interest rate environment.

Appendix II – WPIC outlook methodologies

Preamble

The WPIC's platinum supply and demand model is intended to complement the one year out forecast published in our *Platinum Quarterly*, but to look further into the future to provide the basis for longer-term scenario analysis of particular aspects of supply and demand. The *Platinum Quarterly* report and data are prepared independently for the WPIC by Metals Focus.

The WPIC's palladium supply and demand model is a standalone piece of research, using WPIC's own data assessment to drive forecasts for the current year forwards. Historical data is sourced from Metals Focus.

WPIC's research is predominantly desk based and not focussed on developing extensive in-country and in-industry relationships to obtain fresh/incremental data. The information and sources used to develop our supply/demand model are all typically in the public domain.

Despite us having granular views of each demand segment, we have chosen, to use a simplified and conservative approach to forecasting. This provides us with our best current base case to allow scenario analysis while we increase modelling detail and publish more granular results in future reports.

Different methodologies in different segments

The WPIC's platinum supply/demand methodology is built up as follows for the years 2025-2029f:

Refined mining supply: Our refined mining supply outlook is strictly based on each company's public guidance for future production. This applies for WPIC members and non-members alike.

Companies typically only change longer-term guidance once a year, usually with their financial year end, or during annual investors days (often in December). We use the aggregate of the mid-point of public published company guidance for setting our supply outlook, however, the infrequency with which longer-term guidance is updated means that the longer-term outlook may not reflect more recent events.

The guidance published by the PGM mining companies is usually provided for the combination of PGMs contained in the ore bodies mined by the respective companies, and expressed on a six-, four-, or two-element basis (6E, 4E or 2E respectively) including either: platinum, palladium, rhodium, ruthenium, iridium and gold; platinum, palladium, rhodium and gold; or platinum and palladium. Where guidance excludes specific reference to platinum or palladium, we have calculated refined platinum or palladium guidance by using the historical production ratios of these metals as published by the specific company. Where individual PGM mining companies do not provide refined mine supply guidance or where such guidance does not cover the period to 2029, we forecast that platinum mining supply remains at the level of the final year for which guidance, or production, is available. We have remained impartial to: the extent of mineral reserves and resources, the ability to extend mine lives, any potential smelter, precious or base metal refinery capacity constraints, the technical hurdles or timelines to complete capital projects, and the impact a change in PGM prices might have on mined supply.

Recycling supply: Automotive recycling can be determined by purchasing consecutive annual global vehicle registration data and determining detailed regional scrappage rates to apply to average vehicle platinum loadings, when manufactured, per region. We have not chosen to fund this high-cost exercise and have used a simplified approach using the published average vehicle life across all regions and determining the portion of annual platinum demand in the year of manufacture that reflects as recycled supply at the end of that average life. We use the average of this ratio over the past 20 years to calculate our forecast. Jewellery and industrial recycling rates are projections based upon historical ten-year trends, modified with by regional economic projections.

Automotive demand: Automotive demand projections are a function of the WPIC's drivetrain outlook in combination with estimated autocatalyst platinum loadings and engine sizes for different vehicle categories in different geographies. Automotive production and the drivetrain estimates are based upon historical production numbers and trends as well as announced future regulations and WPIC's view of the pace of electrification and the phasing out of internal combustion engines. Future platinum loadings in autocatalysts are based upon historical loadings that are available in the public domain or can be calculated from published data, adjusted for WPIC's estimates of the impact of regulatory changes in different geographies, such as tightening emissions standards, as well as the rate of substitution of platinum for palladium in gasoline engines. FCEV demand for platinum is included in the automotive demand outlook as a separate demand component.

Jewellery demand: Jewellery demand is the purchase of new metal by the fabricator to manufacture jewellery. The outlook for jewellery is predicated on recent historical trends by geography, projected into the future.

Industrial demand: Industrial demand projections are based upon a combination of sub-sector research, historical trends and macroeconomic

expectations. This results in relatively steady trend projections, whereas in practice industrial demand is more volatile, depending upon the timing of capacity additions. While industrial demand can be volatile, the multi-year trends have been very consistent offering a good guide to the future, added to which the annual volatility seen within each industrial sub-category tends to even each other out when totalled up. Platinum industrial demand is the demand segment most closely correlated to global economic growth over the long term. Despite the compound annual growth of platinum industrial demand over the past 30 years significantly exceeding global growth, our forecast, is for medium-term demand stability given recent demand growth.

Investment demand: While we have granular insight into investment demand due to the views of our many product partners around the world and our regular interaction with investors, we have chosen to use a ten-year historic average of investment demand as the basis for our forecasts. This is to reduce the dramatic positive impact of extremely strong global ETF demand in 2019 and 2020 and similarly strong bar and coin demand in 2020 and 2021.

We do on occasion make exceptions to this methodology. For example where recent growth in investment demand in certain categories would derive projected growth numbers that might appear excessive, or in the case of palladium where year to date investment flows are running above or below the historical average.

Elsewhere, we have not included the likely impact on investment demand of any material changes in price. For example, if the market is expected to have successive deficits, as we are projecting, then it is likely that investors might expect the platinum price to move higher to reflect the shortage of metal available to the market and consequently increase their exposure by purchasing platinum metal or ETFs. This would in turn accentuate future deficits. We do not attempt to capture this iterative process and rather choose to maintain future investment demand at a level based on a ten-year historic average. We have assumed a net change in stocks held by exchanges of zero each year over the forecast period as those flows are typically short-term in nature to address atypical developments in the physical market and furthermore, primarily reflect the movement of metal between visible and non-visible inventories.

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