PEREGRINATION

THIRD QUARTER OCTOBER 2024

PEREGRINE
WEALTH

CONTENTS

CROSSROADS – NAVIGATING UNCERTAINTY AMID GLOBAL SHIFTS

George Herman
Chief Investment Officer

As we enter the final quarter of 2024, the world stands at a crucial crossroads. Key events across the globe, from the US presidential election to the intensifying conflict in the Middle East, are reshaping economic landscapes and financial markets. At Peregrine Wealth, we remain steadfast in guiding our clients through these turbulent times with strategies that preserve and grow wealth despite the uncertainty.

The outcome of the United States (US) election in November has the potential to significantly alter fiscal policies, tax frameworks, and international trade agreements. A win for either candidate could lead to divergent paths for the world's largest economy—one focused on more populist, inward-looking policies or another aiming for continuity in global cooperation. Regardless of the outcome, markets will inevitably react, and the ripple effects will be felt across the world.

Adding to the complexity, the ongoing conflict in the Middle East has escalated into one of the most significant geo-political risks of 2024. The implications of this conflict are far-reaching, from oil price volatility to broader concerns about global security and its impact on investor sentiment, which has thus far been extremely resilient. Energy markets, in particular, have seen heightened volatility, which continues to challenge global supply chains, affecting the trajectory of inflation and investment returns.

At Peregrine Wealth, we have always believed that diversification and prudence are the bedrock of successful wealth management. Our strategies are built to withstand global shocks, and while we cannot predict the future, we can ensure that your portfolio is positioned to navigate whatever lies ahead.

Despite the uncertainty, we are also seeing opportunities emerge. As we enter the final quarter, global inflation is showing signs of moderating in many key economies, and central banks have started easing their monetary policies. This presents a potential tailwind to economic growth via consumer well-being, which could indeed deliver the US Federal Reserve’s desired ‘soft’ landing.

At Peregrine Wealth, we continue to navigate these shifting dynamics with a careful and proactive approach, always keeping our clients' long-term financial goals at the forefront.

Enjoy this edition of Peregrination.

TEN MINUTES TO LANDING

Maarten Ackerman
Chief Economist

We believe the destination is in sight. Bringing global inflation back to sustainable levels has been a long journey, but now we are nearing the end of this flight. Most central banks have inflation under control, and we are finally starting to see interest rates come down. This is good news for businesses, consumers and, as a result, economies.

The question is, as we make our approach, are we in for a soft or a hard landing? The risk of a hard landing, especially for the United States (US), is easing, as the US Federal Reserve (Fed) is now proactively cutting rates, which supports the case for a soft landing. Its first rate cut was 50 basis points, which showed that the Fed is concerned about the impact of tight monetary policy on the US economy – and consumers specifically. Given the strength of the US labour market, we may see an even better result, with the US avoiding recession altogether.

A theme that emerged this year has been the divergence in economic growth of the major developed markets. While the US has continued to grow steadily, Europe, the United Kingdom (UK) and Japan entered into recessionary territory, with barely any growth worth mentioning. These countries were first off the block to start normalising policy and cutting rates – weeks before the US - in an attempt to get their economies going.

THE DRIVERS OF ECONOMIC GROWTH

Before we analyse what is happening across these regions, we need to understand what drives economic growth. There are four factors that impact an economy's growth:

1. Consumer spending.
2. Fixed asset investment through public and private investment.
3. Government spending and how it manages the economy.
4. Net trade, which is exports minus imports.

Each economy will be driven by a combination of these factors to a greater or lesser degree, depending on which one we look at. For example, the US and South African economies are consumer-driven, meaning that consumer spending makes the biggest contribution to economic growth – 70% and 66%, respectively. An economy like China, on the other hand, is supported by fixed asset investment which makes up about 45% of that economy, and although the Chinese government is looking for the consumer to play a bigger role, Chinese consumer spending only contributes around 40% to China's growth. Germany, Japan and China, to a certain extent, are net exporters, so the global trade wars and the slowdown in globalisation provide strong headwinds to these economies.

Following the pandemic, global trade has been moving sideways, with an increase in activity of just 2%. This is not an indication of a world that is growing extremely fast. While trade between the world's two largest economies, the US and China, has been underwater for the last two-and-a-half years, trade, the world over, is down. Trade growth since the early 2000s, when China joined the World Trade Organisation, sat at around 8% per annum for almost a decade. It started to slow in the late 2000s, as globalisation began to mature, but it is really since the pandemic that we have seen a step-change in global trade, with the figure falling to 2.5% per annum. This is one reason we are seeing net exporters facing headwinds.

When we realise that economies are not equal in terms of what drives them, we can then better understand the current divergence in global economic growth. Indeed, the numbers reflect this. US personal consumption expenditure (PCE) is up 12% since COVID, while Japan, the UK and Germany are all still sitting at COVID levels, meaning their consumer consumption has hardly picked up. In addition, unlike the US, these economies have also been impacted by post-COVID trends like supply chain disruptions, the global economic slowdown, deglobalisation and increased tariffs from the trade wars.

A ROBUST US WALKING A FINE LINE

The US consumer will be buoyed by easing monetary policy because the wealth effect of cutting interest rates can be significant. The US has not seen a major decline in property prices or in the equity market, which is indicative that US wealth is solid. In fact, US net wealth is currently at an all-time high. US consumers are, therefore, feeling good from this perspective, which will continue to underpin their spending.

Although US consumers have maintained their standards of living and navigated the high interest rates, they have started to deplete their savings. A lack of savings will put pressure on US consumer confidence in the future as concerns grow around job security and how they will fund higher interest rates should they not have a savings buffer.

Job security is increasingly becoming a threat for the US consumer as the country's labour market is under pressure. When unemployment numbers start to creep up, they can quickly move to much higher levels, which then very often signals a recession is on the cards. Currently, the unemployment numbers are not in recessionary territory, suggesting a soft landing.

Despite US consumers being robust, they are facing headwinds. We are seeing an increase in auto loans and credit card delinquencies, which are now in line with levels last seen during the 2008 financial crisis. US consumers are increasingly concerned about falling behind on their bills, and their level of concern is at its highest point since before the start of the pandemic in 2020. Fortunately, the Fed has started to cut rates and kicked off with a 50 basis point cut in September. However, they still have a long way to go to get rates off their high levels. Interest on credit cards for the US consumer can be in excess of 20%, which means that interest repayments as a percentage of income have doubled over the last few years and make up a significant chunk of indebted consumers' cash flow.

A positive result of the current situation is that following the pandemic, households had less debt than they did in 2008. This means that the financial squeeze they are currently feeling is not as severe as it was during the financial crisis, which will make them feel more secure despite the higher interest rates.

Given the current consumer sentiment, we believe that the US will slow down, but to capacity growth, which is around 2% per annum. And given the Fed's easing of its monetary policy, the US consumer may get through this patch without any significant damage.

THE REST OF THE WORLD

Consumers in the rest of the developed world cannot support their economies like the US consumer does. This is for a number of reasons. The first is that most global developed market economies are not consumer driven. Also, those consumers had less support from their governments during the COVID-19 pandemic, which means they did not have the same level of savings that the US consumers did. This lack of savings saw them unable to weather the cost of living crisis as well as US consumers did. To alleviate some of the pressure on consumers, and given that inflation was under control, the European Central Bank (ECB) and the Bank of England, for example, started cutting rates before the US.

Adding to their economic woes, the European and Japanese economies are much more exposed to global trade. As global economies have started to slow, and with China facing its own economic challenges, which include trade wars, internal structural challenges, deglobalisation and supply-chain diversification, many of these economies are being impacted.

EUROPEAN UNION IN A RUT

Over the last 12 months, European Union (EU) growth has barely been positive, but the ECB's cutting of rates has resulted in a rebound in sentiment. Having said that, in the major growth engines of the EU economy, France and Germany, confidence is at its lowest level in three years. This points to a further slowdown in those economies and in the EU economy as a whole.

Looking at the EU consumer, there has been a slight recovery in consumer spending, and retail sales have started to pick up. With interest rates falling and unemployment remaining steady, the EU consumer could start contributing more in terms of economic recovery.

On the other hand, a number of EU economies are major exporters and important manufacturers. With the global economy under pressure, they are struggling. If we look at Italy, their manufacturing sector has not recovered since the pandemic, while France and Germany are both still about 10% down in their post-pandemic manufacturing activity.

The German automotive manufacturing industry, for example, has been flatlining since 2020 and has only just returned to pre-COVID levels. The four-year lag has had a major impact on the German economy, which is built around the automotive sector. This then has had a knock-on effect on the EU economy as a whole. There are a number of reasons for this poor performance. The sector is facing challenges in terms of production costs, energy costs given the war in Ukraine, and then, also competition from around the world, especially as they were late off the starting blocks with the production of electric vehicles (EVs).

In the global EV market, China is currently producing around 70% of the world's EVs, the US produces about 10%, and Europe the rest. As the EU is behind China on the curve, they have been hit hard, especially since Europe imports a large number of EVs from China, to meet strict EU emissions targets and move away from combustion engines. This dynamic is adding to Europe's slow-down.

In an effort to protect the German automotive industry and to help with its EV competitiveness, the EU has started to implement tariffs on Chinese EVs. This move further highlights how the global slowdown has impacted an exporting country like Germany.

CHINA STRUGGLING TO REACH 5% GROWTH

China is a very important player in the global economy, and if it struggles the world struggles. Following the fallout from the pandemic, China has struggled to get its economy back to its 5% growth target, with 2024 seeing China battle its own particular economic challenges. These include debt issues, an ageing population, deflation as opposed to inflation, a real-estate bubble and low consumer confidence.

Although the Chinese government has been slow in providing support for its economy, in September, it did announce its "Three Arrow" stimulation plan. The plan includes:

1. Easing of monetary policy, where key interest rates are being reduced by about 20 basis points.
2. Stimulating the property market by making the purchase of second properties more affordable by reducing the required deposit from 25% to 15%, making it easier for people to get into the space. In addition, mortgage rates have been reduced by 50 basis points.
3. Targeted stimulus for equity markets of around 1% of gross domestic product (GDP). This support will allow companies in some sectors to buy back their stock and for financial services companies – like insurance and asset management companies – to buy a share in the stock market. The announcement of this stimulus plan had a dramatic impact on Chinese equity markets, which were up 20% following the announcement.

So, the big question, with regards to the Chinese economy, is whether the stimulus package is, in fact, the bazooka the economy needs to achieve its elusive 5%-growth target. Peregrine Wealth's view at the moment is that while it's a step in the right direction, it is not a silver bullet. It will come down to efficient implementation, and only then will we see in which direction Chinese growth will go. But as noted above, the stimulus package is aimed at broadly supporting the Chinese economy. And the Chinese government has promised further support if it is needed.

The Chinese government also wants the Chinese consumer to play a bigger role in the country's growth. Currently, consumer activity only accounts for 40% of the economy and has not contributed significantly to the country's growth over the last three years; in fact, it has been the opposite. Consumer consumption has dropped sharply, and as a result, fixed capital formation, which is an investment into the economy, has had to be increased to make up for this loss.

Adding to China's woes is that Chinese consumer sentiment is weak, and consumers are unlikely to start spending. Chinese consumer dynamics are very different to those of the US consumer. The Chinese still have excess savings and low debt, but despite this, they are not spending. Retail sales are much lower than where they should be after the pandemic. This indicates that they are still extremely concerned.

As mentioned, however, Chinese fixed investment is picking up to counter the lack of consumer spending, and manufacturing has grown and is up more than 30% since the pandemic. Yet, property, the Chinese economy's biggest concern, is suffering from an over-supply and has potential implications to destabilise growth, which is already declining rapidly. So, while manufacturing is up

30%, the property sector is down around 20%. This means that the government needs to navigate how best to stimulate and thus drive the economy forward.

While we do not believe the current stimulus package will get the economy going, we do believe it will stop the economy from slowing down further in the near term. Then, with the correct implementation, we could see China's growth pick up to an average of 4.5% over the next three years.

INFLATION AND INTEREST RATES

The growth of the global economy is currently desynchronised, with the US achieving 3% in the second quarter and countries like the UK, EU nations, and Japan all barely seeing positive numbers. However, all the regions have embarked on their rate-cutting cycles at roughly the same time. This should ideally be good for the global economy going forward, and while there is lower capacity growth, there is more liquidity coming into the system, which will alleviate the risk of a hard landing, as the cost of capital is being reduced.

Central banks, however, need to be careful because while most major economies appear to have inflation under control, it doesn't mean that inflation can't rear its head again. There have been a few headwinds that have had inflationary effects on economies. One of these is the oil price, and if the Middle East conflict broadens, this could see oil prices soar, which would impact inflation across the globe.

Therefore, any policy mistakes on the part of central banks could see inflation come back over the next couple of quarters. This will mean central banks will have to reverse their policies, but this time around, there will be greater potential for causing damage. Having said that, if things remain stable, then the rate-cutting cycle should continue for the next 12 months and well into 2025.

GLOBAL GROWTH TO SLOW… PERMANENTLY

Looking at global growth over the next two to three years, we believe that the US will slow down in an orderly fashion, getting closer to trend growth of 2%. The rest of the developed markets are still battling to find their feet. If the US gets away with a soft landing and China gets its growth engine going again, the rest of the developed markets should be able to pick up.

Over the last decade, global growth was around 3%; going forward, we believe that this number will find a footing at around 2% to 2.5%. Most notable with regard to future economic growth is that the US and China will contribute less to this growth, and emerging markets, especially India, will start taking over in terms of their contributions.

While Peregrine Wealth is cautiously optimistic, we still anticipate slower global growth with a number of challenges still lying ahead that will require navigating. We do, however, believe things are better now than they were a year ago when a global recession was still very much being debated as global economies continued to battle inflation.

Now we are more certain that inflation is under control, and it could trigger the 10-minutes-to-landing announcement that interest rates will start declining. This would mean that the world returns to a more normal economic cycle, where we are deflating the economy. If all goes well, a soft landing could be engineered, resulting in capacity growth for the world economy over the next three or four years.

While there are some headwinds for some asset classes, there are definitely tailwinds for others, creating opportunities for us to include them in our client portfolios.

Harold Strydom's article will provide a more in-depth look at Peregrine Wealth's Asset class outlook.

ASSET VALUATION SIGNALS

Harold Strydom
Investment Strategist

MEDIUM-TERM EXPECTED RETURNS

Scenario modelling has formed part of Peregrine Wealth's investment philosophy for over two decades, and it enables us to better understand potential market outcomes and construct stronger portfolios. The Peregrine Wealth Investment team has a core or "High Conviction" scenario based on a three-year view, which is expressed as macroeconomic and market assumptions, including economic growth, inflation, interest rates, price-earnings multiples, and credit spreads, to list a few. Based on these assumptions, our asset valuation models produce expected returns for various asset classes. This section is used to summarise our High Conviction view and the resulting asset signals.

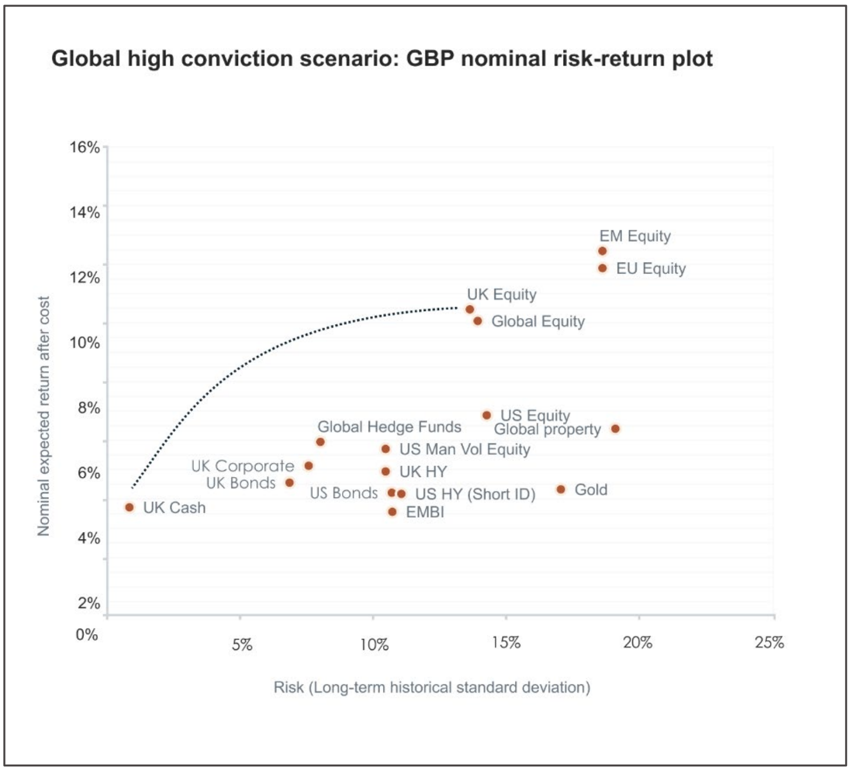
Our current High Conviction scenario assumes that the global economy will grow close to capacity over the next three years. Headline inflation has moderated to target in most regions, and central banks (with the exception of the Bank of Japan) are cutting interest rates. This should support economic and earnings growth. However, the impact of falling interest rates, similar to rising rates, will affect regions differently and with varying lags.

Equity markets have rallied over the past 12 months. While initial gains were driven by valuation expansion, earnings growth has picked up strongly. Under our High Conviction scenario, we expect this earnings growth to continue. From a price-earnings valuation perspective, the United States (US) market and certain parts of emerging markets (EMs) appear expensive, while Europe and Japan are trading below fair value. The Chinese market surged due to recently announced stimulus measures. Over the medium term, global equity maintains a neutral rating, along with the US, while Europe, Japan and EMs have an above-neutral signal.

US dollar cash remains attractive over the next three years, despite the assumed cuts in interest rates. US government bonds are rated neutral, as yields have moved up sharply over the past month. Spreads on investment-grade credit and high-yield bonds are below our fair value assumptions and rated below neutral.

The United Kingdom (UK) economy is gradually recovering, and inflation has slowed to target. This should allow the Bank of England to make further rate cuts, which should support consumers and businesses. UK bond yields are close to fair value and government and corporate bonds are rated neutral. The UK equity market continues to be attractive from a valuation perspective, but the earnings outlook is weak. The expected return outlook is now neutral.

The chart below shows the three-year expected return versus the historical standard deviation of each asset class, based on our High Conviction scenario.



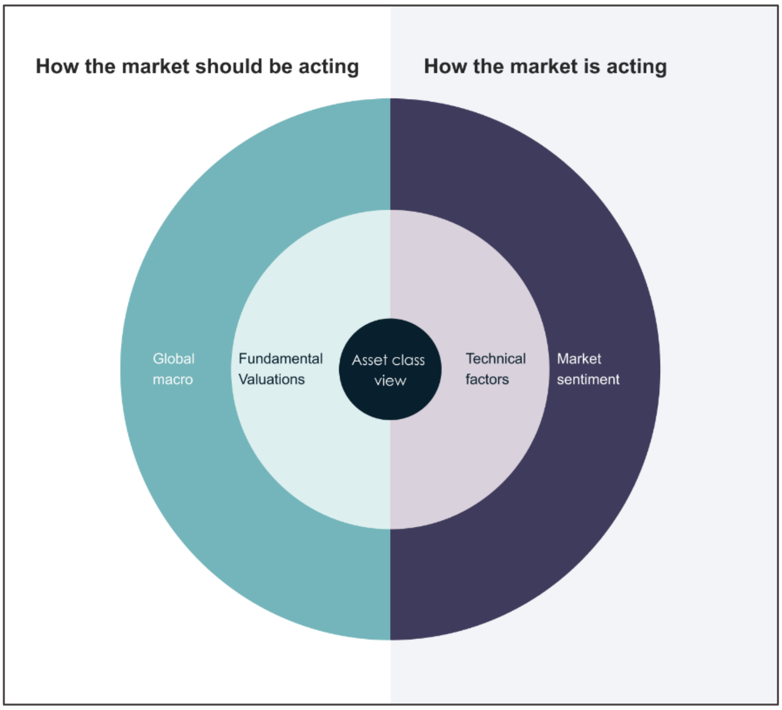
Source: Peregrine Wealth

NEAR-TERM ASSET CLASS VIEWS

Our investment process is anchored by a High Conviction macroeconomic scenario and the corresponding expected returns for asset classes. This foundation helps us form expectations about how markets should behave. However, we are keenly aware that short-term market behaviour frequently deviates from these expectations. We have long recognised that medium-term, valuation-based signals often fail to predict short-term asset performance.

To address this, we've developed a range of tools and indicators to enhance our short-term analysis. These include a close examination of market dynamics, cross-asset, currency and commodity trends, market, and several other technical factors. These insights help us adapt our views and make more informed short-term decisions.

The diagram below visualises how these two parts of the process play into each other.



Source: Peregrine Wealth

In addition to our top-down analysis, we integrate the bottom-up insights provided by our analysts. Their detailed research on individual companies and sectors plays a crucial role in shaping our overall views. When bottom-up analysis reveals strong fundamentals that contradict broader market signals, we adjust our stance accordingly. This dynamic approach allows us to balance macroeconomic factors with granular insights, ensuring our investment decisions reflect both the broader market environment and underlying asset strength.

The following asset classes have a different short-term signal, to the medium-term fundamental valuation/expected return signals:

- US corporate bond spreads have narrowed to below our fair value assumptions and the medium-term signal is below neutral; however from a short-term perspective, spreads are expected to remain tight leaving the asset class at a neutral rating.
- European, Japanese, and emerging market equities are attractive from a valuation perspective and have a medium-term above neutral signal; from a shorter-term perspective they are marked down to neutral given the lack of earnings growth and still challenging economic landscape in parts of these regions.

Our latest asset class views are summarised below.

Asset class (base currency)	Below neutral	Neutral	Above neutral
UK Cash			●
US Cash			●
UK Bonds		●	
US Bonds		●	
UK Equity		●	
Global Equity		●	
Hedge Funds		●	
Global Property		●	

USD fixed income	Below neutral	Neutral	Above neutral
Short duration			●
Treasuries		●	
Corporate bonds	○	●	
High yield bonds	●		
EM USD bonds	●		

Equity regions (base currency)	Below neutral	Neutral	Above neutral
US		●	
Eurozone		●	○
Japan		●	○
Emerging markets		●	○

Currencies & commodities	Below neutral	Neutral	Above neutral
US Dollar (DXY)		●	
British Pound /USD			●
Gold (USD)		●	
Oil (USD)	●		
Oil Copper (USD)		●	

● Asset class view (short-term signal) ○ Medium-term Valuation signal (if different from asset class view)

Source: Peregrine Wealth

ELECTRIFYING INSIGHTS – PLATINUM, PALLADIUM AND RHODIUM: OVERLOOKED OPPORTUNITIES IN A SHIFTING AUTO MARKET

LIAM ROUBACH
Equity Analyst

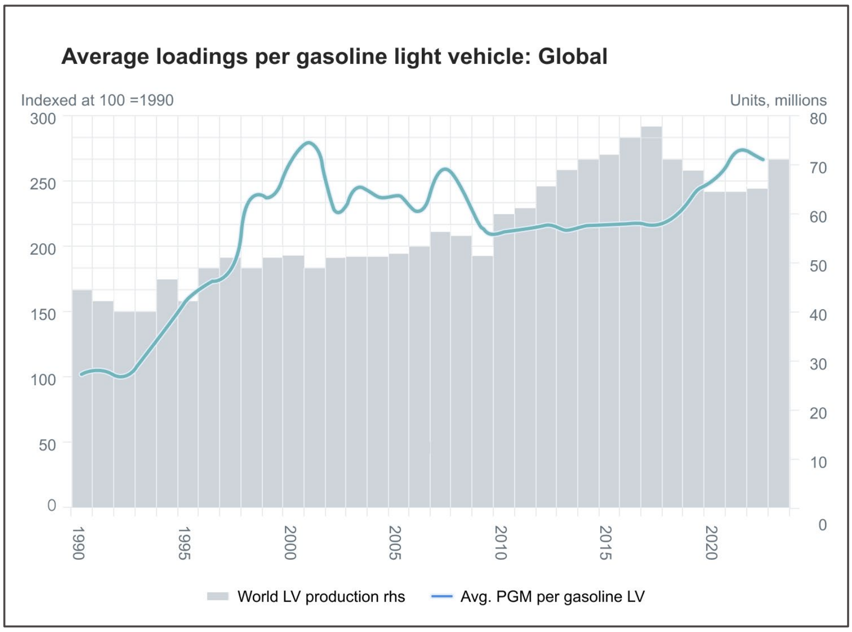
CURRENT STATE OF THE PGM MARKET

Platinum group metals (PGMs) refer to six rare-earth metals - platinum, palladium, rhodium, iridium, ruthenium, and osmium. Among these, platinum and palladium are the most significant in industrial applications, often referred to as the "2E metals." These metals are highly valued for their distinct chemical properties, making them indispensable across various industries, from jewellery to catalytic converters. Rhodium is even more unique given its chemical properties, though its end use is almost exclusively dominated by the auto sector.

A key area where PGMs play a critical role is in reducing air pollution. They are used in catalytic converters to transform harmful exhaust gases from internal combustion engines (ICE) into less toxic emissions. This function is vital as governments and industries seek to meet increasingly stringent environmental standards. According to the International Platinum Group Metals Association, catalytic converters using PGM’s can convert over 90% of exhaust gasses into substances less harmful to the environment. That translates to roughly 1.3 tonnes of toxic pollutants per vehicle annually.

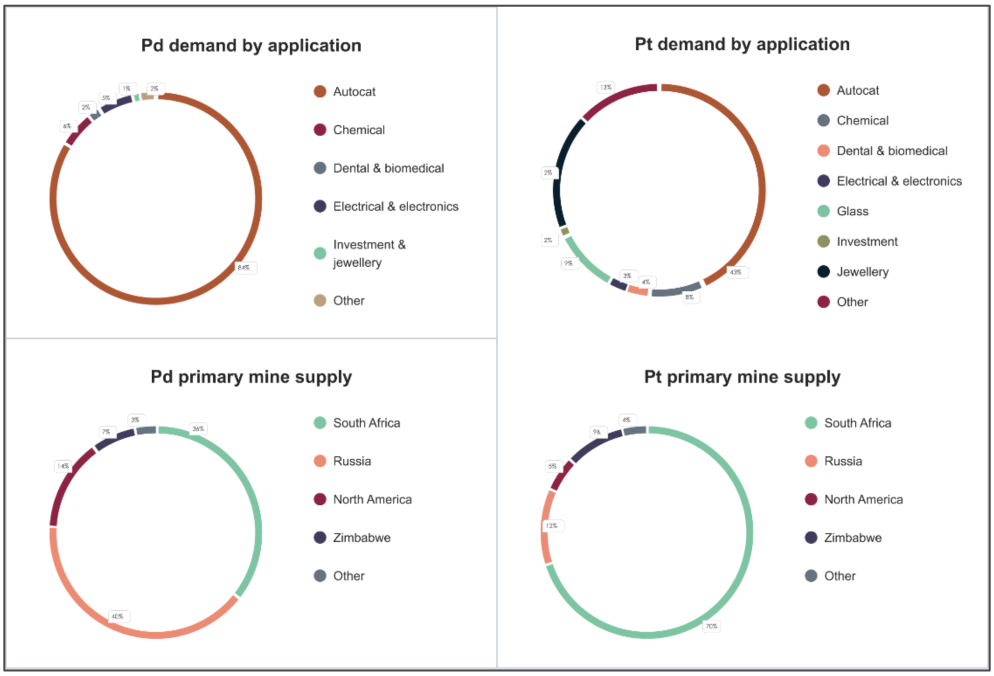
The auto industry dominates the demand for PGMs. According to sustainable technology company Johnson Matthey, catalytic converters alone account for 43% of global platinum, 84% of global palladium and 90% of global Rhodium consumption. Platinum loadings—referring to the quantity of metal used—are typically higher in diesel engines, while palladium is more heavily used in petrol engines. A typical catalytic converter contains six grams to 10 grams of PGM’s. This may differ depending on the engine size, vehicle type, and emission standard. This distinction is significant given the ongoing shifts in automotive technology. As global emission standards have tightened, a consulting firm specialising in precious metals, SFA (Oxford), estimates that average PGM loadings in catalytic converters have increased almost nine times since the '90s, see figure 1 and figure 2 below.

Figure 1: Global average loadings per light gasoline vehicle



Source: SFA (Oxford), GlobalData

Figure 2: 2E metals supply and demand dynamics snapshot

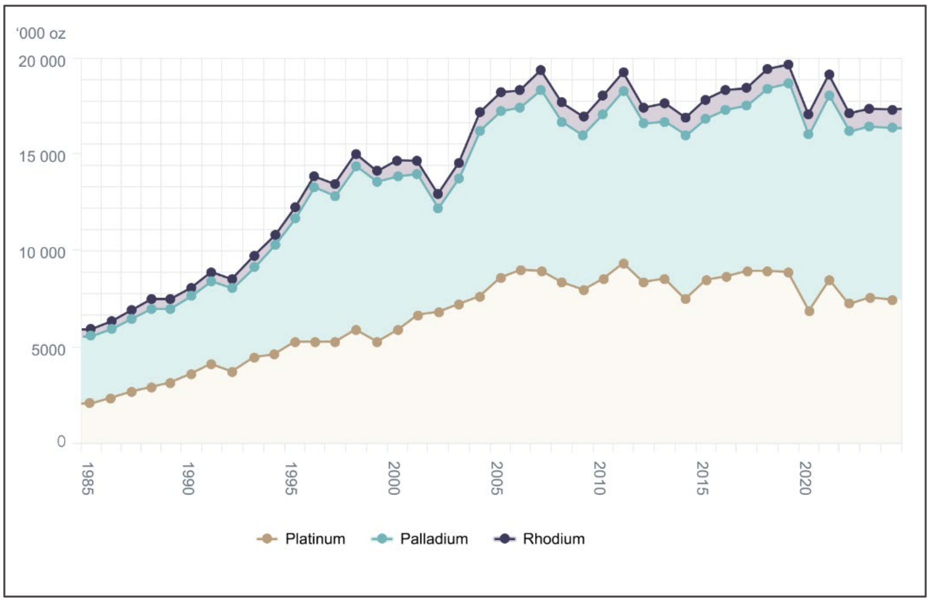


Key: Pd = Palladium, Pt = Platinum

Source: Johnson Matthey PLC - PGM Market report May 2024

On the supply side, PGM production is highly concentrated, with South Africa and Russia providing over 75% of the global mine supply. Recycling also plays a substantial role, with secondary sources contributing approximately 20% of platinum and 30% of palladium supply. The scarcity of these metals, combined with concentrated production, makes supply particularly sensitive to disruptions, whether due to geopolitical factors or labour unrest. Over the 10 years ending 2023, the collective supply of platinum, palladium, and rhodium has failed to grow, with total supply in 2023 1% lower when compared to 2013. In fact, over the last five years, total supply for the three metals, platinum, palladium and rhodium, was down 13%, 11% & 10% respectively, see figure 3 below.

Figure 3: Total supply ('000 ounces)



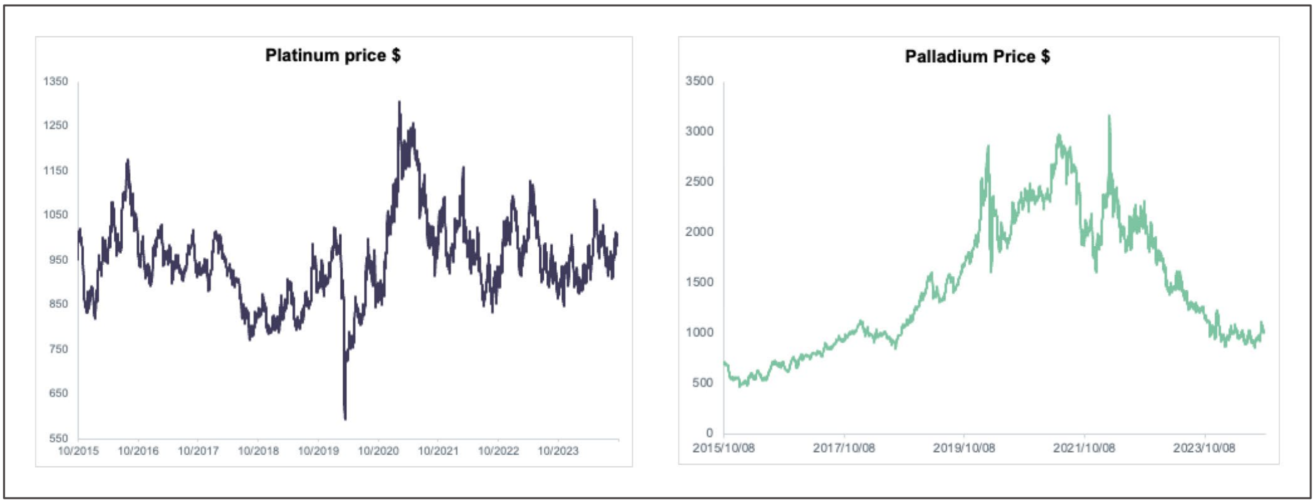
Source: Johnson Matthey PLC - PGM Market report May 2024

RECENT PRICE TRENDS AND MARKET OUTLOOK

The long-term outlook for PGMs, particularly palladium, suggests a market surplus as the global transition toward battery electric vehicles (BEVs) accelerates. Generally speaking, a market surplus occurs when supply exceeds demand, causing prices to decline, while a deficit arises when demand outpaces supply, driving prices up.

Unlike traditional vehicles, BEVs do not use PGMs because they rely on electric motors powered by rechargeable batteries. This shift has created challenging conditions for PGM prices in recent years. Palladium, for instance, has seen its price fall by approximately 69% from its all-time high of $3,172 in March 2022. Platinum has been somewhat more resilient, with prices down 25% since their peak in February 2021, thanks to its broader range of uses beyond the automotive sector, see figure 4 and figure 5 below.

Figure 4 and figure 5: Dollar spot price per ounce – 2E Metals



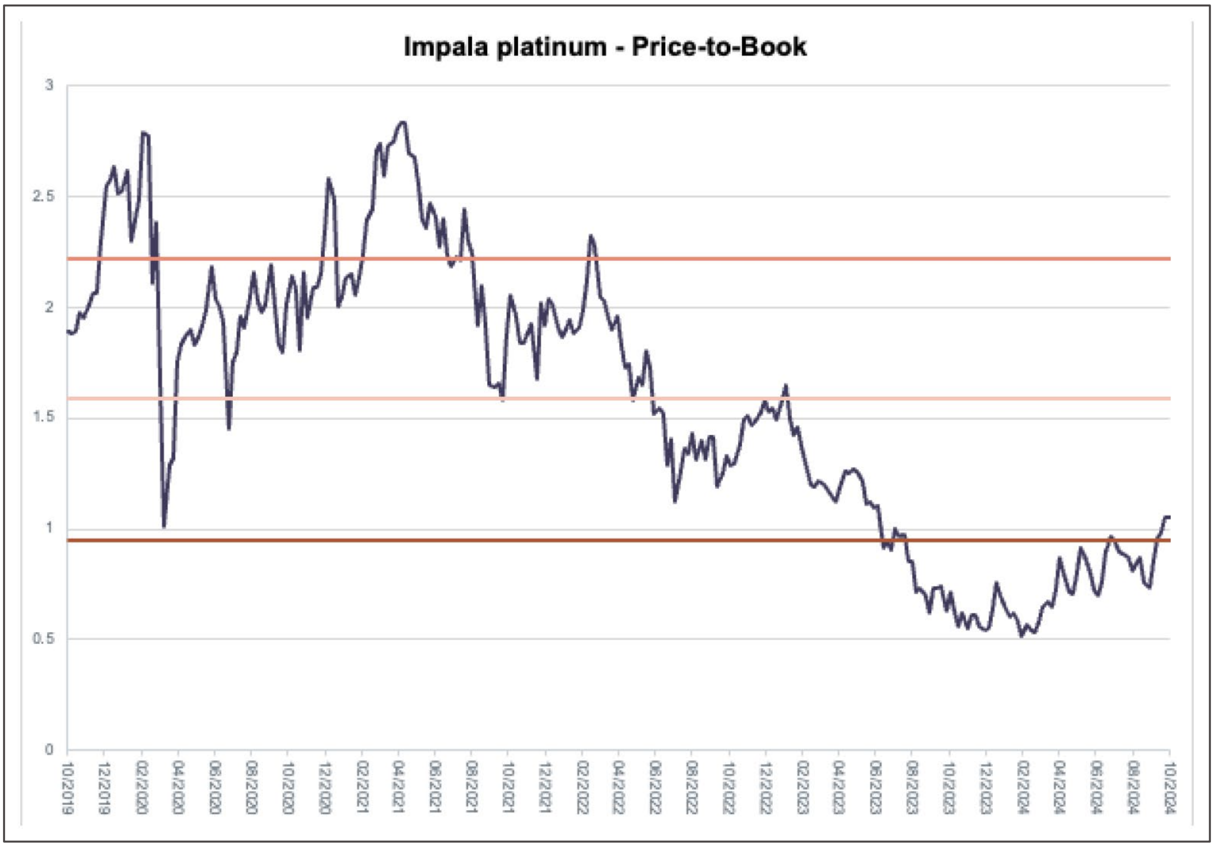
Source: Bloomberg

Despite these declines, we believe the market may be too pessimistic about PGMs, largely due to expectations around BEV adoption. There are early signs that the market dynamics may not be as negative as expected. Factors such as slower-than-anticipated BEV adoption and continued demand for hybrids and hydrogen fuel cells suggest that PGMs could retain their importance for longer than the current consensus assumes.

Investors can gain exposure to PGM markets through companies like Impala Platinum, Northam Platinum Holdings, Anglo American Platinum, and Sibanye Stillwater. These miners are highly leveraged to PGM prices and have experienced significant pressure over the past two years. All four companies have seen their stock prices fall by more than 50% since the market peak in March 2022. This decline reflects the combined impact of weakening PGM prices and rising operational costs, which have squeezed earnings and cash flows.

As a result of the weakness in PGM prices, the sector has experienced a significant de-rating, with valuations down approximately 60% from their peak in March 2022, based on the price-to-book valuation metric. In figure 6, below, we provide the price-to-book ratio of Impala Platinum, the largest PGM producer by weight in the index, with other sector names trading at similar depressed levels.

Figure 6: Valuation looks appealing on a risk adjusted basis



Source: Bloomberg

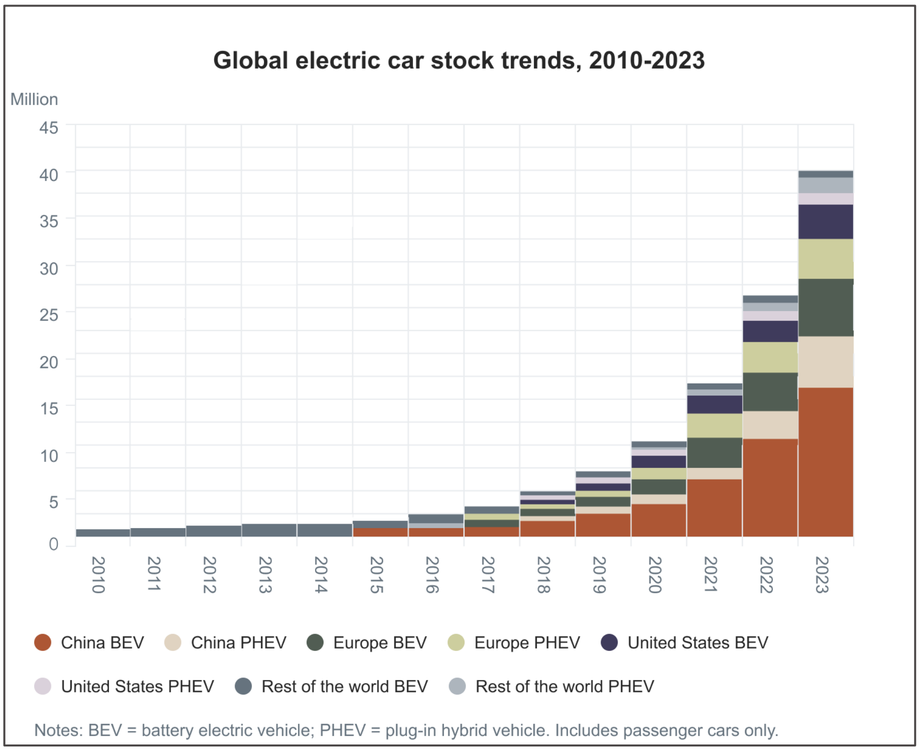
Despite the current depressed earnings outlooks, we are encouraged by recent developments, which have seen many companies in the sector undergo restructuring and implement cost-cutting initiatives. Some have also placed certain assets under care and maintenance (closing them with the intention of recommencing operations at a later date) to support metal prices, particularly palladium. These strategic adjustments could position these companies well in an environment where PGM prices start to rise again. From an investment perspective, we feel that the risk-reward outlook is improving, given the changing market dynamics, which are outlined below.

THE RISE OF ELECTRIC VEHICLES AND THE ROLE OF PGMS IN THE HYDROGEN ECONOMY

Electric vehicles (EVs) have gained significant traction in recent years, spurred by government incentives and growing consumer interest in cleaner technologies. According to the International Energy Agency (IEA), 14 million new electric cars were registered in 2023, bringing the global total to 40 million—six times the number in 2018. Electric vehicles accounted for 18% of global car sales in 2023, up from just 2% in 2018. The IEA projects that EV sales will need to more than double by 2030 to meet global net-zero emissions targets.

While BEVs represent the majority of new electric vehicle registrations, accounting for roughly 70%, we are encouraged by the rising adoption of plug-in hybrids (PHEVs) and hydrogen fuel cell electric vehicles (FCEVs), particularly in China.

Unlike BEVs, PHEVs and FCEVs consume PGMs, which is crucial for sustaining long-term demand for these metals, see figure 7 below.



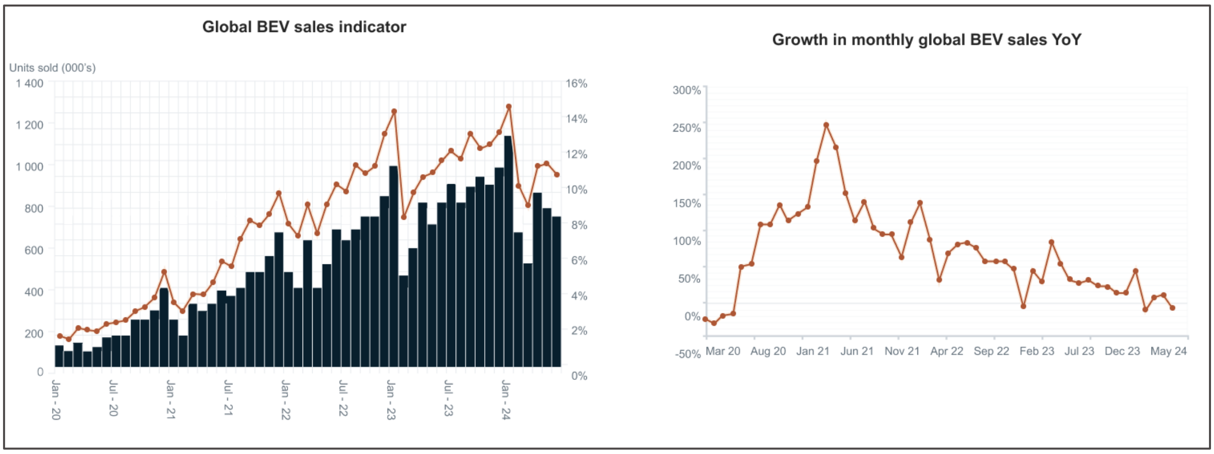
Source: IEA Global EV Outlook 2024

However, the rapid growth of the EV market is not without its challenges. In our previous article, *Valuing Tesla – Leading the Way or Just Another Cog in the EV Machine?*, we outlined some of the major obstacles that the EV industry faces. The most significant challenge remains the high cost of batteries, which are still not cost-competitive when compared with ICE vehicles. UBS estimates that the raw materials for a BEV are twice as expensive as those for a conventional ICE vehicle, while the gap for PHEVs is smaller at 1.3 times. As battery production scales and new technologies emerge, this gap should narrow. However, the increasing demand for critical minerals such as lithium, cobalt, and nickel, and the concentrated nature of their supply (primarily in China and the Democratic Republic of Congo), pose risks to the long-term viability of EV growth.

Another key challenge is the development of charging infrastructure. Although the number of charging stations is increasing, particularly in China, the convenience and speed of refuelling ICE vehicles still outweigh the current infrastructure available for EVs. A significant buildout of grid capacity and alternative energy sources will be required to accommodate mass EV adoption.

Additionally, regulatory support varies widely by region. While some countries are making aggressive strides toward promoting EV adoption, others are lagging. This uneven support could hinder global EV penetration in the near term.

Consumer surveys have also highlighted persistent concerns about the drawbacks of BEVs, including high purchase prices, range anxiety, and the lack of charging infrastructure. These factors have contributed to a slowdown in BEV market share growth. Data from SBG Securities shows that the global BEV market share has stagnated at 11% over the past two years and even declined from around 15% at the beginning of 2024 to 11% more recently; see figure 8 and figure 9 below.



Source: SBG Securities analysis, Bloomberg

HYBRID AND HYDROGEN VEHICLES: A LIFELINE FOR PGM DEMAND?

One area that we believe is underappreciated by the market is the growing demand for PHEVs and FCEVs, which do consume PGMs. FCEVs, for example, rely on platinum in their fuel cells to generate electricity through a chemical reaction between hydrogen and oxygen. This technology is still in its early stages, but several automakers, including Ford, GM, Volkswagen, Toyota, and Mercedes, have recently scaled back their BEV targets in favour of hybrid vehicles due to more favourable economics as waning demand for BEVs puts pressure on their margins.

PHEVs have been gaining significant traction, with growth surpassing many expectations. According to Bloomberg Intelligence, global sales of PHEV passenger cars increased by 44% in 2023 and are projected to rise by another 50% in 2024. Much of this expansion is driven by strong adoption in the United States and China.

As a result of this rapid uptake, industry experts have begun revising their forecasts for BEV penetration by 2030. Some estimates have been adjusted downward, with projected BEV market share falling from approximately 50% to as low as 30%. Bloomberg Intelligence now estimates that by 2030, the global market share for hybrid passenger vehicles (32%) will surpass that of BEVs (31%).

We believe this trend provides long-term support for platinum and palladium demand, as the increasing hybridisation of drivetrains by original equipment manufacturers and growing consumer adoption will sustain robust demand for PGMs well into the future.

CONCLUDING REMARKS

The PGM market is shaped by complex demand and supply factors, particularly as automotive technologies and regulations evolve. While PGMs have been vital in curbing emissions through catalytic converters, the rapid growth of BEVs presents challenges to future demand. However, the rising adoption of PHEVs and FCEVs provides an offset, as these vehicles still rely on PGMs.

Despite recent price declines, market sentiment may be overly negative. Slower-than-expected BEV uptake and sustained demand for hybrid technologies indicate that PGMs will continue to play a significant role in the automotive industry. Additionally, the heavy concentration of PGM production in regions like South Africa and Russia creates potential supply risks, further underscoring their importance.

Looking ahead, it’s crucial for PGM stakeholders to navigate these changes and seize emerging opportunities. PGM mining companies' efforts to restructure and manage costs could position them well as market conditions shift. While challenges persist, the long-term outlook for PGMs may be more favourable than current perceptions suggest, driven by changing consumer trends and regulatory developments. As we navigate this transitional phase towards greener technologies, understanding the evolving landscape will be crucial for stakeholders within the PGM industry.

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