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Global Passenger Cars Analysis Report (2024)

WHITEPAPER REPORT (5th September 2024)

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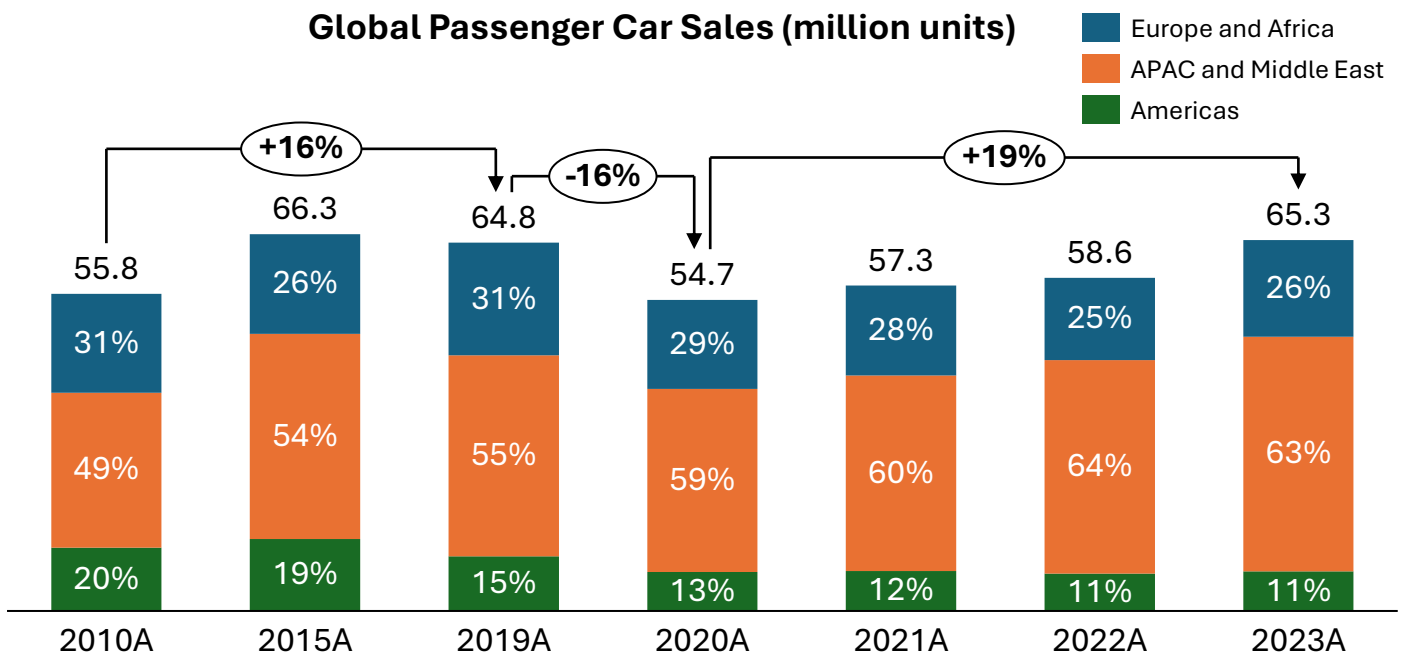
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Passenger car market Overview

For over a hundred years, the passenger car industry has transformed modern society by providing independence and freedom of mobility. The ability of passenger cars to provide a superior blend of safety, comfort, and convenience has made it a preferred mode of transportation. The rise in the global economy over the years has resulted in growth in passenger car sales. After the setbacks from COVID and supply chain disruptions, push toward sustainability and the pent-up demand are back to drive the current passenger car market. The automotive industry is currently going through a fundamental transformation of shifting from traditional ICE (internal combustion engine) vehicles to electric vehicles in order to reduce the carbon emissions from the passenger cars.



Source: OICA

Historical Developments in Market

Passenger car sales grew through 2010-19:

Post-financial crisis of 2008, central banks around the globe adopted low-interest rate policies with improved access to credits, to stimulate the global economy. Further, the rise of urbanisation in developing countries such as China and India increased the demand for passenger car vehicles and the region's market share. These economic conditions helped the industry, to register strong growth from 2010 to 2019, with ICE vehicle sales peaking in 2017. Sales increased by ~16% from 2010-19.

COVID Impact in 2020:

While COVID had begun impacting the global economy in 2019, the full-throttle impact was felt in 2020, and automobile industry bore the brunt of the impact. COVID-19 and the resultant supply chain disruptions resulted in significant decline in the sales of passenger cars in 2020 (down by ~16% y/y).

Normalisation period through 2021-23:

Post-pandemic, due to low baseline and catch-up effects, strong recovery in the automobile industry was observed. Restoration of the supply chain and increased demand pushed the vehicles' sales towards normalization from 2021. However, Rising geopolitical tensions, shortage of critical components such as semiconductors impacted production and increased prices, causing fluctuation in 2022. For FY 2023 the sector showed substantial growth of ~11% in passenger vehicle sales, bringing the industry back to pre-pandemic levels.

Slightly higher sales in H1 2024:

In the first half of 2024, the sales volume of the global passenger car market was slightly higher than H1 2023. This trend aligns with our estimation of slight growth in the market in 2024 after strong growth in 2023. The affordability of vehicles improved with increased sales incentives, prominently for electric vehicles.

Passenger vehicles can be categorised based on vehicle body type, and propulsion type:

-Vehicle Body Type: Hatchbacks, Sedans and Sport Utility Vehicle (SUV)

-Propulsion Type: ICE (Internal Combustion Engine Cars) and EV (Electric Vehicles):

-ICE Vehicles- Gasoline, Diesel, LPG (Liquid Petroleum Gas), CNG (Compressed Natural Gas),

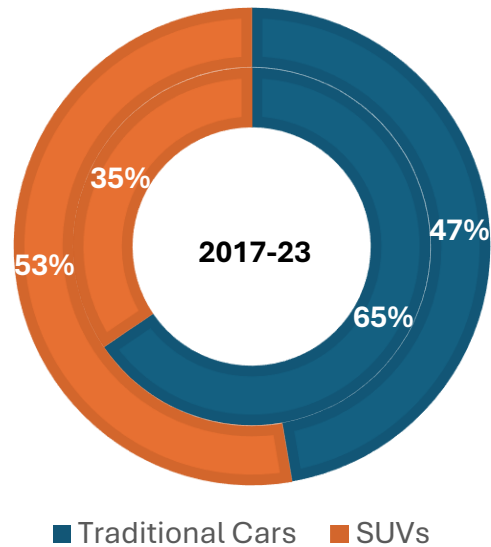
-EV- Battery Electrical Vehicle (BEV), Hybrids i.e. Hybrid Electric Vehicle (HEV) and Plug-in HEV (PHEV)

Market Segment (Body Type)

Vehicle body (SUV – the preferred choice):

Historically, traditional cars (Sedan, Hatchback) accounted for the majority market share of total global sales. However, there has been a shift in the preference towards the SUV segment in the last decade. e.g. since 2017 (when the sales of ICE vehicles peaked), SUV cars increased their market share significantly from ~35% to >50% by 2023. The compelling combination of spaciousness, comfort, safety, and off-road capabilities made them suitable for various lifestyles and terrains.

The compact and mid-sized SUV market has risen significantly due to better pricing point, compared to full-sized SUVs. Further, electrification of SUVs due to increased awareness of sustainability along with increasing driving range and safety are boosting their growth within the EV category.



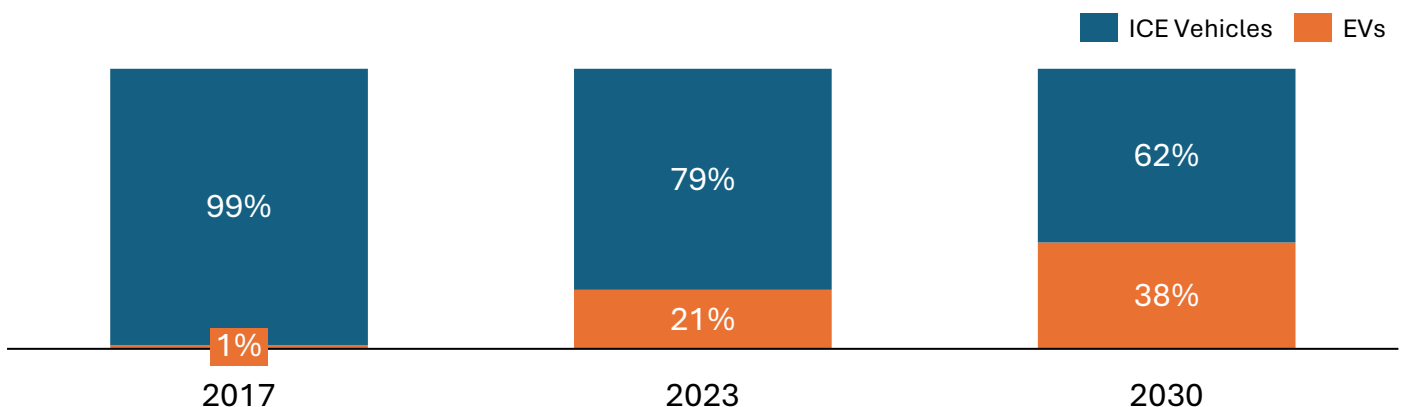
Source: International Energy Association (IEA), based on cars sold, SP2 Analytics estimates

Market Segment (Engine Type)

ICE (internal combustion engine) vehicles to see a declining trend:

The ICE segment accounted for the largest market share of ~80% in 2023 (based on units sold). The affordability of ICE vehicles with the existing infrastructure, and the efficiency to function in all weather conditions and terrains continue to hold grounds for the demand for ICE vehicles over EVs.

The sale of ICE vehicles peaked in 2017 attributing to ~99 % of the total market share. However, with the increase in awareness about sustainability, and various government initiatives to reduce carbon-emission on the global scale, the sale of ICE vehicles has seen a declining trend. It is anticipated that the sales of ICE vehicles will continue to decrease considering the adoption of stringent government regulations by various nations. Based on Stated Policy Scenario (STEPS) provided by IEA, ICE car sales are expected to account for ~60% of the market share by 2030E.



Source: SP2 Analytics estimates. IEA (cars sold), World Energy Outlook 2023,

Electric Vehicles (Gaining Momentum and Market Share)

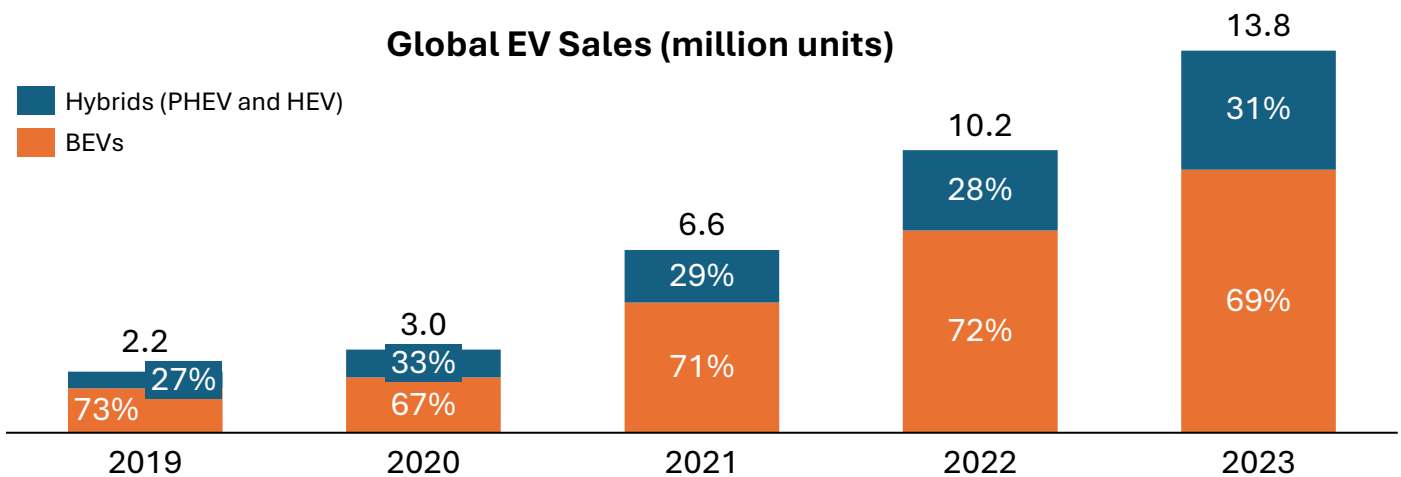
The adverse environmental impact of internal combustion engine (ICE) vehicles, particularly in terms of greenhouse gas and carbon emissions, has significantly driven the demand for electric vehicles (EVs). Governments worldwide are pushing towards zero carbon emissions, implementing stricter environmental regulations through agencies like the European Commission (EC) and the United States Environmental Protection Agency (US EPA). These regulations are compelling automotive manufacturers to prioritise the production and sale of EVs. As a result, the industry is witnessing an accelerated push from traditional ICE vehicles towards electric alternatives.

In 2023, Electric Vehicles accounted ~20% of the market, up from a ~17% share in 2022. Most of the sales are concentrated mainly in traditional key markets such as China, Europe, and The United States (same is expected to continue in 2024). China accounted for ~60% of global EV sales in 2023, Europe and the United States accounted for ~25% and ~10% respectively. As these regions cover >2/3rd of the total passenger car market, a growing trend of electrification in these markets is expected to boost the market share of EVs significantly.

On the other hand, EV sales in emerging markets and developing economies are also rising but remained low overall as personal cars are not the most common means of passenger transport, especially compared with minibus, two-wheelers, and three-wheelers (2/3Ws). Additionally, the lack of infrastructure for the EV is another hindrance to their growth prospects.

Based on the World Energy Investment Report 2024, the global EV sales in 2024 are expected to grow by ~20% y/y vs ~28% in 2023. The expected maturity in the Chinese market, and cancellation of some subsidies in Europe, China and India are expected to contribute to the slowdown vs previous year. Despite the slowdown in short term, EV sales are expected to account for ~38% of the market share by 2030.

Trends in EV Segment



Source: IEA, Global EV outlook 2024 (cars sold)

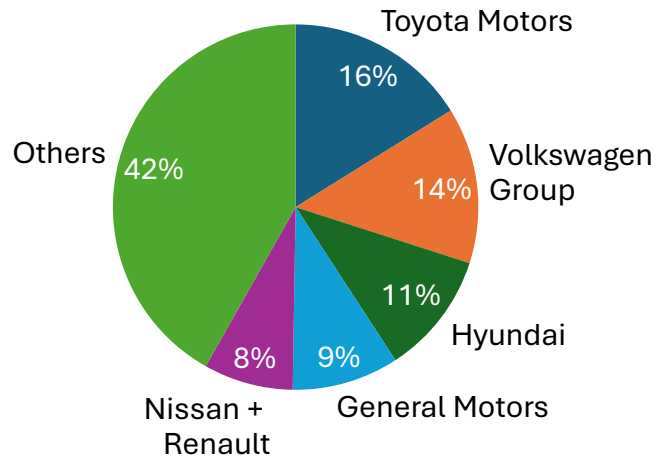
The underdeveloped charging infrastructure, long durations of charging, and the limited driving range with a full charge are creating apprehension among the potential buyers of battery-powered EVs (Battery Electric vehicle / BEV). In response to these concerns, Hybrids i.e. HEV (Hybrid Electric Vehicle) and PHEV (Plug-in-Hybrid Vehicle) are emerging as attractive alternatives within the EV segment.

Hybrid electric vehicles (HEV) combine an ICE with battery power, providing dual propulsion as the battery is autonomously charged through energy from ICE and regenerative braking. On the other hand, plug-in hybrid vehicles (PHEV) are designed to operate on ICE and batteries with a plug-in charging function.

The growing appeal of hybrids, especially PHEVs has resulted into a notable rise in sales. In 2023, Hybrids sales jumped by ~48% y/y, accounting for ~31% of total EV sales, and this trend is expected to continue.

Competitive Landscape

The global landscape of passenger vehicles is highly competitive with several companies competing for the market share. The top five companies in the passenger car market contribute to ~58% of the market share (based on the units sold in 2023) with Toyota Motors having a market share of ~16%, followed by Volkswagen Group (~14%), Hyundai (~11%), General Motors (~9%), and Nissan + Renault (~8%). Stellantis, Honda, Ford, Tesla, BYD, and Suzuki are among the other major players.



Source: Company filings, SP2 Analytics estimates

EV companies such as Tesla, BYD, and RNM are entering the competitive landscape. Further advancement in battery technology, increase in the driving range, adoption of high safety standards, and innovative designs should drive the competitive change in the industry over the next decade.

Important Commentaries On Market

Volkswagen 2024 outlook: “Our planning is based on the assumption that the global economic output will grow overall in 2024 at a similar pace as in 2023. The trend in the automotive industry closely follows the global economy. Overall global volume of new car sales is expected to be slightly higher than in previous year.”

Hyundai 2024 outlook: While there was no specific commentary on the global economy of the passenger car industry, Hyundai is expecting +0.6% Y-o-Y growth in the global sales volume suggesting nearly flat growth in 2024 with rise in sales for Americas and APAC regions.

Nissan 2024 outlook: In 2024, Nissan expects its global sales volume to increase by +6.0% Y-o-Y vs 2023. North American region is expected to show significant growth in sales volume followed by European and APAC regions which are expected to have moderate growth in 2024. The production in 2024 is expected to remain flat compared to 2023.

Overall, majority of the top players are anticipating that the global passenger vehicles market will either remain flat or grow slightly as compared to 2023.

Regional Dynamics (continued on next page....)

Global market trend:

Since peaking in 2017 (following years of growth), global passenger car sales volume declined in 2018 and 2019. Further, disruption in sales in 2019 and 2020 due to COVID-19 led to decreased sales and a build-up of inventory levels. The recovery of the economic output started in 2021 driven by the low baseline and catch-up effects eventually decreasing the inventory pressure. However, the rising inflationary environment, higher interest rates around all the regions, the looming threat of a recession, and resulting subdued consumer spending collectively slowed the industry’s momentum in 2022. The restrictive monetary policy measures taken by central banks around the globe also curbed the consumer demand. These economic conditions resulted the inventory levels to rise to highest level in last five years, indicating flat growth in the industry for 2024 despite of strong sales in 2023. The first half of 2024 has shown positive signs, with easing inflationary pressure globally and rate cut later in the year could set the stage for a stronger 2025.

(cont....) Regional Dynamics

Regional Trends in Passenger Car Industry:

(Units in Millions)		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 E
Europe and Africa	Sales	17.5	18.3	18.8	18.8	18.8	14.8	14.8	13.4	15.7	16.4
	Y-o-Y growth %		4%	3%	0%	0%	(21)%	0%	(10)%	17%	4%
	Indexed Inventory	100	130	151	166	180	186	176	198	210	
o/w Germany	Sales	3.2	3.4	3.4	3.4	3.6	2.9	2.6	2.7	2.8	
	Y-o-Y growth %		5%	3%	(0)%	5%	(19)%	(10)%	1%	7%	
Americas	Sales	12.7	11.7	11.3	10.6	9.6	6.9	7.0	6.6	7.0	7.2
	Y-o-Y growth %		(7)%	(4)%	(6)%	(9)%	(29)%	2%	(7)%	6%	4%
	Indexed Inventory	100	(115)	(130)	(145)	(158)	(168)	(181)	(190)	(199)	
o/w USA	Sales	7.5	6.9	6.1	5.3	4.7	3.4	3.4	2.9	3.1	
	Y-o-Y growth %		(9)%	(12)%	(13)%	(11)%	(28)%	(2)%	(15)%	9%	
APAC and Middle East	Sales	36.1	39.4	40.6	39.3	36.4	33.0	35.4	38.7	42.6	43.4
	Y-o-Y growth %		9%	3%	(3)%	(7)%	(9)%	7%	9%	10%	2%
	Indexed Inventory	100	116	131	146	161	171	181	194	209	
o/w China	Sales	21.2	24.4	24.7	23.7	21.5	20.2	21.5	23.6	26.1	
	Y-o-Y growth %		15%	1%	(4)%	(9)%	(6)%	7%	10%	11%	
Global	Sales	66.3	69.5	70.7	68.7	64.8	54.7	57.3	58.6	65.3	67.0
	Y-o-Y growth %		5%	2%	(3)%	(6)%	(16)%	5%	2%	11%	3%

Source: OICA, SP2 Analytics estimates

Europe and Africa:

From 2015 to 2017, the European region experienced growth in the passenger car industry. However, the extended impact of Brexit and the Volkswagen emission scam was observed in 2018 and 2019 resulting in decreased sales volume and increased inventory levels. The COVID-19 effect and the following slow recovery in the economy impacted the period from 2019 to 2022. However, the European region recorded a substantial recovery in 2023, the highest of all the global regions despite an inflationary environment.

Inflation has shown a downward trend in 2024 and is expected to continue easing throughout the year. Overall, sales of passenger cars in 2024 are expected to grow slightly in 2024 vs 2023.

Americas:

Passenger car inventory levels in the Americas region peaked in 2014, creating significant pressure. Since then, inventory levels have gradually decreased. From 2015 to 2018, repeated interest rate hikes by the U.S. Federal Reserve increased mortgage costs, while the U.S.-China trade war impacted car production, resulting in lower sales volumes during the period.

The current trend of decrease in inflation is expected to continue or remain flat for the rest of 2024. The sales volume in the overall Americas region is expected to show a slight increase compared to the previous year based on the anticipated economic condition.

Asia-Pacific and Middle East:

APAC and Middle East region being majorly driven by China, were affected by the cut in tax benefits in 2017, the trade tariff war in 2018, the introduction of the China 6 emission standards in 2019, and eventually the pandemic. This resulted in slow growth in the passenger car industry in the region.

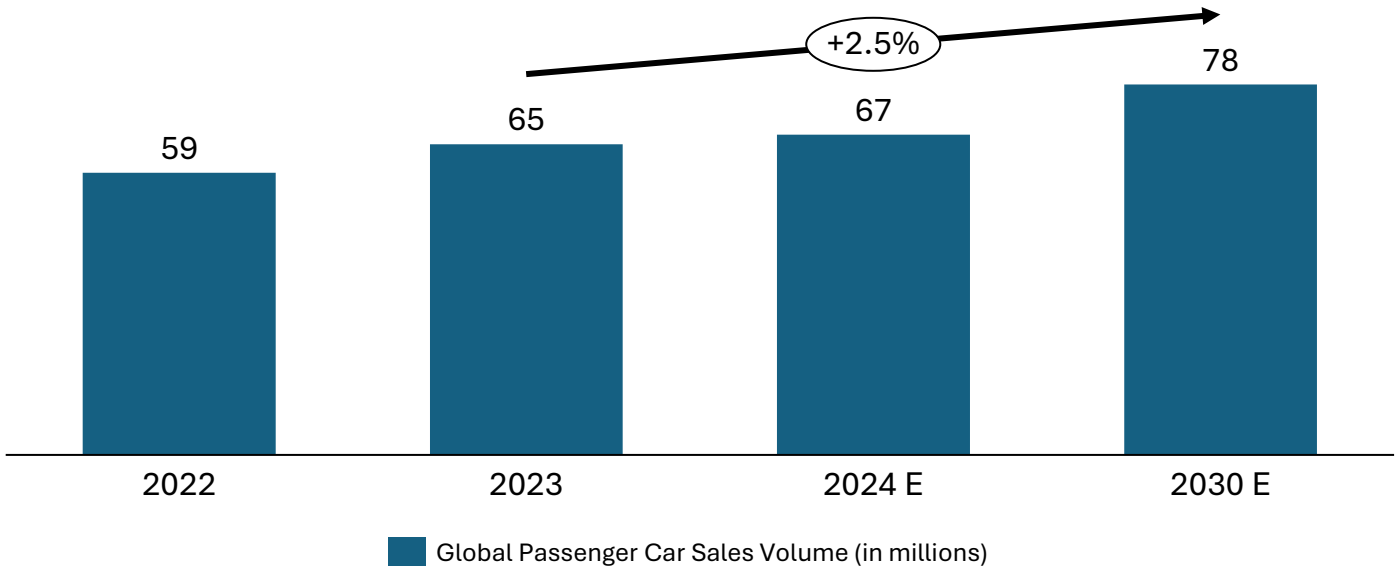
Market volume in China for 2024 is expected to be higher than the comparative figure of 2023. We anticipate that the Indian and Japanese markets will remain at the prior year's levels.

Overall, with the ease of inflation, the advanced economies are expected to grow slightly better than the emerging economies for 2024, bringing the overall market back to pre-pandemic level.

Long Term Growth Prospects Remain Intact

Our estimates suggest that the passenger car market will show slight growth globally for 2024, hence we have estimated a growth rate of ~2.7% for the year. Beyond that, the market should be driven by megatrends like electrification, alternate sustainable fuel technologies, increase in disposable income in developing countries. And, as the global sales level have already reached the pre-pandemic level, hence the long-term growth rate is expected to be back to 2-3%, majorly driven by the growth in the EV segment.

(We have kept our forecast conservative on the back of increased geopolitical tensions, and possibility of sustained inflationary trends)



Source: SP2 Analytics estimates, OICA

Industry Megatrends

Electrification and technological advancement:

Global initiative for push towards sustainability is driving the electrification of cars. This will be the major driver for the industry in the coming years. The technological advancements and innovations for electrification such as HEV and PHEV should be considerable factors impacting the industry.

The advances in battery technologies providing longer driving ranges, EVs charging infrastructure developments with the Internet of Things (IoT), and connected vehicle technology advancement should accelerate the market growth further.

Rising disposable income :

As inflation eases, global economic growth should be back on track and this is expected to increase....

...the disposable income in developing countries. Key markets of North America, Europe and China have a major market share, however, as the global economy grows, the developing nations should increase their share due to the increase in disposable income per capita.

Alternate sustainable fuel technologies :

The growing awareness of sustainability is resulting in the development of passenger car technology for the adoption of alternate fuels. Along with the electrification of passenger cars, the use of hydrogen and carbon-neutral fuel is gaining attention globally. Technological advancements in alternate fuels could further boost the growth of the passenger car industry.

Conclusion:

Growth in electrification, use of alternate fuels, and rising disposable income are the major megatrends that are expected to drive the industry in the long term. Increased geopolitical tensions, sustained inflation and supply chain issues remain risks to our growth assumptions.

Let us Connect:

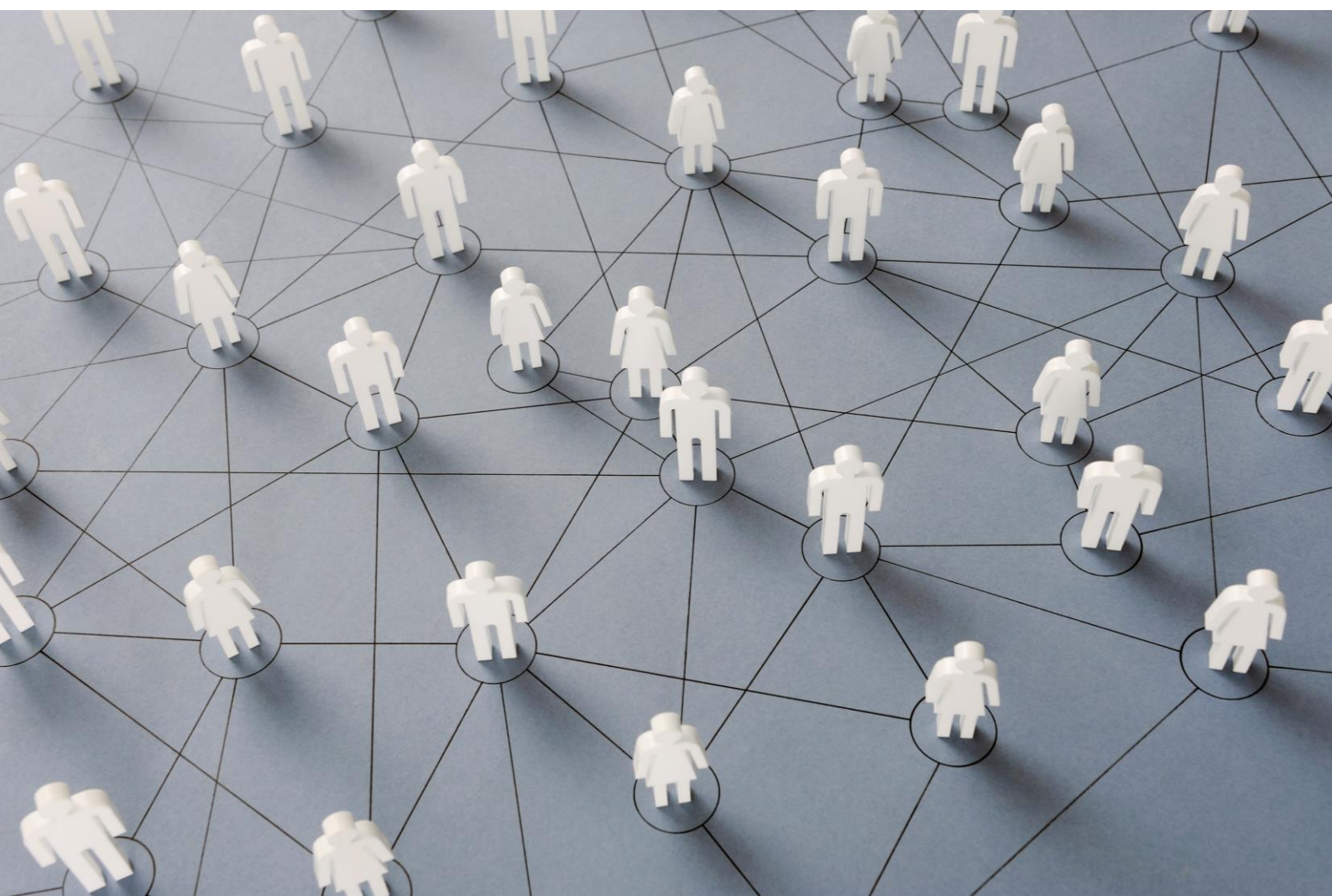
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