

How to trade the EV disruption

Introduction

Even though electric cars today only account for nearly 3% of the global car sales, companies have for a long time acknowledged that only by starting to invest now in a shift to EVs, they will have a chance to survive in the years to come and continue to be profitable. In terms of scope, this is probably one of the most important revolutions after the arrival of recent technology, and it will not only affect our daily transportation but also the most traded commodity on earth, crude oil. This article tries to offer an analysis of how one can better cope with this transition by understanding the impact on the affected markets.

An overview of the EV industry

Recent data shows that since 2016, yearly electric car sales growth has been at least 30%, however, the trend stopped in 2019, when growth rate went down to 6%.

In terms of time, the two following decades are seen as crucial for the shift and among the myriad of factors that drives this new challenge, three factors are decisive:

1. Policies such as the ICE cars ban by 2030 announced by 20 cities worldwide and the EU zero emission target which is part of the broader 2050 Green Deal;
2. Customer barriers regarding the new technology, which once overcome, will lead to an exponential increase in demand;
3. Threshold of 100\$/kWh, the price per kilowatt hour for battery pack, which according to analysts, will imply cost parity between ICE vehicles and EVs.

Focus on automotive leaders

Although new companies such as NIO, Xpeng, Lucid Motors, Nikola, have a promising future, we will focus on traditional automotive leaders. This is because we believe that differently from these startups, there are more opportunities which are not yet priced in and that deal with less volatility.

During this beginning of 2021, Ford, GM and Volkswagen have all announced massive investment in their EV division:

- Ford plans to invest \$29 billion in electric and autonomous vehicles through 2025 and it will stop selling cars with any form of internal combustion in Europe by 2030;
- GM announced it plans to phase out gasoline and diesel-powered vehicles globally by 2035 and is investing \$27 billion in electric and autonomous vehicles over the next five years;
- Volkswagen will spend €35 billion on battery-electric vehicles development, and further €27 billion on digitalization over the next five years.

On its Power Day, it presented its EV road map which includes: the construction of six gigafactories with a total production capacity of 240 GWh in Europe alone by the end of the decade, 18,000 public fast-

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charging points in the EU by 2025 and an order of \$14 billion of battery cells from Northvolt over the next 10 years.

Cyclical nature of the automotive industry

Before jumping to the comparison between the different players within the industry, it is important to consider one main characteristic of the automotive industry: cyclicality.

An industry is cyclical when its trend is highly correlated to economic growth. Indeed, stages of economic expansion are accompanied by industry growth, and economic downturns lead the industry to suffer. Since the start of the pandemic, the economy has alternated at a high pace periods of uncertainty and periods of hope for a recovery and this is the underlying reason of why the market has been extremely volatile. Differently, the EV stocks previously mentioned, which cannot be considered as cyclical, are technological in nature and therefore, to some extent, they carry the high-volatility characteristic of the tech industry. Although the pandemic is anything but ended, the IMF expects a strong rebound in 2021 with a 5.5% growth projection of global GDP. As a consequence, we expect the automotive industry as a whole to recover, and for this reason, picking the stocks that will ride this wave in the best conditions is essential. Moreover, by focusing on the YTD comparison we can notice a clear correlation between the prices of traditional automotive companies, which have experienced a surge in their valuation, and the prices of startup companies previously mentioned, which have plunged. The justification is to be found in the current market rotation that is shifting investors from “momentum” stocks to “value” companies, which in accordance with Mike Wilson, Morgan Stanley's chief US equity strategist, might accelerate even further as the economy recovers.



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Comparison

When talking about evaluation of these companies the questions that often arise are:

Why is Volkswagen worth roughly \$150 billion and Tesla \$600 billion, when the first one plans to sell 1 million EVs this year and the second one sold half a million vehicles last year?

Why is NIO worth \$60 billion when the market cap of Ford does not even reach \$50 billion?

It is surely not easy to answer these questions primarily because in the short term the market can be driven by irrationality and the evaluation of NIO and Tesla is based mainly on their technology since their fundamentals have little to say. On the other hand, Volkswagen, Ford and GM have not developed any advanced technology that make them stand out, but it is clear that they have infrastructures, market share, experience and other advantages that most of the EV startups don't possess.

From a fundamental point of view, among these three companies, Ford has the worst ratios and although it has a clear plan for the future, we believe it is better to avoid investing in it since we see this as an all-in with no plan B and given that the competition is extremely high, a hypothetical flop would certainly further compromise its financial stability. Between GM and Volkswagen, in our opinion, the latter seems to have more potential.

The reasons are:

- The Dieselgate scandal impact on its reputation has been more or less recovered
- VW AG and its subsidiaries have already a strong brand associated to numerous successful all-electric vehicles on the market such as ID.4, Audi e-tron, Porsche Taycan
- In the EU, the fastest growing EV market alongside China, VW AG is the largest manufacturer with a market share of 26% and more than 3 million vehicles sold in 2020
- After Tesla, the German manufacturer is one of the closest to achieve the magic number of cost per battery less than \$100 per kWh, which will decrease even further thanks to the new unified cell technology

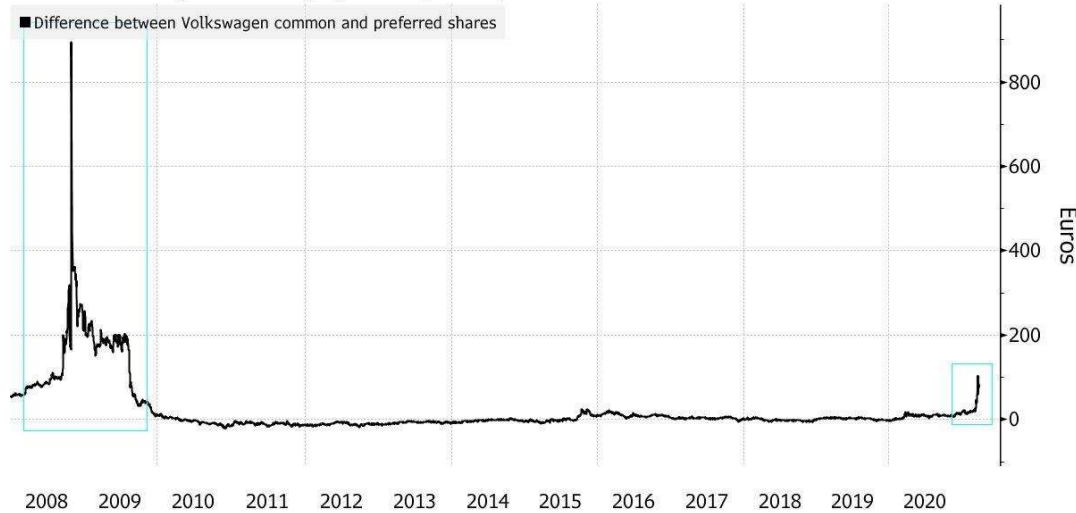
The preferred shares of Volkswagen registered a 50% increase in the first quarter of 2021, and the reason seems to be that the Power Day and a rumored initial public offering for Porsche led to an increase in demand for the stock. It is important to distinguish the two share classes: the preferred, which carries no voting rights, and the common, which carries them. The distinction is important because they basically refer to the same stake in the company but often gaps and therefore opportunities arise between the two classes, the most striking one dates back to October 2008, when Porsche SE tried to take over VW leading to a short squeeze that brought the latter's ordinary shares to an intraday high of €999 and made VW the most valuable company on the planet. Recently, the gap surpassed €100 at one point with the preferred traded at just €220 and the ordinary priced more than €320. This divergence is tiny compared to 2008, but this time the underlying reason seems to be that retail investors, due to the enthusiasm regarding the recent news, were buying without understanding the distinction between the two. This is to say that at this time in history, for most investors, there are no good reasons for holding the more expensive ordinary shares.

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To summarize, we foresee in the near future an increase in evaluation of traditional automotive companies, and in particular, VOW3.DE, the preference share of Volkswagen AG, seems to be a good option for investors. Our price target for the stock, currently traded at €241.15, is €300, the time-horizon recommendation is to hold it for at least 3 years from now.

No Tantrum Yet

New Volkswagen share gap is tiny compared to the last incident



Oil industry

In this final part of the article, we are going to address what are the most recent forecasts for oil demand and analyse the key drivers, all this by focusing on the automotive industry.

In IEA's 2018 report, the passenger vehicle sector, largest by oil consumption, accounted for 23% of the global oil demand (95m b/d). Trucks and aviation industry followed, with respectively 17% and 12%, leading the whole transport sector to consume more than a half of the oil extracted in the world. From these data it immediately stands out how important the transportation sector is for the oil industry, but leaving out the passenger car and the truck sector, others are still far from shifting away from oil dependency.

Hence, the question arises, how large will the impact of EVs be on oil demand?

To answer this question we analyse three key drivers:

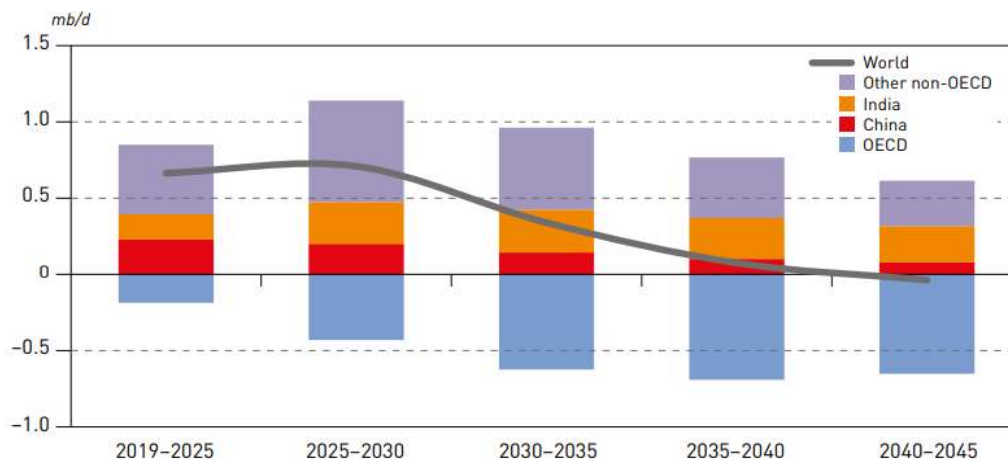
1. Developing economies
2. EV penetration
3. Oil demand displaced by EVs

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Developing economies

Before considering EVs more in depth, we analyse briefly the role of developing countries in oil demand. In the last ten years global oil demand has risen constantly, and even though it plummeted in the last year due to the pandemic, it is expected to continue to grow in the next ten years. Most of this growth is expected from developing economies, where rising incomes are forecasted to improve living standards and lead to an important increase in oil demand that will offset the reduction in other developed countries around the globe. However, due to uninterrupted improvements in fuel efficiency, the growth driven by the transport sector will be limited, instead, most of the growth will be driven by industrial demand, where oil is used as feedstock in the petrochemical sector. Nevertheless, in the 2030s, most of the analysts predict that the growth will come to an end and decrease will begin since then. Evolution of fast-growing Asian countries will be determinant to assess when this decrease will begin and how sharp it will be.

Average annual oil demand increments by region, 2019–2045



Source: OPEC.

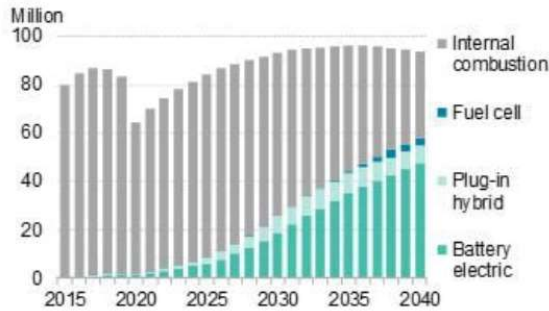
EV penetration

In 2019, EV sales were 2.1 million; this number is expected to increase to 54 million by 2040. As a consequence, the EV share of new car sales, 2.7% in 2020, will increase to 58% in 2040. The fastest growing markets, China and Europe, are going to have much higher penetrations with respect to other emerging markets. Today the size of the global EV fleet is around 8.5m; it is likely that in 2030 the fleet will count 116m vehicles. Despite this sharp increase, today's 1.2 billion passenger vehicles on the road will see an increase of just 17%, leading to 1.4 billion cars in 2030.

Overall, EV sales are forecasted to remain limited until 2025, when decreasing battery costs and government policies will push up EV penetration rate. In particular, European vehicle CO2 regulations and China's EV credit system will largely restrict ICE car sales.

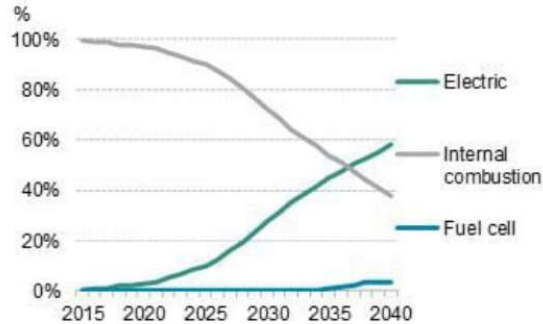
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Figure 5: Global annual passenger vehicle sales by drivetrain



Source: BNEF. Note: Electric share of annual sales includes battery electric and plug-in hybrid.

Figure 6: Global share of total annual passenger vehicle sales by drivetrain

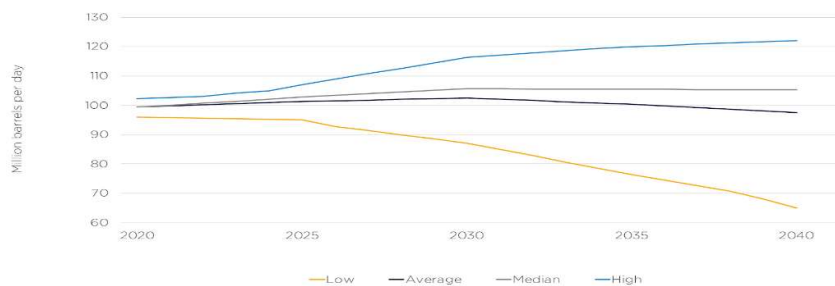


Oil demand displaced by EVs

Today, EVs are cutting oil demand by 1 million barrels per day, analysts expect this loss to surge to 17.6 million. The forecast is based on optimistic assumptions about fuel economy improvements and alternative drivetrains. Moreover, most of this reduction is from two and three-wheelers and electric buses in China. Although these numbers are huge and the impact cannot be neglected, growth in heavy commercial vehicles, rising productivity in developing countries and the other sectors that account for the remaining 50% of the demand, will keep the oil consumption growing at least for the next decade.

Oil will still play a key role in our economies in the near future and thus we foresee that its price will rise slightly over the years, but we prefer to not go into detail because for a more accurate projection an exhaustive analysis of all the other variables and scenarios would be needed.

Figure 15: Range of current views in published global total oil demand forecasts



Source: From published forecasts in 2019 that include Equinor, IEA, BP, ExxonMobil, DNV, EIA, and OPEC, including different scenarios where available.

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Conclusion

Wrapping up all the considerations we made:

1. We consider that currently the market has good opportunities in the automotive industry supported by both the cyclical factor and the market rotation
2. The shift is still at its early stage and for this reason in the next years there might be a further increase in price that might reduce the convenience of these stocks
3. Volkswagen seems to us the best option on the market
4. The oil market will not be affected heavily by the arrival of electric vehicles and it is likely that demand and price will increase

To conclude, it is certain that the EV industry will be in the limelight for the next decade and it will be interesting to see how the equity market and the oil market will reflect the present forecasts.

TAGS: EV, electric vehicles, oil, disruption, Volkswagen, GM, Ford,

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