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The Future of the European Automotive Industry: Part II

The Future of the European Automotive Industry
Trends, challenges, risks and opportunities from an equity market perspective

INTERVIEW WITH LARS MOGELTOFT AND ARMAN ARSHAKYAN

In an extensive interview, we spoke to Lars Mogeltoft, Head of Equity, and Arman Arshakyan, Equity Associate, in order to gauge what is happening inside of the European car industry.

The first in the three part series set the scene, detailing the current state of the industry and the key trends shaping the landscape. It also outlined the vital role that this sector plays within the European economy. This second part delves deeper into the challenges faced by automakers.

Part II: Challenges for European Car Manufacturers

INCOMING DATA HAS BEEN OMINOUS - IS A PERFECT STORM BREWING INSIDE EUROPE AUTOMOBILE INDUSTRY? SHOULD WE FEAR A "CARMAGGEDON" ?

The automobile industry is currently facing multiple structural changes. Four major developments could catch automakers and suppliers in a vice-grip:

- **The shift toward electric vehicles (EV):** This trend has not only been spurred on by

challengers like Tesla and Chinese manufacturers, but also by increasing regulations on carbon dioxide emissions and increasing awareness of environmental issues. The EU and China are considering phasing out traditional fuel vehicles over the coming decades. According to the German Times (3),10 years from now 25% of cars sold will have an electric engine. Today, depending on the country, that share is in between 0% and a maximum of 2% (Norway being a notable exception with EV accounting for around 40% of market share). However, it's getting reasonable to assume that EV sales growth will not reach the stratospheric levels expected 2-3 years ago, as the industry now faces its own host of obstacles.

- Technological revolution - trends from connectivity to autonomous vehicles (AV) are disrupting traditional business models. With cars being now able to park themselves, the next reality should be cars able to find open parking spaces before assuming the task of driving, not to mention the digitalization of the automotive sales industry. According to analysis by Accenture, modern cars collect around 25GB of data per hour from various inbuilt sensors and cameras. This data allows for real-time insights to be drawn about performance, speed, condition of components and much more. In the case of breakdown or an accident, for example, the data gives insights on cause and effect and contributes to our understanding of how similar events can be prevented in the future. However, we think it will be a long time before autonomous vehicles become a reality. At the moment, companies involved in developing AV don't yet have enough data to develop algorithms. This will take time to accumulate and then more time to structure the data into a usable format. This is a process which cannot be rushed because accuracy is paramount, we have to consider that errors in the development of this technology could lead to fatalities. There is also the question of insurance and regulation. Who will ensure these vehicles? And can they go on the road before regulation catches up with the technology? We do not believe that autonomous beyond level 3, initially announced by manufacturers for 2020, will materialize for now. We should expect a delay to allow regulation to catch-up part of the gap with technology.

- The changing needs of consumers. A shift in values is taking place, especially amongst younger generations. Not only are driving licenses being acquired later in life, the emotional connection that younger generations have to cars is decreasing. The focus of mobility lies in the rational point of view of getting from A to B, rather than on the emotional decision of owning a car. According to Astute Solution, the number of cars purchased by people aged 18 to 34 fell almost 30% between 2007 and 2011, and since then the percentage of Millennials without cars continues to grow (4).A clear new mindset appears to be forming with regard to mobility needs and the perception of undue burdens and expenses that cars bring. Car ownership is becoming optional in the

age of Uber and co. Though it was clearly biased, the Lyft IPO filing was intriguing, in that its founders claimed that car ownership is in permanent decline and they want to help it die. The cultural value shift is visible in the trend towards the car sharing model from short-term rental (Uber model) to peer-to-peer sharing (Blablacar or SnappCar), the on-demand model (Flexdrive) to an Airbnb-equivalent model (Turo). For car manufacturers the challenge is to be prepared on a B2B channel rather than a traditional B2C. On this topic, Tesla's business model is another disruption as it sells its vehicles directly to buyers via its own website, as opposed to using dealerships. Spurned middlemen proclaim that this is a violation of US industry 'norms'. According to Dr. Herbert Diess, the Chairman of VW board, German carmakers have a 50:50 chance of pioneering the mobility of the future given the immense structural changes that are in motion. Diess argued that this uncomfortable fact was based on realism, not pessimism.

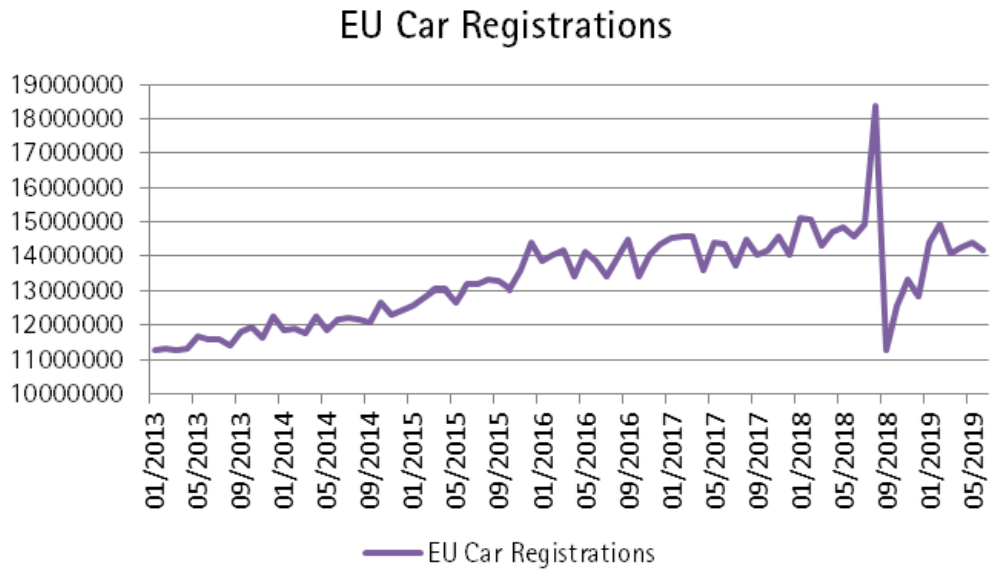
Anecdotal but informative is the fact that The Economist calculates that the average car is parked 95% of the time and therefore is only in use for the remaining 5% (5). Eventually a company will find an efficient way to exploit this inefficiency, but when that day will be, is impossible to predict.

- Heavier European regulation

While car manufactures say regulatory uncertainty acted as a drag on demand, controversies like the VW emissions scandal and the C. Ghosn indictment also weighed on credibility. This demonstrates the of potential added value that governance (or more broadly ESG) integration could deliver.

2018 was a key year for the roll-out of WLTP (Worldwide Harmonized Light Vehicle Test), the new testing and approval cycle for motor vehicles introduced in response to the 'dieselgate' scandal.

Vehicle manufacturers were discontinuing models that no longer meet the standards or because the investments were too high. There was also a sharp rise in vehicle sales just before the introduction of WLTP in September 2018, followed by an immediate drop afterwards.



Source: Bloomberg, *BIL*

In 2017, all but 3 car manufacturers (Lamborghini, Mazda and Société des Automobiles Alpine) met their specific emission targets (130g CO2/km), based on European vehicle test rules. While its fair to add that certain other manufacturers, if considered individually, would have exceeded their specific emission target, they met their obligations as members of pools or thanks to derogations.

In 2021, the volume-weighted average CO2 emissions will be calculated by manufacturers with a maximum target level of 95g CO2/km.

WILL ELECTRO MOBILITY CAPTURE THE ROAD, AFTER HAVING CAPTURED THE RAILS ?

In its 'BLUE Map scenario', which has the goal of cutting greenhouse gas emissions in half by 2050, the International Energy Agency (IEA) estimates that by 2050 nearly 80% of passenger cars being sold will be plug-in hybrid, electric or fuel cell vehicles.

In order for new ideas for electro mobility to have a chance, they must be affordable for customers. Yet, electric vehicles are still more expensive than conventional ones. However, experience shows that some users - the so-called early adopters - are willing to pay higher prices initially, if the framework conditions are right. We have to get away from the idea that a single type of drive will dominate the entire market. Although the share of fossil fuels will continue to decline, it is premature to say that diesel, for example, will disappear entirely.

But the fact is that consumers are still holding back on electric vehicles due to price, range and battery capacity concerns and ultimately it is consumer preference that will dictate the growth of this market. Furthermore, it's worth considering that if environmental considerations are driving the change for the electro-mobility, battery production (energy intensity, e.g. CO2 generation + controversies on Cobalt extraction), weight (a Renault Zoe battery weights 300kg (6)), standardization and recycling (or even better resuscitated) are still open challenges.

Hydrogen-powered cars may be commonplace in the future. In 1999, Iceland announced its plan to become the first hydrogen-based economy over the next 40 years. Since then, disillusion is real in that the only material evidence today, is 3 hydrogen-powered buses on the street of Reykjavik. Hydrogen can still make a comeback, but it's dependent on innovations to make it affordable and clean to produce (as of now, the electrolyze process to produce hydrogen uses either fossil fuels or electricity).

WHAT ABOUT THE SHRINKING CHINESE MARKET?

The immediate cause of the dip in global car sales last year was probably US tariffs on Chinese goods, hurting the Chinese economy, bringing sales there to, at best, a standstill. LMC Automotive analysts are now predicting that China's vehicle sales will shrink by 5% this year after falling 3% in 2018. What's going on? Can Chinese sales see a revival without stimulus?

2018 will be marked as the first year in almost three decades that negative growth has been recorded in China's auto industry. For the full year 2018, China sold 28 million cars, down nearly 3% from 2017. According to the Chinese association of automobile manufacturers, the Chinese market saw a pattern of rising premium car sales and a slump in sales at the lower-end of the price spectrum, with Chinese brands losing market share.

There are three factors behind the decline in Chinese car sales:

- Buyers are hoping for government incentives - Analysts place roughly a 20% chance on the fact that Beijing will incentivize car ownership in 2020 (even after the April 2019 VAT cut from 16 to 13%), so consumers are waiting to see if this comes to fruition before buying.

- The trade war - Consumers are postponing big ticket purchases until the economic future is more certain.

- The accelerated introduction of China's new emissions standards - State VI emission standards are already in effect in some parts of the country, ahead of the 2020 deadline. This is disrupting car sales in a similar fashion to the way new emissions standards disrupted European auto sales in 2018.

China now has more than 300 million registered vehicles – almost the same number as people in the United States – on its increasingly jammed roads, even though on a per capita basis, China's car density is much lower than that of the US. China, with 1.3 billion people, is quickly becoming a society on wheels, providing a vast market for carmakers and cultivating a fan base for movies like the Fast and Furious series (7). According to the latest Traffic index, 10 of the 25 most congested cities in the world are in mainland China.

According to KPMG China, the long multi-decade golden age of high automobile sales is ending, the next decade will be the one of transformation. What's reassuring for foreign car makers

selling cars in China is an alteration in tastes. Chinese consumers are exhibiting a preference to own foreign SUVs.

Vehicles are stuck in a traffic jam near a toll station outside Beijing as residents return home at the end of a week-long national day holiday. Photo: Reuters

WHAT ABOUT THE TRADE WAR AND TARIFFS?

The current paradox in the US trade war rhetoric is the fact that up to now, the US administration's concrete actions have been focused on China. From a country perspective, the biggest part of the US trade deficit is indeed mostly coming from China. But when looking at goods behind the deficit, auto imports (primarily from Europe and Japan) are the main contributor.

As such car tariffs, are a serious likelihood, even if the US recently announced a delay in decision to impose tariffs on imported European and Japanese automobiles for at least six months.

And guess who's the main region exporting Joe Sixpack's preferred cars: Europe.

Tariffs have the potential to shift the playing field for automakers. Consumers will get higher prices, companies lower earnings, and investors will face a bumpy road ahead. In the automotive industry, tariffs matter a lot because the supply chain is global. Parts are sourced from all around the globe and move across borders repeatedly. If the US was to apply tariffs universally, every major automaker would take a hit, including US companies that policy aims to support. This is visible in the numbers. European car companies such as VW that have more domestic operations have fared well this year (the stock is up about 14%). The hardest hit have been companies such as BMW and Daimler that produce in the US and then import the vehicles to China from there and which are now facing retaliatory tariffs from China (performance has been flat). This is the clear differentiating factor that has driven differences in earnings expectations and revisions.

Now that we have presented a breakdown of the challenges which the European auto industry faces, we will go on to explore whether there are still investment opportunities. The third part of our interview *takes a look at the industry through the lens of an equity investor.*

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