

IMPLICATIONS FROM UK'S DECISION TO EXIT ICE BY 2035

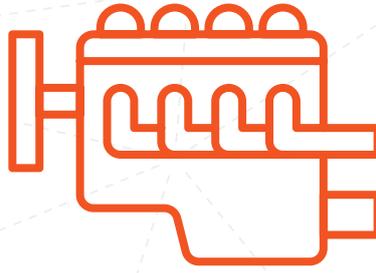
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GLOBAL X
by Mirae Asset



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1

IMPLICATION FROM UK'S DECISION TO EXIT INTERNAL-COMBUSTION-ENGINE (ICE) CARS BY 2035

The UK government recently announced a plan to bring forward a complete ban on UK sales of petrol and diesel engine vehicles to 2035, from 2040 previously. The decision was made in response to experts who said that 2040 is too late for the ban if the UK wants to achieve its target of becoming net zero by 2050. Unlike previous plans, the government is now including Hybrid electric vehicle (HEV) and Plug-in Hybrids electric vehicle (PHEV) in the ban, contrary to industry expectations. As cars are typically on UK roads for 14-15 years, a ban had to happen by 2035 in order to rid polluting vehicles from the road in time for net zero emissions target for 2050.

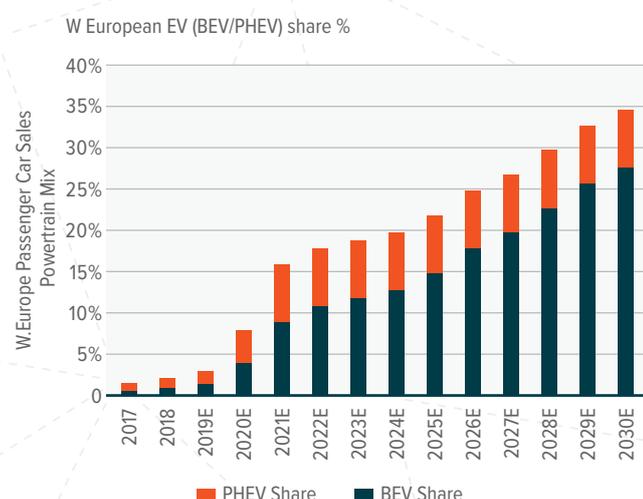
We believe the target to be exceedingly ambitious given the short period of time (less than two vehicle cycles given that vehicle development lead times are typically 5 years and the subsequent life is 6-7 years) and the lack of charging infrastructure at this point. However, legal measures are being taken to create an open-access network of charging stations with true interoperability. The 2035 regulations need to be taken into consideration by Original Equipment Manufacturers (OEMs) planning their next generation product in the next 1-2 years. The proposal is reportedly suggesting a stop sale as opposed to a ban on vehicle usage by 2035. In the UK, currently less than 3% of cars sold are Electric vehicle (EV), with Battery electric vehicle (BEV) only accounting for 1% of all cars sold. This would entail going from 1% to 100% in 15 years¹. The situation will likely be exacerbated by Brexit, with imports into the UK likely to be more expensive than before due to tariffs while cost of making cars in the UK will also increase due to higher prices of imported auto components. In order to encourage the take-up of EVs and shorten waiting times for new vehicles, we think the UK government might encourage more direct OEM investment into UK-based supply chains such as battery giga-factories.

1. Source: Briefing Paper: Electric vehicles and infrastructure, UK Parliament, March 2020



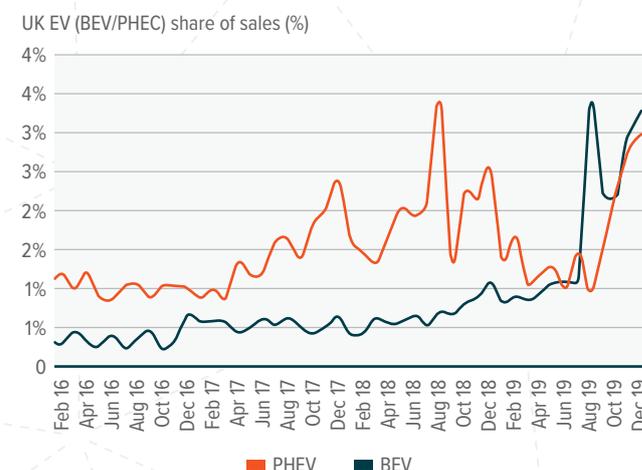
This latest proposal by the UK government seems more aggressive than what OEMs are projecting, particularly if PHEVs are included in the ban. Directionally, it is becoming clear that the key question is when the sale of ICE vehicles will be prohibited, not if. Moreover, using the UK as an example, it would appear that the timeline is accelerating. The same could possibly happen in the EU. We believe that OEMs would no doubt have more cost pressure as they plan for this expedited timeline while the transition from ICE to BEVs would be even more painful than previously expected.

EXHIBIT 1: ACCELERATION IN EUROPEAN EV PENETRATION IS LIKELY



Source: GS Research Feb 20

EXHIBIT 2: IN THE UK, EV SALES HAVE ACCELERATED IN RECENT MONTHS



Source: GS Research Feb 20

Among the OEMs, Volkswagen has a lead with respect to any expedited EV timeline. While most OEMs have BEV products in the market and plan to launch more in coming quarters, the level of VW's spend (€33bn planned over five years) and ongoing strategy (2 dedicated BEV platforms, 8 dedicated MEB plants, 70+ new models by 2028) should see it well-placed to capitalise². BMW's BEV roll-out is less transparent than others, with only the MINI BEV, the iX3, i4 and iNext highlighted for launch. BMW continues to develop its BEVs on combined ICE/BEV platforms that are unlikely to maximise range and battery efficiency. The current specifications on the new electric MINI with a 32.6kWh battery and a 140 mile range are 35% less than the range that VW's ID3 is offering. This does not suggest BMW is very keen to build a mass-volume BEV³.

In conclusion, while we believe in the undoubted direction and speed of moving towards non-ICE cars is clear, the faster than expected pace of regulation will weigh heavily on the profitability of global OEMs, even though the timelines do seem overly optimistic at this juncture.

2. Source: Volkswagen Company report, Nov 2019
 3. Source: BMW Company report, Jan 2020

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