Chinese NEV market

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China's New Energy Vehicle (NEV) market thrived in 2018, supported by the subsidies already in place, coupled with the advent of the new dual-credit system. We estimate that total output and sales exceeded 1.05 million units and 1.08 million units, respectively, last year. These figures – which encompass battery electric vehicles (BEVs), plug-in hybrid vehicles (PHEVs) and extended range electric vehicles (EREVs) – equate to robust year-on-year (YoY) growth of 84% (production) and 88% (sales).

Broken down by sub-segment, BEV sales rose to 788k units (+70% YoY), while PHEV demand increased by an impressive 162%, on total sales of 294k units. EREV fared less well, however, on sales of just 3,000 units (+38% YoY), due to the limited number of models launched. All models that fall into the government's official NEV classification are equipped with large batteries that are chargeable via the electricity grid.

Looking at the non-plug-in sub-segment – i.e. conventional hybrids – full-year 2018 sales reached 337k units (+79% YoY). Full hybrid electric vehicle (FHEV) and mild hybrid electric vehicle (MHEV) sales totalled 291k units (+61% YoY) and 14k units (+81% YoY), respectively. MHEVs equipped with 48V technology made their Chinese market debut last year, with sales hitting 32,000 units. Given the lack of any prior activity in this sub-segment, the growth rate was exceptionally high.

Automakers selling only imported models in China are also subject to the NEV credit requirements, but volumes in this category are low, hence the vast majority of plug-in models sold in the country are from domestic producers. Indeed, their share of the overall NEV market in 2018 exceeded 95%. Domestic share of the non-plug-in hybrid market was 83% last year. Of the electrified models sold by domestic producers, 60% were BEVs and one-fifth were PHEVs. The mix for imported models, however, was different, with over 50% accounted for by FHEVs and 32% by PHEVs. BEVs accounted for just 16% of the imported electrified models sold.

The winners in China's NEV segment were, unsurprisingly, domestic OEMs, with BYD (229k units), BAIC (149k units), SAIC (123k units), Geely (82k units) and Chery (66k units) occupying the top-five places. The highest growth rates, however, were achieved by Renault-Nissan-Mitsubishi, Daimler, Tata, BMW and Hyundai. While volumes for this group remain low when compared with their domestic counterparts, very high growth rates reflect the need to adapt to the implementation of NEV credit targets.

There are several factors behind the NEV market's strong performance last year, chief amongst them being the ongoing generous subsidies for plug-in vehicles, as well as the dual-credit policy, which came into effect last April. The scheme requires OEMs to produce a pre-determined volume of NEVs, based on the individual automaker's total output in the previous year. Failure to meet the required ratio of NEV production results in penalties.

Because the NEV market is policy-driven, demand follows an unusual seasonal pattern. As illustrated by the monthly wholesale and retail volumes in the diagram below, retail sales in December are typically very high because the subsidy is balanced yearly. OEMs receive the subsidy payouts once the insurance data is registered at year-end.

Meanwhile, in order to control subsidy gaming, a new policy was implemented in June 2018, upping the required pure electric range of any given vehicle and setting a minimum energy density for all batteries. The idea behind the new regulations is to weed out any vehicles that were brought into the market purely to benefit from the subsidies. Not only that, but the regulator has decided to cut subsidies to the NEV industry completely by 2020 (although this does not affect the dual-credit policy).

The Regulations on Investment Management of the Automobile Industry were issued by China's National Development and Reform Commission (NDRC) in December 2018. In the near term, BEV will continue to enjoy the highest level of incentives, not only from the tail-end of the current subsidies, but also from the dual-credit scheme. These latest policy provisions are not, however, as kind to PHEVs. As far as new capacity investment incentives are concerned, this vehicle type is no longer categorised as an NEV and now falls within the conventional IC segment.

As well as ongoing support for BEV technology, there will be a greater focus on the EREV and fuel cell electric vehicle (FCEV) segments over the next 5 to 10 years than was previously the case. In short, the incentives currently on offer are targeted at the zero tailpipe emissions sector.

While this does not, strictly speaking, apply to EREVs, these vehicles are essentially akin to BEVs in terms of actual usage patterns.

Looking ahead, OEMs will come under increasing pressure to earn NEV credits. As this is particularly true of China's joint-venture companies, we expect them expand significantly into the Chinese NEV market, starting from 2019. Notable examples are SAIC Volkswagen, SAIC-GM, GAC Toyota, FAW Toyota and Dongfeng Honda. Ultimately, however, we expect the NEV industry to be driven more by competition than by policy.