

Why are there so few BEVs on Japanese roads? An analysis of Japanese automobile demand and its evolution over the past 30 years

33rd International Colloquium of GERPISA

Shanghai 24-27 June, 2025

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Japan stands out from other industrialized countries by a slow expansion of the pure electric vehicle market. The offer is limited to specific segments, all types of vehicles have their hybrid versions, charging networks are less extensive, and government incentives are low. Despite this slow expansion of BEVs, the performance in terms of greenhouse gas emissions is remarkable, and some point to a form of historic coalition between the interests of local and central governments, populations and automobile manufacturers to explain this phenomenon. This coalition is converging towards lower segment vehicles (A, B segments, Kei cars), constant improvement of internal combustion engines and product innovations to diminish the weight of vehicles. Other studies demonstrate that with a very dense public transport network in large cities and a Kei car market in less densely populated prefectures, the additional cost of BEVs does not bring any substantial advantage for households.

In this paper, which focuses on automobile demand, we explore some hypotheses to explain this BEV-reticent consumption pattern peculiar to Japan. Since the burst of the bubble economy in the early 1990s and in a context of population decline, the automobile market has been keeping declining. Beyond this first general trend, a second fundamental aspect is linked to the evolution of the active population and households' composition. With nearly 40% of so-called non-regular employees, the expansion of single-parent families and low household consumption, it is important to ask how automobile consumption has evolved, and if this evolution is not closely linked with the low diffusion

of BEVs. Different aspects are discussed in this paper, such as the evolution of income distribution, modes of transport and socio-spatial disparities, the perception of new technologies and their impacts on automobile segmentation and consumption. Rather than following a line of analysis which consists of asserting that the Japanese population is reluctant to radical technological changes, this paper analyzes the place of automobile demand in the Japanese society to better understand how it relates to industrial policies and the strategies of Japanese car manufacturers.