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THE RISE OF LIGHT-DUTY TRUCKS IN CANADA: REVERSING THE TREND



EXECUTIVE SUMMARY

At a time when we are seeing rising GHG emissions from Canada's transportation sector, this report synthesizes the various components of the Équiterre study "Comprendre la hausse des camions légers au Canada afin de renverser la tendance" [The Rise of Light-Duty Trucks in Canada: Reversing the Trend]. It explores the causes of the proliferation of fuel-inefficient and oversized vehicles in Canada, as well as examining the consequences associated with this phenomenon. The end objective of this research project is to issue a series of solutions adapted to Canadian realities with a view to reversing this alarming trend.

Context

The increase in light-duty trucks is not peculiar to Canada; indeed, it is a global phenomenon. It is one of the two (2) main impediments to the decarbonization of the light-duty vehicle sector and to the Canadian government's electrification efforts. This contextual approach gave rise to the following research question: "Why do Canadians prefer light-duty trucks and how can we reverse this trend in order to help Canada meet its GHG reduction objectives?" The research sub-questions guided the development of the various components of the study. Exploratory interviews were conducted to identify the main causes of the increase in fuel-inefficient vehicles in Canada and to obtain preliminary responses to the research questions.

The report also highlights the myriad consequences of the transformation of Canada's automobile fleet. This transformation has had major negative impacts on:

- Canada's GHG emissions;
- The environment and air quality;
- Public safety;
- Road traffic and public space occupation; and
- Household indebtedness.

Methodology

The analyses used to respond to the research questions were led by Équiterre, the Mobility Chair of Polytechnique Montréal, CIRANO (in collaboration with HEC Montréal), and Horizon Advisors. The first order of business was to review the definitions of light-duty trucks and the existing classification systems within the automobile industry and government, as well as analyze the changing supply of light-duty trucks in Canada. This exploration of the transformation of Canada's automobile fleet was rounded out by an analysis of the changing demand for lightduty trucks and a thorough analysis of the factors behind this phenomenon. An in-depth analysis of the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations was carried out to identify the flaws contributing to the proliferation of these vehicles.

The motivations for buying light-duty trucks and consumer perceptions of these vehicles were examined in a Canada-wide survey and a series of individual interviews. The role of advertising in these vehicles' growing popularity was assessed with the help of focus groups, an analysis of light-duty trucks ad content and an analysis of the regulatory framework governing the advertising practices of the automobile industry. This latter component included a review of international best practices. Lastly, trial messages aimed at reducing the appeal of sport utility vehicles (SUVs) and other light-duty trucks were tested to provide fodder for potential campaigns to discourage the public from purchasing large vehicles.



Results

Inconsistencies were found in vehicle definitions and classification even within the automobile industry itself, within the various levels of government and between governments and the industry. The vehicle classification system used to establish GHG emission standards for light-duty vehicles was also found to be obsolete, since these vehicles now form a continuum, notably with the arrival on the market of crossover utility vehicles (CUV).

In terms of the supply of vehicles sold in Canada, the results indicate that:

- The average dimensions (height, width, length) of light-duty trucks and cars continue to increase, thereby transforming the entire automobile fleet;
- The diversification of light-duty truck models and versions is one of the main drivers of large vehicles' popularity.

When it comes to demand, we see that the number of light-duty trucks on Canadian roads has more than tripled since 1990, but there are key differences between the provinces. The historical analysis confirms that the arrival on the scene of a smaller model of SUV, the CUV, accelerated Canadians' change in vehicle preference. From an economic standpoint, the increase in household income generates an increase in spending on light-duty trucks. In addition, the increasingly diversified supply of SUV models, the fact that Canada's economic structure is conducive to vehicle-related expenses, easier access to low credit rates on automobile loans and the automobile sector's prominent place in Canada's economy are factors that have helped drive up sales of large vehicles. From a political standpoint, the design of fuel efficiency standards for light-duty vehicles, Canadian trade deals protecting North American products (including light-duty trucks), monetary and non-monetary government support for the automobile industry and land-use policies encouraging urban sprawl are the main factors. Psychological and sociological factors include certain personality traits associated with owners of large vehicles: it seems that these individuals have relatively weak environmental values and like driving their vehicles over short distances. The perception of safety associated with large vehicles and the cohort effect, which normalizes their ownership, are more psychosocial factors behind the popularity of light-duty trucks.

The analysis of factors motivating people to buy lightduty trucks and of consumer perceptions of these vehicles shows that the profile of the typical SUV owner has evolved over time: middle-aged female suburbanites who live with someone and have kids have increasingly become the face of the typical lightduty truck owner. Previously, it was mainly older men with a high income. Nevertheless, family income is strongly related to intent to purchase an SUV, and this relationship only increases with each successive income bracket.

Personal psychological factors indicate that individuals with a strong environmental identity are less likely to buy an SUV. Among the factors related to vehicles and driving, the results show that owning an SUV increases the likelihood that the next vehicle purchased will also be an SUV. The main reasons for choosing an SUV are: safety in terms of impact, safety in terms of weather conditions (bad weather, winter) and the purchase price, hence the automobile industry's emphasis on financing options in car advertisements.

Also, SUV owners are more likely to incur debt to purchase their vehicle than sedan owners. As for the external environment, descriptive social norms constitute the factor behind the highest likelihood of purchasing an SUV, which means that others' approval greatly influences individuals' decision-making. The results also reveal significant media influence on the choice of an SUV as one's next vehicle.

The ad content analysis indicates that 79% of ads are for light-duty trucks. The key findings about advertisements promoting this type of vehicle are as follows:

- Domination of the environment is often depicted, with off-road vehicles in natural settings;
- The vast majority uses nature or nature-related elements to sell light-duty trucks;
- SUVs are shown in a variety of places, suggesting that they are versatile; the fact that the public is bombarded with this advertising really brings home this message;
- Sale prices and product scarcity are often front and centre through seasonal or special sales events;
- Vehicle safety, especially in the case of crossovers and SUVs, is frequently played up in a variety of ways in the same advertisement;



- Attractive financing terms are very often touted (announcement of a special offer, regular instalment amounts, down payments, low- or zero-interest rates, deferred payments, etc.);
- The vehicle's technological features are often trumpeted;
- Some ads underscore the vehicle's fuel efficiency without offering information on its fuel consumption;
- Vans almost never appear in ads, indicating that SUVs have supplanted them on the market;
- None of the ads mentions fuel consumption or GHG emissions, and fewer than half show the vehicle's retail price.

An assessment of Canada's regulatory framework for automobile advertising indicates that in Canada, there is/are no:

- Requirements to display the vehicle's fuel consumption or polluting emissions, nor the retail price;
- Prohibition on showing large fuel-inefficient vehicles in certain environments;
- Rules governing the use of environmental arguments for selling a product; and
- Standards referencing the protection of nature and the environment.

Nevertheless, it is clear that advertising standards and legislation, both federal and provincial, are evolving in line with public health issues and emerging social debates, but that environmental concerns have yet to be integrated into these tools. According to the focus group participants, automobile advertising feeds the emotional attachment to these vehicles, financing options are key and can sometimes be deceptive, and including raw information on the vehicle's polluting emissions would be pointless, since the general public would be unable to make sense of it.

Recommendations

In light of the results of these analyses, various recommendations were developed to reverse the trend and help Canada meet its climate targets. The first step is to recognize that the increase in large vehicles on our roads is a public health/safety issue. Such recognition paves the way for measures that can quickly reverse the trend. An independent advisory committee and an automatic, universal classification system for lightduty vehicles should also figure among the first measures to be rolled out.

Next, the reform of the Passenger Automobile and Light Truck Greenhouse Gas Emission Regulations and the addition of "green conditions" when the government offers support to the automobile industry are recommended to lower the supply of large vehicles in Canada. From a demand standpoint, multiple solutions can be considered: introducing a self-funding feebate system, maintaining the carbon pricing system, implementing per-kilometre pricing and putting in place a plan to retire older, polluting vehicles across the country.

Advertising practices can also be better regulated to bring them in line with the Canadian government's objective of net-zero emissions. To that end, several actions must be taken: systematically archiving automobile advertisements and collecting data on industry investments, putting in place a Canadian automobile advertising code complete with ad content guidelines, assessing ads before they run, and promoting a greater number of sustainable vehicles. Another promising measure would be to roll out campaigns promoting sustainable mobility and supporting individuals in their vehicle purchasing decision-making.

