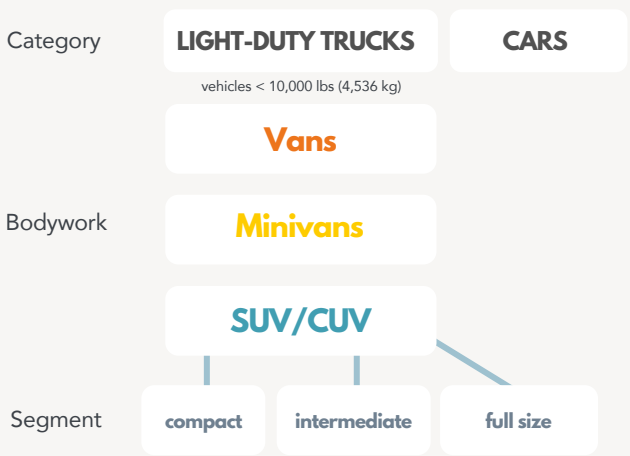
SERIES

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

Light-duty trucks: definitions and how the supply has evolved

équiterre

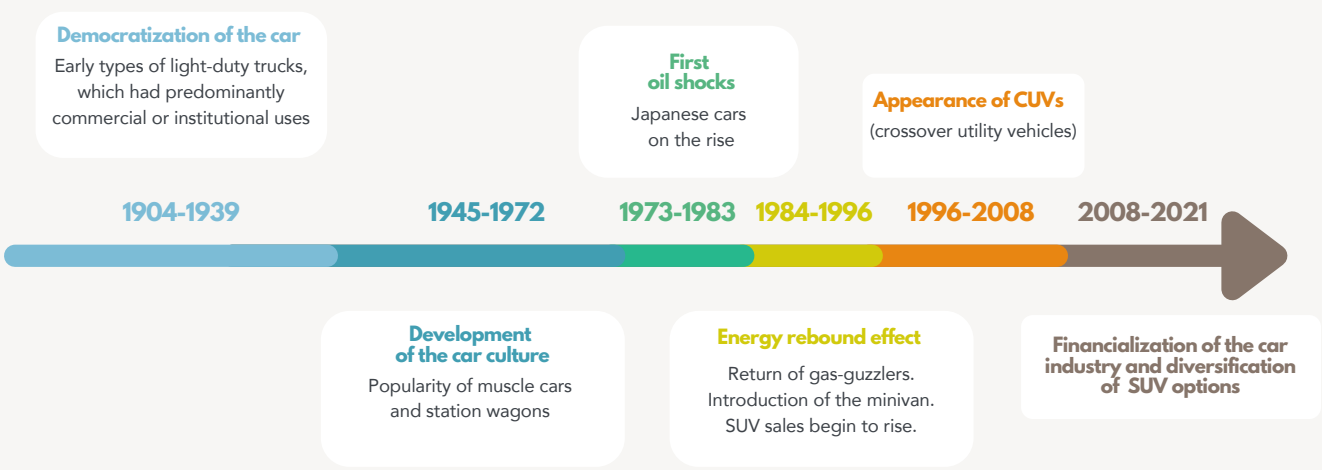
What is a light-duty truck



Problems

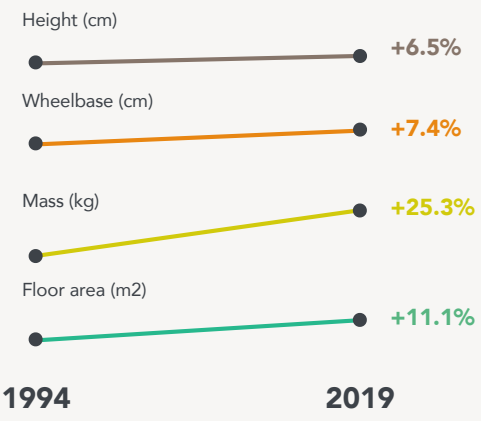
- The weight threshold appears arbitrary and too inflexible in relation to market trends.
- Many SUVs today have mechanical characteristics and dimensions more similar to sedans, minivans or even hatchbacks. So the notion of trucks is confusing.
- The notions of "personal" or "commercial" use are no longer relevant.

History of light-duty trucks



Evolutionary analysis of supply

Evolution of specifications for average vehicles marketed in Canada



Choice of models

1994: 278 models — +42% — 2019: 383 models

Choice of versions

1994: 556 versions — +60% — 2019: 889 versions

Key findings

Transformation of the physical properties of vehicles

IMPACTS

Security — GHG — Efficiency of road networks

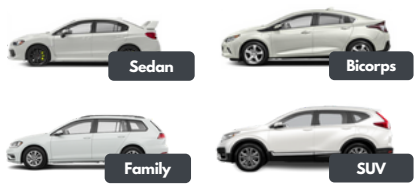
Use of public rights-of-way — Household financial health

Supply is evolving

- **Slight decrease** in the supply of sedans, hatchbacks and pickup trucks
- **Slightly greater decrease** in the supply of family cars
- **Significant and steady increase** in the number of SUVs available

Incoherent vehicle classification

Industry and government definitions are not helpful in understanding the market.



= similar size

but belong to 2 categories (cars and light-duty trucks) and 4 types

Classifications are used for fuel consumption and GHG emission standards. But how to document the impacts on the safety of others or on traffic congestion?

Inconsistency among provinces

The term SUV

is defined differently in all the Canadian provinces.

Weight-related threshold variability

causes confusion between provinces (Quebec does not have the same threshold as the rest of the country).

Morency, C., Milord, B., Bourdeau, J.-S. (2021). Les camions légers : Définitions et évolution de l'offre, Research report, Polytechnique Montréal, 109 pages

SERIES

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

Light-duty trucks: Factors contributing to the transformation of the light-duty vehicle fleet

équiterre

Context

Share of light-duty trucks in new vehicle sales

Saskatchewan: 45,5%
New Brunswick: 46,9%
Newfoundland: 46,7%
Alberta: 43,6%

79%

of new vehicles sold in Canada are light-duty trucks

higher
heavier
gas guzzling
expensive

What are the effects on the environment, on public safety, on public spaces and the financial health of households?

Analysis of the demand

Traditional light-duty truck buyers

Literature 1984-2000

- Households with above-average income
- More likely to be male (primary owner)
- Families
- Outskirts of major centres or in rural areas

POTENTIAL EXPLANATORY FACTORS

Economic fundamentals

Household income
Interest rates
Fuel prices

Public Policy

GHG regulations
Urban sprawl
Trade agreements

Psychological and sociological factors

Lifestyle
Perception of road safety
Rebound effect

Industry practices

Vehicle supply (CUV)
Long-term financing
Marketing and advertising

Diversification of demand

- More female homeowners
- More urban households
- Both more young households and more older households
- Both more affluent and less affluent households

Demand diversification

Evolution of the socio-demographic profile of light-duty truck owners 1999-2019

More women owners

- Women are showing increasingly similar buying behaviours to men.
- Women ages 35-44 had the highest market share in 2019 at 35%.

Difference between regions

- The share of light-duty trucks in Montreal and surrounding areas is lower than elsewhere in the province.
- In Northern Quebec, the share of light-duty trucks reaches 90%.

Both more young households and especially older

Number of SUVs/CUVs

- 55 years + ↗
- 25-54 years ↘

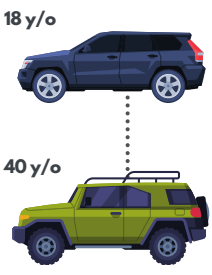
Impact of household affluence

- A 10% increase in household income leads to a 17% increase in demand for vehicles.

Key findings

Persistence of motorization

Someone who owns an SUV at age 18 is likely to own one at age 55 too.



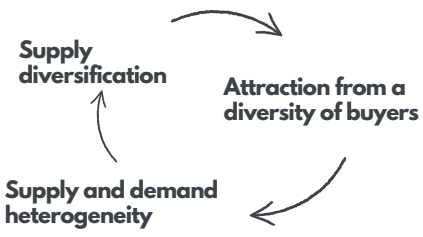
Lower emission standards for light-duty trucks

since the time that they were used predominantly for commercial purposes (which no longer the case).

Traditional use — Current use

The "SUV Effect"

Higher risk-taking on the road as drivers of these vehicles feel more confident, causing more potential accidents of a more serious and deadly nature.



Improved energy efficiency

Demand is even higher

Perception that large vehicle = safer

Public policies have played in favour of promoting greater safety on the road according to the weight of the vehicle.

Morency, C., Milord, B., Bourdeau, J.-S. (2021). Les camions légers : Facteurs ayant contribué à la transformation du parc de véhicules légers, Research report, Polytechnique Montréal, 109 pages