

# Globalization and the location of car assembly plants: 1950–2015

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## Abstract

World automobile production has increased sevenfold since 1950, from some 10 million cars in 1950 to over 70 million in 2015. Capacity increased in two ways: by building larger plants (that, thanks to economies of scale, could produce cars at lower cost); and by building additional plants. We combine insights from economic geography, location theory, and the theory of multinationals and foreign direct investment to shed light on where assembly plants were located, and how the location of plants changed over time. Using annual reports and other publicly available sources, we constructed a database of the car assembly plants of the three biggest automobile groups by market share (Toyota, 12 percent of sales by value; Volkswagen 11 percent; and General Motors, 8 percent) who together account for about one third of the automobile market. Each group originates from one region of the Triad (Asia, Europe, and North-America). For each of the approximately 180 assembly plants the data set contains the group, the year of establishment, the year of closure (if applicable), and the geographical location. We generated a dynamic map of the world that shows how the location of the assembly plants evolved between 1950 and 2015. Falling transportation costs allowed some assembling plants or suppliers to move further away from their customers. The emergence of new markets with a middle class attracted market-seeking foreign direct investment. New car assembly plants in developing countries are usually located near coastal ports, but in Europe since the 1990s there was a clear trend to locate in central Europe, drawn by cheap skilled labor and good over-land transportation. New clusters emerged in China and South-East Asia, whereas car assembly in Australia and New Zealand has all but disappeared. The claim by Rugman and Collinson (2004) that automobile multinationals operate mainly in their own region is still largely true, but less so than in the 2000s: Toyota, Volkswagen, and General Motors have become less regional and more multinational.

The full paper is available on <http://homepages.vub.ac.be/~lmahens/research.html>. For a clip showing the year-by-year geographical evolution of the location of car assembly plants between 1950 and 2018, go to:

<http://homepages.vub.ac.be/~lmahens/car-assembly-plants.html>

## References

Rugman, A. M. and Collinson, S. (2004). The regional nature of the world's automotive sector. *European Management Journal*, 22(5):471–482.

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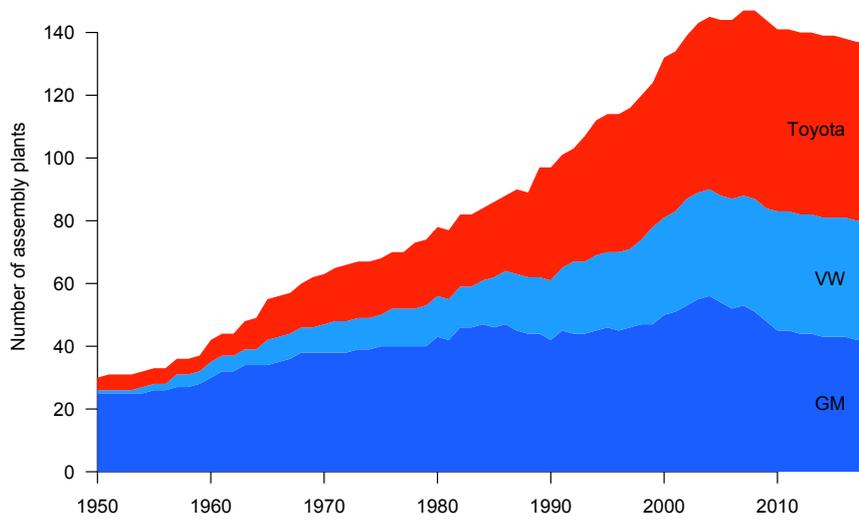


Figure 1: Total number of car assembly plants, 1950–2016

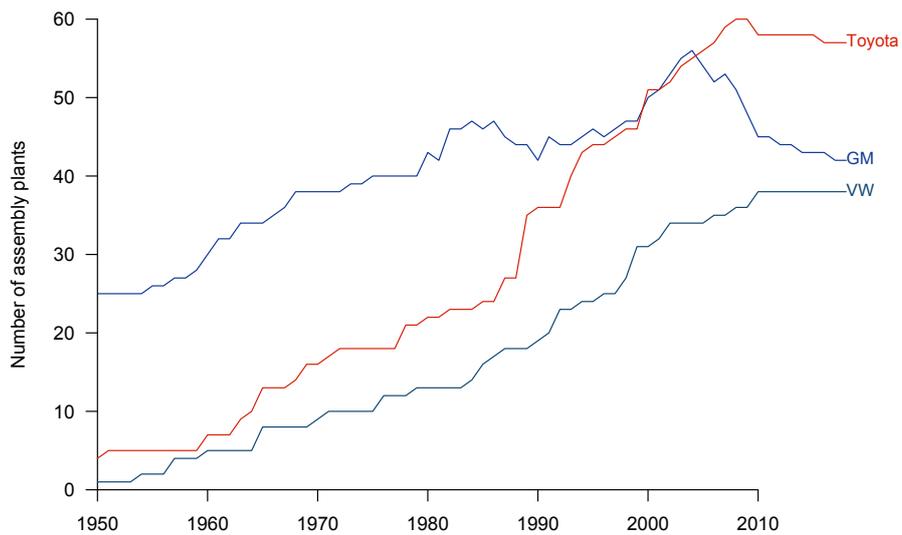


Figure 2: Number of car assembly plants by group, 1950–2016

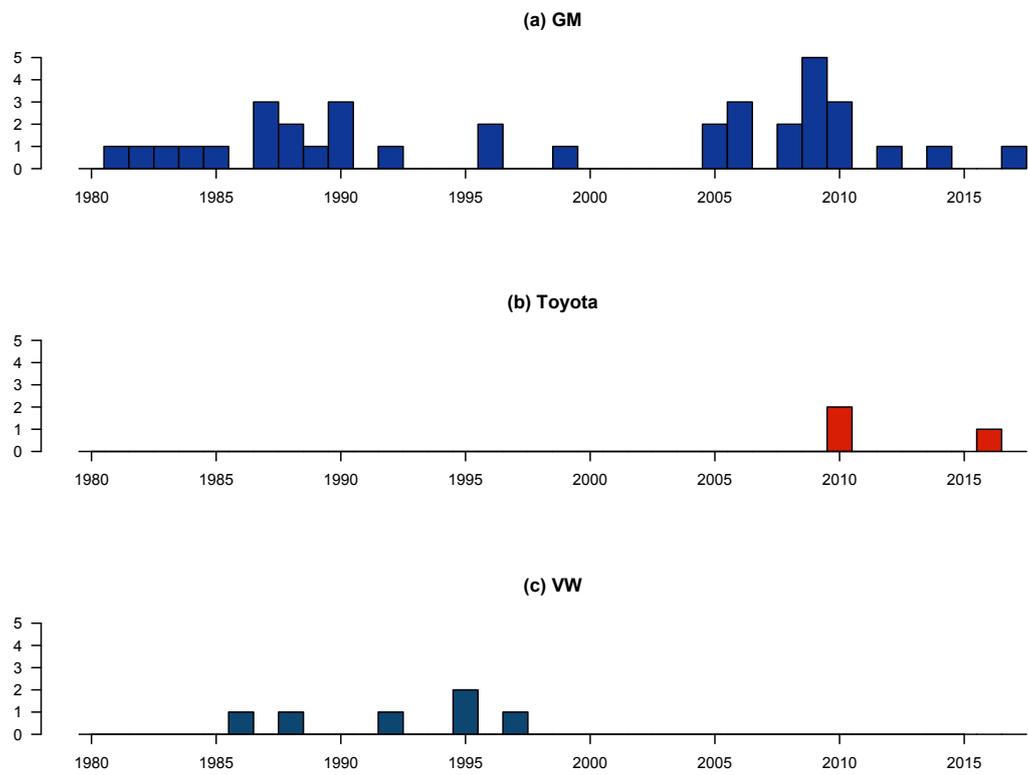


Figure 3: Closures of car assembly plants, 1980–2017

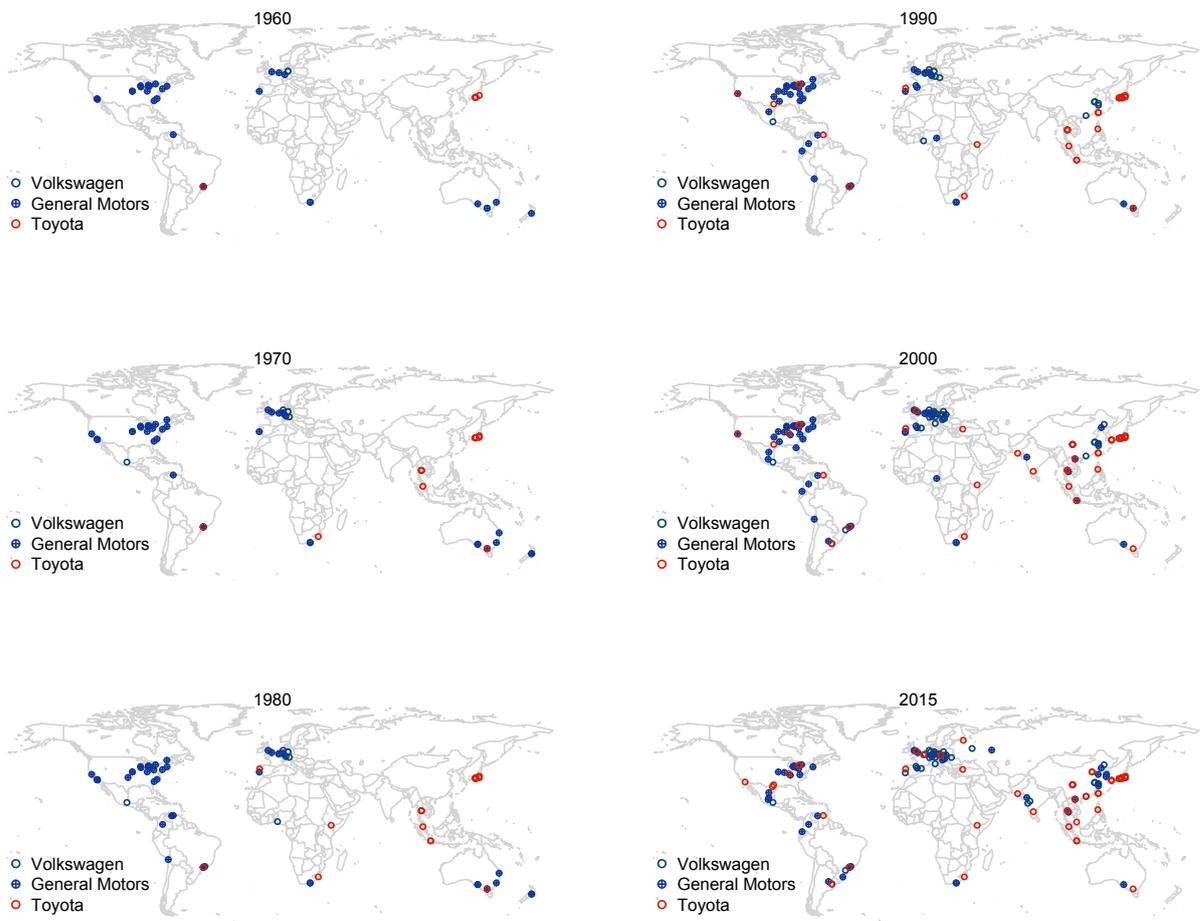


Figure 4: Location of car assembly plants, 1960–2015