

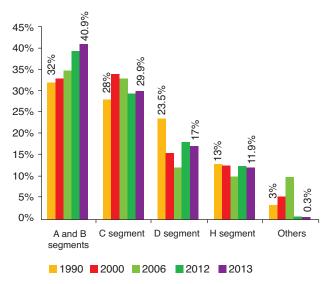
The search for fuel-saving solutions has led to a trend for acquiring smaller and lighter cars. Small compact cars, whether powered by internal combustion or electric engines, have gained and are continuing to gain market share, in both mature automobile markets such as Europe or Japan and emerging markets such as India.

In Europe and in France, automotive A and B segments categorize:

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- mini cars for the A segment, such as the Fiat 500, Peugeot 108, Renault Twingo and Citroën C-Zero. Very compact, their length varies between 3.1 m and 3.6 m in Europe;
- supermini cars or "subcompacts" for the B segment, such as the Toyota Yaris, Citroën DS3, Renault Clio and Peugeot 208. Slightly bigger than A segment cars, they are still very easy to handle due to their length, often under 4 meters, but their 5 seats make them more versatile.

Fig. 1 – Breakdown of the European automobile market by range of vehicles



Source: Committee of French Automobile Manufacturers (CCFA)

These cars have the highest market share in Europe, and this share has been increasing since the 1990s. Today, 4 cars out of 10 sold in Europe are in the A and B segments, compared with 3 out of 10 in the early 1990s (Fig. 1). No other range has seen such growth over this period.

The C segment is small family cars, the D segment large family cars, and the H segment luxury saloon cars and tourers.

Fig. 2 - Sub-A segment cars



Sources: Tata, Renault, Kia, Lumeneo, Audi, Honda



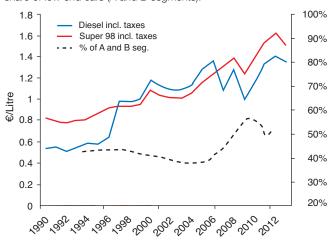
Compact cars are increasingly fashionable in Europe and a far more recent phenomenon is now appearing, reinforcing this trend. A new segment is in the process of emerging in Europe, in between quadricycles (small fourwheeled vehicles that may, depending on their engine capacity, be driven without a licence) and the A segment, with cars less than 3.1 m long, therefore very compact and with two to four seats. This new segment is now called the Sub-A or microcar segment, approved under category L7e-A2. The Renault Twizy is positioned just inside the segment, along with the Tata Nano, Smart Fortwo and Toyota iQ, as well as others as illustrated in Figure 2.

# Why the compact cars are growing in popularity?

These cars are particularly well suited to driving in town for short journeys. Urban areas have expanded considerably and will continue to do so, with all the resulting inconvenience for users concerning congestion and lack of parking space. It is estimated that between 5% and 10% of traffic, even 30% in certain cities, is accounted for by vehicles looking for parking spaces.

In parallel, fuel prices have risen sharply over the years, leading consumers to favour more economical cars and manufacturers to reduce car size and weight, and as a result the energy needed for travelling. This is particularly visible in Figure 3, which shows trends in the pump price of fuels in France and in the market share of low end cars (A and B segments). They both follow the same pattern, with car buyers reacting a year after the prices shown: a high increase in the fuel price will lead to an increase in sales of small cars.

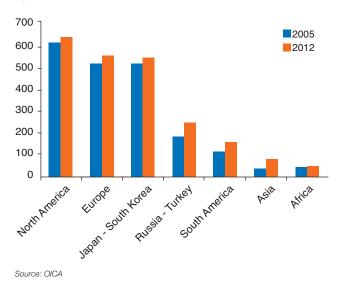
Fig. 3 – Trends in the pump price of fuels in France and in the market share of low end cars (A and B segments).



Sources: French Ministry of Ecology, Sustainable Development and Energy, Committee of French Automobile Manufacturers (CCFA), INSEE The peak in 2009, which is particularly remarkable, is due to the scrappage bonus scheme applicable in 2008-2009, which tipped the market towards cars with the lowest  $\mathrm{CO}_2$  emissions.

Lastly, and particularly true in mature automobile markets such as Europe, where car ownership levels (number of vehicles per 1,000 inhabitants, illustrated in Figure 4) have not changed much for years: these cars are very good second cars for households. Compact, less expensive to buy and economical to run, they are generally used for commuting.

Fig. 4 – Car ownership levels per region and trends between 2005 and 2012



#### The historic case of Japan

In Japan and South Korea, the small car market represents a very large majority of the automotive market (Fig. 5) with sales of practically 5 million vehicles in the Sub-A, A and B segments per year in these two countries out of a total market of 6.5 million vehicles, or 77% of the market, compared with a market share of 40% in Europe.

Note particularly that B segment cars are not in the majority, unlike cars in the A and Sub-A segments, which have been very popular for many years with typically Japanese microcars: the Kei Cars. 1.97 million Kei Cars were sold in Japan in 2012. To understand the scope of this phenomenon, it is important to note that sales of Kei Cars represent almost 40% of vehicles sold in Japan and over 50% of the cars on Japanese roads.

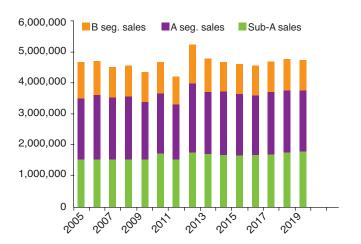
This type of car was first produced after the second world war. The car market was not very developed at the





time and people preferred mopeds and motorbikes, as is still the case in certain developing countries. The automotive manufacturers and the Japanese State then focused on small cars which were not much more expensive than motorbikes, to promote access to car ownership.

Fig. 5 – The small car market in Japan and South Korea and projections to 2020

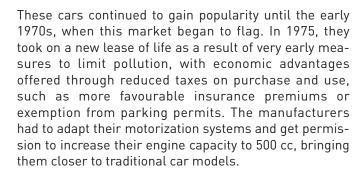


Source: IHS Global vehicle sales forecast

Fig. 6 - Some examples of Kei Cars sold in Japan



Sources: Daihatsu, Nissan, Mitsubishi, Suzuki, Toyota, leblogauto.com



In 1990, Kei Cars took on their present form with legislation limiting their engine capacity to 660 cc and 63 hp. Their maximum length was set at 3.40 m, their width limited to 1.48 m and their height to 2 m.

The manufacturers comply with these rules while offering as much on-board space as possible, making these Kei Cars very easily recognizable with their boxy, "compact minibus" shape (Fig. 6).

Some models have even become legendary. Honda's N600 Kei Car was replaced by the Civic, which is now in its ninth generation and has been sold throughout the world.

#### What markets in the future?

As we have seen, the market for compact cars has developed in Europe and should continue to do so, since customers are increasingly concerned by surges in fuel prices, and also by the environmental impacts of car travels. Moreover, the future standards for pollutant emissions favour vehicles with low  $\rm CO_2$  emissions, and due to their weight and limited engine capacity, compact cars seem to be ideal candidates (Fig. 7). In Europe, B segment cars are generally the most popular, and the price difference for the A segment is not sufficient to offset their better facilities, especially in terms of comfort (more seats and more interior space).

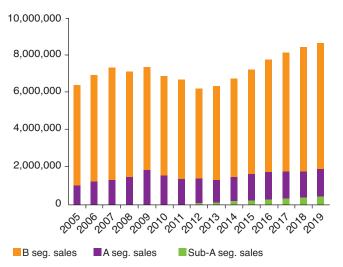
On the other hand, the situation is different in other geographic areas, even if they may be just as interesting in terms of market prospects, outside North America where small vehicles will not represent more than a 7% to 8% market share. India is a good example; this huge country is virtually untapped as an automotive market, in the sense that the car ownership rate is approximately 10 cars per 1,000 inhabitants (2010 figure) and two-wheelers largely dominate the market. But gradually, the market is growing and two-wheeler owners envisage buying a car as soon as they have sufficient income to do so.

Despite very low sales of the Tata Nano, a car which was designed to be affordable for as many people as possible





Fig. 7 - History and projections for the small vehicle market in Europe



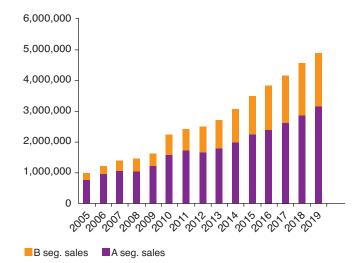
Source: IHS Global vehicle sales forecast

thanks to its extremely low price, and whose sales have fallen below 1,500 units per month, the small vehicle market exceeded 2.5 million units in India in 2013, and should continue to grow in the coming years. Here too we see a market that, unlike Europe, leans strongly towards smaller, A segment cars, for reasons involving congestion and parking problems, but also and above all the purchase cost, which is one of the key criteria for car purchase in this country (Fig. 8).

The situation is fairly similar in China, but in a more measured way. Chinese customers prefer, whenever possible, to turn to more imposing models such as saloon cars. The projections for growth of the compact car market for China are therefore correlated to growth in the overall market, without compact cars gaining in terms of market share.

To conclude, the market for compact cars has some very good years ahead of it, in several geographic areas, but for different reasons.

Fig. 8 - History and projections for the small vehicle market in India



Source: IHS Global vehicle sales forecast

The Indian market is booming, and car buyers are attracted by the A segment, mainly for their primary needs of access to mobility with constraints on the car purchase cost.

The European market, which is more mature, sees the compact car segments growing for reasons related to running costs and a growing environmental awareness.

Lastly, the Japanese market already gives pride of place to compact cars, which represent half of the fleet and are extremely well suited for use in congested environments, taking advantage of the smallest parking spaces.

In a world where urban areas will continue to grow, the Japanese market may prefigure trends in other markets, such as Europe.

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