

**REGULATORY UNCERTAINTY AND ITS IMPACT ON CAR SALES**

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Between the beginning of 2016 and mid-2018, private car registrations in Spain grew year-on-year by an average of around 5%. Thereafter, registrations began to perform notably less favourably, falling more than 11% in 2019. Chart 1 shows that this decline has been sharper than that in the consumption of other durables. This suggests two things: first, a common factor in decisions to purchase these goods (cars and other durables) could have been behind the recent slowdown. This factor would be, for example, the petering out of demand pent up during the crisis or rising global macroeconomic uncertainty. Second, the car industry has likely also been affected by some type of idiosyncratic shock.<sup>1</sup>

This box aims to analyse the extent to which developments in registrations in Spain have been influenced by one such idiosyncratic factor. Specifically, by the uncertainty surrounding the entry into force of a European protocol, the World Harmonised Light Vehicle Test Procedure (WLTP) in September 2018, and of other traffic restrictions in big cities.<sup>2</sup>

To do so, an indicator was constructed that measures regulatory uncertainty in the car industry using articles containing a series of key words published in the national press. Textual analysis is a well-established methodology in the literature for gleaning information on phenomena, such as uncertainty or expectations, that are hard to quantify.<sup>3</sup> Specifically, articles published in seven Spanish newspapers<sup>4</sup> were processed for this analysis. An index was built based on the frequency of the articles containing the words “diesel and petrol”, “electric cars”, “traffic restrictions”, “Madrid Central” or “WLTP”. Chart 2 tracks developments in this index since 2016. It points to a notable increase in uncertainty in the car industry in mid-2018, when the WLTP was about to enter into force. Since then, this uncertainty has held at relatively high levels.

Furthermore, it has also reacted to the entry into force of various forms of traffic restrictions in Madrid, Barcelona and other big cities.

The slowdown in new car registrations in Spain from mid-2018 has coincided with the increase in uncertainty shown in Chart 2. This rising uncertainty could therefore explain the slowdown. To confirm such a link, new registrations lost in Spain since July 2018 are estimated. The loss of new registrations is proxied by the difference between the July 2018 forecast and actual registrations (see Chart 3).<sup>5</sup> If we combine the measure of this slowdown in new registrations with the uncertainty index in the car industry, we can see that the two variables are closely linked from 2018 Q3 (see Chart 4).

This uncertainty in the car industry may prove to be short-lived and recede once agents have fully taken the legislative changes on board. If this is the case, new car registrations can be expected to gather pace again in the future. According to the latest survey indicators from the European Commission, consumers’ intention to buy a new car has not shifted, even in the case of younger drivers, whose preferences are more shaped by the latest technological, social and legislative developments.

However, other factors could contribute to the continuing weakness in car sales. On the one hand, there is no established technological paradigm to replace the combustion engine which, after a century of use, is showing signs of coming to an end. On the other, regulatory changes and technological developments could lead to price rises, which would naturally have an impact on demand for cars. For example, in terms of manufacturing costs, the need to incorporate technologies that reduce emissions so as to comply with the new standards is a source of upward pressure on new car prices.

1 It is also possible that rising global and domestic uncertainty has had a stronger impact on car sales than on sales of other durables, owing to the importance of car purchases, given their amount, in household consumption decisions

2 For further information on the implementation of the WLTP, see Box 4, “Impact of the new emissions regulation on the automobile market”, Quarterly Report on the Spanish Economy, *Economic Bulletin*, 4/2018, Banco de España.

3 See, inter alia, S. Baker, N. Bloom, and S. Davis, “Measuring Economic Policy Uncertainty”, *The Quarterly Journal of Economics*, Vol. 131, No 4, November 2016, pp. 1593–1636, and C. Ghirelli, J. Pérez and A. Urtasun (2019), “Measuring economic and economic policy uncertainty and their macroeconomic effects: the case of Spain”, *Empirical Economics*, September.

4 The four general newspapers (*El País*, *La Vanguardia*, *ABC* and *El Mundo*) and the three business newspapers (*El Economista*, *Cinco Días* and *Expansión*) with the highest circulation were used.

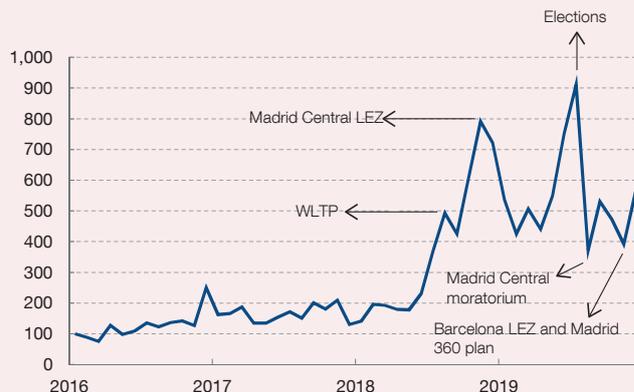
5 The estimates are made through a univariate model used by the Banco de España for analysing this variable. This model showed a successful statistical adjustment before the introduction of the new legislation. July 2018 has been selected as the start date for the projection exercise because new registrations in August were already heavily distorted by the entry into force of the WLTP legislation in September. Specifically, in August car dealers moved to clear their car stocks that would not meet the new standards. They offered heavy discounts and resorted to self-registration for final sale at a later date. This led to a bounce in August, tailing off in September, as shown in Chart 3.

**REGULATORY UNCERTAINTY AND ITS IMPACT ON CAR SALES (cont'd)**

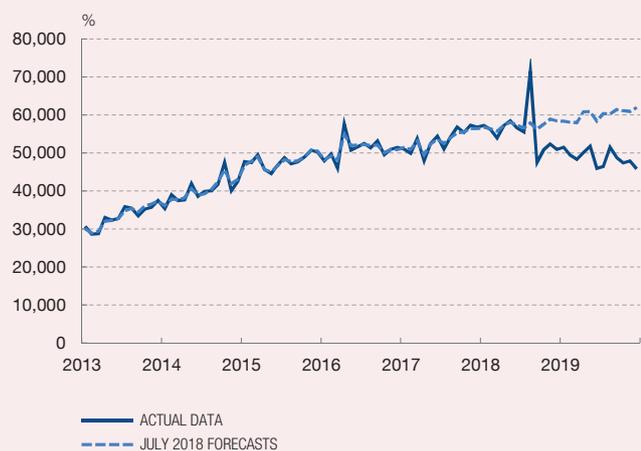
**Chart 1**  
DURABLE CONSUMPTION AND NEW PRIVATE CAR REGISTRATIONS  
Year-on-year rates of adjusted series



**Chart 2**  
REGULATORY UNCERTAINTY (a)



**Chart 3**  
NEW PRIVATE CAR REGISTRATIONS  
Actual data and July 2018 forecasts



**Chart 4**  
REGULATORY UNCERTAINTY AND LOSS OF NEW PRIVATE CAR REGISTRATIONS (b)



**SOURCES:** ANFAC, INE, Factiva Dow Jones and Banco de España.

- a Barcelona LEZ refers to the approval of the Low Emissions Zones in Barcelona, in force since 1 January 2020, and Madrid 360 to the unveiling of the Madrid Municipal Council's latest air quality and climate change plan.
- b Uncertainty is depicted in terms of the six-month moving average. The loss of new car registrations is the difference between actual registrations and those forecast in July 2018.