Calendar and temperature effects in the analysis of textile and leather consumption series in France

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Abstract

The seasonally and working-days adjusted series of household consumption in textile and leather, which are used to compute the French quarterly national accounts and the monthly household consumption expenditure in manufactured goods, are very volatile. In terms of communication, this is problematic, in particular for the monthly household consumption expenditure in manufactured goods. Therefore, in this paper, we analyse the reasons for that volatility and examine methods to correct it.

Two reasons can account for the volatility of textile and leather household consumption:
- temperature effects (which play a more important role on textile and leather than on other products), that are not to be corrected;
- sales effects (which, as well, play a more important role on textile and leather than on other products), that are calendar effects, and, therefore, are corrected in the national accounts. This paper proposes an improvement of the sales effect correction in quarterly national accounts.

The sales phenomenon is difficult to take into account by seasonal adjustment software, that does not integrate the sales dates.

The first part of the paper describes the sales regulation in France and the evolution of the calendar through the last fifteen years and through the different French departments. That stage is in concrete terms very costly in time.

In the second part, we study the effect of the sales calendar on the textile and leather consumption series. Not surprisingly, we find that the beginning date matters much more than the end date. That stage allows us to propose a new method to correct the textile and leather consumption series of sales calendar effects.

In the third part, we record that, in spite of the sales calendar effect correction, the series remain volatile. Therefore, we quantify the temperature effect on these series. This part does not help to reduce the volatility of the seasonally and working-days adjusted series, but to explain that volatility, which, in terms of communication, is appreciable.

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