

Some of the measures in the “Agriculture and Food” law have caused an increase, albeit modest, in consumer prices

Following the French National Food Conference (États généraux de l’Alimentation, EGalim) organised in 2017, in autumn 2018 Parliament adopted a Law to promote balanced commercial relationships in the agricultural and food sector and healthy, sustainable food (known as the “Agriculture and Food” Law).

Several of the provisions of this law, after being detailed in the Order of 12 December 2018, came into force in the first quarter of 2019. Since 1st January 2019, promotional offers on food products have become more strictly regulated: discounts are limited to 34% of the value of the products concerned, and promotional offers can only concern 25% of the annual volume sold by each store chain. In addition, since 1st February 2019, the resale-below-cost (RBC) threshold has been raised by 10% for food products. This measure is intended to better reward farmers, even though the law does not oblige retailers to increase their purchase prices from producers.

These measures have led to an increase in consumer prices. However, the consumer price index data suggest that this impact has been relatively modest, of the order of 0.3 points on the index of prices of frequently purchased goods in hypermarkets and supermarkets and less than 0.1 points on the overall consumer price index.

The changes in the law and regulations that affect mass-market retailing and/or agri-food industry are likely to impact food product inflation

The food prices time series is regularly affected by changes in the law and regulations. Allain, Chambolle and Vergé (2008), using the example of the Galland Law, propose a number of elements for analysis concerning the effects of the law designed to regulate the development of hypermarkets and supermarkets.

Graph 1 shows, for the period 2000-2019, the differential between food product inflation and headline inflation. Certain significant atypical episodes stand out which are linked to changes to the regulations and/or other exogenous parameters. For example, between November 2000 and December 2001, food prices increased by 3.3% due to the mad cow disease crisis on the one hand, and the tightening of food hygiene controls in response to it on the other.

The Galland law, which came into force in 1997, is thought to have pushed up consumer prices (Boutin and Guerrero, 2008). Adjustments to the law from

2004 onwards are thought to have helped to bring them down.

At the beginning of 2008, the entry into force of the law to develop competition in the interest of consumers (known as the Chatel Law) included in the calculation of the RBC threshold so-called “back margins”, namely the sums paid by suppliers to retailers for “commercial cooperation”. The reference price below which it is forbidden to sell a product was therefore lowered. Thus, between February 2008 and June 2008, food prices fell by almost 1.2%. In 2010 and 2011, soaring commodity prices caused a sharp rise in the prices of food products (+1.6% year-on-year in December 2011).

Finally, between January and February 2019, food prices rose by +0.4%. This is the steepest rise since 2011 at this time of year. The usual factors entering into the formation process of these prices (prices of meat, commodities, wages) do not go all the way to explaining this increase, which is probably linked at least in part to the entry into force of the Agriculture and Food Law.

The theoretical effect of an increase in the RBC threshold on consumer prices is ambiguous.

1 - Inflation of food excluding fresh products, corrected for headline inflation



Note: ratio of the food index to the overall consumer price index, low 100 in 2015

Scope : metropolitan France

Source: INSEE, consumer price index

French developments

The resale-below-cost threshold – or effective purchase price – is the price limit below which a retailer may not sell a product purchased from a supplier. It is calculated according to the following formula:

$$\begin{aligned} \text{RBC threshold} = & \text{Net product price} - \text{Financial} \\ & \text{advantages} \\ & \text{(discounts, rebates)} \\ & + \text{VAT and other taxes} + \text{Price of transport} \end{aligned}$$

When they sell a product, retailers apply different margins: front and back margins. The front margin represents the difference between the net price on the supplier's invoice and the sale price exclusive of tax to the consumer. As for the back margin, this includes the discounts and rebates granted by the supplier on the one hand and commercial cooperation services on the other.

Raising the RBC threshold can therefore result in an increase in the price directly concerned or in a reduction of retailers' margins. For a product on which retailers allow themselves only a small margin (loss leaders), an increase in the RBC threshold is more likely to be passed on to the total price, whereas on a product with high margins, the increase

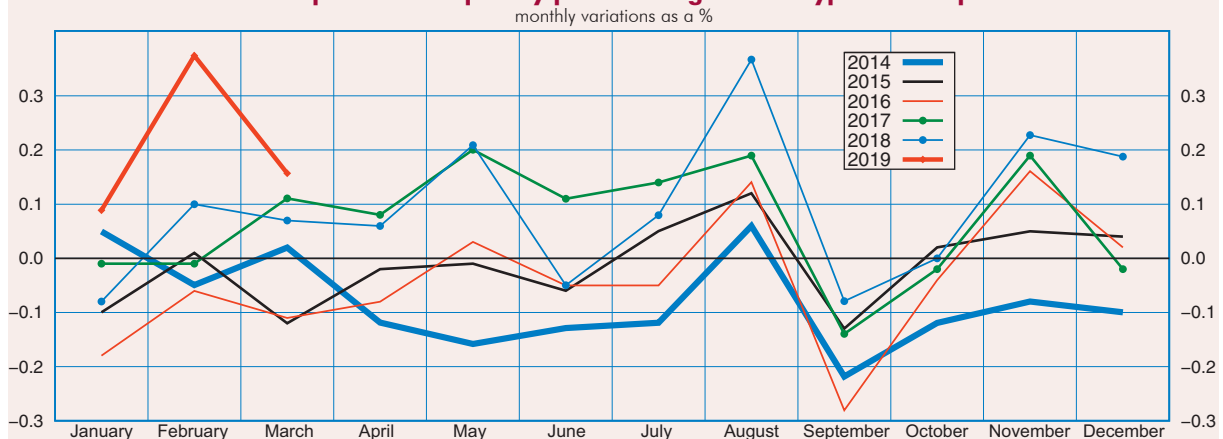
can be absorbed into those margins. An intermediate scenario can also be envisaged, in which the increase in the RBC threshold is offset by an increase in prices and at the same time a contraction of margins. The increase in prices is therefore not mechanical. Furthermore, retailers could also make use of this context to increase the prices of other products not concerned by the raising of the RBC threshold.

This increase in the RBC threshold is intended to generate additional turnover on certain products so that a part of it can be passed on to farmers via an increase in the net price at which retailers buy their produce. However, this increase is not mandatory and depends on the negotiation of the contracts between retailers, intermediaries and producers.

Certain products saw substantial increases in February 2019

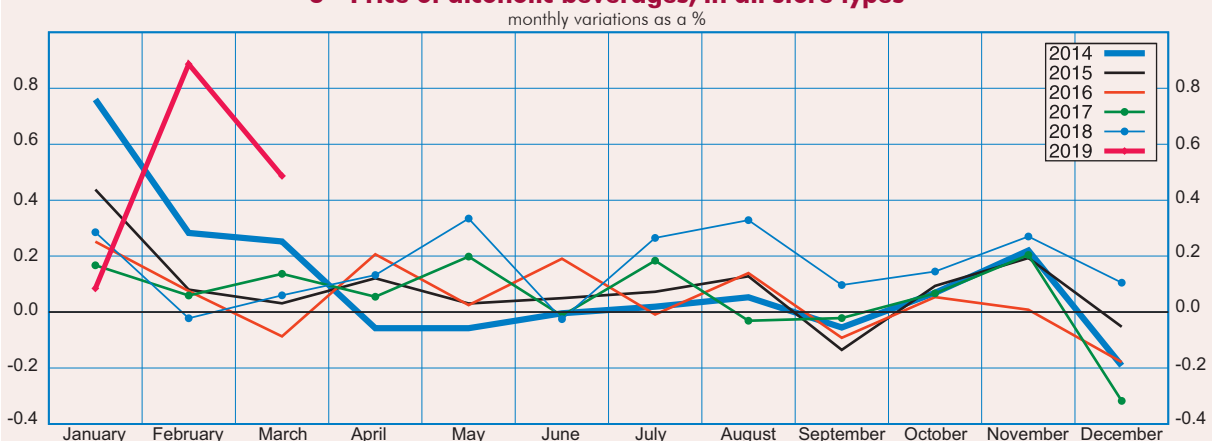
Alongside the overall consumer price index, INSEE publishes a monthly index of fresh food prices and an index of prices of frequently purchased goods for different types of retail outlet: hypermarkets and supermarkets, large and predominantly food stores and other stores. "Large and predominantly food stores" refers to stores mainly selling food with a sales area of more than 120 m², excluding hard discount stores.

2 - Inflation of prices of frequently purchased goods in hyper and supermarkets



Scope : metropolitan France, all households
Source: INSEE, consumer price index

3 - Price of alcoholic beverages, in all store types



Source: INSEE

A distinction is made between two types of goods frequently purchased in hypermarkets and supermarkets: firstly, food excluding fresh products (83.5% of frequently purchased goods), which includes meat (24%), beverages (23%) and other food excluding fresh products (53%), excluding fruit, vegetables, fresh fish and seafood; secondly, non-durable household goods, cleaning and personal care products (16.5%). Not all goods sold in hypermarkets and supermarkets are included in the index: durables in particular are excluded. Unlike cleaning and personal care products, meat and beverage prices show marked seasonal variations.

In February 2019, the increase in the prices of frequently purchased goods in hypermarkets and supermarkets was higher than the variations observed in February in previous years, regardless of store type. Consumer prices in hypermarkets and supermarkets rose by 0.4% in February 2019 (Graph 2), whereas the average change in February between 2014 and 2018 was nil.

This unusual increase in prices in hypermarkets and supermarkets was mainly due to that in the prices of food excluding fresh products, which rose 0.5% in January. Specifically, beverage prices rose 0.7% in February (Graph 3). In particular, the prices of

alcoholic beverages went up 0.9% over the month, a noticeably more marked rise than those observed in previous years in this season. Indeed, previously the biggest increase seen in February was 0.7% in 2008. This sharp increase in the prices of alcoholic beverages could be due to the fact that certain alcoholic beverages were very likely being used as loss leaders. As it is difficult to compress the margins on these faced with the increase in the RBC threshold, their prices could have gone up.

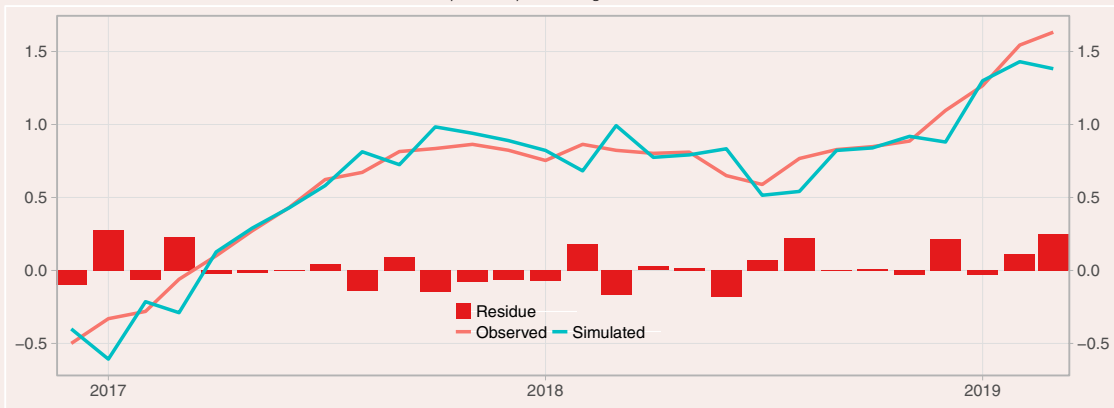
Meat prices rose 0.6% in February 2019. This increase, although seasonal, was also steeper than in previous years (the average increase since 2005 has been 0.3% in February, with the highest being +0.5% in February 2018). The prices of other food products also showed an atypical trend in February 2019, increasing by 0.3% compared to January, the biggest increase seen since 2008.

The measures of the EGalim law could well explain these atypical trends, but it is difficult to measure the exact causal impact

In order to highlight the possible effects of the measures resulting from the Food Law, a SARIMA (seasonal autoregressive integrated moving average) model was applied to series of prices of products sold in hypermarkets and supermarkets and alcoholic

4 - Prices of goods sold in hypermarkets and supermarkets

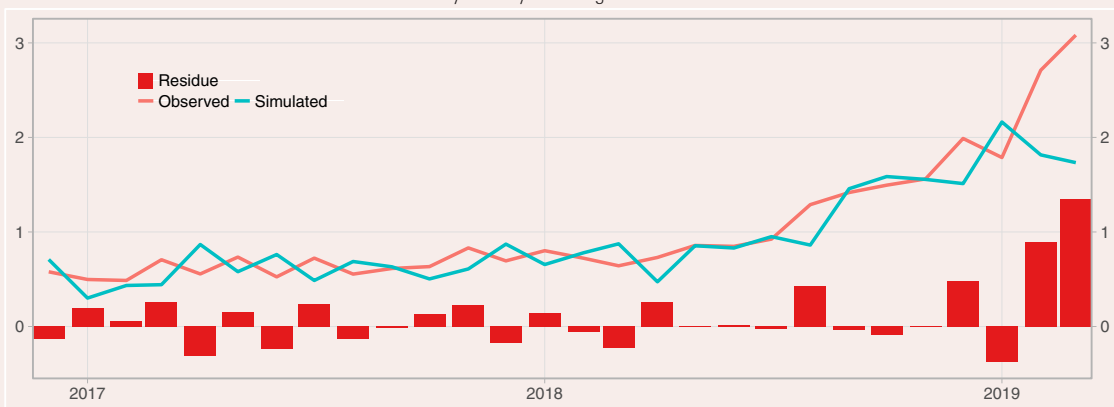
year-on-year changes as a %



Source: INSEE

5 - Prices of alcoholic beverages

year-on-year change as a %



Source: INSEE

beverages (*Annex*). This modelling shows a trend in a time series taking account of its usual seasonality and its specific dynamic and identifies the atypical variations. In other words, in the case of a consumer price series, it makes it possible to detect whether the trend in prices for a given month is noticeably different to the usual movements in that series.

Since 2017, the year-on-year change in consumer prices in hypermarkets and supermarkets is quite well explained by the model as a whole (*Graph 4*). From January 2019 onwards, it deviates from the usual seasonal trend in the series. In March 2019, this gap between the trend in prices observed and those simulated by the model was 0.3 percentage points.

Among the food products excluding fresh products, alcoholic beverages showed the most atypical trend between January and March 2019 (*Graph 5*). The gap between the year-on-year change in prices observed and those simulated reached more than 1.1 percentage points in March.

The raising of the RBC threshold and the tighter regulation of promotional offers could therefore partly explain the unusual price increases observed in the first quarter. As the prices of frequently purchased goods in hypermarkets and supermarkets represent 16% of the overall consumer price index, the effect on the monthly variation in the overall CPI would therefore seem to have been positive, but less than 0.1%. ■

Method

The models satisfy all the standard statistical tests relating to SARIMA models: the models presented are the best possible with regard to the AIC (Akaike information criterion) or BIC (Bayesian information criterion) value. Their statistical properties are presented for the price models for frequently purchased goods in hypermarkets and supermarkets and for alcoholic beverages in all types of stores. The estimation period covers the years 2005 to 2018.

Hypermarkets and supermarkets

The model is a SARIMA (1, 2, 1) (0, 0, 2) [12] whose root mean square error (RMSE) is equal to 0.15 percentage points. The model includes a lagged value, an advanced value and two differentiations in the CPI. The "2" in the second set of brackets means that the model takes account of the values (year-on-year changes) one and two years (12 and 24 months) earlier.

Alcoholic beverages

The model is a SARIMA (2, 1, 1) (1, 0, 1) [12] whose root mean square error is equal to 0.15 percentage points.

The model includes two lagged values, an advanced value and one differentiation in the CPI. The model takes account of the values 12 months earlier. ■

Bibliography

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