THE ROLE OF NEW RETAILING FORMATS IN THE ITALIAN LOCAL DEVELOPMENT

Antonio Mileti, M. Irene Prete and Gianluigi Guido

Abstract

In Italy, and particularly in its Southern area, super- and hyper-markets still represent an expanding retailing format, as they were introduced years later than in other Western countries. Today, they have become large retailers capable of influencing local development from an economic, social and urban perspective. The literature concerned with their effects on the local economy has focused on labour markets, price dynamics, and inter-type competition, neglecting their impact on macroeconomic factors such as GDP, value added specific sectors – agriculture, industry and services. This study tries to contribute to fill this gap by empirically investigating associations between key characteristics of these retailers and specific macroeconomic value added factors.

Keywords: Retailing, Supermarkets, Hypermarkets, Food sector, Italian development.

1. Introduction

The retailing food sector has been the first one to experience the impact of modern retailing formats, as the main typologies of modern trade have found in it their origin. Food sector dynamics still exert strong influence on the micro and macroeconomic environment, agricultural and industrial production, transport, trade, consumption, as well as on some social and urban aspects (IRES 2002; Lago 2002; Prasad and Reddy 2007).

In Italy, the modernisation in the retailing sector has driven a process of economic development and industrial restructuring, even though its delay with respect to other Western countries and its non-homogeneity over the national territory. On the other hand, the small
retail trade has undertaken the role of social absorber and occupational stimulus, especially in the Southern regions. The Nineties represented a turning point in the process of modernisation of the retailing sector, as its inefficiencies were recognised as the causes of the inflation process which had lead to detrimental effects on the purchasing power of salaries and to workers’ retributive claims. Endogenous processes of rationalisation and concentration and exogenous dynamics induced by the Italian legislator (Martora Law, Bersani Law and Reform of the V Title of the Constitution, Riforma del Titolo V della Costituzione) have been activated. Thus, the trade sector has undertaken a process similar to the one experienced by the manufacturing sector, in particular (Lago 2002; Pellegrini 2001): i) the growth of big retailers, especially in Southern Italy; ii) the concentration and the growing horizontal competition among retailing firms; iii) the entrance of new international retailing competitors and the success of new distribution techniques; and iv) the strong reduction of both small food and non food retailers. This process has lead retailing companies to the control and standardisation of quality, cost reductions through new operative and managerial techniques, personnel specialisation, and diffusion of more accurate information.

For all this phenomenon, super- and hyper-markets could be considered a relatively new form of large retailing format especially in the Southern part of the country – still characterized by a persistent economic backwardness – where their introduction came with decades of delay with respect to other Western countries, such as France, UK, Germany and the US (Marbach et al. 2000; Pellegrini 2001). In Italy, super- and hyper-markets are defined according to their selling area: supermarkets have a selling area between 400 and 2,500 square meters, while hypermarkets have a selling area greater than 2,500 square meters (Osservatorio Nazionale sul Commercio 2004). Main characteristics of these retailing formats – their bargaining strength, large dimension and ability to attract consumers – have allowed them to become large organisations potentially capable of influencing local development from an economic, social and urban perspective.

The aim of this paper is investigating the impact of super- and hyper-markets on macroeconomic factors, and, specifically, considering associations between key characteristics of the evolution of these retailers – their diffusion in the considered areas and their dimension – and specific macro-economic variables – GDP, total value added, value added in specific sectors, such as agriculture, industry and services. Results show that, in Italy, the presence of super- and hyper-markets differently interact with the abovementioned local development factors.
2. Retailing Sector and Local Economic Development

Whereas traditional forms of retailing represent an economic and urban phenomenon, they do not have singularly the ability to influence local equilibrium, on the contrary, modern retail companies have reached a dimension such that the choices concerned with their single creation need to be calibrated accurately, both by managers and local public administrators because of their social and economic consequences on agriculture, industry and services. The settlement of relevant economic activities brings about effects of different nature, both for firms and the community, which can be classified in the following way: i) general and sector-based economic effects on prices, income, employment and competitive equilibrium among firms and different retailing channels; ii) social effects concerned with mobility, aggregation, social, individual and cultural development; and iii) environmental effects on territorial morphology, ecosystems balances, and degree of pollution in the areas of new plants localisation (Bertozzi 2006).

The prevailing literature has focused both on the study of the dynamics concerned with inter- and intra-format power relationships, and on the exploration of economic, social and territorial factors that influence the large retailing localisation (Dunne and Lusch 1999). Only in the last years, some authors have highlighted that the retailers’ power may represent a factor of disequilibrium for local economies.

The discussion about the modalities through which it is possible to evaluate the impact of modern retailing, and, in particular, of super- and hyper-markets, is intended to investigate the economic and non-economic problems – which are often not directly quantifiable – induced by the creation of new selling points. Moreover, it is focused to analyse the problems linked to the monopoly/monopsony power and, in general, all market failures which self-regulation mechanisms can not influence (Beresteau and Ellickson 2006; Clarke 2001). More accurate studies have considered the consequences in terms of prices and employment (Basker 2005; Drewianka and Johnson 2006; Guariglia 2002; Neumann 2006). Furthermore, the evaluation of the consequences on local economies generated by new large retailers can be studied in a more recent theoretical framework aimed to define methodological and operative implications oriented to the interpretation of social, economic and territorial effects (IRES 2002; Lago 2002; Prasad and Reddy 2007).
3. The Modernisation of the Italian Retailing Sector: A not Uniform Process

The modernisation of the Italian retailing sector has not been uniform, since it has followed different dynamics because of sectorial, geographic and legislative concerns. Because of sectorial elements, the modernisation process of the retailing sector has been sharper in the food sector than in the non-food one – even though the latter it is experiencing an intense acceleration. The delay accumulated by the large non-food retailing companies seem be dependent crucially on the nature of products, and, especially, on the high level of customer services required. The de-specialised food retailing stores have moved towards the increase of territorial coverage, as well as the enhancement of selling points areas. Their sector concentration has progressively raised, and, according to the ACNielsen data, in 2006 the top ten companies covered a 59.3% market share (the first six covered a 44.9% market share).

Because of economic and competitive factors, the modernisation process has involved primarily Northern and Central Italy. The widespread diffusion of large structures in these areas is due to different factors, specifically, similarity of social-economic conditions with respect to other European countries and high density population areas and urban concentration. Then, from the Nineties the progressive reduction in Centre-Northern regions of geographic areas available for new plants has pushed large structures toward Southern Italy areas, where competitive dynamics were still weak.

Because of legislative aspects, geographical evolution and modernisation of the Italian retail trade is affected by the authorisations needed to open medium and large retail structures. The 426 Law of 1971 shaped the retailing system and it contributed to stop the modernisation of the Italian retailing system through: i) the absence of incentives to facilitate the growth of small and medium retail firms and the absence of stimuli and pressures that, in other countries, have contributed to obtain high levels of efficiency; ii) the entrance of foreign competitors, and French in particular, which after the saturation of their marketplace have had the opportunity to strengthen themselves and become the Italian market leaders; iii) the absence of agreements able to foster international synergies and the supremacy of the control of the territory; and iv) the presence of high inefficiency rates and high costs which are reflected on average prices, higher than in the rest of Europe.

The 144 Law of 1998, the so called Bersani Reform, introduced a sort of trade federalism among regions, even in a national framework, and afterward, it has been overcome by the Reform of the V Title of the Italian Constitution (Titolo V della Costituzione) which
has given to Regions the legislative power in this field and the opportunity to depart from the Bersani reform. The rationalisation of the retail system has been carried out in a non-homogeneous fashion among regions, but more strongly in the food sector.

4. Research Aim and Objectives

The general aim of this study is investigating the interaction between the evolution of new retailing format and wealth and development, in Italy, which has experienced, in the last years, a fairly good dynamic of the retail sector, particularly in its Southern regions.

As already outlined, existing literature concerned with economic effects of retailing trade has focused on its impact on labour markets, price dynamics and inter-type competition, neglecting its influence on macroeconomic factors. In particular, empirical analysis concerning the retail sector are focused on: i) the causal link between socio-economic and productive factors, and on the birth and the evolution of the large retailing; ii) the investigation of the causes underlying the localisation of the large retailing formats in a given area, such as demand, per capita GDP, and employment rate (Einarsson 2008); and on iii) the main effects of large retailing, in its different forms, such as the relationship between producers and retailers, price dynamics and local employment levels. The opposite process – dealing with the economic and social impact of modern retail exerted on local economies – seems to be less explored and focused on specific aspects. This study tries to fill this gap by empirically investigating the association between key characteristics of large retailers and specific macro-economic factors – value added in specific sectors, such as agriculture, industry and services.

The objective of this study is to demonstrate the existence of an empirical association between the diffusion of modern retail in the Italian food sector – super- and hyper-markets – and some economic indicators – total value added, value added in agriculture, industry and service. The study of new retailing formats in the food sector is thus interpreted through the observation of two different typologies of selling points: super- and hyper-markets. This choice is based on the assumption that two categories represent a good indicator of the dynamics of large retailing and their presence has an impact on the country development, not only in terms of its price dynamics and occupation, but also as a stimulus of its economic activities and value added. This assumption is not new in literature and has been implemented in empirical studies carried out by ACNielsen, SVIMEZ and CESCOM-Bocconi.
Supermarkets can be considered a good indicator of the presence of GDO within urban areas; hypermarkets – localised in urban areas or ex-urban areas within shopping centres (which represents the main appealing elements) – are the expression of the large organised retailing (Verhetsel 2005).

5. Methodology

5.1 Data Collection

The present study has been conducted in Italy, by considering the longitudinal data that cover 19 years, from 1988 until to 2006, a period chosen as it overlaps with a new survey of the National Observer on Trade (Osservatorio Nazionale sul Commercio). As a real of fact, in 1988, a different method of measuring numerical consistency, areas and number of employees of modern retail has been started, as it takes into account the two selling formats – super- and hyper-markets – separately.

The dataset includes information on: i) residents and some macroeconomic variables, recovered from the Italian Institute of Statistics (Istituto Italiano di Statistica, ISTAT) and Krenos databanks – University of Cagliari (Italy); ii) super- and hyper-markets, recovered from the National Observer on Trade (Osservatorio Nazionale sul Commercio) and the Italian Ministry of Industry and Trade (Ministero delle Attività Produttive). In particular, the dataset contains the subsequent time series observed in Italy over the period 1988-2006: i) number of super- and hyper-markets; ii) selling areas of super- and hyper-markets; iii) national private consumption; iv) total value added and agriculture, industry and services value added according to the ATECO classification; and v) value added for the ATECO categories, in particular, data on: “Food, Beverages and Tobacco” for the industry sector; “Trade, Hotels and Public Establishment” and “Transport and Communication Services” for the service sector.

The consideration of value added, which corresponds, according to ISTAT, to the sum of the remuneration of productive factors and depreciations and can be calculated according to base prices or market prices (see the European Accounting System, SEC 95), is functional for the appreciation of the country economic growth in terms of new goods and services. Value added is computed as the difference between the production value of goods and services and the value of intermediate goods and services employed for their manufacturing (input,
auxiliary resources, and services supplied by other firms) (ISTAT 2008). The variables describing the value added in the main sectors may represent good proxies of the wealth produced in those specific sectors; the variables linked to the sub-sectors may represent proxies of the trend of economic activities in the sectors more directly exposed to the expansion of super- and hyper-markets: food, trade, and transports.

6. Analysis and Results

6.1 Descriptive Statistics

Before the description of the evolution, in Italy, of the new retailing formats – super- and hyper-markets – the trend of the economic indicators, represented by the value added in agriculture, industry, food and service sectors was analyzed. Results showed that, in Italy, the growth rate of the value added in the considered sectors was constant in the period from 1988 from 2006, even if it registered a higher growth of the service sector in comparison with the other ones (see Figure 1, below). Furthermore, service sector represented the main contribution to the total value added – with a percentage near to the 70% – followed by industrial sector – with a percentage between the 30% and 25% – and by agriculture sector – with a percentage lower than 7%.

Descriptive analysis showed that number of super- and hyper-markets increased significantly in the considered period: from 1988 to 2006 total number of supermarkets augmented, in Italy, from 2,818 to 8,569; and total number of hypermarkets increased from 40 to 490 (see Figures 2 and 3, below). Moreover, according to the National Observer on Trade (Osservatorio Nazionale sul Commercio), the average annual growth rate of the new retailing formats from 1991 to 2006 was significantly high: 6% for both supermarkets and hypermarkets.

Data on number and retail area of super- and hyper-markets were considered in relation to population. In the period from 1988 to 2006, number of supermarkets per 1,000 inhabitants in Italy increased in a continuous and gradual way. In particular, number of supermarkets per 1,000 inhabitants increased, in Italy, from 0.05 in 1988 to 0.15 in 2006. Number of hypermarkets per 1,000 inhabitants increased, from 0.001 in 1988 to 0.008 in 2006 (see Figures 4, below).

Fig. 1: Per-Capita Value Added in Agriculture, Industry, Food and Service in Italy from 1988 to 2006
Source: Elaboration of data provided by Crenos and Istat.

**Fig. 2:** Cumulative Number of Supermarkets in Italy from 1988 to 2006

Source: Elaboration of data provided by the National Observer on Trade (Osservatorio Nazionale sul Commercio).
Fig. 3: Cumulative Number of Hypermarkets in Italy from 1988 to 2006

Source: Elaboration of data provided by the National Observer on Trade (Osservatorio Nazionale sul Commercio).

Figure 4: Number of Supermarkets and Hypermarkets/1,000 Inhabitants in Italy from 1988 to 2006

Source: Elaboration of data provided by National Observer on Trade (Osservatorio Nazionale sul Commercio) and ISTAT.
In the same period, retail area of *supermarkets* per 1,000 inhabitants increased, in Italy, from 40 to 128 square meters; while retail area of *hypermarkets* per 1,000 inhabitants increased from 4.4 to 51 (see Figure 5, below).

**Figure 5: Retail Area of Supermarkets and Hypermarkets/1,000 Inhabitants in Italy from 1988 to 2006**

Source: Elaboration of data provided by National Observer on Trade (*Osservatorio Nazionale sul Commercio*) and ISTAT.

### 6.2 Linear Regression Analysis

A series of regression analyses has been carried out by using the traditional methodology OLS, in order to verify the existence of a linear relation between specific indicators of the diffusion of large retailing sector and economic indicators, such as the total value added. The dataset includes a balanced *panel* related to the 20 Italian administrative regions, observed in 19 annual temporal periods, from 1988 to 2006.

In order to obtain a unique variable for the large retailing sector, both for *super- and hyper-markets*, the data related to the selling area/1,000 inhabitants were considered. This indicator is more able than their numerical consistency to capture the pressure exerted by the large retailing sector on the local economic environment (Verhetsel 2005). Furthermore, the data related to *super- and hyper-markets* sales areas were considered, in order to obtain a unique indicator of the weight of the two forms of large retailing sector. Italian per capita
consumption in the food sector was selected as a control variable. The following dependent variables were used in the linear regression analysis: i) the value added in the agriculture sector; ii) the value added in industry sector; iii) the value added in service sector; iv) the value added in *food* sector. In order to observe the temporal effect, a temporal delay was considered: it has been assumed that the localisation of GDO in a particular territory may explicate an impact on the economic territorial variables not only in the year of its settlement, but also some years later. To this end, linear regressions analysis took into consideration three different temporal periods: i) delay = 0 year; ii) delay = 2 years; and iii) delay = 4 years.

Results showed that, in Italy, value added – related to the four specific sectors of agriculture, industry, services and food – has, in the majority of times, an influence on the principal explicative variable represented by retail area of *super- and hyper-markets* per 1,000 inhabitants. The presence and the intensity of this relation vary both on the basis of the particular sector and the temporal delay attributed to the dependent variable with respect to the explicative one (0, 2, 4 years).

As regards the analysis related to the value added in agriculture, there is not a strong relation with the settlement of large retailing formats: in the situation of a null temporal delay this index showed a significant positive relationship with a coefficient equal to .000005 (*p* < .001) and in the case of 2-years temporal delay it showed a coefficient equal to .000037 (*p* = .005) (see Table 2 and 3, below). Moreover, this relation tended to be insignificant in the situation of 4-years temporal delay (*p* = .104). In the agriculture sector, the positive relationship with the large retailing formats seemed to be slightly significant in the beginning of their settlement and to go into decline with the passage of time.

**Table 2:** *Results of Linear Regression Analysis of Value Added in Agriculture Sector, Null Delay, in Italy*

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>.000051</td>
<td>.00001</td>
<td>4.530</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-5.69e-06</td>
<td>3.85e-07</td>
<td>-14.780</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note*: Number of observations: 380; *F* = 120.49; R-Square = .4397.
*Source*: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (*Osservatorio Nazionale sul Commercio*).
Table 3: Results of Linear Regression Analysis of Value Added in Agriculture Sector, 2-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>0.000037</td>
<td>0.00001</td>
<td>2.840</td>
<td>.005</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-5.46e-06</td>
<td>3.96e-07</td>
<td>-13.770</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: Number of observations: 380; F = 109.43; R-Square = .4581.
Source: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

Table 4: Results of Linear Regression Analysis of Value Added in Agriculture Sector, 4-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>0.00002</td>
<td>0.00001</td>
<td>1.630</td>
<td>.104</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-5.26e-06</td>
<td>4.09e-07</td>
<td>-12.870</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: Number of observations: 380; F = 99.49; R-Square = .4581.
Source: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

Results related to the industrial sector registered a positive relationship, in each temporal delays observed \( p = .000 \). The linear regression analysis showed an increase of value added in the industrial sector in correspondence to the expansion of super- and hyper-markets in Italy, and this effect tend to be more important after some years of their settlement. As a real of facts in the situation of null delay the coefficient is equal to .00048; in the case of 2-year delay the coefficient corresponds to .00060, while in the situation of 4-year delay the coefficient is equal to .00071 (see Table 5, 6 and 7, below).

In the food sector, ATECO, Beverages and Tobacco, a sub-sector of industry, the relation with the evolution of super- and hyper-markets showed divergent results: in the situation of null delay the considered relationship appeared to be not significant \( p = .150 \), while in the cases of 2-years and 4-years delay the presence of a negative relation is confirmed. Specifically, outcome obtained for linear regression analysis showed that in 2-years delay the coefficient was equal to -.00008 \( p = .017; \) and in the situation of the 4-years...
Table 5: Results of Linear Regression Analysis of Value Added in Industry Sector, Null Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>.00048</td>
<td>.00006</td>
<td>7.120</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-3.38e-06</td>
<td>2.03e-06</td>
<td>-1.670</td>
<td>.097</td>
</tr>
</tbody>
</table>

Note. Number of observations: 380; F = 43.10; R-Square = .1336.
Source: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

Table 6: Results of Linear Regression Analysis of Value Added in Industry Sector, 2-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>.00060</td>
<td>.00007</td>
<td>8.360</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-4.48e-06</td>
<td>2.10e-06</td>
<td>-2.130</td>
<td>.034</td>
</tr>
</tbody>
</table>

Note. Number of observations: 380; F = 53.58; R-Square = .1670.
Source: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

Table 7: Results of Linear Regression Analysis of Value Added in Industry Sector, 4-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>.00071</td>
<td>.00008</td>
<td>8.640</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-4.86e-06</td>
<td>2.24e-06</td>
<td>-2.170</td>
<td>.031</td>
</tr>
</tbody>
</table>

Note. Number of observations: 380; F = 57.54; R-Square = .1933.
Source: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

delay the coefficient was equal to -.00013 (p = 0,000) (see Table 8, 9 and 10, below). This outcome seems to be in contrast with previous considerations regarding the industrial sector,
as in the food sub-sector the expansion of *super- and hyper-markets* in the Italian territory affects a decrease of the value added in the food sector.

**Table 8:** Results of Linear Regression Analysis of Value Added in Food Sector, Null Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>-.00004</td>
<td>.00003</td>
<td>-1.440</td>
<td>.150</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-2.89e-06</td>
<td>8.82e-07</td>
<td>-3.270</td>
<td>.001</td>
</tr>
</tbody>
</table>

*Note.* Number of observations: 380; F = 24.30; R-Square = .1154.

*Source:* Elaboration of data provided by Crenos, Istat and the National Observer on Trade (*Osservatorio Nazionale sul Commercio*).

**Table 9:** Results of Linear Regression Analysis of Value Added in Food Sector, 2-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>-.00008</td>
<td>.00004</td>
<td>-2.390</td>
<td>.017</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-2.79e-06</td>
<td>9.34e-07</td>
<td>-2.980</td>
<td>.003</td>
</tr>
</tbody>
</table>

*Note.* Number of observations: 380; F = 29.16; R-Square = .1514.

*Source:* Elaboration of data provided by Crenos, Istat and the National Observer on Trade (*Osservatorio Nazionale sul Commercio*).

The last observed sector, the service one, showed a significant relation between the evolution of large retailing formats and the related macroeconomic variables, in each of the different observed delay. Specifically, unlike the industry sector, results exhibited a negative relationship in the situation of null delay, with a coefficient equal to -.00052 (*p* < .000); in the case of 2-years delay it obtained a coefficient equal to -.00063 (*p* < .000); while in the situation of 4-year delay it showed a coefficient equal to -.00074 (*p* < .000). As for the food sub-sector, the new settlement of super- and hyper-markets in the Italian territory would negatively impact the value added in the service sector.
### Table 10: Results of Linear Regression Analysis of Value Added in Food Sector, 4-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>-.00013</td>
<td>.00004</td>
<td>-3.530</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>-2.56e-06</td>
<td>9.87e-07</td>
<td>-2.590</td>
<td>.010</td>
</tr>
</tbody>
</table>

*Note.* Number of observations: 380; F = 36.70; R-Square = .1904.  
*Source:* Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

### Table 11: Results of Linear Regression Analysis of Value Added in Service Sector, Null Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>-.00052</td>
<td>.00007</td>
<td>-7.870</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>9.16e-06</td>
<td>1.94e-06</td>
<td>4.720</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note.* Number of observations: 380; F = 33.38; R-Square = .1208.  
*Source:* Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

### Table 12: Results of Linear Regression Analysis of Value Added in Service Sector, 2-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>-.00063</td>
<td>.00007</td>
<td>-8.800</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>9.96e-06</td>
<td>2.03e-06</td>
<td>4.920</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Note.* Number of observations: 380; F = 41.82; R-Square = .145.  
*Source:* Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).
Table 13: Results of Linear Regression Analysis of Value Added in Service Sector, 4-Years Delay, in Italy

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail area of super- and hyper-markets per 1,000 inhabitants</td>
<td>-.00074</td>
<td>.00008</td>
<td>-8.940</td>
<td>.000</td>
</tr>
<tr>
<td>Per-capita consumption</td>
<td>.00010</td>
<td>2.06e-06</td>
<td>4.700</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note. Number of observations: 380; F = 44.22; R-Square = .145.
Source: Elaboration of data provided by Crenos, Istat and the National Observer on Trade (Osservatorio Nazionale sul Commercio).

5. Discussion

Results obtained showed the presence of a general relationship between both variables related to total value added and value added in specific sectors and a synthetic index related to the evolution of large retailing formats in Italy. This relationship, which is positive or negative on the basis of different observed sectors, seems to increase according to the temporal delay considered between the settlement of new super- and hyper-markets and the measurement of value added.

In the agriculture sector, the presence of a slightly positive relationship with the diffusion of super- and hyper-markets was significant only in the initial stage of their introduction, and tended to deteriorate its effect in the following years. Results showed that this relationship is moderately positive in the situation of null and 2-years delay, but it is irrelevant in the case of 4-years delay.

In the industrial sector, the creation and enlargement of retail area of new retailing formats had a positive impact on value added in industry sector. These effects are intensified as the temporal delay of measurement increased, therefore super- and hypermarkets positively influence manufacturing and commercial companies after some years of their establishment. The positive effect on the industrial segment do not appear to be homogeneous for each of their sub-sectors. In particular, the food sub-sector (named ATECO-ISTAT Food, Beverages and Tobacco) – one of the traditional sectors of made in Italy – seems to be damaged from the proliferation of large sales formats in the territory. Both in the situation of null delay and in the case of 2-years and 4-years delay, the effects deriving from the creation and evolution of super- and hyper-markets, appear to be negative and also increasingly
depressing with the passage of years. Therefore, the settlement of large retailing formats would cause detrimental effects on the food industrial production.

A negative relationship is also registered for the service sector, which showed an inverse association between index of large retailing sector and value added, in the three considered measurement periods.

In conclusion, results obtained in the present study confirm some aspects previously evidenced in literature or in certain empirical analyses, which emphasize negative effects of large retailing formats on the growth and development of principal economic sectors, as for example, studies on the impact of Wal Mart (Drewianka and Dain 2004; Dube et al. 2005), a report of the Competition Commission in the United Kingdom (2000), and a report of the FXM Associates in the Cape Code region (2005). With the exception of total industrial sector, and in some extent to the agriculture one, for which the increase of the creation and the selling area of super- and hyper-markets appears to trigger an intensification of their production, the relationship between the diffusion of large retailing formats and value added seems to be negative, particularly for the industrial food sector, which represent one of the pillar of the Italian economy.

Policy implications derive from this study. The research might confirm that the favourable impact of large retailing sector spreads in a non-homogeneous manner in economic sectors (cf. Mileti and Prete 2009). It also might confirms the age-old problems asserted by small food companies and farms regarding the economic harms caused by the so called “long retailing channel” adopted by large retailers, intended as the logistic supplying chain with the suppliers of food products localised kilometres away from the selling points. In that respect, market globalisation – extended to food products – allows super- and hyper-markets to select food products among a wide set of possibilities and, furthermore, it pushes a cost-driven competition among suppliers which leads to lower returns. The power exerted by modern trade in the channel retail – as documented in the literature (Ailawadi 2001; Buzzell, Quelch and Salmon 1990) – might discourage those public policies intended to promote the development of food sectors and based on investment-oriented subsidies and grants.

6. Limitation and Future Research

The present study has some limitations, particularly deriving from the difficulty of collecting the data, as in retailing studies the need of updated data is only partially fulfilled by
the official statistical sources. Files and data made available by different institutions (Ministero delle Attività Produttive, Infocamere, Istat) are often incomplete, inharmonious and referred to different criteria when surveying heterogeneous selling points. For these reasons, backwardness picture of the Italian retailing sector is partly due to the excessive fragmentation and discordance of available data (Gismondi and Giorgi 2002). The analysis conducted on supermarkets and hypermarkets data has also highlighted some problems. Even though the classification criterion based on the selling area is the most exploited (Osservatorio Nazionale sul Commercio, AC-Nielsen, IRI-Infoscan), it is not common to all the studies and is not a parameter used by ISTAT (Marbach et al. 2002), and furthermore, the simple data relative to the numerical consistency of retailers diverges according to different sources and empirical studies. The most reliable source, the Osservatorio Nazionale sul Commercio, provides discontinuous data (for example, the data collection on the numerical consistency of retailers has been interrupted in 1996 and started again in 2000. Moreover, the first data on hypermarkets – collected by the Osservatorio – are available from 1988, while for the previous years they are included in the data for supermarkets.

Future research will try to broaden the analysis presented in this paper, by considering further territorial areas and food retailing channels. The present study is based on the assumption that only super- and hyper-markets characterise and affect the targeted local economies and their production structure. As a matter of fact, investments and regional value added might depend, among other variables, on large resellers located in wider areas – i.e. macro-regions, national and international areas – or on new retailing formats – i.e. e-commerce. In the modern market, characterised by the globalisation of trade and economies, many producers are active not only in local markets, but they can distribute their products outside regional an national borders. Furthermore, e-commerce – the purchasing, selling, and exchanging of goods and services on the Internet, especially on the world wide web – and its main categories, such as B2B (business-to-business) – companies doing business with each other – B2C (business-to-consumer) – companies selling to the general public – C2B (consumer-to-business) – individuals offering goods and services to companies – and C2C (consumer-to-consumer) – transaction between consumers on web sites offering auctions and forums – could have an impact on value added and on investments.

Finally, future research will try to extend the analysis presented in this paper by taking into account and deepen the nature of the link among large retailing, investments and value added, and the coexistence of other explanatory variables, such as infrastructures, morphology and local social structures (IRES 2002).
7. Conclusions

This study shows that the diffusion of super- and hyper-markets differently interacts with some important local development variables, i.e. total value added and value added in specific sectors, observed over a 19-year period in Italy. Local administrations should intervene for encouraging networking activities, such as consortia among farms for the development of region-of-origin brands, and agreements among producers and retailers in order to assure a price system that could re-allocate profits among parties in a more homogenous way.

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