



UNIVERSITÀ
DEGLI STUDI
FIRENZE

FLORE

Repository istituzionale dell'Università degli Studi di Firenze

Future Scenarios of the Food System: Insights from the Consumers' Perspective

Questa è la Versione finale referata (Post print/Accepted manuscript) della seguente pubblicazione:

Original Citation:

Future Scenarios of the Food System: Insights from the Consumers' Perspective / L. Casini; C. Contini; S. Fabbrizzi; I. Travaglini. - (2011), pp. 199-211. (Intervento presentato al convegno 5th International European Forum on System Dynamics and Innovation in Food Networks, organized by the International Center for Food Chain and Network Research, University of Bonn tenutosi a Innsbruck-Igls, Austria nel February 14-18, 2011).

Availability:

This version is available at: 2158/778345 since:

Publisher:

International Center for Management, Communication and Research

Terms of use:

Open Access

La pubblicazione è resa disponibile sotto le norme e i termini della licenza di deposito, secondo quanto stabilito dalla Policy per l'accesso aperto dell'Università degli Studi di Firenze (<https://www.sba.unifi.it/upload/policy-oa-2016-1.pdf>)

Publisher copyright claim:

(Article begins on next page)

Future Scenarios of the Food System: Insights from the Consumers' Perspective

Leonardo Casini*, Caterina Contini*, Sara Fabbrizzi*, Irene Travaglini*

**Dipartimento di Economia, Ingegneria, Scienze e Tecnologie Agrarie e Forestali
Università degli Studi di Firenze
P.le delle Cascine 18, 50144 Firenze
caterina.contini@unifi.it*

1 Introduction

A careful analysis of contemporary society shows a radical evolution of the role and function of consumption. So-called post-modernity, along with the technological, economic and social transformations that have brought it on, inaugurate a different way of conducting relationships, of existing and of consuming. So consumptions evolve, assuming new expressions in extremely heterogeneous ambits, including that of food consumptions. The past decades have witnessed a progressive increase in the complexity of food consumptions due to the affirmation of increasingly more differentiated trends sensitive to territorial specificity and, at the same time, open to the globalisation of tastes. This topic represents a theme as interesting from the scientific viewpoint as it is decisive from the perspective of implementing food marketing strategies. In this framework, studying food consumptions and the sources that influence them in order to comprehend motivations and significances, implicates reflecting on and investigating into the way these practises can be the object of conditioning mediated by business communication, social practises and practises among friends, or by particular socio-economic conditions.

The paper aims at contributing to the construction of food system scenario dynamics with insights from the consumers' perspective. It is based on an analysis of the food expenditures made from 2002 until the present by Italian families, whose dietary habits are characterised by a substantial attachment to tradition and a limited inclination to change, especially when compared to the rest of Europe (Censis 2007, Eurobarometer 2007).

The paper's specific goal is to verify a few hypotheses in the evolution of food consumptions, particularly the trends towards a homogenisation of consumption models, with a close look at the younger generations and new lifestyles, the effects of the changes in income due to the recent economic crisis and the role of communication as a factor that conditions food choices.

The first part of the paper analyses the present structure of food consumptions in Italy and the principal dynamics of the period from 2002 to 2009; we shall then examine and discuss the most important factors of change such as insights for building future scenarios of dietary habits in Italy.

2 Notes on method

The analysis is based on data from ISTAT (Istituto Nazionale di Statistica) concerning the consumption of Italian families from 2002 to 2009. The ISTAT survey involves some 28,000 families every year, and takes the form of a direct interview with the families sampled, and the latter keeping a journal of expenditures made in the course of an entire week.

Sampling is stratified and two-staged; in the first stage, 470 communes are selected starting from the layers that the entire Italian territory is divided into; in the second stage, the families are extracted starting from the registries of the sample communes. In practise, every month, the survey involves some 2,330 families residing in 228 communes that each time participate in the survey.

The data acquired concern food expenditure (both in and out of the home) and non-food expenditure. The information on consumption is completed by the families' socio-demographic characteristics, such as the number of family members, age, sex and level of education.

The estimate of the Italians' food expenditures is calculated by attributing a coefficient to each sample family, which indicates the number of families it represents. The sample error of food expenditures obtained in this manner is less than 0.6% with a probability $p=0.95$.

3 A tapestry of the structure of the Italians' food consumptions

In 2009, the average monthly expenditure of Italian families for food and beverages consumed in the home was € 461 (Figure 1). Every Italian spent an average of € 190 per month, that is to say 19% of the person's total expenditures, which corresponds to € 1007.

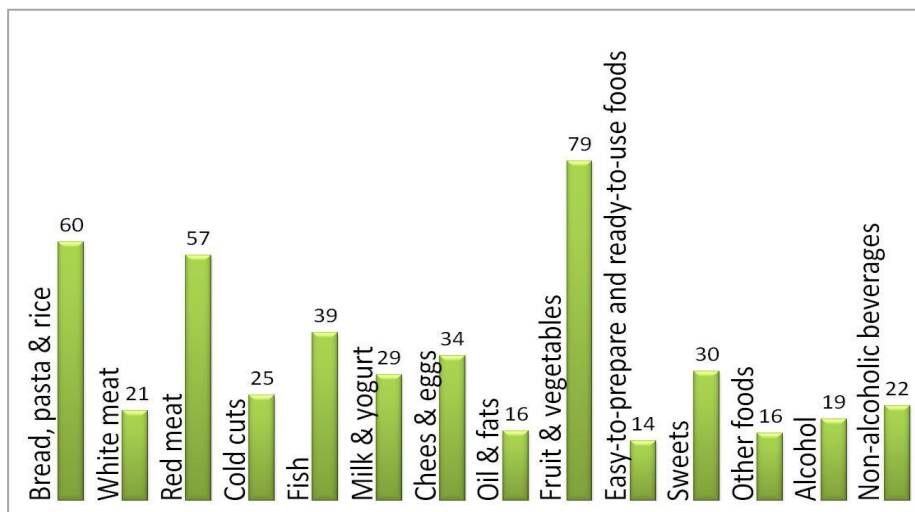


Figure 1. Average food and beverage expenditure per family (€) in 2009

On the territorial level, expenditures in Northern Italy (€ 472) are 4% higher than those of Southern Italy (€ 455), while Central Italy is characterised by intermediate levels (€ 463). On the other hand, the incidence of food expenditure on total expenditure is greater in the South (24.4%) than in the North (16.4%), reflecting the higher available income in Northern Italy (ISTAT 2009).

As far as meals consumed out of the home are concerned, the average monthly expenditure per family is € 81, which accounts for 15% of food and beverage expenditure and 3.3% of overall expenditure. It is greater in the North, where the average (€ 97) is almost twice that

of the South (€ 52). The explanation for these differences lies mainly in the diversity of lifestyles, determined not only by the different economic assets and the faster-paced lifestyle of Northern Italy, but also by cultural differences especially tied to the role of the woman in the home and in the labour world (Montini 1999, Peta 2007).

These lifestyle differences are also reflected, in the North, in the greater incidence of expenditures for easy-to-prepare and ready-to-use foods and cold cuts, that is to say for products that are time-saving and easily adaptable to various occasions, which respond better to the need for quick and deconstructed meals (Belletti and Marescotti 1996).

Other important differences on the territorial level concern the consumption of red meat, with a monthly expenditure per family greater in Central Italy (€ 64) than in Southern Italy (€ 63), and less in Northern Italy (€ 51), the consumption of fish, which in the South (with € 48 per family) and Centre (€ 41 per family) is greater than in the North (€ 32 per family), and the consumption of fruit and vegetables, which in the Centre is € 86 per family, compared to the € 77 per family of the North and South.

Considering the evolution of consumptions from 2002 till today, the impact of the economic crisis is evident in the last year, when the total expenditure of Italian families has for the first time suffered a contraction of 1.7% (Table 1).

Table 1. Trend of total expenditure and food and beverage expenditure of Italian families from 2002 till 2009.

	2002	2003	2004	2005	2006	2007	2008	2009
Total expenditures (€/month/family)	2,198	2,308	2,381	2,398	2,461	2,480	2,485	2,442
Expenditures on food and beverages consumed in the home (€/month/family)	426	449	453	456	467	466	475	461

The analysis of the trend of consumptions until 2008 reveals a constant growth of expenditures in nominal values. All of the categories present increases in values, particularly considerable for beer, while for white meat and water, this difference is definitely less than the average (Figure 2).

The analysis of food and beverage expenditures between 2008 and 2009 shows a reduction of 3%, almost twice as much as in total expenditures. The products whose demand seems to have most suffered the effects of the economic crisis on income are olive oil (-9%), wine (-6.5%) and red meat (-4.5%), while the expenditure for ready-to-use foods, cold cuts, hard liquor and aperitifs has grown despite the general contraction of consumptions (Figure 3). This period has also seen a clear decrease in expenditures for bottled water which, however, can not be attributed to a reduction of income alone, as we shall discuss specifically further on.

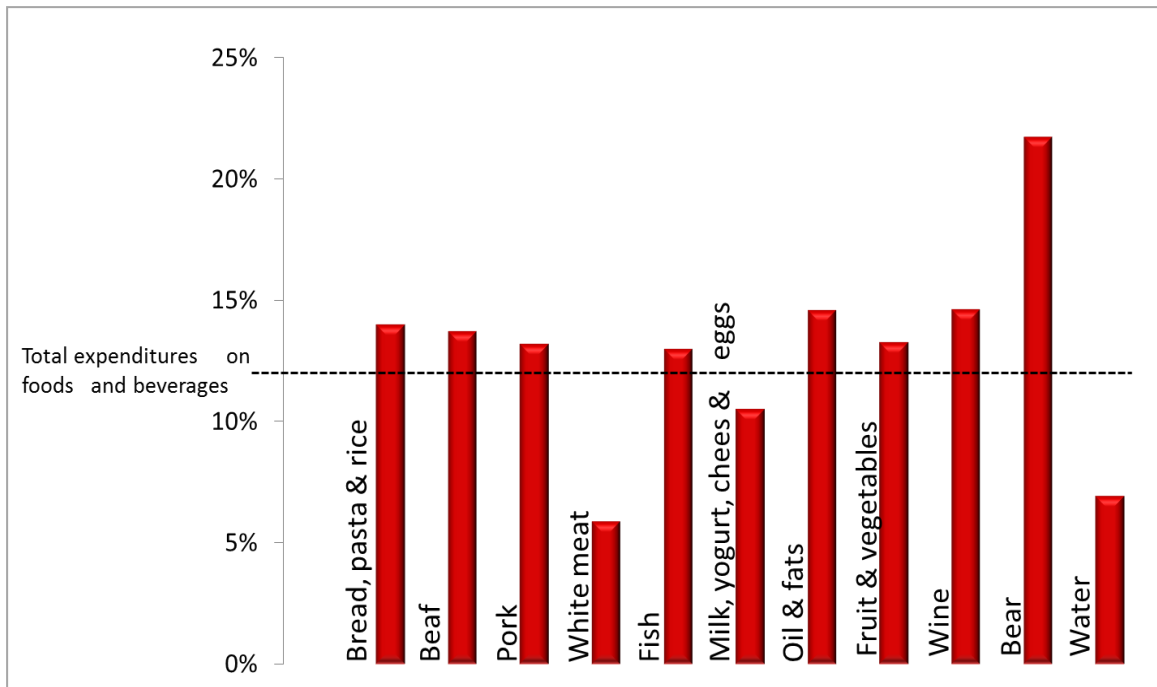


Figure 2. Percentage variation of expenditures for foods and beverages consumed in the home from 2002 till 2008.

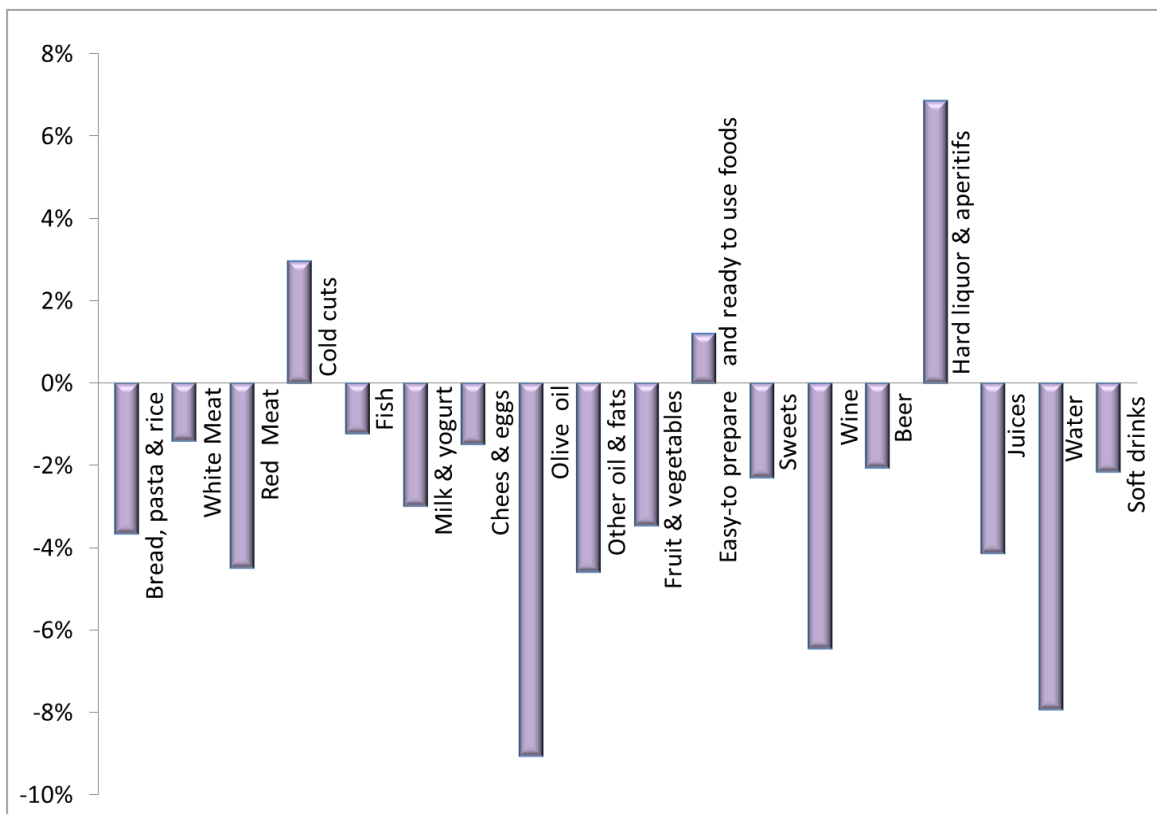


Figure 3. Percentage variation of expenditures for food and beverages from 2008 to 2009.

4 Easy-to-prepare and ready-to-use foods

In 2009, the expenditures of Italian families for ready-to-use foods were € 4,104,695,618, with a monthly average per family of € 13.9, which is 3% of the food and beverage expenditure for home use. The greatest consumers of ready-to-use foods are young people, either single or in couples without children, who for these products respectively spend 3.6% and 3.7% of food and beverage expenditures. They are followed by couples with children (3.3%) and single parents (3.2%). The elderly, whether alone or in couples, resort less to ready-to-use foods, which represent about 2.3% of their food expenditure.

From 2006 to 2009, compared to a decline of 1.2% in food expenditure, the expenditure for these products has constantly increased (+5.7). This growth is in line with the results found on the entire European continent, where it is expected to continue in the near future, though more moderately than in past years (Gracia and Albisu 2001).

Our analysis shows that in Italy, this trend is driven by young single people (+22%), single parents (+20%) and young couples without children (+11%). The consumption is particularly high in Northern Italy (€ 16.6 per month) and among families with a higher level of total expenditure (€ 19.6 per month) (Figure 4).

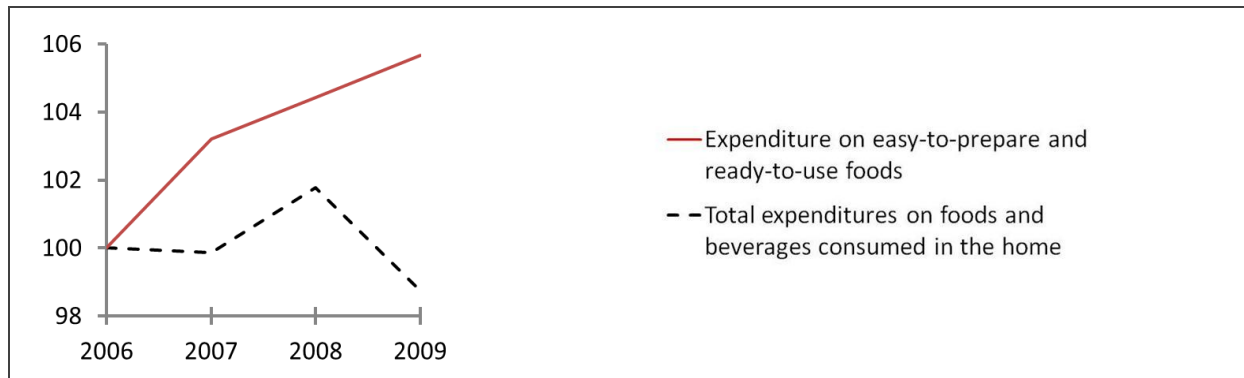


Figure 4. Trend of expenditures for easy-to-prepare and ready-to-use foods from 2006 to 2009 (year 2006=100)

These trends of expenditure are the result of several drivers that condition dietary habits, first and foremost, the rapid pace of lifestyles and the woman's participation in the labour world (Cohen et al. 1983, Davies and Madran 1997; de Boer al. 2004, Carrigan 2006), but also of structural changes within the family, which lead family members to eat alone and to distribute meals throughout the day, resorting to light meals (Mahon 2006).

In this regard, an analysis conducted in Italy (Romani 2005) underlines how the increase in the use of ready-to-use products is the result of a marked change in family organisation. In fact, while in the 80s, the purchase and preparation of food were still mainly the task of women (Counihan's 1988), in the post-modern family, both parents are involved in these aspects. Moreover, we note the increase of meals consumed alone at home, at different times, for reasons of work or school, and also for leisure and extra-curricular activities. On the other hand, parents prefer to destine their time off work to activities tied to the interests of their children (such as the cinema or sports), instead of cooking. So it happens that ready-to-use foods are consumed even when the family is all together, a situation in which this type of product makes it possible to satisfy the different tastes of children and adults, without excessive expenditure (Romani 2005).

These reflections are confirmed by a recent Censis/Coldiretti report (2010) that shows how the changes in lifestyle and family makeup are bringing about profound transformations in consumption models. Among the various factors that contribute to increasing the consumption of easy-to-prepare and ready-to-use foods, emphasis is placed on the greater participation of women in the labour world, the increase of families made up of a single member (single persons, the widowed or divorced), the loss of the habit of sitting down together to eat, the greater importance attributed to extra-family activities (such as recreational activities or those tied to wellness), and the proliferation of freezers and microwave ovens.

In this regard, a recent study conducted by the GPF institute of research and strategic consultancy (2010) shows how on the average, the Italians devote only 35 minutes to the preparation of lunch and 33 minutes for dinner, stressing how time has significantly diminished in the past years. So despite the economic crisis, it appears that saving time in preparing food has become a priority for the Italians.

These circumstances have contributed to modifying the consumers' attitude toward products with a high content of services. Indeed, while some families still consider these products as "emergency foods" (Jerome, 1981), easy-to-prepare and ready-to-use foods are increasingly more often perceived as an excellent solution, considering the little time available not only to prepare food, but also for the purchase and the activities of disposal and cleaning up after consumption. For these consumers, ready-to-use foods are not associated with a lack of care or of attention to family life, and they must possess characteristics of quality in terms of healthiness and nutritional balance (Buckley et al. 2007). Moreover, to become part of dietary habits of families by right, they must also have a good quality/price ratio.

In this context, marketing must devote attention to the size of portions, so as to satisfy consumers' needs, without producing useless waste, to the ease of purchasing so as to accelerate the time dedicated to shopping, and to the quality of products. It is also important for easy-to-prepare and ready-to-use products to be associated with positive values identifying the family and tradition. It is no coincidence that, in Italy, promotional communication for many of these foods emphasises the care with which they are obtained and the use of traditional recipes.

5 The model of young people's consumption

The comparison between the makeup of the food expenditure basket of people under 35 compared with that of the national average, stresses how the expenditure items with the greatest deviation from the basket representative of the Italian average are beer (+123%), hard liquor and aperitifs (+59%), ready-to-use products (+20%), soft drinks (+37%), fruit juices (+15%), sweets (+10%) and cold cuts (+3%) on the positive side, while on the negative side, fish (-12%) and wine (-10%) (Figure 5).

A dietary style is thus plotted that prefers ready-to-use or, in any event, already transformed products, which can be explained with the tendency of young adults to devote less time to preparing food (Deshmukh-Taskar et al. 2007; Larson 2007). This typology of food is then joined by a high consumption of quickly useable foods, such as cold cuts.

This model is also characterised by a greater consumption of foods out of the home, which for young people determines an average monthly expenditure for out-of-the-home eating equal to € 115, compared to the € 81 of the Italian average and the € 29 of people over 65

years of age. This characteristic is connected with the different lifestyle of the younger generations, projected towards greater social and working activities outside of the home, which leads young people to increase the opportunities for consumption in restaurants, cafeterias and bars (Sassatelli 2004).

On the other hand, the high consumption of beer, hard liquor and aperitifs, as opposed to the low consumption of wine, reflects a phenomenon of standardisation in dietary choices, which in the younger generations sees a tendential decrease in the consumption of dietary products characterising the traditional dietary model (Tur et al. 2004, Marhcini and Pieroni 2009). At the same time, the consumption of sweet foods and soft drinks can be interpreted as a process of dietary standardisation stimulated by the intensification of contacts and the exchange of information on the global level, as well as by the diffusion of fast food restaurants and by the agricultural and food market itself, where even local specialities are produced in a standardised version with a levelling of particularities that adapts well to mass consumption (Fischler 2001, Degli Esposti 2004).

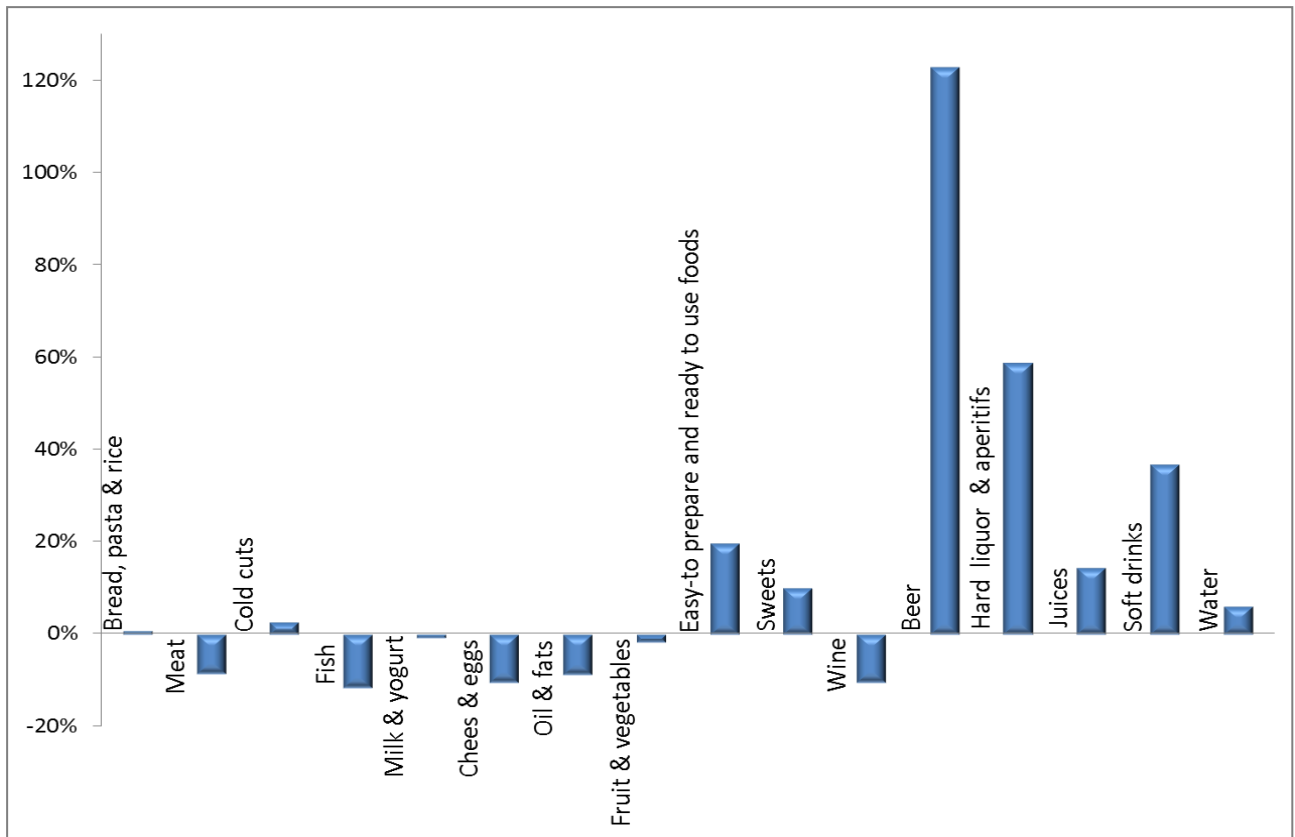


Figure 5. Percentage variation of young people's expenditure compared to the Italian average

It is realistic to consider that this model of consumption gaining ground can influence the consumptions structure of the Italians, not only because young people express a considerable part of present and future consumptions, but also for their greater responsiveness to change, which leads to identifying them as possible forerunners of trends that in the future may concern even larger segments of Italian society. We have already stressed this phenomenon while dealing with easy-to-prepare and ready-to-use foods, but we can also find it for other products, such as beer, whose expenditure from 2002 to 2009, increased by 19%, and for meals consumed out of the home, whose expenditure in the same period increased by 21%.

6 The power of communication

The analysis of the trend of family expenditure in white meat and water has shed light on the power of communication in conditioning the consumer's choices. Communication that on one hand generated an irrational fear of eating chicken, with the resulting contraction of consumptions, while on the other hand, it generated a new consumption model (the case of water).

The trend of expenditure for white meat suffers a consistent decrease from 2004 to 2006 (-10.5%), in correspondence with the bird flu crisis (Figure 6). This is quite a drop, also considering that our total also includes rabbit meat, and the datum feels the influence of the drop in the price of poultry that from September 2005 to March 2006 recorded a contraction of 8.6% (ISMEA 2006).

On the other hand, if we consider the quantities consumed of poultry alone, the reductions peaked at 34% in October 2005, compared to the same month of 2004, and then returned to pre-crisis levels in 2007 (ISMEA 2006, 2007).

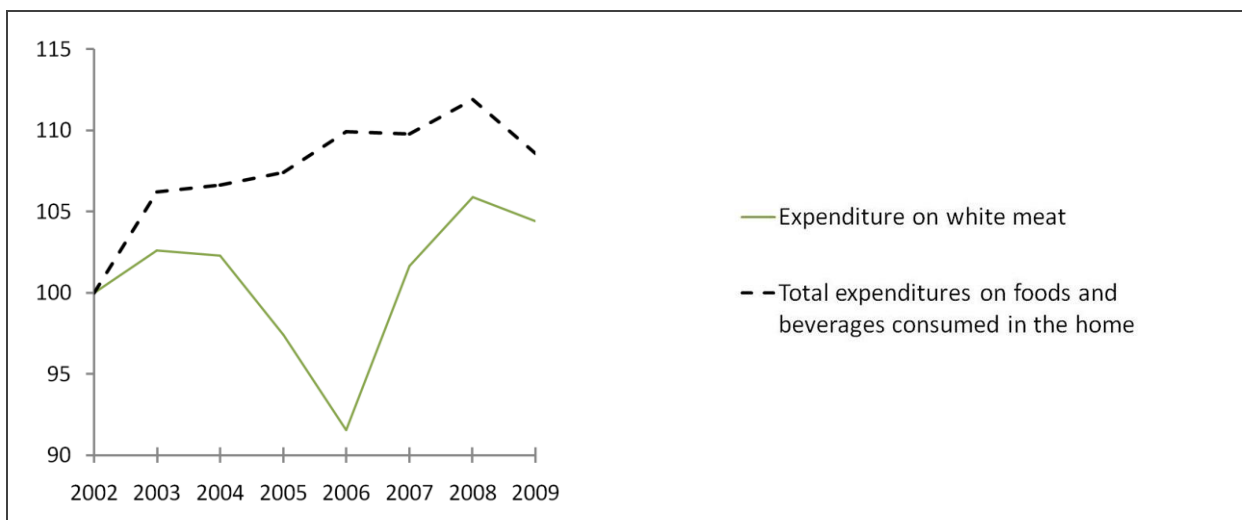


Figure 6. Trend of expenditures on white meat from 2002 to 2009 (year 2002=100)

The impact of the bird flu crisis in Italy was stronger than in other countries (Eurobarometer 2006, Mazzocchi 2006). This seems due to the Italians' greater perception of the risk of bird flu compared to the other European countries, as pointed out by a study conducted in May 2004, that is to say before the crisis (Lobb et. al 2006), but it must be connected especially to a greater exposure of Italian consumers to media communication (USDA 2008), which handled the topic in an overstressed manner, increasing the gap between the appraisal of risk by experts and the subjective perception of the consumer (Miles and Frewer 2001). This phenomenon is also confirmed by the study conducted by the Eurobetometer (2006) which shows how the media bombardment that the Italians were exposed to, determined a scarce level of awareness of the health risk linked to the virus.

The influence that communication had on the consumption of poultry in Italy shows how the system of media has become an important tool in the social construction of reality, in a society that Castells (2002) defines as "informational society", precisely to underline the strategic role of communication and information.

Our analysis shows, in particular, how the categories more sensitive to the information broadcast by the media appear to be the young people, among whom the reduction of the expenditures for white meat between 2005 and 2006 was 14.7%, followed by that of

families with children (-12.3%), and the elderly (-8.3%), while adults aged between 35 and 65 were the ones who showed less vulnerability (-3.5%).

In these contexts, a key factor lies in building trust between the consumer and institutions that guarantee food safety, but also between consumers and traders of the agricultural and food sector, a trust that must be built by means of appropriate communication campaigns. These initiatives should be planned in a continuative manner and not limited only to periods of emergency. In the absence of a plan of this type, in fact, the impact of a possible food crisis could be devastating for the agricultural and food system in Italy, as well as in the other European Countries, considering the strong development that communications networks have had since 2006. Suffice it to consider the Internet, where the flow of information is diffused extremely quickly and hard to control.

An example that demonstrates how a well-organised information campaign can modify dietary habits is the case of bottled water.

The pro tap-water information campaign in Italy began between 1998 and 1999, with the appearance of billboards in two Italian provinces, through the initiative of the water distribution agency, sponsoring precisely the quality of this type of water (Altamore 2006). Since then, communication concerning the advantages of potable water progressively intensified, involving consumers' associations and environmental associations which informed the Italians on the safety and environmental sustainability of tap water, also appealing to the savings tied to the use of this type of water.

The various presentation initiatives assumed the form of organising public events of a national nature and through the traditional media, but also through Internet and the activity of social networks. A milestone of this process came in 2004 when the city of Florence, followed through the years by other large Italian cities like Turin, Milan and Rome, began to use tap water in school cafeterias. These actions were always accompanied by an adequate information offered by distributing pamphlets and conducting projects in schools.

The consumption of bottled water began to contract considerably as of 2003, moving from an average family expenditure of € 13.82 per month to € 12.50 per month in 2009, with a percentage reduction of 9.5% (Figure 7).

In this case, too, the people most sensitive to communication proved to be young people who reduced their expenditures for bottled water by 13%, followed by people aged from 35 to 65 (-10%), while the less receptive to the communication campaign proved to be the elderly, with a contraction of expenditure of only 4%. On the other hand, families with children did not respond reactively (-5%). In fact, in this case, children that for bird flu had contributed to prompting the reaction to the media campaign seem to have lessened families' response.

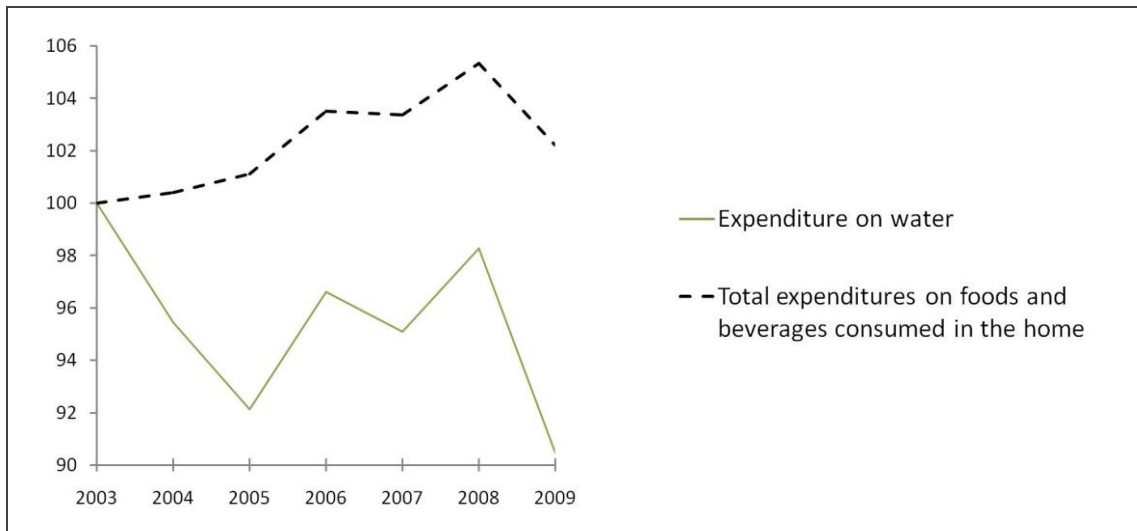


Figure 7. Trend of expenditures in bottled water from 2003 to 2009 (year 2003=100)

The analysis of these data leads us to reflect on the role of communication and on the potentials of this means as a factor of change of dietary habits.

While on one hand, a mistaken communication can determine dangerous irrational behaviour for the agricultural and food sector, as in the case of bird flu, an adequate planned communication can modify the dietary habits towards new consumption models. In particular, what seems to emerge from the case of bottled water is the success of a synergic action between public institutions and associations that through formal and informal communication channels modified the habits of Italians concerning water consumption.

7 Conclusions

The conducted study identified several phenomena that can condition the future scenarios of dietary habits in Italy, significantly influencing the evolution of consumptions.

The first phenomenon that emerged conspicuously is the increase in the consumption of convenience foods, associated with saving time in the phases of purchasing, preparing and disposal-cleaning up related to food consumption.

A second interesting element is the model of young people's consumption, which is set apart from the other age groups because increasingly more oriented towards a "globalized" consumption. Young people seem to be the most responsive to external stimuli and appear to have more dynamic dietary habits, capable of stimulating important changes in dietary consumptions in Italy. For these reasons, it could prove useful to develop the study on the behaviour of young people, examining the social, economic and demographic variables, but also the variables of the system of values and situations associated with dietary consumptions. A closer examination of our analysis in this sense could indeed help to better understand the choices of young consumers as drivers of future scenarios.

Another aspect that the analysis has shed light on is the influence of communication on dietary consumptions, in relation to food safety and the promotion of new consumption models. The extraordinary development of the means of communication that we witness, will accelerate the circulation of information, as well as the quantity of stimuli that the consumer is constantly exposed to, acting as a catalyst for the processes of change. In this new setting, the reference models become more fluid, and we should not be surprised if even the Italians, well-known for a strong attachment to tradition, will make room for new consumption models.

References

- Altamore G., (2006). ACQUA S.P.A. Dall'oro nero all'oro blu, Mondadori, Milano.
- ISTAT, (2009), Condizioni di vita e distribuzione del reddito in Italia, available at: <http://www.istat.it/salastampa/comunicati/non_calendario/20091229_00/> (accessed 10 May 2010).
- Belletti G., Marescotti A., (1996). Le nuove tendenze dei consumi alimentari, in Berni P. and Begalli D.(Eds.), I prodotti agroalimentari di qualità: organizzazione del sistema delle imprese, Atti del XXXII Convegno della Società Italiana di Economia Agraria, Il Mulino, Bologna: 133-152.
- Buckley M., Cowan C., McCarthy M., (2007). The convenience food market in Great Britain: Convenience food lifestyle (CFL) segments, *Appetite*, **49**(3): 600-617.
- Carrigan M., Szmigin I., Leek S., (2006). Managing routine food choices in UK families: The role of convenience consumption, *Appetite* **47**: 372–383.
- Castells M., (2002). La nascita della società in rete, Editore Università Bocconi, Milano.
- Censis, (2007). L'evoluzione delle abitudini alimentari degli Italiani tra nuovetendenze e solide tradizioni, Roma.
- Censis, Coldiretti, (2010). Primo rapporto sulle abitudini alimentari degli italiani. Sintesi dei principali risultati, available at: <http://bressanini-lescienze.blogautore.espresso.-repubblica.it/files/2010/06/Sintesi_consumi_alimentari.pdf>(accessed 10 December 2010).
- Cohen, S., Kamarck, T. M., and Mermelstein, R., (1983). A global measure of perceived stress. *Journal of Health and Social Behaviour*, **24**: 71–75.
- Davies, G., and Madran, C., (1997). Time, food shopping and foodpreparation: Some attitudinal linkages. *British Food Journal*, **99**(3): 80–88.
- de Boer M., McCarthy M., Cowan C., Ryan I., (2004). The influence of lifestyle characteristics and beliefs about convenience food on the demand for convenience foods in the Irish market, *Food Quality and Preference*, **15**: 155–165.
- Degli Esposti, P., (2004). Il cibo dalla modernità alla postmodernità, Franco Angeli, Milano.
- Deshmukh-Taskar P., Nicklas T.A., Yang S., Berenson G.S., (2007). Does Food Group Consumption Vary by Differences in Socioeconomic, Demographic, and Lifestyle Factors in Young Adults? The Bogalusa Heart Study, *Journal of the American Dietetic Association*, **107**: 223-234.
- Eurbarometer, (2006). Health and Food. available at: <http://ec.europa.eu/public_opinion-/archives/ebs/ebs_246_en.pdf.> (accessed 3 May 2010).
- Fischler C., (2001). L'Homnivore, Poches Odile Jacob, Paris.
- GPF, (2010). available at: <http://www.gpf.it/ita_home.htm>(accessed 3 May 2010).
- Gracia A., Albisu L.M., (2001). Food Consumption in the European Union: Main Determinants and Country Differences. *Agribusiness*, **17** (4): 469–488.

- Jerome N. W., (1981). Frozen (TV) dinners—the staple emergency meals of a changing modern society, in A. Fenton and T. M. Owen (Eds.), *Food in perspective*, John Donald, Edimburgh.
- Larson N.I., Perry C.L., Story M., Neumark-Sztainer D., (2006). Food preparation by young adults is associated with better diet quality, *Journal of the American Dietetic Association*, **106**: 2001-2007.
- Mahon D., Cowan C., and McCarthy M., (2006). The role of attitudes, subjective norm, perceived control and habit in the consumption of ready meals and takeaways in Great Britain, *Food Quality and Preference*, **17** (6): 474-481.
- Marchini A., Pieroni L., (2009). Dinamiche intergenerazionali nei modelli di consumo alimentare: il caso della dieta mediterranea in Italia, XLIV Convegno Sidea, Franco Angeli, Milano.
- Miles S., Frewer L.J., (2001). Investigating specific concerns about different food hazards, *Food Quality and Preference*, **12**:47-61.
- Montini A., (1999). I consumi alimentari delle famiglie italiane: un modello per le decisioni di consumo extradomestico utilizzando i microdati di spesa familiare, *Quaderni del Dipartimento di Scienze Economiche*, 364, Università di Bologna.
- Peta E.A., (2007). Consumi agro-alimentari in Italia e nuove tecnologie, Quadro Strategico Nazionale 2007-2013, Ministero dello Sviluppo Economico.
- Sassatelli R., (2004). Consumo, cultura e società, Il Mulino, Bologna.
- Tur J.A., Romaguera D, Pons A., (2004). Food consumption patterns in a Mediterranean Region: does the Mediterranean diet still exist?, *Annals of Nutrition and Metabolism*, **48**:193-201.