Organic consumption in three European countries

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Key words: organic, consumption, panel data, socio-demographic

Abstract

The present paper describes the consumption of organic foods in Denmark, Italy, and the United Kingdom. The study is based on an extensive set of household purchase panel data for each country. The data indicate that the consumption level in Denmark is substantially higher than in both Italy and in the United Kingdom. Furthermore differences between various socio-demographic groups are investigated. Some of these differences can be identified in all three countries.

Introduction

With respect to consumption of organic foods, Denmark (DK), Italy (IT), and the United Kingdom (UK) represent three markets at very different stages. In DK, the organic market is mature and well functioning. Part of this success can be explained by the existence of a widely recognised, official organic label and by the fact that many organic food products are sold in supermarkets at relatively low price premiums. In IT, the level of organic production is high, but the majority of these products are exported and the level of domestic consumption is rather low. The structure of the Italian organic market distinguishes itself from the Danish by the fact that the main part of the market transactions takes place at local markets, where trust in the farmer functions as a guarantee rather than a state-controlled labelling scheme. In the UK, the demand for organics is increasing very rapidly. The distribution structure in the UK is similar to the Danish in that products are mainly sold through supermarkets. However, the organic market in the UK has not yet reached the level of maturity that characterises the Danish market (*cf.* Torjusen et al. 2004). The analyses are based on purchase data recorded by a panel of households in each country. Differences in the volume of organic consumption that are not registered in the data are not accounted for.

Following a brief presentation of the data, consumers are divided into four user groups according to the share of the budget they spend on organics. Hereafter differences and similarities of purchasing patterns are related to socio-demographic characteristics of the user groups. Finally, the conclusion and discussion summarizes the main results and presents some ideas for future analyses.

Materials and methods

The description of organic consumption is based on purchase data for eggs, fruits, milk, vegetables, and yoghurt from DK, IT, and the UK. The panel in DK comprises 1,325 active (reporting at least once a year) households and spans the period 2001-

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2004. The Italian panel has 5,172 active members from mid-2003 - mid-2006, while the UK panel has 8,096 active households from mid-2001- mid-2003 and 2005 – 2006 (data for mid-2003 – 2005 are not available). Table 1 summarizes the data.

Tab. 1: Description of data

Country	Food types	Years	Number of households
Denmark	Eggs, Fruits, Milk, Vegetables, Yoghurt	2001-2004	1,325
Italy		Mid-2003-2006	5,172
United Kingdom		Mid-2001-2003 and 2005-2006	8,096

Results

The food budget in the following is defined as the amount of money used to purchase organic varieties within the five available product categories. Figure 1 illustrates the average budget share in the three countries. Danish consumers spend on average 10% of their food budget on organic varieties. The exact share seems to be dependent on seasonal variations, but no consistent pattern of development over time can be observed. The share of the budget that Italian consumers use to purchase (certified) organic items, is approximately 2%, and is also rather stable during the period observed. The budget share for consumers in the UK has on the other hand increased from 2.5% in 2001 to 4% in 2006.

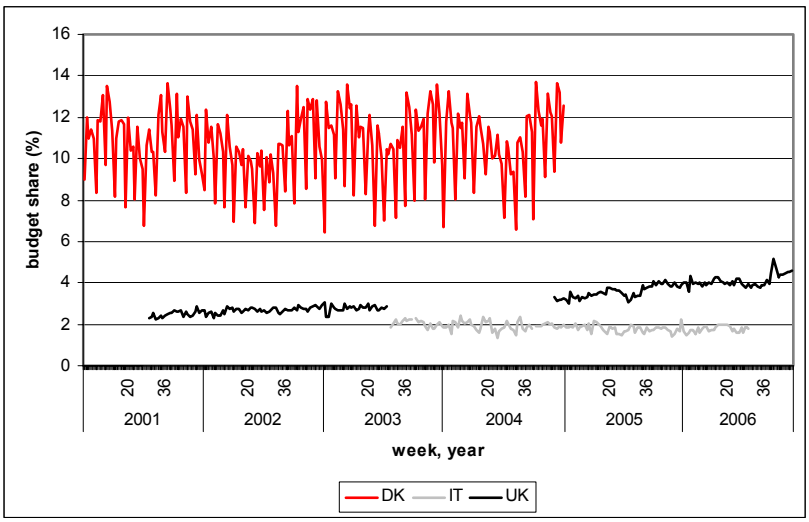

Figure 1: Organic budget share in DK, IT, and the UK

In order to clarify differences in levels of organic consumption, the households are placed in one of four user groups based on their organic budget share (see e.g. Midmore et al. 2005). Households spending more than 10% of the budget on organic varieties are characterised as *heavy* users, households with a budget share between 2.5 - 10% are *medium* users, households using less than 2.5% are *light* users, and

finally *non*-users do not purchase any organic foods at all. The average size of each user group in all three countries can be seen in Figure 2.

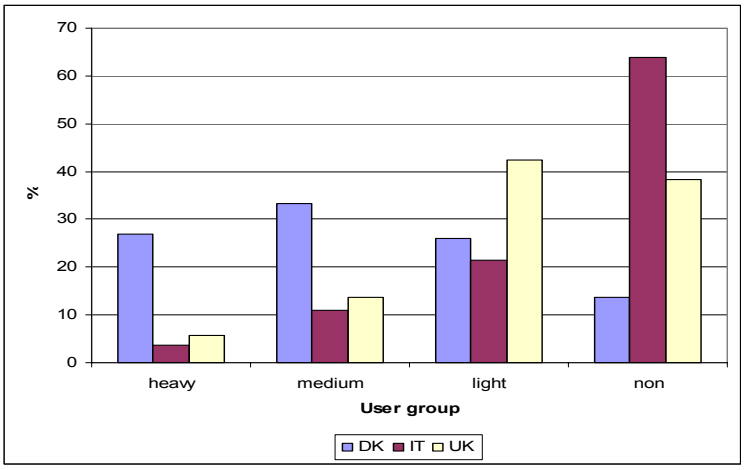

Figure 2: Relative size of user groups in DK, IT, and the UK

Approximately 25% of Danish consumers, 4% of Italian, and 6% of UK consumers, can be categorized as *heavy* users. With respect to *medium* users, a little less than 35% of Danes, 10% of Italians, and 13% of the UK consumers belong to this group. Approximately 25% of the Danish consumers are *light* users together with 20% of the Italian, and 42% of UK consumers. 15% of Danish consumers do not purchase any organics at all. This number for IT and the UK is 65% and 40%, respectively.

The data allow distinctions to be made between consumers with different socio-demographic characteristics, and certain differences can be observed between these groups. Three characteristics are included, namely geographic location/urbanization, social class and family structure. Due to differences in the data sets, the definitions of these characteristics are not quite identical.

The Danish data include information about degree of urbanization[2], whereas both the Italian and the UK data categorize according to regions. A division of the Italian regions into three areas representing respectively the north, the central, and the south[3] of the country has been made. It was not meaningful to use a similar grouping of the UK regions[4]. In both Copenhagen and London, *heavy* users are over-represented. *Heavy* users are under-represented in the rural parts of DK. Similarly, *light* and *non*-users are over-represented in some UK regions: the North East,

[2] Copenhagen, urban (more than 10,000 households), and rural (less than 10,000 households).

[3] North (Piedmont, Aosta Valley, Lombardy, Trentino Alto Adige, Veneto, Friuli-Venezia Giulia, Linguria, Emilia-Romagna, Tuscany), central (Umbria, Ancona, Rome, L'Aquila), South (Campobasso, Naples, Bari, Potenza, Catanzaro, Palermo, Cagliari).

[4] London, Midlands, North East, Yorkshire, Lancashire, South, Scotland, East England, Wales and West, South West.

Yorkshire, Lancashire, and in Scotland. In IT, users with the highest budget shares are mainly found in the northern part of the country, while many *non-users* and *light* users live in the south.

In DK and the UK, the panel is divided into five and six social classes, respectively, and defined as a combination of income and education. In IT, no social classes have been defined, but income and educational level can be employed as indicators of class. The results indicate that a higher social class or income leads to a higher demand for organic food products, while the effect of educational level in IT is less unambiguous.

In the data from DK and the UK it is possible to identify the number of both adults and children in the household. In DK it is furthermore possible to identify the gender of the adults. In the Italian data only the number of people (adults and children combined) in the household is known. In both DK and the UK relatively many heavy users live in single households. The Danish data show that single women tend to have a high budget share, while many single men are *non*-users or *light* users. In IT, relatively many with higher budget shares live in single-person or two-person households, while more than three people seem to decrease the budget share. With respect to the presence of children, consumption in neither DK or in the UK seems to be much affected. One should note that no distinction between young children and teenagers is made.

Conclusion and discussion

We have shown some preliminary results regarding differences in organic consumption levels in DK, IT, and the UK. In DK, the average share of the budget spent on organics has fluctuated around 10%. The corresponding level for IT and the UK is 2% and 3% respectively. In DK and IT the budget shares have been stable over time, while in the UK it has increased. The grouping of consumers according to budget shares supports this result and shows that relatively many Danish consumers are *heavy* users while relatively many Italian are *non*-users. Relatively high consumption levels are seen in Copenhagen, London, the northern part of IT, among singles households (especially women) and among consumers in the relatively higher social classes.

However, these extensive data sets offer the possibility of substantial statistical analysis. Ongoing activities include a description of the dynamics of consumption patterns, a deeper look into the effects of socio-demographic factors in each country using e.g. the flexible mixed logit model, the impacts of price premiums and, last but not least, linking these data on observed behaviour with qualitative data regarding stated behaviour in all three countries.

Acknowledgments

The authors gratefully acknowledge funding from the European Community financial participation under the Sixth Framework Programme for Research, Technological Development and Demonstration Activities, for the Integrated Project QUALITYLOWINPUTFOOD, FP6-FOOD-CT-2003- 506358.

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