

The Global Organic Food Market and Transformation

*Deductive Definition of Empiric Indicators
The Demand Explanation
The Institutional Explanation & Comparative
Country Report: Denmark versus Sweden*

Research Report no. 2

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The COP-Project

Financed by DARCOF – Danish Research Center for Organic Farming

2008

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Preface

The present study is part of the project “*Public Policies and Demand for Organic Food: An International Comparison of Policy Effects and Policy Determinants*” (COP). It is carried out in WP II that concerns the supply-side policies and demand. In the WP it has been an initial task to formulate a theoretical approach as the conceptual framework to be used in comparative studies. The present study represents the first contribution to apply the conceptual framework in an empirical context and here it is the evolution of the organic sectors in Denmark and Sweden that are compared. The study is searching for indicators to explain which factors can explain increase in organic foods production and consumption. It reaches the conclusion that the picture concerning the demand side is very blurred and that it is impossible to reveal which elements are crucial. However, the study also concludes that institutional design and set up seem to be rather crucial for the evolution of the organic sector.

I wish to thank Lennart Larsson and especially Peter Einarsson from the Swedish organisation for organic farmers, Ekologiska Lantbrukarna, for their willingness to provide the project with insights. However, the responsible for the research report is the author.

The report is written by Ole Horn Rasmussen that for four month has been attached to the WP as research assistant.

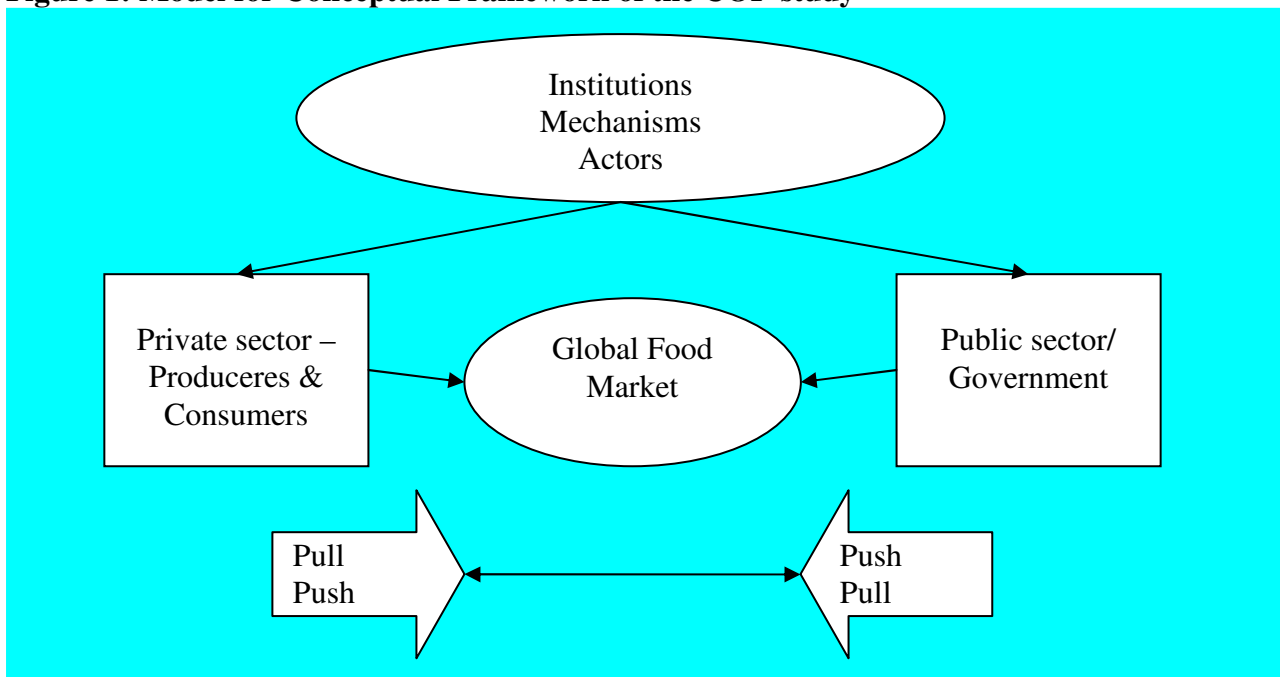
Aalborg in December 2007-12-21

Jan Holm Ingemann, head of WP II

Introduction

The aim of the COP-project is to solve the problem related to how politics may assist to increase the demand for organic food or more specific: *How may public policy contribute to a transformation of agriculture and the system of food production towards organic agriculture and organic food?* The aim of this paper is to find out what kind of empiric indicators is able to contribute to an answer to the problem. In the research report “Evolution of the Organic Food Market: A Conceptual Theoretical Framework“ (Rasmussen 2007) the model of reference for the COP-project assumes that the evolution of the market for organic food is a result of a social process of structural change. We have found that economic theory, generally, find that politics (in the broad sense), accumulation and allocation cannot be meaningfully separated. Within a study of the evolution of the organic food market where there is an explicit focus on the political influence, point of departure has to be the economic process. The organic market for food is formed by the process and the contextual political dimension is part of the process. The idea of push and pull strategies offers a potential framework to arrange the discussion (Hamm 2002: ; Rufin 2002: ; Lampkin 2003). The report concludes that the empiric study may benefit if point of departure is the model in figure 1.

Figure 1: Model for Conceptual Framework of the COP-study



Rasmussen (2007: 101)

Having established the theoretical framework for the model the next issue is how to arrange the indicators? Methodologically, it is a process involving both a deductive and an inductive dimension. Such research process consists of a trial and error process, because we simply don't know exactly where to focus. However, the double concept of push and pull in the above model must be translated to empiric indicators, where the research argues for a multiple framework that satisfies the theoretical results in Rasmussen (2007). This means that different aspects must be incorporated from start. We have the causal relation that the actors' interests constitute a certain position of social power and the result is a specific social organisation based upon the Veblenian mechanism “interstitial adjustment” and the Veblenian institution “the competitive system”. The research focus must be broad empiric and methodological. It is not an issue to implement research with a solely

focus on organic food. Initially the two descriptive indicators may; evolution in organic land and evolution in organic retail food market, is point of departure. However, in research report one there is established nine explanations for understanding organic agriculture (Rasmussen 2007b). Exactly because of the comprehensive list, we must identify a method that unite the need for a simplification and maintains the complexity of the subject. Research report one indicates that two of the explanations are broad and promising explanations. Consequently, and in order to understand the evolution in both indicators point of departure in this report is a comparative study of:

- A. *The evolution of the market for organic food – the demand explanation*
- B. *The evolution in the societal institutional set-up in Denmark and Sweden – the institutional explanation*

While A will be based upon a compilation of the international research during the last decade, B must be arranged into a mixture of sub-indicators and a comparative test including an evaluation of the test must be implemented. This is the task in this report.

The theoretical content in the two explanations must shortly be repeated. *The demand explanation* is founded on different elements. *Consumers and their preferences* is the most common. The demand for food theoretically also refers to the social elites in towns. We have the *quasi-monopoly explanation* - “The Labelling Explanation” with reference to e.g. environmental crisis, animal welfare, the resistance against toxic food or results from political initiatives. The demand explanation seen from the supply-side we have the process of specialisation, which creates demand for new products – organic food. We have the determinism of the market on the division of labour and the problems of producing in lines in organic agriculture. As pointed out in report one the focus on transformation¹ in the COP-project creates a theoretical demand for an explicit focus on the theoretical first order² rules of the game and on change in immaterial structures. Only theory which can be identified within both categories counts. Dealing with transformation must deal with change in immaterial structures. Elsewhere, we are talking about structural change. Within the demand explanation the solely focus is; reinforcers.

The institutional explanation is far more complex. This is why we use the help-question; *Why organic agriculture still is a niche?* In theory the scope of organic agriculture is due to the general strength of the organic system as compared with the general strength of the conventional system. Part of the explanation has reference to a “*pressure from the outside*” explanation³ and a “*way out of a hybrid trap explanation*”⁴, where organic agriculture remains a weak alternative because of the contemporary political zigzag course. We have a broader *social regulation explanation* with allocation fight and different economic interest among actors. We have a *political regulation explanation*. The institutional economic explanation has focus on the general

¹ “...transformation of agriculture occurs when we experience a radical change in at least one of the central rules of the game within agriculture; transformation results. The game is defined dually as agriculture, which is the static dimension, and as the process of agricultural structural change, which is the dynamic dimension” (Rasmussen 2007a: 33).

² “The first order is the general and objective infrastructure in the relevant part of society in light of the problem in question. We could also refer to the first order as the given institutional set-up at a given time. The second order is defined with respect to the actors and their process of concrete actions and the choices behind the actions. At a first glance, this may be interpreted as the micro model; in Hvelplund’s thoughts, however, these actions are the central aspect of his second-order macro model” (Rasmussen 2007a: 273-274).

³ This is “a combined Veblen-Norgaard explanation, where the logic is that organic agriculture in reality never should have evolved due to the logic of the rules of the game. While Veblen would call it a “*pressure from the outside*” explanation, Norgaard would call it a “*despite-of explanation*” – instead of a “because-of explanation” (Rasmussen 2007a: 341).

⁴ The explanation is related to the theory of social traps (Rasmussen 2007a).

system of agricultural coordination on the supply side between the micro, meso and macro levels of the economy based upon social conflict and the creation of notions of values among social actors. An underlying issue is a conflict between organic agriculture and the interest of the credit capital in accelerating the velocity of capital. We have a situation where organic farmers require a higher price than conventional farmers. Their risk as price takers becomes higher than the conventional farmer. This would be an argument for the financial sector to favour credits to conventional farmers. The *institutional economic explanation* is also connected to the theory of the family farm as an institution. Part of the institutional explanation is the *new value system explanation* and non-economic reasons among farmers for being organic farmers. This is the *farmer value explanation*. Another part of the *new value system explanation* has reference to the resistance against the experienced and actual change of society. The last element in the institutional explanation is the *technology explanation and the limitation* in e.g. education and research on how to exploit the new organic technology.

Next step is to create a link to theory. Because we are dealing with the concept of transformation focus must be first order rules of the game and immaterial structures. The general outline of this theoretical process and argumentation is shown in the appendix. We have found a framework with nine rules, which both can be related to first order and immaterial structures. This is the nine indicators which we are going to elaborate on and couple to the explanations. First step is to reduce the nine indicators to three because of close connections:

1. Reinforcers. Organic agriculture is within an *epistemological context organisationally homeless*. Agricultural economic substance builds upon the negotiated economics of agriculture. The legislative framework for agricultural actions. The fight between different notions. Farmers have great cupidity. The incentives of agricultural actors.
2. The institution of property rights.
3. Financial capital as an influential actor and the credit treadmill.

We now return to the elaborated model and chose the indicators with reference to the model: Actors interest, Institutions, Mechanisms, Producers/Consumers, Public authorities, Global Food Market. Point 1-3 plus these six elements must somehow or another be found within the empiric indicators. This brings us to the theoretical and methodological completion and we are now ready to take the step from theoretical to empirically indicators.

The Demand explanation

Internationally, much research has been implemented in order to understand, why consumers buy organic food. The task of this section is to review different contributions. Schifferstein et.al. (Schifferstein 1998) made a comparison between consumers, who demanded organic food in the Netherland. The result of their empiric survey based upon a representative household sample was, that the consumers who buy organic considered themselves more responsible for their health than consumers who do not buy organic food. With reference to other studies from UK (1987, 1994), Sweden (1989), Belgium (1989), Germany (1987), France (1985) and USA (1989, 1994, 1996) the conclusion is that the health-motive is the determinant motive behind buying organic. However, other motives are present in their investigation, but it affects not their conclusion. In order to support the conclusion explicit references is taken to the other studies, where the authors is special interested in comparison between the health-motive with the environmental motive. They confirm that the environmental motive, with the exception of Germany is mentioned by less than 10%. It

should be mentioned that their data is from 1988, where organic food was sold in special stores compared with the typical situation today.

Harris et.al. (Harris 2000) made a rather detailed study on the literature engaged in determining demand for EIP products (Environmentally Identified Products) at the US market. 34 different studies is investigated and the studies represent different methodological approaches, e.g. focus groups, face-to-face consumer interviews, telephone surveys, mail to randomly selected households, interview with wholesalers, supermarkets, produce and marketing managers. Harris et.al. discuss their results with reference to six sections: Economic variables of price and income, variables such as freshness, taste and cosmetic appearance, demographic variables (education, gender, race, and occupational class), psychographic variables (the belief of individuals, concerns, and world view), behavioural correlates (e.g. environmental activism) and marketing issues (such as dissemination of information, labelling, and delivery of EIP's to market). They estimate the number of indicators to 34. Each of the indicators is combined to the different studies with the character +, 0, - referring to positive, no effect and negative effect on purchases of organic produce. We have made a special analysis of the findings with reference to appendix A⁵. Within the demographic variables – education, occupation, income, age, larger-sized community, larger-sized households and race – there is disagreement among the given character. Only within the variable gender, we find agreement among the involved studies, that females are more willing to pay more for organic food than men. The psychographic variable consists of 7 variables. There is agreement within the seven studies that concern for pesticide residues has a positive effect on purchases of organic produce. So it is for the two studies who have investigated the concern for artificial coloring, additives and preservatives and irradiation. However, when focus is concern for the environment there is disagreement. Five studies argue for + and two argue for 0. Similar is the situation when the variable is the concern for health of farm workers and concern for personal health. The character is either + or 0. The behavioural variable consists of three elements, where two involves more than one study. We find agreement in the variable “Take action on environmental issues” and disagreement in the variable “Avoid/Purchase specific food purchases on health grounds”. Turning attention to consumer attitudes toward organic produce we find disagreement within the variables “Acceptance of insect damage and cosmetic defects”, “Taste”, “Freshness” and “Keeping qualities”, where both +, 0 and – is represented. The variable “General quality” is diversified between + and -, while the variables “Nutritional value” has + and 0. The only variable where there is agreement among the studies (eight) is “Certified Pesticide-Residue-Free” with the character +. Within the category “Price and Price-related Characteristics” we find again disagreement with all the three characters represented (six -, two + and one 0). However, the authors conclude that as price premium increase demand decrease and as low as 10 percent may be the threshold price premium. However, certification of produce as pesticide-residue-free or organic seems to raise willingness to pay. The last three variables are “Information”, “Labelling” and “Availability”. While the first two variables present both + and -, the lack of availability is close to an agreement with seven – and one 0. In conclusion, Harris et.al. state that the nature of the variables which determine the demand for EIP products are poorly understood. They argue that the consumers generally have a favourable attitude towards the products, and information and availability are the most important barriers to consumption.

Lohr (Lohr 2000) argues that reasons for purchasing organics are similar across countries. “In Europe and the United States, taste, freshness, and quality rank among the top reasons for organic purchases, especially for produce... Food safety is the 3rd top reason driving Japanese interest in organic food” (Lohr 2000: 68). Contrary to Harris (2000), Lohr is firm in his judgements.

⁵ If there is only one study within a variable, the variable is neglected.

“While there is interest in organic foods among higher income, better-educated population segments in nearly every country, consumers in the United States, Europe and Japan drive demand expansion (Lohr 2000: 68). After a demonstration of the evolution of the global market for organic food the task for Lohr is a discussion about how to expand the organic market. Without further arguments he claims: “Key issues are organic price premiums, the price-quality trade-off, country of product origin, GE content, and the integration of social goals into the production process” (Lohr 2000: 72). The real question is if Lohr contributes with other elements for understanding the evolution of demand for organic food than an “anything matters” explanation.

The correlation between price and demand for food has been subject for much research. Gil et.al. (Gil J.M. 2000) find that the main obstacle to organic food expansion in Spain is the gap between conventional and organic food prices. Their explanation is that the Spanish organic produce is exported because the relative price level in Spain is lower compared to e.g. Northern Europe. So, the organic producers on the one side is able to get a higher price in the North, which makes the premium Spanish price higher compared with the premium price on the export-market. However, their results indicate that consumers concerned about health and environment are the most likely to buy organic food, and pay a high premium. In Sweden a random nation-wide sample were asked by a mailed questionnaire (Magnusson 2001). The study aims to gain knowledge about attitudes, purchase criteria and frequency, perceived availability, and beliefs about organic food. One of the results is the discrepancy between a positive consumer attitude to organic food and the actual behaviour. It is argued, that the premium price is not the only obstacle to purchasing organic. The concept of “habit” represents at least a partial explanation. The most important purchase criterion was good taste. However, healthiness and good quality also counts. Turning their attention to evolution of the organic market their postulate is that a lower price difference between conventional and organic foods would seem to be needed in order to increase the regular organic food purchases. The actual evolution of the Swedish and global organic market for food since may question the latter finding.

Based upon a review survey primarily in the US but also involving studies from Italy and France, Wheatley (Wheatley 2001) concludes that there is a significant evidence for the consumers willingness to pay a premium price. The most astonishing result of his research is not whether the different studies find a 10% or 60% limit for the premium price. One study even argues for a premium up to 450%. Even such result in itself is remarkable, an interesting finding is that less than 30% of the consumers only focus on price. When Wheatley makes a close study on the evolution of the alternative market for pork, he further finds that the market is a win-win situation for all the participants in the process. Wheatley concludes: “This paper provides a broad perspective on the potential profitability of natural pork products at all levels of the supply chain, with particular emphasis on small-scale producers....As such, provided that producers, processors, wholesalers, and retailers can collaborate to eliminate any concerns about steady and consistent supplies, it is likely that much of the market access problem can be overcome” (Wheatley 2001: 24). Having established such strong position in 2001 the question why the overall market for organic food, internationally still remains a niche, may c.f. with address to our theoretical approach point towards an institutional explanation. However, this is not the conclusion forwarded by Wheatley. His focus is that there is a market and the reason why the market is not supplied is because of lack of information at the supply side of the economy. Such conclusion gets support from the Food Marketing Institute (Institute 2001), who argues that the supermarkets do not have enough knowledge about the organic consumers.⁶ The statement from Wheatley implicit announces his

⁶ It may be a point that the FMI as its business sells information about consumer segments including organic consumers. Consequently and in order to continue selling information they need, continuously to claim for a lack of consumer knowledge.

neoclassical approach and the idea that an un-equilibrium may be caused by a breakdown of one of the assumptions in the theory. In this case the assumption of perfect information at all the markets.

The idea of an increased willingness to pay is part of the governmental approach in the US. Ballenger et.al (Ballenger 2003) argues for four important trends in the future market for food. First, the US market for food is a mature market. We have an indirectly reference to Smith (Smith 1776 (1981)) and the limitation of the food production due to fixed capacity of the human stomach. Second, the US will in the next decades change demographically with a more than average growth in Asian and Hispanic related population and a less than average growth in non- Hispanic white. Third, the growth of America's older population is likely to carry mixed messages for U.S. agriculture. Fourth, the anticipation that increasing income will have a large impact on demand for quality and variety of foods than on quantity. However, even the latter should be in favour of increasing demand for organic food, it still remains an open question if e.g. the last ten to fifteen years increase in income among consumers is the reason for an increased organic market for food? Wang et.al. (Wang 2003) assess the market potential for organic apples and milk in the state of Vermont, US. They conclude that there is a market and people are willing to pay more for locally and certified products. The dominating motive is that organic food is seen as healthier (68.9%). However, help to small farmers, better for the environment and safer all ranks with more than 50%. Taste has a score under 50%. Another study (NA 2003) finds that taste and food safety is the most important factors in persuading people to try organic food for the first time. However, serious organic consumers must also be persuaded of the health, environmental and animal welfare benefit of eating organic food.

A German study (Mann 2003) shows that the preference structure for organic food in Germany is more complex than one can grasp by means of the single utility framework of welfare economics. Point of departure is a triple concept of references: market preferences, reflective preferences and political preferences. The first refers to "I want", the second refers to "I should" and the third refers to "Society should". Mann concludes that the market preferences exceed the domestic market supply because of the government engage in support for organic farming. His line of thinking is based upon the facts that the German Agrarwende, a political push for organic farming early 2001, was implemented. However, only 3% of German land is organic, Germany is a net-importer of organic food and the organic share of food is 4-5%. His postulate is that without the push most likely the market preferences for organic food would be more modest. The discussion of the reflective preferences is based upon nine different surveys. His conclusion is: "Reflective preferences can be framed, as follow, on the ground of these surveys: Organic food enjoys a high quality image (for the respondents as well as society in general) that even leads to an enormous overstatement of consumption" (Mann 2003: 464). This result may be interpreted into two different conclusions. First, the preference patterns of organic food in Germany would be similar to those of luxury cars. Mann rejects this interpretation based upon an argumentation that the total food-budget would only increase with one percent of the total family budget if all food would be organic. He finds that "the term "Budget restriction" sounds somewhat misplaced in this context"(Mann 2003: 465). The alternative explanation is that when the consumer actually makes the choice for food the reflexive preference turns into the background and the market preference – the price – counts. While the first explanation does not call for political attention – why subsidy luxury cars? – the second approach could well result in the willingness to engage the state in increasing the organic market share. This is why Mann goes into the political preferences. We have an indication of a close-knit link between a demand- and an institutional explanation for the organic market for food.

Lockie et.al. (Lockie 2004) researched the Australian market and the factors underlying the selection of organic food. Their findings point in the direction that the major reason was a combination between the naturalness of the food and emotional experience of eating. Links to

“green consumption” such as recycling was also a result. They found that it was a small highly committed group of consumers who are responsible for a substantial share of organic food sales. They found very little link between either participation in other green consumption activity or political and ecological values and increased organic consumption. Besides the idea of age, income and health motives was absent. The idea that income does not matter is in contrast with e.g. an American study the same year (Batte 2004). Cunningham (Cunningham 2004) reports from her study of a Canadian survey that the reasons for consumers to buy organic products was following: 32% believe organic is healthier, 18% think they contain no pesticides, 11% cite better quality, 3% consider no GMO as a benefit and 3% buys in order to prevent allergic reactions.

Torjusen et.al. (Torjusen 2004) delivers a comprehensive research report with a review of available research of European consumers’ conceptions of organic food. Part of their report is an in-depth study of UK, Denmark, Italy and Hungary. The report is part of the European Commission, Fifth Framework Program and ends up with some recommendations for future research. The general result of their work is that the consumer research reflects an ambiguous attitude. There is simply no consistence in the available research. “.....the existing research has only allowed us to elucidate consumer concerns to a limited extent. This review has revealed large gaps in the available research, both with regard to the extent to which different methodological approaches have been used and with regard to relevant issues that have not yet been investigated. We have seen that while some points of similarity and difference between European consumers can be expressed in terms of geographical boundaries/nationality, other point of similarity and difference appear to cut across such boundaries and to be linked to other factors such as the relative maturity of the markets at issue” (121). In other words; more than a decade within research about why consumers buy organic food is still an unanswered question among consumer research specialist. Such statement brings the demand explanation under a kind of “social science pressure”. The answer from the specialists is a claim for further research based upon a pluralistic methodology.

We have chosen different studies in the period 2005-2008 in order to assess how the conclusion first made by Harris (2000) and four years later repeated by Torjusen (2004) has evolved.

In a Greek study (Chrysohoidis 2005) a test of the organic consumers’ personal value was tested. They distinguish between internal (self-directed) and external (interpersonal) values. The study focuses exclusively on organic buyers. The general result is a high agreement among the buyers in a number of statements, where especially the health-motive is strong. The main problem is the limited availability of organic food, while only 12.5% find that higher prices are an obstacle.

Dreezens et.al. (Dreezens 2005: ; Dreezens 2005b) present two articles where experimental psychological studies is used in order to investigate how values is related to attitude to food. The comparison is made between attitude to genetically modified food (GMF) and organically grown food (OGF). Both of the articles refer to the same experiment. The idea was to investigate what moral considerations underlie people’s choices for certain food types and test whether people’s attitudes towards food products are related to the basic human values they adhere to in life. Until this study, most studies focused on revealing the underlying value-attitude structure within one production technology. None studies have compared attitudes and their underlying values between distinct production technologies that represent two possibly contrasting food-issues⁷. Their raw-material is definition of ten values, which has show stability and universalism in the international, psychological research for more that one decade – Self-direction, stimulation, hedonism, achievement, power, security, conformity, tradition, benevolence and universalism. Each value has a motivational goal including different sub-values. To analyse which values were related

⁷ Remark that exactly the idea of a broad perspective, as our theoretically framework suggest, is represented in the Dutch experiment.

to attitudes towards GMF and OGF two regression analyses were conducted. It showed out that only the value power (dominance over nature and resources) added significantly to the prediction of the GMF. On the other hand, only universalism (respect for people and nature) added significantly to the prediction of the OGF attitude. This result is special interesting with reference to our theoretical framework claiming that the only causal relationship contains the element, power. Within their more specific analysis their results show that opposing attitude positions are reflected in a different structure of values and their conclusion is: "Therefore, research aiming at understanding or influencing food related attitudes should not limit itself to categorising attitudes and their accompanying relevant beliefs, but should also focus on the specific underlying values"(Dreezens 2005a: 121).

The general idea of a close-knit link between improving the environment and increase in demand for organic food does not get support from an Australian study (Lea 2005). The organic industry and market in Australia has expanded, but the study is hardly not able to identify any link between the consumers organic buying and the idea that it affects the environment. Among the numerous variable this link is the most weak of all the indicators. However, the study rests on different problems e.g. the low number of respondents and the fact that much area in Australia is used organic without certification. The latter point makes Australia a kind of special case compared to most of the other countries. However, as we are going to demonstrate within the institutional explanation, the case of Sweden demonstrates a partial similarity.

Kihlberg et.al. (Kihlberg 2007) has the same theoretical value point of departure as the Dutch study. However, their focus is more narrow. They combine value and a test (again comparative) on the taste of bread (organic versus conventional). The result shows that the consumers did not constitute a homogeneous group. However, the study is able to differentiate the group into segments based upon age 30+ and 30-, each having specific values in common. With reference to taste the study concludes, that both organic and conventional breads were among the most liked breads. However, a majority of consumers considered that organic food tastes better and that organic consumption should increase. One of the main obstacles is the price, where 50% declared that they would not pay more for organic bread than conventional.

A study of the consumer attitude and purchase intentions in relation to organic food in Taiwan operates with twelve indicators/motives for buying organic food (Chen 2007). Seven of the indicators are significant; mood, convenience, natural content, animal welfare, environmental protection, political values, and religion. This means that consumers who are more concerned about the seven indicators will be more likely to buy organic food. Chen is surprised that the health motive is absent, because precisely this motive is strong represented in other studies. However, the explanation may be another tradition and a specific law about what healthy food is in Taiwan.

Selfa et.al. (Selfa 2007) compares consumers and producers attitude versus their practice with reference to sustainable agro-food systems. The analysis indicates that for producers and consumers the link between attitude toward the environment and eating or producing local, organic and/or environmentally sustainable food is not specific close-knit. "There are multiple, sometimes competing factors, which producers and consumers weigh in making decisions about environmentally sustainable food and farming (Selfa 2007:13).

When the theme of discussion is the evolution of the organic food market a German journalist asked two experts (Hogan 2007). The Swiss-based Helga Willer from Research Institute of Organic agriculture states, that it is the consumer belief in the safety of organic food compared with conventional farm products coupled with the extra availability of organic products which is the key factor for the current market growth. The German analyst Kai Kreuzer, who is editor of the BioFach newsletter, points on the profit level at the retail food-market. He states that the retail profit

margins on conventional food are about two percent, while the profit margin on organic is higher. The latter comment illustrates a direct interest from the retailers to increase the organic sale.

The effect of organic production information on hedonic judgments has been subject for different studies, which generally concludes that information about a products organic status have a positive effect on liking the products. However two review articles concludes that there is no unambiguous evidence that organic products taste better or different than conventional products. Poelman et.al. (Poelman 2008) made a study in United Kingdom and the Netherland about consuming fresh pineapples. There is two results from the study we are going to mention. First of all there was in general no effect on liking when the respondents got organic information. However, when the data was coupled to the general attitude towards organic perception differed as a result of the information provided. Subjects with a positive attitude towards organic information perceived the products to have an overall stronger sensory impact in the presence of such information than its in absence. The opposite happens when subjects have a negative attitude towards organic.

The last study compares the Danish and the British market for organic food, (Wier Unpublished). The study demonstrates different results and one implicit assumption, which are relevant before going to the conclusion around the demand explanation. First of all states the study that the Danish organic food market share is very high while the British market is rapidly growing. It could be questioned if 5% of the market is a very high market share and if e.g. a growth rate on 50% from 2 to 3% or from 4% to 6% is large? Wier et.al do not take this discussion because they look upon the organic market for food as an isolated market instead of, as we recommend, treatment of the organic market for food as a part of the general market for food. Consequently, the research results may be biased. From the study they conclude that in practice many factors exert influence on food choices made in shopping contexts and that the former believe in declared values, concerns and behavioural intention may have less predictive value than previously thought. "Thus, demand for organic foods in Great Britain and Denmark appears to be primarily sustained by demand for private good attributes such as food safety and quality concerns. Public good attributes (environmental and animal welfare attributes) are more widely acknowledged with respect to organic products, but for most consumers these attributes appear to exert less influence on the actual propensity to purchase organic goods than do private good attributes" (Wier Unpublished: 29).

The demand explanation has been subject for much research. One of the aims in the COP-project are to establish the causal relationship and identify explanatory variables for understanding the evolution of the demand for organic food products. We have presented some of the studies from the last decade and the conclusion is clear: The research within the demand explanation ends up in over-determination. There is simply too many variables, and the different studies more or less contradict. In the search for a causal demand explanation we end up in the conclusion that nearly anything matters. Clearly something matters more but we simply don't know what matters most. Maybe further research may improve this position. On the one hand we have the external versus internal motives like some studies do. This reflects another categorization into altruism (e.g. animal welfare, environment, ground water) versus egoism (health, taste and social position). However, especially the Dutch experimental psychology seems promising, because it intends to understand the motives behind human actions cf. behind external versus internal motives or altruism versus egoism. Their results are still rather superficial but the interesting point is that they link their results to the values power and universalism. By this result we get a directly link to the only defined causal relationship in our theoretically apparatus. In conclusion we find the demand explanation diffuse and public policy recommendation based upon a diffuse understanding may very well become biased or even wrong.

Consequently, we turn into another research direction. It must be our conclusion, that it is not the real life that is wrong, but the theoretical apparatus used to investigate real life may be

inadequate. Instead of a further search within the demand explanation, it may be more adequate to change focus to the other theoretical evolved explanation for the evolution of the organic market for food – the institutional explanation.

The Institutional Explanation and Its First Indicator – A Comparative Country Report: Denmark versus Sweden

Introduction

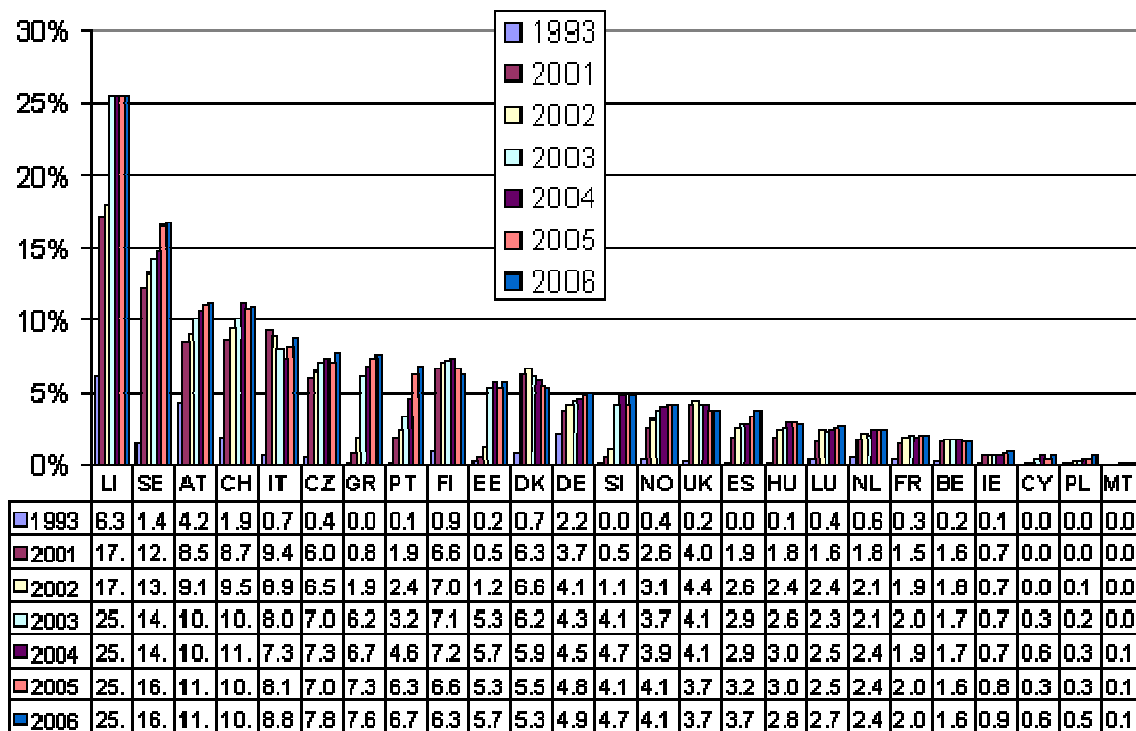
This study concentrates on the first theoretical indicator according to appendix⁸. We shortly sum up the essence in the indicator. The theoretical point of departure is the idea that there exist different reinforcers, which affects the evolution of the global market for food. One of the central theoretical hypotheses are that organic agriculture within an *epistemological context is organisationally homeless*⁹. This is the reason for organic agriculture still being a niche and the organic market for food a niche too. We have the rule that agricultural economic substance builds upon the negotiated economics of agriculture and we have a legislative framework for agricultural actions including specific legislation for organic agriculture. Part of the legislative process is the fight between different notions, where the rule is that farmers have great cupidity. Both the legislation and the daily business affect the evolutionary process and precisely this double process has specific incentives, which forms the actions of agricultural actors. This is the theoretical framework which is housed in indicator one. Besides, we have the elements in the model: Actors interest, Institutions, Mechanisms, Producers/Consumers, Public authorities, Global Food Market.

We turn to our two empiric main indicators – organic land and organic retail food sale. Figure one shows the evolution in organic land area.

Figure 1: Organic certified and in-conversion land area in Europe (EU27) (as % of UAA)

⁸ For the time being we abstract from indicator two; the institution of property rights, and indicator three; financial capital as an influential actor and the credit treadmill.

⁹ The term “organisational homeless” is a cornerstone in the work of Hvelplund (2005)



Source: (Wales 2007)

In this comparative study, we are going to focus on Denmark versus Sweden. We are dealing with two neighbours with apparently the same amount of arable land. While Sweden have 2.8 million¹⁰ hectares (Källender 2000), Denmark has about 2.7 million arable hectares (Statistic 1980-2006). The 1993 point of departure indicates that Denmark and Sweden both have about one percent organic land. However, in 2006 the organic land area in Sweden is 16%¹¹, while the organic land in Denmark is above 5%. It must be noted that the organic land in Denmark has a declining trend with a peak in 2002.

At the same time the demand for organic food has increased in both countries. The figures are:

Table 1: Evolution in the market share for organic food in Denmark and Sweden¹²

	1990	1995	2000	2002	2004	2006
DK	0.1%	2.3%	5.5%	5.5%	5.5%	6.5%
S	n.a.	n.a.	n.a.	n.a.	n.a.	2-3%

Source: Denmark (Landsforening 2007: 4), Sweden (CUL 2007)

While the tradition in Denmark for organic food statistic is established, the contrary is the situation in Sweden. The evolution of the retail market has some characteristics. We are talking about a

¹⁰ 1998

¹¹ According to the Swedish Government the figure for 2006 is 19% SwedishGovernment (2006a). Regeringens skrivelse 2005/2006:88. Ekologisk produktion och konsumtion - Mål och inriktning till 2010. The Governments report 2005/2006:88, Organic production and consumption - Aim and arrangement up to 2010. Stockholm, The Swedish Government.

¹² The growth at the Swedish market can be illustrated with figures from sales of KRAV certified products to wholesalers. The trend from 1995 to 2005 is a stable increase from about 200 million SEK in 1995 to about 2.000 million SEK in 2005.

market with growth on a long term basis. However, we are dealing with a very small part of the total market for food. In this connection it must be reminded that the Danish figures overestimate the market share due to the definition. The Danish market share for organic food is estimated on basis of the households consumption of product lines, where there is an organic variant. Consequently, products where there does not exist organic variant don't count. However, these products is part of the households total consumption and should be included if the real organic food market share is going to be documented. Having established the two indicators the question is what are the differences and the similarities between the two countries?

We are going to answer the question from different perspectives, all based upon our selected theoretical indicators transformed into empirically measures. When we take the elaborated rules of the game from the appendix and mix them with the model in figure one, we are able to formulate some help-questions that may assist us in answering the question.

1. What kind of general organic agricultural policy has been implemented¹³?
2. What are the visions about organic agriculture¹⁴?
3. Is there economic support for organic farming¹⁵?
4. How is the organic agriculture organised within the agricultural system and what is the attitude towards organic agriculture within this system¹⁶?
5. How is the organic agriculture organised within the public, administrative and political system, the polity¹⁷?
6. How is the labelling and certification system arranged¹⁸?
7. What is the approach within organic research¹⁹?
8. What is the approach within the global organic food market²⁰?

The eight questions as a whole cover all the theoretical rules of the game and the evolved model. Point of reference is different with respect to broadness and depth, however as a whole we tentative covers the theoretical approach. It should be noted that the term "mechanisms" could have been put anywhere. The idea of giving the mechanisms exclusively placement with reference to the market is because it is exactly here the mechanisms works as an underlying part of the rules of the game.

Implemented organic agricultural policy

On a global basis, Denmark was the first country that implemented an organic agriculture legislation back in 1987. However, the political debate e.g. in 1989 indicated very strongly a lack of consensus in the parliament (Folketingstidende 1989). The resistance against organic agriculture

¹³ The theoretical reference is the social and political regulation explanation and the general content in indicator one in appendix.

¹⁴ The theoretical reference is actors interest.

¹⁵ The theoretical reference is the general content of indicator one in appendix, actors interest and public authorities.

¹⁶ The theoretical reference is the organic agriculture as organisational homeless within an epistemological context, the fight between different notions, farmers cupidity and the incentive of agricultural actors.

¹⁷ The theoretical reference is the general theoretical content in indicator one in appendix, actors interest, institutions and public authorities.

¹⁸ The theoretical reference is reinforcers, legislative framework and producers versus consumers.

¹⁹ The theoretical reference is reinforcers, legislative framework, fight between different notions, actors interest and institutions.

²⁰ The theoretical reference is reinforcers, legislative framework, fight between different notions, the incentives of agricultural actors, actors interest, mechanisms, producers/consumers, public authorities and global food market.

came from the liberals, better known as the traditional farmer party and the politician who was the spokesman was the present EU-Commissionaire for agriculture, Fischer-Boel.

During the 1990th there was an expansion of both organic farms and organic farm land. In this political regime the conversion subsidy increased. However, it was characteristic that the agricultural politics and the environmental politics was separated into individual political areas. While the environmental policy had quantitative measures, the organic agricultural policy did not have any underlying quantitative measures. In the public debate the idea of 100% of all agriculture being organic was introduced already in the middle of 1980th and repeated several times during the 1990th (Illum 1987: ; Specialarbejderforbundet 1995) However, the debate was fragmentary and there was a lack of any strategy in favour of a transformation of Danish agriculture into organic agriculture. This may be the best way to characterise the situation until the beginning of the 2100th century.

From then on the liberals and the conservative party came into power, and their announcement towards organic agriculture was clear; organic agriculture should evolve on the basis of the market (Finance 2002-2005). Consequently, the organic agriculture policy should be a pure demand push policy. Subsidies to organic agriculture were not an issue. The market focus within organic agriculture gets recommendations from both the EU-Commission and the European Parliament (Parliament 2004). Besides, the two European institutions intend to work for equal rules for organic agriculture within the EU. It should not be an issue with national differences. The mean by which the EU-Commission and the Parliament want to evolve the organic food system is an information campaign about organic production (Jordbruksverket 2007).

The environmental policy regulated the use of e.g. pesticides and limits for use of nutrients, while the agricultural policy in general rested on the legislation from the EU. With reference to EU, there is specially two issues of relevance. First, we claim that the Nature 2000 and Agenda 21 never got any foundation in whether the public, political or administrative praxis. There is examples like in the municipality of Næstved. Since 2002 priority for renting public land is given to organic farmers (Kommune 2004). Another example comes from Copenhagen and is about the use of organic food within the public institutions. Copenhagen has as aim that 90% of all food in their institutions in 2015 shall be organic (dknyt 2007). Recently, a research report from Aalborg University concludes that in the last ten years nearly nothing has passed on within the municipalities in Denmark and their ability to adopt the environmental aims with reference to the directive about clean seas, streams and ground water. The source for the pollution is agriculture and the critique is not only directed towards the local administration but specifically towards the parliament because of a lack of possibility to control and regulate nutrient emission from the agricultural fields. In the analysis about the future the report does not assess the situation as promising. The explicit reason is the power of the Danish agriculture (Thorøe 2007). Second, the voluntary principle that 20% of the direct EU-subsidies to the farmers can be moved to the program for rural development is neglected. Part of the general Danish agricultural process was that organic agriculture administratively and economically moved into another administrative system; the program for rural development placed "in an outer corner of the Ministry for Food, Agriculture and Fishery". When the government changed in 2001, the term organic agriculture nearly was deleted and within the state account the term was replaced by the term environmental friendly agriculture, where organic agriculture is part (Finance 2002-2003). As a consequence research within the evolution of economic subsidies to organic agriculture becomes complicated because organic agriculture now is accounted together with conventional, however environmental-friendly, agriculture.

This is the short version of the evolution of the Danish organic agricultural policy. The policy has experienced a zig-zag-course, while the administration evolved into a fragmentary

position compared with the conventional agriculture and the environmental policy – both administrative and from a political point of view. The ability to follow e.g. Natura 2000 has been fragmentary or even missed. The polity system fragmented organic agriculture. In connection with the Danish election campaign in 2007 different parties from the middle of the Danish political spectre and out to the left wings announced quantitative measure concerning the future evolution of organic agriculture. The bourgeois party RV announced that it is their attention to increase organic agriculture to cover 25% of Danish agriculture in the year 2020 (Left 2007). However, this is not the case for a majority in the parliament.

In Sweden the evolutionary process in many aspects has been close to the opposite compared with Denmark. For nearly two decades the Swedish policy has been close connected to the international community strategies starting with the Brundtland-report and the Rio-conference (Miljødepartementet 2002). In the 1990th the policy-program for rural development, nature 2000 and agriculture became intertwined. Point of departure was a bottom-up strategy where the local communities formulated Agenda 21 programs, participated in different environmental programs e.g. Baltic 21 and the work around the Johannesburg meeting, etc.. In the year 2001 the Swedish government supplemented their strategy and established a top-down strategy. In order to implement the local plans the assessment from the government was clear: There was a need for wholesome institutional set-up. “It is necessary to strengthen the institutional structures so it is possibly to integrate the development questions within all policy areas and at all levels of decisions making both national in Sweden, in other countries and international. An effective co-ordination is needed in order to obtain synergy” (Miljødepartementet 2002: 14). However, the local strategies still continues based upon the national strategy e.g. the environmental plan for the municipality of Varsberg muni (kommun 2007). The investment program for ecological sustainability in Västerviks kommun (kommun 2000) putting into perspective the Swedish continuity.

Sweden established a national strategy for sustainable development with three sub-strategies. Two of them has an indirectly reference to turn Swedish agriculture away from conventional agriculture and the use of pesticides towards organic agriculture. While Denmark formulated reports like Bichel (Bichel-Committee 1999), which only got fragmentary influence, Sweden responded to the international intentions. Their point of departure in the national strategy was the central definitions in the report from the Brundtland commission (UN 1987) and the holistic approach in the national strategy in many ways fits into the existing instructions for the national agricultural administrative system, where exactly a council for co-ordination is established (RixLex 1998).

In the autumn 1999 the Swedish government came with their program for rural development 2000-2006 (SwedishGovernment 1999). The aim in the program is 20% Swedish arable land shall be used organic in 2005. Another aim is that 10% of all the animals shall be based on the principles behind organic agriculture, also in 2005. In the national strategy the specific attention to agriculture (SwedishGovernment 2001) refers back to the 20% measure in the 1999/2000 program. A central point in the new 20% measure was that Sweden already in 1994 had a 10% measure for the year 2000. However, this measure was implemented in 1999 (SwedishGovernment 2006a). In spring 2006 Sweden again implemented a new measure for 2010. Having approximately reached the former goal - total organic area was 19% and about 6% was certified - the new measure for 2010 was that 20% of the organic area should be certified and 25% of the public consumption of food should be organic. Part of the plan was laid into the rural development program, where the organic not certified land gets a gradual cut-back, which means that after two years their subsidy or as they term it in Sweden, “compensation”, is reduced to 50% of the certified farmers. We have a history where Sweden for more than a decade has sequential up-

dating of the policy measures for organic agriculture conversion. In Denmark any measures about evolution of quantity of organic land are absent, past as present.

What kinds of results experience the concrete rural areas in Sweden? The diversity in Sweden between regions and within the regions concerning the amount of organic land is rather large. Taking the county of Örebro and its thirteen municipalities as example, the amount of organic land in 2005 varies between 3% and 67% with an average at 14.4% (Landbruk 2006). Part of the picture is that five municipalities have more than 40% organic farmland. The county is placed between the three lakes Vänern, Vattern and Hjälmaren without mountains etc.. This indicates that we are dealing with an area of typical Swedish farmland. A further study of the local organic agricultural magazine (Landbruk 2006) illustrates some interesting characteristics:

1. The magazine is published by the county.
2. The magazine is financed by the EU and the Swedish State.
3. The magazine is very concrete in its recommendations for how the market for organic products expects to evolve and what kind of products the farmers should focus on.
4. The magazine recommends the farmers, who produce oats and has a KRAV-certification to be certified altogether with the USA/NOP certification, because of the increased demand for oats at the American market. It is possibly to make such certification at the same time as the KRAV-certification. The increased demand has reference both to fodder and for oatmeal.
5. The magazine acts as a marketplace for selling and buying input-material to the production among the organic farmers.
6. The magazine offers different farmer education courses.
7. The magazine has existed since 1986

In order to further illustrate the difference between Denmark and Sweden the Rural Development Program 2007-2013 represents an ideal framework (Ministeriet for Fødevarer 2006; ; Regeringskansliet 2007). There are both similarities and differences. The most important similarity is that the legislative framework for organic agriculture including the economic subsidies is present in the program. The most important differences is that:

Headline	Denmark	Sweden
Approved program	2007, 2008	2007-2013
Budget	0.57 billion DKR/year	5.4 billion SEK/year
Organic agriculture	0.13 billion DKR/year	0.7 billion SEK/year
Environmental friendly agriculture		2.0 billion SEK/year

We experience a budget in Sweden compared with Denmark that exceeds with about 800%. One should assume that Sweden uses part of or the whole of the 20% modulation rule. However, this is not the issue (Einarsson 2007). Sweden as well as Denmark does not use the rule like e.g. England. The last point, however important, is that the Swedish program does not differ significantly from the former program 2000-2006 for rural development with respect to the program for organic agriculture.

The Swedish farmers organisation finds that the program is well balanced between the organic and the conventional farming system (Riksförbund 2007b). The history in Denmark differs. The resistance against the 20% rule was the centre of rotation (Jensen 2006). However, the public debate was limited. Despite the defensive Danish program compared with Sweden, the organisation that market organic agricultural ideas is satisfied and even proud of their mission within the

negotiations around the establishment of the program. The organisation calls the program for “en løftestang for udvikling af økologisk fødevarerproduktion (a lever for the development of organic food production)” (Landsforening 2006: 18). The same procedure is repeated in connection with the adoption of the financial acts for 2008, where the rules about economic support continues. The chairman Gert Holst Hansen from Danish Agricultural Organic Committee declare: “We can only be satisfied, that we now has got the approval so organic farmers can continue to get economic subsidy (Haubroe 2007) Within the comparative perspective, the self-understanding within both Danish organisations can be questioned. On the other side, the quotes indicate that the organic agriculture is under pressure. The question mark towards the organic agriculture is not a rare event but part of a more than two decades with internal confusion, discussions and reorganisation (Ingemann 2003: ; Ingemann 2006a). During the 1990th the relative share of the organic farmers who were organised decreased while the absolute figures grow from 330 in 1990 to around 700 in 1999. In 2004 the number of organic farms member were 450. However, from then the organisation was changed to ØL and within a year the number of members were nearly doubled and today ØL organises 30.5% of all the Danish organic farmers in 2006. The rest of the organic farmers is organised within the conventional organisational framework²¹. The sister organisation in Sweden “Ekologiska Lantbrukerna” includes in 2007 30-35% of the certified KRAV-organic farmers (Larsson 2007). This means that both Sweden and Denmark have a divided organisational situation among the organic farmers which all things being equal reduces the power of organic agriculture. We have an example where both Ekologiska Lantbrukerna and ØL are isolated from the rest of the real agricultural world, where the idea of power and the process of decision is an everyday event. This is why we find it relevant to discuss both organic movements as weak and organisational isolated. In a Hvelplund perspective (Hvelplund 2005) we may have an indication that from this perspective organic agriculture in both countries is organisational homeless from an epistemological point of view. It indicates that Denmark and Sweden within the organic agricultural institutional set-up is similar at this point. However, because of the different evolution with respect to land, we do not get support for the “homeless argument” with reference to number of member in the organic agriculture movements. We return to this difference later on.

Within the public administration there is a notable difference. In Sweden all types of agriculture is within the same organisational umbrella (Jordbruksverket 2007b). This means that organic agriculture and the question of e.g. GMO is administrative co-existing²². It is our interpretation that this supports the Swedish policy within organic agriculture from a top-down perspective. Another difference to Denmark is that fact that within the financial law and the rural development program the term “Ecological” is a very often used term. Besides, the rural development program is transparent and there are both quantitative and qualitative measures. Within parliament, there is a broad agreement or consensus about an increase in an ecological or sustainable policy. In the end of 1990th Sweden established national environmental goals. The goals were during the beginning of the 21.th century further expanded with two meaning that in 2006 the total goals or indicators were 16. According to the Swedish farmers national organisation “Landbrukarnas Riksförbund”, which can be compared with the national farmers organisation in Denmark, “Dansk Landbrug”, eight of the indicators favours organic agriculture compared with conventional agriculture (Riksförbund 2007b). This is a demonstration that the Swedish politic is integrating the dimension of policy into the dimension of polity. The eight indicators in the rural development program are:

²¹ It must be noted that a double membership is far from unusual among the ØL-member and the EL-members.

²² Within the department of Growth the unit “Växtodlingsenheten” has the responsibility for organic production, seed corn, GMO technology, by-products from farming and fighting against disease. The same organisational principles is used within animal administration, where the organic and conventional animals belongs to the same unit.

1. Poison free environment
2. Living lakes and rivers
3. Ground water of good quality
4. Only natural acidification
5. Diversity in the wet fields
6. Rich culture landscape
7. Avoid over fertilization
8. Decreased impact on climate change

Such measures is absent in the history of Danish agricultural planning. In a newly published research report from Swedish Agricultural University, CUL, fourteen of the sixteen indicators has been investigated. Based upon different studies the conclusion is that the technology in organic agriculture contributes to achieve the environmental measures within eleven of the measures, while there is a lack of research within the last three measures (Nilsson 2007).

In order to strengthen their ecological friendly policy the Swedish Government implements a new plan for sustainable consumption in the households (Swedish Government 2006). The idea of the action plan is to support the sustainable development and they evolved eight indicators for sustainable consumption. The established focus on the indicators is planned to be analysed in 2009. Again, we find the idea of a dynamic use of different tools within the policy-concept.

The change of government in 2006 from a Social-democratic to liberal-bourgeois did not change the goals in the Swedish political aims for organic agriculture. However, calculations indicates that the new government has reduced the budget for organic agriculture from 700 million SEK a year to 500 SEK a year (Einarsson 2007a). He claims that the aims for 2010 will be very difficult to reach. This raises the question whether the situation in Sweden will copy the Danish situation with change in government back in 2001.

Visions and notions about organic agriculture

It has been briefly touched that the difference between Denmark and Sweden is that Sweden quite early became explicit and adopted a “vision for transformation” of conventional farm land towards organic land. The vision has been revised and a more ambitious vision has replaced the former vision. The visions may or may not be characterised as ambitious. In Denmark there has never been any explicit and firm vision about transformation of farm land into organic. Any quantitative vision has address to environmental policy and its quantitative goals. However, the goals were goals and the power behind the goals has turned out to be weak. The only visions come from marginalized groups like the utter left wing party and a labour union.

In Sweden the policy in itself may be claimed to be visionary compared with Denmark. We make an illustration. In 2002 the Swedish Government proposed to cut the taxes on organic food (Natur 2002). However, the EU legislation hindered the initiative because of the element of unequal competition. Generally, the grassroots organisation Swedish Nature finds that Sweden has long to go before the environment and the agricultural sector co-exist in a satisfactory sense (Natur 2000: ; Natur 2002a: ; Natur 2002b). The situation in Sweden and the discussion about GMO may further illustrate a possibly diffuse situation about visions. In a motion to the Swedish Parliament the party “Venstre” argues that both the former and the present government has been and are too diffuse and non-firm in the attitude to GMO. They criticise both the national and the EU performance during the last years (Riksdagen 2007)

In conclusion, the differences between the two countries may be characterised as a situation where Denmark is a country with a vision to increase organic food consumption in the public sector without a vision for increasing the quantity of organic farm-land. Contrary to Denmark, Sweden has a vision within both elements – supply and demand. However, the Swedish debate indicates that the public debate about both visions is active and once the measures is articulated and approved, they are subject for critique being un-ambitious. In Denmark, a minority of the political parties has adopted quantitative targets for the evolution of organic agriculture and the general public debate, including a critique against the missing aims in the organic agricultural policy, is fragmentary.

Economic support for organic farming

An exact examination of the last two decades public economic support²³ to organic agriculture in Denmark and Sweden is a complicated issue. We can identify at least four important reasons. First, organic agriculture gets support from both general agricultural programs and specific organic agricultural programs. Second, the legislation has changed multiple times in both countries during the years. Three, the transparency in the Danish State Account disappeared from 2001 because organic agriculture as a term became mixed with environmental friendly agriculture (Account 24.23.25 from the financial act disappeared from the State Account). Fourth, the financial sources which support organic agriculture come from different parts of financial plans and from different public authorities. Technically, the most appropriate estimate for a comparison of Denmark and Sweden must be economic support with reference to hectare organic land weighed up to the profitability at the farm level. This would eliminate a further problem because the system in Sweden differentiates between what kinds of products the farmers produce. E.g., the production of organic potatoes are supported with 5.000 SEK per hectare, while any economic support in Denmark is decoupled from the production. If the general profitability at farm level for whatever reason is lower than in Denmark, this could be the reason for their subsidy system. However, despite the difficulties we have arranged a first and fragmentary approach within the table 2, where the comparison idea is a focus on the economic incentive for conventional farmers to convert to organic farming.

	2000	2006	2007
DK	Land: 2.944 DKR/hectare (average 1995-2000) ²⁴ Animals: 0 DKR	Land: 100 DKR/hectare (organic) + 750 DKR/hectare (environmental friendly) + Year 1 & 2 when conversion: 1.050 DKR/hectare Animals: 0 DKR	Land: 100 DKR/hectare (organic) + 750 DKR/hectare (environmental friendly) + Year 1 & 2 when conversion: 1.050 DKR/hectare Animals: 0 DKR
S	Land-activity: Clover and grass: 500 SEK Grain and protein crop: 1.300 SEK Oil crops: 2.200 SEK Potatoes: 2.200 SEK All amounts/hectare	Land-activity: Clover and grass: 0 SEK Grain, protein crop, fodder beets and other one year crops: 1.300 SEK Oil crops, brown beans, konservärter og frövall: 2.200 SEK Potatoes, vegetables and sugar beets: 5.000 SEK Fruit and berry: 7.500 SEK All amounts/hectare	As 2006. Non-certified organic farmers: reduction 25% 2007 and 50% 2008-2013

²³ We have chosen to use the term support. In Denmark they use the term economic subsidy while Sweden use the term economic compensation. The latter reflects the idea that organic farmers contribute with a social environmental service that must be economic compensated.

²⁴ Own estimation based upon the Danish State Account 1995-2000.

	Animals: 1.700 SEK/hectare each animal unit ²⁵	Animals: 1.600 SEK/hectare each animal unit Egg chickens, fat pigs and broilers is incorporated.	
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Sources: Plantedirektoratet, Jordbruksverket

Remark: Anno 2007: 1 SEK = 0.8 DKR

All things being equal the table makes it evident that the Swedish farmers have a more clear economic incentive to change to organic farming than the Danish farmers. However, from 2007 and on Sweden change radical in their subsidy structure for organic farmers, because the non-certified organic farmers do get less in subsidy than the certified organic farmers. The Swedish organic farmer organisation, Ekologiska Lantbrukarna, criticises the changes in the new rural program. Regardless there is some improvements, their general estimate for the compensation to Swedish organic agriculture is negative and it is claimed that Sweden experiences a decrease in the economic support (Einarsson 2006). However, the conclusion is that the comparative analysis finds a significant indication that the support in Sweden is more comprehensive than Denmark. During the 1990th the subsidy system in Denmark for conversion evolved. From the law of finance and the state account it is possibly to estimate that the average support for organic farmers per hectare land was 2.944 DKR in average in the period 1995-2000. It is not possibly to find a transparent measure for the support in 2001 and 2002. However, the decline in the support is able to be identified from 2003 to present. Further insights into the economic subsidy system and the on farm profitability call for more research.

Organic agriculture and the agricultural system

The history of the inclusion of the organic farmers into the general agricultural system in Denmark has been a history of double resistance. First, the conventional farmers from the beginning have demonstrated a general resistance against the organic farmers inclusion in their organisational set-up. Second, within the organic farmers organisation resistance against an inclusion has also been massive. The expansion of organic farmers in the 1990th altered the position. The organic movement, which from the beginning organised the Danish organic farmers, experienced a relative decline in their organisational share of the organic farmers and their absolute number of members even declined. The organic organisational approach represented an ambition being holistic with a corporation between producers, consumers, retailers, grassroots etc.. Part of this organisational approach called for the claim of a need for being independent. However, this approach may be claimed to be a part of the explanation that the organic movement was isolated from the general Danish mainstream agricultural policy. The situation in the year 2007 can be illustrated with a quote from a meeting in The Organic Food Council: "It is important that the business (agriculture, our remark) announce that organic (Agriculture, our remark) is a part of us....The minister is apparently more engaged in the creation of job in the rural areas than in the system of production. Organic needs to be looked at as a serious part of Danish agriculture" (Council 2006: 6). However, the official signals from the chairman of Danish Agriculture, Peter Gæmelke, argue opposite. He finds that there is an excellent corporation between organic agriculture and the organisation. Besides, he finds that the new organic agriculture legislation within the VKO majority in the Danish parliament, including the conversion subsidy, has secured the organic farmers. In conclusion, he welcomes new

²⁵ The definition of animal units per hectare is e.g.: milk-cows=1, sows=2, goats=6.67

organic farmers and claim that they will get fully support from the total agriculture (Gæmelke 2007).

It can be claimed that there is a striking contrast between the statement from Gæmelke and the fact that the liberal-bourgeois majority rejected the possibility to take up to 20% of the direct payment to the farmers and transfer the money towards the program for rural development and environmental friendly, including organic, agriculture. A proposal put forward from different parts in the political debate (see e.g. (Committee 2006: ; Left 2007). The controversial 20% proposal was voted down by the EU parliament (Parliament 2006). However, within the questions related to agriculture the role of the parliament is limited to be advisory and the result was that the parliament was overruled (Europakommission 2006). The Danish and the Swedish resistance against the modulation and the general lack of political discussion about the possibility contrasts other countries, like e.g. the responsible Secretary of State in England (Miliband 2007).

At present the Danish Rural Development Policy 2007-2013 is among the few countries within the EU, together with Bulgaria, Latvia, Romania and Malta, who has not yet adopted the program (EC 2007). The 2007-2013 program is only adopted for the first two years. In conclusion, the general organisational niche position and the double resistance naturally has been an obstacle for the creation of a coherent agricultural unit in Denmark. The situation in Sweden indicates a history of acceptance of co-existence between different agricultural systems for about two decades.

Plan versus market

The comparison between the principles behind the polity set-up is best illustrated within a description of two different approaches. While the Swedish system is a combined top-down/bottom-up system, the Danish approach built upon a deliberative model and the principle of voluntary participation. As already illustrated, the Danish idea is that the market is *the solution* for the evolution of organic agriculture. A top-down steering system integrates the market during different measures by force e.g. the measure that 25% of all buying in the public sector must be organic. The voluntary system leads to other types of instruments, where the ability of farmers to be an obstacle for the evolution of organic agriculture is present. Exactly the idea that novelty shall be based on voluntary participation is well illustrated within the Danish efforts to implement national parks. The typical situation anno 2007 is that farmers systematically has been able to obstacle the process and hindered the establishment of such parks. Only one place a park has been established and it must be noted that this national park is placed in an area with poor farm land. However, even an expert group questions the concept of voluntary, deliberative participation, the Danish model continues (F4 2003). In Sweden, the opposite model has continued under different political regimes. The general differences between the countries may be characterised by the key notion: "Plan versus market". In the latter we have similarity between market and plan, because plan exactly is the market. In Sweden plan is over market, however market still exists but in certain areas market is steered by the plan.

Approach within organic research

The public finance of Swedish organic agricultural research has been 43 million SEK per year (2001-2006). With other financial sources the total budget has varied between 58-61 million SEK. Compared with Denmark the FØJO budgets in the program II and III was and is about 38 million DKR a year. The closeness of the budgets makes them comparable.

Jacobsen (Jacobsen 2005) describes the introduction and establishment of organic agricultural research in Denmark as a fight between the established agricultural research and the idealistic newcomers. It was not because of public or the political systems wishes for research efforts within organic agriculture that it established. The resistance against the new technological system was massive. However, when the organic research finally in the mid 1990th got attention, FØJO I 1996-2000, the result was an isolated organic research program with focus on the technical aspects of the organic agricultural system. Such procedure has maintained in Denmark up to now, where the third organic research program is running. Only few projects touch social science and when it do, typically market surveys represents social science.

The design of e.g. the last program, FØJO III, 2005-2010, illustrates the Danish research focus. The research program contains eight main elements. The idea behind the research is to support research which covers the whole organic value chain. Besides it is the aim to research how organic agriculture is able to support a social sustainable evolution. The last perspective is that the research shall contribute to the international research community (WWW.fvm.dk 2007). It is not exactly possible to identify the composition of the research from the eight elements. However, within the elements fifteen projects has been approved. From the headlines a first assessment indicates that twelve has a main focus within natural science, three has a main focus within social science and zero has a main focus within humanities. The social science projects deal with the demand on the organic market, politics and market (the COP-project, which this report is part of) and finally there is a project about organic agriculture in relation to the global food networks (FØJO 2007).

As pointed out earlier, there exists a risk that the research becomes biased. There is two reasons, at least. First, the technical, natural science is overexposed. Second, the research operates with a narrow organic focus instead of a broad social focus, where organic food, agriculture etc. is "a player". The latter would e.g. have made it natural to involve research within humanities. Within the research community little attention is laid on the above approach and such critique against the research planning and implementation. Contrary, some of the leading researchers find that the Danish organic agricultural research politics has been visionary when comparing with other EU countries (Michelsen 2004).

In Sweden the research has turned out differently. The proposal for the organic research program 2007-2009 illustrates the Swedish line of thinking (CUL 2007). The Swedish program operates with three main research areas and one of them is totally aimed social science and organic agriculture. The areas are:

1. Research within marketing, production- and resource economy, policy questions and social effects from increased organic food production.
2. Cross disciplinary research within evolution of long term sustainable system of production covering production, economy and environment.
3. Research within problems which can increase organic production.

It seems like the Swedish program has a more wholesome focus. If this is right it may be claimed, that the foundation for the organic agriculture is better off, than without a wholesome focus. The comparison between the Danish program and the Swedish program is only tentative and further research may show the result. However, do we have a first indication that the Danish program is far more technical than the Swedish program? Is the Swedish program integrating the organic food production within a general social framework as the recommendation from research report one? (Rasmussen 2007b).

If we return to theory we have a reference to the idea of Norgaard (Norgaard 1994). Because of his evolutionary economic theoretically foundation with co-existence of various elements, future research programs must always be limited with respect to size, money and time horizon. Norgaard would argue that a plan-economic inspired Danish five-years programs for research is to long-term and risks both to be wrong in the investment aims and in the value of the results. Besides, Norgaard would argue that a five-year plan creates limitations for the adoption of the results of the on-going social evolution including on-going national and international research. A Norgaard perspective would argue for a research system and a research investment program within an ongoing framework. Such procedure would secure an ever up-dated point of reference to research investment and consequently the chance for value added would be maximised. The Norgaard question mark levelled at the Danish five-years plans may also count for the Swedish three-year plan. Compared with other public funded research programs the typical system in e.g. Denmark is application dead-lines twice a year.

Labelling and certification system

It is a common belief within Danish research, the political system and among both the producers and the consumers, that exactly because of the Danish one string system of the producer certification system and the product labelling system there has been established confidence to organic products and a growth of the organic market share (Jensen 2001: ; Institut 2004). While certification and labelling is a must in Denmark the system in Sweden is different. Sweden has three labelling systems, where the rules differ. The EU labelling system reflects the minimum standards for being organic, while the KRAV system is the most strict system for organic standards. The Demeter certification system refers to biodynamic agriculture. The implementation of the certification is executed by private companies and today two companies are approved to do the job (SMAK AB, ARENA AB). A special arrangement in Sweden is that the system of certification is not a must for being an organic producer and get economic compensation. In fact, the percent of certified organic land in Sweden is less than the certified organic land in Denmark. However, the governmental aim in Sweden is that 20% of all agricultural land in 2010 shall be certified organic. The organic movement finds this to be un-ambitious. The Chairman Inger Källander (Källander 2005) argues that 30% of all land should be organic in 2010, 25% certified. 15% of the milk-cows, lams and fat beef, chickens 10% and pigs 3%. While both the certification and labelling system in Denmark is public, both systems in Sweden are private. The co-existence of certified and non-certified organic land reflects an example that, internationally, the certification and labelling systems are numerous. USA has e.g. a complex system with approximately fifty private and twenty public labelling systems and 98 certification bodies.

While the price for organic food in Denmark is higher than conventional food prices, this is not the situation in Sweden, where the price difference is relative small in Sweden (CUL 2007). Precisely how big the price difference is does the source not report. However, we may have an indication which questions the idea of the labelling system as the engine for organic food as a quasi-monopoly (Rasmussen 2007b). The differences between the labelling and certification system in the two countries must be examined more in-depth before any conclusion about its influence on the evolution of the food-market can be stated. Exactly here there might be a link to the general structure of the global food market.

Approach within the global organic food market

Sweden and Denmark is characterised by large agro-industrial companies. However, while there is close to monopoly in Denmark within the dairy business and animal processing industry, the long distances in Sweden is mentioned as an obstacle for certification of organic land. The reason for the limited certification in Sweden is claimed to be a matter of a lack of organic industrial infrastructure (Einarsson 2007b). This means that organic products are sold as conventional products without premium price. One of the points for Denmark is that the organic processing industry is adopted into the conventional agricultural production system. The co-existence of both conventional and organic products within the same company may contribute to understand the evolutionary process. All remains equal we have a power system, where the organic agriculture is in a weak position compared with conventional farmers. As pointed out by Ingemann this position may alter in the future (Ingemann 2006). The question is how wise a single and detailed study of the Danish versus the Swedish organic food market is? If we assume close similarity and turn the attention to the idea that the food market is international, we may be better off in order to understand the evolution of the market. Access to reliable data within the competitive business system provides an empiric problem. The global market for food is characterised by large and competing companies. The evolution in both the retail business and within food processing have for decades followed a trend towards increasing concentration in ownership (Hansen 2005). Research indicates that dealing with organic food there is no exception (Knezevic 2007). Instead of doing a specific case study of Denmark and Sweden this section will focus on the world largest market for organic food; the North-American market. From a theoretical point of view and arguing this has relevance for a comparative study we treat the two national markets as if there is no difference between evolution of these markets and the North-American market. This is merely a methodological trick and the reason for doing the trick has to do with access to data. The idea is to illustrate how markets evolve and how the underlying reasons operate. Recalling the mechanisms in a capitalistic system from the model, an ignorance of the mechanisms would bias any policy proposals within the COP-project. Exactly the idea of a competitive system and interstitial adjustment is claimed to be part of the evolutionary process of the global organic market for food.

Knezevic (2007) demonstrates how most of the largest organic brands at the North-American market is owned by the large companies like Cargill, Kraft, Coca-Cola and Pepsi. Howard (Howard 2007) has investigated the evolution in both the general food industry and the organic food industry. His results indicate a clear and unambiguous trend. The organic businesses move from a position as independent to be dependent and owned by the large companies within or without the traditional food industry. The evolution of the American and the global market for organic food is further analysed by Rural Advancement Foundation International (Sligh 2003). The trend is that small companies, because of a rapid growing market, made into larger ones and larger companies into giants. They have identified two strategic roads, which the increased organic food industry followed during the 1990th. Initially, by increasing markets for their product lines and secondarily, by acquisition of other companies and brands. Several of these organic companies have become so profitable that they are buyout targets for even larger firms. The economic process of increased concentration within the industry makes organic food to a similar product as any other products. Howard (Howard 2007) has also investigated the North-American organic industry structure and he identifies how the top 25 food processors have made acquisitions from the end of 1990th and up to June 2007. This research gets support from another approach (Weeks 2007). Hendrickson et.al. (Hendrickson 2005) illustrates how the top four firms (CR4) in a specific food industry evolve. The greatest concentration is within beef packers where the percent of total market evolves from 72% in 1990 to 81% in 2000. Pork packers concentration increase from 37% in 1987 to 64% in 2002/2003. Flour milling increases from 40% in 1982 to 63% in 2003. Within food

retailing there is a fast evolution in CR5 from 24% in 1997 to 46% in 2003. There seems to be empiric consensus about the North-American empiric evolution. We experience a trend towards ownership concentration. The change makes the organic food production system a part of the general capitalistic system with stock markets, influence from financial capital, creation of ever larger corporations etc.. However, this trend is straight in line with theory (Rasmussen 2007a; ; Rasmussen 2007b). Further research may contribute with more concrete details and in order to cover the global market a closer study of e.g. The Dean Foods Company (USA), Danone (France), Campina (NL), ARLA (S/DK/UK), Danish Crown (DK), Fonterra (NZ) and Nestle (SCH) could be the next step.

Turning attention to the organic distribution system the dominance of retail sale through supermarkets is the trend. However, alternative networks of distribution exist like e.g. local food markets, internet-sale and networks but such distribution exist only at the margin. The conventionalisation of the organic food retail sale makes the labelling and certification discussion central. The Organic Foods Production Act of 1990 (OFPA) directs the U.S. Department of Agriculture (USDA) to accredit certification bodies. As of March 2005, there were 95 accredited certification bodies operating in the USA. Of these, 58 percent were USA-based organizations. The use of the term 'Organic' is restricted to those producers and processors who are certified by a USDA accredited certification agency. Retail operations, such as grocery stores and restaurants, do not have to be certified. A civil penalty of up to US\$10 000 can be levied on any person who knowingly sells or labels as organic a product that is not produced and handled in accordance with the National Organic Programme (NOP) (FAO 2007). In the US, Wall Mart has started to market organic products under their own labelling system. Their discount strategy is claimed to wash-out the organic quality (Kastel 2006b; ; Kastel 2006c). Generally, recent research accounts that more than 20% of the organic milk at the American market is low organic quality (Kastel 2006a). In e.g. California five gigantic farms supply half of California's 400 million dollars retail market (2001 figures) and different large companies are accused of corrupting the organic label system organic produce market and create a lack of confidence to organic products. The situation in the US illustrates that the idea of local organic products to a local market is not a dominating issue. Grassroots in the US fights against the evolution. The increased focus on local food market and alternative systems of distribution some researchers, indirectly, interpret as a future trends, especially among the segment "heavy organic food users" (Wier Unpublished). However, both the organic and conventional food businesses operate at a global market. The market has rules of the game that affects the evolution of organic agriculture. While the situation in US may be seen as extreme from a DK-S point of view, the rules of the game hardly differ except the lack of the enormous certification and labelling-system in the US. However, the quantitative difference may be due to the size of the countries. In principle, the certification and labelling system contains similar rules.

Discussion of Institutional explanation and the comparative analysis Denmark versus Sweden

The differences between Denmark and Sweden are radically. The internal and external organisationally approach is in contrast. The financial public support differs significant. In Sweden there is an explicit economic compensation in both plant and animal production. In Denmark, there is conversion support for land and economic support for environmental friendly agriculture. When conversion is finished the economic support to organic agriculture is rather symbolic. When focus is the combination between qualitative and quantitative measure and a vision for organic agriculture,

such combination is present in Sweden. In Denmark, there are environmental regulations. However, there is a lack of combining the regulations to any vision about how organic agriculture may be a link to improve the environment. The Swedish approach for rural development has been serious in the attempt to follow the policy recommendations from the international community. It appears that Denmark lack behind Sweden in such respect. When the local communities in Sweden e.g. make ecological investment plans nearly a decade ago, the research has not identified such initiatives in Denmark. Only some fragmentary initiatives are observed. The policy approach hardly can not be more different. Similar it is concerning the polity set-up. In Sweden, organic agriculture generally, is treated within a wholesome context. A more in-depth analysis may clarify whether organic agriculture in Denmark tends to be organisational fragmented? Such position may have theoretical reference to the term “organisational homeless”. While Sweden has a commando regime, the idea of a self-regulating – market and voluntary - evolution is dominant in Denmark. Sweden wants organic agriculture. The situation in Denmark contrasts. Here we are dealing with a despite of explanation and when we are going to understand why it still is a niche, a hypothesis could be to return to the only identified causal explanation of structural power or social power. The concrete hypothesis could be that a further analysis of Danish agriculture may indicate an agriculture dominated by the agro-monoculture of conventional producers and probably conventional pig-producers. In order to expand the hypothesis and make it comparative the next claim would be, that in Sweden, the agriculture is more multifunctional and consequently, the internal social as well as agricultural Swedish power structure may be more balanced. However, we have already indications that the power structure within the political apparatus is significantly contrary dealing with organic agriculture. This leads us to conclude, that the comparative analysis support that policy, politics and polity matters for the evolution of organic agriculture and that transformation of agriculture links to the national social power system in the different countries.

When focus is evolution of the organic food market exemplified by the North-American market, the research illustrates that organic food only is a product among others. The product is part of a general economic process dominated by the rules of the game. The competitive system and the mechanism of interstitial adjustment change the structure of ownership. The organic food production becomes part of large coalitions like any other commodity. It is a process with an increased trend towards monopoly. As demonstrated in research report one, this evolution is straight in line with the Veblenian approach (Rasmussen 2007b). The special focus on the North-American market may be claimed to be irrelevant for Denmark and Sweden. However, exactly these countries and especially Denmark have for the last five decades experienced a Veblenian evolution towards monopoly in ownership within the agricultural manufacturing system. In such respect, Denmark is ahead of the evolution at the North-American market. Because of better data-access at the North-American market we are able to illustrate a specific evolutionary process of the organic food market where the hypothesis is that we are dealing with potential, universal mechanisms.

This country report has only focused rather narrowed on the power system and the results are naturally biased by the fact, that the system of finance is neglected together with the idea of property rights. However, the results of the institutional explanation and the comparative analysis of Denmark versus Sweden illustrates, that we are dealing with evolution of a highly sensitive economic phenomenon, where the balance of power and political efforts matters. We are not able to conclude how much each element matters and if something matters more than other things within the framework of the analysis? If we make a theoretical link for the issue, we may remember the idea from Norgaard, that exactly such question has no meaning. However, combining Norgaard with the ideas from the Veblenian Economics it makes sense to talk about a coherent economic system with a teleological element and the ability to define the Veblenian idea, that all politics is business, differently within different countries. We get an indication that organic farming is a

priority business in Sweden, while the conventional (pig) industry is the business priority in Denmark. While organic agriculture in Denmark is up against strong agricultural business interest, organic agriculture in Sweden potentially creates a new kind of agricultural business, where the first focus has been to transform conventional land into organic land. However, central actors fear that the reduced compensation for non-certified organic agriculture will reduce the organic land in Sweden in the future (Einarsson 2007b). Part of the explanation is that the present Swedish organic industrial infrastructure is not able to absorb all the non-certified organic products (Einarsson 2007b).

When the Danish Minister, Eva Kjer Hansen, Ministry for Food, Agriculture and Fishery (www.okologi.dk 2007) argues that Denmark is in the organic agricultural world class and that we are going to establish an international research centre for organic food and agriculture in order to keep the unique world-class position, the above analysis has demonstrated, that the distance in both quality and quantity within organic agriculture and organic food to Sweden is significant. However, Kjer Hansen gets full endorsement from the Danish Chairman of the EU-Commission organic committee, Johannes Nebel: "It is an important and right initiative at the right moment. It can strengthen the leading position of Denmark within research in organic agriculture" (www.okologi.dk 2007). Nebel is also chairman for the Danish Organic Council. However, the study of the different strategies for organic agricultural research indicates that the Danish research may be biased because of the technical dominance and the lack of social research focus. Part of the claimed biased research has address to the tendency to focus solely on organic agriculture without a broad social and general agricultural reference. We have indications that the research program in Sweden differs in that respect. This leaves the report to claim that we have an indication that the Danes have a strong Veblenian institution of "Make-Believe" within the area. However, within the current research any causal conclusion of correlation between research focus and evolution of organic land and organic food consumption is not established. One of the problem at this point is the mismatch in the two countries within the overall indicators – land and retail sales. On the one hand, Sweden has much more organic land than Denmark. On the other hand, the organic food consumption indicates that Denmark has a higher organic market share than Sweden.

The idea that a reason for organic agriculture to be organisational homeless from an epistemological point of view does not get support with a solely focus on the organic movement. Measured on their organisational share the evolution in the two organisations does not differ significantly. However, the amount of organic land differs significantly. Consequently, if the "homeless hypothesis" should be kept, the research must change focus to other elements of the polity structure. Further research should focus on new indicators like e.g. numbers of conventional and organic farmers who are politicians and member of national and/or the EU-parliament, numbers of conventional and organic farmers who are ministers in the government and, for the European countries, the EU-Commission (Qualitative evaluation of weight in the position of power) and number of organic versus conventional farmers represented in the national agricultural board(s) (Qualitative evaluation of weight in the position of power).

The most obvious conclusion is that policy matters for a transformation of conventional land into organic land. While the demand for organic food in Denmark is higher than Sweden, we have the opposite situation with respect to organic land. In Denmark the policy is left to the voluntarily deliberative principles. The Swedish case indicates that a policy mix between bottom-up strategy and a top-down strategy makes results. However, the results are only marginally dealing with increase in organic food consumption. The results have reference to nature, biodiversity and the amount of organic agricultural land. Exactly the mismatch between organic land in Sweden and organic food consumption in Sweden makes it relevant to go behind and research how the general institutional organic industrial infrastructure has evolved. We have an

indication that Sweden experiences a need for a more intensive investment in such structures, while Denmark, however still at small scale, these years experiences small-scale investments. As illustrated at the North-American market, such evolution can not avoid the general rules of the game. By pointing out the rules of the game as a main factor in any economic process, it leaves the idea of policy to transform the rules of the game. How is it possibly for policy to attack the rules of the game with the aim to transform the global food market into a market, where organic food dominates? Is it possibly for policy to out-phase conventional food and transform the global food market into a monopolistic organic food market without coalitions and with free competition? This is the research question with the most promising content in order to describe whether it is possibly or if it is possibly to transform the global food market. One of the experiences from this country comparative study is that it is not enough to secure an increase of organic land. This does not automatically lead to increased organ food consumption. However, it leads to improvements of the environment.

Explanations in a theoretical and empiric perspective

Internationally, much research has been done in order to use a demand explanation to establish a causal relationship and identify explanatory variables for understanding the evolution of the demand for organic food products. The conclusion is clear: The research within the demand explanation ends up in over-determination. There is simply too many variables, and the different studies more or less contradict. We end up in the conclusion that nearly anything matters. Clearly something matters more but we simply don't know what matters most. On the one hand we have the external versus internal motives. This reflects a categorization into altruism (e.g. animal welfare, environment, ground water) versus egoism (health, taste and social position). Especially the experimental psychology seems promising, because it intends to understand the motives behind human actions and link the results to the values like power and universalism, which is a further and directly link to the only defined causal relationship in our theoretically apparatus. However, the demand explanation is diffuse and public policy recommendation based upon a diffuse understanding may become biased or even wrong. This is why we turn research direction. It may be more adequate to change focus to the other theoretical evolved explanation for the evolution of the organic market for food – the institutional explanation. With reference to the demand explanation we have a last reflection with reference to the apparatus of Georgescu-Roegen (Georgescu-Roegen 1960: ; Georgescu-Roegen 1971: ; Georgescu-Roegen 1976: ; Georgescu-Roegen 1977: ; Georgescu-Roegen 1979). His theoretically explanation for the evolution of the economics process is a demand explanation. However, he goes beyond consumers and consumers preferences and link directly to the elites of the towns. It is their deliberative decisions, which decide how demand for organic food evolves. Consequently, the COP project has a reason, not to follow the traditional, mainstream demand focussed studies including the experimental psychology studies, but to define the demand explanation into a question of social power. Besides, such arrangement would enrich the demand explanation and bring a broad social and social organisational approach into the debate within the part of the research community, who focuses on how the demand explanation can explain the evolution of the organic market for food. Besides, it is our claim that such perspective is easy incorporated into the next explanation – the institutional explanation. While the theory of Georgescu-Roegen up to now has been treated isolated and alone, because his apparatus has his own terminology, it may now be possibly to include him among the other theoreticians, who has established the theoretical model for the COP-model. The enrichment of the demand explanation will lead to a new focus and first of all; we challenge the idea of the influential consumers, because following the concept of Georgescu-Roegen, some consumers matters and others don't. Clearly, the

demand explanation by Georgescu-Roegen goes beyond the traditional demand explanation. It asks for the reasons for the supply! Such operation requires that we are able to solve a problem of definition. What is the definition of the term “social elites in the towns”? Georgescu-Roegen may assist us in this research process. Having established a definition the next task is to define and implement the empiric research. When the research is accomplished the discussion about public policy enters the arena and we have the link to the general research question of the COP-project.

The institutional explanation elaborated as a comparative study between Denmark and Sweden is tentative. First, only one of the three elaborated theoretically indicators have been investigated. Second, the investigation within the theoretical indicator is preliminarily and we have proposed different elements that may further contribute with insights. However, some indications seem rather significant. The general conclusion is that both policy and polity matters. During a coherent and continuously adjusted political strategy, nearly 20% of the Swedish agricultural land has been transformed from conventional, chemical land to organic land. In Denmark, the political strategy is characterised as a zig-zag course. During the 1990th amount of organic land increased. Within the last five years the situation has been stable, however the organic amount of agricultural land recently has declined. The conclusion, that policy and polity matters may lead us to ask the question, why Denmark for nearly two decades has experienced the total opposite policy than Sweden? The indications from theory link to the social power structure. Consequently, further research may follow this track and link the evolution of policy to the evolution of the social power structure. Suggestions for some new indicators are elaborated in the report, and the majority of the indicators link to actor interests. However, comparison of the policy suggestions from the national farmers organisation may be incorporated, because in the study, we found a first indication of a different attitude towards co-existing farming systems in the two countries. Part of this analysis would be to assess selected lobbyism actions. Point of departure could be an examination of the yearly statements at the annual general meetings. Besides, the coherence between national and local agricultural public administrations in the two countries could be studied with special attention on eventual attitudes towards organic farming. We have briefly touched upon this in the case of Denmark and we have a clear indication for the difference to Sweden. Search for a lack of link between the global food market with its rules of the game and the agricultural organisations would be an important finding. The hypothesis is that a lack of link would be an advantage for organic farming because of its non-dominating position and its status as a niche production. This relates to the evolution in the manufacturing and distribution system for organic food. In the report, the role of the retail system in marketing and sale of organic food is touched, and there exist no reason to claim that method for sale of organic food is different from conventional food within a distribution perspective. However, the limited access to organic food may be an important reason for evolution of the market. If the perspective is turned towards manufacturing and food processing, it is needful to search for organic buy-outs into larger corporations. How is the situation in Denmark and Sweden compared with the largest organic market on a global scale, the North-American market? Can we document the e.g. some organic brands has changed owners? Based upon a mixture of empirical findings, operating within a pluralistic methodological approach, the result in this report will be expanded and new insights for where to make priority in the policy recommendation will be obtained. Next step is to expand the analysis with the theoretical indicator two (the institution of property rights) and indicator three (financial capital as an influential actor and the credit treadmill). The establishment of empirical insights within all the three theoretical indicators enables us to bring forward the most well established apparatus for policy recommendations. There will be consistence between the theoretical and the empiric dimension.

Appendix -Theoretical Rules of the Game – A Technical reorganisation

The aim of the COP-project is to solve the problem related to how politics may assist to increase the demand for organic food or more specific: *How may public policy contribute to a transformation of agriculture and system of food production towards organic agriculture and organic food? What kind of empiric indicators may contribute to an answer to the problem in the COP-project? We recall the listed rules of the game in table 2 in Rasmussen (2007b). We are now going to make a specific order of the rules which corresponds the elaborated list of satisfaction. Initially, there is two positions, that must be satisfied according to the problem:*

1. We separate between an institutional and a demand explanation
2. We separate between rules with reference to first and second order on the one side and material and immaterial structures on the other side

Point two has reference to the theoretical elaborated position that when we are dealing with a transformation perspective, we are only interested in:

- A. Rules belonging to first order
- B. Rules with reference to change in immaterial structures.

Based upon table 2, the result of these principles (1+2, A+B) is a gross list for the demand and the institutional explanation:

Demand explanation:

First order:

Reinforcers.

Second order:

Reinforcers.

Immaterial structures:

Material structures:

Limited demand. Nature vs. population.

Institutional explanation

First order:

Macro: Reinforcers. The institution of property rights. Organic agriculture is organisationally homeless within an epistemological context. Economic subsidies to farmers. Agricultural economic substance builds upon the negotiated economics of agriculture. The legislative framework for agricultural actions. The fight between different notions. Financial capital as an influential actor and the credit treadmill. Farmers have great cupidity. All politics is business.

Micro: Reinforcers. The incentives of agricultural actors.

Second order:

Allocation fight, the political system and maximisation of profit. Reinforcers. All politics is business. Agricultural economic substance builds upon the negotiated economics of agriculture. The incentives of agricultural actors. The legislative framework for agricultural actions. The fight between different notions.

Immaterial structures:

Reinforcers. The actor cavalry change. The interplay between actors constitutes the rules of the game. The actions of actors are teleological. Preferences of the actors and the expectations of the actors in relation to the outcome of their specific actions. Institutions dealing with social conflict. Political system and maximisation. The explicit involvement of theories about the political processes of decisions must be implemented. The institution of property rights. The incentives of agricultural actors. Organic agriculture is organisationally homeless within an epistemological context. Agricultural economic substance builds upon the negotiated economics of agriculture. The legislative framework for agricultural actions. The fight between different notions. Financial capital as an influential actor and the credit treadmill. Farmers have great cupidity. A non-mainstream idea of productivity versus the mainstream idea of productivity. The latter argues for the absence of co-existence of farm systems, absence of the existence of farm systems having different calculations and absence of the rule that there exist limits on farm size. Evolution in organic agricultural principles for accumulation, allocation and nature. Differentiated understand of (large) scale. Farming is extensive – However, the general idea is that farming goes from extensive to intensive. Dependent farmer versus independent farmer. Ownership of land matters. Land is superior security. The idea of the limitations of nature versus agriculture working against nature. Agriculture the only productive sector

Material structures:

Agricultural structural change, relates to the distribution of capital. The mainstream idea of productivity with the absence of co-existence of farm systems and absence of the rule that there exist limits on farm size. The general idea is that farming goes from extensive to intensive. New technology and the two treadmills. Division of labour. Specialisation. Farmers do not flow freely. Land eats up capital from the organic farming position. Transaction cost and marginality. Farmers are price takers. Increase in agricultural prices. Increase in agricultural prices until equilibrium. Differential rent. Scarcity of land and monopoly price. Land does not flow freely. Nature matters. Variety in agricultural production due to nature. Scarcity of biodiversity. Agriculture the only productive sector

Analysis of the two explanations and their indicators

It is difficult to categorise without being ambiguous. Consequently, the above categorisation is tentative. From a methodological point of view a lack of a clear-cut apparatus is particularly a problem if the rule both is represented in first/second order or material/immaterial. However, the next step is elimination of rules within second order and material structures. This leaves a complex institutional explanation and a more simple demand explanation, where the only rule is; reinforcers. *In order to elaborate on the complex institutional explanation, we now demand that any theoretical rule must be both within first order and immaterial structures.* This elaboration rests on the COP-projects intention to focus on transformation and the arguments earlier elaborated, that dealing with

transformation we must deal with change in immaterial structures. Elsewhere, we are talking about structural change. The result is a framework with nine rules:

1. Reinforcers.
2. The institution of property rights.
3. Organic agriculture is organisationally homeless within an epistemological context.
4. Agricultural economic substance builds upon the negotiated economics of agriculture.
5. The legislative framework for agricultural actions.
6. The fight between different notions.
7. Financial capital as an influential actor and the credit treadmill.
8. Farmers have great cupidity.
9. The incentives of agricultural actors.

This is the nine indicators we are going to elaborate on and couple to the explanation. First step is to reduce the nine indicators to three because of close connections:

1. Reinforcers. Organic agriculture is organisationally homeless within an epistemological context, Agricultural economic substance builds upon the negotiated economics of agriculture, The legislative framework for agricultural actions. The fight between different notions. Farmers have great cupidity. The incentives of agricultural actors.
2. The institution of property rights.
3. Financial capital as an influential actor and the credit treadmill.

We have now elaborated on the some of the indicators recommended in research report one. However, there are still other theoretical indicators. First, the causal relation; that the actors interests constitutes a certain position of social power which results in a specific social organisation based upon the two Veblenian mechanisms. Second, there is a need for a broad empiric and methodological focus. The consequence is that *all social actors must be involved* into the analysis. This leaves us the last focus: Why organic agriculture still is a niche? However, this is a help-question for the process of indicator selection. Based upon these considerations the trial and error process can start. First step is selection of concrete indicators. Next step is use of the indicator within the selected countries. The last step is a discussion of the results including an evaluation from a theoretical, methodological and empiric perspective.

Last step in the theoretical process is a return to the elaborated model and chose the indicators with reference to this model:

1. Actors interest
2. Institutions
3. Mechanisms
4. Producers/Consumers
5. Public authorities
6. Global Food Market

Point 1-6 must someway or another be found within the empiric indicators. This brings us to the theoretical and methodological completion and we are now ready to take the step from theoretical to empirically indicators.

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