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**The Farm Animal Welfare - Dilemma:
Can concerted Action of the Value Chain be a solution?**

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A considerable share of citizens in Western countries evaluates current conditions of animal husbandry as insufficient. Assuming well-functioning markets a higher valuation for a product (characteristic) should be reflected in a higher Willingness to Pay (WTP) of (some) consumers for that product (characteristic), thus stimulating production for the desired good and covering additional costs of higher Farm Animal Welfare (FAW) standards. However, market volume of animal friendly produced meat is low. The difference between results of consumer surveys on the one hand and market shares on the other hand, is widely known in the literature and is referred to as attitude-behaviour gap (e.g. BOULSTRIDGE AND CARRIGAN 2000) or citizen-consumer duality (VANHONACKER et al. 2007).¹

The paper aims to provide a better understanding of the citizen-consumer duality in the case of FAW. The analysis links theory with insights the authors derived from several empirical studies on the topic that were based on focus group discussions, in depth interviews with citizens and consumers, expert interviews with representatives of Non-Governmental Organisations, the food industry retailers and farming organisations as well as quantitative consumer studies.² Based on the findings different approaches to implement higher FAW standards are discussed. In detail we refer to (1) market differentiation based on FAW standards, (2) higher national standards of FAW and (3) the German “Initiative Tierwohl” that does not differentiate the meat markets but rewards farmers for higher animal welfare standards with payments from a fund financed by retailers.

How to explain the attitude-behaviour gap?

Theoretical and empirical research indicate that at least four reasons can explain (part of) the attitude-behaviour gap: (1) High prices due to (currently) very high costs linked to animal friendly production, (2) lack of (credible) information about FAW conditions, (3) the meat antagonism and closely related to that (4) the classification of FAW as a merit good.³

(1) In general higher levels of FAW result in an increase in production costs. If (some) consumers value the process characteristic of higher FAW this should lead to a higher WTP resulting in a market for animal friendly products. Indeed, there seems to be considerable evidence from empirical studies that consumers have a WTP for higher levels of FAW (e.g. NORWOOD AND LUSK 2011 and LAGERKVIST AND HESS 2011). At the same

¹ In the following, we use attitude-behaviour gap, citizen-consumer duality and citizen-consumer gap as synonyms.

² See e.g. HARTMANN et al. 2013; WILTRAUD et al. 2015; HEINEN 2015.

³ As this paper focuses on the behavioural gap it does not explicitly address the topic of external effects.

time market share for products with higher FAW standards is small to negligible in most western countries (e.g. NORWOOD AND LUSK 2011; INGENBLEEK et al. 2013). Thus, results of empirical studies seem to be in contrast to market realities. However, what if consumers have a higher WTP for products considering higher animal welfare standards but the producers' additional costs for FAW is higher than the price premium consumers are willing to pay for the desired product characteristic 'animal welfare'? In this case, one might claim that there is no market failure and thus no need for governmental intervention.

However, one could also argue that for animal friendly production the 'infant industry' argument holds which would provide a justification for temporary governmental intervention.⁴ The basic argumentation can be summarised as follows (cp. e.g. KRUEGER AND TUNCER 1982): Nascent industries frequently lack economies of scale that established competitors possess. Thus, higher initial costs act as a market entry barrier and prevent the development of those industries. Accordingly, there is a need for protection until those 'infant industries' attain similar economies of scale.⁵

The scientific advisory board at the German Ministry of Food and Agriculture in its recent report on 'Pathways to a socially accepted livestock husbandry in Germany' makes a case in line with the infant industry argumentation (WB 2015). It states that the cost difference between conventional animal husbandry and livestock farming with higher FAW standards to a large extent are due to the small scale of production, processing and marketing. This results in huge price differences between conventional meat and meat produced according to higher FAW standards at consumer level, which in turn lead to a small market share of the respective products. This "vicious circle" prevents the decrease of the price gap and thus the development of a market segment that can satisfy the demand for meat with higher FAW standards at prices that are in line with consumers'. Thus, the advisory board attributes part of the attitude-behaviour gap to that kind of market failure (WB 2015).

(2) Lack of information has been identified as another possible reason for consumers abstaining from purchasing FAW products and to some extent is also able to explain the attitude-behaviour gap. TOMA et al. (2011) as well as LAGERKVIST and HESS (2011) found evidence that information about conditions on FAW conditions influence preferences and the consumption of animal welfare-friendly products. As studies show that consumers would like more information on FAW the provision of information seems an easy solution to narrow the attitude-behaviour gap (EU COMMISSION 2007). However, the complexity

⁴ The infant industry argument has also been discussed with respect to organic production (see LAKNER 2009).

⁵ Several additional conditions have been derived in the literature for a justification of protection based on the infant industry argument (see e.g. LAKNER 2009).

and ambiguity of the concept FAW, the credence nature of the attribute FAW as well as the meat antagonism that will be discussed below, are barriers to the effectiveness of FAW information (HARTMANN et al. 2014).

(3) As mentioned above, market performance of animal friendly products is also impeded due to what we call meat antagonism⁶: On the one hand, consumers feel empathy for (farm) animals. On the other hand, they want to enjoy eating meat. Empathy results in moral concerns regarding husbandry and especially slaughtering of farm animals.

Group discussions and in depth interviews reveal that consumers are aware of the discrepancy between their preferences for animal welfare and their actual buying behaviour. Prompting participants to deal with that conflict reveals difficulties to find feasible solution to overcome the dilemma. Instead, they try to delegate responsibility. A common string of arguments is that they as consumers are helpless and lack the complex knowledge necessary to induce informed changes. Accordingly, they shift responsibility to other actors of the value chain and blame them for inappropriate behaviour. Nevertheless, when made conscious the meat antagonism still leads to a feeling of discomfort. To deal with that conflict and to enjoy eating meat in everyday life, one widespread strategy of consumers is to hold back thoughts about the animals and their welfare during the buying and consumption process. Correspondingly, we find a high willingness not to know despite the fact that consumers state that they are interested in more information (e.g. HARTMANN et al. 2013; EU COMMISSION 2007).

In line with these results the attitude-behaviour gap can be explained by different mind-sets people are in while buying meat on the one hand and answering a questionnaire on the other hand. Thus, small market share of FAW meat does not indicate that people do not care about animal welfare conditions and the results of the surveys do not imply that meat with high FAW standards promises high market shares.

(4) The meat antagonism leads us to the concept of (de)merit goods (MUSGRAVE 1956). The merit wants are “those which individuals may not be willing to express by their overt actions, but which informed leaders of the social group consider important enough to be deliberately encouraged and promoted.” (MUSGRAVE (1959) cited in VER EECKE, 1998, 136). Thus, on the one hand the concept of (de)merit good is sometimes regarded as “representing the first step on the slippery slope of paternalism” (D’Amico, 2009). On the other hand, considering multiple utility orders, merit goods can be described as goods that people want but that can hardly be achieved by market performance (e.g. KIRCHGÄSSNER 2012; CAMERER et al. 2003; MANN and GAIRING 2012). Results of behav-

⁶ LOUGHNAN et al. (2014) named this problem the meat paradox. But as it is not a seemingly contradiction but a real one antagonism seems a better description of this problem.

behavioural economics give empirical evidence that market preferences are often short term oriented and can diverge from reflective preferences (e.g. SUSTAIN and THALER 2003). Hence, the citizen-consumer gap with respect to FAW may reflect conflicting short term and reflective preferences.

This interpretation of the citizen-consumer gap is in line with the work of KAHNEMANN and other behavioural economists who describes human behaviour as driven by two different systems that are called system 1 and system 2 (KAHNEMAN 2012). System 1 can be characterised as fast, unconscious, effortless and automatic. It pays only attention to information and feelings readily available, ideas that have been primed and are coherent. System 1 is able to quickly arrive at decisions. System 2 is slow, based on controlled mental processes and requires efforts. As it is an energy-intensive process, the default that rules human behaviour is System 1.

In Western supermarkets consumers are confronted with thousands of products and have to buy in a limited time buy a large number of different groceries for themselves (and their family). There is a need to arrive quickly at decisions what to buy. Thus, it seems likely that system 1 is in control and makes people focusing on (coherent) easily available information such as price and visual attractiveness and feelings such as the pleasure of eating meat, while in that situation the animal welfare discussion and consumers' empathy for animals is crowded out. If system 1 takes command and is dominant in the purchase environment, it might be difficult to differentiate the market successfully with animal welfare products. A survey, however, is a more reflected environment in which rational thoughts and self-awareness are likely to gain in relevance. With system 2 coming into play, the feeling of discomfort arises. Following this line of argument supports the classification of higher FAW as a merit good/characteristic.

Classifying FAW as merit good characteristic could justify governmental intervention to reduce consumers' behavioural dilemma with respect to FAW (HARTMANN et al. 2014; HARVEY and HUBBARD, 2013; MCINERNEY, 2004; NORWOOD and LUSK, 2011). In case of inconsistencies between markets and reflective preferences, political processes offer society the possibility of self-binding. Thus, in a democratic legitimised system it can be argued that the provision of merit goods or the prevention of demerit ones is backed by citizens' political support. For consumers it can well be rational to vote in favour of their 'reflective' preferences which might or might not be revealed by their market behaviour (e.g. KIRCHGÄSSNER 2012; MANN 2003).

Opportunities to overcome the meat dilemma

Based on the discussion above we hereafter evaluate different paths to overcome the meat dilemma.

Market differentiation

One option for increasing the market share for meat characterised by higher FAW standards is seen in improving market transparency by implementing a mandatory labelling of meat products according to different husbandry systems. As proof for the good prospects of such an intervention proponents refer to the experiences gained in the egg market. Since 2004 eggs in Germany have to be mandatory marked according to their production process so that consumers can make their buying decision according to the production system. The market share of organic eggs in overall purchases of private households amounts for about 10% and that of free range eggs for about 25% in Germany (AMI, 2015).⁷ In the light of that market share mandatory marking of the animal husbandry system seems to be a promising step to enhance animal friendly production of meat. However, especially three arguments reveal that the comparability between the egg and the meat market is not without problems:

- (1) Meat production systems are highly differentiated and thus not comparable with the highly standardised egg production systems. Therefore, the classification of meat production systems is likely more controversial and complex and thus, more difficult to communicate to consumers. This viewpoint is supported by the fact that the voluntary classification system of the “deutscher Tierschutzbund”, has nearly no market relevance by now.
- (2) The egg market is less affected by the so called meat antagonism and by the willingness not to know. Therefore, the success of marking eggs cannot easily be transferred to meat markets.
- (3) Regarding egg production the whole farm product, the egg, can be marketed with a label indicating the respective husbandry system of the hens. Hence, the additional costs of higher FAW are born by the whole product. In contrast, meat is sold as cuts of the overall carcasses. Based on experiences with organic meat and branded meat experts assume that just the valuable cuts can achieve a price premium due to higher FAW standard. However, this implies that the higher production costs are born by only part of the carcasses resulting in higher price differences for those cuts compared to eggs.

⁷ There are no reliable data on the market share of different production systems in household consumption prior to 2004, so that the effect of labelling cannot be isolated. However, from 2004 to 2014 the market share of organic eggs in household consumption in Germany rose from about 3% to about 10%, the market share of free range eggs did not change considerably (ZMP, 2006, AMI, 2015)

There exists a controversial discussion about the chances of market differentiation in Germany. The advisory board interprets stated preferences and stated willingness to pay for animal friendly produced meat as market potential for respective products and the infant industry argument as one relevant obstacle for exploiting the existing potential (WB 2015). Retailers, however, assume that it is not possible to achieve a price premium sufficiently high for a profitable marketing of animal friendly meat. Moreover, a market differentiation strategy improves the conditions for just a (small) part of the overall animal population. Hence, the strategy does not adequately address the problems of the meat antagonism.

Higher national standards of FAW

While market differentiation due to obligatory labelling can improve husbandry conditions for part of the animals, higher legal standards aim at enhancing animal welfare for all farm animals in a country. However, such intervention is linked to a new dilemma as obligatory standards to enhance FAW needs to consider the interrelationship between national markets. Higher FAW standards have an impact on production costs and thereby on competitiveness. Divergent standards between countries may result in trade flows in favour of those countries with lower standards, thus harming producers in countries with stricter FAW regulations and limiting the potential positive effects for the welfare of farm animals (HARTMANN et al. 2014; NORWOOD and LUSK 2011).

According to the Sanitary and Phytosanitary (SPS) agreement of the World Trade Organisation (WTO) trade barriers due to higher process standards (higher FAW standards) are only justified in case of scientific evidence that the process standard is linked to a negative impact on human health (WTO 1995). As higher FAW standards are not linked to health issues, establishing trade barriers to balance the competitive disadvantage for producers in countries (e.g. Germany) with higher FAW standards is not permitted. Prohibition of trade barriers especially holds for trade within the EU. The concept of a single market contradicts to implementation of barriers that would impede trade flows.

Consumer or producer subsidies

In the current WTO negotiations it is discussed to classify subsidies for a higher level of FAW as green box measures as long as they just compensate additional costs (WTO 2003). Consumer subsidies to enhance the purchase of animal friendly produced meat are not explicitly discussed. According to the principle of "National Treatment on Internal Taxation and Regulation" as laid down in Article III of the GATT Agreement subsidies cannot be restricted to products from domestic producers. Consequently subsidies

would be accessible for producers from abroad and the effects of a program for improving animal welfare by consumer subsidies would also finance improvements of FAW in others than the domestic country. Hence governmental action to prevent or limit imports of lower standard meat products and/or to subsidy high animal welfare livestock products are restricted by international agreements or could easily become very costly (HARTMANN et al. 2014). However, given that WTO members agree on classifying producer subsidies for higher FAW standards as compatible with the WTO rules, governmental action can apply a target oriented instrument to improve FAW.

The German “Initiative Tierwohl”

So far WTO regulations with respect to minimal standards are focused on governmental actions. Thus, sourcing activities of members of the value chain do not fall in the domain of WTO. Having this in mind it is principally possible to increase FAW level by a coordinated buying behaviour of meat companies and retailers thereby overcoming the limits set by international trade rules.

In Germany the private “Initiative Tierwohl” aims at improving FAW and covers the meat value chain from the farm sector to the retailer level. The principles of the program can be characterized as follows (INITIATIVE TIERWOHL 2015):⁸

- Retailers pay into a fund depending on the amount of pork meat and pork meat products that they sell in their outlets.
- Implementing higher FAW standards at the farm level remains voluntary. However, those producers who put defined FAW measures into practice are rewarded by a payment that is dependent on the kind of FAW measure implemented while the payment is independent of the price for pigs at the farm level.
- Prices for pork at the consumer level are not differentiated according to the different animal welfare standards in the program and there is no product label indicating whether the specific product is produced considering higher FAW standards.

Based on the principles of “Initiative Tierwohl”, animal welfare is not treated as a private good as meat produced according to higher standards is not differentiated in the market. Thus, the approach takes into account the inconsistencies of consumers’ revealed preferences at the Point of Sale and their reflective preferences.

The initiative increases per unit costs of pork meat sourcing (0.04 € per kg) for all participating retailers and therefore the influence of the scheme on the competitive position of those involved is considered to be minor. It can be assumed that the costs of higher

⁸ The initiative for poultry is organised slightly different given the different market structure (see Initiative Tierwohl 2015).

FAW standards are shifted to consumers either by higher meat prices or by higher prices for other products that are sold in the retail store and used to cross subsidise the financing of the FAW fund.

While the approach “Initiative Tierwohl” is appealing at first sight, the discussion about its effectiveness reveals several problems:

- (1) The initiative has to solve the free rider problem. The German initiative currently encompasses the most relevant players of the German retail sector and covers about 85% of the turnover. Nevertheless, exports as well as meat sold in restaurants or the catering sector is not charged for financing the animal welfare fund. Reliable current data regarding the coverage of the overall meat market in Germany are not available. Experts state, however, that a considerable share of the market is not included into the initiative, yet.
- (2) It can be assumed that the costs of improving animal welfare are covered by the money of the funds. However, participation in the program is not in all cases linked to an improvement in animal welfare, as some farmers already had implemented higher FAW standards voluntarily so that windfall gains might occur and limit the overall effect of the initiative for improving husbandry conditions.
- (3) Finally, the present volume of the funds is far too small to improve the FAW situation in Germany substantially. The fund offers an amount of 255 million Euros for the period 2015 to 2017 (INITIATIVE TIERWOHL 2015). In contrast, the Scientific Advisory board calculates three to five billion Euros per year for improving the FAW situation in Germany to a level in line with consumers reflected preferences (WB 2015). The insufficient funding is also reflected in the fact that it has not been possible to include all farmers who registered for participation in the scheme. Against this background, the approach of the “Initiative Tierwohl” likely only is able to contribute just a little part to the overall efforts necessary for increasing the FAW level in Germany.

Conclusions

Modern farm animal husbandry has been increasingly a topic in public discussions and it no longer seems to match consumers’ expectations or societal needs. However, so far those expectations are not reflected in the market place.

Mandatory labelling of animal husbandry systems would increase market transparency and support product differentiation thereby potentially helping to narrow the attitude-

behaviour gap. Other forms of governmental intervention might be supported by the infant industry argument or the merit good argument but are limited due to WTO commitments.

A self-regulating strategy of the sector such as the Tierwohl Initiative is an example how to improve the FAW situation by market mechanisms. However, in its current form its impact on solving the consumer-citizen dilemma seems to be small. To improve animal welfare conditions a combination of actions are necessary with mandatory labelling and the Tierwohl Initiative being two of several. Such measures might range from self-regulating strategies such as voluntary commitments regarding the procurement of meat in the (publicly run) hospitality sector to efforts at the level of governments to negotiate in the framework of the WTO the right of countries for higher process levels in the case of FAW.

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