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Unfair trading practices in the dairy farm sector: Insights from an EU field survey

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Abstract:

This paper examines the incidence of unfair trading practices (UTPs) in the dairy food supply chain. Drawing insights from data collected through a field survey among dairy farmers in five selected EU regions (France, Germany, Poland and Spain) we seek to understand the presence of UTPs across different stages of contract formulation and execution. The survey data were collected in 2017 and gathered 1248 observations. We identify a total of 29 types of UTPs across all different phases of contract development. Results show that 93% of surveyed farmers have reported at least one UTP, whereas 46% of surveyed farmers have reported at least three UTPs. The highest share of UTPs was found in the contract content followed by contract negotiation and contract execution. Further, our results suggest that there is not a strong relationship between the occurrence of UTPs and contract completeness although it is heterogeneous between studied regions.

Acknowledgment:

JEL Codes: D22, L14

#2604



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This paper examines the incidence of unfair trading practices (UTPs) in the dairy food supply chain. Drawing insights from data collected through a field survey among dairy farmers in five selected EU regions (France, Germany, Poland and Spain) we seek to understand the presence of UTPs across different stages of contract formulation and execution. The survey data were collected in 2017 and gathered 1248 observations. We identify a total of 29 types of UTPs across all different phases of contract development. Results show that 93% of surveyed farmers have reported at least one UTP, whereas 46% of surveyed farmers have reported at least three UTPs. The highest share of UTPs was found in the contract content followed by contract negotiation and contract execution. Further, our results suggest that there is not a strong relationship between the occurrence of UTPs and contract completeness although it is heterogeneous between studied regions.

Key words: Unfair trading practices, food chain, dairy farmers, EU

1. Introduction

Market power in the food supply chain has been extensively analysed in the literature (i.e. see for a survey of studies in Perekhozhuk et al. 2016). In particular the relation between farmers and downstream industry (e.g. processing industry) has attracted vast research interest. However, most of these studies focus only on one dimension of the market power (i.e. price distortions) induced by monopolistic or oligopolistic organization of certain segments of the food chain. But, there are many other elements that firms with dominant position in the market can exploit to their advantage. The growth of vertically integrated markets in food chain - particularly between farmers and downstream industry - provides opportunity for other areas where a dominant firm can impose its influence.

The complexity of integrated markets between firms, which may emerge in food chain, makes distortions a multidimensional problem (e.g. Renda et al. 2014; European Commission 2014a). The distortions that may emerge between trading partners are termed in the policy literature as unfair trading practices (UTPs) (European Commission 2014a,b; Fałkowski et al. 2017).¹ The imbalance in the market power between trading parties is one of the principal cause of UTPs. Notwithstanding, there are other factors, such as imbalances in the bargaining power of the firms, switching costs of changing trading party, asymmetric information, incompleteness of contracts, asymmetric costs of contract enforcement (e.g. asymmetric costs in accessing justice), and perishability of goods and seasonality of production, which can generate UTPs. Each of these elements can lead to a different UTP, such as: unilateral changes in contract terms, late payments, ad-hoc changes to contractual terms or upfront payments as entry fees to negotiations (Gow, Streeter and Swinnen 2000; Renda et al. 2014; Fałkowski et al. 2017; Sexton 2017).

¹ The European commission defines UTPs as “practices that grossly deviate from good commercial conduct, are contrary to good faith and fair dealing and are unilaterally imposed by one trading partner on another” (European Commission 2014a).

Unfair trading practices came recently under intense policy scrutiny particularly in the European Union (EU). In 2013 the European Commission adopted the European Retail Action Plan and a Green Paper on unfair trading practices in the business-to-business food and non-food supply chain (European Commission, 2013a). The Green Paper makes an initial assessment of the problems posed by UTPs in business-to-business relationships along the food and non-food supply chain, including the implementation and enforcement of existing national rules and the resulting impact on the Single Market. In 2016, the European Parliament called on the Commission to act in the area of UTPs (European Parliament 2016). As a consequence in December 2016, the Council of Ministers invited the Commission to undertake, in a timely manner, an impact assessment and propose an EU legislative framework or other non-legislative measures to address UTPs (European Council 2016). The Commission Work Programme for 2017 stated that the Commission will consider further action as necessary to improve the position of farmers in the food supply chain, in light of the outcome of the ongoing work of the Agricultural Markets Task Force (AMTF) and the High Level Forum for a Better Functioning of the Food Supply Chain (HLF).

There is a growing body of scientific literature, which directly or indirectly deals with the concept of UTPs. The empirical literature that recognises (implicitly or explicitly) the multidimensionality aspect of UTPs is rather scarce (e.g. Copa-Cogeca 2013a,b; Basic 2015). On the other hand, there is relatively large empirical literature that deals with one or selected forms of UTPs. This includes, among others, studies on market distortions caused by market power (Digal and Ahmadi-Esfahani, 2002; MacDonald and Key 2012; Perekhozhuk et al. 2016), price transmission (Vavra and Goodwin 2005; Assefa, Kuiper and Meuwissen 2014; Goetz et al., 2008) contracting and vertical integration (Katchova, 2013; Assefa et al., 2014, Otsuka et al., 2016; Potts et. al., 2007). Often the objective of these studies is not necessarily UTPs. The same holds for theoretical literature although more theoretical studies are available analysing the potential causes and impacts of UTPs. This literature finds that UTPs may have various adverse impacts on the functioning EU food supply chains potentially affecting: income distribution among active agents, farms structural change, food quality and food availability and rural employment (Gow and Swinnen 2000; Renda et al. 2014; Fałkowski et al. 2017).

This paper attempts to shed some light on this topic by examining the incidence of UTPs in the dairy food supply chain. This study is particularly relevant as it considers various forms of UTPs occurring at farm level. The literature analysing the incidence of UTPs at farm level is less abundant as compared to the one covering other segments of the food chain, particularly consumers (Dries 2017; Fałkowski et al. 2017; Russo, Sorrentino and Menapace 2017). By accounting for different types of UTPs we evaluate the presence and size of UTPs in each stage of the contract development. Note that this paper focuses on UTPs reported by dairy farmers and it does not cover other segment of the dairy food chain. The analysis is based on a survey conducted among dairy farms in five selected EU regions located in four EU Member States (MSs) (i.e. France, Germany, Poland and Spain). The dairy farm survey (DFS) data were collected through face-to-face interviews in 2017 and in total it includes 1248 observations.

2. Review of empirical literature on the incidence of UTPs

In general there are few empirical studies available in the literature investigating the incidence of UTPs faced by farmers. This is particularly true for the literature that considers the multidimensionality aspect of UTPs. An attempt in this direction is the study by Basic (2015) analysing the UTPs in banana sector. This study considers various forms of UTPs rather than focusing on some restricted set of possible forms of UTPs. The study attempts to analyse both the occurrence and the impacts of UTPs. Similar attempt is the study of Copa-Cogeca

(2013a,b), which conducted a survey in the European agri-food sector to quantify the occurrence and impacts of UTPs in the EU food chain. Nevertheless, to our knowledge an overall assessment of the occurrence and quantification of the impacts of the different forms of UTPs is rare in most scientific studies on UTPs.

The empirical literature that deals with one or selected forms of UTPs is much widespread (e.g. Digal and Ahmadi-Esfahani, 2002; MacDonald and Key 2012; Perekhozhuk et al. 2016; Vavra and Goodwin 2005; Assefa, Kuiper and Meuwissen 2014; Goetz et al., 2008; Katchova, 2013; Assefa et al., 2014; Otsuka et al., 2016; Potts et al., 2007). This literature considers one or selected aspects of UTPs without providing a comprehensive analysis of all relevant elements of UTPs. Note that often the objective of these studies is not necessarily UTPs.

2.1. The findings on the incidence of UTPs at farm level

The study conducted by Basic (2015) analyses the incidence of UTPs between banana buyers in Europe and banana producers, exporting from developing countries, based on interviews of more than sixty actors from the banana industry in several Latin American countries. The study reveals the presence of several UTPs in the banana supply chains such as: (i) one-sided clauses in contracts, which stipulate that “the buyer can withdraw from the contract at any point in time if his margin is insufficient” (i.e. transfer of risks to exporters and producers); (ii) increased occurrence of last minute cancelation, rejection and/or quality claims during low-price (over-supplied) seasons (asymmetric risk sharing); and (iii) buffer suppliers, small producers are often used as buffer suppliers by large plantations. Results show that small producers are regularly charged extra costs by exporters and plantations for alleged ‘services’ (e.g. for the provision of banana boxes, transport, etc.), which can amount up to 40% of the price stipulated in the contracts. The study also reveals the presence of fear of reprisal among banana producers. The fear is about the termination of the commercial relationship in the case they raise a complaint against buyers.

Similarly the Copa-Cogeca (2013a,b) conducted a survey in the European agri-food sector to quantify the types and frequency of UTPs in the EU to evaluate the economic impacts of UTPs. The survey covered 434 professionals among 3 main target groups – farmers (214), agri-food cooperatives (165), others (e.g. processors) (55) – from 21 EU countries. The survey considered 17 different forms of UTPs that may occur in the food supply chain. Results show that the surveyed firms tend to be more exposed to UTPs in the current period as compared to the past 5 years. Almost every sampled firm (94% of all sampled firms) was affected by at least one UTP. Similar results are valid for farmers. The 5 most frequent UTPs include: (i) imposing a requirement to fund the cost on promotion (59% of respondents); (ii) imposing general terms and conditions that contain unfair clauses (56%) (iii) refusing or avoiding putting essential terms in writing (51%); (iv) threatening business disruption (or termination) to obtain an advantage (51%) and (v) imposing a requirement to fund a contracting party’s proprietary business activity (48%). Farmers reported that UTPs most often occur during the post-contractual phase (in 44% of sampled farms), followed by the pre-contractual phase (25%) and during the contractual negotiations (20%). The rest of surveyed farmers (21%) did not know or did not answer in which stage of contractual relation UTPs occur. Around 45% of farmers were at least occasionally exposed to all the 17 UTPs considered in the study.

Other empirical evidence comes from CIAA-AIM (2011). The study surveyed about 686 companies from processing and retail sectors in 15 MSs to analyse the incidences and impacts of UTPs. Results show that almost all surveyed companies (96%) were exposed to UTPs. The most common UTPs include (i) non-respect of contractual terms by some customers (84%), de-listing threats to obtain unjustified advantages (77%), and unilateral deduction on invoice

without sound business reasons (63%). Most of the surveyed firms (65%) did not take action when confronted with UTPs because of fear of costumer/commercial sanctions, while 50% of surveyed firms did not do it because they do not trust the effectiveness of the available public dispute resolution mechanism.

Davis and Reilly (2010) report results of the UK Competition Commission's survey carried out among 456 suppliers on UTPs exercised by retailers in past five years. According the survey results, between 37% and 48% surveyed suppliers experienced practices such as payment delays, excessive payments for customer complaints, additional services required and retrospective price adjustments.

There are other studies which analyse the presence of one or selected UTPs. The results of a survey conducted by the Spanish Competition Authority, looking at the relations between manufacturers and retailers in the food sector, show that 56% of the responding suppliers were frequently or occasionally subject to retroactive changes to contract terms (CNC, 2011). Similarly, a survey conducted by the Italian Competition Authority shows that 57% of producers often or always accepted retroactive unilateral changes in contract terms, because they are afraid of commercial retaliation in case of refusal of the changes (Italian Competition Authority 2013).

A common UTP reported in the literature is delayed payments. For example, Berdegú, (2001) reports 60 to 70 days delay in payments after the delivery practiced by supermarkets with respect to small farmers' economic associations from fresh fruit and vegetable sector in Chile. Gow and Swinnen (2000) report the average payment delay of 100 days by food processors to farms supplying raw materials in Slovakia in the early transmission period in 1994 and 1995. Survey results of Davis and Reilly (2010) indicate that 48% of suppliers surveyed experienced delays in payments by retailers in past five years.

3. Conceptual framework

The identification of UTPs is a challenging task. The very existence of contracts and other more centralised hybrid institutional mechanisms within the food chain (Ménard and Valceschini, 2005) reveals that the perfect market situation with its simple spot market situation is not an adequate way to interact. Furthermore, the configuration of contract package strongly depends on market structure (e.g. farm size, product type). One cannot easily derive an objective scale to measure the desirability (or non-desirability) of different contract package under different market circumstances. Some elements of the contract may seem unnecessary or irrelevant under certain market conditions (e.g. fixed price setting in stable markets), whereas they may be preferable in other market conditions (e.g. fixed price setting in volatile markets). It is possible that referring to the perfect market could lead to identify a practice as an UTP when it is not one but simply an alternative way to allow the transaction to occur ("the best available cost-minimising arrangement for the type of transactions they are intended to organise"- (Ménard and Valceschini, 2005)). This poses the problem how to objectively identify the UTPs related to different elements of contract package in empirical analysis.

Differently from price distortion caused by market power the identification of UTPs is not as straightforward. For example, the most common measure of market power used in the literature is the conjectural elasticity (i.e. the overall market reaction to an individual firm's change in output supply)² generalised by Lerner's index (Lerner 1934), which calculates the

² For example, Perekhozhuk et al. (2016) find the average market power (measured by conjectural elasticity) to be in the range between 0.07 and 0.18 across the 38 surveyed studies for agri-food and related industries. Note that a value equal to zero denotes perfect competition, whereas a value of 1 denotes pure monopoly.

relative share of mark-up of prices over marginal costs (Appelbaum 1982; Mei and Sun 2008).³ To use similar approach for measuring the impact of UTPs, one would need to use shadow prices of different elements of the contract package. However, this is not possible in reality given that the shadow prices are not observed and thus data cannot be collected. Moreover, they are determined by a heterogeneous set of parameters, which are difficult to identify and observed (i.e. by opportunity cost of capital for timing of the payments in the case of delayed payments).

An indirect approach would require using observable elements of the contract package (e.g. timing of payment, credit provision). Nevertheless, the identification of UTPs through an indirect approach could be subject to misinterpretation. For example, when considering the standard price distortion to measure the impact of market power, the identification is straightforward because the direction of price change is inversely related with market power (i.e. a higher output price in uncompetitive markets versus lower price in competitive markets). The same rational cannot be adopted in the case of UTPs unless the shadow price is observable. Moreover,

Thus, one way to approach the UTPs is to rely on some observed contracts terms and observed behavioural indicators by measuring the occurrence of certain behaviours of firms.⁴ For example, these indicators could include, among others, the firms' behaviour before contract signature (e.g. method of contract negotiation, imposed versus negotiated), one-sided closures in the contract that may induce unfavourable behaviour for a party in the commercial relationship, and ex-post contractual behaviour (e.g. unilateral renegotiations or breach of the contract terms), etc. Following this conceptual framework, we thus need to identify UTPs at different stages of the contractual relation, that is: (i) in the contract content, (ii) prior the contract signature, (iii) during the contract execution and (iv) after the contract finalization.

To measure the UTPs in contract content, first, we need to know (quantify) all relevant elements of the contract as well as the mechanism used to set them (i.e. whether they were negotiated, imposed, or they represent market standard). The implication of the above conceptual analysis is that distortions in contractual arrangement may arise not only when we observe various unilateral breaches by dominant players (e.g. processors) but also when contracts are complied with by all parties. The distortions might be reflected in unfair contract package observed in the market relative to what would occur in a perfect (fair) market situation. This type of distortion is however difficult to be measures because they cannot be easily captured through behavioural indicators but rather they have to be accounted indirectly.

Second, UTPs may occur during the contract execution. This may occur in situation when economic conditions change leading to the fact that the contract package that was originally optimal (and put in the contract) at the time of contract signature may cease to be optimal during the contract execution due to the changed economic conditions. For example, firms with market power may have incentive to alter the contract package to their advantage. Firms with larger market position will be more able to do so than firms operating in more competitive environment. Also, costly information, incomplete contracts, switching costs and asymmetric enforcement costs give the possibility to firms to inflict UTPs onto their commercial partners.

Third, it is possible to derive certain indicators from the behaviour of firms after the finalization of the contract that may indicate the existence or absence of UTPs. Such

³ In the perfect competition case, price equals marginal costs.

⁴ One way to think about UTPs is to assimilate it to latent variables, that is: random variables whose realized values are hidden. In this case the unobserved variables are inferred indirectly using a statistical model connecting the latent (unobserved) variables to observed variables.

indicators may include, among others, the incidence of renovation or cancelation of contractual relations, the frequency of changing processors by farmers, or wheatear the new contract package differ with respect to preceding one.

Table 1 summarises different UTPs in the contract content and at different stages of contractual relationship by five different factors that might cause UTPs: (i) imbalances in the bargaining power of the firms, (ii) switching costs, (iii) asymmetric information and incomplete contracts, (iv) asymmetric costs of contract enforcement and (v) perishability of goods and seasonality of production.

Table 1. UTPs in the contract content and at different stages of contractual relationship

Sources of UTPs	<u>IN</u> the contract content	<u>Prior</u> the contract signature	<u>During</u> the contract execution	<u>After</u> the contract finalization
Imbalances in the bargaining power	<ul style="list-style-type: none"> - Unequal (unfair) contract terms (e.g. unequal compensation/fines upon non-delivery, get-out clauses that favour one party, unequal cancelation terms) - Supply constraints imposed by processor onto farmers 	<ul style="list-style-type: none"> - Input/output price distortions - Supply constraints imposed by processor onto farmers - Availability of alternative trading partner - Negotiated versus non-negotiated (imposed) contract/trade terms - Unequal (unfair) contract terms (e.g. unequal compensation/fines upon non-delivery, get-out clauses that favour one party, unequal cancelation terms) 	<ul style="list-style-type: none"> - Unilateral versus negotiated retroactive change of contract/trade terms (e.g. price, quality requirements) - Input/output price distortions - Availability of alternative trading partner 	<ul style="list-style-type: none"> - Availability of alternative trading partner - Frequency of changing trading partner - Behaviour after the breach or unilateral termination of past contract (e.g. negative past contract experience likely results in change of trading partner in competitive markets <i>versus</i> renewal (renegotiation) of contractual relationship if no alternative trading partner available) - Terms of new contract relative to previous contract terms (e.g. everything else equal how the new contract terms compare to the previous contract terms)
Costly switching of trading partner	<ul style="list-style-type: none"> - Requirement to invest transaction-specific assets - (Non)provision of contractual terms for reducing risk associated with commercial dependence (e.g. provision of credit for investments and input purchases, long-versus short-term contract-duration, technical support) 	<ul style="list-style-type: none"> - Transaction-specific investments and commercial dependence on trading partner (e.g. technology, know-how) - (Non)provision of contractual terms for reducing risk associated with commercial dependence (e.g. provision of credit for investments and input purchases, long-versus short-term contract-duration, technical support) 	<ul style="list-style-type: none"> - Unilateral retroactive contract changes - Frequency and magnitude of contract breaches (e.g. delayed payments; refusal to accept contracted output) - The level of commercial dependence: sales to supplier on total sales 	<ul style="list-style-type: none"> - Persistence (frequency of renewal) of contractual relationship - Terms of renewed contract relative to previous contract terms (e.g. everything else equal how the new contract compares to the previous contract term in the event of unchanged trading party)
Asymmetric information and incomplete contracts	<ul style="list-style-type: none"> - Ambiguous contract terms - Oral contract - Adoption of third party dispute resolution mechanism (formal legal institutions, out-of-court settlement mechanism) 	<ul style="list-style-type: none"> - Use of false or misleading information - Ambiguous contract terms - Written versus oral contract - Ability to acquire information over all contract clauses (e.g. use of legal services, farm cooperative/association, lawyer at the time of contract negotiation) - Adoption of third party dispute resolution mechanism (formal legal institutions, out-of-court settlement mechanism) 	<ul style="list-style-type: none"> - Exploitation of the incompleteness of the contract by shifting commercial risks (e.g. quality deductions, price change, losses) - Imposing additional obligations due to ambiguous contract terms (e.g. additional fees; changed quality standards) - The use of threatening or abusive behaviour to obtain an economic advantage (e.g. lower costs or benefit) (e.g. threat to take action that legally cannot be taken) - The frequency use legal services (lawyer) or assistance from other sources (e.g. farm unions) for conflict resolutions - Non-respect or misuse of confidentiality of information for economic gains 	<ul style="list-style-type: none"> - Behaviour after the termination of the contract in terms of use of legal services or (lawyer) or assistance from other sources (e.g. farm unions) for new contract negotiation - Unresolved past contract disputes (e.g. overdue payments)

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Sources of UTPs	<u>IN</u> the contract content	<u>Prior</u> the contract signature	<u>During</u> the contract execution	<u>After</u> the contract finalization
Asymmetric costs of contract enforcement	<ul style="list-style-type: none"> - Adoption of informal (voluntary) third party dispute resolution mechanism (out-of-court settlement mechanism, arbitration, mediation, third party evaluators) - Adoption of voluntary Supply Chain Initiative (e.g. adopt voluntary principles of good practices) 	<ul style="list-style-type: none"> - Adoption of informal (voluntary) third party dispute resolution mechanism (out-of-court settlement mechanism, arbitration, mediation, third party evaluators) - Adoption of voluntary Supply Chain Initiative (e.g. adopt voluntary principles of good practices) - The frequency use legal services (lawyer) or assistance from other sources (e.g. farm unions) for contract negotiation 	<ul style="list-style-type: none"> - Unilateral contract breach/ termination (e.g. contract termination without a reasonable period of notice or mutual agreement) - The frequency use of justice procedure or voluntary system (out-of-court settlement) for conflict resolution and who initiated them - The frequency use legal services (lawyer) or assistance from other sources (e.g. farm unions) for conflict resolutions - The “fear factor” problem: firms may not take legal action in case of contractual breach for fear of termination of commercial relationship 	<ul style="list-style-type: none"> - Unresolved past contract disputes (e.g. overdue payments) either under legal dispute procedure or unchallenged in any dispute resolution system
Perishability of goods and seasonality of production	<ul style="list-style-type: none"> - Type of product 	<ul style="list-style-type: none"> - Type of product - Availability of alternative trading partner at local level 	<ul style="list-style-type: none"> - Availability of alternative trading partner at local level - Unilateral retroactive contract changes across different production seasons and who initiated them - The level of commercial dependence: sales to supplier on total sales 	<ul style="list-style-type: none"> - Frequency of changing trading partner - Behaviour after the breach or unilateral termination of past contract (change of trading party versus renewal (renegotiation) of contractual relationship)

Source: author elaboration

4. Survey design

The DFS is a cross-sectional survey that uses a stratified multi-stage sampling procedure with a random selection of the final sample units (i.e. dairy farms). The core sample is represented by farmers that manage a dairy farm in 2016/2017 and for at least two consecutive past years. The survey covered the five regions from 4 EU countries: Germany (Bayern), France (Normandie), Poland (Podlaskie), and Spain (Galicia and Asturias). The total number of surveyed farms was 1248 split as follows: 204 in Bayern, 204 in Normandie, 335 in Podlaskie, 405 in Galicia and 100 in Asturias. Data are collected through face-to-face interviews between April and August 2017 using computer assisted personal interviewing (CAPI).

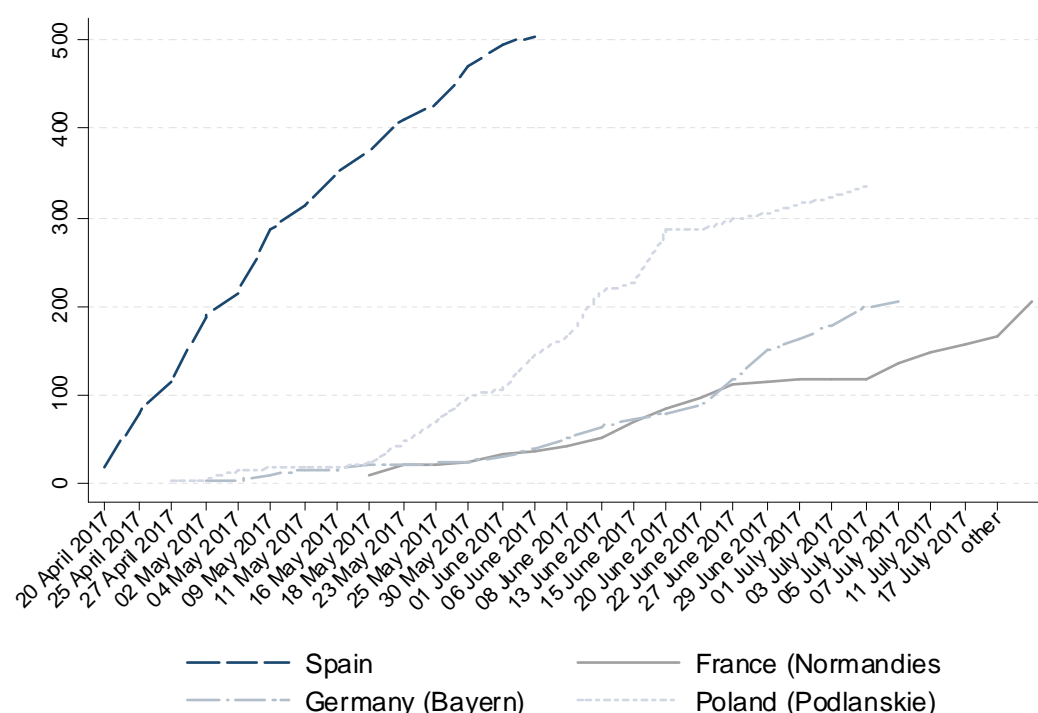
The countries covered in the survey were selected to reflect the importance of dairy production in EU and account for regional variation, as well as context and market structure across EU regions. For each country we have selected one NUTS2 region, except for Spain where two regions were selected. Regions were selected to reflect the most import dairy production region in the country. The sample was stratified by farms size (i.e. number of dairy cows per farm).⁵ We considered the number of dairy cows and the number of farmers to determine the sample size per strata (i.e. per farm size).

The data collection process was based on the following steps:

1. **Test of the questionnaire Pre-Piloting (Q-Test):** In this phase 30 interviews were conducted across the different regions as follows: 10 in Spain and 10 Poland, and 5 in France and Germany. The 30 dairy farms were selected such that to account for different farm sizes. The aim of the pre-Piloting was to evaluate the feasibility of conducting the interviews in local languages and to test the comprehensiveness and understanding of the questionnaire.
2. **Pilot phase:** in this phase we carried out 70 interviews carried out as follow: 30 in Spain, 20 in Poland and 10 in France and Germany. The aim of this second pilot testing was to evaluate whether questionnaire set-up (filters, question rotations, quality consistency controls, translations, etc.) were performed correctly according to the initial instructions.
3. **Main fieldwork.** The selection of the location considered for the sampling process differed according to the country. In Spain and Poland the location of dairy farmers (i.e. contact point) was obtained from the Agrarian Local Offices. In France and Germany the contact points were retrieved from the available statistical information. In order to ensure wide sample dispersion, a maximum of 10 interviews was set per contact point. The data collection was executed by a total of 39 interviewers: 2 in France, 9 in Germany, 6 in Poland and 19 in Spain, coordinated by 4 fieldwork directors and 4 supervisors (2 per country). The average length of the questionnaire was 78 minutes. The fieldwork lasted from 20 April until 1 August 2017. Figure 1 shows a graphical representation of the fieldwork progress by country.

⁵ Note that we have excluded farms with less than two dairy cows. The removal of these farmers has not affected significantly the sample given that more than 91% of dairy farms have more than 2 cows.

Figure 1. Fieldwork process



Source: author elaboration based on survey information

The questionnaire was developed to capture the following main elements of dairy production farmers:

1. Farm characteristics
2. Dairy production characteristics
3. Contract characteristics
4. Unfair Trading Practices in the contract and in each phase of the contract formulation, that is: before, during or after contract definition;

5. Results

Survey data show that there are different UTPs in the contract content and across all the different phases of contract development. In total, the surveyed dairy farmers reported 29 different UTPs. There were differences in results of total number of UTPs between those present in the contract and the ones emerging during negotiation, execution or finalization. We present results separately across different stages of contract development.

5.1. UTPs in the contract content

We identified six different UTPs in the contract content. These UTPs are listed in Table 2. **Error! Reference source not found.** which shows the share of dairy farms reporting these UTPs by regions. Overall, 87% of surveyed farmers have reported at least one UTP in their contract (e.g. one-sided clauses). The proportion of farmers with at least one UTPs was higher in Podlanskie (97%) as compared to other regions. Conversely, farmers in the two Spanish regions reported the lowest prevalence of UTPs in their contract: 88% in Galicia and 28% in Asturias. Of the different UTPs *no safeguard defined if the purchaser fails to fulfil the*

contract and *terms for contract cancellation not defined* are the most common. The incidence of the different UTPs is relatively consistent across the studied regions with the exception of *imposition of marketing/supply constrains* particularly significant for farmers in Normandie and *dairy specific investment required* which appears to be a relative common problem in Bayern than in other regions.

Table 2. UTPs in the contract content (% of respondents)

UTPs in the contract	Regions					Total
	Galicia (405)	Asturias (100)	Normandie (204)	Bayern (204)	Podlanskie (335)	
	%					
Purchaser can refuse or adjust milk delivery conditions	14.8	2.4	8.3	13.9	6.2	11.1
Imposition of marketing/supply constrains	4.6	0.0	38.1	7.3	1.3	8.5
Terms for contract cancellation not defined	70.9	21.4	59.9	51.6	60.0	57.2
No safeguard defined if the purchaser fails to fulfil the contract	81.2	22.1	79.9	84.5	92.0	85.1
Purchaser has better contract cancellation terms	8.4	0.0	13.0	1.0	8.8	5.5
Dairy specific investment required	7.6	1.6	16.3	42.0	11.6	25.4
At least one UTP	88.6	28.0	91.2	93.6	97.3	87.3

Source: author elaboration based on survey data

5.2. UTPs during the contract negotiation

During contract negotiation we identified eleven different types of UTPs. The incidence of “at least one UTPs” during contract negotiation affects about 25% of all surveyed farmers (Table 3). In Asturias, UTPs during the contract negotiation are not very common. On the other hand in Bayern about 35% of surveyed farmers face one or more UTPs while in Galicia, Normandie and Podlanski the ratio is less than 23% of the sampled population. In general the most common UTPs as reported by surveyed farmers are *timing of payment not negotiated* and by *terms for contract cancellation not negotiated*. However, the results vary strongly across regions. In Galicia and Podlanskie the most common UTPs during the contract negotiating phase is *unequal use of legal services/assistance provided not negotiated*. In Normandie *the duration of the contract not negotiated* and *timing of payment not negotiated* are the most important, while in Bayern *timing of payment not negotiated* and *terms for contract cancellation not negotiated* appears to be more the most revealed UTPs.

Table 3. UTPs during the contract negotiation process (contract elements not negotiated and imposed by the purchaser) (% of respondents)

	Regions					Total
	Galicia (405)	Asturias (100)	Normandie (204)	Bayern (204)	Podlanskie (335)	
UTPs during contract negotiation	%					
Duration of the contract not negotiated	5.3		10.7	5.9	1.5	5.0
Milk Price not negotiated	1.1		2.5	2.7	0.0	1.6
Timing of payment not negotiated	6.1	1.3	12.9	21.8	2.8	13.0
Penalization for contract non-fulfilment not negotiated	6.0	1.3	5.7	2.8	2.6	3.5
Purchaser refusal to adjust delivery conditions not negotiated	2.0		3.7	7.7	1.3	4.6
Obligation to invest in dairy production not negotiated	0.0		0.3		0.7	0.2
Imposition of marketing/supply constrains not negotiated	0.4		8.7	1.8	0.7	2.0
Protection of farmer if the purchaser fails to fulfil the contract not negotiated	3.8		0.3	5.9	1.3	3.6
Terms for contract cancellation not negotiated	4.1		5.7	20.3	7.6	12.7
Sanitary and veterinary services provided not negotiated	1.4		1.1	3.6	1.3	2.4
Unequal use of legal services/assistance provided not negotiated	13.9	5.7	9.3	4.5	11.4	8.3
At least one UTP	22.6	7.0	17.6	35.0	13.7	25.0

Source: author elaboration based on survey data

5.3. UTPs during the contract execution

To detect the presence of UTPs during the contract execution phase we look at different situations and judge whether the behaviour of one of the counterparts in the contractual relations could somehow negatively affect the other by initiating any actions that are in breach with contract terms. Although almost 80% of the farmers reported to have a very or rather good relation with their main purchasers, we have identified eleven different UTPs during the contract execution. However, the incidence of UTPs is relatively low.

As reported in Table 4, 4% of all surveyed farmers have reported at least one UTP during the contract execution. This figure is the largest in Galicia (8%) followed by Bayern (6%) and Normandie (2%). In Asturias and Podlanskie only less than 1% of farms have encountered at least one UTP.

Unilateral change of price by the purchaser appears to be one of the main problems either in Galicia and Bayern. On the other hand, in other case like Bayern, unilateral change in the required quality by purchaser occurs at a greater frequency than the unilateral price change though the share of farmers affected by this UTPa remains relatively low.

Table 4. UTPs during the contract execution (% of respondents)

UTPs during the contract execution	Regions					Total
	Galicia (405)	Asturias (100)	Normandie (204)	Bayern (204)	Podlanskie (335)	
	%					
Non-fulfilment of the contract terms	1.7		1.5	0.1		0.4
Dairy paid lower price than contracted	0.7					0.1
Dairy did not collect milk or refused to accept milk delivery	0.6		0.3			0.1
Dairy paid with delay			1.2			0.1
Dairy did not provide additional services as promised						
Dairy required milk quality or quantity different than agreed	0.6					0.1
Dairy imposed additional fees/deductions	1.0					0.1
The price was changed unilaterally	4.8	0.8		2.7	0.7	2.1
The required quality was changed unilaterally	1.4			5.0		2.5
The required quantity was changed unilaterally	1.8		0.3			0.3
Other terms of contract were not respected (e.g. credit, information provision, milk collection, sanitary/veterinary services)	0.0			1.8		0.8
At least one UTP	7.6	0.8	1.8	6.0	0.7	4.2

Source: author elaboration based on survey data

5.4. UTPs after the contract finalization

We observe very few cases of UTPs during the contract expiration. In this case we are referring to any unilateral decision related to contract termination or renegotiation of the expired contract at different conditions. Note that the majority of farmers (83%) had an active contract at the time when the interview took place which reduced the incidence of UTPs at this contract stage. In this case we identified only two UTPs: *contract was ended by the purchaser unilaterally before the expiration* and *the contract was terminated after expiration and no new contract was signed*. Overall, 1.6% of surveyed farmers have reported at least one UTP after the contract expiration (Table 5).

It is worth to note that contracts' change often implies a significant change of contractual terms. According to the survey results, after contract termination 54% of farmers signed a new contract with the same purchaser, 33% signed the contract with a new purchaser while 13% found themselves without a new contract. For those who had a new contract with the same purchaser only 21% experienced contract terms unchanged, while the rest undergone through several changes. Particularly 75% of farmers saw their milk price changed, 12% the required quality, 29% required quantity, 0.6% the required investment in dairy activities, and 0.02% other terms of contract (i.e. credit, milk collection etc.). On the contrary, farmers who changed the purchaser incurred in the following changes: 57% of farmers saw their milk price changed, 20% changed the required quality, 3.5% the required quantity, 7.7% the required investment in dairy production, and 0.1% other terms of contract (i.e. credit, milk collection etc.).

Generally, price and quantity change were mainly observed in new contract in the Galicia and Podlanskie, while the quality change was most common more in Podlanskie and Bayern.

Table 5. UTPs after the contract finalization (% of respondents)

	Regions					Total
	Galicia (405)	Asturias (100)	Normandie (204)	Bayern (204)	Podlanskie (335)	
UTPs after contract finalization						
	%					
Contract was ended by the purchaser unilaterally before expiration	1.7	0.0	1.5	0.1	0.0	0.4
Contract was terminated after expiration and no new contract was signed	0.7	0.0	0.0	0.0	0.0	0.1
At least one UTP	4.0	0.0	0.3	1.8	0.8	1.6

Source: author elaboration based on survey data

5.5. The relationship between UTPs and contract completeness

Despite the reported rates of prevalence of UTPs across the different phase of contract formulation we aimed at assessing whether there is a relationship between the number of elements set in the contract and the relevance of UTPs across farmers. To this purpose we construct two different indicators measuring: a) contract complexity; and b) incidence of UTPs. We compare the number of UTPs per farm out of the total 29 UTPs and contract completeness. The number UTPs per farm is a simple count of the different UTPs reported by farmers in the contract content and in all stages of contract development. The contract completeness measures the number of elements defined in the contract from the following list: (1) Contract duration longer than 6 months, (2) Written contract; (3) Milk price defined (or defined formula for price setting); (4) Milk quantity defined (i.e. fixed quantity, the range is fixed, or based on formula); (5) Premiums for higher milk quality provided; (6) Timing of payments is set; (7) Dispute resolution mechanism defined; (8) Milk quality testing defined; (9) Safeguard if the purchaser fails to fulfil contract terms defined and (10) Terms for contract cancellation defined.

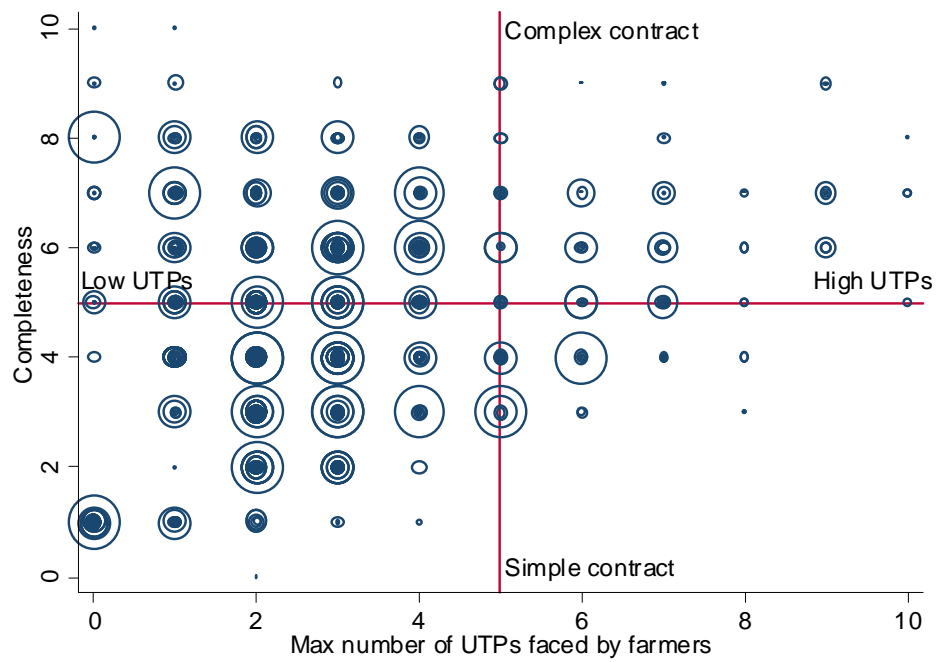
The relationship between the number of UTPs per farm and the contract completeness are plotted in Figure 2. As the figure shows the maximum number of UTPs per farm does not exceed ten (x -axes). The size of circles in Figure 2 indicates the frequency of the occurrence of a particular combination of the number of UTPs per farm and the contract completeness. For example, the frequency of farms facing 2 UTPs and having 4 different elements defined in the contract is greater than the frequency of farms facing 8 UTPs and having 4 different elements set in the contract.

For the full sample, there appears not to be a strong relationship between the occurrence of UTPs and contract completeness (Figure 2, a). on the contrary, there is relatively high heterogeneity between regions. For example, in Asturias we see that simple contracts, or contracts that leave out many elements, make room for higher frequency of UTPs. In contrast, in Bayern, Galicia and Podlanskie higher frequency of UTPs is observed both for less and more complete contacts. On the other hand, in Normandie the frequency of UTPs is low for all contract types; that is, the UTPs frequency is spread rather evenly across all contract types.

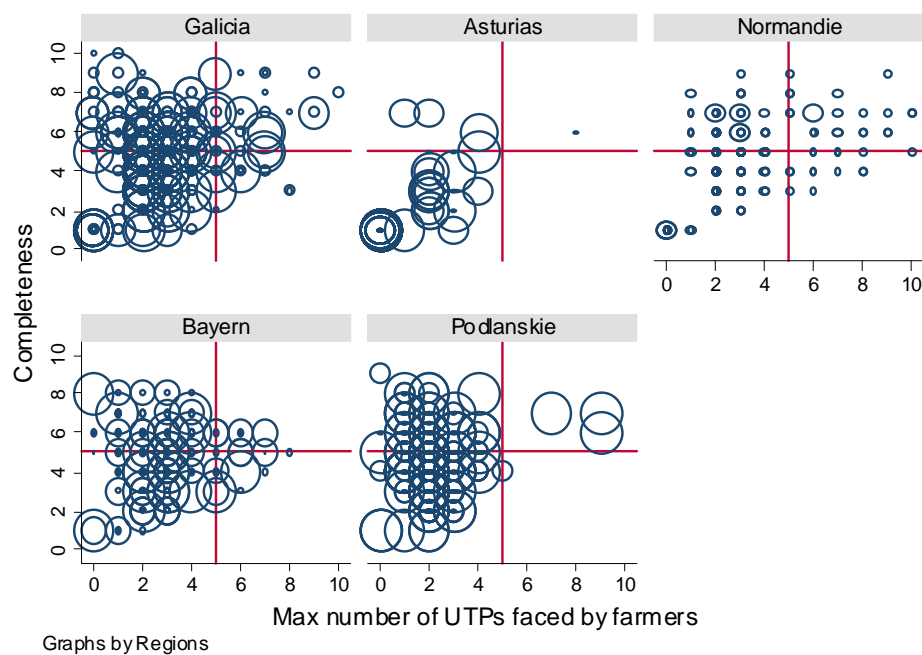
This information makes difficult to establish whether simple contract favourites UTPs as opposed to more complete contract. However, what it is observed (with exception of Asturias) is that UTPs may occur both with less and more complete contracts (Figure 2, b).

Figure 2. Relationship between the occurrence of UTPs and contract completeness

a) full sample



b) by region



Source: author elaboration based on survey data

6. Conclusions

The objective of this paper is to estimate the incidence of UTPs in dairy sector in EU. We based our analysis on a survey conducted in five EU regions in 2017: Germany (Bayern), France (Normandie), Poland (Podlaskie), and Spain (Galicia and Asturias). The survey allows us to examine the incidence of UTPs in the contract content and across all the different phases of contract development.

Our results show that the incidence of UTPs is quite significant. In total, the surveyed dairy farmers reported 29 different UTPs. Overall, 93% of surveyed farmers have reported at least one UTP, whereas 46% of surveyed farmers have reported at least three UTPs. These results are largely in line with the literature findings. Although there is limited literature in the field, the available studies also find high incidence of UTPs. For example, Copa-Cogeca (2013a,b) finds that around 94% of surveyed farms were affected by at least one UTP. Similarly, the CIAA-AIM (2011) study for processing and retail sectors shows that 96% of surveyed companies were exposed to UTPs. The highest share of UTPs was found in the contract content followed by the contract negotiation and during the execution phase. In the contract content, 87% of surveyed farmers reported at least one UTP, whereas during the contract negotiation and during the contract execution phase this figures lower to a 25% and 4%, respectively. The incidence of UTPs during the contract finalization is rather low. Furthermore, our results suggest that there is not a strong relationship between the incidence of UTPs and contract completeness although there is a relatively highly heterogeneity between the studied regions.

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