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Asymmetric price transmission and farmers' response in the Czech dairy chain

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Abstract: The standard economic price theory of working with efficient source allocation is being confronted with a series of empirical findings of asymmetric price responses. The objective of the research was to examine whether the distribution of prices within the dairy chain in the Czech Republic was fair and whether farmers progressed in a collective approach to strengthen their position in the supply chain. We used the pre-cointegration and cointegration approach to test for asymmetry in the transmission of farm milk prices throughout the supply chain. Furthermore, we measured the development of market concentration by means of the Herfindahl-Hirschman index and discussed the background of the figures with producer organisation representatives. The results proved there were asymmetric price transmissions. In response, farmers consolidated and concentrated their milk sales. The concentration should not yet be understood as a goal but as a means to the next steps.

Keywords: cooperation; market power; market structure; producer organisations; supply chain

Dairy farmers deal with specific features of milk production which make them sensitive to market disturbances. Their commodity is perishable, elasticity of farm milk supply is low (Hoehl 2020), farmers are usually not independent in milk collection (Polat et al. 2019) and still more factors weaken the dairy farmers' market positions. For farmers who do not actively participate in the sale of their products, in terms of either capital or organisation, the successful marketing of their production depends on downstream agents.

The standard economic price theory of working with efficient source allocation is being confronted with a series of empirical findings of asymmetric price responses. Peltzman (2000) showed a variety of markets with asymmetric price transmission (APT) and concluded that this phenomenon is more the rule than the exception. Meyer and von Cramon-Taubadel (2004) confirmed the great importance of the issue of APT, not only because of its challenge for the economic theory but also because it can have important implications for policy. Cox et al. (2001) and Bakucs et al. (2013) point out that understanding the underlying factors may help policymakers tackle the cause instead of treating a symptom.

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In the Czech Republic, dairy production takes place mainly on large farms. According to the national milking control data, approximately three-quarters of dairy cows are stabled in herds of more than 200 head, and almost one-third are more than 500 head. Of a national milk production of 3.1 billion L, only 0.6% is sold as farm-gate milk (MoA 2019). In marketing the dominant majority, at least two or three downstream agents are typically involved. The European Union (EU) Common Agricultural Policy (CAP) has long encouraged cooperation between farmers or between various actors in the food chain through different forms of aid. The CAP proposal for the period 2022+ (European Commission 2018) enables sectoral aid to dairy producer organisations (POs). That support should encourage farmers to improve their cooperation and strengthen their market power.

The objective of the research was to examine whether the distribution of prices within the dairy chain in the Czech Republic was fair and whether farmers progressed in a collective approach to strengthen their position in the supply chain. As shown in the literature search, price asymmetry was identified in numerous countries. In many articles, the authors pay attention to the analyses of causes. In this research, we examined the reaction of market operators (farmers).

In line with the research objectives mentioned, we also aimed to indicate whether the dairy POs have the potential to improve their position by using the new aid contained in the CAP draft. On the basis of the structure-conduct-performance (SCP) paradigm (Bain 1956), we followed the endogeneity of its process in line with Nelson and Winter (1982), considering that the structures are in constant evolution. Moreover, we reflected the finding of Neuberger (1997) and of Lipczynski et al. (2005) that there is a role for government or regulatory intervention to boost competition and to prevent market abuses. We combined the econometric approach with the qualitative exploration of market operators to capture and understand the structural process in its endogeneity. The research comes with an analysis of the market with prevailing large farms. The content may be inspirational, especially for researchers and policymakers focused on markets tending toward this type of structure. This is the case in numerous EU countries, where the average farm size has grown over recent decades (Jurkènaitè and Baležentis 2020).

Literature search. APT represents the undesirable situation of downstream prices reacting differently to upstream price changes, depending on the direction of changes in those prices (Peltzman 2000; Tapatta 2009). In the case of vertical price transmission, asymmetry is usually related to positive (rising price) and negative (decreasing price) changes. According to Vavra and Goodwin (2005), in the presence of APT, the distribution of welfare effects across levels and among agents will be shifted, depending on the character of the price transmission. From a policy viewpoint, this is an important issue, as the burden of adjustment on producers and consumers may depend on whether prices are rising or falling (Hassouneh et al. 2015).

Asymmetry can be classified according to the character of price movement (speed and/or magnitude, vertical or spatial price transmission). There are numerous studies on APT in the dairy sector for the EU and other countries. The researchers in the EU (COM 2009) analysed the price changes of different milk products in eight EU member states between the years 2007 and 2009. In Slovenia, the United Kingdom, Denmark and Lithuania, significant asymmetries were found. Serra and Goodwin (2003) found APT for the Spanish dairy market. Fernandez Amador et al. (2010) proved asymmetries for dairy markets in Austria. Reziti (2014) analysed price transmission on Greek milk markets and found that retailers have market power over producers. The investigators in most studies explain price asymmetry by the existence of inefficient market structures, market power, significant adjustment costs and declining share of raw milk in the final price of dairy products, as well as the perishable character of milk products, asymmetric market information and government interventions (Serra and Goodwin 2003; COM 2009).

For the Czech dairy market, Lechanova and Novak (2006) and Dudova and Becvarova (2015) proved market power on the level of processors and retailers by using multiple-equation approaches and calculations of price transmission elasticity in the Czech Republic. In these studies, the investigators used a pre-cointegration approach to APT analysis. Cechura and Sobrova (2008) used cointegration methods for the market of pork meat and Rumankova (2016) for the market of soft wheat (vector error correction model) to test for price asymmetries.

There are several indicators for measuring market structures: market share, Lerner index, Herfindahl-Hirschman index (HHI), concentration ratio and coefficient of variation (Mikhalkina et al. 2015). Blažková (2016), having applied concentration ratios and HHI, concluded that the market concentration in the dairy processing sector increased during the period from 2003 through 2014.

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There are studies focused on analysis of APT in the Czech dairy market. However, none of them deal with application of the cointegration approach to price asymmetry analysis. This article fills the gap in empirical analysis by application of the cointegration approach and testing for price asymmetry in the milk food chain, complemented by context analysis.

MATERIAL AND METHODS

We analysed the price transmission in three partial dairy product chains in the Czech Republic where the differences in farm-gate price (FP), processor factory-gate price (PP) and retail price (RP) changes were evaluated. Subsequently, we measured the development of market concentrations at different levels of the dairy chain and discussed the background of the figures with PO representatives.

Asymmetric price transmission (APT). Price transmission is asymmetric when the responses to price increases are different than the responses to price declines. Meyer and von Cramon-Taubadel (2004) state that methods for identifying APT can be divided into pre-cointegration and cointegration approaches.

Tweeten and Quance (1969) applied equations with dummy variables to estimate supply functions in agriculture [Equation (1)]. This equation belongs to the family of pre-cointegration approaches:

$$P_t^{out} = \alpha + \beta_1^+ D_t^+ P_t^{in} + \beta_1^- D_t^- P_t^{in} + \varepsilon_t \quad (1)$$

where: P^{out} – firm's output price; P^{in} – firm's input price; t – time variable; ε – error term; D_t^+, D_t^- – dummy variables with $D_t^+ = 1$ if $P_t^{in} \geq P_{t-1}^{in}$ and $D_t^+ = 0$ otherwise, $D_t^- = 1$ if $P_t^{in} \geq P_{t-1}^{in}$ and $D_t^- = 0$ otherwise.

These dummy variables divide input prices into variable with only increasing input prices and another variable with only decreasing input prices. Two input price parameter coefficients are estimated: β_1^+ for increasing input prices and β_1^- for decreasing input prices. When β_1^+ and β_1^- are significantly different from one another, symmetric price transmission is rejected. Significant difference of the coefficients can be evaluated by means of the *F*-test.

The following equation belongs to the so-called cointegration approach and includes the error correction term (ECT). In accordance with von Cramon-Taubadel and Loy (1996), we used the model where ECT and ΔP^{in} are divided into positive and negative components to provide more complex analysis:

$$\Delta P_t^{out} = \alpha + \sum_{j=1}^{K} \left(\beta_j^+ D^+ \Delta P_{t-j+1}^{in} \right) + \sum_{j=1}^{L} \left(\beta_j^- D^- \Delta P_{t-j+1}^{in} \right) + \phi^+ ECT_{t-1}^+ + \phi^- ECT_{t-1}^- + \gamma_t \quad (2)$$

where: *j, K, L* – lag lengths; *ECT* – error correction term is divided into positive and negative parts (i.e. positive and negative deviations from the long-term equilibrium: ECT^+ and ECT^-).

To test time series data, we used the augmented Dickey-Fuller (ADF) test for stationarity and the Johansen cointegration test.

Description of the milk price data. We deal with time series of monthly national average prices in food supply chains, i.e. the agricultural sector (farm-gate price; *FP*), the food industry (processors factory-gate price; *PP*) and the retail price (*RP*). We employ use the data of raw farm milk (*FP*), drinking milk, and butter and cheese prices (*PP*s and *RP*s for all) for the period from January 2006 to June 2019 for the Czech Republic. The product choice includes products with lower (king milk, butter) and higher (Edam cheese) value added. The figures come from the Czech Statistical Office (2020a).

Dairy chain structure. For the measurement of market concentration, we used the *HHI*:

$$HHI = \sum_{i=1}^{n} s_i^2 \quad (3)$$

where: *HHI* – Herfindahl-Hirschman index; s_i – market share of the i^{th} company; n – number of companies in the industry.

The index is close to zero when there is large number of relatively similar companies on the market, and reaches its maximum, 10 000 points, if the market is dominated by a single company. The $HHI < 1\,000$ indicates a non-concentrated market; $1\,000 \leq HHI < 2\,000$, concentrated market; and $2\,000 \leq HHI$, highly concentrated market.

The *HHI* was constructed for three years (2011, 2016, and 2019) and two chain levels. At the first level (raw milk production on farms), we considered the number of dairy farmers and their individual raw milk production delivered for processing. At the second level (raw milk sales), we used the number of operators selling raw milk for processing; these are: *i*) farmers selling milk directly to the processor and *ii*) marketing

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organisations (POs and other trade organisations) selling milk collected from several farmers. Additionally, the concentration of milk processing was indicatively calculated. However, these figures must be handled with caution because of market definition limitations (approximately 20% of milk is processed out of the country) and because of ownership overlaps and other limitations. In the part of *HHI* calculation, also other characteristics of the dairy chain structure are given.

The explanation of the concentration process is based on empirical experience we gained through long-standing communication with the PO representatives and farmers. This knowledge is supplemented by findings resulting from interviews with PO managers occurring between May 2019 and July 2020 focused on the potential to use proposed aid to POs within the CAP. For this purpose, we organised a meeting with the PO representatives during which the aid proposal was explained in detail. Then all the managers were encouraged to express whether support for POs, as proposed, was beneficial to them and how they would be able to use it.

RESULTS

The input data are visualised and described as follows:

– Farm prices are volatile: over the analysed period, agricultural commodity prices experienced three two- to three-year cycles with significant volatility. The difference between the maximum and the minimum prices was approximately 40%.
– Processor and retail prices of drinking milk were less volatile than were farm prices. Retail prices (*RP*s) had an increasing total trend, whereas processor prices had slightly decreasing trends (Figure 1).
– Processor and retail prices of butter, however, had a similar pattern of decreasing and increasing fluctuation. Nevertheless, the increase in *RP* was more pronounced in comparison with the processor price (Figure 2).
– Processor and retail prices of cheese had similar time series curve shapes. Nevertheless, the *RP* was increasing during the analysed period, while the processor price was decreasing (Figure 3).

The ADF test results show that stationarity conditions did not hold for all variables. However, variables were stationary in first differences [i.e. all variables are *I*(1)].

The results of the Johansen tests for cointegration show that farm and retail milk prices are cointegrated for the farm-processor price level of milk and processor-retail price level of butter. The lag length was determined by means of the Akaike information criterion.

Because there is evidence of a cointegration relationship between farm and processor prices of milk, and the processor and retail prices of butter and these variables are integrated on the same order, but no evi-

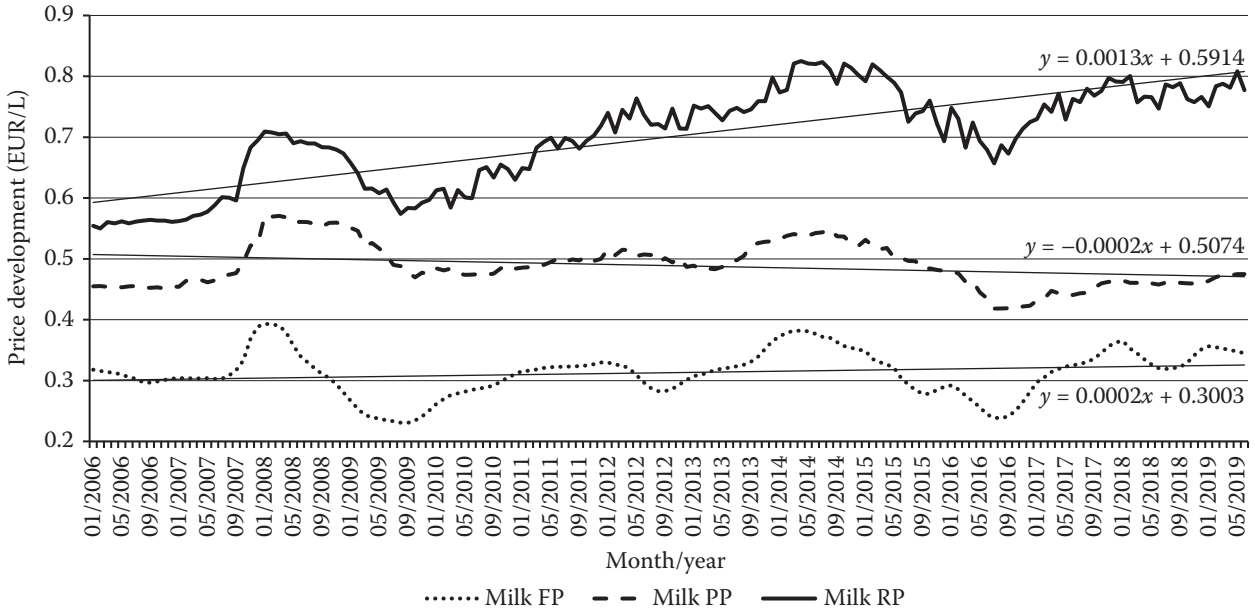

Figure 1. Price development of raw milk and drinking milk

FP – farm-gate price; PP – processors factory-gate price; RP – retail price; the exchange rate ranged from 24.3 CZK/1 EUR to 28.8 CZK/1 EUR over the period of 2006 to 2019; the prices were recalculated by the exchange rate 24.672 CZK/1 EUR
Source: Own processing based on data from Czech Statistical Office (2020a)

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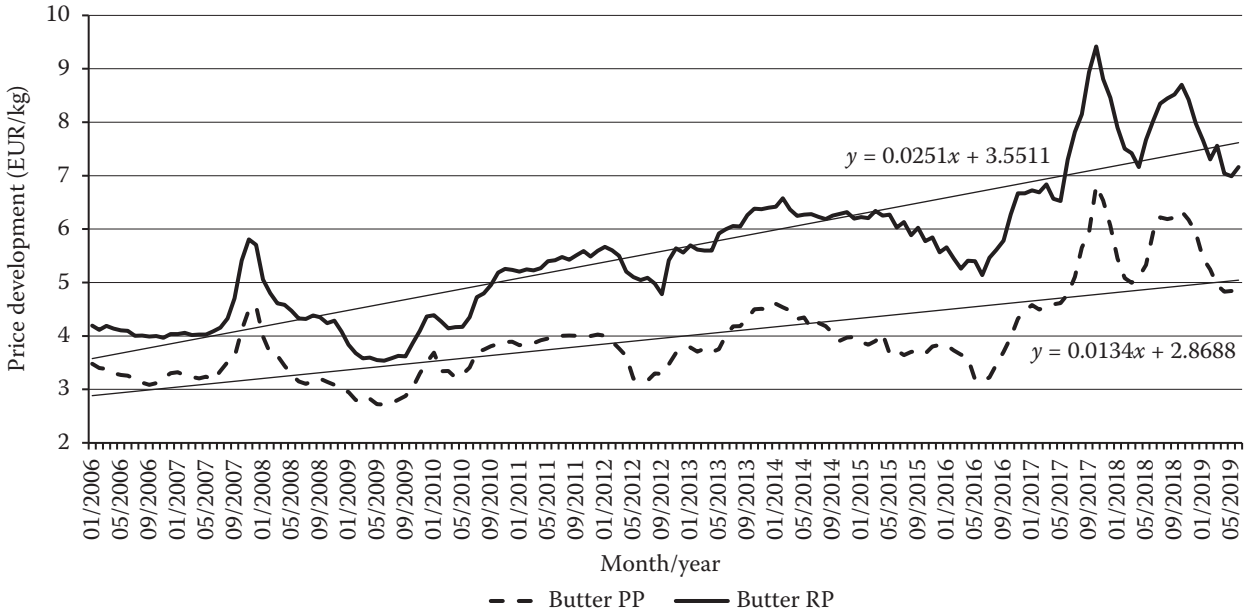

Figure 2. Price development of butter

PP – processors factory-gate price; RP – retail price; the exchange rate ranged from 24.3 CZK/1 EUR to 28.8 CZK/1 EUR over the period of 2006 to 2019; the prices were recalculated by the exchange rate 24.672 CZK/1 EUR
Source: Own processing based on data from the Czech Statistical Office (2020a)

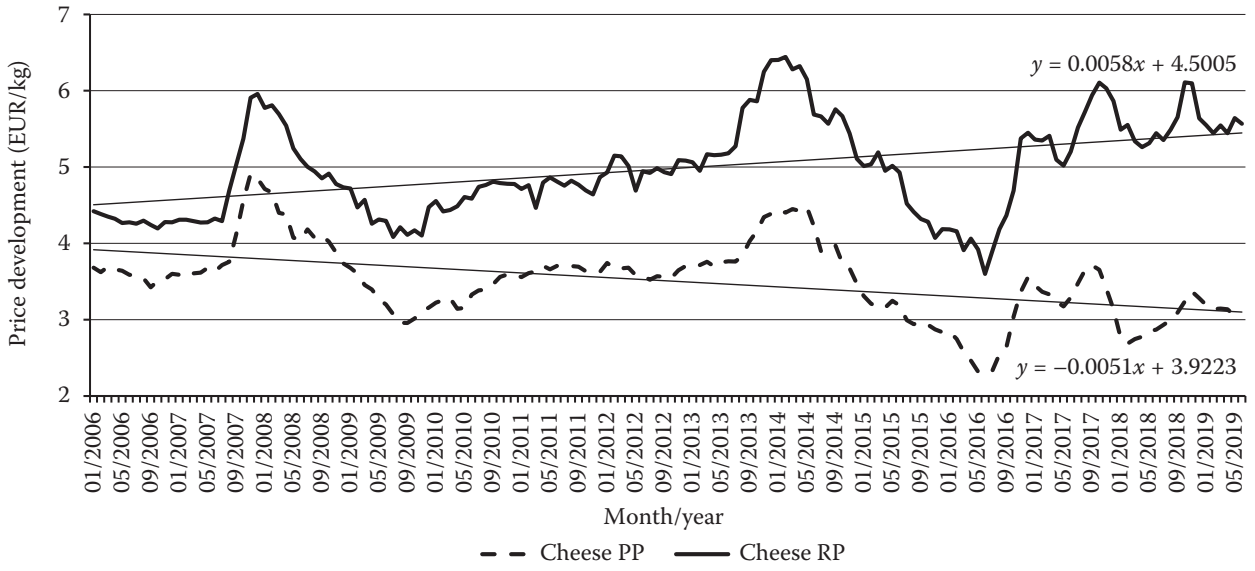

Figure 3. Price development of cheese

PP – processors factory-gate price; RP – retail price; the exchange rate ranged from 24.3 CZK/1 EUR to 28.8 CZK/1 EUR over the period of 2006 to 2019; the prices were recalculated by the exchange rate 24.672 CZK/1 EUR
Source: Own processing based on data from Czech Statistical Office (2020a)

dence was estimated of cointegration between processor and retail prices of milk and cheese, we used the Tweeten and Quance (TQ) (1969) model as well as an asymmetric error correction model.

The maximum lag length of four was proved for the processor-retailer level for drinking milk, while for products with higher value added the lag length was equal to two.

APT testing based on pre-cointegration analysis. The estimation results for the Tweeten and Quance (1969) model are shown in Table 1. The coefficients associated with farm price changes are significant for

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Table 1. Estimation results of asymmetric Tweeten and Quance (1969) model

Relation		Coefficient
Drinking milk		
Regression of processor price and farm price	positive change in farm price	0.000508***
	negative change in farm price	0.000578***
Regression of retail price and processor price	positive change in processor price	0.121369
	negative change in processor price	0.109569
Butter		
Regression of retail price and processor price	positive change in processor price	1.741854***
	negative change in processor price	1.714493***
Cheese		
Regression of retail price and processor price	positive change in processor price	0.918337***
	negative change in processor price	0.902789***

***The parameter is significant at 1% level of significance
Source: Own processing based on the Czech Statistical Office data (2020a)

all products, except for the processor-retailer level for drinking milk. In all cases, except for the farm-processor level for drinking milk, the parameters of the variables with positive changes are greater than the parameters of the variables with negative changes. Generally, we can conclude that the *RP* always responds more significantly when the farm price increases than when it declines.

The reaction of P_t^{out} to positive and negative changes in P_t^{in} was estimated for variables at time *t*. Estimations for lagged variables had no acceptable results.

APT testing based on cointegration analysis. Estimated parameters of the error correction model show long-run and short-run adjustment for most products (Table 2). The *ECT* explains the speed of price change toward equilibrium. When *ECT* parameters are negative and significant, a long-run causality running from P_t^{in} to P_t^{out} can be stated. In the case of a negative *ECT* change, its parameter is positive, and it suggests that the process of price adjustment is not converging in the long run.

The point estimates of the price adjustment for the farm-processor level suggest that in the short-term, as well as the long-term, the processor price of milk responds to positive change more notably than to negative change. At the processor-retailer level, there is no evidence of asymmetric behaviour on the basis of the *F*-test, as well as no evidence of a cointegration relationship between processor and retailer.

The estimated parameters for positive and negative price changes for butter are significant and display considerable differences between reaction to positive

Table 2. Estimation results of asymmetric vector error correction model (Lütkepohl and Krätzig 2004)

Relation		Coefficient (scale)	Relation	Coefficient (speed)
Raw/drinking milk				
Regression of processor price and farm price	positive change in farm price	0.000501***	positive ECT	–0.070389*
	negative change in farm price	0.000293*	negative ECT	–0.002133
Regression of retail price and processor price	positive change in processor price	0.417291	positive ECT	–0.172976***
	negative change in processor price	0.968594***	negative ECT	0.102595*
Butter				
Regression of retail price and processor price	positive change in processor price	1.274994***	positive ECT	–0.119561**
	negative change in processor price	0.419269***	negative ECT	0.038193
Cheese				
Regression of retail price and processor price	positive change in processor price	1.112644***	positive ECT	–0.068162
	negative change in processor price	0.635355***	negative ECT	–0.076124

*, **, ***The parameter is significant at 10, 5, and 1% level of significance, respectively; ECT – error correction term
Source: Own processing based on the Czech Statistical Office data (2020a)

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and negative shock. The estimated coefficients of *ECT* have negative signs only for positive *ECT*, and the parameter is significant at the 5% level and indicates quite a fast reaction of retailer price in the case of positive price change.

The reaction of the retailer price to a positive change in the processor price of cheese was proved to be more significant than the reaction to price decrease. The same result was displayed with the *ECT* estimation parameters, although not significantly. Hence, there is an indication of positive APT among the levels of the agri-food chain.

Summed up, the results of APT from farmers to processors show that the extent and speed of reaction to price change is greater in the case of price increase than in the case of price decline. With the farm price increasing trend, the processor price reacts faster and with greater impact, but if the farm price declines, the decrease of the processor price is milder and slower. At the processor-retailer level, a similar asymmetry is not significantly pronounced.

The development of the dairy chain structure between 2011 and 2019 is indicated in Table 3. The reduction in the number of farms (by 33.8%, row 5) led to almost double average volume of milk produced on the farm (row 10). Despite the milk production *HHI* (row 13) increase (by 22.7%), it remained marginal itself as well as compared with the milk sales *HHI*. The milk sales *HHI* grew by 67.6%, mainly owing to the concentration of POs and marketing organisations. The milk sales *HHI* came rather near to the indicatively calculated processing *HHI* values in the year 2019.

The farm concentration was mainly related to investments in new barns, accompanied by the move of dairy cows from several companies' locations to only one, and it is also an effect of the generational change, resulting in the merger of more companies under one management. The main drivers of the milk sales concentration were tight dairy farm economics and the growing gap between successful and unsuccessful POs.

In 2011, there were a number of POs, mostly small ones, functioning formally or for non-marketing reasons. Some of these POs considered as a main motive for their existence the small (rather marginal) advantage in the evaluation process of their members' applications for government subsidies of farm investments. Being a member of a PO provided additional evaluation points to the applicant (farmer). The POs founded for this purpose usually did not provide any marketing value added concerning milk sales to farmers. However, several POs with strong marketing strategies provided a number of benefits to their members. Some of these POs merged with less successful POs and, by tight farm economics, also encouraged non-member farmers to join. Moreover, they also became an example and competitor to other POs that had to improve their strategies and services to their members.

Table 3. Dairy chain structure in the Czech Republic

Row	Indicator	2011	2016	2019
1	**Milk volume**			
2	Raw milk production (thousand t)	2 570	2 960	3 034
3	Share of raw milk sold by marketing organisations (%)	66.7	68.8	79.9
4	**Number of market operators**			
5	Dairy farms (*n*)	2 224	1 792	1 473
6	Sellers of raw milk to processors (*n*)	1 223	773	514
7	– Of that farmers + marketing organisations (*n*)	1 184+ 39	746+ 27	487+ 27
8	Domestic processors (*n*)	45	44	42
9	**Average milk volume per one operator**			
10	Dairy farms (thousand t)	1.2	1.7	2.1
11	Sellers of raw milk to processors (thousand t)	2.1	3.8	5.9
12	**HHI**			
13	Dairy farms (points)	15.0	16.9	18.5
14	Raw milk sales from farmers and marketing organisations to processors (points)	410	521	687
15	Processor* (points)	904	821	828

*Indicative values (processors only considered on the Czech territory); HHI – Herfindahl-Hirschman index; *n* – number
Source: Own calculation based on the data of the Czech Statistical Office (2020b) (milk production) and the State Government Intervention Fond (2020) (farmers-, marketing organisations- and processors number and sales)

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As an effect, some of POs and trade organisations which did not provide added value in milk sales withdrew from the market (by merger or by failing), and some successful ones increased. The largest POs formulated accurate strategies, strengthened the trust of their members, gained more farmers and increased their volumes marketed. The milk crisis and the drop in the milk price in 2015 and 2016 speeded this process. According to the MoA (2011, 2019), in 2011 the three largest POs sold 773.4 million L of milk (30.1% of national deliveries), while in 2019 milk sales of the same top three increased to 1 238 million L (40.6% of national volume).

The current CAP proposal (European Commission 2018) that is coming has sectoral interventions, and POs are getting a tool with a wide portfolio of aid that can help them penetrate the value chain. Whether it is support of investments in tangible and non-tangible assets, boosting products' commercial value and quality, building their own marketing brands, identification of the production location and attracting consumers to exceptional quality related to environmentally friendly production or the building of alternative sales channels by using modern communication methods. The aid is conditioned by a compilation of the three- to five-year operational program of each PO, by the joint sharing of supported activities by the PO's members and by 50% co-finance of the aid received.

Altogether, 19 POs were addressed to express their intention to compile their own operational program and to use the tool. A positive answer was expressed by two POs selling 1.7% and 3.3% of the national milk production, respectively. The reactions of the remaining POs were embarrassing and uncertain. A large part of the objections was justified by the still unclear amount of aid and some other unclear conditions regarding financing. The objections also concerned sharing; farmers find it difficult to share material investments in animal production. Other reasons for hesitation were related to the fact that it is a new instrument in the dairy sector and POs have no history of good practice. On the other hand, only one PO expressed a clear disinterest.

DISCUSSION

The results indicate a high bond between *FP* and *PP* and a rather free relationship between *PP* and *RP*. It indicates that there is a certain price reflection between farmers and processors, while the commercial policies of retailers and processors are relatively independent. The interconnectedness of the *FP* and the *PP* reflects the practice. Both parties negotiate the *FP* every month. While in the 1990s the *FP* was always agreed for the following month, since the beginning of the millennium the price has been negotiated for the previous month retrospectively. The goal of such a practice is to consider the prices achieved by processors last month and to project them to the *FP*.

Most publications (Meyer and von Cramon-Taubadel 2004; Reziti 2014) explain the reason for the APT as non-competitive market structures. In agriculture, where farmers and consumers are on different sides of the market chain, the questions of market power due to imperfect competition at the processor and retailer levels can arise (McCorriston 2002; Lloyd et al. 2003). Very likely this will result in a positive APT.

Czech farmers responded to the high concentration of the downstream industry by a significant increase of milk sale concentrations and, in fact, they shifted the structure of the milk chain. As indicated in Boskova et al. (2020), several Czech POs gained a truly significant negotiating position; however, bargaining power remains a staple strategy for them, while their involvement in processing and product selling is far from that. Thus, as a result of the POs' consolidation, processors are squeezed by both sides.

If POs invest in processing, they would still be exposed to retail negotiations. However, involvement in the processing could not only bring direct contact in negotiations with retail but also the opportunity to join or to support the development of a well-designed distribution channel. This idea is in line with findings by Sezen (2008), who observed the shift of the competition from individual companies toward supply chains and the role of their design in their effectiveness. Nevertheless, according to van Donk et al. (2008), the specifics of the food industry cause a number of pitfalls in building the chain.

Our results are consistent with those of other studies on the markets of EU countries. Bakucs et al. (2013) provided a meta-analysis of the existing studies focused on APT and found an explanation for the presence of asymmetry. The authors concluded that APT on farm-retail levels often occurs in sectors with high fragmentation of market structure and that there is a significant role of governmental support and regulations. Fragmented farm structure is a feature of many countries, including the Czech Republic, where most farms are not joined into POs or have no opportunity for their own processing capacity. Cechura et al. (2015) compared the market power of milk processors across 24 EU countries. Although they found the market power not to be high, on average, approximately 10%

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of producers achieve significant mark-ups, and substantial differences between countries exist. The Czech Republic does not belong to those groups with either extreme high or low mark-ups, but during the period from 2003 to 2012, the relative mark-ups increased in the country as well as in ten other countries.

CONCLUSION

The results help confirm that the link between *FP* and *PP* exists; however, the relationship is not balanced because processors have the upper hand. The *PP* and *RP* levels are not tightly bound. Of course, *RP* contains additional retail costs, but retail pricing is likely to be subject to trade policies and reflect a dominant position of retail vis-à-vis processors. In general, the results show the predominance of the downstream operators over the upstream ones.

Our results contribute to the basis and knowledge about market structure. Policymakers should be aware of the presence of market power and the effects it can have on the sector. Market power can be especially harmful for perishable agricultural products. Farmers do not have enough time and bargaining power to find more suitable sales channels and markets for their production. APTs have been proved in the Czech dairy chain. In response, farmers consolidated themselves and concentrated their milk sales. The concentration should not yet be understood as a goal but as a means to the next steps.

There are successful POs which have gone through a phase of bargaining strategies. Now they need to move ahead. What could the stimulus be? According to Biely et al. (2019), market power problems do not have to be caused by the reluctance of economic agents but can be caused by factors that support the tendency of a market structure prone to market power problems. These problems can be about product characteristics or the need for economies of scale. Overcoming them is a long-distance run. Czech farmers showed the potential to cooperate. One of the motivations to deepen their cooperation might be a new CAP sectoral aid. Its final shape should be carefully considered so that it may become a partnership facilitator for an industry that has low supply elasticity, high price volatility, a perishable product and other specifics. Another impetus could be a leader who shows an example of good practice.

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