Foreign Direct Investments and Vertical Coordination
The case of ”Swedmilk Macedonia”

Paper presented at the fourth international conference on ECONOMICS AND MANAGEMENT OF NETWORKS, to be held at the School of Economics and Business, University of Sarajevo, Bosnia and Herzegovina, from September 3 to 4, 2009.

Emelj Tuna, PhD student
Department of Economics, Swedish University of Agricultural Sciences
P.O. Box 7013, SE-750 07 Uppsala, Sweden
Phone: +46 18 67 17 15
E-mail: Emelj.Tuna@ekon.slu.se

Abstract

In the Former Yugoslav Republic of Macedonia the dairy sector has been traditionally seen as the one of most developed Agricultural sectors in the country. It has also been a sector characterized by high risks and uncertainties in all the segments of the dairy chain.

The most recent turbulences in the dairy sector resulted from the collapse of the “Swedmilk Macedonia” dairy. This modern processing plant was aiming to become the leading producer of quality milk, and rebuild the confidence in the most sensitive part of the dairy sector - the relations between the dairy farmers and the dairy processors. The project was supported by both the Swedish and FYROM’s Government. Contrary to the ambitious plans and expectations, the dairy became a confirmation of the critical situation of the dairy sector in the country.

This paper describes the affect of Foreign Direct Investments on the industrialization and the vertical coordination of the dairy chain. The case of the “Swedmilk Macedonia” dairy and its development from its foundation until its bankruptcy investigates the governance structure, the contractual design with producers, the organization of the firm using transaction cost economics in understanding the reasons behind the failure of such a large investment.

Key words: dairy sector, Swedmilk Macedonia, foreign direct investments, vertical coordination, governance structure, transaction cost economics.

Outline of the Paper

1. Introduction

This study is part of a PhD research that analyzes the market and governance structure in FYROM's dairy chain. Using transaction cost economics theory, it aims to explain how the industrialization of the sector affects all the processes in the vertical chain. It is expected that this approach provides a better understanding for the reasons of failure and/or success in complex institutional environments.

Attracting FDI has been the most aggressively promoted campaign in the country for several years. These investments have crucial importance in many segments of the economy and many examples prove their impact in the processing and retailing of the diary sector in the Eastern European countries. FDI can introduce new capital, technology, knowledge and alternatively can lead to opening of international markets and higher standards. These should additionally strengthen the contracting and VC in the dairy chain (Swinnen at al, 2006).

Most of the exiting literature dealing with the impact of the industrialization of the dairy industry begins with the assumption: that investment in all segments of the dairy chain lead to closer VC (Swinnen at al, 2006; Dries, Swinnen, 2004). The existence of transaction costs, the need for investments, lack of competent managerial capacity etc, are only few of the reasons supporting this assumption. Different examples in different countries (Swinnen at al, 2006; Dries, Swinnen, 2004) show that TC and investments are of great consideration for the processing companies, because of their preferences to collaborate with few larger, sophisticated and modern farms. The research done in some countries in transition (the research by Dries and Swinnen in 2004, done in the Polish dairy sector) indicate quite the opposite and confirm that instead of disappearing, small farms can survive the industrialization and actually benefit from it.

This article aims to contribute to the growing literature on the impact of industrialization and the effect of FDI in this process, which is especially interesting in poorer countries and countries in transition (Dries, Swinnen, 2004). It also hopes to contribute to the general literature on TCE.

> *"Agricultural transactions provide a rich and largely unexplored area for application and refinement of TC theory……Research on the organization of agricultural transactions will serve to advance TC theory as well inform agricultural economics about an important input into agricultural production and distribution*
>
> *(Masten, 2000)*

2. The Dairy industry in the FYR of Macedonia

Since the break up of the Yugoslavian Federation, FYROM has been struggling to define its role in the global market place. After its independence in 1991, the country's economy entered a long transition followed by important economic and structural institutional changes. Characterized as a small economy in transition, it has gone through three major processes: from transition to market economy; macro-economic stabilisation and structural adjustment, to maintaining macro-economic stability of the country (ARDP, 2007). The situation was additionally burdened by the loose of markets and the political instability since 1991 in many forms, culminating with the regional conflicts and the inter-ethnic conflicts in 2001.

All these factors inevitably lead to constant low incomes and low standard of living, increasing poverty, and high unemployment rate (at 37.3 % of the workforce in 2005), lowering growth rate, external trade imbalance and a low foreign direct investment rate (ARDP, 2007). Although the economy was faced with challenges and difficulties in its transition, it stated firm goals in opening towards the global processes leading to trade liberalization, and in attracting foreign investments as a measure for economic growth and reduction of poverty and unemployment (Voors at al, 2007; ARDP, 2007).

> Agriculture is generally known as a sector filed with risk and uncertainties, facing farmers with great deal of difficulties. In transition countries, this is additionally burdened with economy recessions, public institutions inefficiencies, underdeveloped market institutions, creating problems for proper coordination of the market transactions
>
> (Ferto, Szabo, 2002)

Agriculture, being one of the key sectors in the economy, has experienced great reforms. In almost all of the research on the agricultural sector in FYROM it is stated that the stages of production and processing in the previous regime were vertically integrated into large state-owned firms (agro-kombinats) which ceased to exist after the collapse of the YF (in 1991). So, from a situation in which contract enforcement was automatically ensured and small probability of contract hold-ups existed, the institutional changes led to privatisation of the socially owned enterprises and breaking of the vertically integrated chains into many privately owned enterprises (Hamish G, Swinnen J., 2001).

The Dairy industry in the FYR of Macedonia

The Yugoslav Federation along with Poland were the main examples among the former communist European countries with mixed institutional structure in agriculture, a characteristic differentiating it from the typical collectivization under the Communist regime. This meant that both private farming coexisted with a certain number of commercially oriented, specialized farms whose number was constantly declining over the years (Dries, Swinen; 2004).

As a result, the collapse and restructuring of the Agro-Kombinats did not have a significant impact on the owner structure in the dairy farming, since animal production has always been dominated by a large number of individual farm producers whose production was mainly aimed for their own consumption. The processing capacities on the other hand was concentrated in state monopolies, owned by the state and situated in each major city, which was a characteristic for the countries in the communist regime (Dries at al., 2009).

Animal production in the small, individual farms was characterized by low degree of modernization and low standards in hygiene terms. The analysis of the sector has shown constant decrease in the number of animal stock (ARDP, 2007), which is additionally enhanced by the recent turbulences in the dairy sector. The dairy sector has always been seen as a sector with high uncertainties in all the segments of the supply chain.

The Dairy sector in R. Macedonia is consisted of many farmers that keep breeds for both milk and meat production, but there are also farmers who specialize in high productive milking cows. This specialization means investments in modern production equipment and facilities that comply with the quality and safety standards. These dairy farmers invest in milking equipment, improved housing, milk storage equipment, fodder preparation, breeds and breeding, etc. About 75% of the farms keep cattle for mixed purposes, while the other farms are specialized in cow milk production. "With the exception of 30 state farms in various stages of transition, which may accommodate some 36,000 dairy cows, 90 % of the cattle are owned by private farms with of one to three cows (table 1) (Country report, 2006; ARPD, 2007).

Table 1: Number of cattle per farm/Cattle farm size Number of farms

Number of cattle per farm/Cattle farm size	**Number of farms**
1-9	41,241
10-19	2,757
20-49	992
50-99	168
100-499	52
500	7

Source: (Country report, 2006, MAFWE Veterinary Directorate, Animal ID Unit)

The classification of cattle in FYROM is not available in the format used in studies done for the dairy sector in other EU countries. This has made the comparison quite difficult, and Table 2. is given in order to make at least some kind of clarification of the situation in the dairy sector, compared to some neighboring countries as well as countries in transition, e.g. former communist countries, which are either EU members or are EU candidate countries like FYROM. Anyhow, it is quite clear that most of the countries presented in table 2, also deal with high fragmentation of the dairy herd and cattle farm size with less than 5 cows.

Table 2. Farm size structure in other countries from the previous communist regime.

Country	Number of farms (with dairy cattle)	Dairy herd (000 heads)	Cattle farm size < 5 cows	Cattle farm size With 5-19 cows	Cattle farm size ≥ 20 cows	Average heads/farm
Bulgaria	122,711	336	91.5	6.8	1.7	2.7
Poland	656,300	2,787	1.4 (<30)	10.2 (10-30)	88.4 (<10)	4.2
Romania	1,100,000	1,700	98.7	0.7 (5-10)	0.6 (<10)	1.6
Slovenia	19,200	124	23 (≤10)	10 (11-50)	6.5	6.5
Albania	270,930	396	99	1 (>5)	/	1.5
Bosnia & Herzegovina	25,057	58	94	5.5 (5-10)	0.5 (>10)	2.3
Serbia	221,625	602	90 (1-2)	9 (3-10)	1 (>10)	2.7
Croatia			85	13 (5-10)	2 (>10)	3.1
FYROM	51,250	164	/	/	/	3.2

Source: APSDCA, 2009.

Small scale dairy farming causes increase in the cost of collecting milk and cooling equipment (lacto-freezers). The collection of milk is organized in different ways, varying from: the dairies collecting the milk from the "larger farms" (200-500 liters and more), dairies having milk collection centers with milk cooling tanks (lacto-freezers), and individual farmers delivering the milk to the dairies directly (AASP 2005/2006). There are also raw milk traders that collect milk themselves. This situation creates investment problems for the investors in the dairy sector in terms of upgrading milk quality and also because of the high transaction costs of milk collection (Dries, Swinnen, 2004).

The milk production and consumption in the country, as it was the case with the Central and East European countries has been largely subsidized under the previous regime. This situation caused decline of milk quantities in the CEE's first years of the transition, due to what Dries at all (2009) refers to as price liberalization and privatization of the companies (Agro-Kombinats). However, FYROM's situation show constant increasing trend in the production of milk, from 1991 till 2007. But, these yields are still below the average yield of a high quality milk cow breed of 5 liters, which is only reached on the larger farms (Agricultural companies and Cooperatives) (Table. 3).

Table 3. Numbers of milking cow and production of milk in RM

	2001	2002	2003	2004	2005	2006	2007
Number of dairy cattle	95,851	94,762	89,501	90,135	/	/	/
Total production, 000 litres	200,904	198,431	191,533	212,898	194,464	234,708	373,706
Milk yield per cow, litres	2,096	2,094	2,140	2,362	2,245	2,497	2,880
Production in agricultural enterprises, 000 litres	21,434	20,713	19,314	19,301	19,060	18,121	19,717
Milk yield per cow in agricultural enterprises, litres	4,622	4,833	4,960	4,627	4,964	4,798	5,113

Source: SSO, Yearbook, 2007.

The infrastructure in terms of roads is mainly well developed, but the production units are widely dispersed (AASP 2005/2006).Milking cows are dispersedly kept in every part of the country except in the very high regions, and the reasons for this are justified by the high costs for milk collection in these regions.

In the previous regime, dairy processing was a state monopoly. But FYROM differentiates form the experience in other countries in transition where ensuring sufficient quantity of milk supplies was below the processing capacities (Swinnen at al, 2006). Namely, the country is producing more milk than it has the capacity to process, despite the large number of processing capacities (Investors guide, 2007). The veterinary inspection has officially registered 71 dairies with operating capacities of 200 to 0.2 tones per day. The milk processing facilities are dispersed all over the country (see map below) and characterized as small or medium, with 50% usage of the installed processing capacities.

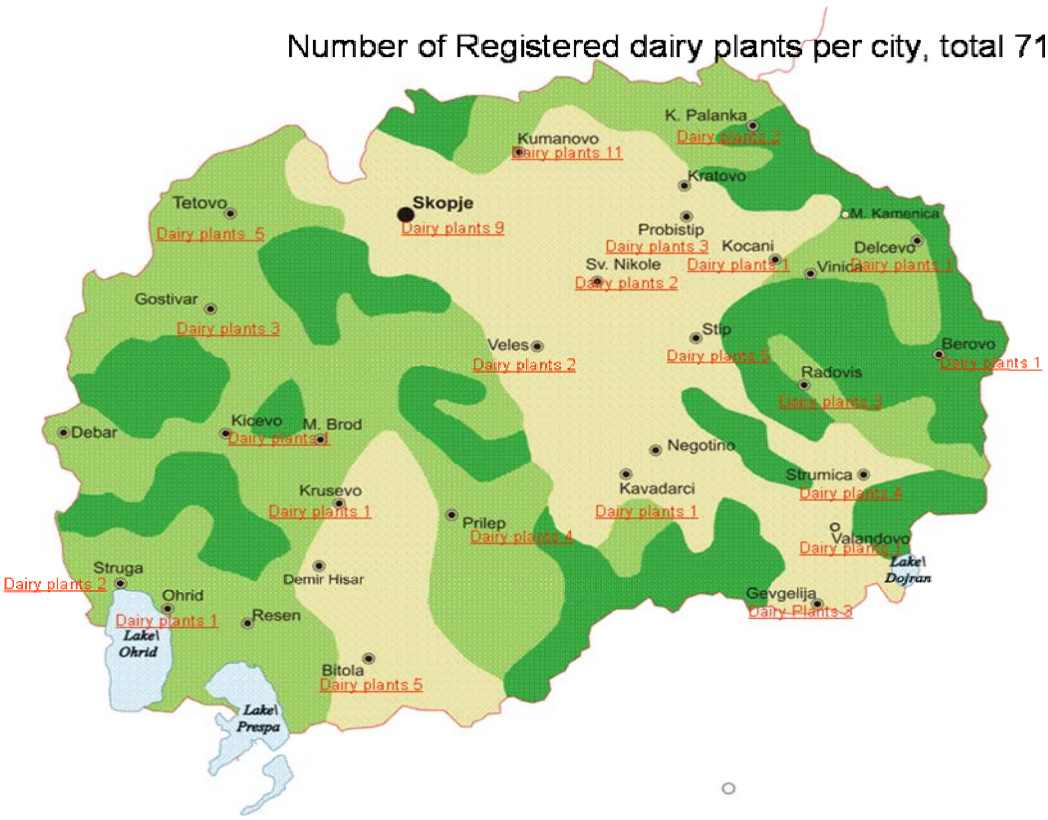

Figure 1. Map of FYROM and registered dairy plants (2007)
Source: Analysis of the sector and major products: meat, milk and their products, 2007

The large dairies are running depending on the availability of raw milk almost 80-100% of their capacity, which is characterized as acceptable and satisfactory (Country report, December 2006). The processing capacities differentiate from modern facilities to small, simple facilities for milk processing. Domestic production is covering 76% of the market demands for dairy products, while the rest is covered by imports. The largest two dairies

(period before "Swedmilk Macedonia"), amount for 39.4% of the total market share, with the local brand IMB – Bitola covering 74.7% of country's needs (51.9% of country's needs of UHT milk, depending on fat content and packing size). Six of the domestic dairies export in the neighbouring countries, but only one of these dairies is meeting the food safety standards in the processing industry and is "certified" for EU export.
The traditional products of the dairies are UHT/milk, different local cheese, yoghurt and sour milk. Other product like fruit that require higher hygienic standards of raw milk, are almost completely provided by foreign diaries mostly from Slovenia and Croatia. The large dairies like Nestle, Danone and Meggle do not have their own structures, and are mainly present in the country through international wholesaler trading companies.
The Agriculture and Rural Development Programme from 2007 concludes that to this moment, there were not many dairies in the country that can fulfil the EU requirements. In their opinion, at least 50% of the dairies will not be able to upgrade the process, facilities and management to reach EU accreditation (ARDP, 2007).

The relations between the dairies and the farmers are mainly regulated by contracts, evaluating milk on quality basis. The ARDP (2007) qualifies the problems of the sector as basic concerning the raw milk quality, problems with production management competence, problems because of the absence of HACCP standards, and the disability for meeting international hygiene standards. Moreover, the variations in raw milk quality causes further problems in the supply chain affecting milk shelf life, and causing inconsistence in product's quality and taste. So, the need of additional investments in on-farm machinery like milking and cooling equipment, and in animal welfare standards are believed to have a positive effects on the entire dairy sector. High prices of inputs and especially the expensive animal feed is also causing problems in the raw milk production. Milk producers are additionally constrained in developing their production by rigid rules for access to credit lines, high levels of interest rate accompanied by short period for credit repayment. The lack of sufficient capital inflow is influenced by many factors, but the main one is the unregulated land ownership and legal structure of land heritage (AASP 2006).

The judicial and executive governance in the country are identified as week, unclear, and rarely implemented (Country report 2006). Contract enforcement is often costly and inconsistent. This problem experienced by most of the countries in transition is manifested by payment delays or non-payments for delivered products to the dairies, causing problems in the essential cash flow for the farmers (Swinnen at all, 2006). FYROM farmers often face opportunistic behavior like hold-ups by the dairies in order to lower the price for raw milk and often by payment delays (sometimes more than two or three months). Furthermore, farmers do not feel that they rely on the dairies' own measures for milk quality, since the large dairies sometimes misinterpret the measures in their favor (AASP 2006). On the other hand, the biggest problem often embraced by the dairies is the problem of opportunistic behavior by farmers, in terms of inconsistent milk quality and adding water to the milk. All these factors give rise to higher cost due to high risk, lower efficiency and product quality as well as conduct mistrust between the partners in the farmer-dairy segment of the dairy chain. Quite often farmer's revolt is manifested by farmers blocking the performance of the dairy processing facilities, not delivering milk to the milk processors, and instead pouring it in the streets (most recent case: august 2008). The producers are not organized in cooperatives or in any other form of production organization and are seldom informed about market issues.

ARDP (2007) also describes the relations between the dairy factories and the wholesalers or retailers as “often week”. This was explained as a logistic problem, occurring because of delayed product delivery, sometimes even done without cooling trucks. The dairies and some small wholesalers deliver their products directly to the shops or supermarkets. The only existent distribution centres are located in the main market in Skopje and are owned by the three largest FYROM’s dairies. Supermarkets do not own distribution centres yet (EU framework contract, 2006).

The main problem for the consumers in the country is the partly inconsistent quality and taste of the local products, mainly caused by low raw milk quality, week processing management and lack of cooling equipment especially in the summer period. Also, marketing advertising and packing of the dairy products is still unable to meet international standards.

FYROM has signed a number of free trade agreements with neighboring countries in order to open up markets for its domestic producers and at the same time attract foreign investments. Among the Free Trade Agreement’s established is the one with the EU as part of the Stabilization and Association Agreement. Furthermore the country became a full member of the World Trade Organization in 2003. An overview of the agricultural support programme indicates that all budget support went down to zero in 2006. At the moment, there are no specific government measures targeted to support the milk and dairy sector development. (APSDCA, 2009)

3. The “Swedmilk Macedonia”, Foreign Direct Investment:Hystory

Organization and ownership structure

Swedmilk was founded as a partnership scheme by Sweden’s Swedfund, FYROM’s beverages producer and distributor M&A Beverages as a strategic partner, and private individuals. The type of capital was characterized as an equity plus loan with a total sum of 13 707 SEK, million[1]. The Swedish Government (Swedfund) was the stakeholder owning 30% of the Swedmilk Macedonia’s stakes and all together the dairy was a 50,5% Swedish-owned[2]. “Swedfund” is the Swedish Government’s risk capital company specialized in investments in developing countries. They offer expertise and capital to the Swedish companies for investments in new markets in order to develop profitable business and at the same time reduce poverty in the particular countries.

[2] Macedonian News (29.12.2006), FlexNews (07.11.2007)

Stefan Ahl, the Investment Manager of Swedfund characterized this venture as *"A promising investment with great potential*[3]*"*. "Swedmilk Macedonia" was announced in "Swedfund's" annual report (2007) as an investment in a top modern dairy, which will meet the highest EU standards in terms of environment and recycling. This would have made "Swedmilk Macedonia" the only dairy of this kind in the Balkan region. (Swedfund International, 2007).

The foundation of the Swedish dairy started as a successful story with extensive publicity. The foundation stone was laid on December 27, 2006 by the Prime Minister of FYROM Nikola Gruevski, and Roger Oscarson, the Director General of "Swedmilk Macedonia". It was announced that 15 million Euros will be invested only in the first construction stage of the dairy. The ambitious plans included employment of 100 employees, and contracts (agreements) for milk purchase with around 5.000 local milk producers, which would provide the dairy with 250 tones of milk.

> *"Our ambition is to become a leading competitor in the dairy products market, and we will pursue that goal in line with the highest EU quality standard.*
> *We are investing in Macedonia because we see clear business opportunities and strong potential for development of the milk industry…we are investing in Macedonia because we see clear business opportunities and strong potential for development of the milk industry."*
>
> Roger Oscarson's statements in his first public appearance

The statements of the government representatives were expressing expectations that these kinds of investments are always welcomed since they are creating job opportunities and enable the farmers to develop their house businesses. This particular investment was thought to be the solution that will eliminate the danger of new milk crises in FYROM. Roger Oscarson was Tetra Pak's southern manager and for five years he and his associate and company manager for Macedonia Josif Sarzovski, tried to develop raw milk production in FYROM as a supplier to the dairy industry. Since they thought that progress is slow they decided that building a dairy of their own will speed the process. The idea was to build a dairy that would satisfy the EU standards and also retain environmental consciousness[4]. This dairy was also aiming to end the monopoly established by the Bitola dairy, which was the sole, larger buyer of raw cow milk at that time.

---

[3]Swedfund International, 2007- Official Swedfund site

[4] [3] http://www.swedfund.se/media/28751/annual_report_2007-company_presentation.pdf

4. Vertical coordination, Relationship with farmers and contract design

The commercial production and buying milk by the dairy started on December 1, 2007[5]. The criteria for selection of farmers were strictly defined, and their agreements were planed in a way that would promote international cooperation, quality standards, quantities, and prices. In one of the meetings with the dairy farmers, "Swedmilk Macedonia" presented their future plans. The ambitions were to develop long term contracts with expiry period ranging from three to five years. "A partnership between equals", was the characterization of the relationships, where both parties will share the same goal for growth and profit earning. In terms of payments, it was promised that there will be clean payments, meaning payments on time and in denars[6]:

> *"We are honest partner which keeps his word and promises, because we want to work on long term relations, meaning that we will not pay in, but in cash and on time."*
>
> Roger Oscarson (meeting with Bitola farmers, 2008[7])

Payments were to be on standard terms of 30 days, before the 15th of the next month. Additionally the dairy has made agreements with NLB Tutunska Banka, to enable cash payments at the day of delivery. This would have meant, that the farmers, partners of the dairy, would get a Bank loan on a cost of around 0.2 denar/per litre if the price is 16 denar/per litre (1.2% per month), and at the end Swedmilk will clear the loan. During the period of cooperation, the farmers would have been able to cancel the contract with 90 days notice, whatever the reason for this decision was. Swedmilk would have had the chance to cease the collaboration when the farmers would not meet the contract terms and conditions.

The plant intended to follow official FYROM's law on raw milk pricing as per quality standards. The average price was varying from 12.81 denars/per litre for the lowest quality, to 17.93 denars/per litre (+12%) for extra class row milk.
The farmers were not supposed to be forced to take products or fodder, and if the farmers decided to mix the feed themselves and buy cheaper fodder and other supplies, "Swedmilk Macedonia" would have offered help and support. As it was the case in many transition countries, the dairy planed to offer assistance programs, and promised loans to each of the farmers that will sign partnership with the factory. The aspirations were to help registered farmers or farmer's groups in collaboration with one of the banks, to gain access to finances for lacto-freezers or complete collection points. Furthermore, Swedmilk suggested ways for promoting collaboration among farmers, by assigning a limit in minimum size of each collection point of 500 liters. These indicated the need for joining forces of the small farmers in forming group collection centers.

---

[5] http://www.investinmacedonia.com/news.aspx?news39
[6] R.M currency
[7] "Vest" Newspaper, No. 13713, 2008.01.30.

The potential partners of the dairy were specified as: subcontractors, with own milk collection points; farms with own lacto-freezers; group of farmers, with common lacto-freezers; subcontractors, with own organization for milk collection.
All of these activities were as they said aimed at putting pressure on farmers for the changes that were about to happen in the milk production and dairy processing sector. They were to rebuild the confidence and reduce the uncertainties and risks, traditionally present between FYROM's dairy farmers and the dairy industry. The farmers expressed satisfaction in the beginning of the cooperation with "Swedmilk Macedonia" in the sense that the dairy offered relatively higher prices and started with issuing documents for the sold quantities of milk, which was not the case before, in the collaboration with the other existing dairies.

As a complement, "Swedmilk Macedonia" was also the first dairy that was granted an official export licence to EU member States according to the new Rulebook. By adopting this licence, the dairy started finalizing the basic export arrangements with France, Bulgaria and some other countries. According to the dairy's management, "Swedmilk Macedonia" managed to substitute the overall country's import of milk by 35%. Until June 2008, the dairy also completed the six-month testing period for obtaining HACCP certificate. Until the same period the official investment amounted to 25 million Euros, and announced launching 70 new products by the end of September 2008 (Bulletin, 2008). The dairy had 120 employees and signed cooperation agreements with about 1200 farmers (MINA, 2008[8]).

> Macedonian consumers, wholesalers and retailers complain about the partly inconstant quality and taste of the local products. This is caused by low raw milk quality, weak processing management and, at least in the summer time, partly by missing cooling tracks for the transport of the ready products.
>
> ACDCRM, 2009

Asset specificity has been a traditional focus of TCE, as well as the interaction between asset specificity and uncertainty, product complexity and information asymmetries (Williamson, 1985). Besides the large investment done in the dairy plant, "Swedmilk Macedonia" also invested in modern trucks, specialized for collection and transport of fresh milk for dealing with the product perishability and quality. However, the dairy decided to distribute processed, long-life milk through M&A Beverages who was their partner in the country. At the end the managers pointed this partnership, and the opportunistic behaviour by M&A Beverages as the main reason for the bankruptcy of the plant.

"Vertical coordination has positive effects by addressing major weaknesses of the dairy farms" (Swinnen at al, 2006). All the plans, presented by the dairy, seamed to create a perfect set up for the long needed VC in the sector. Since "trust is generally lacking as a

[8] http://macedoniaonline.eu/content/view/2585/52

base for business in many transition countries", the large investments in this case, and the fact that it was announced as a Swedish investment gave a positive signal to the community that it is a serous investment with serous intentions. This meant that the farmers were encouraged to invest in enlargement of the herd, investments in cooling equipment, which was often provided by the dairy it self. The intentions were to reduce TC by economies of scale and the introduction of consistent quality standards. Yet, from TCE perspective, these kinds of investments often bear large risks and put farmers in a vulnerable position towards the dairy due to opportunism and bounded rationality. On the other hand the large investment in such a modern dairy also puts the dairy in a lock-in situation because of the low switching costs for the farmers. In FYROM, the usual contract between the farmers and dairies is established on annual basis, and the problems of hold-ups are and can create ground for opportunistic behaviour from all the parties in the dairy chain.

Events leading to failure

The financial problems occurred in November 2008, and they were manifested by the delayed payments of milk to the farmers. Provoked by the situation, farmers organized road blockades and announced protest. The reasons for the problems were explained as a "diversion" by the strategic partner "M&A Beverage", which were the dairy's stakeholder and distributer. The diversion by "M&A Beverage" meant a debt of the company towards the dairy, leaving it without financial assets to pay the purchased milk and the dairy employees. (Utrinski Vesnik, No. 2848). Country's Medias quoted CEO Oscarson in his statements that he is looking for ways to resolve the existing problems, saying that two companies were interested in setting a joint venture with "Swedmilk Macedonia"[9]. However, the real reasons for such enormous debts for such a short period are still unclear. In informal interviews, some of the actors in the field speculated that the investment was doomed from the beginning, because of the absence of processed products other than milk and yogurt, which in their opinion was not profitable[10]. The dairy did not express plans to process the fresh milk in other dairy products, or milk powder.

Whatever the reasons, the fact that remains is that the case of "Swedmilk Macedonia" had a deep impact and created a chain reaction on the dairy farming in the country. This was especially manifested with the bankruptcy experienced by the farmers caused by the debt towards them, leading to failure of the investments encouraged by the dairy plant.

At the end the dairy was bought out by an U.S-Israeli fund "Fenix Energy USA LLC", which became the sole owner of the "Swedmilk Macedonia" dairy for the price of 1 euro! This is an export-import company offering logistics, international negotiation, government services, and general business project management capabilities. The company also offers a broad spectrum of products to meet the needs in consumer goods, comodities and industrial products. The company's web site describes "Fenix Energy

[9] http://www.kamcity.com/namnews/asp/newsarticle.asp?newsid=45484
[10] Personal Contacts

LLC" as owning a capacity to deliver quality commodities at low risk to Governments or individuals and insure supply with no risk of non performance to the buyer (Fenix Energy, February 2009). But the problems are not solved yet, and the debt of the dairy towards the farmers has not been paid till this moment (July, 2009). Furthermore, the management of this company additionally worsened the situation by its unserious intentions.

5. Hypothesis and further research

The main research question: How is the agro industrialization of the sector affected by the" transplant" and the collapse of a key actor such as dairy processor?

Hypothesis I: FDI leads to industrialization of the supply chain both upstream and downstream.

Hypothesis II: Industrialization processes lead to closer vertical coordination such as contracts and vertical coordination and less reliance on spot markets.

Hypothesis III: The collapse of a key actor in the dairy chain leads to catastrophic chain reaction the dairy sector.

- Institutional problems.

> "Foreign investment plays an important role as an initiator of change and institutional innovation"
>
> (Dries at al., 2009)

The investigation of the hypothesis requires a longitudinal study of dairy farmers, where both suppliers to "Swedmilk Macedonia" and non-suppliers are included in order to make comparisons possible. Also, interview with the dairy's officials would be beneficial in getting deeper insight on what really caused the collapse in such a short time period. Unfortunately at the moment, the situation being complicated and unresolved, it was impossible to establish contacts and get official data on the matter. Because of this, the article uses secondary data: official data and data published in the Medias following the development of the "Swedmilk Macedonia's" case.

The expected results of this research were to show that high TC would inevitably propose the need of restructuring of the dairy sector. The large number of mainly small scale farms and equally small scale processing capacities, dispersed all over the country, indicates higher costs for production and transaction. Therefore, the effective number of processing capacities on the territory of FYROM would be 2-3 large modern and highly equipped dairies. Only they can have the capacity and finances to establish successful and closer VC and initiate growth on the side of the milk producer. This will mean helping farmers through a variety of assistance programmes in the modernization processes, ensuring higher quality and quantity of milk base for their processing capacities. All these processes would lead to disappearance of the small scale dairy farmers, which are not going to have proper finances and capacities to meet the requirements of these large dairies.

FDI have been proven to be the “engine of change” in the restructuring processes of the dairy sectors in most of the countries in transition. These processes were supposed to introduce important changes in the dairy sector in FYROM too, by initiating a variety of more sophisticated models of VC. Closer VC also helps in dealing with the existing problems of contract enforcement, demand for quality supply, low trust and reliability, and other problems in the farmer-dairy relations that appeared during the country’s long transition.

Due to absence of foreign investments in the sector, caused by the political and economical instability, insecure property rights, absence of key reforms, low incomes (Dries at al, 2009), “Swedmilk Macedonia” was an interesting case for our study from the beginning of our research. Being the first FDI, our intention was to present the good example, and a successful story which was expected to introduce new technology and management strategies leading to the most needed changes in the dairy sector. The primary goal was to examine the new ways of organization and governance at the various stages after the entrance and establishment of the dairy, and the implications of this new organization and governance structure on industry costs, efficiency, and overall performance of the dairy sector. After the bankruptcy, we decided not to disregard this case and instead investigate the reasons behind this failure. Yet, many open questions remain: Was this planed as a typical Balkan scheme from the beginning, regardless of the disastrous effect on the dairy sector of the country? Was it a case of FDI relying on a domestic partner, and failing in managing what was already established in the existent vertical chain? Would creating of new organization and governance structures been beneficial for the dairy? Is it possible for new production technologies to function without the existence of appropriate institutional frameworks? Was the high TC in the form of risk, uncertainty, asset specificity, bounded rationality and opportunism crucial?

Answering some of the questions will be a departure point for the further research in clarifying the reasons behind the failure of “Swedmilk Macedonia”, and also putting the case in a larger perspective of explaining the situation in the dairy sector and the institutional environment in the country.

References:

AASP-Agricultural Advisory Support Programme, OPTO International AB/Macedonian, "Value Chain Analyses in the Agricultural Sector in the Republic of Macedonia", September 2005/March 2006,

ACDCRM-AgriPolicy Enlargement Network for Agripolicy Analysis, "An Assessment of the Competitiveness of the Dairy Food Chain in the Republic of Macedonia", February 2009.

APSDCA - AgriPolicy Enlargement Network for Agripolicy Analysis, "An Assessment Of The Competitiveness Of The Dairy Supply Chain In New Member States, Candidate And Potential Candidate Countries" (AgriPolicy Synthesis report Dairy Chain Analysis), May 2009)

ARDP- MAFWE of R. Macedonia, "Agricultural and Rural Development Programme, 2007-2013", Part I, IPARD, (June, 2007).

Country report, ARCOTRASS- Consortium, Study on the State of Agriculture in Five Applicant Countries, *"The Former Republic of Yugoslav"*, December 2006.

Dries Liesbeth, Swinnen F.M. Johan, "Foreign Direct Investment, Vertical Integration and Local Suppliers: Evidence from the Polish Dairy Sector", World Development, Vol.32, No.9, pp. 1525-1544, (2004)

Dries Liesbeth, Germenji Etleva, Noev Nivelin, Swinnen F.M. Johan, "Farmers, Vertical Coordination, and the Restructuring of Dairy Supply Chains in Central and Eastern Europe", World Development (2009)

EU Framework Contract No. 06MAC01/12/2004, EUROPEAID/119860/C/SV/multi Lot 1, *"Sector Analysis on key agricultural products: milk, meat and their products"*, (Analiza na sektorot i glavnite zemjodelski proizvodi: meso, mleko i nivnite produkti). February 2007.

Ferto Imre, Szabo G. Gabor, *"Vertical Co-ordination in Transition Agriculture: a Hungarian Co-operative case study",* Institute of Economics Hugarian Academy of Science, Budapest, 2002.

Gow, R. Hamish, Swinnen F. M. Johan, *"Private enforcement Capital and Contract Enforcement in Transition Economies"*, American Journal of Economy 83, august 2001.

Investors' Guide 2007, Republic of Macedonia, Food Processing Industry-Dairy Products

Masten E. Scott, *"Industrial Organization"*, Advices in Applied Microeconomics, Volume 9, Elsevier Science Inc, 2000.

Ministry of Finance, Republic of Macedonia, “Buletin”, Skopje, 5/6 2008.

SSO – State Statistical Office, 2007.

Swinnen F.M. Johan, Dries Liesbeth, Nivelin Noev, Germenji Etleva, “Foreign Investment, Supermarkets, and the Restructuring of Supply Chains: Evidence from Eastern European Dairy Sectors”, LICOS-Centre for Transition Economics, Discusion paper 165/2006.

Voors, M. A., D'Haesse, M., and Moll, H. A. J. (2007), Dairy sheep farming and the development of market channels in Macedonia.. Wageningen.

Williamson E. Oliver, “The Economic Institutions of Capitalism-Firms, Markets, Relational Contracting”, The Free Press, (1985)

Media sources:

Agency for Foreign Investments of the Republic of Macedonia, “Invest in Macedonia” http://www.investinmacedonia.com/news.aspx?news39

FlexNews – Business News for the Food Industry, “ Swedmilk starts operations at New Macedonia dairy Plant”, (07.11.2007)
http://www.flex-news-food.com/pages/12112/Dairy/Macedonia/swedmilk-starts-operation-new-macedonia-dairy-plant.html

Macedonian News, Republic of Macedonia daily news and political analysis from various sources: VMacedonia.com
http://www.vmacedonianews.com/2006/12/swedmilk-makedonija-to-purchase-milk.html

Official web site: “Fenix Energy USA LLC”,
http://www.fenixenergy.org/news.html

MINA- Macedonian International news Agency, “Swedmilk Macedonia” gets EU export license, (30. 07. 2008)
http://macedoniaonline.eu/content/view/2585/52

Kamcity.com, News, Tools, and Training for Key / National Account Managers and related functions working in the FMCG / Retail industry, *“**MACEDONIA: Milk Producers Continue To Block Roads For Sixth Day**”*, (30. 01. 2009)
http://www.kamcity.com/namnews/asp/newsarticle.asp?newsid=45484

Annual Report, Swedfund International AB, “New thinking, New markets”, (2007)
http://www.swedfund.se/media/28751/annual_report_2007-company_presentation.pdf

Personal Contacts:

Tanevski Zoran, AD-"Dzumajlija", Sveti Nikole
Trajce Gogov – Agricultural Trade Organization "Bogdanci"-Bogdanci
Mitevski Goce – IMB – Bitola Dairy