



LACTIMED
Promoting Mediterranean Dairy Products

The dairy products market

Documentary study

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**ENPI
CBCMED**
CROSS-BORDER COOPERATION
IN THE MEDITERRANEAN

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LACTIMED aims to foster the production and distribution of typical and innovative dairy products in the Mediterranean by organising local value chains, supporting producers in their development projects and creating new markets for their products. The project is implemented under the ENPI CBC MED Programme, and is 90% financed, for an amount of EUR 4.35 million, by the European Union through the European Neighbourhood and Partnership Instrument.

The European Union is made up of 28 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders.

The 2007-2013 ENPI CBC Mediterranean Sea Basin Programme is a multilateral Cross-Border Cooperation initiative funded by the European Neighbourhood and Partnership Instrument (ENPI). The Programme objective is to promote the sustainable and harmonious cooperation process at the Mediterranean Basin level by dealing with the common challenges and enhancing its endogenous potential. It finances cooperation projects as a contribution to the economic, social, environmental and cultural development of the Mediterranean region. The following 14 countries participate in the Programme: Cyprus, Egypt, France, Greece, Israel, Italy, Jordan, Lebanon, Malta, Palestinian Authority, Portugal, Spain, Syria and Tunisia. The Joint Managing Authority (JMA) is the Autonomous Region of Sardinia (Italy). Official Programme languages are Arabic, English and French.

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Introduction

This study reviews dairy products both worldwide and in Europe with particular reference to specific European Union countries that are key players in the dairy industry. It offers an overview of market opportunities in certain European countries as well as North America and gives brief assessments and outlooks for the Chinese, Russian and Arabian Gulf markets. It also provides a detailed insight into dairy markets by addressing production, international trade, development and perspectives in consumption, essential distribution networks for industry players as well as consumer attitudes and behaviour. The markets studied are as follows:

- The overall worldwide market;
- Western Europe (Ireland, Greece, Belgium, Denmark, Spain, Austria, Germany, France, Sweden, United Kingdom, Portugal, the Netherlands and Italy);
- North America (Canada and the United-States);
- The markets of the Middle East, China and Russia.

These analyses help demonstrate how dairy products position themselves and what marketing tools (especially for distribution aspects, advertising and sales promotions, etc.) they benefit from in the various markets studied.

STUDY METHODOLOGY APPLIED AND LIMITATIONS

The contextual analysis is entirely based on secondary sources (documentary research) with associated limitations such as availability, reliability, level of detail, timeliness of data, etc. To guarantee maximum objectivity, we have used what are considered to be the most 'plausible' sources. These include Eurostat, Market line, Euromonitor International, the International Dairy Federation (IDF), the National Centre for Interprofessional Dairy Industries (CNIEL), the Organisation for Economic Cooperation and Development (OECD) and the Food and Agriculture Organisation of the United Nations (FAO).

THE PRODUCTS STUDIED

Owing to its high cost, the choice was made to not expand on the types of products consumed globally or by country. This would have meant drawing on international panels (a permanent sample of nationally representative consumers or distributors) similar to the GFK¹. As such, we systematically provide data based on by-product category (butter, yoghurts and cheese) and when information is available, we give an insight into the types of cheeses consumed (including speciality cheeses).

It should be noted that the concept of fine, artisan or farmhouse cheeses is not always defined or interpreted in the same way according to country or even region. This is rightly emphasised by a study on the potential for expansion of Quebec's fine cheese markets (Quebec Ministry of Agriculture, Fisheries and Food, 2008) which states, *"While the term speciality cheeses in certain American States clearly evokes the quantitative aspect, in Quebec, it generally means that this category refers to value-added cheeses of exceptional quality and limited quantity. As such, since there is no universal definition for fine cheeses, it is very complicated to compare data from multiple sources [...]. In Quebec, we refer to matured cheese as opposed to processed cheese or cottage cheese or fresh cheddar [...].in the United-States. Despite certain variants between regions, definitions developed by the American Cheese Society are mainly used to describe high quality cheeses. The three most common terms used are speciality cheeses, artisan cheeses and farmhouse cheeses"*. By extension, we consider that this definition can be applied to butter, yoghurts or other by-products (Elben, etc.).

In Europe, confusion arises in terms of farmhouse and artisan cheeses. For example, when we refer to farmhouse cheese in France, we mean a cheese made with milk from a single farm, which is not the case in other countries. Furthermore, in Spain, the term "artisan" has no official definition as it refers to both production in small quantities and the collection of milk from several farms.

¹ Established in 1934, GFK (*Gesellschaft für Konsumforschung*) is one of the largest [market research](#) and [marketing](#) audit institutes in Germany and the fourth largest in the world, according to [Nielsen Company](#), [Kantar Media](#), [Ipsos](#) (incl. Synovate) et [IMS Health](#).

I – Dairy products around the world

1 – Overview of the global market

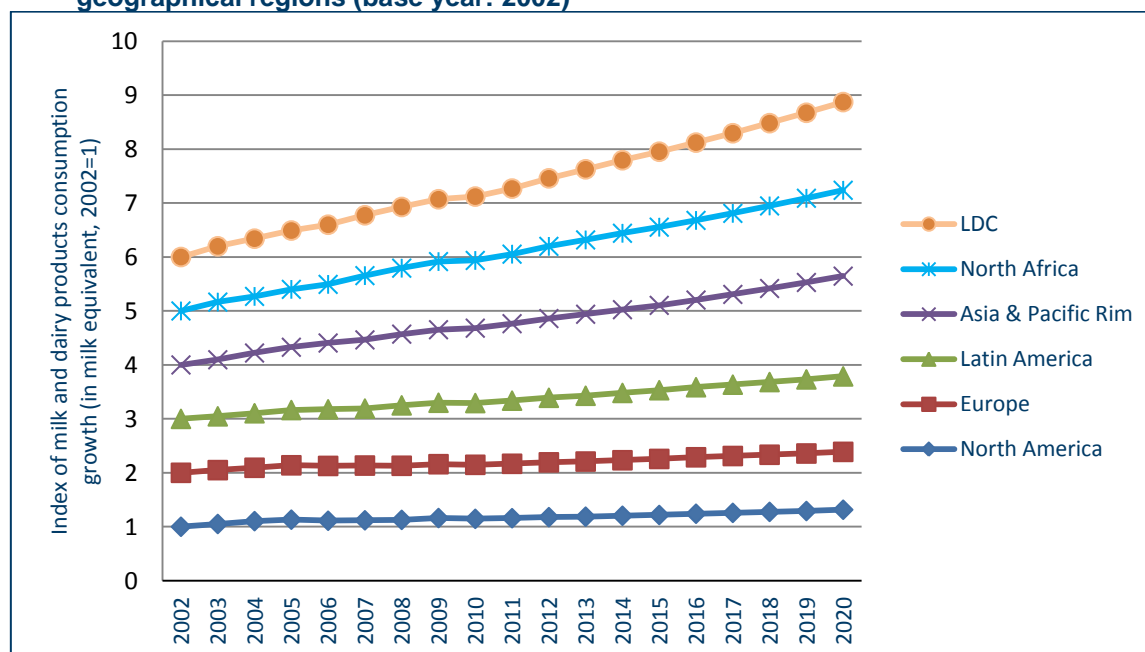
The dairy products sector is extremely vibrant and experiencing a real surge in popularity. All studies (FAO, OECD, IDF, Euromonitor International, Market Line, USDA-FAS², etc.) concur in saying that global dairy product production and consumption is set for promising growth. Regions in Europe and North America might be mature-stage markets in life-cycle terms but the Asia-Pacific region might be displaying the highest and most promising levels of growth. This market may well be relatively easy for a small company to penetrate so long as it of sufficient size and suitably integrated. Given the large number of players, competition in the marketplace is fierce and an additional difficulty may be the presence, generally speaking, of numerous replacement products available to consumers when the proposed prices are too high.

1.1. Global consumption in volume and value

According to OECD and FAO outlooks for agriculture in the coming years, we will see a significant increase in dairy product consumption in North African countries, the Middle East and potentially an exceptional rise in Asia zone countries and the East. According to the same sources, there may also be a considerable rise in demand in certain European Union countries, the United-States and Russia.

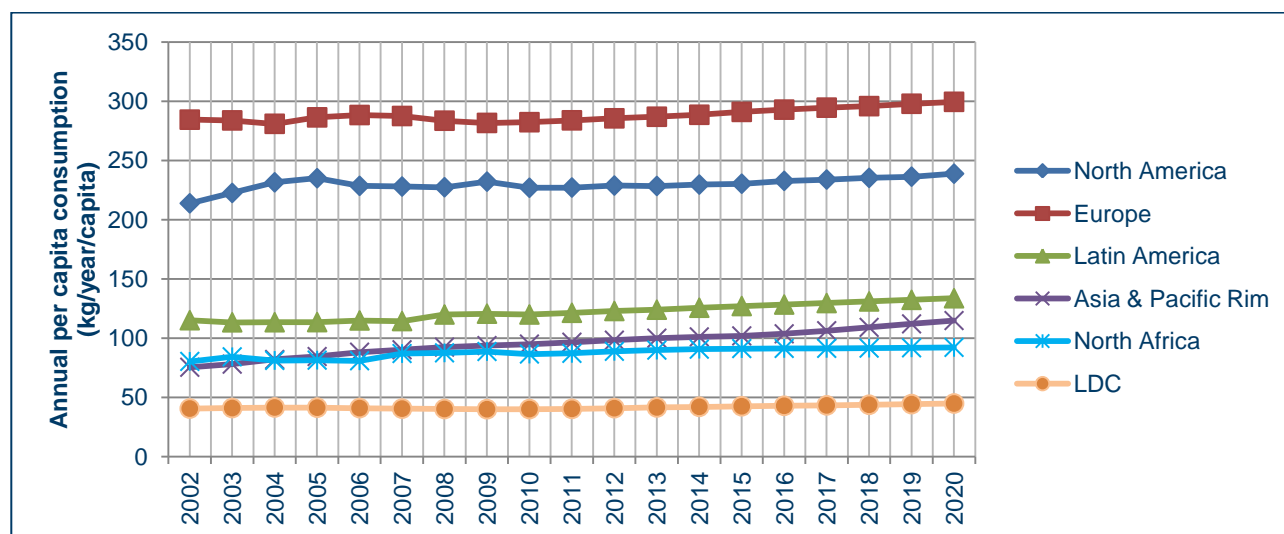
Growth projections for consumption highlight the considerable rise in the consumption of milk and dairy products in least developed countries (LDCs), followed by those of North Africa (Graph 1). However, annual per capita milk and dairy product consumption estimates (in milk equivalent) show that per capita consumption levels should remain very high in western countries (Europe and North America) despite their saturated markets. According to OECD and FAO estimates, cheese consumption appears to show a fairly considerable rebound, despite these markets being saturated (Graph 2). New packaging technology making it possible to store dairy products more hygienically and for longer periods coupled with options to replace meat by cheese in the ingredients for meals, appear to be key drivers of this potential growth in cheese consumption worldwide.

Graph 1: Indexes of milk and dairy products consumption growth (in milk equivalent) in the main geographical regions (base year: 2002)



Source: OECD-FAO, *Agricultural Outlook, 2011-2020*

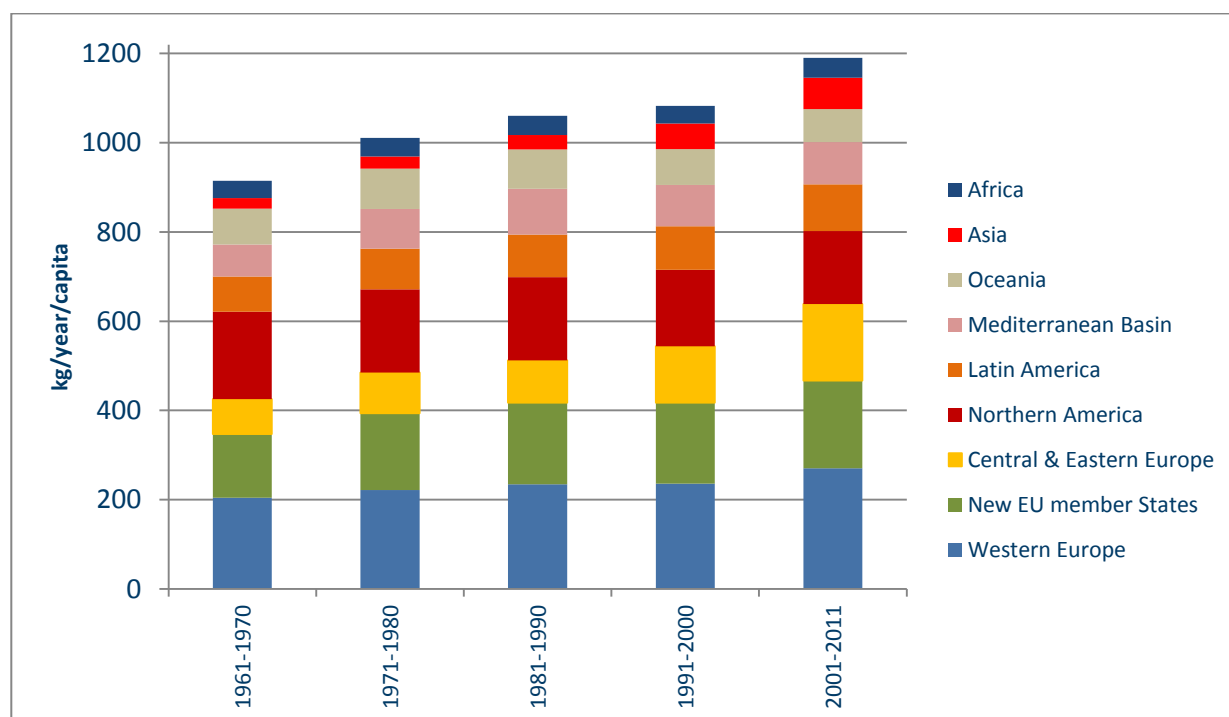
² United States Department of Agriculture-Foreign Agricultural Service

Graph 2: Changes in per capita consumption in the main geographical zones between 2002 and 2020


Source: OECD-FAO, *Agricultural Outlook, 2011-2020*

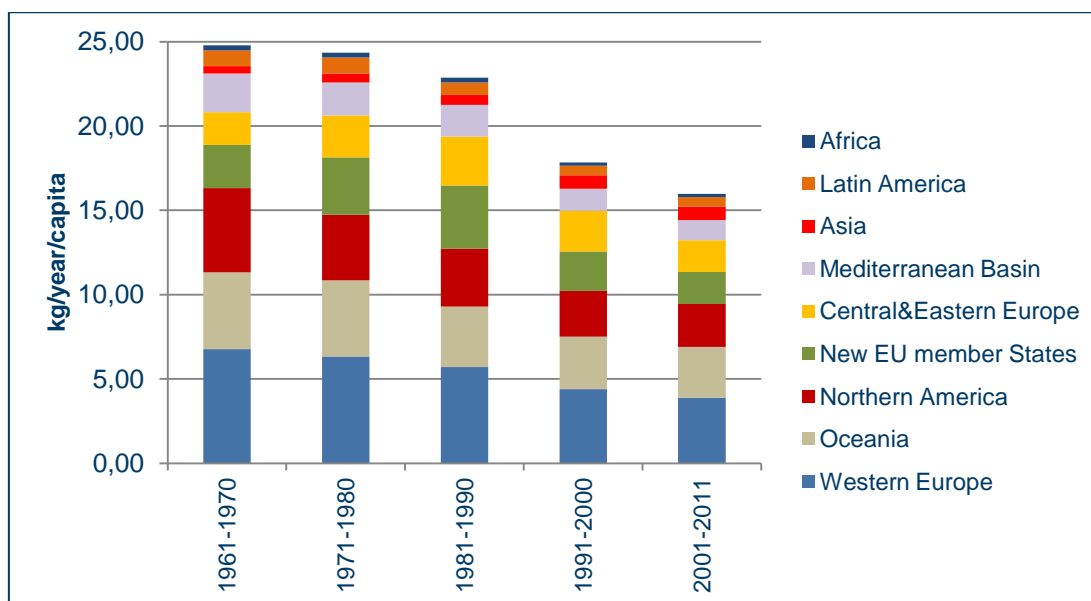
1.2. Dairy products market segmentation

During the five decades studied below, annual per capita apparent milk and dairy product consumption (excluding butter) has dropped considerably in North America and to a lesser extent in Oceania. The biggest rises are seen in Asia, Central and Eastern Europe, Latin America, Western Europe, the Mediterranean Basin (especially in Tunisia, Egypt and Lebanon) and, more modestly, in Africa. While liquid milk and butter consumption has fallen, that of cheese is robust. This is certainly due changing consumption patterns resulting from urbanisation and, to a certain extent, the westernisation of food consumption habits. Graphs 3 and 4 show these regional differences at a global level together with annual milk and dairy product consumption growth in milk equivalent and butter.

Graph 3: Changes in annual milk and dairy product per capita consumption (in milk equivalent) by geographical zone between 1961 and 2011


Source: produced by the author from FAO data

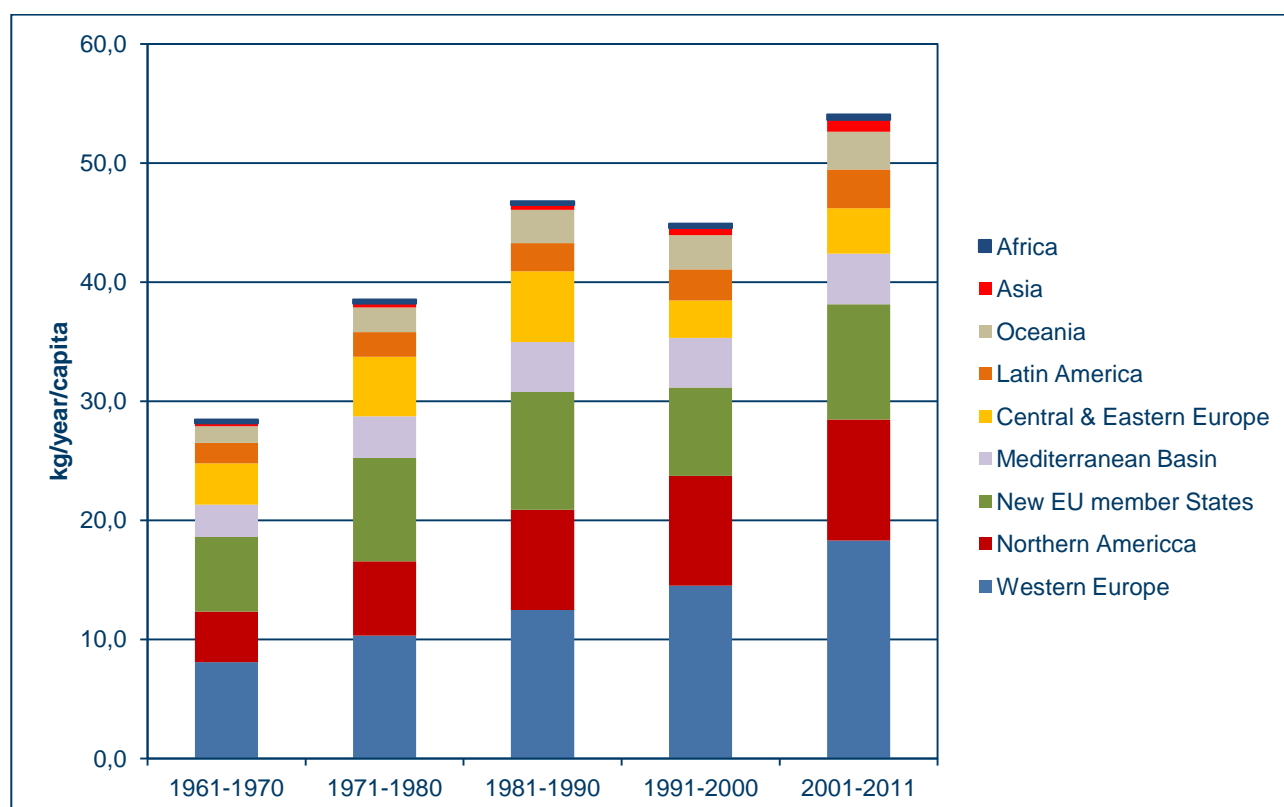
Graph 4: Changes in annual butter per capita consumption by geographical zone between 1961 and 2011



Source: produced by the author from FAO data

The consumption pattern for cheese is a little different from that observed for milk and dairy products in milk equivalent and butter. This consumption rose in Western European regions (the EU-15 + Switzerland, Norway and Iceland), North America and Oceania (Graph 5). However, the most spectacular growth has been seen in Asia, even though average per capita consumption is still less than 1kg per year (979 grams/person/year). Tunisia shows a negative trend by a drop in average annual per capita consumption since the 1960's.

Graph 5: Changes in annual cheese per capita consumption by geographical zone between 1961 and 2011.



Source: produced by the author from FAO data

The European Union is still the world's biggest consumer of milk and dairy products. The EU-27 is now the biggest consumer of cheese with 45.5% of global consumption. The other big cheese consumer is North America (36%) with the United-States coming top (32% of global consumption) followed by Canada and Mexico. South America accounts for 8% of this global market and the ex-Soviet Union countries, 6.5%. Cheese is a dairy product well rooted in consumption habits and highly appreciated in the countries studied.

- The biggest consumers in all cheese categories combined (between 20kg and 30kg) are France (26.2kg), Germany (24.3kg), then Greece (22.6kg), Italy (20.9kg) and the Netherlands (19.4kg).
- The French and Germans remain the biggest per capita consumers of butter (7.4kg and 6.2kg per year respectively) followed by the Polish (4.1kg), the Australians (4.0kg) and finally, the Indians (3.6kg), the British (3.4kg) and the Dutch (3.3kg).
- Australia, the UK, Canada, the United-States and Spain remain the main per capita consumers of milk.

Table 1: Breakdown of drinking milk, butter and cheese per capita consumption in the main consumer countries in 2012.

	DRINKING MILK (kg per capita)	BUTTER (kg per capita)	CHEESES (kg per capita)
France	54.3	7.4	26.2
Germany	55.0	6.2	24.3
Greece	54.3	0.6	22.6
Italy	54.4	2.3	20.9
The Netherlands	49.0	3.3	19.4
Belgium	50.5	2.5	15.3
USA	76.4	2.5	15.2
Canada	79.5	2.8	12.1
Australia	109.3	4.0	11.8
Poland	42.2	4.1	11.4
Great Britain	106.2	3.4	11.2
Argentina	42.4	1.4	11.2
Egypt	24.5	0.7	9.4
Spain	83.2	0.6	9.3
Chile	23.0	1.2	8.1
Turkey	16.5	0.7	7.2
Russian Federation	37.3	2.8	6.6
Iran	19.0	0.3	4.7
Ukraine	19.9	2.1	4.2
Brasil	59.0	0.4	3.6
Mexico	35.9	0.3	3.1
Japan	31.6	0.6	2.1
South Korea	34.5	0.2	2.0
South Africa	23.8	0.3	1.5
China	15.9	0.1	0.1
India	41.3	3.6	-

Source : CNIEL ; F.I.L, *L'économie laitière en chiffres*, Edition 2014

Table 2: Breakdown of countries according to their level of cheese and butter per capita consumption in 2010.

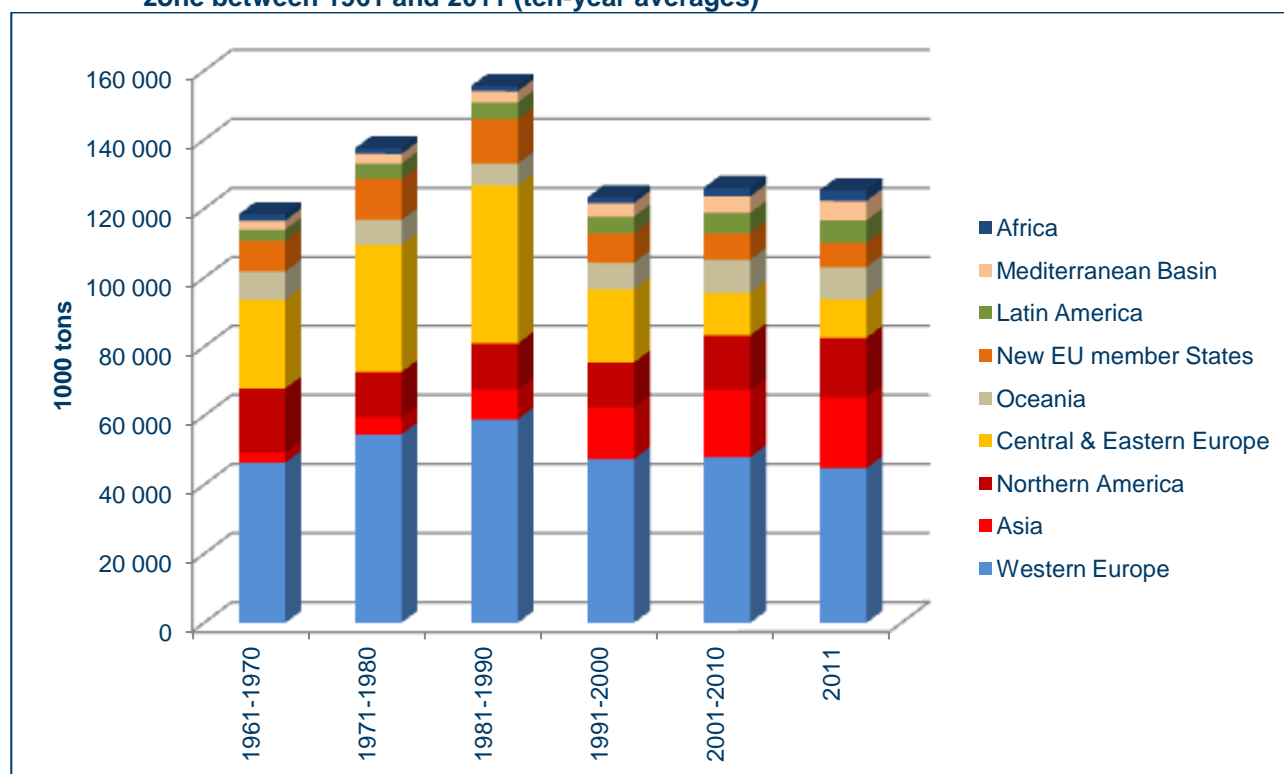
Per capita consumption	Butter	Cheeses
30 kg & plus		Greece (30.9 kg)
25 à 30 kg		France (25.6 kg)
20 à 25 kg		Germany (22.8 kg), Italy (22 kg), the Netherlands (21.2 kg)
18 à 20 kg		Turkey (19.4 kg)
14 à 16 kg		Belgium (15.9 kg), USA (15 kg)
12 à 14 kg		Canada (12.7), Argentina (12.5 kg)
10 à 12 kg		Australia, G.B., Poland
8 à 10 kg		Egypt, Spain
7 à 8 kg	France	
6 à 7 kg	Germany	Russian Federation
4 à 5 kg	Poland	Iran
3 à 4 kg	Australia, the Netherlands, G.B., Turkey, Iran, India	Brasil, Ukraine
2 à 3 kg	Belgium, Canada, Italy, Mexico, Russian Federation, USA	Mexico
1 à 2 kg	Argentina, Ukraine, Egypt	Japan, South Korea
0 à 1 kg	Greece, Spain, South Korea, South Africa, China, Japan, Brasil	China, South Africa

Source: produced by the author from Market Line and CNIEL data

1.3. -Production of milk and dairy products

The main milk production zones (cow's milk for the most part) are Western Europe, North America and Oceania (New Zealand) (see Graph 6). However, volumes produced in Western Europe are stagnating due to milk quotas restricting supply. In North America, production has contracted slightly while Central and Eastern Europe and new EU-member countries have recorded a spectacular drop. Although the Mediterranean Basin's share of total worldwide production is negligible, it is among zones in the world where there is a rising trend.

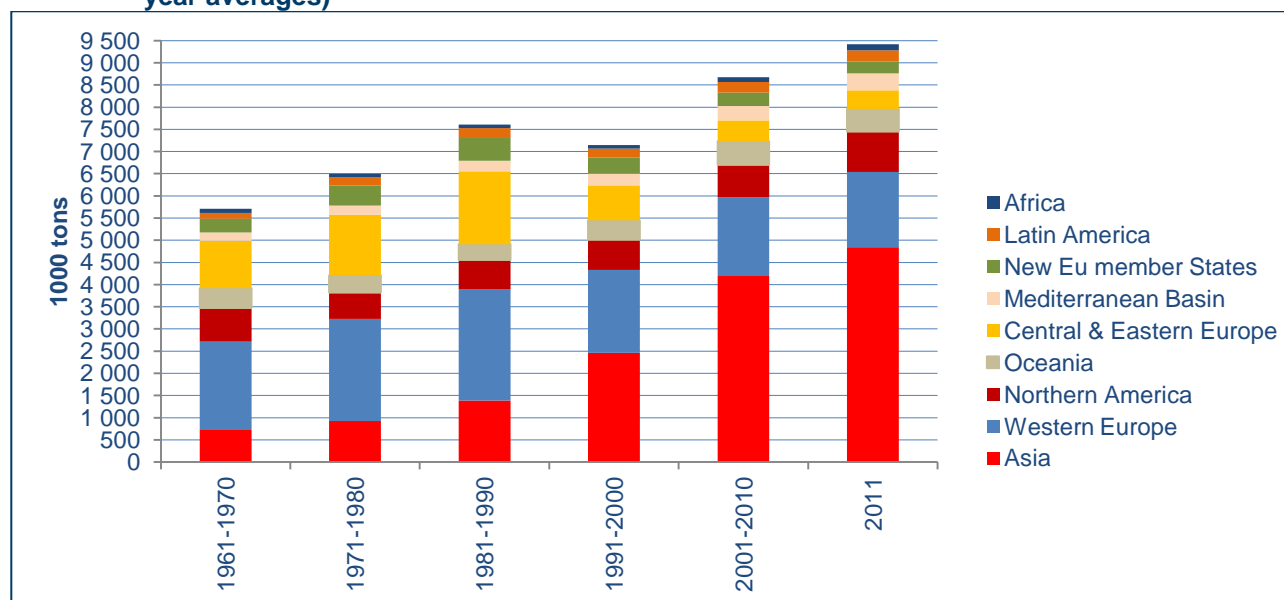
Graph 6: Breakdown of milk production (liquid, powder, dehydrated) by main global geographical zone between 1961 and 2011 (ten-year averages)



Source: produced by the author from FAOSTAT data

The spectacular rise in butter production in Asia is due to progress observed in Chinese milk production and processing (Graph 7). The effect of milk quotas also influences the growth of butter volumes produced in Western Europe, especially in the EU-15 countries. Some countries in Latin America and the Mediterranean Basin are displaying promising growth even though volumes produced and yields per animal remain quite far off those in western countries.

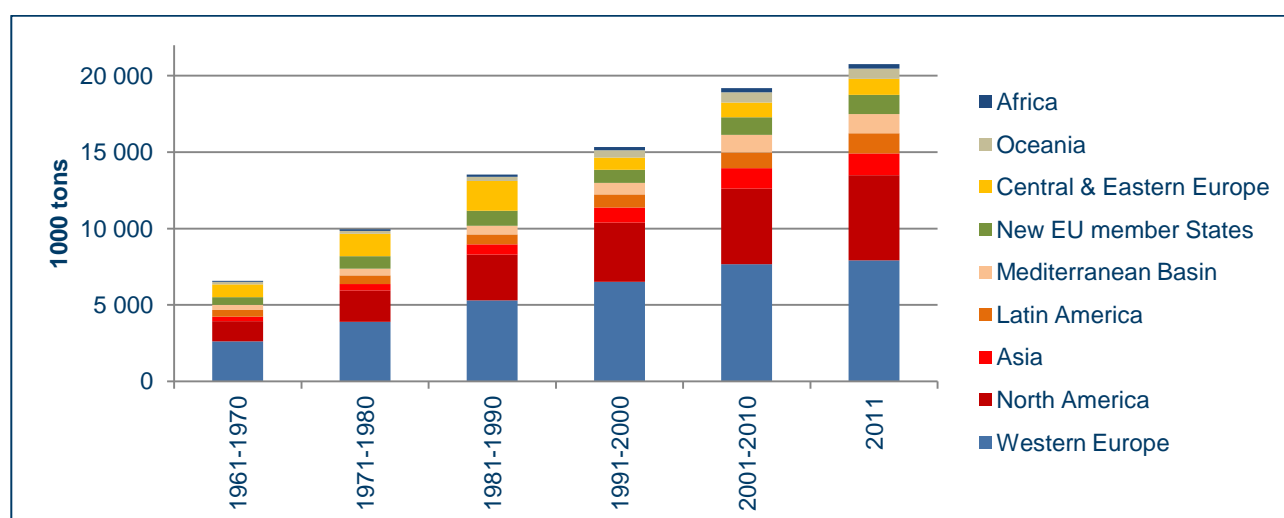
Graph 7: Butter production by main geographical zone in the world between 1961 and 2011 (ten-year averages)



Source: produced by the author from FAOSTAT data

The production of fresh dairy products has grown considerably since the 1960's and Western Europe maintains a leading position in the production zones for yoghurt and whey (Graph 8). This rise shows the expansion of the dairy industry worldwide with a growing share of dairy products in urban household consumption. However, this data must be put into perspective as dairy products are artisanal in many countries and completely avoid the formal registered sector. Finally, several zones are currently competing with Western Europe.

Graph 8: Breakdown in the production of fresh dairy products (yoghurts and whey) by main geographical zone worldwide between 1961 and 2011 (ten-year averages)

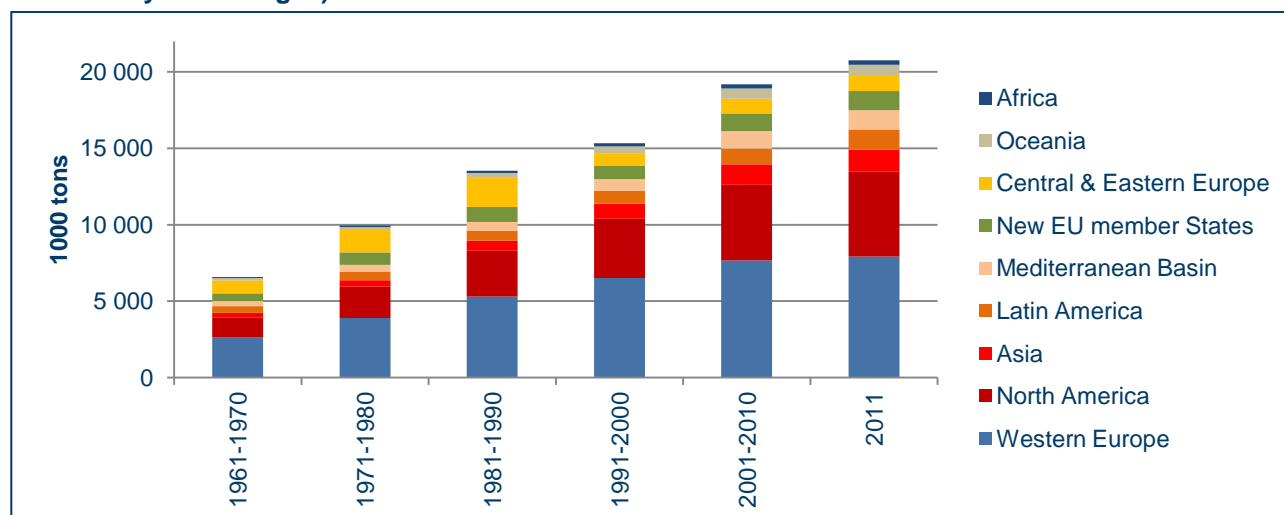


Source: produced by the author from FAOSTAT data

Among dairy products, cheese forms the only category in the industry where Western Europe has shown an upwards trend during the five years studied (Graph 9). The same positive trend can also be seen in North America, Asia, Latin America and the Mediterranean Basin. The growth index for cheese production worldwide was 301 in 2011 compared to the average in the 1960's of 100 (1961-1970=100). In Asia and

Oceania, there has been a four-fold increase in production with growth indexes of 446 and 403 respectively. Processed cheese and 'cheddar' type cheeses are the most commonly produced categories worldwide. However, it must also be noted that a significant proportion of artisan cheese production in developing countries escapes the formal registered sector.

Graph 9: Cheese production by main geographical zones worldwide between 1961 and 2011 (ten-year averages)



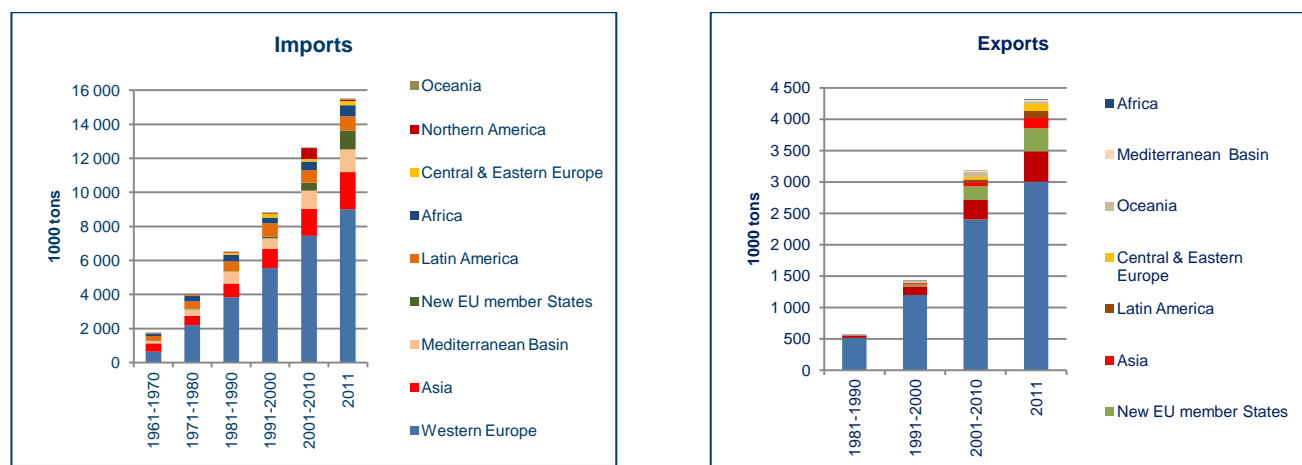
Source: produced by the author from FAOSTAT data

1.4. International trade in milk and dairy products

International trade in milk and dairy products has exhibited quite large fluctuations over the last few decades, resulting in changes to public policies in western countries and their decisions stop subsidising products in this industry. GATT (General Agreement on Tariffs and Trade) negotiations, followed by those of the World Trade Organisation (WTO), have also changed in the sense of liberating trade from all public intervention. As such, a structural change in the shape and form of the main exporters and importers has taken place on the international dairy scene following this freeing-up of the market. Volumes produced and trade in largely subsidised products like milk powder and butter have been widely affected and shown significant falls whereas high value products like cheese or fermented milks have been spared from this structural change. In this section, a more in-depth analysis of these various segments illustrates these changes in greater detail.

According to USDA reports, international trade in drinking milk (in all its forms) absorbs around a twentieth of global cow's milk production (Commonwealth Bank, 2010). However, there has been significant growth in exports, as well as imports, of fresh drinking milk (whole and/or skimmed), milk powder (whole and/or skimmed), condensed whole milk and evaporated milk between 1960 and 2010 (Graph 10). The European Union accounts for the largest share in total volume of exported and imported milk, even though its average annual rate of growth over the 25 years studied was just 0.25%. Overall, the UE-15 countries have seen their exports outside the Community drop from 81.3% of total exports in the 1960's (average of 1960-1964) to 61.1% in the 2000's (average 2006-2010). Worldwide, new EU members, Oceania and Latin America have increased their share of total exported volumes. As for import volumes, we can see that Asia and the Mediterranean Basin are two regions that have seen their share increase over the twenty-five year period studied, although the EU-15 still holds on to most milk imports, particularly due to inter-Community trade. Fluctuations, and particularly rising prices of whole milk powder on international markets, have significantly influenced increased supply at a global level due to the benefits of these price rises on farm-gate prices of raw milk in most producer countries (Rabobank, 2010).

Graph 10: Changes in the breakdown of milk imports and exports by main geographical region worldwide.

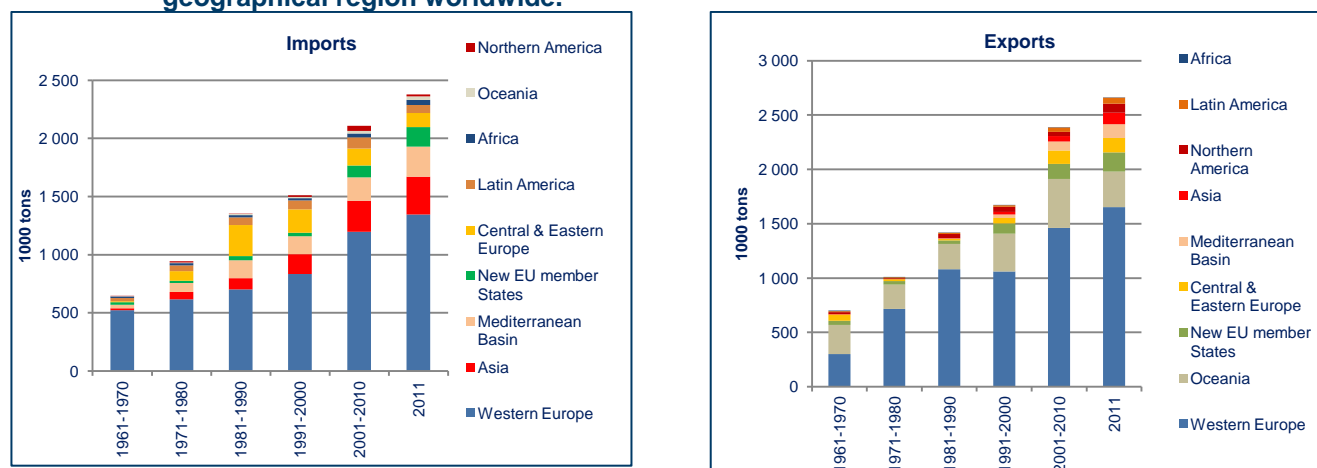


Source: produced by the author from FAOSTAT data

International trade in butter and buttermilk have also grown considerably since the 1960's (Graph 11). As for imports, the Western Europe still retains the largest share, even though the rise in its share has been slowing down since the 1980's. In addition, the scale of intra-Community trade should be noted in these statistics. Asia and the Mediterranean Basin have significantly increased their imports since the 1980's due to their strong population growth but also the rise in purchasing power of urban communities.

Butter and buttermilk exports are also influenced by the Western Europe countries' sizeable share, although there has been a real stagnation since the 1990's with changing consumption patterns in western countries but also, as we have pointed out above, a drop or withdrawal of public subsidies. The region that has recorded an especially sharp rise is Oceania, especially New Zealand with the substantial presence of the Fonterra dairy cooperative which has been the world's biggest exporter of milk and dairy products over the last few years (Commonwealth Bank, 2010).

Graph 11: Changes in the breakdown of butter and buttermilk imports and exports by main geographical region worldwide.



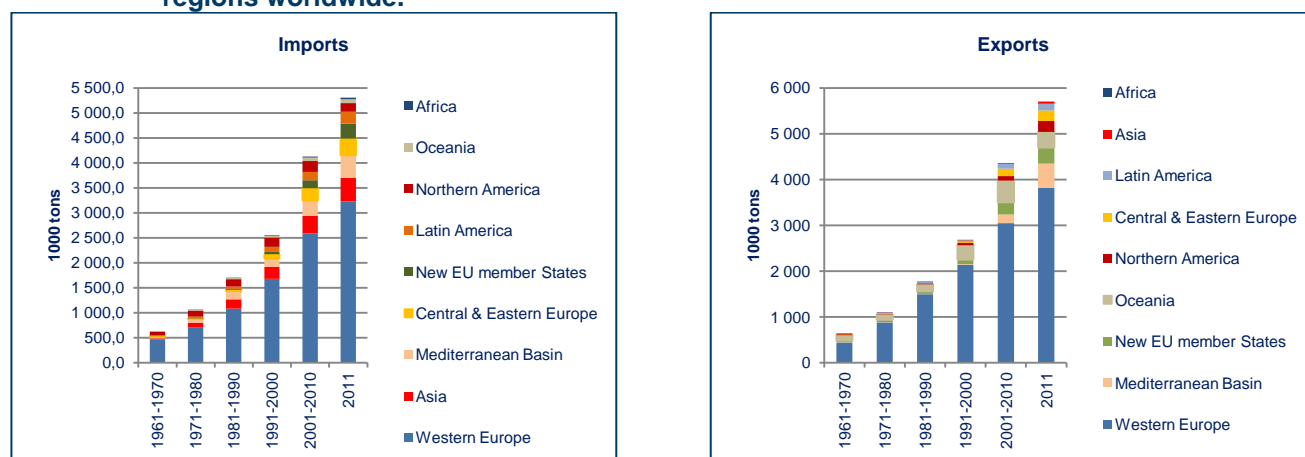
Source: produced by the author from FAOSTAT data

The biggest cheese importers are Western European countries (due to intra-Community trade), followed by Asia and the Mediterranean Basin. The new EU members as well as the countries of Central and Eastern Europe (CCEE) have also increased their respective shares of total imports globally during the 2000's (Graph 12).

At a global level Western Europe remains the leader in cheese exports and imports, however, as mentioned above, intra-Community trade must be taken into account. For example, according to FAO figures for the 1980's, the destination countries for 74% of total exports from the EU-15 were the very same EU-15 countries and this proportion rose to reach 82-83% on the 2000's (Detailed trade matrix from www.faostat.org). One of the regions that recorded a real leap forward is the Mediterranean Basin, thanks to a rise in exports from

Turkey and Egypt in the 2000's. While Turkey accounts for more than half (58%) of total cheese exports from the Mediterranean basin, Egypt represents 34%.

Graph 12: Changes in the breakdown of cheese imports and exports in the main geographical regions worldwide.

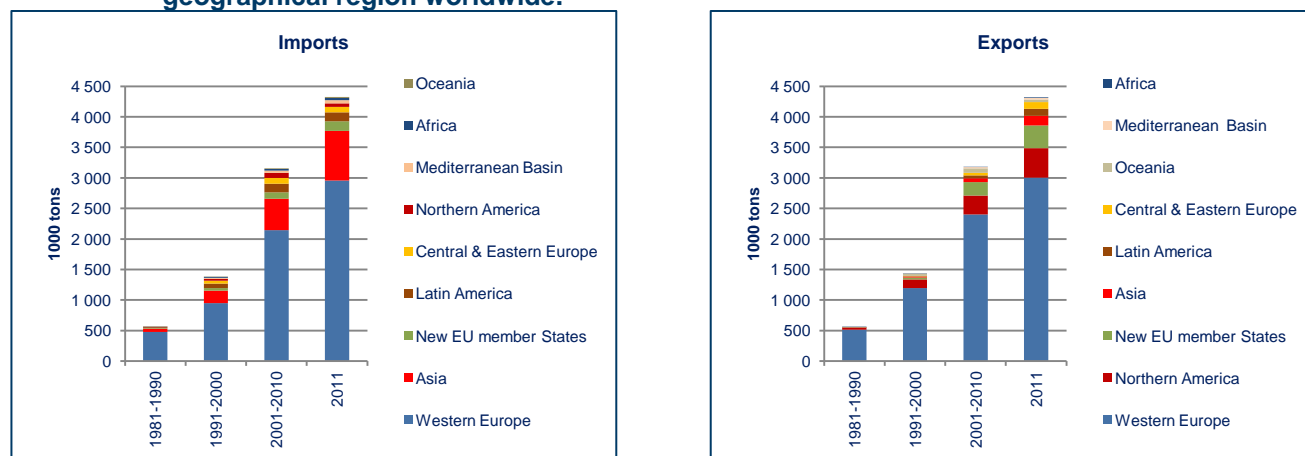


Source: produced by the author from FAOSTAT data

Fermented milks became industrially processed and traded products during the 1980's due to large multinational firms like Nestle, Danone or Lactalis (ex-Besnier). As such, export level volumes have risen from a ten-year average of 39,000 tonnes in the 1960's to a ten-year average of 3 million tonnes in the 2000's and more than 4 million tonnes in 2011 (Graph 13 and table A14). Western Europe's share of this total has dropped from 98% (1961-1970 average) to 76% (2001-2010 average) and finally, 70% in 2011. North America, recent EU member countries and Asia are the newcomers to the fermented milk market and are increasing their share of total exports year on year.

Among the biggest importers behind Western Europe are the new EU member countries, Latin America and the CCEE.

Graph 13: Changes in the breakdown of fermented milk product imports and exports by main geographical region worldwide.



Source: produced by the author from FAOSTAT data

Most traded dairy products are processed industrially on a large scale by multinational companies. Consequently, we can refer to a market that is increasingly concentrated between the hands of a few giants from western countries, but which are increasingly challenged by forces in recently industrialised emerging economies. The latter comply with international regulations while respecting global competitiveness based on volumes and prices. However, all these firms from emerging economies do not have the same positioning with respect to international rules and standards that govern global trade in agricultural and food products.

1.5. International regulations and public policies

International regulations for the trade of food products are increasingly geared to food safety that most experts present as non-tariff barriers. However, the food crises over the last two decades, caused mostly by the opportunistic and production-driven behaviour of producers/distributors, have raised awareness about the food safety as well as suspicion in western consumers. This has forced public authorities to adopt strict measures for the safety of foods placed on the market. In addition, agro-industrial and agro-tertiary companies have also introduced international physical and safety quality control standards for agricultural products and foods that they purchase. Dairy products constitute a food product group exposed to health and safety risks and are consequently subject to very strict checks for exports to western markets, especially the European market.

FOOD SAFETY REGULATIONS

With the “MacSharry” reform applied in 1992, the European Union introduced measures to ensure better safety standards for agricultural and food products while aiming to reduce related disparities. This can be seen, in particular, by the application of the Common Agricultural Policy (CAP) based on subsidies and support prices. The purpose of this reform was also to provide a new concept of agriculture which would no longer be based on productivity but give greater consideration to respecting the environment and international trading standards, thus ensuring a certain balance in global trade. All the changes brought about by this reform, such as decoupled direct payments no longer linked to price, production or production factors, brought the prices of EU agricultural products in line with global rates, thereby addressing WTO imperatives to not distort competition between exporting countries in global markets. The introduction of decoupled payments had major consequences internationally as, according to OECD estimates, this aid does not distort competition between exporting countries in global markets. Decoupling payments is therefore a tool favoured by the World Trade Organisation for discussions on agriculture.

This new CAP also meets consumer expectations and demands for food safety which is a particularly important aspect since the BSE crisis, more commonly known as “Mad Cow Disease” in the mid-1990’s. These measures have been further strengthened by the application of the 2003 “Fischler” CAP reform which enabled the EU to adopt national quality labelling and “coupled” payments³ to protect the environment and improve quality as well as marketing. Those farms that opted for the production of quality-certified products received subsidies. In 2010, the “Quality Package” introduced a series of measures to simplify legislation on certification. Traceability, the “health and safety” brand and the HACCP⁴ as well as geographical indications (GI) are instruments used to guarantee that products comply with international quality standards. In addition to these public regulatory markings, there are a series of private-sector standards such as GlobalGAP (Global-retailer Produce Working Group-Good Agricultural Practices), IFS (International Food Standard), GFSI (Global Food Safety Initiative), NQS (Nestlé Quality System), BRC (British Retail Consortium) or the ISO (International Standards Organisation) standards. These are sometimes required and therefore introduced by private sector players (large agro-industrial and agro-tertiary companies) to satisfy transactions with their suppliers. These customer demands from western countries represent quite an onerous investment for SMEs and raise exportation costs that are difficult to add on for small production units.

Southern and Eastern Mediterranean countries find it difficult to meet these new food safety requirements while new and recently established public institutions in most Mediterranean countries are seeking to apply food safety rules in both domestic and international markets. It should however be noted that these checks apply, in particular, to export products. In most cases, products are analysed in European laboratories due to the lack of facilities in some of these countries. This process further increases export costs.

Overall, systems for food safety systems in EU countries and those of the Southern and Eastern Mediterranean are not solely a factor of differentiation but also a necessary condition to maintain commercial activities and improve international competitiveness. Furthermore, exports must maintain a growth trend in line with international regulations.

1.6. The dairy products market: an increasingly concentrated market

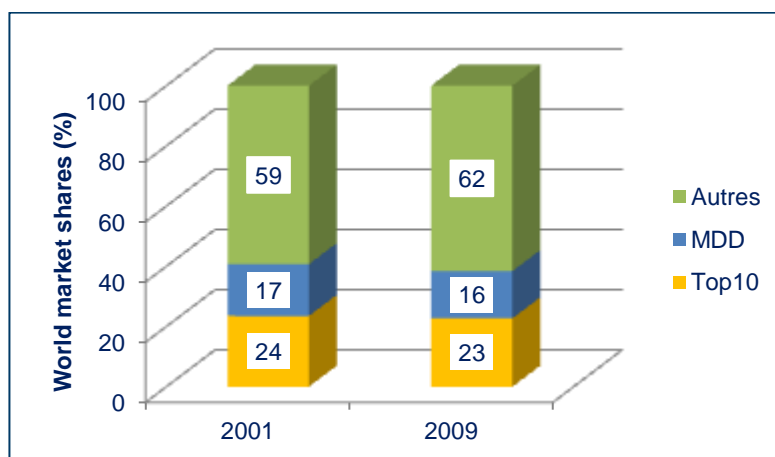
According to the expression coined by Professor Jean-Louis Rastoin (Montpellier SupAgro, President of the UNESCO World Food Systems Chair), the global market in dairy products displays an “oligopoly with fringes” structure. Euromonitor estimates show that the ten key global players hold nearly a quarter of the global market. It appears that they are being increasingly challenged by retailers’ own brands and by a multitude of

³ “Coupled” payments, or direct payments per hectare are paid directly to the producer and linked to the surface area rather than volumes produced, with mechanisms tailored to restrict the expansion of surface area eligible for aid (GEIE Alliance Environnement, 2007).

⁴HACCP: Hazard Analysis Critical Control Point

disparate companies (large national firms, SMEs and artisanal micro-businesses) which share the rest of the market and are gradually making inroads into the global market (Graph 14). As such, in parallel to globalised and standardised products such as yoghurts, industrial milk-based desserts, yellow fat spreads and cheddar-type cheeses, typical local products continue to exist or are even growing as a result of recent changes in consumer preferences, habits and lifestyles.

Graph 14: Global market shares of the 10 leading large dairy companies, retailers' own brands (ROB) and other dairy firms in 2001 and 2009.



Source: Euromonitor, *Diverse Corporate Strategies to Explore Opportunities in Global Dairy*, 2010.

This overall drop in the market share of the largest dairy companies is nuanced when compared to the strategies of each one of these 'giants'. While the global French group, Danone and the giant Dutch cooperative, **Royal Friesland Campina** are maintaining stable market shares, the other members of the Top 10 are seeing their market shares drop with the exception of two companies. These are the French company **Lactalis**, which stands out by its use of an aggressive international growth strategy introduced by a series of spectacular acquisitions in Europe (takeover of the Spanish company, **Ebro Puleva**, the Romanian firm, **Dorna Groupe**, the Croatian company, Lura dd, and more recently, the Italian giant, Parmalat) and China, with the Chinese group, Mengniu Dairy which is present both in China and Hong Kong. (Table 3).

Table 3: Changes in global market share among the ten leading multinational firms in the dairy sector between 2005 and 2009 (in %)

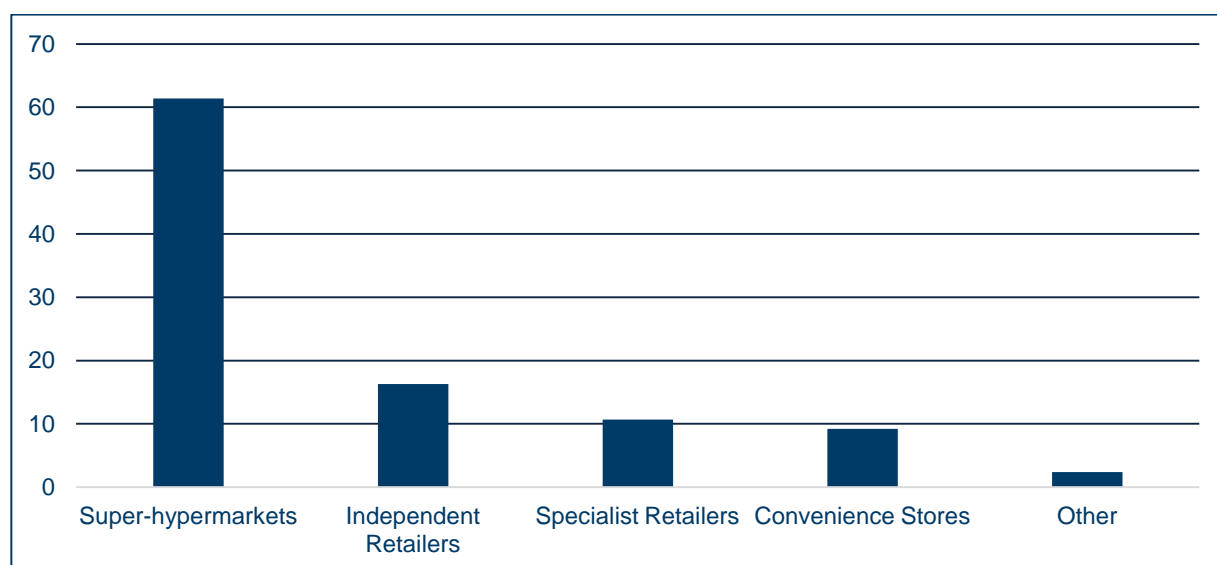
Company	World market share	2005	2006	2007	2008	2009	Trend
Danone Groupe		5.3%	5.5%	5.7%	5.6%	5.3%	⇒
Nestlé SA		4.2%	3.9%	3.9%	3.9%	3.9%	⇓
Kraft Foods Inc		3.4%	3.3%	3.1%	3.0%	2.8%	⇓
Lactalis Groupe		1.6%	2.4%	2.5%	2.5%	2.4%	⇑
Sodiaal SA		1.8%	1.8%	1.7%	1.6%	1.6%	⇓
Royal Friesland Campina		-	-	-	1.5%	1.5%	⇒
Arla Foods Amba		1.6%	1.5%	1.4%	1.4%	1.4%	⇓
Dean Foods Co		1.5%	1.5%	1.5%	1.4%	1.3%	⇓
Parmalat Group (<i>racheté par Lactalis en 2012</i>)		1.7%	1.5%	1.4%	1.3%	1.3%	⇓
Inner Mongolia Mengniu Dairy Industry(Group) Co Ltd		0.6%	0.9%	1.1%	1.2%	1.2%	⇑

Source: Euromonitor, *Diverse Corporate Strategies to Explore Opportunities in Global Dairy*, 2010

In his 2010 ranking of the biggest global dairy companies, Benoît Rouyer from CNIEL, pointed out that among those companies in the dairy industry with a turnover in excess of 3 billion US Dollars, three of them (Yili and Mengniu in China and Lala in Mexico) stand out as being emerging companies (Rouyer, 2012).

DISTRIBUTION IN THE HANDS OF THE 'OFF-THE-SHELF' SUPERMARKETS AND HYPERMARKETS

It is an undeniable fact that supermarkets and hypermarkets (SMHM) form an essential distribution channel to reach the largest number of consumers. Nevertheless, there are some channels likely to suit dairy speciality products seeking to develop an alternative image to that of the majority of producers. Among these are specialised shops (creameries and cheesemongers), but also some traditional grocers which are places where the focus is on marketing typical products. Following changes in consumer expectations and preferences, especially in western countries, the SMHMs have started promoting dairy and cheese speciality products by promoting certified products with geographical indications.

Graph 15: Breakdown of retail trade by main retailer category worldwide in 2011


Source: produced by the author from Market Line data

A MARKET THAT SEEMS DIFFICULT TO PENETRATE ALONE

According to Porter analysis of the global dairy products market, the power of the suppliers and replacement products have average scores on a scale from 1 to 5. Conversely, the “oligopoly with fringes” structure of the market is affirmed by the fact that the newcomers to the sector, as well as the intensity of competition, have above-average scores. Consumer power also displays a slightly higher score than the average. As such, we can state that the global market in dairy products is more dominated by post-production chain players.

Table 4: Key factors of success according to Porter analysis

Forces driving competition in the global dairy market in 2011	Evaluation sur une échelle de 1 à 5
Consumer power	3.2
Supplier power	3.0
Substitution products	3.0
Newcomers	3.5
Intensity of competition	3.5

units: scale of 1 to 5 (1: weak, 5: strong)

Source: Market Line.

A PLETHORA OF SO-CALLED “SPECIFIC” PRODUCTS

Table 5 (which is not intended to be exhaustive for the countries selected) reveals a complex and extremely heterogeneous cheese market and an over-abundant supply. This could ultimately pose a problem for every new applicant entering the market, without anticipating listing problems given the all-powerful SMHM purchasing centres which are the preserve of the food manufacturers. There are two significant examples included in this. On one side there is Italy, France and Germany and on the other, Canada and the United-States.

These two North American countries paradoxically highlight specific dairy products and seek to organise and promote their products nationally with a desire to promote exports, particularly Canada.

Table 5: Certain speciality cheeses in western countries

COUNTRIES	CHEESES (a non exhaustive listing)
ITALY	<p>There are now over 450 different types of Italian cheese. (including 34 PDO cheeses) :</p> <p>Valtellina Casera, Burrata, Valle d'Aosta Fromadzo, Toma Piemontese , Taleggio, Stelvio, Stilfser, Sprezza delle Giudicarie, Robiola di Roccaverano, Ricotta Romana, Raschera, Ragusano, Quartirolo Lombardo, Provolone Valpadana, Pecorino Toscano, Pecorino Siciliano, Pecorino Sardo, Pecorino di Filiano, Pecorino Romano, Parmigiano Reggiano, Murazzano, Mozzarella di Bufala Campana, Monte Veronese, Montasio, Grana Padano, Gorgonzola, Formai de Mut dell'Alta Valle Brembana, Fontina, Fiore Sardo, Castelmagno, Casatella Trevigiana, Casciotta di Urbino, Canestrato Pugliese , Caciocavallo Silano, Bra, Bitto, Asiago.</p> <p>Other Italian cheese types waiting to be certified PDO :</p> <p>Provolone del Monaco, Formaggio di Fossa di Sogliano al Rubicone e Talamello, Carciofo Spinoso di Sardegna, Vastedda della valle del Belice, Valtellina Casera, Salva Cremasco, Piave, Formaggella del Luinese.</p>
FRANCE	<p>There would be near to 1 000 different cheese types in France, of which some of the PDO cheeses :</p> <p>Ossau-Iraty, Brocciu, Roquefort Banon, Chabichou du Poitou, Charolais, Chevrotin, Crottin de Chavignol, Mâconnais, Pélardon, Picodon, Pouligny-Saint-Pierre, Rigotte de Condrieu, Rocamadour, Sainte-Maure-de-Touraine, Selles-sur-Cher, Beaufort, Bleu d'Auvergne, Bleu de Gex, Bleu des Causses, Bleu du Vercors-Sassenage ,Brie de Meaux, Brie de Melun, Camembert de Normandie, Cantal, Chaource, Comté, Epoisses, Fourme d'Ambert, Fourme de Montbrison, Gruyère français, Laguiole, Langres, Livarot, Maroilles, Mont d'Or, Morbier, Munster, Cœur de Neufchâtel, Pont l'Evêque, Reblochon de Savoie, Saint-Nectaire, Salers, Tome des Bauges.</p>
GERMANY	<p>Allgauer Emmentaler, Allgauer Gaiskase, Allgäuer Bergkäse, Altenburger, Altenburger Ziegenkäse, Andechser, Backsteiner, Bavaria Blu, Bierkäse, Blau ou Edelpilzkäse, Brand, Caramkäse, Frühstückskäse, Gaiskäsle, Glumse, Harzer Kase, Hopfenkäse, Kochkäse, Krauterkäse, Kuhbacher, Mainzerkäse, Mischlingskäse, Mondseerschachtelkäse, Nieheimerkäse, Pinzgauerbierkäse, Quark, Radolfzeller, Romadurkäse, Schichtkäse, Spitz, Steinbucherkäse, Tilsiterkase, Toggenburger, Trockenkäse, Voralberger Alpkäse, Voralberger Bergkäse, Weisslackerkäse, WilsterMarchcherkäse, Ziegenkäse.</p>
CANADA	<p>Canada would count more than 1 050 different cheese types :</p> <p>Allegretto, An fleur, Anfrom, Avonlea clothbound cheddar, Baby blue, Belle crème, Bleu Bénédictin, Bouquetin de Portneuf, Camembert canadien, Comfort cream, Délice des Appalaches, Dragon's breath blue, Ermite, Harvest moon, Ile d'Orléans ou paillason de l'isle d'Orléans, La barre du jour, La sauvagine, Le cabanon, Le cendré des prés, Le cru des érables, Oka Classique, Old grizzly, Piacere, Prestige, Sabot de Blanchette, Seven-year-old orange cheddar, Sieur de duplessis, .</p>
USA	<p>More than 1500 handicraft cheese types are produced in the USA :</p> <p>Barely Buzed, Bijou, Blue Logs, Brick, Bridgwater round, Camosun, Catskill, Chantelle, Coupole, Crater Lake Blue, Dorset cheese, Fleur-de-lis, Grassland blue, Gravenstein gold, Grayson, Hoja santa, Hooligan, Jack, Juniper Grove Tumalo, Liederkrantz, Manchester, Maytag blue, Mont Saint Francis, Nettle Meadow Kunik, Pineapple, River blue, Rocky sage, Smokey Oregon blue, Tarentaise Vermont cheese, Tullar Cannonball, Uplands Pleasant Ridge, Vermont Moutain sheperd, Wabash Cannonball, Westfield Farm's blue log, Willow Hill.</p>

Source: produced by the author from information on the website: <http://androuet.com/fromages>

2- Saturated western markets: in search of new pleasures

2.1. The Western European⁵ milk and dairy products market

2.1.1. Consumption of milk and key dairy products

From the North to the South of Europe, we drink and cook a lot with cow's milk, albeit with large variations in consumption. Yet, there is a whole geography of milk consumption that appears when we examine it in more detail (Table 6).

According to a calculation based on household purchases in 2009, Finland is where by far the most milk is consumed (Euromonitor, 2010). Scandinavian and Northern European countries are large consumers. The UK, Denmark and Norway are all in what is called the 'Top 10'. In Northern Europe, fresh milk prevails while in warmer countries, in Southern Europe, for example, UHT milk (which can be conserved up to 3 months) comes top. In fact, the difference in North/South consumption stems from the use of milk as a drink or a cooking ingredient.

In the North, milk is seen as a drink and consumed for breakfast and snack-time by children as well as adults, whereas in Southern countries, milk is consumed as an additive (a little milk in a morning coffee) and some highly specific, essentially sweet, recipes.

As concerns butter consumption, Germany, France and Luxembourg feature as the biggest per capita consumers with 6kg and more per year. A second target group for butter exporters includes Austria, Estonia, Poland and the Czech Republic (Table 6).

Table 6: Annual dairy product per capita consumption (kg) in the EU-27 in 2010

Country	Liquid milk ²	Butter and ghee	Cheeses ¹	Country	Liquid milk ¹	Butter and ghee	Cheeses
Estonia	136.6	5.5	18.4	Czech Rep.	57.6	4.9	16.5
Ireland	135.0	2.4	7.2	Roumania	10.4	0.7	4.2
Finland	126.6	3.1	21.3	Bulgaria	8.2	0.5	5.6
G.B.	107.0	3.2	11.2	Italy	56.7	2.3	22.0
Cyprus	97.3	1.7	21.4	Belgium	53.6	2.4	15.9
Sweden	96.9	1.6	18.5	Germany	53.0	6.0	22.8
Denmark	91.4	1.8	16.2	Hungary	51.2	1.0	11.5
Spain	88.5	0.5	9.3	Slovakia	49.5	2.8	9.9
Latvia	82.3	2.4	13.4	Poland	41.9	4.2	11.3
Austria	79.8	5.2	17.9	Greece	40.7	0.8	30.9
Slovenia	79.8	1.0	9.3	Luxembourg	35.2	5.8	26.7
Portugal	78.1	2.0	10.2	Lituania	30.3	1.4	14.5
Malte	69.7	0.5	9.1	EU-27	64.8	3.6	17.0
The Netherlands	59.6	3.4	21.2				
France	58.5	7.5	25.6				

¹ Cheeses from all types of milk, including fromage frais

² Packaged liquid milks

NB: for most countries, this is a calculation of apparent consumption (production + imports – exports)

(Sources: CNIEL, F.I.L.)

Greece is the biggest European, even global, consumer of cheese with almost 31kg per person per year, followed far behind by Luxembourg, France, Germany, Cyprus, Finland and the Netherlands. However, the types of cheeses consumed in these countries vary greatly. While Greek consumers prefer salty cheeses like Feta made from ewe's milk, Dutch, Finnish and German consumers eat Edam, Gouda and Cheddar-type cow's milk cheeses. The French have more varied consumption habits with an array of cheeses made from cow's milk, ewe's milk and/or goat's milk.

⁵ Western Europe comprises the EU-15 (Germany, Austria, Belgium, Denmark, Spain, Great Britain, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Sweden), Iceland, Norway and Switzerland.

2.1.2. Market segmentation

In Europe, dairy products are segmented into 5 categories, 4 of which are representative in value (milk, cheese, yoghurts, yellow fat spreads and soya-based products). Cheese forms the most consumed category of dairy products, with more than one-third of the EU market share. This is followed by drinking milk which exhibits a stable pattern and yoghurts which show a rising trend with an annual average growth rate of 3.3% between 2007 and 2011. Soya-based (replacement) products are not made from milk but mainly vegetable fat substances. We are deliberately excluding them from this analysis even though it is interesting to note that their annual average growth rate between 2007 and 2011 was three-times larger than that of dairy products (Table 7). Once again, this pattern shows that intense competition and replacement products are factors that exert a considerable influence on the structure of the dairy products market in the European Union and highlight ongoing changes in consumer preferences.

Table 7: Market segmentation of dairy products in Europe by product category from 2007 to 2011 in market value and percentage share.

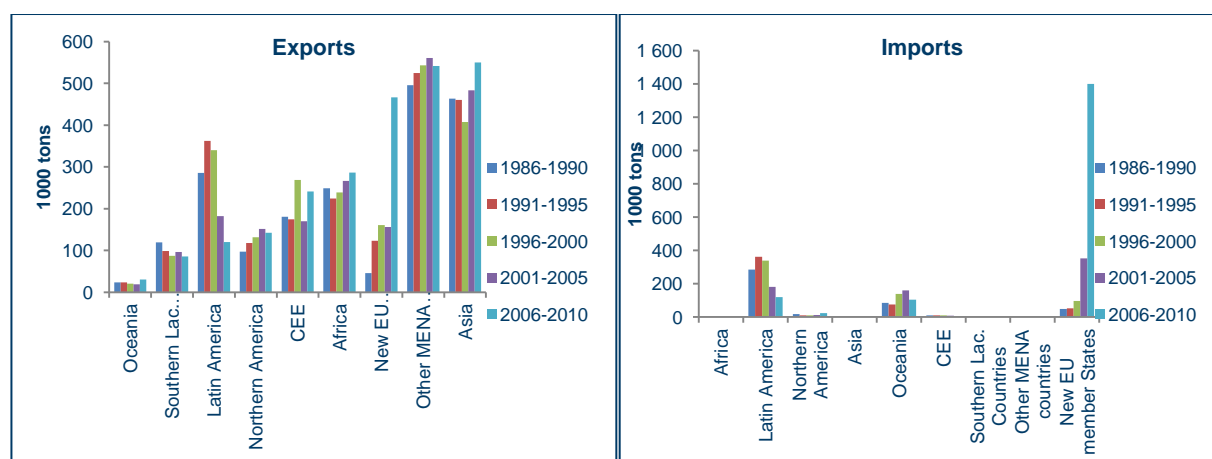
Product category	2007		2008		2009		2010		2011		AAGR 2007-2011
	Billion USD	%	Billion USD	%	Billion USD	%	Billion USD	%	Billion USD	%	
Drinking milk	35.2	30.8	36.5	30.6	37.1	30.2	37.3	29.6	37.7	29.1	1.1
Cheese	39.9	34.9	41.7	35.0	43.3	35.3	45	35.7	46.5	35.9	2.6
Yoghurt	39.8	15.6	42.0	15.7	44.2	16.0	46.3	16.1	48.5	16.2	3.3
Spreadable dairy products	18.5	16.2	19.2	16.1	19.7	16	20.3	16.1	20.8	16.1	2.0
Soy products	1.3	1.1	1.5	1.3	1.7	1.4	0.9	1.5	2.1	1.6	8.5
TOTAL	114.3	100.0	119.1	100.0	122.7	100.0	126	100.0	129.4	100.0	18.0

Source: Market Line.

2.1.3. Foreign trade

Imports and exports outside Western Europe have risen considerably during the period under study (Graph 16). The growth index of milk and dairy product exports was 126 while that for imports was 368 (for the baseline period of 1986-1990 = 100). Asia and the Southern and Eastern Mediterranean have been the two regions receiving the biggest exports from Western Europe.

Graph 16: Growth in exports and imports in volume from Western Europe¹ outside the region between 1986 and 2010



¹ European Union-15 + Switzerland, Norway and Iceland.

Southern Lac countries: LACTIMED Project partner countries - Tunisia, Egypt and Lebanon

European Lac. Countries : LACTIMED Project partner countries – Italy and Greece

Source: produced by the author from FAO data.

Yoghurt, cow's milk cheese and drinking milk (fresh, evaporated, condensed or powdered) constituted those products exported in the largest quantities while Latin America, Oceania, Central and Eastern Europe (with the new EU Member States) were Western Europe's biggest suppliers during the period studied. The latter imported milk (fresh, evaporated, condensed or powdered), cow's milk cheese, butter and whey. Butter and whey imports rose considerably from the early 2000's and among the countries participating in the LACTIMED Project, Italy and Greece exported large quantities of cow's milk cheese, whey and yoghurt to Western Europe while export volumes from Lebanon, Tunisia and Egypt have remained minimal.

2.1.4. The main players and their market shares

The four main players, with nearly a fifth of the EU market, are the same multinational companies mentioned above which account for 20% of the global market. Two firms are French and feature distinct structures and strategies. The Danone Group, like Nestle from Switzerland, and Kraft Foods from the United-States, is a multinational, multi-product company with a varied portfolio of products and global brands. Lactalis, on the other hand, is a company that has kept its core profession in the dairy sector and has achieved its multinational development by milk processing. In France, it has one of the most comprehensive ranges of speciality cheeses, with internationally renowned certified AOP cheeses too, like Roquefort.

Table 8: European market shares of the main multinational dairy companies in 2011.

Transnational companies	Market shares (%)
Groupe Danone	5.8
Groupe Lactalis	4.9
Nestlé S.A	4.7
Kraft Foods, Inc.	3.1
Autres	81.5
TOTAL	100.0

Source: MARKETLINE.

2.1.5. Distribution structure

In the single market, organised large retailers control nearly two-thirds of the value in the dairy products retail trade sector and remain the only way any pretender can access the dairy market (Table 9). Independent and specialised retail also have relatively large market shares (16.4% and 9.1%) whereas traditional retail (corner shop grocery stores) have an increasingly reduced share in the overall retail trade in the EU.

Table 9: Breakdown of retail trade in value according to distribution channels in the EU in 2011.

Retail marketing channels	Market shares (%)
Hypers & Supers	64.4
Independent retailers	16.4
Speciality retailers	9.1
Convenience stores	9.0
Other	1.1
Total	100.0

Source: Market Line, Dairy Industry Profile, February 2013.

A rapid focus on several countries strengthens the image of the all-powerful supermarkets and hypermarkets (Table 10), albeit with country-specific differences. In 2011, the proportion of hyper/supermarkets in the total value created by the retail trade in Greece (44.9%), Poland (45.8%), Portugal (54.3%), Spain (55.7%) and the Czech Republic (58%) was less than the European average (64.4%). Nevertheless, for all the countries studied, it seems clear that any promotion/marketing of typical products, alongside short marketing channels, independent retail or specialised shops, really must establish lasting links with organised large-scale retailers.

Table 10: Breakdown of retail trade in value according to distribution channels in certain EU countries and Norway in 2011.

Retail channel Country	Hyper/ supermarkets	Independent retailers	Specialised retailers	Convenience stores	Others	TOTAL
EU-27	64.4	16.4	9.1	9.0	1.1	100.0
Germany	76.4	12.0	7.2	3.5	1.3	100.0
Greece	44.9	32.0	17.8	4.9	0.4	100.0
Italy	76.8	10.6	6.7	4.6	1.3	100.0
Spain	55.7	27.1	10.1	5.7	1.5	100.0
France	66.5	15.1	13.7	3.3	1.4	100.0
Denmark	76.3	2.4	7.5	12.5	1.3	100.0
Belgium	65.1	18.0	11.9	3.6	1.4	100.0
Czech Republic	58.0	21.5	13.6	6.7	0.2	100.0
The Netherlands	68.5	23.9	3.6	2.9	1.0	100.0
Norway	76.6	12.4	7.6	2.1	1.2	100.0
Poland	45.8	27.3	14.8	11.7	0.3	100.0
Portugal	54.3	30.0	9.6	4.7	1.4	100.0

Source: Produced by the author from MarketLine data.

2.3. The North American dairy products market

2.3.1. Consumption of milk and key dairy products

All studies agree in saying that European dairy products deemed to be of superior quality, while also being linked to social recognition criteria, are very popular with American consumers. Canadian food products (particularly those from Quebec) have targeted this market for the last six years with the desire of public authorities to structure and energise this sector. Per capita consumption of drinking milk and cream as well as several dairy products, has shown quite significant falls between the 1970's and 2010, with reductions ranging from -50.5% for cottage cheese to -22.7% for drinking milk and cream and -13% for condensed and evaporated milk (Table 11).

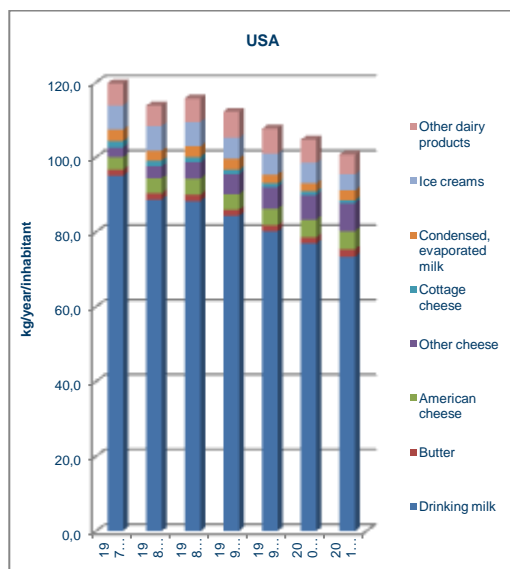


Table 11 and Graph 17: Annual per capita consumption for certain dairy products in the United-States between 1975 and 2012

5 year averages	Milk & cream	Butter	American cheese	Other cheese	Cottage cheese	Condensed, evaporated milk	Ice cream	Other dairy products
kg/year/inhabitant								
1975-1979	95.0	1.6	3.4	2.6	1.7	3.0	6.5	5.9
1980-1984	88.7	1.7	4.0	3.2	1.6	2.6	6.6	5.4
1985-1989	88.2	1.7	4.4	4.3	1.5	2.9	6.5	6.3
1990-1994	84.3	1.7	4.2	5.3	1.1	3.0	5.6	7.0
1995-1999	80.2	1.6	4.4	5.8	1.0	2.4	5.6	6.7
2000-2004	76.9	1.7	4.7	6.6	1.0	2.1	5.6	6.2
2010-2012	73.4	2.0	4.9	7.4	0.9	2.6	4.3	5.2
Growth rate	-22.7%	19.8%	43.6%	189.7%	-50.5%	-13.0%	-34.1%	-11.9%

Source: Produced by the author from USDA-FAS and Dairy Trade data,
<http://www.ers.usda.gov/topics/animal-products/dairy/market-outlook.aspx#.UvPSRvvKIWQ>.

Those dairy products having recorded significant increases are cheeses other than American-type cheese (including cheddar) (+190%), followed by American-type cheeses (+43,6%) and butter (+19,8%). Effectively, the American consumer is starting to vary their tastes and is increasingly looking for quality dairy products of defined origin. However, the data featured in Table 11 shows that Italian, French, Swiss and Hispanic type cheeses were increasingly produced in the United-States between the 1970's and 2010 apart from fromage frais and Neufchatel whose import share in annual per capita consumption has continued rising during the period under study (Table 12).

Table 12: Import share in the per capita consumption of different types of cheeses in the United-States between 1970 and 2012

Imported cheese	1970-1979	1980-1989	1990-1999	2000-2009	2010-2012
American cheese	4.1%	10.3%	10.8%	22.8%	1.4%
Provolone	10.5%	8.8%	5.9%	1.4%	3.1%
Romano	16.5%	17.7%	15.2%	22.8%	23.2%
Parmesan	21.0%	75.8%	92.8%	80.6%	49.9%
Munster	34.9%	53.6%	44.7%	69.4%	47.4%
Cottage cheese and Neufchâtel	10.1%	17.3%	28.4%	33.3%	33.2%
Total cheese	3.2%	7.2%	5.7%	5.7%	3.1%

Source: Produced by the author from USDA-FAS and Dairy Trade data, <http://www.ers.usda.gov/topics/animal-products/dairy/market-outlook.aspx#.UvPSRvvKIWQ>

In Canada, as in the United-States of America and Western Europe, speciality cheese and yoghurt per capita consumption is rising while traditional dairy products like cheddar cheese, butter or even ice creams are less popular with Canadian consumers today than in the 1990's (Table 13).

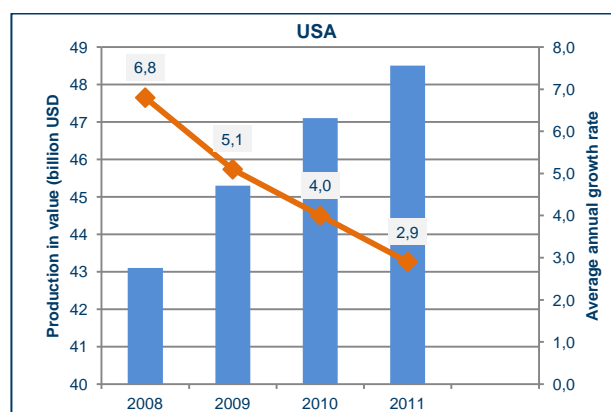
Table 13: Annual per capita consumption of certain dairy products in Canada 1993 - 2012

Product category	1993-1995	1996-2000	2001-2005	2006-2010	2011-2012	Average growth rate (%)
kg/an/habitant						
Cheddar	3.85	3.90	3.85	3.99	3.92	1.9%
Speciality cheese	6.09	6.84	7.08	7.61	7.46	22.5%
Cottage cheese	0.86	0.74	0.80	0.84	0.74	-13.8%
Total cheese	10.80	11.48	11.73	12.44	12.12	12.3%
Processed cheese	2.74	2.40	2.31	2.12	1.98	-27.7%
Butter	2.85	2.85	3.30	2.74	2.82	-0.8%
Evaporated milk	2.17	1.46	0.96	0.91	0.65	-70.1%
Yoghurt	3.06	3.69	5.84	7.58	8.38	173.9%
Ice cream	11.45	10.01	9.40	7.04	5.66	-50.6%

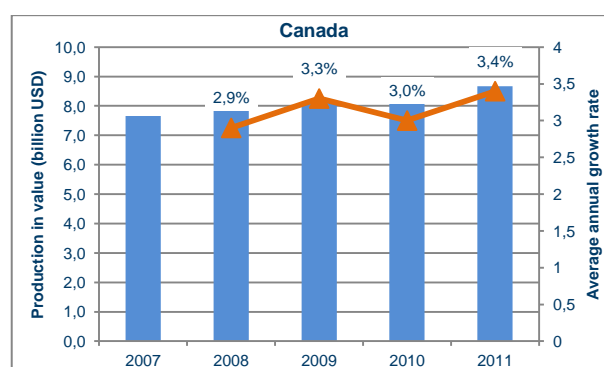
Source: Produced by the author from Canadian Dairy Information Center data, http://www.dairyinfo.gc.ca/index_e.php?s1=dff-fcil&s2=proc-trans&s3=mcs-vlc&s4=fluid&page=fluidca

2.3.2. Production and segmentation of milk and dairy products market

The US and Canadian markets have experienced strong growth in the last few years compared to the European market. However, there are differences between these two large North American markets. While there has been slow growth in the United-States over the five years of this study, with a 6.8% fall in average annual growth between 2007 and 2008 and 2.9% between 2010 and 2011, the Canadian dairy market has seen a rise in average annual growth rates from 2.9% between 2007 and 2008 to 3.4% between 2010 and 2011 (Graph 18). Comparing these changes with those of volumes produced confirms the downward trend of United-States production while in Canada, the pattern over the five-year period indicates some growth despite annual fluctuations (Graph 19).

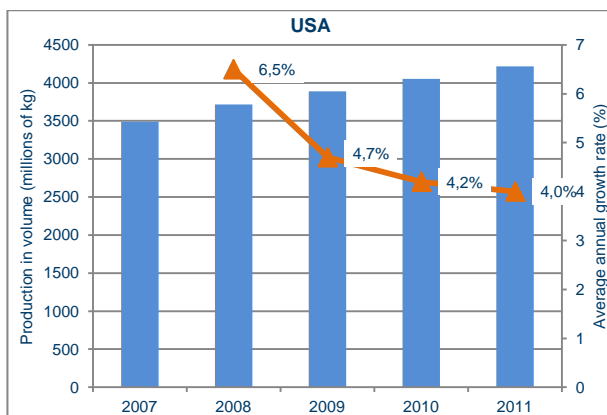
Graph 18: Production in value of the North American dairy industry between 2007 and 2011.


Source: Marketline Industry Profile, Dairy in the USA, February 2013

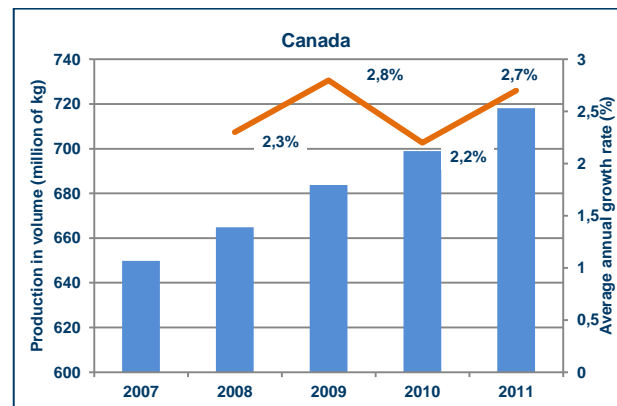


Source: Marketline Industry Profile, Dairy in Canada, February 2013

Graph 19: Production in volume of the North American dairy industry between 2007 and 2011.



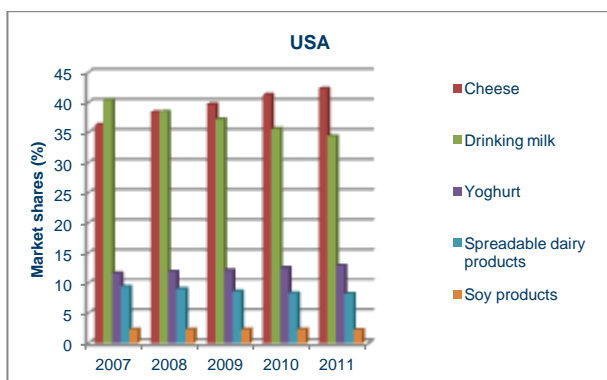
Source: Marketline Industry Profile, Dairy in the USA, February 2013.



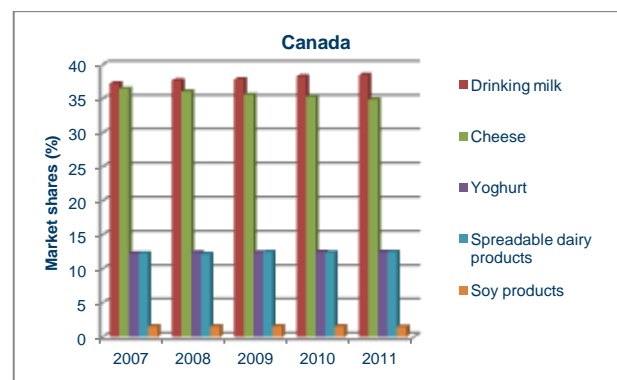
Source: Marketline Industry Profile, Dairy in Canada, February 2013.

Drinking milk has the biggest share of the Canadian milk and dairy products market with more than one-third. This category lost 6 points in the United-States between 2007 and 2011 (40.6% in 2007 and 34.4% in 2011). As a result of this, the cheese category accounted for the biggest share of the US market (42.6% in 2011) while in Canada, there has been a certain degree of stagnation with market shares of around 34-35%. In both countries, yoghurts and other fermented milks were ranked third in the market with shares between 11% and 12.5%, followed by spreadable dairy products and other dairy products (Graph 20).

Graph 20: Market segmentation by dairy product category in the United-States and Canada between 2007 and 2011 (in %).



Source: Marketline Industry Profile, Dairy in the USA, February 2013.

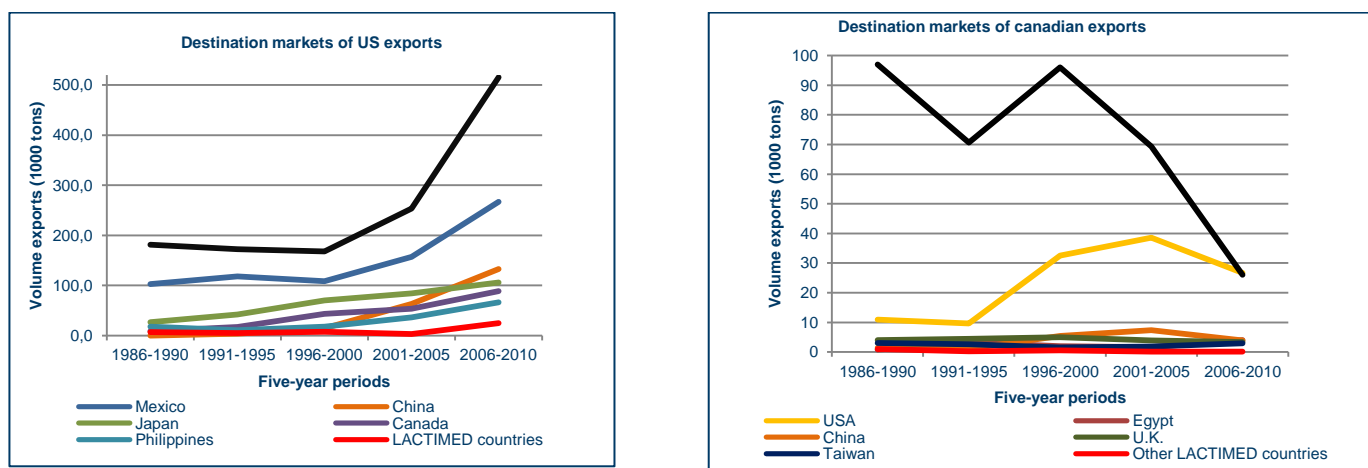


Source: Marketline Industry Profile, Dairy in Canada, February 2013.

2.3.1. Foreign trade

The United-States of America exports large quantities of milk and dairy products to Mexico, China, the Philippines and Japan, while Canada also receives significant quantities of US milk. Canada also exports milk and dairy products with some of the biggest destination markets being the United-States, Egypt, China and Great Britain. Exports to the other LACTIMED Project partner countries⁶ have also increased slightly over the last few years. The main cause of an overall decrease in milk and dairy product exports from Canada is a drop in Canadian exports to countries outside the North American zone (Graph 21).

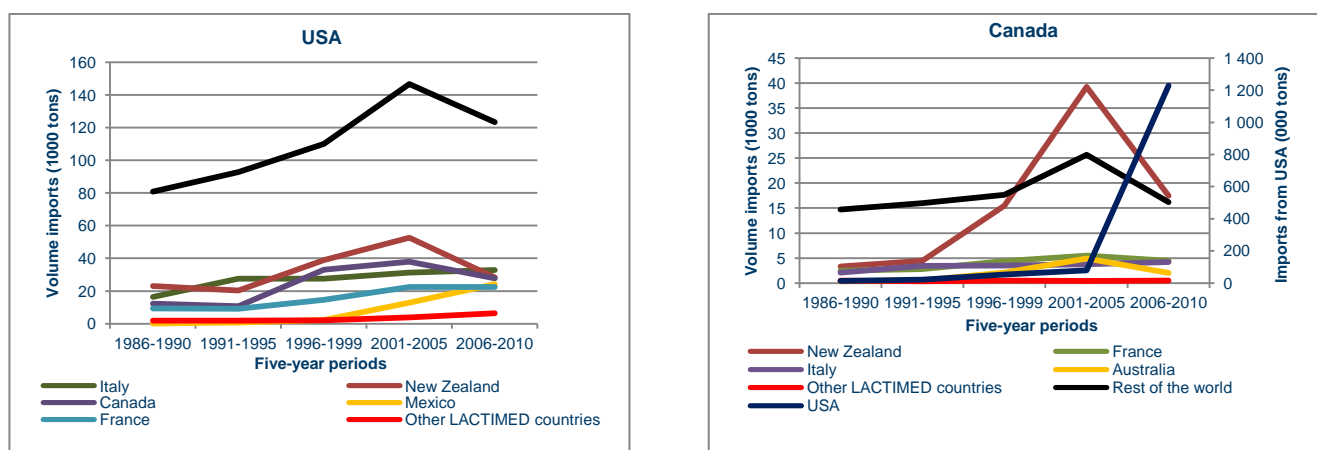
⁶ The LACTIMED countries are the partner countries in the LACTIMED Project which includes the project pilot territories in Italy and Greece in the North and Lebanon, Egypt and Tunisia in the South.

Graph 21: Export volumes of milk and dairy products from the United-States and Canada (1986-2010)


Source: Produced by the author from FAOSTAT data.

In 2012, New Zealand was the leading supplier of milk and dairy products to the United-States. Its market share rose by 30% compared to 2011, followed by Canada, Italy, France and Mexico. In 2009, Italy and France held second and third places respectively behind the leader, New Zealand, for countries exporting to the United States (<http://www.progressivedairy.com>)

Imported milk and dairy product volumes to the US and Canada rose between 1986 and 2010. These imports concerned, in particular, drinking milk (fresh, evaporated, condensed or powdered), cow's milk cheeses and lactose (Graph 22). Italy and France were the US' biggest cheese suppliers while New Zealand and Canada export butter and milk to the country. Canada also imports milk from the United-States, particularly since the early 2000's. Canada sources dairy products from New Zealand, France, Italy and Australia. Apart from Italy, the "LACTIMED" countries, have very little influence in imports volumes in the North American countries.

Graph 22: Imports volumes of milk and dairy products in the United States and Canada (1986-2010)


Source: Produced by the author from FAOSTAT data (<http://www.fao.org>)

FOOD SAFETY REGULATIONS AND STANDARDS

In the United-States, milk, as well as a large number of dairy products, are subject to quotas managed by the US Customs and Borders Protection Service and by the Ministry of Agriculture. They must meet requirements listed by the Animal and Plant Health Inspection Service (APHIS) and the Food and Drug Administration (FDA). As a matter of course, exporters must have an importation licence obtained from the FDA. In addition, goat's milk and its by-products can only be imported if the country of origin does not figure in the list of countries with foot-and-mouth disease⁷.

In Canada, all types of cheese, butter, yoghurts and other fermented milks as well as ice cream featuring in the list of controlled imported merchandise can only be imported after having mandatorily obtained a licence.

⁷ https://help.cbp.gov/app/answers/detail/a_id/206/~regulations-for-importing-dairy-products-for-commercial-use

Only dairy products from countries that show no risk in compromising animal health⁸ in Canada can be imported. They must meet requirements concerning labelling and packaging as well as standards established for specific categories of listed dairy products. Separate licence conditions apply to bulk imported products⁹.

2.3.2. The main players and their market shares

With their global presence, multinational companies are leading players in North America and reckon that there are further shares of the market to be gained. They focus on current trends based on well-being and nutrition by launching functional products to create new segments in mature and saturated markets.

The North American dairy products market remains an attractive target for several countries/companies. Indeed, it shows promise for cheeses and different yoghurt segments, especially so-called “Greek” yoghurt. Companies promoting the idea that “yoghurt is good for health” attract these types of customers. For example, the “Chobani” brand from the Agro Farma Inc. company, has seen an average cumulative growth rate of nearly 200% between 2008 and 2012, with total sales estimated at 1.9 billion US Dollars. It lies behind Yoplait (Sodical-General Mills) and ahead of the Stonyfield, Dannon and Stonyfield Farm brands from the Danone Group (Source: *Euromonitor*, 2012). The Greek company, FAGE, has had a base in the United States since 2008 at Johnstown and is challenging the big global brands in this vast market. That said, multinational companies are still the dairy market leaders in North America, especially through the financial operations (mergers and acquisitions) that they undertake worldwide (table 14) and combine, according to 2012 data, just over 90% of total production in terms of value.

Table 14: The 10 biggest multinational companies in the dairy industry in North America ranked in order of their dairy turnover in 2012.

Transnational companies	Market shares in Northern America in 2012 (%)	Northern American dairy sales in 2012 (million USD)	Northern American dairy sales in 2005 (millions US\$)	Compact average growth rate 2005-2012(%)
Nestlé USA	18.9%	11 174	1 700*	
Dean Foods Co.	15.8%	9 320	10 106	-8%
Saputo Inc. Co.	12.1%	7 157	3 461	107%
Schreiber Foods	7.6%	4 500	3 000	50%
Land O'Lakes	7.1%	4 200	3 901	8%
Kraft Foods Global Inc.	6.5%	3 845	4 400	-13%
Agropur Cooperative	6.2%	3 653	1 934	89%
Dairy Farmers of America	6.0%	3 544	2 430	46%
Lactalis USA	5.5%	3 230	755**	
Prairie Farms Dairy	4.6%	2 730	1 220	124%
Total production in value	100%	59 000		

(*) Dreyer's Grand Ice Cream Holdings Inc. merged with Nestlé Ice Cream Inc.

(**) Parmalat Canada had a turnover of 1,700 million US\$ and Farmland Dairies LLC (Parmalat USA) had a turnover of 300 million \$US in 2006. By acquiring Parmalat SpA in 2012, Lactalis increased its sales on the American continent quite spectacularly.

Source: Produced by the author from data at www.dairyfoods.com and Marketline Dairy Industry Profile.

2.3.3. Distribution structure

In terms of the retail trade, hypermarkets and supermarkets in the United-States and Canada figure prominently in purchases made by consumers (Table 15). In 2011, 82% of the food retail market in the United-States and 75% in Canada was held by large-scale retail players while local retailers and the specialised trade combined amounted to no more than 12% of total sales generated by the retail trade either in the United-States or Canada (*Marketline*, 2013). “Cheese shops” are developing in the United-States although they are currently not as widespread as in Canada, where there are more than a dozen cheese shops in Toronto while in Quebec, milk bars and cheese shops are far more developed and abundant, allowing consumers the chance to find local artisan cheeses alongside imported ones.

⁸ These are countries that do not feature on the list of those with foot-and-mouth disease. Source: <http://www.inspection.gc.ca/animaux/animaux-terrestres/importation/politiques/produits-et-sous-produits/2001-4/fra/1321120021415/1321120121634>

⁹ <http://www.inspection.gc.ca/food/dairy-products/imports-interprovincial-trade>

Table 15: Breakdown of retail trade in terms of value according to distribution channels in the United-States and Canada in 2011

Retail marketing channels	Market share (%)	
	USA	Canada
Hypers & Supermarkets	82.7	75.0
Independent retail	2.4	10.2
Speciality retail	7.0	8.6
Convenience stores	6.3	4.6
Others	1.5	1.5
Total	100.0	100.0

Source: Marketline, Dairy Industry Profile, February 2013.

3. Emerging markets

3.1. The Chinese milk and dairy products market

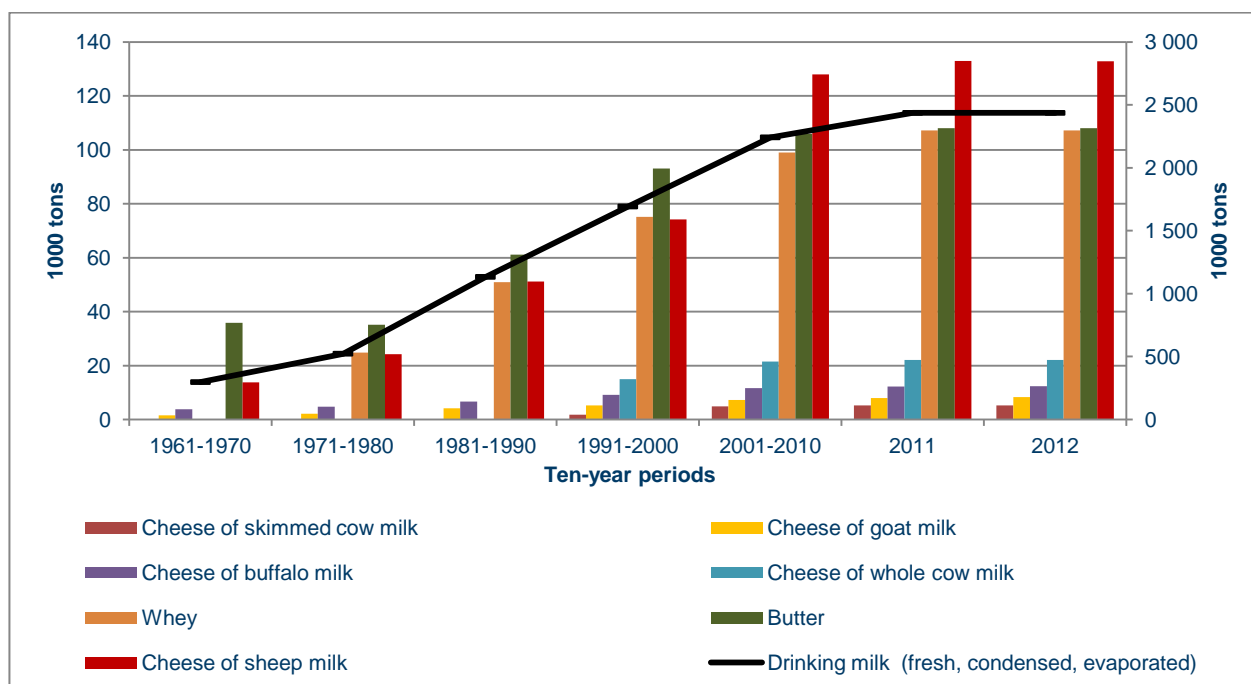
3.1.1. Milk and dairy product consumption

There has been a spectacular rise in milk and dairy product per capita consumption in China. This vast country, in which annual milk and dairy product per capita consumption (in milk equivalent) was just 5 kg/yr/person in 1990 and 7.8kg in 2000, has made extraordinary progress to reach 27.5kg annual per capita consumption in 2009 (FAOSTAT). Annual butter and buttermilk per capita consumption has stayed practically the same for several decades, at around 100g, whereas annual cheese per capita consumption rose by around 100 grams before 1990 and then by roughly 200 grams per year per person since the mid 1990's.

It should be noted that this rise in consumption is relative and varies widely from one Province to another as well as between urban and rural areas. Improvements in urban living standards coupled with a rise in purchasing power have boosted demand for fresh milk and dairy products. In particular, the demand for imported cheese showed significant growth with the opening of a large number of western-style restaurant chains (Babcock, 2004). Despite this very positive development, more than two-thirds of Chinese consumers remain little inclined to try or consume new tasting cheeses and state they do not appreciate speciality cheeses. Apart from Northern China (Mongolia and Tibet), the Chinese Provinces have no tradition in cheese and there is no consumer culture for cheese among the average Chinese. The most well-known and consumed brands remain processed cheeses such as "The Laughing Cow" and cheddar-type cheeses (Hochland and Anchor). There is, however, a section of the metropolitan population that has travelled abroad and has a strong preference for consuming speciality cheeses (<http://www.chinaeconomicreview.com/all-cheese-china>).

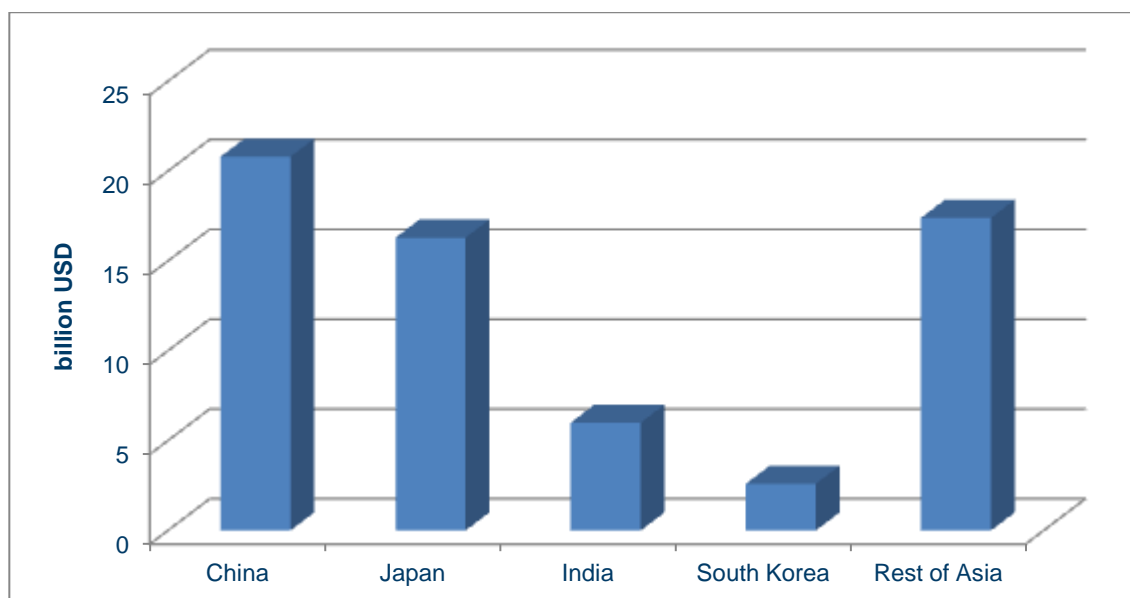
3.1.2. Production and availability of milk and dairy products on the domestic market

Milk and dairy products have been present in China for centuries, especially in large cities, coastal regions and pastoral areas in the North and West of the country (Babcock, 2004). However, the lack of physical infrastructure and means of adapted transport have been the biggest obstacles to wider marketing in this vast country. That said, technological and commercial progress has been made since 1978, the year when economic reforms started coming into force. However, the biggest upwards trend can be seen from the beginning of the 1990's, then accelerating in the early 2000's. Greater production of drinking milk (fresh, evaporated, condensed, powdered) has been the biggest change, rising from 500,000 tonnes in the 1960's to nearly 2.5 million tonnes in 2012. Ewe's cheese, butter (cow's milk and buffalo) and whey (lactoserum) are also milk by-products where volumes produced have shown a significant upwards trend since the early 2000's. This growth is illustrated by a considerable segmentation of the Chinese milk and dairy products market (Graph 23).

Graph 23: Production of milk and dairy products in China between 1961 and 2012


Source: Produced by the author from FAOSTAT data (<http://www.fao.org>)

According to Euromonitor, China may have been experiencing a level of growth in the cheese market of almost 20% since 2003. This growth is particularly strong for ewe's milk and processed cheeses. Fermented milks belonging to milk by-products have also seen robust growth over the last decade. Furthermore, Market Line data for 2011 shows that the value of the Chinese dairy market is superior to that of Japan, India and the rest of the Asia-Pacific region (Graph 24).

Graph 24: Production of milk and dairy products in terms of value in the key South and East Asian countries in 2011.


Source: Industry Profile: Dairy in China, MarketLine, February 2013

3.1.3. Foreign trade

Milk and dairy product imports to China have risen considerably since the introduction of economic reforms in the 1980's. Alongside this increase, there has been a process of concentration around several exporting countries. As such, the share of the four main countries supplying China has risen from 44% (1986-1990

average) to 82% (2006-2010 average) whereas import volumes have risen by a factor of 14. Imports from Italy and Greece remain relatively insignificant and concern cow's milk cheeses, whey and lactose. As for Chinese exports, they are still influenced by geographical and cultural proximity with Myanmar, Singapore, Thailand, the Philippines among the top 10 destination countries. However, Venezuela has become an important destination for Chinese powdered milk exports over the last few years (2008-2010). Like the shift to concentrate Chinese imports, exports from China have also been relatively concentrated too since the market share of the four largest destination countries has risen from 37% (1986-1990 average) to 50% (2006-2010 average). During the last decade, China exported minimal quantities of butter to Egypt, powdered milk to Lebanon and lactose to Tunisia (FAOSTAT).

Table 16: Chinese import and export volumes of milk and dairy products between 1986 and 2010

Rank	Supplying country	Five-year averages					Country of destination	Five-year averages				
		1986-1990	1991-1995	1996-2000	2001-2005	2006-2010		1986-1990	1991-1995	1996-2000	2001-2005	2006-2010
Volume importations (tons)							Volume exports (tons)					
1	N. Zealand	9 705	6 540	30 114	94 247	185 652	Venezuela					20 390
2	USA	1 031	11 497	30 709	78 050	142 866	Myanmar	220	1 518	2 543	2 999	2 971
3	France	1 480	3 620	20 809	43 729	52 534	Bangladesh	7	28		18	2 524
4	Australia	4 190	6 083	20 757	41 304	36 467	Angola			4	1 162	2 505
5	Germany			4 035	3 033	15 404	Singapor	176	95	651	2 210	2 496
6	Netherlands	10 083	9 225	9 798	10 168	18 295	Thailand	4	0	784	131	2 307
7	Finland	1	2 631	4 338	11 026	12 710	Philippines			636	101	2 140
8	Ireland	432	1 378	2 365	6 798	10 188	Nigeria		53	3		1 712
9	Denmark	1 047	310	287	552	3 151	UAE	2	60	418	1 239	
10	Poland	473	550	1 542	1 845	5 546	Mongolia		11	134	128	1 149
	World	36 943	60 402	147 190	311 000	511 804	World	1 802	6 332	11 252	14 160	56 569

Source: Produced by the author from FAOSTAT data (<http://www.fao.org>)

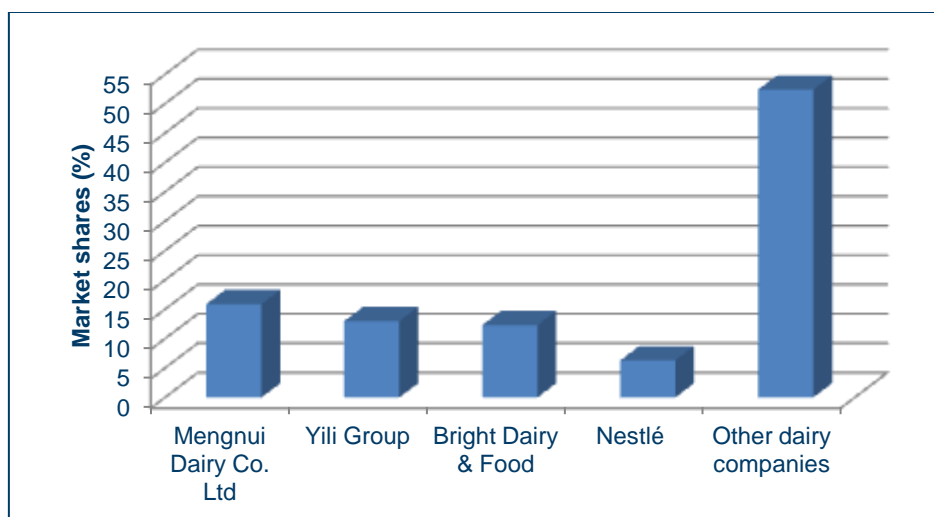
FOOD SAFETY REGULATIONS AND STANDARDS

Repeated cases of adulterated milk in dairy products, and especially infant milk, led the Chinese public authorities to strengthen regulations on food safety by adopting new health and safety measures and standards imposed on the international trade of milk and dairy products. The new regulations that apply since 1st May 2013, give full power to the General Administration of Quality, Supervision, Inspection and Quarantine (AQSIQ) for the control of dairy products subject to imports and exports. Registering and obtaining a licence is mandatory for all exporters of dairy products destined for the Republic of China. A system of traceability is applied to all exporters who must imperatively use a Chinese importer. AQSIQ has the right to destroy quarantined products if the exporting company (or physical person) does not remove their products that contravene Chinese health and safety standards (<http://english.aqsic.gov.cn/>).

3.1.4. The main players and their market shares

Three new powerful key players have appeared for the first time in the form of the Mengniu and Yili Groups (Inner Mongolia Yili Industrial Group Co. Ltd.), followed by Bright Dairy & Food Co. Ltd. These companies are expected to make eventual inroads into the market in the coming years.

Graph 25: Market shares of the main milk and dairy product firms in 2011



Source: Industry Profile: Dairy in China, MarketLine, February 2013

According to 2011 figures provided by Market Line (Graph 24), the concentration ratio (CR3) in the Chinese milk and dairy products market was 41.2% and the three leading companies are of Chinese origin. Mengniu Dairy Company Ltd was founded in 1999 and produces and distributes drinking milk (UHT), yoghurt, ice creams, powdered milk and milk tablets. It is a major competitor of the Yili Group which was established in 1993 and specialises in the production and distribution of drinking milk (fresh, UHT and powdered) and ice creams. The group has been experiencing difficulties since 2008 following the scandal around traces of melamine found in infant milk produced and sold in several countries. The third group is Bright Dairy and Food Co. Ltd. which is the biggest player in the Chinese dairy market. It developed internationally from 2000, firstly by acquiring dairy processing companies in New Zealand and Australia and more recently, by buying out the British company, Weetabix. Table 17 presents the total sales of the biggest Chinese dairy companies in 2012.

Table 17: Growth in turnover of the 5 leading Chinese dairy companies (2009-2012)

Company	Total sales (million USD)			
	2012	2011	2010	2009
Yili Group	6 655	5 797	4 382	3 566
Mengniu	5 718	5 788	4 471	3 764
Bright Dairy and Food	2 183	1 825	1 414	1 163
Feihe Dairy (filiale d'American Dairy)	368	293	257	271
China Modern Dairy Holdings	266	97	76	80
Production in value of the Chinese dairy industry*	42 430	35 950	33 410	29 180

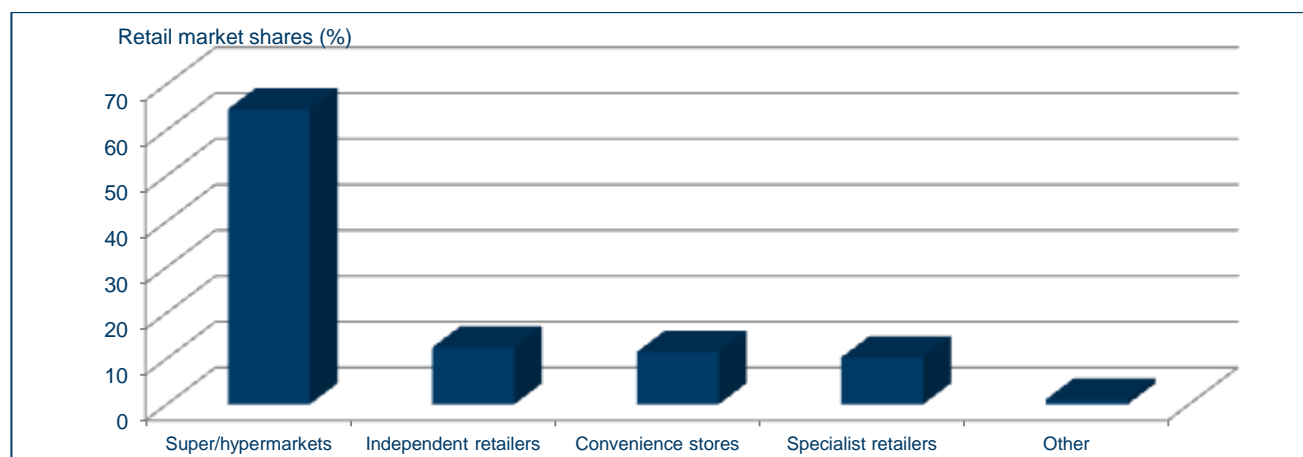
Sources: * Orrani Consulting, 2013 for 2011 and 2012 and USA FAS-GAIN China Food Manufacturing Report 2013 for 2010 and 2009, Ranking of firms produced by the author from Google Finance data (<http://www.google.com/finance>)

The strong industrial presence of Chinese companies leaves little room for foreign firms. However, recent problems in food safety, particularly infant milk, appear to have forced Chinese firms to search for western partners to rapidly improve production techniques. Following the entry of the French Danone Group in the capital of Mengniu in 2012, the Danish-Swedish Arla Group has recently bought shares in the Yili Group. These strategic alliances offer Chinese companies the possibility to upgrade their production rapidly and efficiently to meet international food safety standards while consolidating the positions of the western multinational groups on the market in this huge country. The arrival of multinational companies will probably step up the shift towards a concentration of the Chinese dairy market.

3.1.5. Distribution structure

Large-scale organised retail accounts for more than two-thirds of the Chinese retail market (Market Line, 2013). Improvements in physical infrastructure coupled with a high rate of urban development have helped the growth of hypermarket and supermarket chains in China. Consequently, the retail landscape, which was previously characterised by a national geographical fragmentation, has been largely altered since the 1990's. The arrival of western stores like Carrefour, Auchan or even Wal-Mart has exacerbated this transformation. Recent developments in transport and logistics have broadened the geographical scope of milk and dairy product distribution beyond the regional confines of production areas. According to the latest surveys undertaken in Chinese households, half of urban homes buy their milk in supermarkets. 80% of homes surveyed also stated that they also bought yoghurt in supermarkets (USDA, GAIN, 2013).

Graph 26: Market shares of various retail formats in China in 2011



Source: Industry Profile: Dairy in China, MarketLine, February 2013.

The penetration of foreign organised retail chains since the 1990's has not necessarily sparked ferocious competition in the Chinese retail market since there has been a certain division of this market between national and foreign retail chains. While foreign stores like Carrefour, Auchan, Wal-Mart or Metro are expanding in the large cities with hypermarket chains seeking economies of scale, national retail chains are focusing more on smaller formats, like supermarkets and mini-markets, and are also developing in less densely populated urban centres.

Table 18: Major organised retail chains in China in 2010 ranked by total sales

Company	Countr of origin, capital structure	Outlet format	Outlet number	2010 sales (billion USD)
Vanguard (CRV)	China, public	Hyper/supermarkets, minimarkets	3 155	10.6
Lianhua	China, public	Hyper/supermarkets, minimarkets	5 239	10.3
RT Mart	France (JV between Auchan and Ruentex from Taiwan)	Hypermarkets	143	7.4
Carrefour	France	Hypermarkets	182	6.2
Wal-Mart	US, JV	Hypermarkets	219	5.9
Wumart	China, private	Supermarkets, minimarkets	2 578	5.6
Suguo (CRV)	China, public	Supermarkets, minimarkets	1 905	5.5
Nonggongshang	China, public	Hyper/supermarkets, minimarkets	3 204	4.3
Tesco	UK, JV	Hypermarkets	109	2.4
Lotus	Thailand	Hyper/supermarkets, minimarkets	74	2.0
Auchan	France	Hypermarkets	41	2.0
Metro	Germany, JV	Hypermarkets	48	1.8

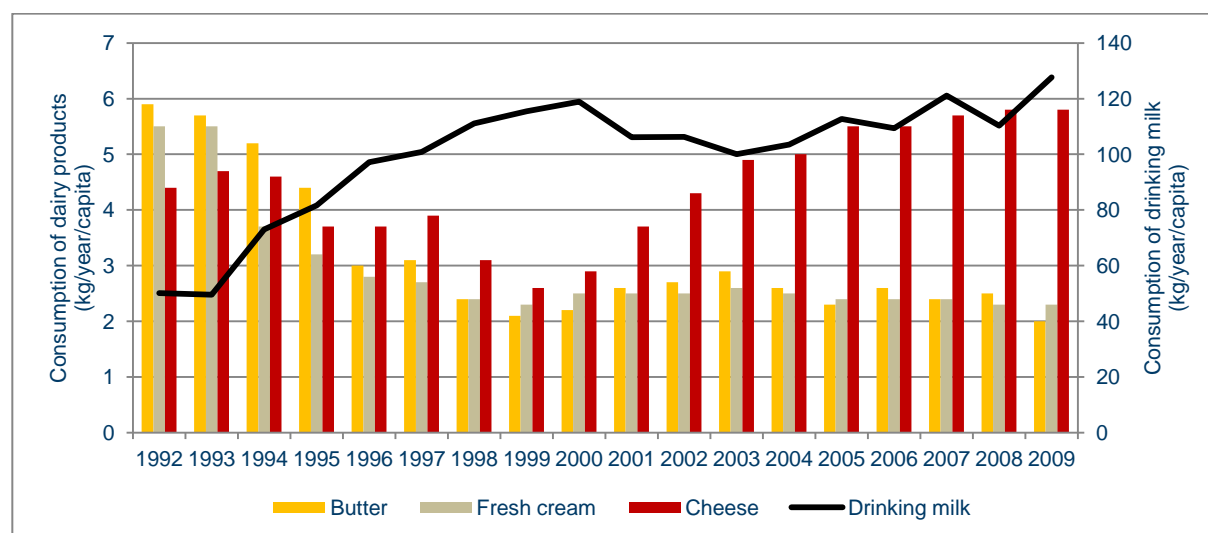
Source: China Chain Store and Franchise Association 2010-2011 referred to in USDA GAIN China Retail Report 2012.

3.2. The Russian milk and dairy products market

3.2.1. Milk and dairy product consumption

The Russian market is very vibrant due to growth supported by the purchasing power of metropolitan consumers. Dairy product per capita consumption is rising considerably, particularly annual cheese and drinking milk per capita consumption between 1992 and 2009, a period during which that of butter and cream dropped (Graph 27).

Graph 27: Apparent milk and dairy product consumption in the Russian Federation between 1992 and 2009 (kg/yr/person)



Source: Produced by the author from FAOSTAT data.

Within the dairy sector, the cheese segment is the most dynamic. In 2008, its rate of growth was 37% in value and 8% in volume compared to 2007 (Euromonitor 2009). Although pre-packed cheeses are dairy products show the strongest growth, particularly in relation to counter-cut cheese and traditional cheeses, they only capture 8% of hard cheese retail sales. Furthermore, blue cheeses and soft cheeses imported from France, or Feta, are becoming increasingly sought after by consumers in Moscow and St Petersburg (Russian Agri-Food Market Review). Spreadable cheeses and other processed cheeses are also segments that have been

growing rapidly in the last few years. Butter and fermented milks, especially yoghurts, are also dairy products showing an upwards trend in demand.

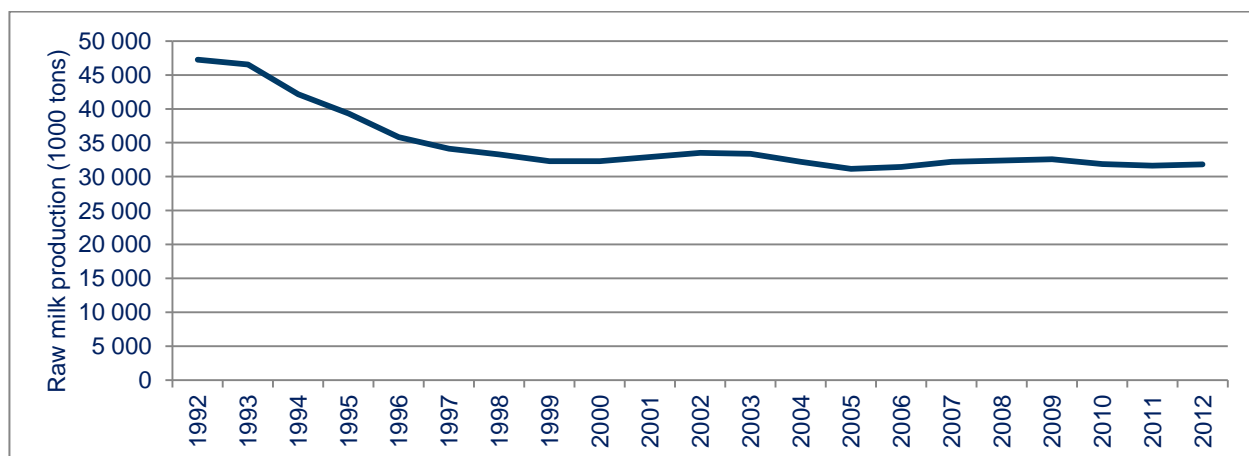
These positive industry trends do not negate the fact that the average Russian consumer is sensitive to fluctuations in price and the successive crises that have shaken the economic landscape since 2008. These have appeared to discourage increased consumption or a diversification in the varieties of products consumed.

Consumers belonging to the emerging well-educated middle and upper classes are looking for new taste sensations and raising the demand for imported food products (Planet Retail, 2009). The desire to dine out more and the demand for foreign restaurants are also factors that solicit new “exotic” tasting products. Growing purchasing power, together with new lifestyles geared to metropolitan consumers, is influencing the vitality of the dairy market despite quite considerable constraints on the industry players.

3.2.2. Production availability in the milk and dairy products market

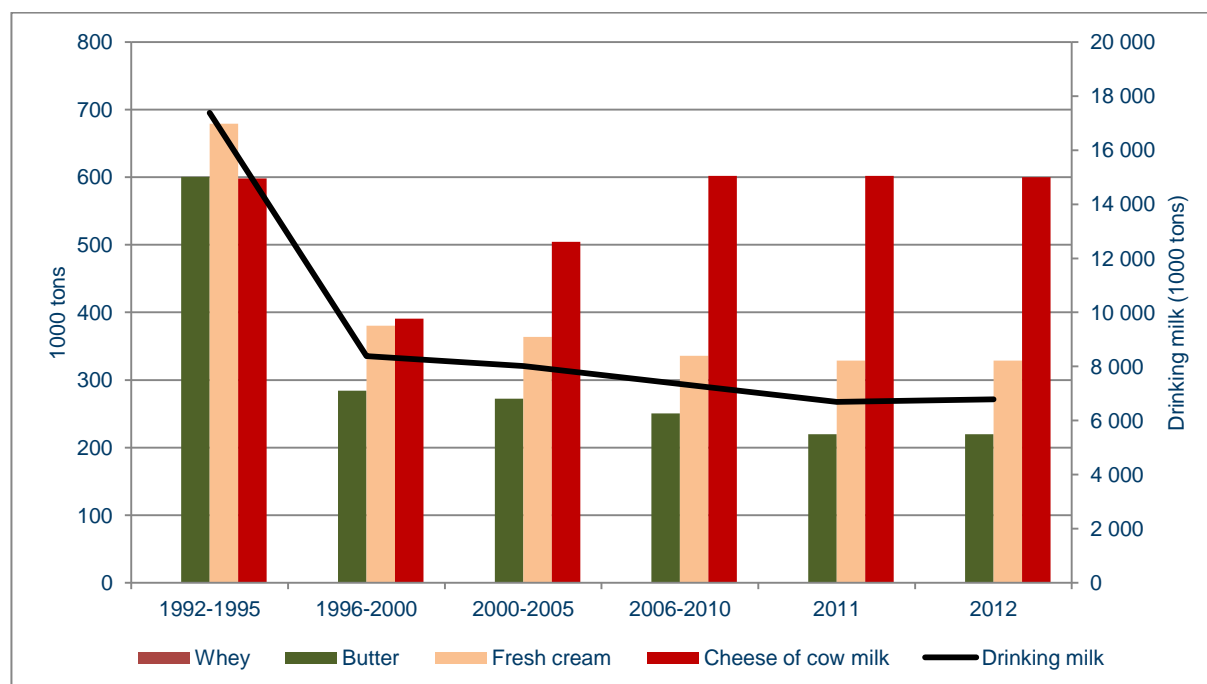
Raw milk production dropped in the 1990's (Graph 28) due to a reduction in dairy cow numbers. It should be noted, however, that the concentration and intensification of milk production in certain regions of the country, particularly near large cities like St Petersburg and Moscow (FAO, 2010) triggered by the private sector building large modern farms, has interrupted this downwards trend and stabilised average annual production at around 30 million tonnes since the early 2000's. This has been done by reducing seasonality issues and by raising yields.

Graph 28: Changes in milk production in the Russian Federation between 1992 and 2012



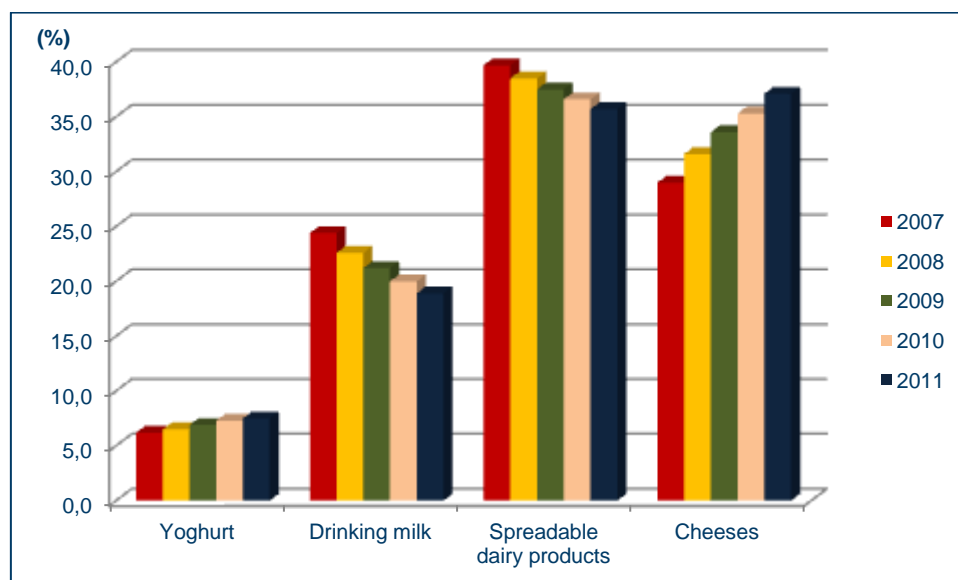
Source: Produced by the author from FAOSTAT data.

This situation concerning raw milk production is also reflected in the dairy industry. Production volumes of cow's cheese have stabilised since 2006 after a significant fall between 1992 and 2005. Conversely, the production volumes of butter (and buttermilk), creme fraiche and drinking milk (fresh, condensed, evaporated and dehydrated) have fallen away considerably since 1992, creating a deficit in the industry (Graph 29).

Graph 29: Production of milk and dairy products in the Russian Federation between 1992 and 2012


Source: Produced by the author from FAOSTAT data.

It can however be seen that market changes in terms of the value of dairy products reflects promising growth for certain segments in the industry. In particular, the cheese and yoghurt segments displayed upwards trends between 2007 and 2011, whereas drops in drinking milk segments and spreadable dairy products (including butter) are much less acute (Graph 30).

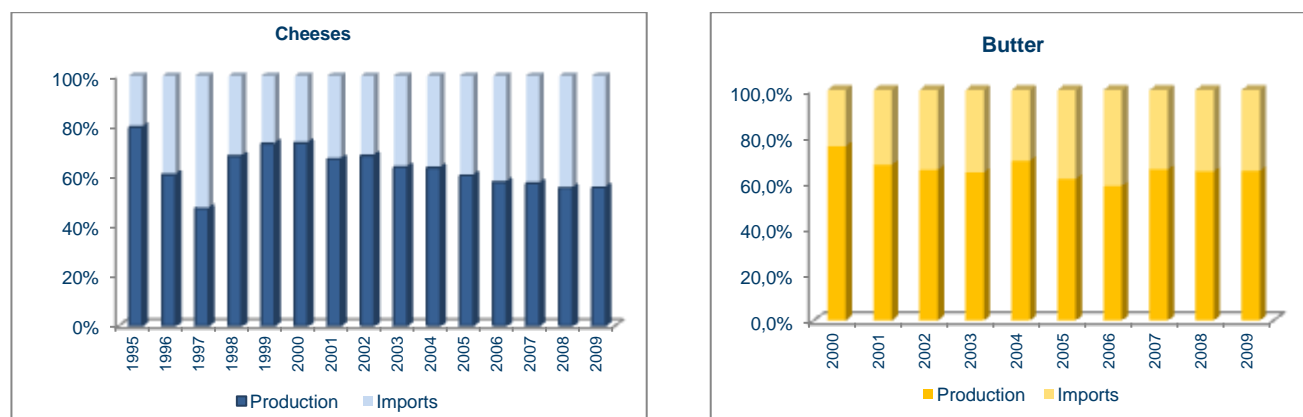
Graph 30: Changes in market share in terms of value for certain dairy products in the Russian Federation between 2007 and 2011


Source: Dairy in Russia, Marketline Industry Profiles, February 2013.

3.2.3. Foreign trade

After the economy was liberalised in the early 1990's, the proportion of imports in domestic availability did not exceed 10%. However, trade with the outside world grew constantly to reach 30% at the beginning of the 2000's for cheese and more than 24% for butter (Graph 30). At the end of the 2000's, almost half of cheeses and more than one-third of butter marketed in the country came from imports despite the global financial crisis and rising prices for food products.

Graph 31: Proportion of imports in total domestic availability in cheese and butter volumes in the Russian Federation between 1995 and 2009.



Source: E. Serova, N. Karlova, *The Russian Federation Review of the Dairy Sector*, FAO Investment Center, 2010.

Russia's biggest suppliers of milk and dairy products are those countries that are geographically and culturally close to the Federation such as Germany, Ukraine, Finland or Lithuania. These four countries combined account for 55% of milk and dairy product imports (2006-2010 average) (Table 19). Cow's milk cheeses represent the majority of this total (51% of the total based on the 2006-2010 average), followed by butter (21%) and whey, or lactoserum (12% of the total based on the 2006-2010 average). A certain specialisation by country can also be observed. New Zealand and Finland are the biggest suppliers of butter and buttermilk (67% of total imports in 2010), whereas Germany, Lithuania and the Netherlands account for more than two-thirds of cow's milk cheese imports. Italy and Greece also export cow's milk cheeses but in smaller quantities. These two "LACTIMED" countries also export ewe's milk cheese, but for the moment the quantities exported remain minimal (30,000 and 21,000 tonnes respectively in 2010).

Table 19: Import and export volumes of milk and dairy products in the Russian Federation between 1998 and 2010

Rank	Supplying country	Five-year averages			Country of destination	Five-year averages		
		1998-2000	2001-2005	2006-2010		1998-2000	2001-2005	2006-2010
		Imports (1000 tons)				Exports (1000 tons)		
1	Germany	103	76	76	Kazakhstan	20	41	66
2	Ukraine	42	118	63	Ukraine	1	20	29
3	Finland	28	37	58	Azerbaijan	1	2	10
4	Lithuania	30	24	48	Kyrgyzstan	1	1	4
5	France	4	10	34	Georgia	0.2	2	3
6	New Zealand	34	33	31	Mongolia	1	6	3
7	Poland	22	29	29	Moldovia Republic	0.2	2	3
8	The Netherlands	14	13	24	Tajikistan	1	1	2
9	Argentina	3	4	18	Turkmenistan	0.3	1	2
10	Estonia	12	2	15	Uzbekistan	0.3	1	2
	Total imports	357	397	447	Total exports	52	84	127

Source: Produced by the author from FAOSTAT data.

The Russian Federation exports small quantities of dairy products to ex-members of the Soviet Republic and Central Asia, even though there has been an upwards trend for these exports between 1998 and 2010. The most-exported products are butter and drinking milk (fresh, condensed, evaporated and dehydrated), followed by yoghurt and cow's milk cheeses. (Table 19).

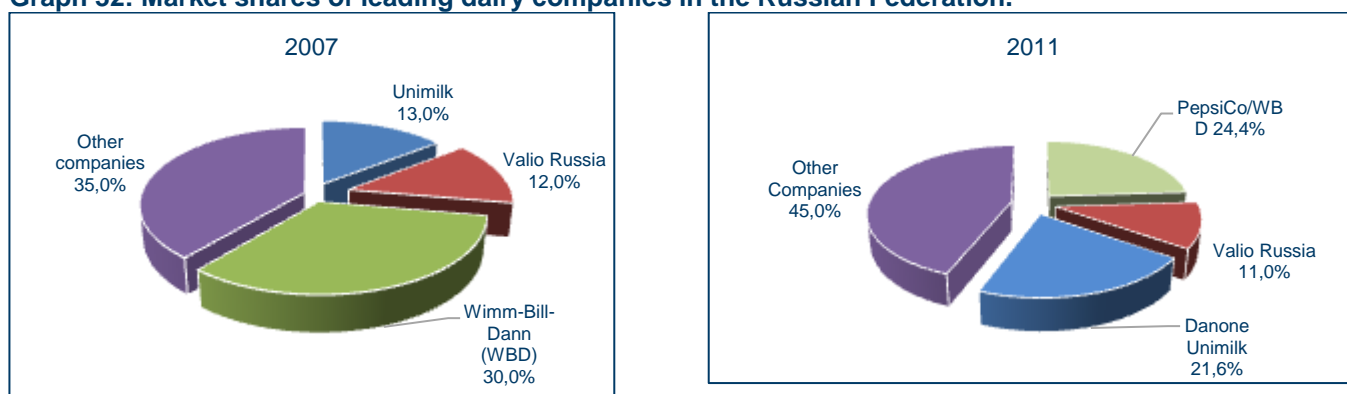
FOOD SAFETY REGULATIONS AND STANDARDS

In 2012, the Russian Federation revised its laws and regulations on food safety standards and customs duties for food product imports. As a means of protecting the national dairy industry, customs duties are quite high despite reductions applied after Russia became a member of the WTO in August 2012. In addition, imports of milk and dairy products from Estonia, Armenia and Lithuania have been forbidden since late 2012 for reasons of non-compliance with health and safety standards recently established by Russian legislation. As a matter of course, individuals or firms exporting to Russia, must have a Russian counterpart to carry out their transactions.

3.2.4. The main players in the Russian dairy industry

The concentration process in the raw milk production link of the dairy chain is also reflected in the structure of the dairy industry. Getting regular supplies in sufficient quantities and quality is a major problem for large companies in the dairy chain. This constraint forces them into a concentration process to expand their supply area upstream, but also to better control the retail market downstream from them. This shift towards concentration extends beyond the regions with large cities like Moscow or St Petersburg and is gaining other regions adjoining these major conurbations. The milk and dairy products market was already highly concentrated with the predominance of four leading groups in 2007. Between 2007 and 2011, it became even more pronounced, with take-overs and mergers of the biggest national firms by multinational companies. For example, Danone bought-out the second biggest Russian dairy company, Unimilk, while one year later, PepsiCo initially acquired 60% and subsequently, all the capital of the biggest Russian firm, Wimm-Bill-Dann, while buying out the 20% share that Danone held in the capital of this Russian group. However, despite, and perhaps due to this shift towards concentration, the milk and dairy products market is beginning to attract other national or multinational players to milk processing and the rate of concentration has diminished (Graph 32). Among the other multinational companies with shares in the market approaching 10% for certain dairy segments, is the Dutch dairy group, Campina-Friesland. It has a considerable presence in yoghurt production and is followed closely by the German company, Ehrmann, which has been based in Moscow since 1996 and has close to an 8% share in the yoghurt segment.

Graph 32: Market shares of leading dairy companies in the Russian Federation.



Source: Produced by the author from information collected from various websites:

<http://www.interfax.com/newsinf.asp?id=146142>;

<http://seekingalpha.com/article/239721-pepsi-takes-a-giant-step-in-russia-by-acquiring-wbd-stake>;

http://www.atimes.com/atimes/Central_Asia/NC30Aq02.html;

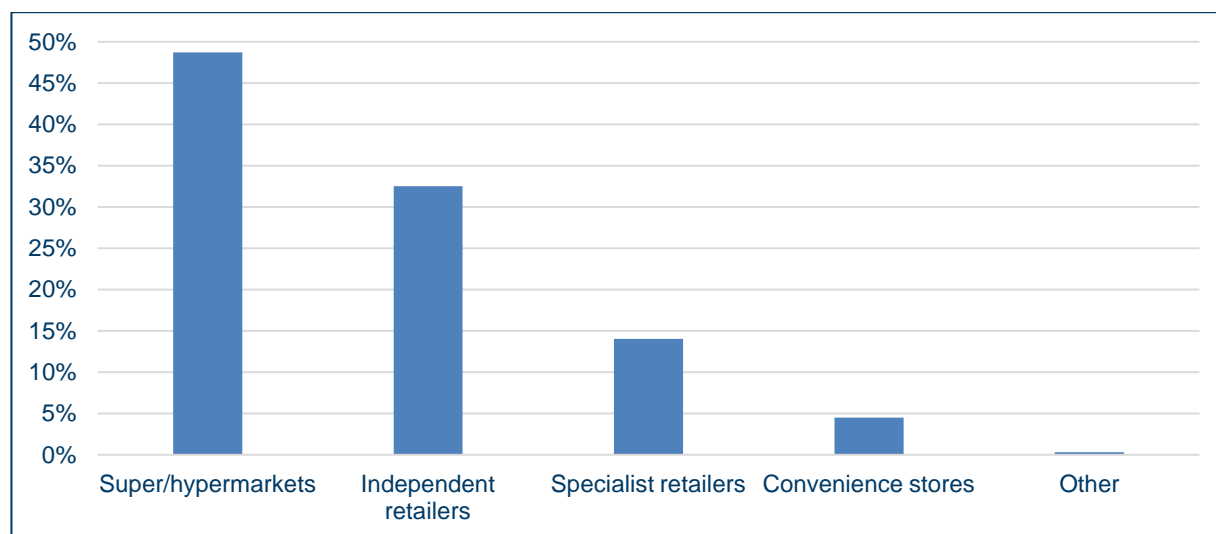
<http://www.challenges.fr/entreprise/20120327.CHA4680/danone-a-envie-de-grossir-en-russie.html>;

<http://www.lefigaro.fr/societes/2010/06/18/04015-20100618ARTFIG00335-danone-fusionne-avec-le-russe-unimilk.php>

3.2.5. Distribution structure

Retail distribution in the Russian Federation is being organised and concentrated at lightning speed since the political and economic regime change in the early 1990's. Previously, open-air neighbourhood markets dominated this sector, but in their dizzying ascent, several national hypermarket and supermarket chains are competing with multinational companies like Auchan or Metro AG to prevent giants like Carrefour from taking a firm hold. Nearly half of the retail market share in 2011 was held by hypermarket and supermarket chains (Graph 33). Despite this development, it has been identified that more than two-thirds of food product purchases were made in the independent retail sector or in specialised shops.

Graph 33: Market share in terms of value for different types of retail trade in the Russian Federation in 2011



Source: *Dairy in Russia, Marketline Industry Profiles, February 2013.*

A more in-depth look at organised retail distribution companies in Russia will better help to understand the rapid growth of agro-tertiary players. Most of these companies have their own platforms and purchasing centres (Table 20).

Table 20: The major retailers ranked according to their total sales achieved in 2012

Company	Founding year	Country of origin	Outlet format	Number of outlets	Sales 2012 (billion USD)	Market share 2012	Market share 2009
X5 Retail Group (Kopeika)	2006	Russia	Super/hypermarkets	3 802	18.7	13.2%	26.3%
Magnit OJSC	1994	Russia	Hyper/supermarchés	6 884	16.7	11.8%	16.2%
Auchan (Atak)	2002	France	Hypers, discount	50	9.9	7.0%	15.3%
Metro AG (Realmarket)	2000	Germany	Cash&carry, hypers	1 499	8.4	5.9%	12.8%
Dixie Group (+Victoria)	1998	Russia	Hard discount	552	5.5	3.9%	5.1%
Dorinda (O'Key)	2002	Russia	Hypers, discount	83p	4.3	3.0%	6.4%
Lenta	1993	Russia JV	Independent stores	36	4.2	3.0%	5.3%
Seventh Continent	1994	Russia	131 super et 4 hypermarkets		2.3	1.6%	4.1%
Globus		Russia	Supermarkets		1.0	0.7%	
Rewe (Billa, Selgros)	2004	Germany	Supermarkets	106	0.8	0.6%	
Organised food retail trade							86.0

Source: Produced by the author from information collected from company websites and from data featured in Thomas White Global Investing, BRIC Spotlight Report, January 2011, <http://www.thomaswhite.com/global-perspectives/consumer-goods-sector-in-russia-winds-of-change/> et USDA GAIN Report n°RSATO 1312, Russian Federation Retail Foods, 9/3/2013.

Growth in demand and the organised retail trade in the country's large cities is fuelling a certain vitality in the milk processing industry as well as for dairy product importers and this trend seems to be continuing in the medium, or even, long-term.

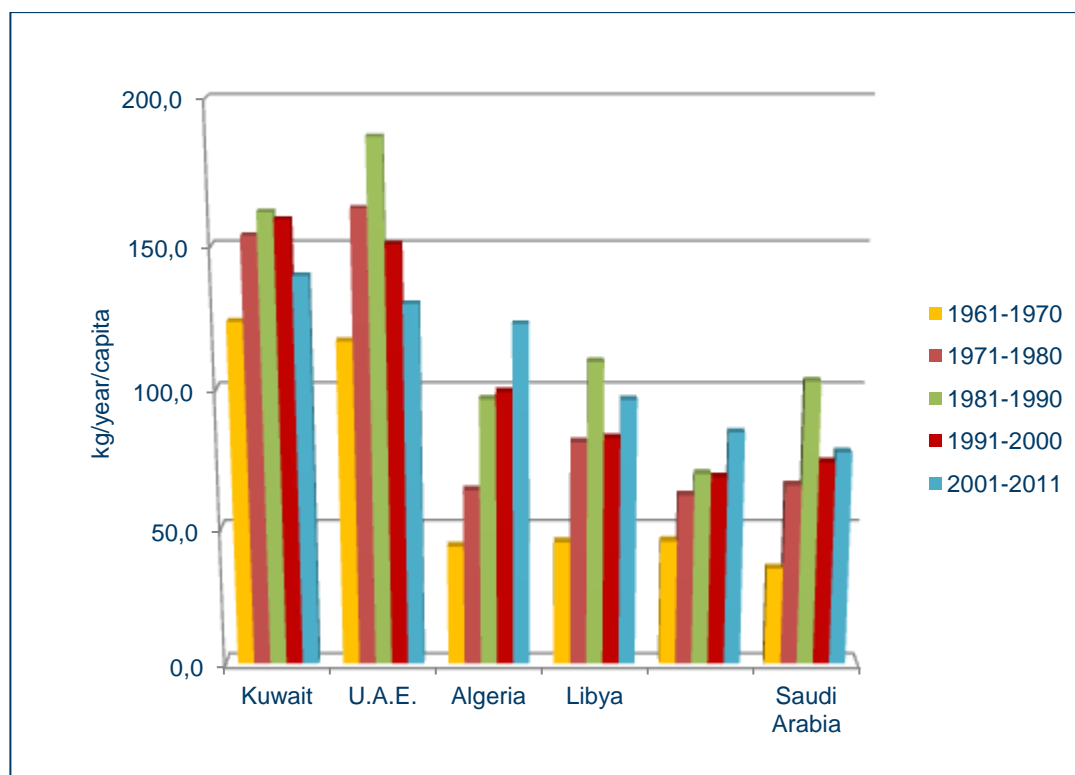
3.3. The North African and Middle Eastern markets

Certain countries in North Africa and the Middle East trade with the "LACTIMED" countries and, as such, their milk and dairy product value chains offer interesting case studies. Among these countries, are Algeria and Libya, located in the North African region and the Arabian Gulf States and Jordan, situated in the Middle East. However, a lack of statistical data and information on these markets is one reasons for this part of the report remaining incomplete. As with other sections of the report, trends over longer periods are used to better highlight developments and changes in consumption patterns, production and foreign trade of milk and dairy products over time.

3.3.1. Milk and dairy product consumption in North African and Middle Eastern countries

In terms of milk and dairy products (in milk equivalent), Kuwait and the United Arab Emirates have high levels of apparent per capita consumption¹⁰ and already stood out in the 1960's compared to other countries in this zone. However, Algeria, Saudi Arabia, Libya and Jordan have higher development indicators over the study period than those of Kuwait and the United Arab Emirates (Graph 34). For example, Algeria had a growth rate of 284% between 1961-1970 and 2001-2011 and raised its apparent per capita consumption of milk and dairy products (in milk equivalent) from 42.4kg/yr to 123.1kg/yr. Growth rates for other countries in the same zone were also much higher, such as 220% for Saudi Arabia, 214% for Libya and 187% for Jordan, while the United Arab Emirates registered 111% and Kuwait 113%.

Graph 34: Change in annual milk and dairy product per capita consumption (in milk equivalent) in North African and Middle Eastern countries between 1961 and 2011



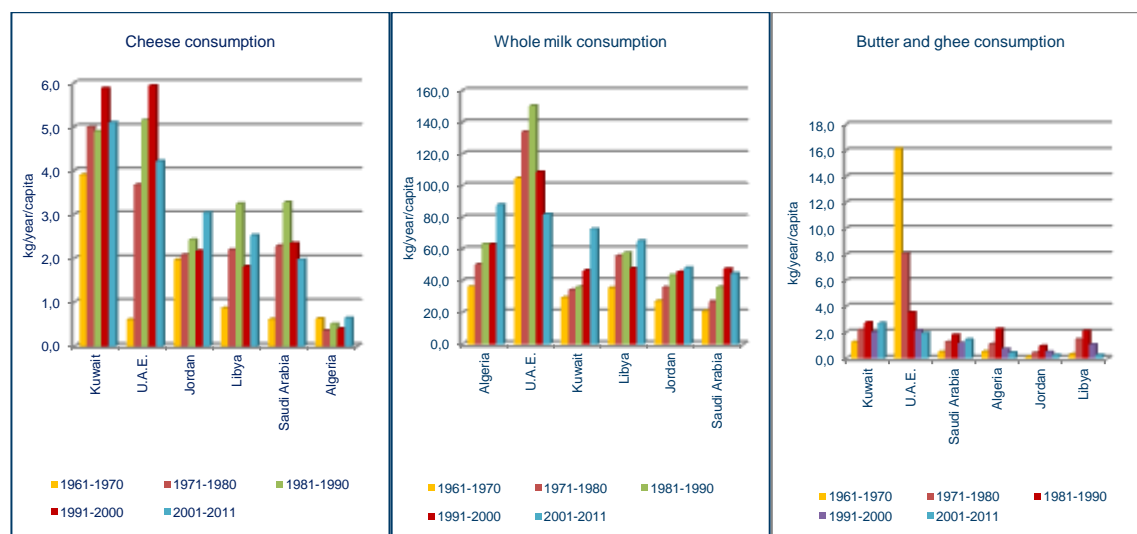
Source: Produced by the author from FAOSTAT data.

Still referring to FAO data, a closer look shows that annual apparent cheese and butter per capita consumption remains very small in North African and Middle Eastern countries, despite spectacular development indicators (Graph 35). For example, in the United Arab Emirates, cheese consumption rose by 692% between 1960 and 2010 but the annual per capita quantity consumed of 4.2kg is still small. In the 2000's, Kuwait recorded an annual apparent cheese per capita consumption of 5.1kg, while in Algeria, the quantity of cheese consumed was only 600g per year and per person. The other countries record quantities of between 2 and 4kg per year and per person. The same observations apply for annual butter and buttermilk per capita consumption. These countries, with dietary habits that favour olive oil as a source of fat, remain well below average global consumption levels, with quantities that range from 300g per person per year in Libya and Jordan respectively to between 2 and 2.7kg in the United Arab Emirates and Kuwait (Graph 35).

There has been considerable growth in the annual apparent per capita consumption of whole drinking milk in Algeria, a country where consumption of drinking milk is the highest of all countries in this zone (88.1 kg/yr/person with a growth rate of 242% between 1960 and 2011). Similarly, to Algeria, Kuwait and Saudi Arabia also have high growth rates (247% and 214% respectively), with annual quantities of whole milk consumed of 72.8kg and 44.7kg per person for the period 2001-2011 (Graph 35).

¹⁰ Apparent consumption is the domestic supply including the total volumes produced and imported minus the volumes exported and stocks. It differs from actual consumption which can only be estimated from consumption surveys based on large samples on a national level.

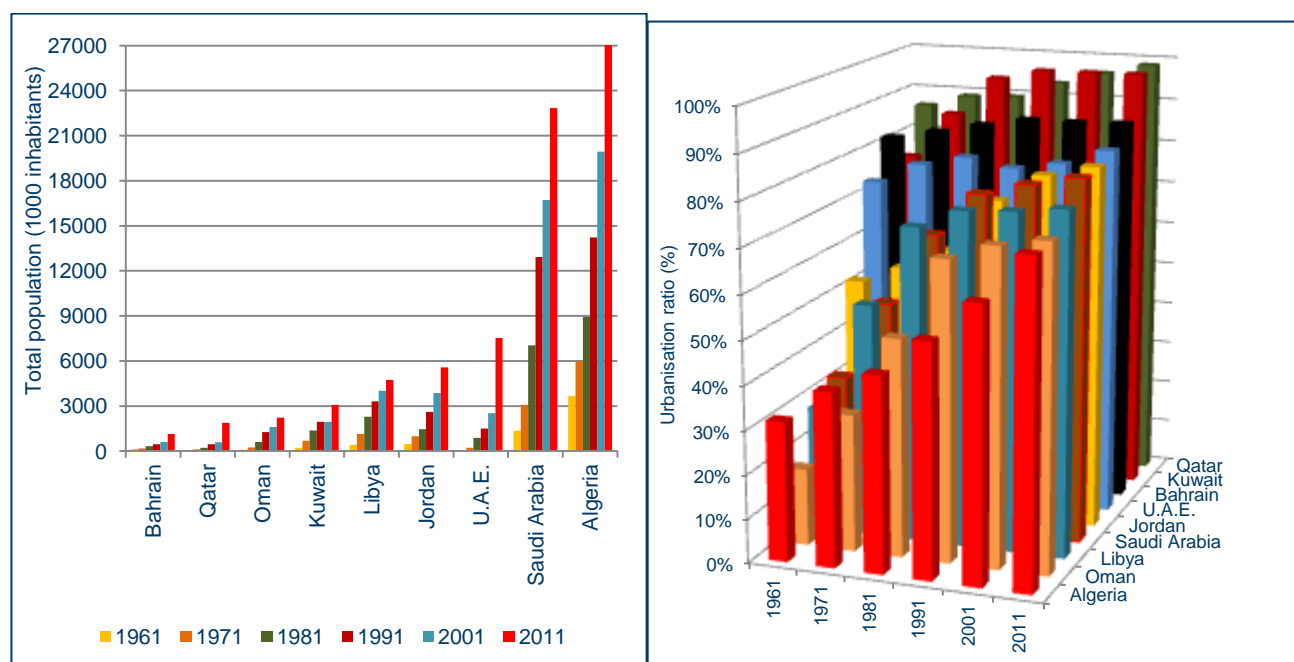
Graph 35: Change in annual whole milk, butter, buttermilk and cheese per capita consumption in North African and Middle Eastern countries between 1961 and 2011



Source: Produced by the author from FAOSTAT data.

Demographic growth and urbanisation are among the reasons for this positive development in these countries, as shown in Graph 36. The most populous countries in the zone are Algeria and Saudi Arabia, followed by the United Arab Emirates, Jordan and Libya. However, small countries in the Arabian Gulf like Qatar, Kuwait and Bahrain have the most urbanised societies with urbanisation rates of more than 90% for 2011 (Graph 36). Large numbers of foreign workers in countries like the U.A.E., Kuwait and Saudi Arabia, have also had a considerable impact on demographic composition in this zone. Urban areas, and especially certain sections of the urban population with high purchasing power and abilities to consume, will have a positive direct effect on the consumption of processed food products, including dairy products.

Graph 36: Change in total population and the proportion of the urban population compared to the total population (urbanisation rate) in North African and Middle Eastern countries between 1961 and 2011



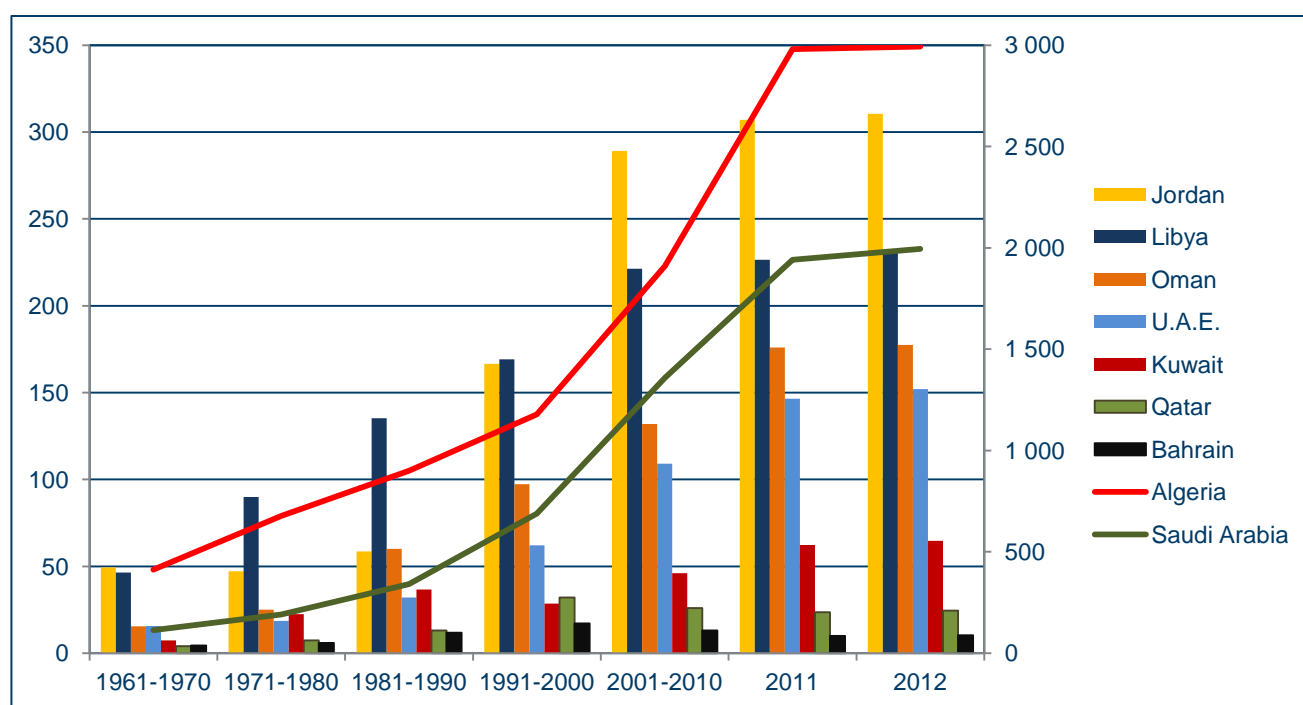
Source: Produced by the author from FAOSTAT data.

3.3.2. Production and availability on the milk and dairy products markets

Over the last few decades, North African and Middle Eastern countries have made considerable investments in livestock farming. Large 'landless' dairy cow farms have been established in the Arabian Gulf countries and

stocked with imported pure-breed dairy cows. As for Algeria, it has also been subsidizing its dairy sector since the mid-2000's, with subsidies granted to livestock farmers who supply processing companies as well as collectors tasked with collecting and transporting raw milk. Parallel to this, plans to develop a network of animal health technicians have been put into practice with the aim of improving animal health as well as the safety of milk (*IDF, Summilk, 2011*). As a result, volumes of milk produced in the countries of the zone studied rose considerably between 1960 and 2012. The largest rises were in Algeria, Jordan, Saudi Arabia and Libya (Graph 37).

Graph 37: Changes in production of raw milk volumes in North African and Middle Eastern countries between 1961 and 2012



Note: All types of milk combined (camel, ewe, goat, cow and buffalo)

Source: Produced by the author from FAOSTAT data.

Cheese and fermented milk in the form of yoghurts, Laben or Labneh, are the most produced and consumed dairy products in the countries comprising this study zone. Butter is only produced and consumed in Algeria in its traditional (Smen) or industrial form. According to FAO data, the volume of butter produced in Algeria between 2001 and 2012 (ten-year average) was in excess of 2,000 metric tonnes, with an annual average growth rate of 6.2% between 1960 and 2012. The most spectacular growth of the countries in the study zone was observed in Saudi Arabia, where milk has been processed into butter, cheeses, yoghurts or long-life milk since the 1980's. For example, the production volume (2001-2012 averages) of butter is more than 5,000 tonnes while cheese is more than 90,000 tonnes, drinking milk more than 160,000 tonnes and yoghurts in excess of 30,000 tonnes with average annual growth rates of 4.0%, 10.4%, 15.6% and 30.1% respectively. Algeria is the second leading country where average annual growth rates are more than 3% for the dairy products studied (butter, cheese, drinking milk and yoghurt), although volumes of these milk by-products lag far behind those in Saudi Arabia. Manufactured cheeses (processed and spreadable cheeses) appeal more to Algerian consumers for their practicality but also for their cheap prices, whereas the production and consumption of typical local cheeses remains very limited. Jordan stands out from other countries in this zone by the volume of cheese produced there (almost 6,500 tonnes per year). Saudi Arabia differs from other countries in the zone in terms of levels of raw milk produced and the production of milk by-products. The other countries appear to depend more on imports to satisfy the milk and dairy products¹¹ needs of their populations.

¹¹ See appendix table A16 for more details

3.3.3. Foreign trade

Dependence of the countries in the study zone on international markets to meet domestic demand for milk and dairy products has grown since the mid 1980's (Table 21). The composition of imports also shows changing consumption patterns. For example, imports of butter and buttermilk to Saudi Arabia have grown at rates exceeding 30% per year and at lower, but sustained, rates in Bahrain, Jordan, Kuwait, Oman and Qatar. Cheese imports have also risen at relatively constant rates, although these are still lower than those for butter.

Table 21: Structure of milk and dairy product imports and the major supplier countries in North African and Middle Eastern countries

Importing country Product categories	Imports (tons) (2006-2011 average)	CAGR 2011- 1986 (%)	Number of supplying countries 2011	CR3 2011 (%)	Top3 supplying countries (% share in total imports) in 2011
ALGERIA					
Milk (all types)	278 408	1.9%	31	54.2%	N. Zealand (20%), France (20%), Argentina
Butter and ghee	5 117	-9.2%	11	75.4%	Uruguay (36%), N. Zealand, Argentina
Cheese	20 508	3.9%	13	74.3%	Netherlands (35%), Ireland, N. Zealand
Yoghurt, whey	2 427	12.8%	8	81.6%	France (58%), Canada, Poland
SAUDI ARABIA					
Milk (all types)	216 657	3.2%	34	52.3%	Saudi Arabia (25%), Netherlands, U.A.E.
Butter and ghee	41 794	46.6%	27	68.4%	N. Zealand (26%) USA (25%), Turkey
Cheese	137 741	4.6%	38	47.4%	Denmark (17%), Egypt (15%) , USA
BAHRAIN (2000-2011)					
Milk (all types)	27 039	6.9%	33	84.0%	Saudi Arabia (72%), Netherlands, U.A.E.
Butter and ghee	16 296	30.0%	28	90.6%	Saudi Arabia (76%), N. Zealand, USA
Cheese	12 075	9.9%	35	70.2%	N. Zealand (35%), Ireland, Australia
Whey	146	31.0%	6	91.9%	Canada (38%), Australia (34%), Poland
UNITED ARAB EMIRATES (EAU) (2002-2008)					
Milk (all types)	139 068	10.0%	44	77.8%	Saudi Arabia (48%), Netherlands, N. Zealand
Butter and ghee	67 900	-1.3%	35	50.4%	N. Zealand, Denmark, Australia
Cheese	30 570	6.5%	46	40.5%	Saudi Arabia, Denmark, Egypt (8,4%)
JORDAN					
Milk (all types)	23 160	2.4%	32	59.3%	Saudi Arabia (25%), U.A.E. (20%), N. Zealand
Butter and ghee	11 645	6.4%	25	74.2%	Saudi Arabia (50%), Syria, Kuwait
Cheese	18 201	4.7%	30	61.5%	Egypt (42%) , Saudi Arabia, Morocco
KUWAIT (1986-2001)					
Milk (all types)	33 087	3.6%	23	62.0%	Saudi Arabia (33%), Canada, Australia
Butter and ghee	9 411	9.3%	20	78.0%	Saudi Arabia (60%), U.A.E., Turkey
Cheese	12 533	2.5%	26	51.0%	Denmark (23%), Australia, France
LIBYA					
Milk (all types)	67 783	1.4%	?	66.8%	Germany (37%), Egypt (15%) , Tunisia (14%)
Butter and ghee	2 882	-3.5%	?	43.2%	N. Zealand (31%), France, Netherlands
Cheese	21 830	3.1%	?	86.7%	Egypt (57%) , Tunisia (25%) , Netherlands
OMAN					
Milk (all types)	108 577	6.9%	26	60.2%	Denmark (25%), U.A.E. (21%), Netherlands
Butter and ghee	13 233	13.1%	19	87.9%	U.A.E. (61%), Saudi Arabia, Malaysia
Cheese	14 538	7.0%	26	66.9%	Egypt (32%) , Denmark, Saudi Arabia
Yoghurt, whey	1 001		6	79.1%	Canada (41%), Turkey, U.A.E.
QATAR					
Milk (all types)	63 462	8,2%	31	91,3%	Saudi Arabia (70%), Netherlands, Germany
Butter and ghee	3 090	4,3%	34	44,2%	Turkey (15%), N. Zealand (15%), Kuwait
Cheese	5 089	5,1%	37	46,5%	Saudi Arabia (18%), Egypt (16%) , Bahrain

Source: Produced by the author from FAOSTAT data.

Algeria's supplier countries are New Zealand, Argentina, Uruguay and France. The fact that there are quite a lot of supplier countries, especially for milk imports, demonstrates the country's strategy of shopping around on international markets. However, Algeria's dependence on three leading suppliers of butter, buttermilk cheese and yoghurt is rising as the CR3¹² ratios account for more than three-quarters of total imports for 2011.

¹² CR3 is the concentration ratio of the market demonstrating the influence of the leading suppliers in total imports of the product (or products) concerned.

Concentration ratios for other countries included in the study zone (for which we have domestic trade statistics) show quite a high level of concentration for the countries as a whole.

Among the main suppliers to North African and Middle Eastern countries, western countries are in the leading group. However, geographical and cultural proximity also seems to be a significant factor in the makeup of supplies from several countries featured in Table 21. Saudi Arabia stands out as a major supplier, exporting milk and dairy products to its immediate neighbours. Egypt is also one of the main suppliers of cheese to Saudi Arabia (15% of Saudi imports), the United Arab Emirates (8.4% of imports), Jordan (42% of Jordanian imports), Libya (57% of Libyan imports), Oman (32% of Omani imports) and Qatar (16% of Qatari imports). It is also one of the three leading suppliers of milk to Libya (15% of Libyan imports), while Tunisia also benefits from its geographical and cultural proximity as one of Libya's leading milk suppliers (14% of Libyan imports) and cheese (25% of Libyan imports).

FOOD SAFETY REGULATIONS AND STANDARDS

The Arabian Gulf countries (Saudi Arabia, Bahrain, U.A.E., Jordan, Kuwait, Oman and Qatar) as well as Libya and Algeria, require certificates of origin and health and safety accreditation for imports of milk and milk by-products (<http://www.entreprises.cci-paris-idf.fr>). There are however no such requirements for traceability. This flexibility in food safety standard requirements facilitates the trade of dairy products between countries in the region.

In terms of exports, despite the fact that large modern industrial companies active in the study zone countries meet these standards through the certificates they obtain internationally, they are unable to export outside their region of origin. This is especially so for western countries (EU, United-States and Canada) as these standards are not mainstreamed throughout national dairy chains. The lack of animal and human hygiene in livestock farms, together with the widespread gap in tracing raw milk from the farm to the processing plant, are the root cause of this ban on milk by-products from Southern and Eastern Mediterranean countries imposed by EU members and North American countries. In addition, these gaps are forcing large processing companies to build in pre-processing activities by setting up large 'landless' livestock farms within their operations.

3.3.4. The main players in the dairy industry

The structure of the **ALGERIAN** dairy industry has changed considerably since the early 2000's. Today, large parts of the market and negotiating power are concentrated in the hands of highly dynamic private companies who are receptive to consumer expectations and preferences. The change in legal status of large public-sector companies such as Giplait, by changing them into holding companies, can be seen as a significant factor in this recent change favouring the private-sector. The **Laiterie Soummam** company (which produces President brand cheese under licence in agreement with Lactalis) is closely followed by **Danone Djurdjura** (a subsidiary company of the French multinational Danone Group). Other firms present in the Algerian dairy market are **Tchin Lait** (a partner of the large French cooperative group, Sodial), **Célia Algérie**, **Promasidor Djazair** (subsidiary company of the South African Promasidor Group), Algerian subsidiary companies of the Swiss multinational firm, Nestlé and the French multinational companies, Fromagerie Bel and Lactalis.

Laiterie Soummam and Danone Djurdjura are the two leaders in the country's dairy industry in the cheese, yoghurt and other fermented milks segments. They have opted to incorporate the dairy chain prior to processing by building dairy livestock farms to ensure that food safety in the dairy chain is controlled. Regularity of supply is therefore guaranteed and the companies are also moving away from the strategy of publically owned Algerian firms to reconstitute imported powdered milk into drinking milk. Indeed, in this area of business, the South African Promasidor Group's Algerian subsidiary company lies just behind ONIL, having imported powdered milk and reconstituted it into drinking milk for the last ten years. However, the para-public holding company, Giplait, has maintained its hold on more than two-thirds of the drinking milk market by using its subsidiary company, MilkTrade, which is the country's main importer of powdered milk (Euromonitor International, Passport Algeria, January 2014).

Building on its oil revenues, **LIBYA** has interminably marginalised its agricultural and food manufacturing sectors which are naturally small due to the geographical and climatic conditions in the country (98% of the country is desert). Consequently, 80% of food in Libya is imported mainly from its neighbours, Tunisia and Egypt. Libya also imports drinking milk, yoghurt, fermented milks and butter. Cheese and infant milk imports are also starting to develop with greater domestic demand for these products increasingly voiced by urban consumers. However, the entire Libyan dairy industry accounts for fewer than fifteen companies and most of these import dairy products. The leaders in the Libyan dairy industry are the **Al Rayhan Co.** and the **Judi Food Industry Co.** based in Tripoli. Both these companies specialise in reconstituting milk powder into

drinking milk (for which they have over 50% of the market) while a third company, **Al Nassem**, based in Misrata, mainly produces yoghurts and ice creams (<http://www.bordbia.ie>).

The Middle East and the Arabian Gulf countries have invested more in livestock rearing activities to develop their dairy industries and their efforts are also starting to be felt in foreign trade. **JORDAN** began investing in intensive dairy cow farming in the 1980's by incorporating them upstream of the dairy companies to give themselves a regular supply, both in terms of quantity and quality. The country's largest dairy company is **Hammoudeh Food Co.** which belongs to the conglomerate group, Hammoudeh. Raw milk supplies for these two processing plants, built in 1991 and 1996, is ensured by the **Akhalidia** dairy farm which is another of the group's subsidiary companies, founded in 1982 with 3,500 Holstein cows. **Danish-Jordan Dairy** (a Jordanian-Danish partnership venture), **Jordanian Dairy** and **Noman El Juneidi**, founded in 2008, are the four other large companies with significant market shares among the twenty or so modern dairy firms. In addition to these modern companies that source their milk from large modern farms or their own 'landless' farms to supplement the imported milk powder they use to manufacture their dairy products, there are numerous small artisanal dairies found mostly in Northern and Central Jordan. They tend to use milk more from small livestock farms with no more than five cows each. The modern firms as well as the artisanal dairies make spreadable cheese but also Baladi cheeses, yoghurts and other fermented milks (Labneh and Laben), butter and pasteurised milk as well as typical local Jordanian dairy products like Jamed.

Among the countries of the Cooperation Council for the Arab States of the Gulf (GCC - Saudi Arabia, Bahrain, Kuwait Oman, Qatar and the U.A.E.), the United Arab Emirates (U.A.E.) and Saudi Arabia stand out for their heavy investments focusing on livestock farms and building factories boasting the latest technology. The biggest companies in the GCC are the **Almarai Dairy**, from Saudi Arabia which was founded in 1977 in partnership with the Saudi Prince and Masstock Group Holdings¹³ from Ireland and **Al Ain Dairy** in the U.A.E.. They have both built in activities upstream in the dairy chain by creating large 'landless' dairy farms entirely dependent on foreign markets for heifers (Holstein) and animal feed.

In **SAUDI ARABIA**, the **Al Badiah Dairy Farm** (which belongs to Almarai Dairy) has been built as part of a partnership venture. It houses 22,500 dairy cows (out of a herd of 47,000 cows and 75,000 cattle) and produces more than a billion litres of raw milk per day¹⁴. The Saudi company has very high market shares in its country of origin and also has a good presence in other Arabian Gulf countries (U.A.E., Oman, Kuwait, Qatar and Bahrain) as well as joint companies in Egypt and Jordan. Its product portfolio contains pasteurised drinking milk, fermented milks (Laben and Labneh and other yoghurts) and more recently, cheeses, especially spreadable cheeses. It has also launched a range of lactose-free products. Thanks to its presence in the GCC markets and a cutting-edge refrigerated distribution system, the total sales of this Saudi company rose by 14% in 2013. The high performance of the Almarai Dairy appealed to new arrivals and today, in addition to the presence of large multinational firms in the industry, other Saudi companies are also active in the production of milk and dairy products. Among these is United Kaipara Dairies Co (PSC), which has Indian capital and is aiming more at low-income consumer groups. There is also National Food Industries, which offers a range of chilled milk-based desserts.

The **U.A.E.**'s leading food industry company is **Al Ain Dairy**. It was founded in 1981 through imports of Friesian heifers from Germany. The firm currently has 3 dairy farms with 15,000 dairy cows. 7,000 of these are pure breed Holsteins, 6,000 are pure breed Friesians and there are 800 dairy camels. It also has processing plants with cutting-edge technology, including ultra-rapid packaging machines and bacteriological analytical laboratories¹⁵. Al Ain Dairy has also built in downstream dairy chain operations by setting up 5 shops under the "Farm Fresh" brand to sell its own dairy products. These mainly consist of pasteurised milk, yoghurts, Laben and Labneh sold directly to the public.

Alongside these companies founded on private investor and local public authority initiatives, the presence of firms from the EU must also be mentioned. For example, Arla Foods, a Swedish-Danish cooperative company is active in Saudi Arabia, Bahrain, Kuwait and Qatar. French multinational firms, Fromagerie Bel and Lactalis, have liaison offices in Saudi Arabia and the U.A.E. and the Danone Group, another French multinational, just like Nestle, the Swiss multinational group, is present in Saudi Arabia and the U.A.E. The New Zealand cooperative group, Fonterra, is also active in Saudi Arabia, Bahrain and the U.A.E.

¹³ Maastock Group Holdings sold its shares to Saudi shareholders in 2004. The Savola Group is currently the main shareholder in Almarai. Source: Pat O'Keeffe, "How Almarai produces 1 billion litres of milk from 75 000 dairy cows in the Saudi Arabian desert", 7 November 2013, <http://www.farmersjournal.ie>

¹⁴ Source: Pat O'Keeffe, op.cit.

¹⁵ Source: Moign Khawaja, "Interview-Abdullah Saif Al Damraki, CEO of Al Ain Dairy" 2 October 2012, <http://www.arabiangazette.com/al-ain-dairy-ceo-interview>; Mitya Underwood "How to keep 6,000 cows happy in the UAE desert", 6 mai 2013, <http://www.thenational.ae/news>

3.3.5. Distribution structure

The retail trade in **ALGERIA** remains in the hands of traditional grocery stores that still hold more than two-thirds of the retail market for the sale of milk and dairy products. For example, nearly three-quarters of cheese is sold by traditional grocery stores. The latter have an 83.9% share of the food retail trade market in Algeria whereas supermarkets and hypermarkets only account for 16.1% despite a slight increase (Passport: Cheese in Algeria, January 2014, Euromonitor International).

The lack of space to build large shopping centres with integrated hypermarkets is a considerable problem in the development of modern organised retail in big Algerian cities. Consequently, medium-sized stores and mini-markets are tending to grow as the face of modern organised retail distribution. The arrival of **Carrefour** in a partnership arrangement in the early 2000's ended in failure with the French brand withdrawing from the market at the end of 2008. At present, the organised retail trade is dominated by **Blanky**, group which has been losing its market share over the last few years and **Numidis**, the agro-tertiary subsidiary company of the Algerian conglomerate holding company, Cevital.

As early as the 1970's, popular cooperatives (**Jemiah**) and State-run supermarkets were the main forms of organised retail distribution in **LIBYA**. The Jemiah cooperatives are still running since the privatisation policies and the 2011 revolution, although some of them have changed their status to become independent mini-markets. There are a few large shopping centres in the country's larger cities (Benghazi Mall and Souk Al-Thalat Mall) which were built in the 2000's. **Casino Guichard-Perrachon** also set up shop in 2013 with its Monoprix brand in partnership with the Qatari group, **Al Meera**. This joint company goes under the corporate name of ALGE, and the French group holds 49% of the capital while the Qatari group holds 51%. In the same year, a small British supermarket chain called **Iceland** also made its entrance into the Libyan market. Despite these developments in modern organised distribution, the retail trade is more dominated by the traditional sector of conventional grocery stores and Souks.

As with other countries in the region, **JORDAN** shows a concentration in modern organised retail the capital city, Amman. For example, **Carrefour**, opened its third hypermarket there in 2014, in partnership with the U.A.E. retail group, **Majid Al Futtaim Group** (MAF). The Egyptian group, Spinneys, also has a significant presence in the country's food product retail market, together with a Kuwaiti company called Sultan Center. It bought up shops owned by the British Safeway group in 2003, with the right to use the Safeway brand in Jordan. Although modern organised retail is more concentrated in Amman, it is facing competition from the traditional retail trade which still has a large share of the market.

In the countries of the **Cooperation Council for the Arab States of the Gulf (Oman, Bahrain, the U.A.E, Kuwait and Saudi Arabia)**, the presence of multinational high street brands prevails. However, these large modern retail groups have penetrated these markets, with their constantly rising urban demand, by forging partnerships and strategic alliances with local firms. As such, Carrefour has teamed up with the United Arab Emirates group, Majid Al Futtaim, while Casino Guichard-Perrachon chose the Qatari group, Al Meera, to expand in the North African and Middle Eastern region as well as beyond too. **ALGE**, the joint company formed by Almeera and Casino, operates in Oman, Tunisia, Libya, Egypt and Jordan while **Carrefour-MAF** has set up shop in the U.A.E., Oman, Kuwait, Qatar, Bahrain, Iraq, Jordan, Lebanon, Georgia, Pakistan, Saudi Arabia and Egypt. The Saudi group, **Savola**, has been partners with Casino Guichard Perrachon since 2004, and is maintaining its top spot in the Saudi market with the **Al-Aziza Panda** brand. Panda supermarkets are also present in the U.A.E.

The CCG countries are highly urbanised (see Graph 36) and are developing hypermarkets and supermarkets in their regions and investing freely in other nearby regions and countries too. This development benefits industrially processed dairy products and, for the time being at least, does not leave the artisanal sector (a hotbed for typical local products) the opportunity to blossom via modern organised retail. That said, as in most Southern and Eastern Mediterranean countries, traditional retail trade through corner shop grocery stores and Souks have more than two-thirds of the food retail market.

4. The positioning of “LACTIMED” countries on the global market

To better grasp the positioning of “LACTIMED” countries on the global market, the main players present in domestic markets (with their product portfolios) must first be identified before estimating their position on the global market.

4.1. The structure of the milk and dairy products market and the main players

It would be analytically wrong to treat all the regions belonging to the LACTIMED Project as one. If a classification has to be made, it would be opportune to split the Southern countries, including Egypt, Lebanon and Tunisia, which have more or less similar market structures and encounter the same types of problems on international markets, from the Northern countries like Greece and Italy with the same market characteristics and challenges regarding their international presence. These remarks can be more easily validated by scrutinising the market shares of various firms/groups in the milk and dairy products retail market using data from Euromonitor International¹⁶.

4.1.1. The Southern “LACTIMED” countries

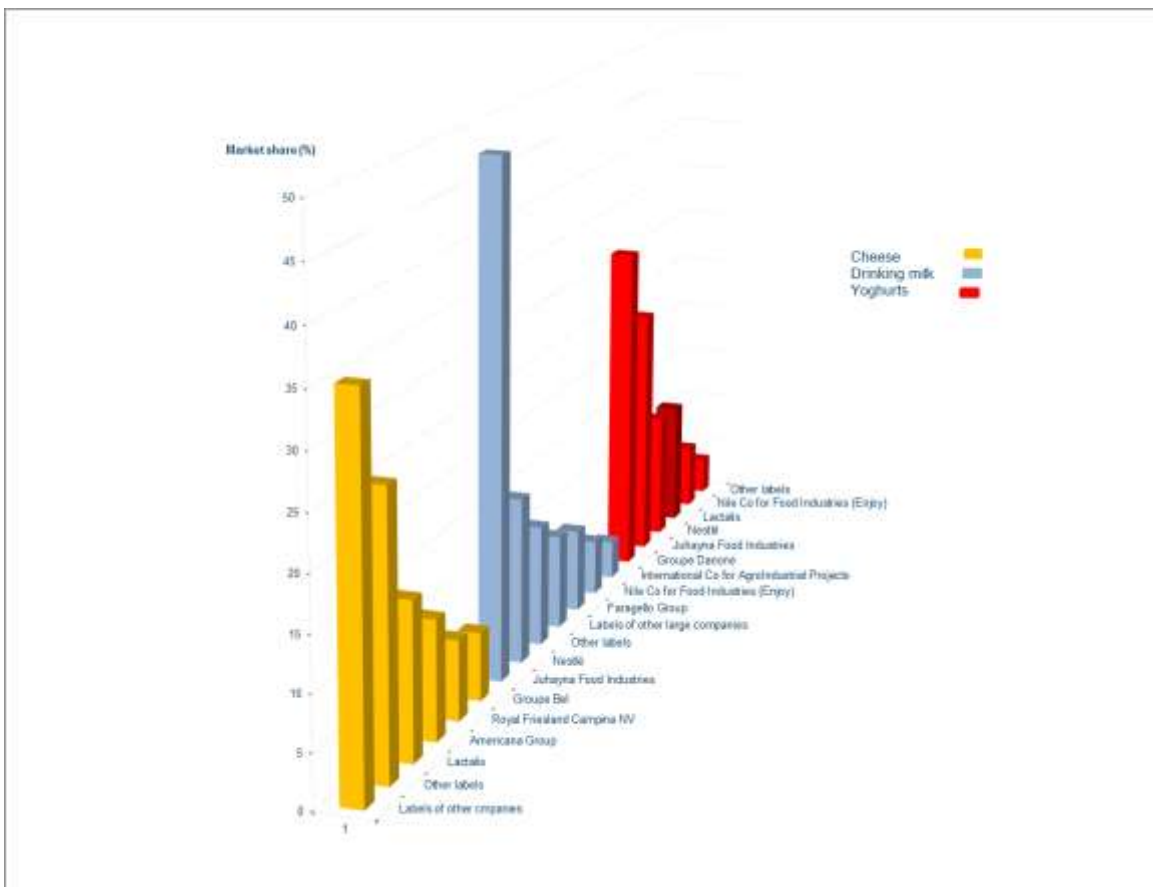
Data extracted from Euromonitor International’s online market research facility, concerns just two of the Southern “LACTIMED” countries, Egypt and Tunisia. In Egypt, the cheese market comprises hard cheeses with a large share of the market for Rumi cheese (12.5% according to 2013 Euromonitor International data) and soft cheeses, chief among which are Domiati cheese (12.7% of the market) and Feta-type cheeses (25.2%). Processed cheese dropped 10 points between 2007 and 2013 and in 2013, represented just 18% of the Egyptian cheese market, including spreadable cheeses which account for 13.5% of the market. In this market segment of the dairy industry, multinational firms from the EU (especially France) compete with national Egyptian companies. Lactalis (a French multinational company) has teamed up with the Egyptian group, **Best Cheese Co. for Dairy Products**, to be the market leader in cheese with a market share of 14%. They are followed by **Middle East Dairy & Foodstuffs**, an Egyptian subsidiary company of the Kuwaiti Americana group (Graph 38) while Middle East Dairy has consolidated its market position by buying out the Egyptian subsidiary company of the Dutch dairy cooperative group, Campina Friesland, in late 2012. The **El Manzala Co.** and **Egyptian Co. for Advanced Foodstuff Industries (Faragello)** are seeing their sales rise while the market shares of other multinationals such as Fromagerie Bel, Bongrain, or Arla Foods, are either stagnant or falling.

The situation is changing somewhat for other market segments of the milk and dairy products market. In the drinking milk, yoghurts and other fermented milks markets, products are more westernised to meet the tastes and preferences of the country’s young urban consumers. In terms of the drinking milk market (pasteurised, sterilised and flavoured, etc.), **Juhayna Food Industries**, a subsidiary of the Egyptian Juhayna Group, is the leader with almost half the share of this particular market (47.2% in 2012). It is followed by **Nestlé Egypt** (15%), **Faragello** (9%), and **International Co. for Agro-Industrial Projects**, an Egyptian subsidiary company of the Swedish-Danish dairy cooperative, Arla Foods. In the yoghurt market, **Danone Egypt** is maintaining its leading position with 32% of the market, in front of Juhayna (22.5%) and Best of France (a subsidiary company of Lactalis with an 11% market share in 2012).

Most industrially processed dairy products are sold in supermarkets and hypermarkets, with almost half being sold by the former and 5% sold by latter in 2013 (Passport Egypt, Euromonitor International, January 2014). It should be noted, however, that bulk sales of drinking milk and artisan milk-based desserts such as Mahalabiya are always handled by traditional grocery stores (Bakkals) and conventional specialised shops.

¹⁶ This data has been extracted from the Euromonitor International online database which can only be consulted on-site at the Bibliothèque Nationale de France, in Paris.

Graph 38: Market share of dairy companies in Egypt in 2012



Source: Produced by the author from the Euromonitor International online database

In Tunisia, the milk and dairy products market reflects a domination by subsidiary firms of multinational companies, most of which are French. Processed cheeses comprise nearly three-quarters of the cheese market, with the dominant presence of the President brand through the **Industries Alimentaires de Tunisie** company. This is a joint venture with the French firm, and the Mabrouk Group, one of the biggest conglomerate groups in Tunisia which has 30% of the national cheese market. The **Mabrouk Group** has also partnered up with Casino Guichard-Perrachon, which manages the Geant and Monoprix brands in Tunisia, and provides an undeniable advantage in marketing Industries Alimentaires de Tunisie company products. Second and third places are held by the Tunisian companies, **Land'Or** (15% market share), previously called SOVIA, Société Tunisienne des Dérivés du Lait), and **Sotudel** (5.3% market share) (Graph 39). Tunisian consumer preferences are shifting more to processed cheeses. As a result, the hard cheese (emmental or cheddar type cheeses) and soft cheese markets account for just 24% and 4% respectively of the dairy products market and are tending to see their market shares shrinking.

The Centrale Laitière de Cap Bon, is a subsidiary company of **Délice-Danone** and is the market leader in drinking milk, with a 39% share of the market. It is followed by **Centrale Laitière de Mahdia (Vitalait)** with a 19% share and Tunisie Lait, a partner of Candia, which is a subsidiary company of the French union of dairy cooperatives, Sodiaal. In late 2012, the Mahdia central dairy, like other large dairy companies in the country, opted to open up its capital to foreign investors by selling 45% of its shares to the Spanish dairy company, Kaiku.

With its two well-established brands in the Tunisian market, Délice Danone, has almost a leading one-third share of the yoghurts and other fermented milks market. Nevertheless, Délice Danone's market share is contracting somewhat in the face of newcomers that are making for fiercer competition. Vitalait (the Mahdia central dairy) has a 26% market share, whereas Industries Alimentaires de Tunisie (Lactalis+Mabrouk Group) are making do with less than 11%.

Other multinational firms like the French Fromagerie Bel company, or the Swiss Emmi Group (with the Mamie Nova and Yogo brands) are also present on the Tunisian milk and dairy products market, although their respective market shares remain around 5% in the segments they operate in.

Market share (%)

Legend:

- Cheese (Yellow)
- Drinking milk (Blue)
- Yoghurts (Red)

Company/Label	Cheese (%)	Drinking milk (%)	Yoghurts (%)
1 (Lactalis)	40	51	65
2 (SOFIA)	30	39	44
3 (Lactalis)	20	32	41
4 (Lactalis)	20	31	40
5 (Lactalis)	20	30	39
6 (Lactalis)	18	29	38
7 (Lactalis)	17	28	37
8 (Lactalis)	16	27	36
9 (Lactalis)	15	26	35
10 (Lactalis)	14	25	34
11 (Lactalis)	13	24	33
12 (Lactalis)	12	23	32
13 (Lactalis)	11	22	31
14 (Lactalis)	10	21	30
15 (Lactalis)	9	20	29
16 (Lactalis)	8	19	28
17 (Lactalis)	7	18	27
18 (Lactalis)	6	17	26
19 (Lactalis)	5	16	25
20 (Lactalis)	4	15	24
21 (Lactalis)	3	14	23
22 (Lactalis)	2	13	22
23 (Lactalis)	1	12	21
24 (Lactalis)	0	11	20
25 (Lactalis)	0	10	19
26 (Lactalis)	0	9	18
27 (Lactalis)	0	8	17
28 (Lactalis)	0	7	16
29 (Lactalis)	0	6	15
30 (Lactalis)	0	5	14
31 (Lactalis)	0	4	13
32 (Lactalis)	0	3	12
33 (Lactalis)	0	2	11
34 (Lactalis)	0	1	10
35 (Lactalis)	0	0	9
36 (Lactalis)	0	0	8
37 (Lactalis)	0	0	7
38 (Lactalis)	0	0	6
39 (Lactalis)	0	0	5
40 (Lactalis)	0	0	4
41 (Lactalis)	0	0	3
42 (Lactalis)	0	0	2
43 (Lactalis)	0	0	1
44 (Lactalis)	0	0	0
45 (Lactalis)	0	0	0
46 (Lactalis)	0	0	0
47 (Lactalis)	0	0	0
48 (Lactalis)	0	0	0
49 (Lactalis)	0	0	0
50 (Lactalis)	0	0	0

The 2011 spring revolution and the country's economic stagnation has had a positive impact on conventional retail trade in Tunisia. Sales of cheese from traditional grocery stores rose slightly between 2007 and 2013, from 59% to 62%, whereas supermarket sales dropped from 35.4% to 26.8%. In terms of retail sales, hypermarkets also come out rather well during this period with their cheese sales rising from 5.6% to 11% between 2007 and 2013 (Passport Cheese in Tunisia, Euromonitor International, January 2014). Consumer buying patterns are similar to those for drinking milk, with traditional grocery stores accounting for more than half of yoghurt and milk-based dessert sales while hypermarkets are increasing their market shares and supermarkets have seen theirs contract.

In addition to their own stores and specialised shops, the large companies occupy the best places on the country's supermarket and hypermarket shelves. To circumvent this domination by large companies and imported products sold in supermarkets and hypermarkets, medium-sized companies across the entire country are opening up their own sales outlets in middle-sized towns as well as in the capital.

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4.1.2. The Northern “LACTIMED” countries

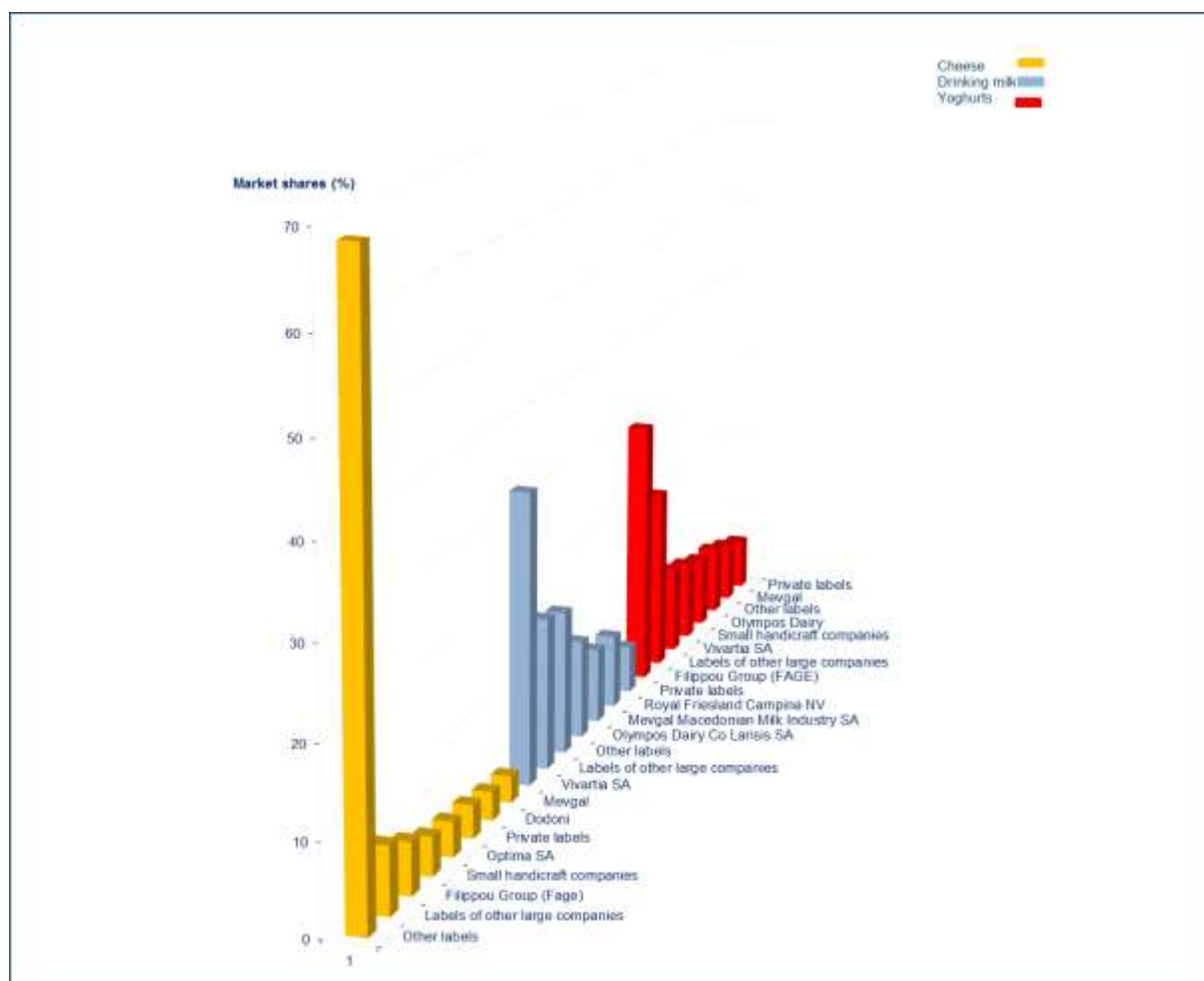
The market traits that differentiate the Northern “LACTIMED” from their Southern counterparts are linked to distribution channels for milk and dairy products. In Southern countries, typical local dairy product are sold in traditional grocery stores or short marketing channels that avoid any health and safety as well as regulatory checks. Conversely, in the Northern “LACTIMED” countries, these typical local products are introduced on to the market by supermarkets and hypermarkets seeking to increase their market shares and gain the loyalty of a larger amount of customers looking for distinctive quality products. In parallel to typical local (artisan) products, the supermarkets and hypermarkets are also developing their sub-contracting operations with local SMEs to offer products using their own brand name (own-brand products). The supermarkets’ and hypermarkets’ quest to secure additional market share is altering the structure of the market in the Northern “LACTIMED” countries.

In Greece, the cheese market is dominated by over-the-counter cheeses, although the proportion of packaged cheese has increased from 5% in the early 2000’s to 30% in 2013 (Passport Cheese in Greece, Euromonitor International, January 2014). It is a highly fragmented market with a large number of Greek companies and multinational firms competing against each other. This little-concentrated market structure for cheese in Greece favours typical local cheeses and local SMEs. The economic crisis sweeping the country is having rather negative effects on cheese consumption, although the Greeks remains one of the world’s biggest consumers. The Greek company, **Fage**, has seen its market share contract from 7% to 5.7% between 2007 and 2013 due to the economic crisis but it is still the market leader in the national/international brands category. **Optima** (Epirus) and **Mevgal**, are two sizeable Greek firms that share second and third place behind Fage. Mevgal has formed strategic alliances with European companies (the Swedish-Danish multinational cooperative, Arla Foods, the Swiss multinational company, Emmi Group), while Optima has struck a licensing agreement with the Irish cooperative company, Kerrygold, which is itself a food production branch of An Bord Baine, the Irish Dairy Board. The presence of other multinational firms should also be mentioned, such as **Friesland-Campina** (a Dutch cooperative), the **Danone Group**, **Fromagerie Bel**, **Mondenez International** (ex-Kraft Foods) and Nestlé, who all belong the “other brands” category in Graph 40 below.

The drinking milk market is dominated by the Greek firm, **Vivartia**. This is a food processing subsidiary company of the financial conglomerate, MARFIN Group, which took up a stake in the capital of the dairy firm in 2007 and has owned 96% of its capital since 2011. Vivartia has a 30% share in the drinking milk market with its Delta and Milko brands (see Graph 40). Greek firms also occupy second and third places in the shape of **Olympos Dairy Co. Larissis S.A.** (11%) and **Mevgal** (9%). It should also be mentioned that Vivartia has had almost a 15% stake in the capital of Mevgal SA. since 2010, with a clause for a further increase up to 43% in the future¹⁸. Following consumer expectations and preferences, the product portfolios of these large companies favour functional milks and individual packaging.

As with drinking milk, the yoghurt market is rather concentrated with four firms combining 57% of the market share (2013 data, source: Passport Yoghurts in Greece, Euromonitor International, January 2014). Fage is the market leader with 31%, followed by Vivartia with 11%, Olympos Dairy Co. Larissis S.A. with 8% and Danone Hellas with 7% (see Graph 40). Similar to the drinking milk market, the leading firms are launching more and more functional probiotic and/or low calorie products to better meet the preferences of Greek consumers conscious about their health and well-being. In terms of packaging, family packs are favoured to meet the growing Greek consumer awareness of product prices given the ongoing economic crisis.

¹⁸ Source : http://www.vivartia.com/?page_id=2918&lang=en

Graph 40: Market shares of dairy companies in Greece in 2012


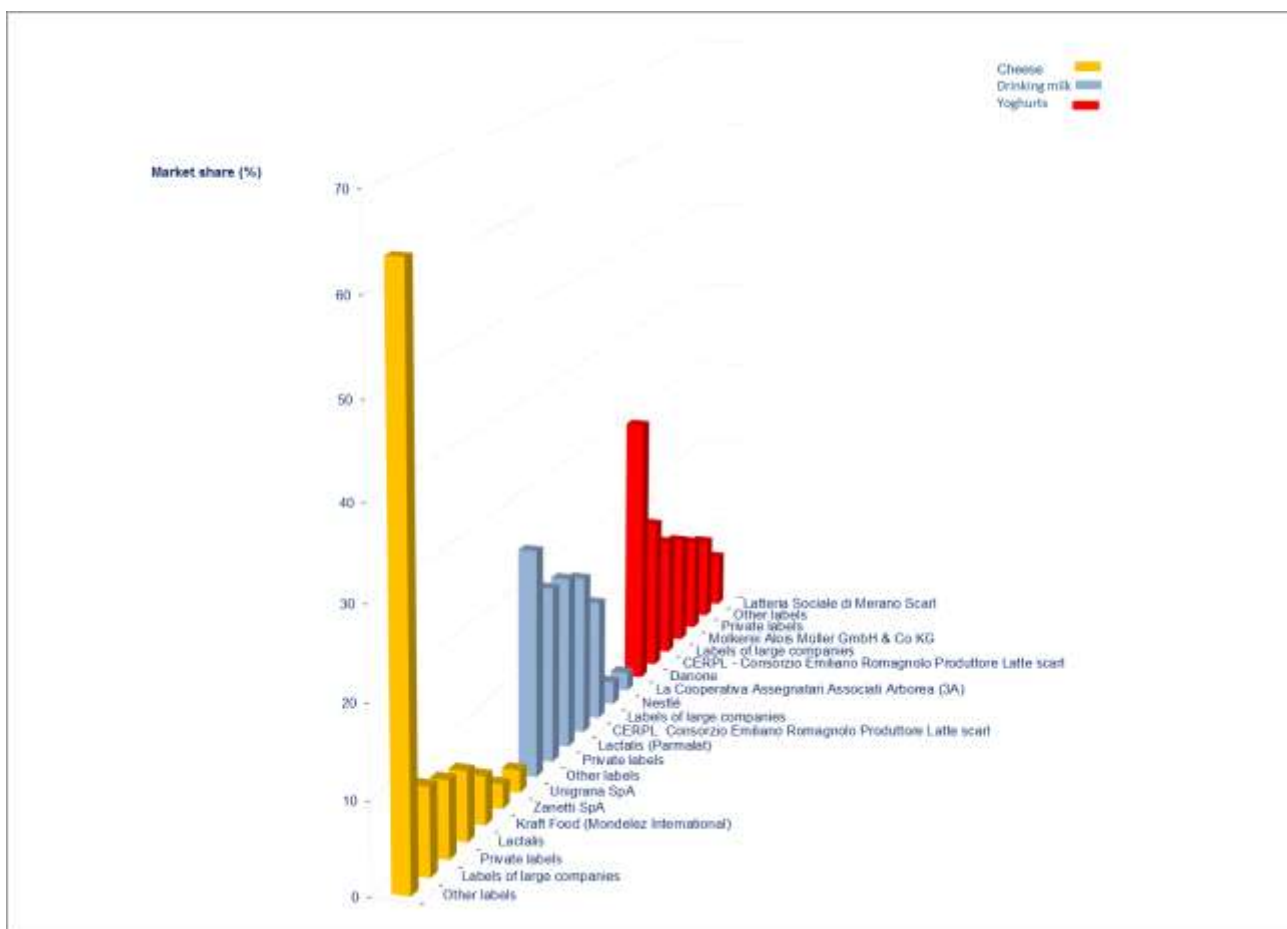
Source: Produced by the author from the Euromonitor International online database

As concerns the retail trade, supermarkets and hypermarkets have a very high market share compared to traditional distribution channels. In particular, they sell 80% of drinking milk, yoghurt and milk-based desserts with the shares of traditional grocery stores being reduced little by little (Euromonitor International, 2014). Conventional distribution channels accounted for just less than a fifth of the market share in cheese in 2013 whereas they had a 25.4% share in 2007. The competition strategies of the large dairy companies are based on economies of scale which enables them to list products at cheaper prices than those for typical local products sold by SMEs that have to bear higher production costs. These products offered by large companies appeal more to Greek consumers who are seeing their incomes fall due to public austerity policies over the last few years.

ITALY is a country with a rich tradition in cheese and is well-known for its wide range of AOP-accredited cheeses alongside the more standardised processed-type cheeses. However, Italian consumers have a strong preference for distinctive quality cheeses and tend to buy typical local cheeses along with low-calorie cheeses and/or cheeses from organic dairy herds. As such, it is not surprising to see that processed cheese only accounts for 14% of sales in market value (2013 figures, Passport Cheese in Italy, Euromonitor International, April 2014), whereas speciality cheeses account for 86% of sales. These include Grana Padano which has a 13% market share, Mozzarella Vaccina with 11%, Mozzarella Bufala with 5%, Parmigiano Reggiano at 9% and Ricotta with 5%. In such a bountiful universe of cheese, a considerable number of firms are competing against each other, making the Italian cheese market quite competitive. Typical local (artisan) cheeses sold under the own-brand category, have a market share of over 60% (2013 figures) while the market leader, **Lactalis**, has around ten brands as prestigious as *Galbani*, *Invernizzi*, *Locatelli* as well as a distribution network supplying more than one hundred supermarkets and hypermarkets. It accounts for just 11% of the Italian cheese market. **Mondenez International**, with 5.6% and **Zanetti**, with nearly 3% occupy second and third places respectively, while supermarket brands such as Coop, Esselunga, Conad or even Carrefour also have a 9% market share.

The market for drinking milk and yoghurts is more concentrated than that for cheese as the four top firms in the drinking milk market account for 43% of the market. The four market leaders in the yoghurts market combine to take a 65% market share in terms of value. **Granarolo Group**, which has a large number of dairies in Italy, (called **CERPL-Conzortio Emiliano Romagnolo Produttore Latte Scal** in Graph 41) has a 19-20% share in the drinking milk and yoghurt markets. That said, in both markets studied, the French multinational firm, **Lactalis**, actually comes top in the drinking milk market with a 20% market share thanks to its recent acquisitions of Italian companies (Galbani, followed by Parmalat in late 2012), whereas in the yoghurt market, the other French dairy giant, **the Danone Group** is the leader with a 31% market share. As for the cheese market, the four supermarket chain own-brands (Coop, Conrad, Essalunga and Carrefour) account for a 20% market share in the drinking milk and yoghurt markets. The privately-owned German dairy group, **Molkerei Alois Müller**, also has a comfortable position in the yoghurt market with a 12% share. Given that consumer patterns are favouring organically produced products, low-calorie produce, or functional products, the larger companies are developing their product portfolios to better meet consumer demand and gradually move away from traditional products.

Graph 41: Market share of dairy companies in Italy in 2012



Source: Produced by the author from the Euromonitor International online database

The power of the supermarkets and hypermarkets in milk and dairy product distribution channels is stronger in Italy than it is in Greece. Nearly 83% of cheeses, 91% of drinking milk and 89% of yoghurts are sold there, with supermarkets having almost 45% of these combined sales. Nevertheless, hard discount stores also have relatively large parts of the Italian retail market. The traditional retail trade, which comprises grocery stores and dairies, is pushed to the margins of this structure as just 17% of cheeses, 11% des yoghurts and 16% of drinking milk are sold by small grocery stores or dairies/cheesemongers.

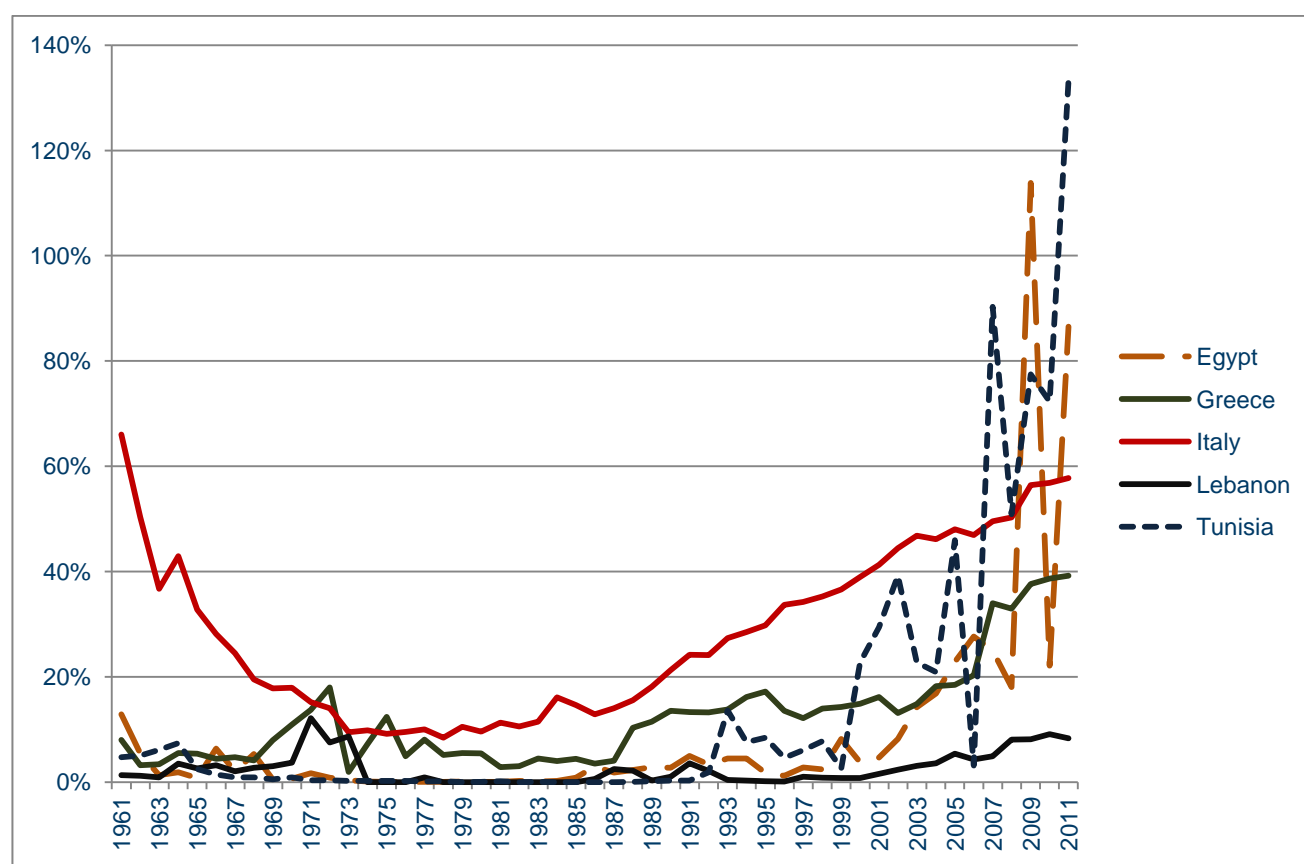
In summary, the large national firms or subsidiary companies of multinationals (mostly French) dominate the drinking milk and dairy products market in both the Northern and Southern "LACTIMED" countries. With the exception of cheese markets in Egypt and Greece, typical local products cannot match the supply of these large industrial firms which are more geared to the production of uniform and standardised ("westernised") dairy products. Neither can they meet the demands of consumers who are seeking more "healthy" and "easy-

to-use” and “easy-to-store” products than traditional products. In Italy, consumers have a great fondness for dairy products, especially AOP-certified cheeses, but the large industrial companies and sizeable cooperatives are still the biggest suppliers of the distinctive quality products. The Southern “LACTIMED” countries need to focus on the food safety aspects of typical or industrial dairy products to expand their foreign markets. This type of action now appears to be a priority.

4.2. The positioning of the “LACTIMED” countries on international markets

The growth in export/import coverage ratios from 1961 to 2011 in terms of the value of milk and dairy products for the five pilot regions in the LACTIMED Project, reflects an improving situation in each of these countries from the 1990's. We can see, in particular, that Tunisia and Egypt have made considerable efforts to gain surplus coverage ratios from 2009-2010, although these observed improvements are not yet stabilised (they follow a ‘hiccup’ pattern) due to significant annual fluctuations. Italy raised its coverage ratio from around 40% in the 1990's to more than 60% by 2010 while despite all its efforts, Greece still has a coverage ratio of just short of 40%. Regardless of years of war, Lebanon also managed to progress even if its coverage ratio in early 2010 was still less than 10% (Graph 42). Consequently, the international trade figures of the countries studied should be examined as well as those countries with which the “LACTIMED” countries sell the most milk and dairy products.

Graph 42: Change in coverage ratios of “LACTIMED” countries between 1961 and 2011 (in %)



4.2.1. Export structure

Exports in terms of milk and dairy product volumes from **Egypt** rose at a rate of 13% to 18% per year between 1986 and 2011. This was the biggest rise observed in the drinking milk segment (see Table 22). Egypt is largely focusing its exports on its three top customers, Saudi Arabia, Iraq and Libya, which are leading importers of Egyptian cheese. Indeed, all three combined account for 53% of Egyptian exports in this segment. Egypt has a competitive position in its exports to North African and Middle Eastern countries, especially concerning cheese exports and, to a lesser extent, drinking milk. Exports milk and dairy products from **Lebanon** remain small despite annual average growth rates of between 7% and 9% between 1986 and 2011. The Middle Eastern countries and the Ivory Coast are its main customers for dairy product exports.

Table 22: Structure of milk and dairy product exports from LACTIMED Project partner countries

Product categories	Exports (tons) (2006-2011 average)	AAGR ¹ 2011-1986 (%)	Total number of countries of destination 2011	CR3 ² (%) in 2011	Top3 countries of destination (% share in total exports) (2011)
EGYPT					
Cheese	179 907	18.1%	63	53%	Saudi Arabia (25%), Iraq, Libya
Milk (all types)	11 772	18.4%	27	87%	Libya (71%), Israel, Jordan
Lactose	1 979	-	5	100%	Turkey (57%), Germany, Tunisia
Butter and ghee	342	13.3%	8 ⁽²⁾	89% ⁽²⁾	Lebanon (41%), Kuwait, Saudi Arabia
Yoghurt and whey	57	14.0% ⁽¹⁾	2	100%	Tunisia (90%), Jordan
LEBANON⁽³⁾					
Yoghurt and whey	1220	n.s.	2	100%	Iraq (99,9%), U.A.E.
Cheese	935	6.7%	50	53%	Kuwait (25%), Iraq, Ivory Coast
Milk (all types)	161	8.6%	35	34%	Iraq, Germany, Guinea
Butter and ghee	150	5.2%	19	61%	Saudi Arabia (30%), Ivory Coast, Kuwait
Lactose	4	9.0%	4	75%	Congo, Mozambique, Qatar
TUNISIA					
Yoghurt and whey	10 234	9.9%	3	100%	Libya (83%), Ethiopia, Algeria
Cheese	9 912	33.7%	9	98%	Libya (76%), Liban, Algeria
Milk (all types)	8 753	18.7%	3	100%	Libya (95%), Ethiopia, Algeria
Butter and ghee	555	6.4%	3	100%	Libya (83%), Ethiopia (10%)
GREECE					
Cheese	48 856	8.3%	55	53%	Germany (32%), U.K., Italy
<i>dont au lait de brebis</i>	1 957	-4.0%	15	85%	Germany (55%), Luxembourg, Cyprus
Yoghurt and whey	29 092	5.1%	39	51%	U.K., Italy, Denmark
Milk (all types)	2 925	7.1%	11	84%	Cyprus (44%), Bulgaria, Roumania
Butter and ghee	923	8.4%	16	76%	Bulgaria, Cyprus, Italy
Lactose	154	10.7%	8	67%	Macedonia, Belgium, Bulgaria
ITALY					
Yoghurt and whey	316 534	15.9%	41	97%	Germany (66%), France, Netherlands
Cheese	282 425	6.1%	123	44%	France, Germany, USA
Milk (all types)	28 883	8.0%	61	45%	Germany, France, Albania
Lactose	26 636	17.4%	47	60%	France, Germany, Spain
Butter and ghee	11 331	0.6%	53	59%	Germany, France, Poland

Notes:

1: AAGR: Average annual growth rate

2: CR3: Concentration ratio of market shares in terms of value for the three leading companies

Source: Produced by the author from FAO Stat data

Cheese exports from **Tunisia** reflect an annual growth rate of almost 34% between 1986 and 2011, followed by rates of growth in drinking milk exports and yoghurt. Libya is by far the biggest customer of Tunisian dairy sector products. It accounts for 83% of exports of yoghurt and whey, 76% of cheese and 100% of drinking milk and butter. Although this neighbouring country is a driver for Tunisian exports, exporting firms should be careful and seek new customers to better ensure their long-term future but also growth in their production by expanding their market internationally. Seeking new customers would also force them to improve production food safety standards to better meet the requirements of international standards.

Greece has also experienced average annual growth rates in its dairy product exports from 1986 to 2011. That said, its ewe's cheese exports have seen a 4% drop per year for the period under study. This reflects a certain vulnerability in the market for Greek Feta at an international level. The fact that several countries from the EU, North America as well as neighbouring countries to Greece (particularly Turkey) produce similar cheeses to Feta (often using cow's milk and/or cow's and ewe's milk blends) creates international competition on prices by disadvantaging Greek Feta on international markets. Greece's main customers are the EU countries of Germany, Italy and Luxembourg for its cheeses, Great Britain, Italy and Denmark for its yoghurts and Cyprus, Bulgaria and Romania for its drinking milk and butter. The setting-up of large Greek companies, like Fage, in North America together with the imitation of Greek dairy products (e.g. Greek yoghurt) by large multinational firms like Danone or Nestlé, harms the export of Greek products and contracts its international market.

Italy has a similar structure to that of Greece, with relatively high average annual growth rates for yoghurt (15.9%) and lactose (17.4%) and lower rates for cheese (6%), drinking milk (8%) and butter (0.6%). Italy is looking to diversify the destination countries for its dairy products by, for example, exporting its cheeses to 123 countries worldwide, although 44% of these cheese exports are destined for France, Germany and the United-States. 97% of its yoghurt exports go to Germany (which alone imports 66% of Italian yoghurt), France and the

Netherlands while Germany, France, Spain and Poland are the main customers for Italian drinking milk, butter and lactose.

In conclusion, it would be best for Tunisia and Lebanon to focus their efforts on improving the food safety of their products and increasing quantities in the milk and dairy products sectors to boost their exports while expanding their market share on the international stage and their customers also.

4.2.2. Import structure

Italy is the biggest importer of milk and dairy products among the five “LACTIMED” countries, with in excess of 2.5 million tonnes of milk, 400,000 tonnes of cheese and 200,000 tonnes of yoghurt imported annually between 2006 and 2011 (averages for the period under study). Italy’s biggest supplier is Germany, followed by France, Belgium and Austria. Italy’s deficit in its milk balance sheet for decades now has forced it to import large volumes of milk, especially to process it in its own processing plants. Annual average growth rates are between 1 and 2.7%, reaching 4.2% for imports of yoghurt and whey.

Greece is also a big importer of milk and dairy products among the five “LACTIMED” countries, with 300,000 tonnes of drinking milk, nearly 125,000 tonnes of cheese, 20,000 tonnes of yoghurt and almost 14,000 tonnes of butter imported between 2006 and 2011 (see table 22). The EU countries of Germany, the Netherlands, France and Belgium are Greece’s biggest suppliers. Greece shows itself to be dependent on its three biggest suppliers as concentration rates are between 77% and 89% for drinking milk, yoghurts, whey and cheese and around 61% for butter. Bulgaria is also a major supplier of yoghurt due its geographical proximity and also its culinary ties.

Among the Southern “LACTIMED” countries, **Egypt** has a bigger population than Tunisia or Lebanon and is a major importer of drinking milk, with 136,000 tonnes imported (2006-2011 annual average). Butter is the second key dairy product for which import volumes are relatively high (the 2006-2011 annual average is 79,000 tonnes), followed by cheese, yoghurt and whey (see Table 22). Egypt has a greater variety of suppliers and the concentration ratio of its top three suppliers ranges from 50% for drinking milk to 82% for butter. Egypt’s biggest suppliers for milk, butter and cheese turns out to be New Zealand (through its cooperative company, Fonterra) while Germany supplies milk and lactose. Egypt also uses the United-States and India for butter imports, the United-States and the Netherlands for cheese and France, Ukraine and Turkey for yoghurts and whey.

Milk and dairy imports to **Lebanon** are smaller than for other “LACTIMED” countries and do not exceed 10,000 tonnes based on 2006-2011 averages (see table 22). Lebanon uses its neighbours for cheese imports (Syria, Egypt and Morocco), Saudi Arabia, the Netherlands and the Czech Republic for drinking milk imports and yoghurts and whey, with Saudi Arabia covering 75% of imported Laben in Lebanon.

Table 23: Structure of milk and dairy product imports from countries belonging to the LACTIMED Project

Catégories de produits	Importations en volume (tonnes) (moyenne 2006-2011)	TCAM 2011-1986 (%)	Nombre total des pays de provenance 2011	CR3 (%) 2011	Trois premiers pays de provenance (2011)
EGYPT					
Milk (all types)	136 151	7.3%	24	50%	N. Zealand, Germany, Denmark
Butter and ghee	79 060	2.4%	20	82%	N. Zealand (60%), USA, India
Cheese	26 458	1.8%	30	58%	Netherlands, USA, N. Zealand
Yoghurt and whey ⁽¹⁾	12 119	14.6%	15	62%	France, Ukraine, Turkey
Lactose ⁽¹⁾	4 713	5.6%	11	70%	Netherlands (32%), Germany, China
LEBANON ⁽²⁾					
Cheese	33 486	0.4%	33	68%	Syria, Egypt, Morocco
Milk (all types)	21 752	-0.3%	24	74%	Netherlands, Saudi Arabia, Czech Rep.
Butter and ghee	6 230	9.9%	24	72%	Denmark, Netherlands, France
Yoghurt and whey	1 413	10.9%	10	94%	Saudi Arabia (75%), USA, Uruguay
Lactose	76	10.5%	4	100%	Italy (63%), Germany, Netherlands
TUNISIA					
Milk (all types)	9 573	-4.3%	18	67%	France (40%), Netherlands, Germany
Cheese	2 651	1.4%	11	88%	USA (66%), N. Zealand, Poland
Yoghurt and whey ⁽³⁾	2 384	7.2%	13	86%	France (66%), Netherlands, Poland
Butter and ghee	345	-12.0%	5	88%	Switzerland, Argentina, USA
Lactose	272	0.04%	7	87%	Italy (49%), France, Germany
GREECE					
Milk (all types)	301 830	2.4%	22	89%	Germany (56%), Netherlands, France
Cheese	123 476	5.5%	27	75%	Germany, Netherlands, Denmark
Yoghurt and whey	20 011	8.2%	18	77%	Germany (44%), Bulgaria, France
Butter and ghee	13 848	3.4%	19	61%	Germany, Netherlands, France
Lactose	1 414	7.0%	7	81%	Germany (40%), Belgium, Netherlands
ITALY					
Milk (all types)	2 632 488	1.6%	25	78%	Germany (37%), France, Austria
Cheese	490 220	2.0%	29	71%	Germany (54%), France, Belgium
Yoghurt and whey	197 755	4.2%	24	86%	Germany (51%), Austria, France
Butter and ghee	121 181	2.7%	22	63%	Belgique, France, Poland
Lactose	12 890	1.0%	11	95%	Germany (75%), Netherlands, Denmark

Source: Produced by the author from FAO Stat data

Tunisia still imports nearly 10 thousand tonnes of milk each year from France (40% of imports), the Netherlands and Germany. However, imports to this country have been dropping by an average annual rate of 4.3% since 1986, which reflects the positive results from efforts that Tunisia has made over the last few decades to develop its livestock sector and reach a level of self-sufficiency in milk and dairy products. The same downwards trend applies to butter imports which has been dropping at an average annual rate of 12% between 1986 and 2011. During the same period, imports in cheese volumes have risen by an average annual rate of 1.4% and that of yoghurt and whey by 7.2%. Tunisia's main supplier countries are the United-States (66% of imports in 2011), followed by New Zealand and Poland. For yoghurt, France comes top (66% of imports in 2011), followed by the Netherlands and Poland. For butter, the country's key suppliers are Switzerland, Argentina and the United-States while for lactose, it is Italy (49% of imports in 2011), France and Germany.

This brief analysis of the "LACTIMED" countries leads us to make the following remarks. It is both necessary and urgent to undertake measures that ensure better local/national consumer information about the importance of local dairy heritage and which targets improved coordination between the different links in the dairy chain to help typical local dairy products produced by SMEs gain wider access to national markets. The second remark concerns the virtual absence of trade between these countries. The creation of a network of dairy clusters developed by LACTIMED must target the introduction and stimulation of trade between the five project countries, initially at a regional level, then nationally.

Conclusion

The milk and dairy products market has evolved considerably, with strong global growth stemming, in particular, from the presence of evermore consumers in developing countries. The statistics also show a process of industrialisation in the dairy chain, with the marked presence of large national companies developing on the international scene and which also have a tendency to concentrate the market. Although these companies have provided, and are still providing, responses to this growing demand, they are making competition more intense. The low prices they apply with supermarkets and hypermarkets weaken the SMEs that process the milk. These large firms producing industrial products also tend to standardise tastes and develop products based on one of the characteristics of communication (marketing aspects such as the image conveyed by a product, etc.) rather than for organoleptic reasons.

In mature-stage milk and dairy products markets, as is the case with most European countries, the presence of these large companies has brought developments in terms of food safety and the distribution of a variety of products to consumers. The latter are now turning towards authentic products which include features such as having their own taste, tradition and know-how (the artisanal dimension), heritage and their own history. There is therefore a growing demand for these local dairy products, which represents a significant opportunity for the SMEs that make them.

This demand is creating a presence and reach in the regional industry to which these SMEs selling these types of products belong since it involves milk producers and also companies. This is particularly so when there is a cooperative venture based on specifications for a label or a distinctive sign of quality. As a result, this consumer demand has had a positive effect on the way the dairy chain is structured, as well as the development of the SMEs that are part of it.

This growing interest for local products is very much present in Europe, but it can also be seen in the Mediterranean with growing domestic consumer demand in Lebanon and Tunisia. Here, there is an ever-increasing number of initiatives to satisfy either domestic or international markets with a demand coming from the Diaspora as a form of recognition of these products by foreign food lovers (Labneh from goat's milk, for example). There is also a high demand for typical local dairy products from Egypt.

This unveils an opportunity for typical dairy products in terms of outlets on national markets. As for exports, the knowledge/recognition of products from other regions is still limited (even in Europe where most consumers of cheese have a poor understanding of local products from neighbouring countries. We have, for example, noticed that the French know very little about Italian stretched-curd cheeses and do not eat them apart from Mozzarella which is a world-renowned flagship product). As such, it is not easy to reach consumers in other countries with the exception of flagship products, or with Diasporas and Chef networks without stimulating the market with a large-scale promotional/communication campaign having a medium or a long-term impact, and which could only be achieved by a group of SMEs working together. In order to progress, it appears that collective marketing actions and developing labels are one of the priorities to market these products on the international stage.

Furthermore, UE regulations block the entry of Egyptian and Lebanese products and impose conditions on Tunisian products, all of which restricts trade between LACTIMED regions. Considerable work must continue in the dairy industry on both health and safety and milk quality. Conversely, this study shows that opportunities do exist in other global or regional markets, but also between LACTIMED countries (reciprocal demand for typical dairy products between Egypt, Lebanon and Tunisia).

5.1. A change in food tastes imposed by the big players

'Industrial' and heavily marketed dairy products have undeniably prevailed over traditional so-called 'local' products. This process is all the more noticeable in emerging economies with the trend for copying 'western' lifestyles and the appeal of 'western' products. However, part of the population is tending to push for a return to "authentic, original, local, natural" products (according to consumer and social style surveys) so long as traceability, food safety and origin can be guaranteed (particularly hygiene and ingredients). This 'return to the roots' is being expressed by an explosion in the sales of labelled products.

In western countries, a consensus is developing around the idea of a return to authentic products. There is a feeling (supposed) that a local product may be healthy and natural compared to an industrial product which is often seen as sanitised and artificial (colouring, binding agents, etc.). Recent global events (avian flu and others) have created a state of hysteria and a suspicious attitude towards food products in general and dairy by-products in particular (presumed inclusion of GMOs in animal feeds, bacterial risks such as Salmonella,

etc.). This existing situation is represented by increasingly draconian legislation by governments which has a considerable effect on the additional production costs (bacterial analyses, packaging, sell-by-dates, etc.) of small-scale producers who cannot exploit economies of scale when dealing with large companies with modern machinery and ample financial resources.

Shifts in concentration are developing at exponential speed and are increasingly complicating the entry, or even the existence, of local products in the retail sector. Large national and multinational companies use colossal advertising campaigns and manage to convey the idea to consumers that their product is 'traditional', or even 'more authentic' than farm produce.

Faced with a huge range of products provided by large companies (who systematically launch new products using marketing tools), there is growing confusion as most the EU-15 countries also offer a wide range of outstanding local products for sale. Clearly, this situation poses the problem of a finite amount of shelf-space available in supermarkets and hypermarkets which are seeing their negotiating powers naturally strengthened.

This plethora of products is a boon to the unavoidable supermarkets which hold, according to country, between 55% and 80% of the market share in terms of product sales. The supermarkets have changed their status from retailers to that of landlords renting out floor space indexed to forecasted turnovers by shelf-space or by square metre, with minimal presumed rotations (which is far from easy for local products) and dissuasive entry 'costs' (back margins) for separate producers.

5.2. How can gains in market share be made for typical local products?

It is feasible to create a local (district) and international (Euro-Mediterranean) mark of recognition which unites and is synonymous with quality and authenticity to make typical local products visible, credible and appealing. This would both affix them to and impose them on consumers (searching for tradition and safety) and agro-tertiary companies (purchasing centres, supermarkets and hypermarkets, master cheese-makers, etc.). This regional and national 'umbrella brand' will help small businesses and artisans to establish a distinctive and unique position when dealing with large multinational companies.

We should remind ourselves that quality marks such as geographical indications promoting the origin of products have the best results as products from large industrial companies are, by definition, stateless. They are the result of a creation commonly made in the laboratory, devoid of an identity and territory of reference. Their positioning is exclusively symbolic, conjuring up the imagination through advertising campaigns supposed to provide "an identity" through a name and different scenarios.

THE FRENCH AND QUALITY AND ORIGIN MARKINGS

- 91% of French consumers trust labels (IFOP June 2010).

82% of French people (IFOP 2010) expect more information of the origin of foods and their traceability (the case of fraudulent horse meat in 2013 only served to accentuate this phenomenon).
- 68% of French consumers (TNS SOFRES: "The French and Food", February 2008) said they are ready to pay more for a product displaying a quality mark rather than a competing product without this distinctive mark.
- Finally, all consumers need to be reassured about what they put on their plates. This is all the more so with a 'foreign' product (see the hysteria linked to avian flu and other events). This doubt is naturally dissipated by a label or any identity mark known by the public and acknowledged by the supervisory authorities.

Promoting a clear positioning using a distinctive mark will attest that the products have been selected according to guidelines to be defined, that these guidelines are of specific and recognised quality and will grant them an alternative and distinct status than so-called 'industrial' products.

The positioning consists of highlighting objective and imaginary characteristics.

Objective characteristics: a territory, a composition, transferable know-how, etc.

Imaginary characteristics: In the absence of objective and demonstrable references, product marketing compensates for this lack of identity by an emotional content included in the advertising. Searching for a name and use of projective and associative tests are required to settle on final colour codes, the name as well as

recalling the existing labels or marks. This is done in order to allow for cultural diversity (semiotics, colour codes, etc.) and to provoke instant memorisation by induced mimicry with reassuring symbols available on the markets. This inspires confidence as consumers, in general, and particularly European consumers, are highly sensitive and trust official quality marks (AOP, IGP, Label Rouge, etc.) awarded under the supervision of public authorities.

Creating this quality mark for typical local products will help promote them, which is entirely in keeping with:

- the expectations of European consumers who are seeking reassurance about their food and who are always keen to discover new products;
- the preoccupations of the supermarkets looking for loss-leaders to attract new customers and their reasoning in terms of rotation but also the average shopping basket related to the synergy between local products offered and other purchases in the shop.

Working out a communication plan for the Euro-Mediterranean regions quality mark

The products must comply with precise specifications attesting to their *distinctive quality compared to generic products in the same category* and their *defined production technique* by a mark representing distinctive quality and official origin. These specifications must have a *strong ability to reassure* and must form a *permanent cross-cutting and cross-border reference point*. The mark must be distinctive and enhancing and be used to acknowledge products with unique and authentic flavours by highlighting their typical organoleptic qualities and the authentic character of the products displaying the mark.

Boost the visibility and recognition of these typical local Euro-Mediterranean products¹⁹ :

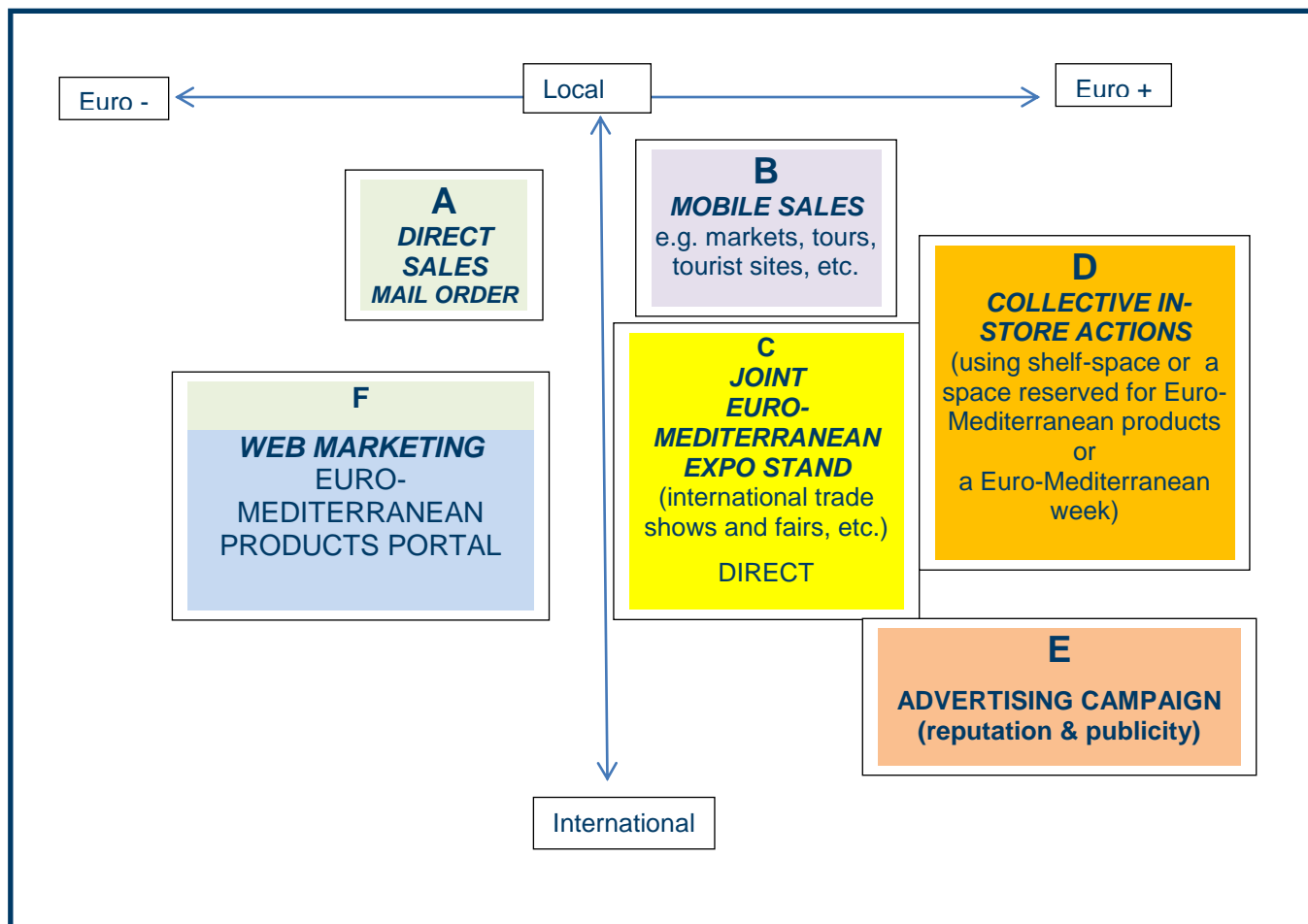
1. **Design and implement a multi-lingual website**, a real shop window for these products with a quality label or another distinctive mark. The homepage should feature the Mediterranean Basin and in one simple click, obtain or view: - a 2-minute video by producer to reassure the internet user about:
 - the history and culture connected to the product;
 - the way it is made;
 - ideas for preparing and using it (e.g. recipes), including a link offering the option of speaking with the producer if they have requested this option (problem of language barriers but also the existence of a digital divide).

The purpose of the website is to create a link that could connect with agro-tertiary sector players (central buying units for the supermarkets and hypermarkets, specialised shops, imports and wholesalers) as well as with other players such as those managing trade shows and fairs and/or tourist offices.

2. **Design a mobile “Euro-Mediterranean” exhibition** to be used at specialised food industry trade fairs and shows, or with the culinary professions, or in other key countries.
3. **Propose additional promotional tools:**
 - a Euro-Mediterranean week for the supermarket and hypermarket central buying units (see the example of Lidl with its Spanish and Greek weeks, etc.)
 - eventually make standard packaging available with the pre-printed logo, leaving an opening so that the identity of the product can be seen.

¹⁹ See strategies and resources diagram (page 56)

Mapping exercise: strategy/resources



Appendices

Table A1: Per capita consumption of drinking milk and dairy products (in milk equivalent) by main geographical regions (1961-2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)					Growth index (1961-1970=100)
	1961-1970	1971-1980	1981-1990	1991-2000	2001-2011	
Centrale and Eastern Europe	77.94	91.01	94.64	125.76	171.48	220
New EU member States	142.85	172.46	183.48	181.76	196.16	137
Western Europe*	204.65	221.37	234.23	235.95	270.70	132
<i>Greece</i>	<i>135.49</i>	<i>189.14</i>	<i>214.80</i>	<i>252.27</i>	<i>279.98</i>	<i>207</i>
<i>France</i>	<i>225.23</i>	<i>245.93</i>	<i>280.58</i>	<i>268.38</i>	<i>259.32</i>	<i>115</i>
<i>Italy</i>	<i>163.93</i>	<i>213.79</i>	<i>263.69</i>	<i>253.99</i>	<i>264.15</i>	<i>161</i>
Latin America	78.66	91.46	95.06	98.08	104.65	133
Northern America	195.96	186.67	186.72	171.58	163.65	83
Mediterranean Basin	71.84	88.42	102.80	92.01	94.86	132
<i>Tunisia</i>	<i>46.32</i>	<i>61.62</i>	<i>73.67</i>	<i>81.71</i>	<i>102.38</i>	<i>221</i>
<i>Lebanon</i>	<i>83.67</i>	<i>90.32</i>	<i>94.17</i>	<i>105.19</i>	<i>108.31</i>	<i>129</i>
<i>Egypt</i>	<i>31.06</i>	<i>35.01</i>	<i>38.26</i>	<i>42.84</i>	<i>59.07</i>	<i>190</i>
Asia	23.83	27.05	32.35	57.25	70.52	296
Oceania	80.68	90.87	87.87	80.62	73.89	92
Africa	38.68	41.43	43.45	39.69	44.04	114

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A2: Per capita consumption of cheese by main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)					Growth index (1961-1970=100)
	1961-1970	1971-1980	1981-1990	1991-2000	2001-2011	
Western Europe*	9.10	11.21	12.97	14.26	19.37	213
<i>Greece</i>	<i>15.67</i>	<i>19.88</i>	<i>23.13</i>	<i>24.94</i>	<i>26.27</i>	<i>168</i>
<i>France</i>	<i>11.91</i>	<i>16.10</i>	<i>20.38</i>	<i>22.37</i>	<i>24.30</i>	<i>204</i>
<i>Italy</i>	<i>9.23</i>	<i>11.99</i>	<i>16.35</i>	<i>19.90</i>	<i>22.28</i>	<i>241</i>
Northern America	4.23	6.22	8.42	9.22	10.17	240
New EU member States	6.28	8.69	9.90	7.43	9.66	154
Mediterranean Basin	2.70	3.49	4.20	4.16	4.25	157
<i>Lebanon</i>	<i>5.71</i>	<i>5.43</i>	<i>6.75</i>	<i>8.60</i>	<i>9.73</i>	<i>170</i>
<i>Egypt</i>	<i>5.22</i>	<i>5.06</i>	<i>5.36</i>	<i>6.00</i>	<i>7.91</i>	<i>151</i>
<i>Tunisia</i>	<i>0.47</i>	<i>0.61</i>	<i>0.51</i>	<i>0.52</i>	<i>0.45</i>	<i>95</i>
Central and Eastern Europe	3.48	4.99	5.94	3.15	3.81	110
Latin America	1.71	2.08	2.36	2.59	3.27	192
Oceania	1.39	2.07	2.78	2.88	3.17	228
Asia	0.25	0.33	0.41	0.59	0.98	398
Africa	0.32	0.35	0.32	0.40	0.47	149

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A3: Per capita consumption of butter by main geographical regions (1961-2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)					Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2011	
Western Europe*	6.76	6.34	5.71	4.40	3.88	57
<i>France</i>	8.71	9.17	9.32	8.67	8.08	93
<i>Italy</i>	0.86	0.74	0.89	1.00	1.08	126
<i>Greece</i>	1.83	2.13	2.25	2.50	2.75	150
Oceania	4.57	4.52	3.59	3.10	3.01	66
Northern America	4.98	3.88	3.44	2.72	2.55	51
New EU member States	2.56	3.40	3.74	2.34	1.90	74
Central and Eastern Europe	1.93	2.48	2.90	2.42	1.89	98
Mediterranean Basin	2.30	1.97	1.87	1.30	1.19	52
<i>Egypt</i>	1.44	1.85	2.35	2.21	2.16	150
<i>Lebanon</i>	1.36	1.83	1.62	1.62	1.63	120
<i>Tunisia</i>	0.47	0.78	0.88	0.73	0.51	108
Asia	0.44	0.52	0.60	0.80	0.81	185
Latin America	0.94	0.96	0.74	0.58	0.55	59
Africa	0.30	0.28	0.29	0.19	0.21	69

* Western Europe includes EU15, Norway, Switzerland and Iceland
Source : FAOSTAT.

Table A4: Milk (liquid, powder, dehydrated) production in volume by main geographical regions (1961 – 2011)

Geographical regions	Ten year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961-1970	1971-1980	1981-1990	1991-2000	2001-2010	2011	
Western Europe*	46 445	54 616	58 974	47 517	48 013	44 829	103
<i>France</i>	9 846	12 275	13 173	10 970	11 160	11 395	113
<i>Greece</i>	140	135	123	120	101	77	72
<i>Italy</i>	1 611	2 015	2 363	3 332	3 430	3 226	213
Asia	2 902	4 896	8 653	14 885	19 419	20 501	669
Northern America	18 609	13 188	13 310	13 101	15 862	17 307	85
Central and Eastern Europe	25 627	36 850	45 849	21 149	12 363	11 179	48
Oceania	8 266	7 230	6 340	7 776	9 611	9 303	116
New EU member States	8 916	11 895	12 924	8 557	7 682	7 009	86
Latin American	3 204	4 485	4 813	4 785	5 874	6 564	183
Mediterranean Basin	2 642	2 771	3 212	3 900	4 777	5 590	181
<i>Egypt</i>	223	324	429	533	627	627	281
<i>Lebanon</i>	1.2	1.3	1.5	2.9	3.8	3.4	326
<i>Tunisia</i>	18.1	25.1	40.2	75.4	119.9	130.7	662
Africa	1 824	1 646	1 558	1 664	2 492	3 187	137

* Western Europe includes EU15, Norway, Switzerland and Iceland
Source : FAOSTAT.

Table A5: Butter production in volume by main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Asia	721	922	1 387	2 459	4 190	4 843	581
Western Europe	1 995	2 308	2 504	1 872	1 778	1 697	89
France	475	557	589	457	427	424	90
Italy	65	73	84	117	118	102	181
Greece	6.2	5.3	4.6	4.0	3.2	2.1	51
Northern America	758	585	666	676	727	907	96
Oceania	444	392	354	440	533	510	120
Central and Eastern Europe	1 066	1 362	1 643	789	476	422	45
Mediterranean Basin	188	209	236	267	321	383	171
Egypt	46	64	73	88	116	128	253
Tunisia	1.0	1.3	2.1	3.8	5.9	6.5	585
New EU member States	314	455	539	360	306	263	97
Latin America	131	185	200	199	234	256	179
Africa	90	78	75	79	112	139	125
Asia	721	922	1 387	2 459	4 190	4 843	581

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A6: Yoghurt and whey production in volume by main geographical regions (1961-2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe*	144 657	551 817	903 886	1 181 063	1 612 864	1 872 762	5807
France	30 281	219 755	375 104	516 979	628 014	659 540	2178
Italy	2 950	15 108	24 489	53 534	108 295	251 800	8536
Northern America	278 567	426 009	550 120	649 348	559 437	525 716	1940
New EU member States	118	133	2 925	29 267	153 836	220 851	253
Oceania	5 270	8 360	22 980	79 696	110 709	121 800	98687
Asia	13 435	16 722	33 171	52 289	81 455	85 119	4518
Central and Eastern Europe	1 623	2 495	2 848	8 915	24 714	66 391	4618
Mediterranean Basin	1 434	2 546	3 777	7 507	55 149	58 454	1182
Africa	830	1 471	2 090	2 303	6 105	4 668	101

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A7: Cheese production in volume by main geographical regions (1961-2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe	2 618	3 903	5 299	6 514	7 657	7 912	292
<i>France</i>	630	977	1 330	1 597	1 829	1 931	290
<i>Italy</i>	433	538	691	965	1 121	1 133	259
<i>Greece</i>	134	183	206	227	237	223	177
Northern America	1 321	2 049	2 997	3 883	4 956	5 570	375
Asia	301	413	664	981	1 343	1 424	446
Latin America	420	572	658	855	1 031	1 316	246
Mediterranean Basin	349	445	568	745	1 140	1 267	326
<i>Egypt</i>	167	200	245	362	605	645	363
<i>Lebanon</i>	7,0	7,0	8,6	15,2	18,3	16,3	263
<i>Tunisia</i>	1,2	1,2	1,9	2,9	3,9	4,1	325
New EU member States	499	804	973	867	1 164	1 250	233
Central and Eastern Europe	830	1 462	1 952	801	959	1 064	116
Oceania	165	203	283	470	666	650	403
Africa	82	108	134	220	277	299	339

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A8: Volume imports of drinking milk (liquid, powder, dehydrated) into main geographical regions (1961-2011)

Geographical regions	Ten-year averages (unit : kg/year/inhabitant)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe*	637.2	2 195.7	3 846.0	5 553.0	7 448.0	9 011.7	113
<i>Italy</i>	124.0	1 009.0	1 821.8	2 003.1	2 180.6	2 632.5	120
<i>France</i>	9.5	45.2	165.8	650.0	559.7	542.8	156
<i>Greece</i>	41.7	92.1	151.1	155.5	226.3	301.8	106
Asia	486.5	545.7	796.2	1 114.5	1 571.7	2 178.7	103
Mediterranean Basin	154.2	380.6	698.0	639.1	1 084.2	1 330.7	108
<i>Egypt</i>	3.4	11.3	27.2	26.9	36.0	136.2	140
<i>Lebanon</i>	6.4	9.3	13.4	18.7	22.3	21.8	102
<i>Tunisia</i>	6.0	19.4	28.8	19.4	12.3	9.6	101
New EU member States	30.9	50.2	27.2	79.5	462.5	1 119.8	135
Latin America	259.0	417.3	570.9	797.1	742.1	825.8	102
Africa	139.9	320.8	407.6	335.3	499.9	646.4	104
Central and Eastern Europe	28.9	38.2	111.0	220.3	148.3	248.1	108
Northern America	19.8	44.0	39.2	38.7	637.1	87.0	103
Oceania	8.0	18.1	26.0	42.6	53.8	65.1	107

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A9: Volume butter imports into main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe*	522	615	702	832	1 197	1 345	258
<i>France</i>	4.5	41.9	71.2	144.3	204.9	215.0	4 794
<i>Greece</i>	1.3	1.6	4.6	10.0	14.9	13.8	1 068
<i>Italy</i>	29.8	44.6	56.9	57.4	100.6	121.2	406
Asia	18	64	96	173	267	324	1781
Mediterranean Basin	29	77	155	154	203	261	894
<i>Egypt</i>	0.3	12.9	24.0	35.3	29.9	79.1	329 ⁽¹⁾
<i>Lebanon</i>	2.5	3.1	3.4	5.6	6.8	6.2	254
<i>Tunisia</i>	1.2	3.3	5.0	2.5	1.2	0.3	30
New EU member States	23	19	36	30	101	167	715
Central and Eastern Europe	6	85	267	200	146	123	2096
Latin America	29	50	65	77	95	69	236
Africa	14	19	20	19	33	42	292
Oceania	2	6	11	12	23	31	1364
Northern America	3	11	3	12	43	17	513

* Western Europe includes EU 15, Norway, Switzerland and Iceland

(1) Base period : 1981-1990=100

Source : FAOSTAT.

Table A10: Volume cheese imports into main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe*	467.3	713.1	1 084.5	1 675.8	2 589.1	3 226.6	690
<i>Italy</i>	65.2	170.0	252.7	299.2	401.8	490.2	752
<i>France</i>	24.3	48.9	83.4	149.5	230.9	271.2	1118
<i>Greece</i>	4.3	5.6	27.5	63.1	102.7	123.5	2849
Asia	22.5	87.1	181.3	242.0	354.1	469.7	2087
Mediterranean Basin	30.6	77.8	171.9	170.1	305.3	452.9	1482
<i>Egypt</i>	1.7	6.7	33.3	17.9	13.9	57.9	3352
<i>Lebanon</i>	6.0	9.2	13.3	24.7	30.4	33.5	561
<i>Tunisia</i>	1.0	2.3	2.0	1.9	3.3	2.7	255
Central and Eastern Europe	9.8	8.2	22.8	84.2	244.4	337.1	3429
New EU member States	5.4	7.4	16.7	44.1	156.8	303.4	5576
Latin America	16.1	29.5	48.9	103.9	168.0	233.5	1450
Northern America	62.4	120.7	148.6	183.4	222.1	171.4	274
Oceania	4.7	11.3	22.5	34.8	67.0	80.7	1713
Africa	7.5	10.6	9.2	12.3	23.0	31.1	413

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A11: Volume imports of yoghurt and whey into main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe	21.8	180.6	478.0	950.6	2 144.2	2 955.0	311
<i>France</i>	1.5	7.5	17.6	73.7	140.3	341.4	463
<i>Italy</i>	3.0	33.4	58.0	91.4	168.2	197.8	216
<i>Greece</i>	-	1.0	2.0	6.4	14.9	20.0	315 ⁽¹⁾
Asia	2.7	15.6	53.2	202.4	514.5	811.9	401
New EU member States	-	0.8	7.4	43.4	104.8	159.1	366
Latin America	-	1.4	16.4	73.7	139.6	149.0	202
Central and Eastern Europe	-	-	-	44.8	93.9	87.2	194
Northern America	-	0.0	1.3	34.2	86.2	58.9	172
Mediterranean Basin	-	-	1.2	14.2	34.1	49.9	351
<i>Egypt</i>	-	-	-	1.3	8.2	12.2	921 ⁽²⁾
<i>Tunisia</i>	-	-	-	0.5	2.2	2.4	467 ⁽²⁾
<i>Lebanon</i>	-	-	-	0.1	0.6	1.4	948 ⁽²⁾
Africa	-	0.5	3.4	13.5	26.8	38.5	285
Oceania	-	0.2	1.0	4.9	10.0	15.9	324

* Western Europe includes EU15, Norway, Switzerland and Iceland

(1) Base period : 1971-1980=100

(2) Base period : 1981-1990=100

Source : FAOSTAT.

Table A12: Volume exports of drinking milk (liquid, powder, dehydrated) from main geographical regions (1961 -2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe	1 248.0	3 308.6	5 338.9	6 713.5	7 832.0	9 567.0	107
<i>France</i>	375.6	695.1	864.0	1 156.3	1 142.7	1 320.2	103
<i>Italy</i>	0.5	2.9	8.2	9.1	19.5	28.9	155
<i>Greece</i>	-	-	0.2	0.9	2.2	2.9	392 ⁽¹⁾
New EU member States	10.6	48.7	140.5	371.3	1 202.5	2 238.5	310
Oceania	163.0	317.7	424.4	841.4	1 410.8	1 396.2	108
Latin America	4.4	21.0	28.7	236.0	487.9	591.5	232
Central and Eastern Europe	28.4	36.2	34.7	114.9	418.4	573.5	119
Northern America	432.3	250.2	402.5	211.9	358.2	555.1	100
Asia	23.2	39.3	85.2	196.2	469.3	429.8	118
Mediterranean Basin	0.8	1.8	9.9	48.2	248.7	429.4	650
<i>Egypt</i>	-	-	-	0.4	4.5	11.8	1277 ⁽¹⁾
<i>Tunisia</i>	-	-	-	1.3	1.1	8.8	656
<i>Lebanon</i>	-	0.2	0.1	0.4	0.2	0.2	104
Africa	17.0	23.2	9.1	37.7	45.8	77.6	104

* Western Europe includes EU15, Norway, Switzerland and Iceland

(1) Base period : 1981-1990=100

Source : FAOSTAT.

Table A13: Volume butter exports from main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe*	301.4	714.8	1 081.3	1 059.4	1 461.6	1 653.5	549
<i>France</i>	53.1	110.1	143.2	117.4	182.4	279.6	526
<i>Italy</i>	0.2	0.4	6.0	18.5	15.6	11.3	189 ⁽¹⁾
<i>Greece</i>	-	-	-	0.5	1.0	0.9	181 ⁽²⁾
Oceania	267.0	225.3	231.7	350.0	450.7	325.3	122
New EU member States	38.5	31.1	32.2	93.8	138.2	176.7	459
Centrale and Eastern Europe	59.9	18.5	15.2	50.6	124.2	133.1	222
Mediterranean Basin	0.3	1.8	2.5	32.7	81.6	127.3	290 ⁽²⁾
<i>Tunisia</i>	-	-	-	-	0.1	0.6	378 ⁽³⁾
<i>Egypt</i>	-	-	-	-	0.1	0.3	450 ⁽³⁾
<i>Lebanon</i>	0.2	0.2	-	-	0.2	0.2	83
Asia	2.6	1.1	2.8	22.2	51.1	107.0	482 ⁽²⁾
Northern America	16.4	7.6	39.1	46.6	39.1	82.1	501
Latin America	8.6	8.0	12.2	14.1	39.0	54.7	634
Africa	5.8	3.7	1.6	4.7	3.6	4.6	80

* Western Europe includes EU15, Norway, Switzerland and Iceland

(1) Base period : 1981-1990=100

(2) Base period : 1991-2000=100

(3) Base period : 2001-2010=100

Source : FAOSTAT.

Table A14: Volume exports of cheese from main geographical regions (1961 – 2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe*	444	883	1 495	2 136	3 045	3 816	860
<i>France</i>	68	178	282	445	570	669	983
<i>Italy</i>	24	25	50	124	226	282	1 200
<i>Greece</i>	1	2	4	13	29	49	4 511
Mediterranean Basin	1	2	8	17	193	529	44 603
<i>Egypt</i>	-	-	1	3	29	180	616 ⁽¹⁾
<i>Tunisia</i>	-	-	-	-	4	10	230 ⁽¹⁾
<i>Lebanon</i>	-	-	-	-	1	1	114 ⁽¹⁾
New EU member States	35	49	57	101	265	354	1 003
Oceania	122	119	151	314	476	343	282
Northern America	20	10	24	48	98	233	1 190
Central and Eastern Europe	7	9	7	20	155	232	3 388
Latin America	6	16	17	36	109	147	2 484
Asia	-	-	1	3	16	45	277 ⁽¹⁾

* Western Europe includes EU15, Norway, Switzerland and Iceland

(1) Base period : 2001-2010=100

Source : FAOSTAT.

Table A15: Volume exports of yoghurt and whey from main geographical regions (1961 - 2011)

Geographical regions	Ten-year averages (unit : 1000 tons)						Growth index (1961-1970=100)
	1961- 1970	1971- 1980	1981- 1990	1991- 2000	2001- 2010	2011	
Western Europe	38.1	204.8	512.5	1 194.7	2 400.4	3 001.8	251
<i>France</i>	3.9	84.3	210.4	393.2	595.7	632.2	161
<i>Italy</i>	-	0.4	3.1	42.6	127.6	316.5	743
<i>Greece</i>	-	-	2.4	6.5	19.9	29.1	445
Northern America	-	-	37.4	140.6	311.8	483.7	344
New EU member States	-	-	0.1	31.3	219.6	370.6	1185
Asia	-	-	2.4	18.6	63.4	162.3	872
Latin America	-	-	0.4	4.9	43.2	114.1	2311
Central and Eastern Europe	-	-	-	3.6	43.5	110.3	3094
Oceania	0.8	3.0	10.2	38.4	74.9	39.5	103
Mediterranean Basin	-	-	-	1.0	17.6	27.7	2762
<i>Tunisia</i>	-	-	-	0.5	3.5	10.2	1880
<i>Lebanon</i>	-	-	-	-	0.1	1.2	
<i>Egypt</i>	-	-	-	-	-	0.1	
Africa	-	-	0.3	2.2	5.2	9.9	459

* Western Europe includes EU15, Norway, Switzerland and Iceland

Source : FAOSTAT.

Table A16: Production in volume of dairy products in MENA countries between 1961 and 2012 (tons)

Butter	1961-1970	1971-1980	1981-1990	1991-200	2001-2012	Average annual growth rate (1961-2012)
Oman	4	5	12	39	60	2.3%
Saudi Arabia	698	914	1 009	3 680	5 229	4.0%
U.A.E.	63	109	162	309	586	4.5%
Algeria	113	504	905	1 161	2 382	6.2%

Cheese	1961-1970	1971-1980	1981-1990	1991-200	2001-2012	Average annual growth rate (1961-2012)
Jordan	2 559	2 111	2 051	3 989	6 373	1.8%
Oman	142	240	322	546	1 078	4.1%
Saudi Arabia*					92 857	15.6%
Algeria	253	671	952	1 164	1 540	3.6%

* Average annual growth rate between 2005 and 2012

Drinking milk	1961-1970	1971-1980	1981-1990	1991-200	2001-2012	Average annual growth rate (1961-2012)
Oman	798	1 393		2 464	5 306	3.9%
Saudi Arabia*				38 200	162 532	15.6%
Algeria	2 375	10 640	19 095	24 510	50 279	6.2%

* Average annual growth rate between 1991 and 2012

Yogourts and whey	1977-1980	1981-1990	1991-2000	2001-2012	Average annual growth rate (1961-2012)
Kuwait	400	500			
Saudi Arabia*		160	3 160	30 822	30.1%

* Average annual growth rate between 1981 and 2012

Source : Authors' work based on data from FAOSTAT, <http://www.fao.org>

Table A17: Dairy companies' market shares in yoghurt segment in the four countries of Lactimed project

	(en %)					
Company name	2007	2008	2009	2010	2011	2012
EGYPT						
Groupe Danone	33.1	30.3	31.1	32	31.4	31.5
Juhayna Food Industries	28	29.8	28	24.6	24.3	24.1
Nestlé	14.1	14.8	11	12.6	12.4	12.1
Lactalis		3.4	7.7	11.1	11.6	11.9
Nile Co for Food Industries (Enjoy)	8.4	7.7	6.8	6.4	6.3	6.2
Other labels	3.8	3	4.9	3.2	4.2	3.5
Total	100	100	100	100	100	100
TUNISIA						
Danone	38.7	40.8	46.4	49.6	57	57.8
Centrale Laitière	12.7	12.9	13	14.7	15.6	15.6
Autres grandes firmes	11.3	11.4	11.6	6.7	7.7	7.9
SORIL	1.7	1.8	1.7	2.5	7.8	7.8
Groupe Poulina	3	3.1	2.6	5.5	6.6	7.1
Other labels	32.6	30	24.7	21	5.3	3.8
Total	100	100	100	100	100	100
GREECE						
Filippou Group (FAGE)	31.4	29	30.7	29.6	30.2	30.5
Autres grandes firmes	20.9	25.4	26.7	24	21.7	21.0
Vivartia SA	16.8	15.9	11.5	10.1	10	10.1
Small handicraft companies	7.8	8.2	8.2	8.5	8.8	9.2
Olympos Dairy	3.8	5.6	6.8	7.7	8	8.2
Other labels	7.7	4.3	4.9	7.8	8.9	8.0
Mevgal	8.4	7.8	6.9	6.8	6.7	7.0
Private labels	3.2	3.8	4.3	5.5	5.7	6.0
Total	100	100	100	100	100	100
ITALY						
Danone	30.1	29.8	30	30.1	30.4	30.4
CERPL - Consorzio Emiliano Romagnolo Produttore Latte scarl	15.9	15.9	16.3	16.6	17.1	17.2
Other large companies	19.6	19.8	18.5	16.1	14	13.6
Molkerei Alois Müller GmbH & Co KG	12.4	12.4	12.1	12.4	12.6	12.4
Private labels	8.9	8.9	9.2	10.2	10.5	10.8
Other labels	8.3	7.9	8.6	8.8	9.4	9.5
Latteria Sociale di Merano Scarl	4.8	5.3	5.3	5.6	6	6.1
Total	100	100	100	99.8	100	100

Source: Authors' work based on data from Euromonitor International

Table A18: Dairy companies' market shares in cheese segments in the four countries of Lactimed project

	(en %)					
Company name	2007	2008	2009	2010	2011	2012
EGYPT						
Other large companies	30.2	33.8	37.2	34.3	33.9	35.2
Other labels	29.8	29.5	25.6	27.9	28.0	25.7
Lactalis	15.1	13.8	14.2	15	14.6	14.4
Americana Group	8.6	7.1	7.2	8.5	10.1	11.0
Royal Friesland Campina NV	8.3	8.5	8.6	7.6	6.8	7.4
Groupe Bel	8	7.3	7.2	6.7	6.6	6.3
Total	100	100	100	100	100	100
TUNISIA						
Lactalis	32.9	34.6	40	47.2	38.8	38.9
SOVIA	18.4	19.2	22.1	25.9	25.9	25.9
Other large companies	11.3	12.3	14.7	17.7	13.3	13.4
Industries Alimentaires de Tunisie					10.8	10.8
Sotudel Tunisie	4.7	5.2	5.9	7.3	8.5	8.5
Other labels	32.7	28.7	17.3	1.9	2.7	2.5
Total	100	100	100	100	100	100
GREECE						
Other labels	69.9	68.8	67.7	68.3	68.4	68.6
Other large companies	4.4	5.6	6.4	6.8	7.2	7.5
Filippou Group (Fage)	8.3	7.2	7.2	6.6	5.8	5.8
Small handicraft companies	3.9	4	4	4.2	4.3	4.3
Optima SA	4.2	4.4	4.5	4.1	4.1	3.9
Dodoni	2.4	3.1	3.2	3	3.3	3.2
Mevgal	4.7	4.4	4.1	3.4	3.2	3.0
Private labels	2.2	2.5	2.9	3.6	3.7	3.7
Total	100	100	100	100	100	100
ITALY						
Other labels	66.3	66.9	66.4	66.1	64.7	63.6
Other large companies	8.6	8.6	8.7	9	9.2	9.6
Private labels	6.6	6.5	6.8	7.1	7.9	8.5
Lactalis	7.7	7.5	7.6	7.4	7.6	7.7
Kraft Food (Mondelez International)	5.6	5.5	5.4	5.4	5.4	5.4
Zanetti SpA	2.7	2.6	2.7	2.7	2.7	2.7
Unigrana SpA	2.5	2.4	2.4	2.4	2.5	2.5
Total	100	100	100	100.1	100	100


Source: Authors' work based on data from Euromonitor International

Table A19: Dairy companies' market shares in drinking milk segment in four countries of Lactimed projectctimed

	(en %)					
Company name	2007	2008	2009	2010	2011	2012
EGYPT						
Juhayna Food Industries	33.4	34.8	38.6	43.7	45.9	47.8
Faragello Group	7.2	7.9	8.8	8.4	8.1	7.8
Nestlé	17.3	18.3	16.4	15.6	15.3	15.5
Nile Co for Food Industries (Enjoy)	5.1	5	5.6	5.3	5.3	5.2
International Co for AgroIndustrial Projects	3.7	3.8	3.4	3.8	3.7	3.6
Other large companies	8.8	8.9	8.7	9.9	9.2	8.8
Other labels	24.5	21.3	18.5	13.3	12.5	11.3
Total	100	100	100	100	100	100
TUNISIA						
Danone	42.3	40.9	40.7	40.4	39.9	38.9
Centrale Laitière de Mahdia	13.7	14	15.9	19.4	22.1	22
Sodiaal	11.4	11.5	11.2	12.3	12.8	11.1
SORIL	5.8	5.7	6.4	6.4	7.2	7.2
Other large companies	18.3	23.7	16.5	13.7	11.3	10.8
Other labels	8.5	4.2	9.3	7.8	6.7	10
Total	100	100	100	100	100	100
GREECE						
Vivartia SA	35.2	31.1	32.3	31.7	32.5	33.0
Olympos Dairy Co Larisis SA	8.4	9.3	9.7	10.9	10.9	11.2
Royal Friesland Campina NV	9.1	9.9	9.1	8.2	8.3	8.4
Mevgal Macedonian Milk Industry SA	8.1	8.4	8.5	8.5	8.5	8.5
Other large companies	19.2	19.2	19.3	17.2	17.2	17.2
Private labels	5.1	3.1	4.2	5	5.2	5.4
Other labels	14.9	19	16.9	18.5	17.4	16.3
Total	100	100	100	100	100	100
ITALY						
La Coop. Assegnatari Associati Arborea (3A)	1.3	1.5	1.7	1.9	2	2.1
Nestlé	2.4	2.4	2.5	2.6	2.6	2.6
Autres grandes firmes	13.6	13.9	14.8	14.8	14.9	13.5
CERPL Consorzio Emiliano Romagnolo Produttore Latte scarl	23.3	21	19.5	18.9	18.3	17.8
Lactalis (Parmalat)	23.4	21.8	20.3	20	19.6	19.2
Private labels	12.8	14.1	16.5	18	19	19.6
Other labels	23.2	25.3	24.7	23.8	23.6	25.2
Total	100	100	100	100	100	100

Source : Authors' work based on data from Euromonitor International

Table A20: Examples of media for visibility and positioning to market typical local products

SCENARIO	EXAMPLE OF MEDIA FOR VISIBILITY AND POSITIONING
A DIRECT SALES/MAIL-ORDER	<ul style="list-style-type: none"> - Distinctive "Euro-Mediterranean or other collective" logo - "Euro-Mediterranean or other collective" panel - "Euro-Mediterranean or other collective" personalised flyers - "Euro-Mediterranean or other collective" packaging
B MOBILE SALES e.g. markets, tours, tourist sites, etc.	<ul style="list-style-type: none"> - Distinctive "Euro-Mediterranean or other collective" logo on vehicle - "Euro-Mediterranean or other collective" panel - "Euro-Mediterranean or other collective" personalised flyers - "Euro-Mediterranean or other collective" packaging
C JOINT EURO-MEDITERRANEAN EXHIBITION STAND (e.g. international trade fairs and shows)	<ul style="list-style-type: none"> - distinctive "Euro-Mediterranean or other collective" logo - "Euro-Mediterranean or other collective" panel - "Euro-Mediterranean or other collective" personalised flyers - "Euro-Mediterranean or other collective" packaging
D COLLECTIVE IN-STORE ACTIONS (Hyper & Super) (using shelf-space, a space reserved for Euro-Mediterranean products, or a Euro-Mediterranean week)	<ul style="list-style-type: none"> - A collective Euro-Mediterranean products week in supermarkets and hypermarkets - "Euro-Mediterranean products or other generic" flyers and posters for in-store advertising - Press adverts (logo and product list, games & competitions) - "Euro-Mediterranean" product presentation brochure for supermarket buyers - Negotiation for a permanent area with signage for the products 
E ADVERTISING CAMPAIGN (reputation & publicity) TV, papers	<ul style="list-style-type: none"> - Amplify the strategy and media plan in various target countries to publicise the logo and products - Distinctive "Euro-Mediterranean or other labelled" logo
F WEB MARKETING Euro-Med products portal	Availability online of product sheets for each product and country and links established with: <ul style="list-style-type: none"> - wholesalers, importers, etc. - supermarket buyers, etc. - gourmet websites, etc.

(Source: Packaged Food: Euro Monitor from trade sources/national statistics ©2010 Euro monitor International).

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The dairy products market

Documentary study

November 2015

LACTIMED aims to foster the production and distribution of typical and innovative dairy products in the Mediterranean by organising local value chains, supporting producers in their development projects and creating new markets for their products. The project is implemented under the ENPI CBC MED Programme, and is financed, for an amount of EUR 4.35 million, by the European Union through the European Neighbourhood and Partnership Instrument. From November 2012 to December 2015, ANIMA and its 11 partners organized about a hundred operations targeting the various stakeholders of the dairy value chains of Alexandria and El Beheira (Egypt), the Bekaa and Baalbeck-Hermel (Lebanon), Bizerte and Beja (Tunisia), Thessaly (Greece) and Sicily (Italy).

To complete the diagnosis conducted in the local dairy sector of the five pilot territories, this study focuses on the dairy markets and opportunities in international markets. It provides a detailed insight into the dairy markets by addressing production, international trade, consumption trends, consumer attitudes and behaviour and best distribution networks for actors. The markets studied are:

- The global international market;
- Western Europe;
- North America;
- Middle East, China and Russia markets.

More information at: www.lactimed.eu