

**Macroeconomics**

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**THE CONSUMING TENDENCIES  
OF QUALITATIVE DAIRY PRODUCTS  
ON UKRAINIAN AND FOREIGN MARKETS****Abstract**

The producing processing and consuming tendencies of qualitative milk and dairy products in Ukraine and world are reviewed in the article. The concept of quality, identification and falsification of dairy products on the domestic and foreign markets is opened, the place of the identifying examination during the research of product's congruity degree, which is especially urgent in modern conditions of running a business is shown. The urgency of the stated in the article material is determined by rather tough conditions of dairy industry's development, when the level of milk and dairy products consuming is decreasing. The reason of such phenomena is the decreasing of a real purchasing power including possibilities of population to pay from their market basket the part of expenses on milk and dairy products caused by price increasing for food in 2010 year almost on 40% in Ukraine. While in separate countries the price increasing for dairy products fluctuates today from 30–100% that still more emphasizes the consuming problem of vital, irreplaceable in food allowance dairy products. It strengthens the range of problems towards availability on the world's market of a great amount of low-quality, falsified products, as well as a deficit of high-quality raw material base in most countries, in particular in Ukraine as well.

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### Key words:

Consuming, quality, management quality system, international indexes of safety, marking, identification, falsification, identifying examination.

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**Problem definition.** The successful activity of any dairy producing enterprise is possible only in conditions of satisfying consuming demands, which in return request a clear prediction of a level of products' quality and planning of its improving. Rival dairy producing enterprises aspire as far as possible to satisfy consumers' demands in order to get a maximum profit. The most of dairy producers try to get the highest possible income from selling their high-quality products; however there are enterprises on the market, which enrich themselves by the way of defrauding consumers, by producing low-qualified and sometimes even falsified dairy products. The use of certain kinds of additives during the producing of dairy products affects on their taste characteristics and also is connected with danger for a human's life since the influence of these additives on a human organism is not discovered enough yet.

For the present moment a consumer of any country with market economy has an opportunity to choose from a great variety of dairy products with similar (or close to) consuming characteristics that puts him before a problem of optimum choice of high-qualified dairy product.

**The analysis of the last investigations and publications of the problem.** Mentioned questions were discovered by native and foreign scientists in their works, in particular: L. V. Balabanova, V. M. Bondarenko, S. V. Vasylychak, P. I. Haidutskyi, T. H. Dudar, A. A. Dudnikov, T. Yu. Zhuk, Zh. V. Zorova, V. H. Kudlai, V. V. Labynov, M. Ya. Matviiv, V. S. Mykhailivskyi, A. F. Pavlenko, M. K. Parkhomets, P. T. Sabluk and many others [2, 3, 6, 7, 9, 10, 11, 12, 13, 14, 17]. But still unplumbed is the question of producing and consuming milk and dairy products both on domestic and on world's markets and also identification and falsification processes of dairy products.

**The object of the article** is the research of consuming process tendencies of dairy products, opening of quality concepts, identification and falsification of dairy products on domestic and world's markets.

**The statement of the basic material of the article.** The conducted researches approve a great importance of dairy products in food allowance of

every person regardless his age, social status and other peculiarities. Consumers of every country daily take part in the process of consuming dairy products. Shopping and purchasing of dairy products for a lot of consumers is an everyday's norm, becomes a habit. However, it is necessary to notice that sometimes an aforementioned purchase leads to a vain expense of money, and from time to time it may result even the worsening of consumer's health. Anyway it may lead to losses, and the most troublesome is that human's life may appear under a threat. And consequently almost the most urgent question is the identification and the elimination of falsification problems of dairy products. The solution of these problems will lead to the improvement of commodity maintenance of a society by dairy products, and consequently to the increase of its living standards that is the basic aim of any progress.

Identifying examination is oriented on conformity establishment of the commodity to the certain demands. In international normative documents the term «conformity» is treated as «the maintenance of all established requirements to products». The scientist L. D. Tytarenko notes that in practical activities at conformity estimation the conformity level is defined, in other words is spent the comparing of actual indicators with the requirements established in the normative documentation [1, p. 8].

In the international practice identification is considered as one of the elements of quality system in manufacturing, and also as an action of raw materials, semifinished products and finished goods management for conformity or discrepancy establishment.

From the consumer of dairy products conformity degree may be established by a quality estimation, on the basis of personal experience or the thought of other consumers. An obvious thing is its relation with consumption of dairy products [2, p. 19].

Within the modern type of nourishment of Ukrainian inhabitants the minimum annual norm of milk and dairy products consumption makes 353,3 kg, and the rational one – 380 kg per one person [3, p. 62]. The indicators of dairy products consumption per capita in Ukraine (in recalculation on milk), kg/y are shown in the Table 1. It is obvious that starting from the mid 90's of last century and up to nowadays the domestic level of dairy products consumption in Ukraine doesn't meet the norm [4].

Concerning the quantity of milk and dairy products consumption in the world, it rather differs in different countries. The indicators of drinking milk consumption by 1 person per year in separate countries are presented in the Table 2. As can be seen from the Table 2, the given indicator is the highest in such countries as Australia, Iceland, Norway, Ireland and more. And the lowest it is in Bulgaria, Japan and Southern Africa. We should note that very similar situation in the world has developed also concerning the consumption of butter and cheese [5, p. 17–19].

*Table 1*

**Dairy products consumption per capita in Ukraine (in recalculation on milk)  
(1990–2009 years), kg/y**

1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
373	244	198	205	225	226	226	226	235	225	214	217

*Table 2*

**Consumption of drinking milk by 1 person per year  
in separate countries during 2001–2008 years**

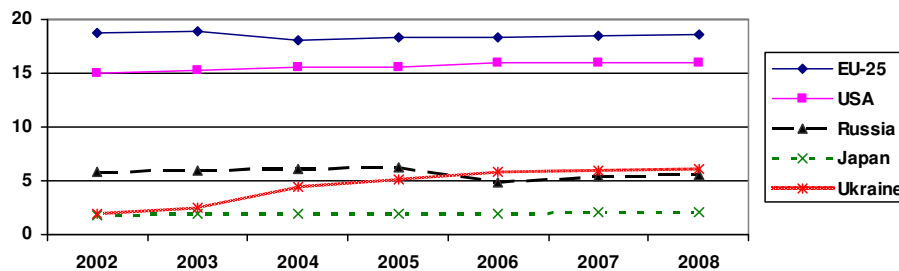
Countries	2001	2002	2003	2004	2005	2006	2007	2008
Belgium / Luxembourg	84,2	84,0	78,3	80,4	77,9	78,6	76,6	74,9
Bulgaria	25,7	25,8	25,6	25,7	25,8	25,7	21,8	21,8
Czech Republic	75,4	63,7	60,1	63,6	74,6	79,4	73,0	73,0
Denmark	137,2	137,4	138,3	138,2	135,0	138,0	139,0	139,0
Germany	90,5	91,0	94,0	91,4	90,8	94,4	95,0	94,0
Greece	71,5	71,5	71,7	71,7	73,2	74,0	74,1	74,0
Estonia	118,6	118,5	118,5	118,6	136,2	140,8	140,8	140,8
Spain	129,7	122,1	120,0	119,7	116,9	114,2	112,0	112,0
France	92,6	92,5	92,9	91,7	92,0	91,2	89,4	86,8
Ireland	161,0	157,4	154,5	148,0	135,3	134,0	128,4	130,7
Italy	58,1	57,9	63,9	63,1	65,5	65,7	63,4	64,1
Hungary	81,6	81,0	77,0	74,2	87,9	88,2	94,4	94,4
Netherlands	120,2	120,9	127,7	127,1	126,5	123,6	123,3	119,4
Austria	76,3	79,9	77,9	76,8	78,3	80,2	78,7	79,2
Poland	61,3	58,7	57,6	55,1	53,2	49,4	46,1	50,3
Portugal	111,0	113,6	111,6	112,1	115,2	117,3	116,8	113,6
Romania	111,6	111,7	111,8	111,7	111,7	111,7	119,0	119,0
Slovakia	81,8	84,9	80,2	73,3	68,7	68,1	66,2	61,5
Finland	186,4	177,9	174,5	180,9	182,5	183,9	184,0	183,9
Sweden	147,5	150,6	149,5	149,7	149,5	145,2	141,4	141,4
Great Britain	111,8	111,4	111,6	108,9	103,9	104,8	105,1	105,1
Switzerland	101,2	106,3	108,5	110,4	111,9	112,5	112,5	112,6
Iceland	176,5	173,0	172,0	173,3	167,6	159,3	153,9	152,8
Norway	122,3	120,3	115,2	115,2	114,8	116,7	118,0	116,2
Canada	86,9	85,7	85,2	95,8	94,7	92,8	92,5	92,1
USA	86,1	85,5	94,9	84,2	83,7	83,8	83,0	82,6

Countries	2001	2002	2003	2004	2005	2006	2007	2008
Argentina	46,0	46,1	45,8	49,8	52,8	56,2	56,8	56,7
Australia	99,6	98,3	99,0	100,2	100,5	103,6	102,2	102,2
New Zealand	98,7	97,0	97,2	97,2	97,1	97,1	97,2	97,2
Japan	35,6	39,2	38,5	38,0	36,7	35,8	35,9	35,9
South Africa	29,4	29,4	29,5	26,1	36,8	37,9	39,1	39,1

One of the main tasks for today is the focus of efforts on increasing the demand, the elimination from food allowance of the population those products which are surrogates of dairy products. Note that the market of cheese develops the most rapidly. In some countries the level of cheese consumption increases, although not rapidly. The tendency to the development of this market is observed in Ukraine also. The schedule of cheese consumption in Ukraine and abroad for the period of 2002–2008 years is shown in the Fig. 1.

Figure 1

**Cheese consumption by one person per year in Ukraine and abroad for the period of 2002–2008 years (kg)**



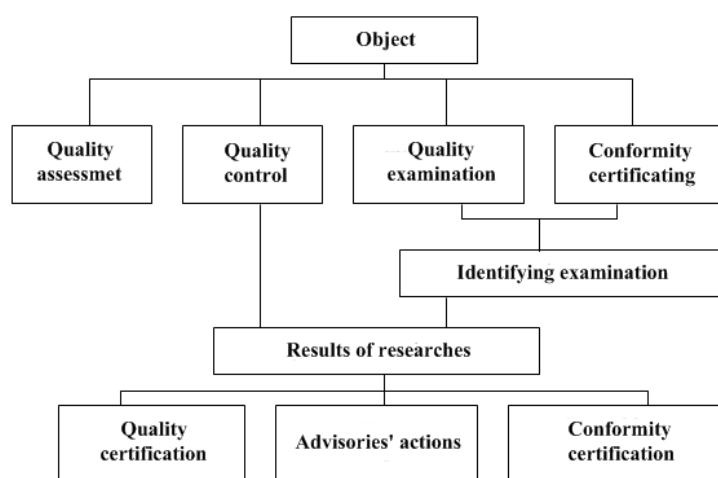
\*Comment. Developed independently by the author.

The author emphasizes that the extent of the conformity of dairy products is reasonable to set from the manufacturer side as well as from the consumer's. From the side of the product manufacturer the degree of its conformity may be determined by the following indicators: normative and technological parameters

of safety. Therefore, appears the necessity to introduce the place of identifying examination in determining the degree of conformity of a dairy product depending on the purpose which is put herewith (Fig. 2) [1, p. 9]. The proposed scheme of the identifying examination place is of a general nature, but is adapted to the specific character of the dairy industry.

Figure 2

**The place of the identifying examination in the researches of conformity degree of the product**



\*Comment. [1, p. 9 ], adapted by the author of the research.

It should be noticed that for the assessment of dairy products quality may be selected various indicators including those not regulated by normative instruments. And it can be carried out by all market actors, both manufacturers, sellers and consumers.

Exploring the dairy industry the identification is reasonable to begin with milk. Since milk is used both by customers and processing enterprises not only directly as food, but also as raw material for the production of various dairy products: cream, dairy tinned foods (dried and condensed), ice cream, sour-milk products, rennet cheese, cow (cream) butter.

Note that by the definition of V. S. Mykhailivskyi the real milk is raw or pasteurized milk, the chemical composition of which is not artificially changed [6, p. 182].

So, drinking of a litre of milk meets human daily needs in fats, calcium and phosphorus for 53 %, in vitamins A, B and thiamine for 35 %, in energy for 26 %. Few of the products may be compared in value with milk. Meanwhile the quality of milk and dairy products is affected by a lot of factors: health condition of a milking cow, conditions of housing, feeding, milking and storage conditions of milk, transportation and selling conditions [7, p. 44–46]. That's why the perfect by chemical composition milk obtained under poor hygienic conditions can quickly become condemn or even harmful to the consumers' health.

Thus the main problem in the domestic milk production is stimulating a significant increase of its quality indicators according to the demands of the new basic state standard of Ukraine DSTU 3662-97 «Cow unskimmed milk. The requirements while purchasing», which is harmonized with the requirements of the Directives № 92-46 of the European Union about milk (Table 3).

In the EU the basic requirements to the quality of dairy products are installed in the Directives of the European Parliament and the Council of the European Union and in the instructions of the Code Alimentarius. Including:

- The Directive of the Council 92/46/EEC, which establishes medico-sanitary regulations concerning the manufacturing and marketing of raw milk, heat treated milk and milk-based products,
- Code Alimentarius. Milk and dairy products.

Beginning from 2004 year the Law of Ukraine «About milk and dairy products» became effective in Ukraine, the requirements to milk are set in DSTU 3662-97 «Cow unskimmed milk. The requirements while purchasing», the requirements to dairy products are set in the state standards adopted in 2005–2008 years, in addition the requirements to the labeling of products are established in DSTU 4518-2008 «Food products. Marking for consumers» (which is developed on the basis of «Common standard for labeling of prepackaged foods» (CODEX STAN 1-1985) [8].

Note that the scientist L. V. Balabanova considers the product quality as one of the most important tools, which is used for the positioning of the product on market. And also draws attention on two characteristics of quality: the level and consistency. The quality level, according to the author, is intended to provide the product's position on the goal-oriented market.

Herewith the quality is identified with the ability of product to perform its functions [9, p. 280].

Table 3

**The quality of milk bought in by dairy producing enterprises  
from agricultural enterprises according to DSTU 3662-97 in 2009 year (t)**

Territorial units	Received milk in recalculation into milk with established fattiness	Including										
		extra	In % to the total volume	Of highest quality	In % to the total volume	First rate	In % to the total volume	Second rate	In % to the total volume	unrated		
										In alt	In % to the total volume	Including pasteurized
<b>Ukraine</b>	<b>1867089</b>	<b>36193</b>	<b>1,9</b>	<b>542357</b>	<b>29,1</b>	<b>1163195</b>	<b>62,3</b>	<b>106231</b>	<b>5,7</b>	<b>19113</b>	<b>1,0</b>	<b>3269</b>
AR Crimea	14507	–	–	4920	33,9	9201	63,4	386	2,7	–	–	–
Vinnitska	128013	–	–	67704	52,9	55999	43,8	3372	2,6	938	0,7	–
Volynska	36640	–	–	6182	16,9	28855	78,7	1436	3,9	167	0,5	–
Dnipropetrovska	75686	–	–	25976	34,3	49541	65,4	124	0,2	45	0,1	–
Donetska	49866	–	–	6422	12,9	39322	78,8	3290	6,6	832	1,7	–
Zhytomyrska	36029	–	–	633	1,7	17456	48,5	17445	48,4	495	1,4	138
Zakarpatska	307	–	–	92	30,0	214	69,7	–	–	1	0,3	–
Zaporizka	27128	–	–	5717	21,1	18950	69,9	2312	8,5	149	0,5	–
Ivano-Frankivska	16512	–	–	2180	13,2	9754	59,0	2421	14,7	2166	13,1	–
Kyivska	172419	6217	3,6	49865	28,9	96122	55,8	14948	8,7	5267	3,0	3131
Kirovohradska	3099	–	–	–	–	3095	99,9	1	0,0	3	0,1	–
Luhanska	22297	–	–	5006	22,5	16189	72,6	1036	4,6	66	0,3	–
Lvivska	50541	–	–	14724	29,1	34018	67,3	1096	2,2	703	1,4	–
Mykolaivska	105478	–	–	60051	56,9	30314	28,8	9212	8,7	5901	5,6	–
Odeska	29123	–	–	–	–	27751	95,3	1208	4,1	164	0,6	–
Poltavska	286442	762	0,3	109729	38,3	159918	55,8	15802	5,5	231	0,1	–
Rivnenska	90855	15278	16,8	11758	12,9	62545	68,9	1270	1,4	4	0,0	–
Sumska	145155	1234	0,9	29357	20,2	96394	66,4	17630	12,1	540	0,4	–
Ternopiiska	39496	–	–	2194	5,6	33391	84,5	3903	9,9	8	0,0	–
Kharkivska	145610	–	–	48148	33,1	95136	65,3	2124	1,5	202	0,1	–
Khersonska	23924	–	–	2076	8,7	21477	89,8	355	1,5	16	0,0	–
Khmelnyska	56566	–	–	1699	3,0	53520	94,6	1131	2,0	216	0,4	–
Cherkaska	102575	–	–	30321	29,6	67169	65,5	4328	4,2	757	0,7	–
Chernivetska*	–	–	–	–	–	–	–	–	–	–	–	–
Chernihivska	140995	2578	1,8	41018	29,1	95905	68,0	1266	0,9	228	0,2	–
<b>Reference: in 2005 year</b>	<b>1780258</b>			<b>300488</b>	<b>16,9</b>	<b>1307475</b>	<b>73,4</b>	<b>154135</b>	<b>8,7</b>	<b>18160</b>	<b>32</b>	<b>1,0</b>
<b>in 2006 year</b>	<b>1830478</b>			<b>344440</b>	<b>18,8</b>	<b>1256238</b>	<b>68,6</b>	<b>184474</b>	<b>10,1</b>	<b>45326</b>	<b>3414</b>	<b>2,5</b>
<b>in 2007 year</b>	<b>1670591</b>			<b>430083</b>	<b>25,7</b>	<b>1100097</b>	<b>65,9</b>	<b>114702</b>	<b>6,9</b>	<b>25709</b>	<b>6676</b>	<b>1,5</b>
<b>in 2008 year</b>	<b>1788770</b>	<b>4258</b>	<b>0,2</b>	<b>483920</b>	<b>28,2</b>	<b>1081809</b>	<b>62,9</b>	<b>120344</b>	<b>7,0</b>	<b>28439</b>	<b>7861</b>	<b>1,7</b>

\*According to the Ukrainian law «About the State Statistics» the information is confidential, since 1–2 enterprises were the producers.



From the perspective of a consumer the author of this article determines the quality of dairy products as a set of properties and characteristics of dairy products, which gives the ability for it to satisfy conditioned or provided customer's needs in the process of consumption.

The assessment of quality level is made by calculating the relative indicators of quality [10, p. 221]:

$$K_i = R_i / R_{ib}, \quad (1)$$

where  $K_i$  – relative quality indicator;

$R_i$  – meaning of ical (separate) quality indicator;

$R_{ib}$  – meaning of ical quality indicator of a basic pattern.

When some of the relative quality indicators are larger than unity or are equal to unity and some are lesser than unity appears the necessity to make a comprehensive assessment of quality level of products. The calculation of the complex quality index is based on the principles of qualimetry. The comprehensive quality index is determined by the formula:

$$K_0 = K_1 * M_1 K_2 * M_2 K_3 * M_3, \quad (2)$$

where  $K_1$  – organoleptic characteristics of the product;

$K_2$  – physical and chemical characteristics of the product;

$K_3$  – nutritive and energy value of the product;

$M_1, M_2, M_3$  – weight coefficients of each group of characteristics.

Many domestic and foreign enterprises consider quality as a strategic weapon, which provides the ability to beat competitors by continually offering of dairy products that better than others will satisfy customer needs [11, p. 60]. In Ukraine, in order to straggle falsification and improve management of quality are implemented international quality standards of ISO 9000:2000 series, built and implemented systems of quality management according to ISO 9004:2000 and so on.

It is difficult to determine in a long chain of dairy products manufacturing what link plays a major role. Since almost all the factors are somehow affecting the quality parameters of milk and afterwards the end products as well [12, p. 361]. It should be noticed that European standards do not distinguish any particular moments in the production of milk, absolutely the whole way of milk is regulated in them. So it is not surprisingly that the state standard for requirements while purchasing cow unskimmed milk (DSTU 3662-97), developed on the European approaches, were implementing in Ukraine during 5 years. However, didn't give the expected results and also hardly improved the situation the aforementioned Law of Ukraine «About milk and dairy products». Today we may state that the vast majority of milk, which is the raw material for processing industry, is

of irrelevant norms. The striking proof of aforementioned are the results of cow livestock size by the categories of farms in Ukraine 1990–2009's, which are presented in the Table 4.

Table 4

**Cow livestock size by the categories of farms in Ukraine 1990–2009's  
(the condition for 1.01.2010 year) (thou. heads)**

Period	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Farms of all categories, including:	8378	7531	4958	4918	4716	4284	3926	3635	3347	3096	2856	2757
agricultural enterprises	6191	4595	1851	1675	1402	1100	950	866	764	679	624	604
specific gravity, %	73,9	61,0	37,3	34,1	29,7	25,7	24,2	23,8	22,8	21,9	21,8	21,9
private farms	2187	2936	3107	3243	3314	3184	2976	2769	2583	2417	2232	2153
specific gravity, %	26,1	39,0	62,7	65,9	70,3	74,3	75,8	76,2	77,2	78,1	78,2	78,1

The requirements of the WTO and the EU are not to process into industrial products milk taken from the private sector with paucity of cows. Since in the private sector is virtually impossible to create conditions for the ensuring of quality and safety of milk and dairy raw material. This can be achieved only through the introduction of mechanized milking of cows, followed by cooling of milk [13, p. 9].

According to the international safety indicators cow raw milk assigned for the processing should have parameters not more than:

- the number of somatic cells – to 400 thou/cm<sup>3</sup>;
- the total number of microorganisms should not exceed 100 thou/cm<sup>3</sup>.

Dairy products in domestic stores have almost reached the European level in price policy [14, p. 192]. (The indicators of average purchase prices for milk in countries of the European Union are presented in the Table 5). But work over the quality should still be rather continued by the national dairy producers. Only the contents of bacteria in raw milk are three times higher than in European norms. The domestic requirements accordingly are: to 400 thou/cm<sup>3</sup> and 300 thou/cm<sup>3</sup> (for milk of the highest quality). Ukrainian dairy producers are well aware that such indicators of milk occur very rarely in domestic dealers. A large percentage

of milk that comes for the processing from milk accepting posts is unsorted. That's why conscientious producers in order to bring milk to the rules have to put bactofuges – special devices for reducing microbial contamination of milk without heat treatment and adding chemicals. Which is extremely important, because for today there are almost no remained large milk supplying enterprises and raw material comes mainly from subsidiary establishments or small farms; and gatherers note the extremely low quality of it.

*Table 5*

**Average purchase prices for milk in countries of the European Union (2001–2008's) (euro/ 100 kg.)**

Countries	2001	2002	2003	2004	2005	2006	2007	2008
Belgium	30,06	27,50	27,51	27,82	26,40	25,84	32,54	30,99
Bulgaria	24,19	24,19	24,18	24,18	24,27	24,28	24,28	31,55
Czech Republic	22,10	25,58	23,75	24,45	26,53	26,74	29,24	32,95
Denmark	32,47	32,44	32,03	30,25	29,12	28,42	31,54	35,68
Germany	32,82	29,98	28,49	27,96	27,60	27,35	33,46	33,84
Estonia	20,43	17,90	18,42	24,53	25,40	24,32	26,86	29,69
Greece	34,80	35,60	34,40	35,50	35,00	35,00	38,60	43,20
Spain	30,68	29,22	30,19	31,94	30,70	30,08	36,20	38,16
France	30,20	29,22	28,80	27,88	27,00	25,94	27,96	32,60
Ireland	29,60	27,30	26,80	26,89	26,30	25,53	32,52	33,01
Italy	34,50	32,80	33,52	33,36	33,24	32,35	35,10	41,76
Cyprus	–	–	36,70	39,00	40,10	40,40	41,50	49,65
Latvia	16,62	16,20	15,00	19,69	22,29	23,39	26,14	27,32
Lithuania	14,36	13,21	11,85	14,13	16,39	16,77	19,90	20,68
Hungary (free milk enterprises, 3,68 % fat.)	28,18	29,75	28,42	23,95	24,65	22,91	28,10	30,36
Netherlands	32,58	31,07	28,83	28,04	27,99	27,28	31,77	34,36
Austria	32,00	30,20	28,18	27,88	27,95	28,54	32,25	37,51
Poland	20,67	18,07	15,78	18,67	22,42	23,14	27,50	28,28
Portugal	32,17	32,87	32,28	31,71	31,05	29,74	32,90	36,33
Slovenia (free milk enterprises, 3,7 % fat.)	28,88	28,17	27,45	26,59	26,34	26,65	27,83	34,00
Slovakia	19,75	21,08	21,57	22,91	24,53	25,00	28,87	32,53
Finland (4,3 % fat.)	32,50	32,00	33,92	33,48	32,08	32,03	33,36	41,14
Sweden	30,53	31,22	31,34	29,37	28,01	27,66	30,27	34,32
Great Britain	-	25,44	24,49	26,42	26,22	25,58	30,08	31,60

\*Comment. Prices are indicated for the countries of EU, without VAT, with fattiness of 3,7 %.

It is clear that additional measures taken by a company in order to provide the quality of milk ultimately affect the price of the end products. The bactofuges, for example, are very expensive and it is also necessary to take into account the costs of operation, routine maintenance, electricity and so on.

Thus in 2009 Ukraine produced 753,5 thou. t. of fluid milk, which is for 7 % or 57,1 thou. t. less than in 2008, during which they produced 810,6 thou. t. However, in comparing with 2004 in 2009 is still experiencing the growth in the production of drinking milk at 1,3 %. The highest indicator in production of drinking milk during the analyzed period we observe in 2007 – 852,4 thou. t. Especially noticeable was the decline in production of dry cream –35 % in 2009 in comparing with 2004 year (tabl.6) [5, p. 12]. Significantly reduced the production of butter and also for the first time in ten years is monitored a significant decline in the manufacture of products from fresh unskimmed milk. The exceptions to this category is only the manufacture of cheese. This can be explained by the higher profitability of cheese production in comparison with other dairy products at the cost of stable demand, primarily by the Russian importers.

Table 6

**The production of major categories of dairy products in Ukraine (2004–2009 years), thou. t.**

Product name	2004	2005	2006	2007	2008	2009
Milk and dry cream	102,6	108,8	105,8	124,7	95,1	67,0
Cream butter	113,2	117,0	101,9	98,9	85,0	75,0
Processed fluid milk	743,6	827,8	798,9	852,4	810,6	753,5
Sour-milk products	338,9	380,1	519,4	532,6	534,6	492,0
Fat cheese	222,8	271,1	215,7	244,0	249,0	237,0
Milk canned food	105,3	112,3	96,7	112,6	117,2	96,0
Ice cream and food ice	111,5	121,0	119,4	129,4	125,0	108,0
Casein	20,4	17,5	12,7	9,2	7,4	5,3

Note that a company deliberately mislead a consumer by vague or such wordings on the label that are not truth, thereby hiding the actual composition of the end product. By wanting to show his advantages a manufacturer makes a variety of declarative marking. Such markings have no useful information; in addition, they have no relation to the quality of products. Meantime, psychologists argue: a person (consumer) can be easily influenced by external factors. So it is not surprisingly that the consumer prefers the label on the marking of «bio»,

«eco», «nature» and so on. But during inspections these producers can not provide the proofs of their environmental claims.

Today there is a necessity in restructuring of the domestic milk production, improving the quality of raw material, milk production and the competitiveness of the industry towards the European manufacturers [15, p. 10]. Therefore the urgent solutions are needed to the problems of optimizing of the future number of dairy cattle and milk production volumes, the adjustment of state policies in the industry of dairy cattle breeding. In the domestic milk-processing sector for some period of time there was a unilateral approach to the development of export potential. There were the increasing in production of solid cheeses, but whole milk processing facilities and recycled materials, including whey, skim milk, creamy cheeses were developed not enough [16].

Consider the basic parameters of milk and dairy products market in the Russian Federation for the period of 2002–2008 years, which are presented in the Table 7 and the parameters of milk production in EU countries (Table 8).

*Table 7*

**The basic parameters of milk and dairy products market  
in the Russian Federation (2002–2008 years) (thou. t)**

Parameters	2002	2003	2004	2005	2006	2007	2008
Cow quantity at the end of the year (thou. heads)	12200	11100	10252	9503	9218	9405	9300
Milking per 1 cow (kg)	2878	2976	3040	3120	3411	3420	3495
Milk production	33467	33300	31935	30600	31440	32161	32500
The production of basic types of dairy products							
Products from unskimmed milk	7747	8473	9023	9742	9999	10048	10058
Butter	228	235	276	254	230	245	258
Cheese	309	335	348	378	401	434	429
Condensed milk	-	-	820	897	833	759	759
Dry unskimmed milk	92	90	91	80	76	75	84
Dry non-fat milk	92	98	93	92	123	132	131
Import							
Butter	120	133	101	83	112	75	84
Cheese	148	200	213	260	218	243	248
Consumption							
Milk and dairy products per capita, kg	210	220	233	235	238	242	242
Population size, mln.hum.							
	144	143	144	143	143	141	141

*Table 8*

**The milk production in the countries of the European Union during 2002– 2008 years (thou. t)**

Countries	2002	2003	2004	2005	2006	2007	2008
Belgium	3357	3160	3127	3141	3026	3100	3160
Bulgaria	1308	1308	1345	1287	1299	1148	1120
Czech Republic	2801	2717	2673	2813	2767	2756	2801
Denmark	4591	4671	4568	4586	4627	4619	4692
Germany	27874	28533	28245	28253	27955	28403	28656
Estonia	612	612	652	670	692	692	702
Greece	790	800	830	820	820	800	760
Spain	6610	6637	6576	6553	6192	6075	6500
France	25254	24667	24452	24885	24195	24200	25251
Ireland	5293	5462	5373	5163	5188	5300	5199
Italy	10743	10750	10869	10897	10821	10840	10962
Cyprus	144	149	142	145	141	144	150
Latvia	814	786	786	811	816	841	844
Lithuania	1771	1796	1850	1862	1891	1937	1884
Luxembourg	269	265	269	270	266	270	278
Hungary	2068	1977	1939	1839	1784	1770	1813
Malta	44	41	43	43	43	43	40
Netherlands	10797	11075	10905	10827	10995	11128	11620
Austria	3292	3230	3137	3114	3147	3155	3196
Poland	11776	11892	11810	11901	11970	12088	12425
Portugal	2040	1952	2020	2052	2100	2060	1890
Romania	5922	5922	6280	6067	6005	5652	4597
Slovenia	728	662	650	659	640	667	659
Slovakia	1163	1109	1079	1100	1092	1075	1057
Finland	2532	2472	2449	2433	2364	2308	2311
Sweden	3274	3253	3275	3206	3172	3023	3025
Great Britain	14869	15013	14552	14475	14348	14073	13719

The main problem of the dairy industry in Russia still remains the condition of raw material base and the traditional seasonality of milk production. It is observed some growth in consumption rates of milk and dairy products, respectively in its production as well. In the dairy industry of this country the process of production concentration is continued that leads to the strengthening and expansion of large enterprises and to the bankruptcy of small ones. If concerning EU countries the leaders are: Germany, France, Great Britain, Italy, Poland [17, p. 45–46].

For today in the international practice the most effective way to monitor quality and safety in food production is recognized the system of analysis a haz-

ard by critical points – Hazard Analysis Critical Control Point (HACCP). Also, the worldwide leader in the field of independent certification of quality management systems is the company SGS. More than 5000 companies worldwide have chosen the SGS for the certification of their quality management systems in food production. The domestic dairy industry is not ready yet for the tough competition with large international companies. The twenty worldwide dairy leaders and dairy products sale's volume during 2006–2008 are presented in the Table 9. The absolute leaders are the countries of EU and USA. Ukraine still needs to work towards the continuation of the existing standards harmonization to the European and world requirements, to speed up work on implementation of the ISO quality management systems and the HACCP safety management systems.

Table 9

**Sales of dairy products of 20 leading dairy worldwide companies**

№ ser.	Company	Country	Volume (mlrd. Euro)		
			2006	2007	2008
1	Nestle	Switzerland	14,8	16,9	18,5
2	Lactalis	France	8,3	9,6	9,3
3	Danone	France	7,9	10,2	10,7
4	Dean Foods	USA	7,4	7,6	8,1
5	Arla Foods	Denmark/Sweden	6,9	6,4	6,9
6	Fonterra	New Zealand	6,7	7,6	8,2
7	Dairy Farmers of America	USA	6,3	8,1	6,9
8	Kraft Foods	USA	5,1	4,7	5,1
9	Unilever	Netherlands/ Great Britain	4,4	4,4	4,5
10	Friesland Foods*	Netherlands	4,4	8,8	9,3
11	Campina	Netherlands	3,6	–	–
12	Parmalat	Italy	3,4	3,5	3,7
13	Bongrain	France	3,3	3,4	3,6
14	Meiji Dairies	Japan	3,3	3,0	3,2
15	Saputo	Canada	3,1	3,3	3,6
16	Morinaga Milk Industry	Japan	3,0	2,8	3,0
17	Schreiber Foods	USA	2,5	2,4	2,5
18	Land O` Lakes	USA	2,3	3,1	2,8
19	Mengnui	China	-	-	2,4
20	Muller	Germany	2,1	2,2	2,3

\* 2007 Friesland + Campina (after the amalgamation)

**Conclusion.** The realized researches allow us to make the next conclusion: in European countries 96 % of milk come in for the industrial processing, in Ukraine the highest parameter was reached in 1990 year – 78 %, where today it has reduced to 32 %, and only medium and large enterprises are able to supply quality raw material. So the domestic dairy producing enterprises should pay more attention to the choice of qualitative raw material and gradually to refuse from its delivering from the private sector. However it will be impossible without the support of the government on the state level and without the total reconstruction of dairy industry and the transformation into large and medium farms, which would have a proper mechanized production. The manufacturers should buy in safe and qualitative components and additives, effective and harmless means for washing and disinfection of the equipment, regularly to arrange studying for stuff, and also to get conformity certifications for the management systems towards the requirements of international standards. Since the quality and safety of dairy products is the key to getting trust and loyalty of consumers both on the domestic and on the foreign markets. That manufacturer will be successful on the market, which will open his business' face for a consumer, will be able to call consumer's interest to his products, to form the demand and loyalty to his dairy product.

### Bibliography

1. Титаренко Л. Д., Павлова В. А., Залигіна В. Д. Ідентифікація та фальсифікація продовольчих товарів: Навчальний посібник. – К.: Центр навчальної літератури, 2006. – 192 с.
2. Дудніков А. А. Основи стандартизації, допуски, посадки і технічні вимірювання: Підручник – К.: Центр навчальної літератури, 2006. – 352 с.
3. Бондаренко В. М. Розвиток ефективного виробництва молока та його промислової переробки в Україні // Пропозиція АПК. – 2008. – № 5. – С. 61–64.
4. Статистична інформація. Виробництво основних видів продукції тваринництва. [Електронний ресурс]. – Режим доступу: <http://www.ukrstat.gov.ua>.
5. Экспорт и импорт украинской молочной продукции в 2009 году // МОЛОКОпереробка. – 2010. – 1 (52). – С. 11–19.
6. Михайлівський В. С. Товарознавство харчових продуктів. Опорний конспект лекцій. – К.: ВЦ КНТЕУ, 2002. – 320 с.
7. Гайдуцький П. І. Про основні засади реформування системи державної підтримки сільськогосподарства та сільської території / П. І. Гайдуцький // Економіка АПК. – 2005. – № 11. – С. 43–48.



8. Закон України «Про молоко та молочні продукти». [Електронний ресурс]. – Режим доступу: <http://consumers.unian.net/ukr/detail/491>.
9. Балабанова Л. В. Маркетинг: Підручник. – 2-ге вид., перероб. і доп. – К.: Знання-Прес, 2004. – 645 с.
10. Жук Ю. Т., Жук В. А., Кисляк Н. К., Кушнір М. К., Орлова Н. Я., Салашинський М. А. Теоретичні основи товарознавства: Навчальний посібник. – К.: НМЦ «Укоопосвіта», 2000. – 336 с.
11. Зорова Ж. В. Вплив підвищення якості на фінансові показники підприємства, або Вигідно чи ні вкладати кошти в якість? // Молочное дело. – 2007. – № 2. – С. 60–62.
12. Васильчак С. В. Особливості функціонування ринку молока і молочної продукції // Науковий вісник. – 2005. – № 15(4). – С. 357–362.
13. Саблук П. Т. Основні мотиви щодо вступу України до Світової організації торгівлі // Економіка АПК. – 2002. – № 10. – С. 8–10.
14. Пархомець М. К. Економічний механізм АПК: аналіз, проблеми, напрями розвитку / Інноваційна економіка Всеукраїнський науково-виробничий журнал. – С. 192–198. [Електронний ресурс]. – Режим доступу: [http://www.nbu.gov.ua/portal/Soc\\_Gum/inek/2010\\_3/192.pdf](http://www.nbu.gov.ua/portal/Soc_Gum/inek/2010_3/192.pdf).
15. Зацна Л. Я. Поведінка суб'єктів бізнесу молочної промисловості з огляду на вступ України до СОТ // Наука молода. – 2008. – № 10. – С. 6–10.
16. Проект розпорядження Кабінету Міністрів України «Про схвалення Концепції Державної цільової економічної програми розвитку молочного скотарства в Україні на період до 2015 року». [Електронний ресурс]. – Режим доступу: <http://www.minagro.kiev.ua/page/?10633>.
17. Лабинов В. В. Состояние молочной промышленности России: проблемы и решения // Молочная промышленность. – 2006. – № 9. – С. 42–46.