

Dairy sector development in Serbia

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Importance of dairy sector

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- One of the most important agriculture product.
- Value of milk production was 13.5% off all agriculture output.
- Provide employment and dairy food products for rural population.



Dairy cattle population

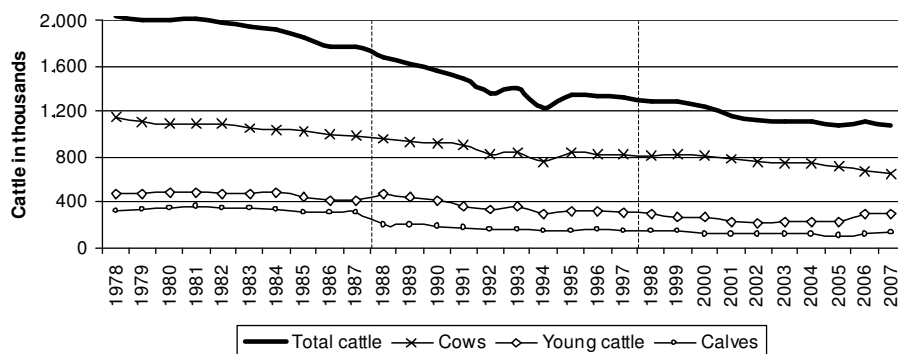
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- Dairy cattle decreasing since middle 70-is
- Average rate of decrease in last three decades was -2.48%
- Number of cows decreased from 1,142 to 648 thousands



Dairy cattle population by type

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Dairy farms

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- Milk production is traditionally based on family farms (over 90%)
- Last complete Census was in 1991
- No precise data for farm numbers
- Estimate for 2008 – less than 300,000?



Dairy farms in 1991

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Cows number	Farms	Total cows	Farm share	Cows share
1	166,897	166,897	41.53%	22.17%
2	168,003	336,006	41.80%	44.64%
3	42,835	128,505	10.66%	17.07%
4	15,235	60,940	3.79%	8.10%
5	4,704	23,520	1.17%	3.12%
6 to 10	3,936	31,488	0.98%	4.18%
11 to 15	204	2,652	0.05%	0.35%
16 to 20	52	936	0.01%	0.12%
Over 20	46	1,840	0.01%	0.24%
TOTAL:	401,912	752,784	100.00%	100.00%

¹Source: Census of population and agriculture 1991, book agriculture 2, RZS.



Dairy farms in 2002

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Cows number	Farms	Total cows	Farm share	Cows share
1	128,946	128,946	48.06%	24.69%
2	97,154	194,308	36.21%	37.20%
3	24,786	74,358	9.24%	14.24%
4	9,405	37,620	3.51%	7.20%
5	3,658	18,290	1.36%	3.50%
6 to 9	3,309	22,408	1.23%	4.29%
10 to 19	824	9,778	0.31%	1.87%
20 to 29	122	2,708	0.05%	0.52%
30 to 39	33	1,061	0.01%	0.20%
40 to 49	9	376	0.00%	0.08%
50 to 100	14	1,018	0.01%	0.21%
Over 100	4	462	0.00%	0.09%
TOTAL:	268,264	491,333	100%	100%

¹Source: Census of agriculture, households and apartments in 2002, RZS.



Dairy farms in 2007

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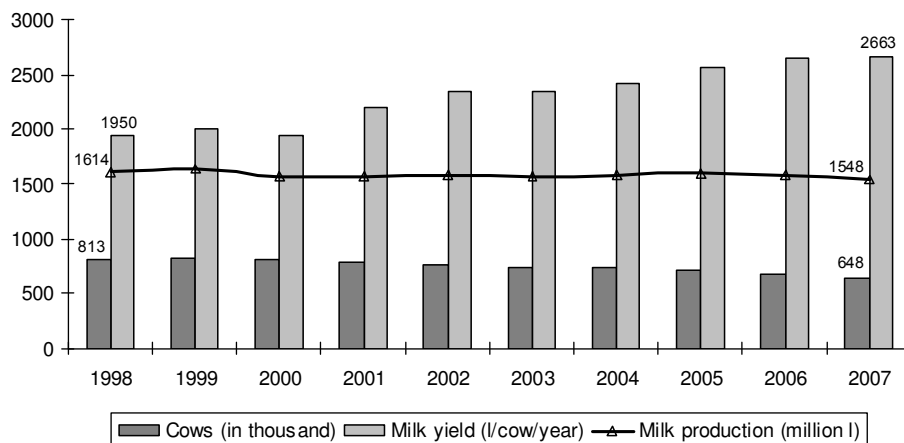
Cows number	Farms	Total cows	Farm share	Cows share
1 to 3	53,693	107,386	81.93%	51.21%
4 to 5	6,922	31,149	10.56%	14.86%
6 to 12	3,937	35,433	6.01%	16.90%
13 to 50	890	26,700	1.36%	12.73%
51 to 100	44	3,256	0.07%	1.55%
101 and over	48	5,760	0.07%	2.75%
TOTAL:	65,534	209,684	100.00%	100.00%

¹Source: MAFW Register of farms.



Milk production 1998-2007

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Milk production

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- Stable on the level of 1.75 million tons
 - Cow population decreasing
 - Average milk yield increasing from 1,950 to 2,663 liters (1998-2007, without milk for calves)
- According research on 24 commercial family farms in 2007
 - Fat content 3.88%
 - Protein content 3.27%



Milk production and consumption

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Year	Milk production	Milk consumption	Milk and liquid milk products	Cheese	Butter and cream
Per capita					
2005	215,3	208,2	174,3	3,3	0,6
2006	214,1	205,7	170,8	3,3	0,5
2007	209,7	201,3	165,3	3,4	0,6

¹Source: Statistical office of Republics Serbia and author calculation.



Beef production and consumption

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Year	Total beef production		Beef consumption
	In thousand t	Per capita	Per capita
2003	95	12.70	12.3
2004	93	12.46	12.0
2005	90	12.10	11.5
2006	83	11.20	10.1
2007	95	12.87	11.6

¹Source: Statistical office of Republics Serbia and author calculation.



Tendencies for specialization

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- Too slowly
- Number of farms with 6 and more cows increased to 4.9 thousands and own 11% COWS
- Production even on bigger family farms is still diversified
- Production system varied from manual to completely mechanized
- Intensive dairy farming – lowland region
- Grazing system – partially in highlands



Organization of input and service supply

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- From large number small input supply companies few companies grow up and cover national market
- Beginning of extension service 1853
- First agriculture faculty in 1919
- After World War II government push Extension service to serve only government farms



Organization of input and service supply

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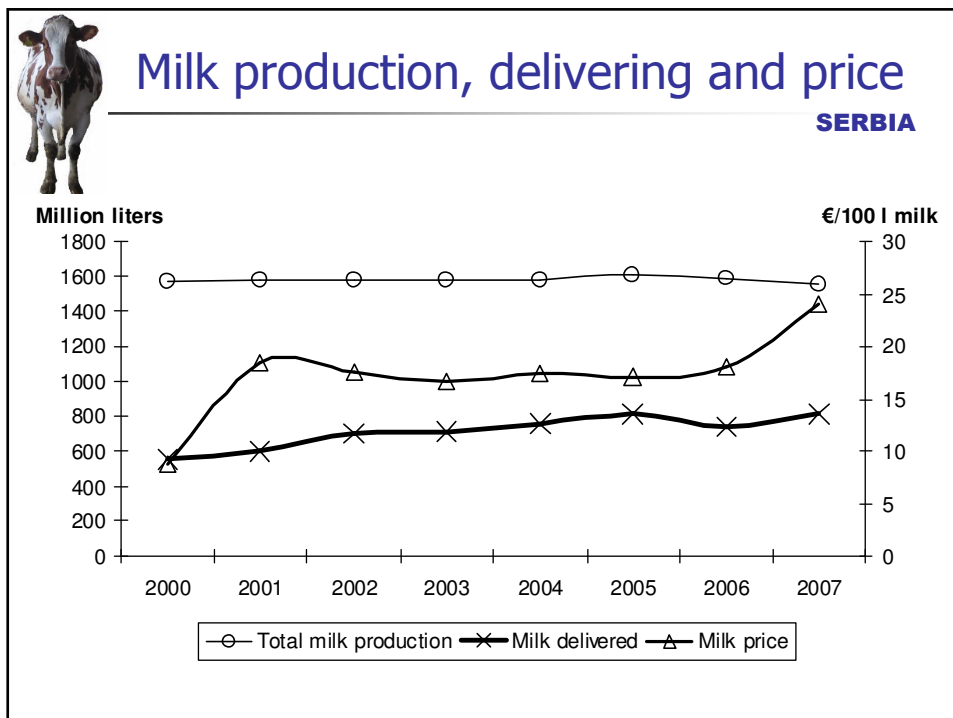
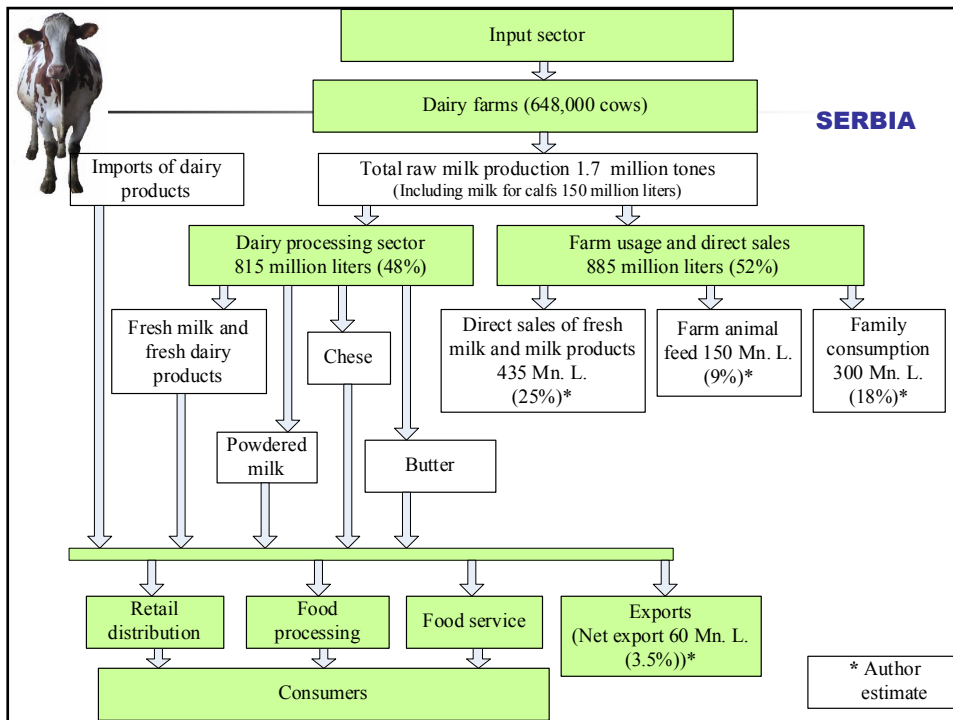
- Current Advisory service is organized by Law from 1991
- Responsible to MAFW and PSAWF
- Organized in 34 agriculture stations
- Employs 250 extension agents
- Not favorable structure of employees
- Only 50 extension agents have to serve 300,000 dairy farms

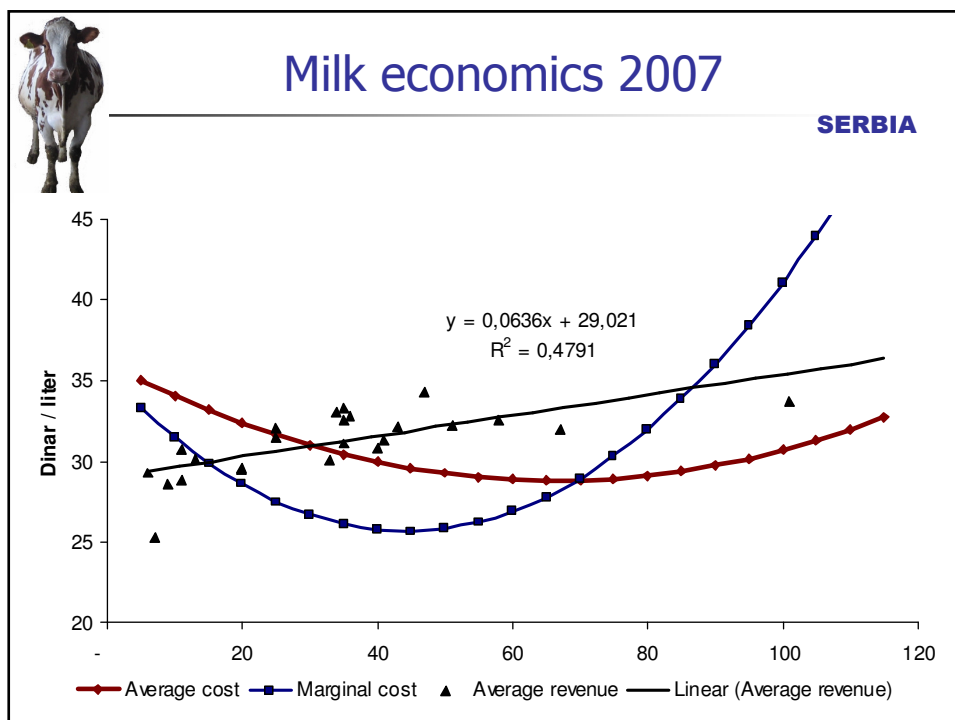
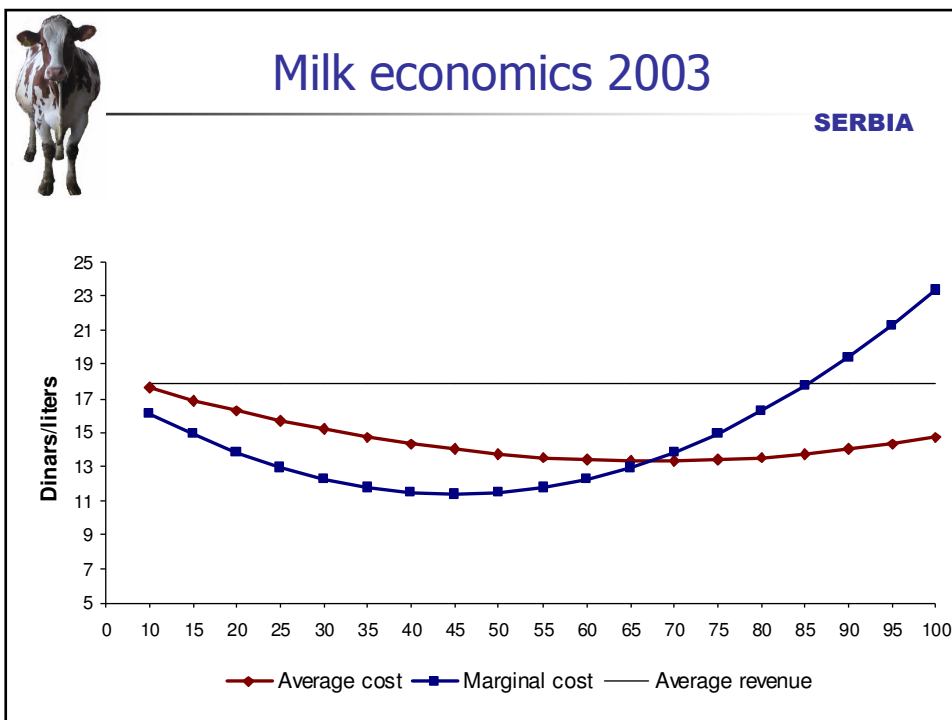


Market infrastructure of dairy chain

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- Lack of cooperatives
- Dairy processing companies are privatized
- Investment of tens millions Euros in modernization and expanding capacities
- Percent of delivered milk increasing

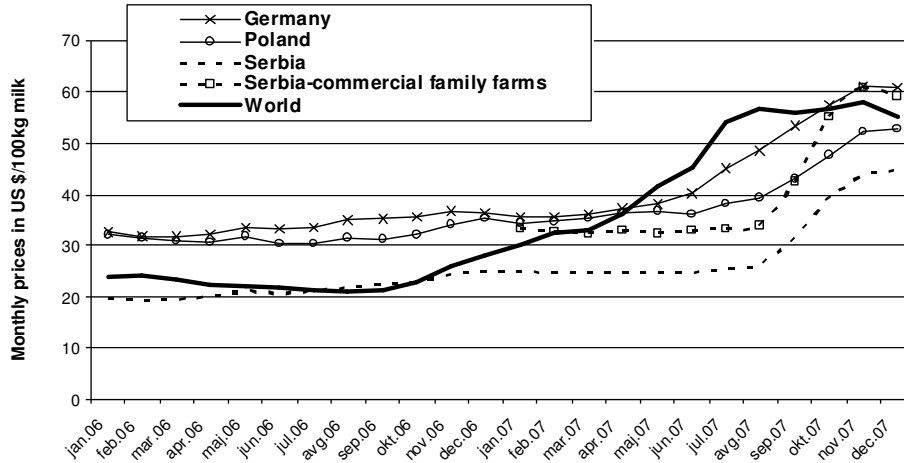






Milk price transmission

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Dairy processors in 2006

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Company name	Deliveries of milk to dairies in 2006	Market share
Dairies in structure of DANUBE FOODS GROUP B.V.		
1. - IMLEK, IMPAZ and Zemunska mlekarara	230,587,554	31.2%
- Novosadska mlekarara	60,697,564	8.2%
- Mlekarara Subotica	59,089,857	8.0%
2. „Mlekarara Šabac“, Šabac	43,187,653	5.8%
3. „Somboled“, Sombor	40,256,713	5.4%
4. „Mlekoproduct“, Zrenjanin	28,977,976	3.9%
5. 15 Dairies from 5 to 15 millions liters of processed milk	126,563,765	17.1%
6. 188 small sized dairies with less than 5 millions liters processed milk	150,584,654	20.4%
TOTAL:	739,945,736	100.0%

¹Source: MAFW Register.
²Data for 2007 are still not available.



Dairy policy

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- Until 2001-maximum retail prices and subsidies for pasteurized milk
- Since 2002
 - Raw milk subsidies,
 - Reduced import tariffs
 - New milk quality regulations
- From 2009
 - Further reduction of import tariffs in next 6 years



Conclusions

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- Milk value share 13.5% of all agricultural output
- Production is stable and based on family farms
- Small size production (3.2 and 2 cows)
- Cattle population decreasing
- Low milk yield (2,663 liters)
- Small surplus is exporting



Conclusions

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- Milk consumption 205 liters per capita
 - Mostly in shape of liquid milk products
 - Cheese consumption 3.4 kg
 - Butter is marginally used
- Beef consumption is 11 kg per capita
- Specialization of dairy farms was too slowly, but now it is going faster
- Production systems vary from manual to fully mechanized



Conclusions

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- Extension service is not well developed
- Too much institutions is involved in AET
- Dairy industry is modernized, too big market power
- External trade with EU going to be freed
- Big CHALLENGE for:
 - Dairy policy makers and
 - Dairy farmers



Appendix

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Population	Number of farms	Cattle population	Total number of cows	Milk production (000 l)	Milk yield	Number of dairy farms
Kosovo						
2,126,708	157,600 ²	318,600 ²	153,600 ²	343,000	1,663 ³	N/A
Montenegro						
626,178	43,208	109,378	73,142	172,656	2,245	N/A
FYR Macedonia						
2,045,177	192,675	241,257	129,776	373,706	2,880	50,559

¹Source: Statistical Office of Montenegro (<http://www.monstat.cg.yu/EngPrva.htm>)
State Statistical Office Republics of Macedonia (http://www.stat.gov.mk/english/glavna_eng.asp)
Statistical Office of Kosovo (<http://www.ks-gov.net/ESK/ser/>)

²Data for 2002 year
³Data for 1997 year