Effects of market structure changes on dairy supply chain in Serbia

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Dairy policies

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- Until 2001
  - Maximum retail prices and subsidies for pasteurized milk
  - High border protection
- After 2001
  - Deregulation of dairy market
  - Subsidies for row milk directly to producers
  - Additional subsidies
  - Free trade agreements and lowering of border protection

Dairy farms

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- 285,000 dairy farms in Serbia
- Small scale production 2.2 cow per farm
- Family farms produce 91.3% of milk
  - Number and share of small farms decreasing
  - Number and share of commercial family farms increasing
- Companies produce 8.7% of milk
- Milk production is stable in last 10 years
- Share of milk for human use in legal market channel is 52.6% and increasing
- No dairy cooperatives
- Production on farms is diversified
- Small dairy farms in some areas losing market opportunities

Dairy farms

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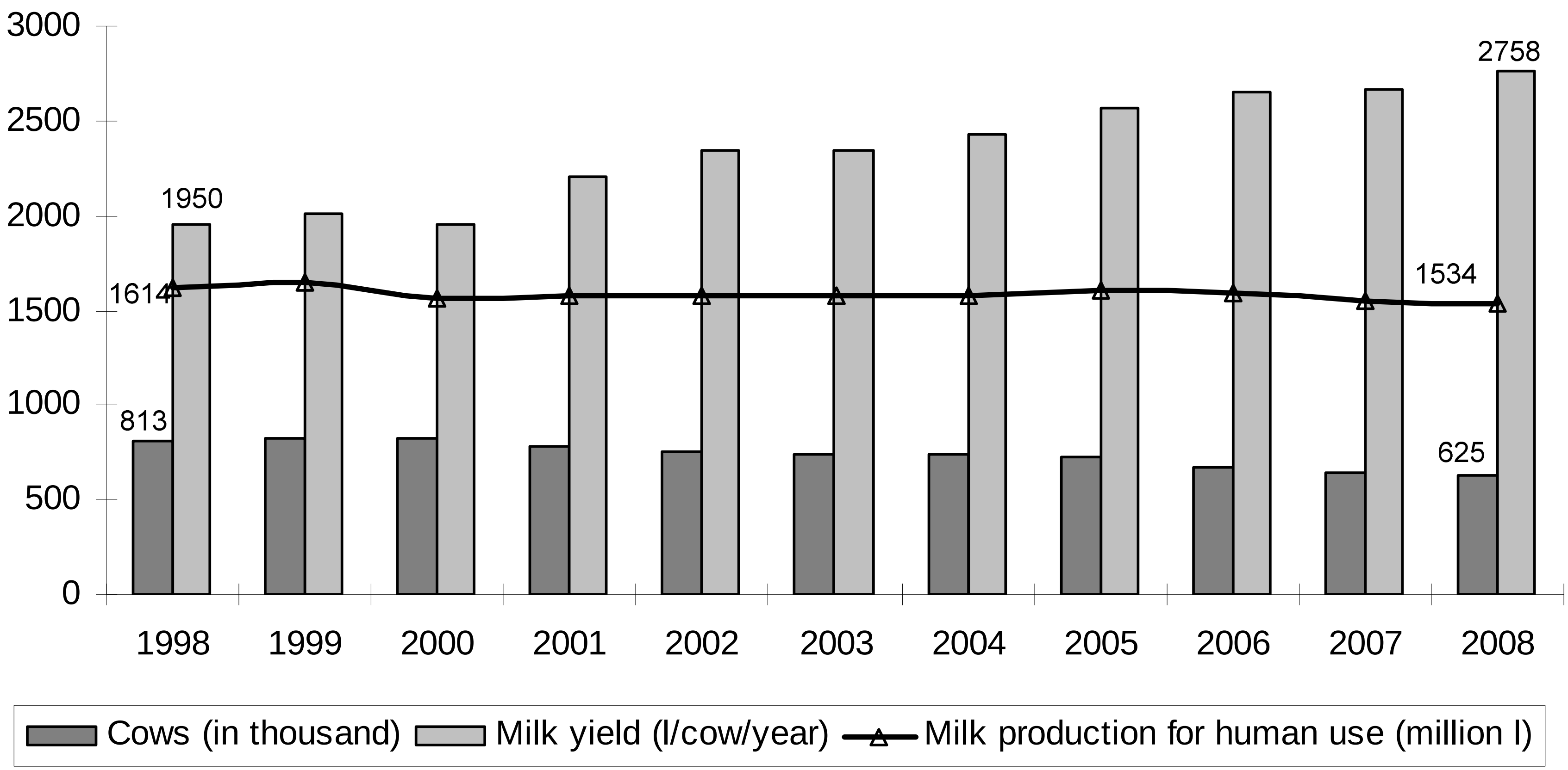

Dairy processors

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- 202 dairy processing companies in 2007
- 4 the biggest companies control 60.3% of row milk market
- Successful privatization
- Concentration and Market power
- Innovativeness and diversification of product
- Active influence of dairy farms
- Vertical integrations
- Rationalization of supply base
- Organize milk collecting stations and transport
- Raw milk prices establishing on the milk quality control carried out by processors

Dairy processors

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	Company name	Deliveries of milk to dairies (in liters)		Market share	
		2006	2007	2006	2007
	Dairies in structure of				
	DANUBE FOODS GROUP B.V.	**350,374,975**	**361,959,880**	**47.4%**	**44.4%**
1.	- IMLEK, IMPAZ and Zemunska mlekara	230,587,554	243,462,640	31.2%	29.9%
	- Novosadska mlekara	60,697,564	61,205,680	8.2%	7.5%
	- Mlekara Subotica	59,089,857	57,291,560	8.0%	7.0%
2.	„Mlekara Šabac“, Šabac	43,187,653	56,945,950	**5.8%**	**7%**
3.	„Somboled“, Sombor	40,256,713	43,665,250	**5.4%**	**5.4%**
4.	„Mlekoprodukt“, Zrenjanin	28,977,976	28,720,080	**3.9%**	**3.5%**
5.	Dairies from 5 to 15 millions liters of processed milk	126,563,765	158,097,080	**17.1%**	**19.4%**
6.	Small sized dairies with less than 5 millions liters processed milk	150,584,654	165,139,540	**20.4%**	**20.3%**
	TOTAL:	**739,945,736**	**814,527,780**	**100.0%**	**100.0%**

[1]Source: MAFW Register

Retail sector and consumers

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- Mostly domestic companies
- Foreign competitors mainly from ex Yugoslav republics
- Market power
- High margins and high retail prices Huge credit period from processors, 90 – 100 days
- Demand drivers:
  - Population decreasing
  - Income slightly increase

Year	Milk production	Milk consumption	Milk and liquid milk products	Cheese	Butter
		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
2008	208.3	200.6	163.3	3.5	0.7

Economics of milk production

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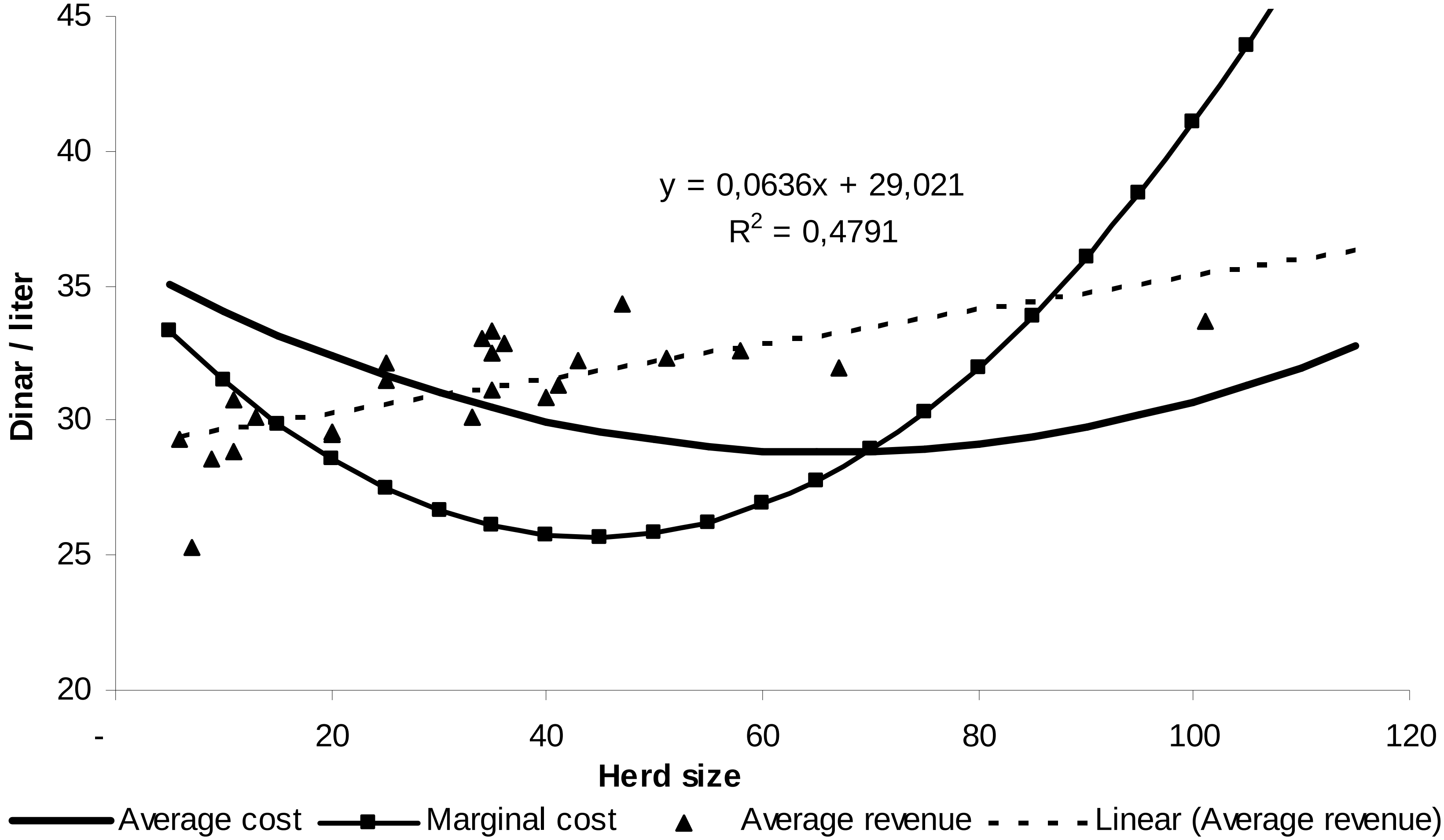

Monthly milk prices 2006-2008

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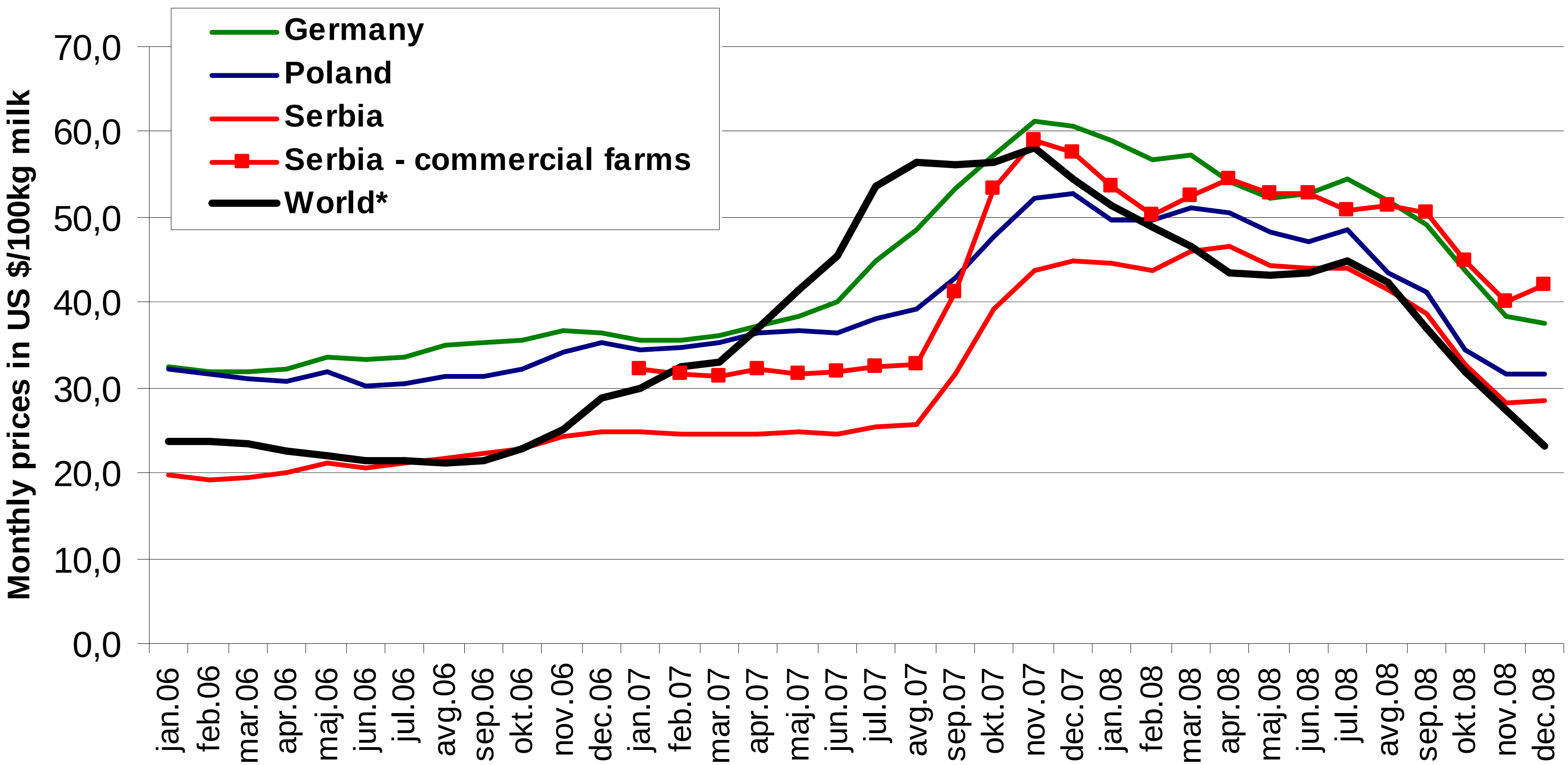

- Asymmetric milk price transmission
- Time lagged and volatile milk prices

Conclusions

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- Changes along dairy supply chain are characterized:
  - market deregulations,
  - concentration of row milk production,
  - strengthening of formal row milk market,
  - successful privatization and development of dairy processing sector,
  - concentration in retail sector and
  - slightly decrease of dairy consumption with changing structure of its consumption
- Main constrains identified in dairy supply chain are:
  - lack of dairy cooperatives,
  - low transparency of economics of all links in dairy chain,
  - retailers’ market power and
  - lack of transparency and consistency in agriculture long term policy