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SITUATION AND PESPCTIVE FOR THE MEAT SECTOR
IN SERBIA

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1 Introduction to the meat sector

Agricultural production accounted for 14.5%, of total Serbian GDP in 2006, whilst agriculture and the food processing industry combined amounts to 20%. Within Serbian agricultural production in 2006, 67% was crop production and only 33% livestock production which provides the raw material for the meat industry.

Table 1 – The growth rates of the physical agricultural production volume in Serbian in the period 2000-2006

Years	Growth rates (in %)
2000	-12.8
2001	18.6
2002	-3.4
2003	-7.2
2004	19.4
2005	-5.3
2006	0.9

In the period 2000-2006 the greatest influence on the year to year changes in agricultural output is, of course, the climatic conditions.

Serbian livestock husbandry has faced two decades in crisis leading to a decline in the volume of production by an average annual rate of around 1.5%. This has been influenced by a significant shrinkage of the national market together with a whole host of other problems of transition: the privatization of the state agricultural enterprises followed by the absence of any long-term livestock husbandry development strategy; the technological obsolescence of processing capacities, particularly in the exporting sector of the meat processing industry; poor relationships between livestock producers and processors; an absence of positive agrarian policy measures and delays, sometimes lags lasting several months, in the implementation of sparse subsidy measures. All these factors resulted in the marginalisation of livestock product exports.

Compared to 1990, in 2005 total meat production was 30% lower, and by particular sectors the fall was: beef 42%; pig meat 11%; lamb 22% and poultry meat 40%.

2 Structure of the sector and recent trends

The pig sector is dominant in Serbia's livestock and meat production accounting for 58% of the total in 2005 whilst there were relatively modest contributions from beef (21%) and poultry (16%), while lamb and goatmeat amounts to only 5%. Full details of the performance of the major livestock sectors and meat production for the period 2000 to 2005 are shown in Annex 1.

The meat sector accounts for 6% of Serbia's agricultural exports by value and 2% of the value of agricultural imports in period January – November 2006.

Serbian livestock production depends upon the import of concentrates and other components of animal feed, which formed 7% of the total agrarian imports in the period 2000 to 2005. Hence,

Serbian livestock fattening is characterised by relatively high import dependence for such significant components of fodder mixtures as coarse soybean mill, fish meal, vitamins and micro elements vital to the production of effective feeding materials. Serbia has more than 750 livestock feed mills, of which 111 have a capacity to produce over 10 tonnes of concentrate per hour

Import dependence does seem to result in significantly high concentrate prices, which in turn cause relatively high costs of fattening livestock. Heavy concentrate feeding is necessary because Serbia is one of the few European countries characterised by slaughtering of a great proportion of young animals, most of all piglets of 30 kg liveweight (lw.), lambs of 25 kg and calves of maximum 150 kg lw.

The major characteristic of Serbian livestock populations in the period 2000 to 2006 was a considerable fall, though with significant annual oscillations, in overall numbers of almost all kinds of livestock. Sheep were the only exception, where the national flock fell by 10% from 2000 to 2001, then steadily recovered from its low point in 2002 to be at much the same level in 2006 as it had been in 2000. (Full details can be found in Table 1 of the Annex.)

Table 2 - Serbian livestock populations in the period 2000 - 2006

Kind of livestock	Year		Decrease (in %)
	2000	2006	
Cattle (in number of million heads)	1,246	1,096	12.0
Pigs (in number of million heads)	4,066	3,213	21.0
Sheep (in number of million heads)	1,611	1,609	0.1
Goats (in number of heads)	183,000	138,000	24.6
Horses (in number of heads)	36,000	19,000	47.2
Poultry (in number of million heads)	20,373	17,905	12.1

As shown in detail in Annex Table 3, total meat production in Serbia in the period 2000 to 2005 has fallen by about 10% from its level in 2000 with the two main types of pork and beef falling 11% and 13% respectively with virtually all of the fall occurring in 2001. The last four years have seen meat output stagnating.

The available data on household consumption suggests that per capita consumption of both beef and pigmeat have fallen somewhat from the level in 2000 but changes in the annual Household Consumption Survey (which appears not to include meals eaten outside the home) mean that it would be unwise to draw too many firm conclusions.

On the basis of available data of the Republic Statistical Bureau (RSB) on production and consumption, both totally and by particular meat categories in the period 2000-2006, it can be concluded that Serbia is self sufficient in meat production. In some of the years there has been a small deficit in some meat categories, but this has not influenced substantially the level of self-sufficiency. It is important to mention that meat production and on-farm consumption in rural areas is very high but not included in official data. That is why the official data of RSB as well as FAO data on consumption could be different in comparison with real situation.

3 Policy and standards

The liberalisation of foreign trade in meat and processed meat products initiated in 2004 has led to significant pressure on domestic producers, even in the domestic market, in the absence of appropriate economic supporting measures for domestic meat producers and processors.

In Serbia except premiums for milk, exporting subsidies for meat and meat processed products as well as bonus for breeding animals (that are significantly under level and criteria of EU), there are few support measures for livestock production and the meat industry other than protection of the domestic market via import duties of 30% *ad valorem* on all meat categories and specific duties of from 12 to 50 dinars (0.15 to 0.63 €) per kilogram depending on meat products according to category or level of processing.

In the past two years government funding has helped the introduction of a HACCP system in slaughterhouses and industrial meat processing plants. Compared to 2002 when only two slaughterhouses were licensed for beef production for the EU market (IM «Cajetina» Cajetina and «Stokoimpeks» Knjaževac), in 2006 three further slaughterhouses («Yuhor» Jagodina, «BIG-BUL» Bacinci and «Colbis» Novi Sad) have been for both beef and pigmeat. However, as Serbia currently vaccinations pigs against swine fever, EU regulations ban Serbian pigmeat from EU markets.

4 Market trends and perspective for meat consumption

Pork and processed pig meat play an important role in the nutrition of Serbia's population, as they provide significant sources of energy and protein. In total, pig meat accounts for some 60% of Serbian meat consumption. It is important to note that in Serbia many more pigs are slaughtered on family farms and for their own needs than in industrial slaughterhouses; hence figures of the numbers of pigs slaughtered and the quantity of pig meat consumed are estimates rather than exact data.

As in most countries, the total pig population fluctuates in response to both pig prices and the price of feeding-stuffs (the "corn-hog cycle"). In Serbia, the cyclical movements have interacted within a general crisis in Serbian livestock production, fluctuations in the exchange rate and an unstable market. As the EU has expanded, the possibility of exporting to the New Member States has been denied due to the EU ban on imports of pigs vaccinated against swine fever.

Total production of lamb and mutton depends on the number of slaughtered animals of all categories, their age, the average liveweight at slaughter and the kill-out carcass weight to liveweight. Annual production of sheepmeat over the past six years has hovered between 18000 and 21000 tonnes. The country's lamb slaughtering capacity noticeably exceeds annual throughput and unit costs are raised by the low utilisation rate of slaughterhouses. Consumption of sheepmeat comprises only around 5% of Serbian meat consumption.

Production of poultry meat has also been relatively stable over the past six years averaging some 64000 tonnes. Again there seems to be significant overcapacity for poultry slaughtering and the production of poultry meat and processed products.

5 Recent trends and perspectives for the trade

According to some reports there is a continuing and illegal trade exporting calves from Serbia to Croatia amounting to several thousand calves a year, of which some 80% are slaughtered in slaughterhouses in the Adriatic coastal region in order to be satisfied the demand for veal during the tourist season. Besides Croatia, the illegal export of calves from Serbia also exists to Bosnia and Herzegovina and to Montenegro amounting in all to about half of the level of the illegal exports to Croatia. Yet another form of illegal trade is developing with Kosovo and Metohia, which is under UNMIK protectorate. These illegal activities significantly reduce the production potential for cattle fattening as well as for veal production in Serbia.

Trade with EU countries is characterised by Serbian exports of veal meat into Italy, exclusively "Milanese" type of manufacturing, while into Greece as well as "Milanese" type veal, the front quarters and halves of meat are also exported. Unfortunately, because of the significantly reduced cattle numbers, although Serbia has a preferential export quota of 10,000 tonnes into the EU, in the recent years Serbia has not sold more than 2,000 tonnes annually.

Serbia has harmonised its certification system with the EU only for beef (2002) and pet animals (2004).

Serbia can not export pork to the EU because of its pigs are vaccinated against swine fever, nor poultry meat as we have not yet eliminated Newcastle disease in the national poultry flock.

There is a deficit of sheepmeat even for domestic needs and due to relatively higher prices in the domestic market than can be obtained from exporting there are no serious export plans for sheepmeat.

6 Expert views on the successes and challenges of the sector

Serbia could increase its meat and meat product output provided a number of preconditions are met: enlargement of family farms in the livestock sector, specialisation in production, utilisation of animals with high genetic potential, provision of high-quality animal feed and better animal health protection, together with access to the necessary financial resources. Furthermore, increased beef output would need better organisation in hill and mountain regions for fattening cattle up to 250 kg and in the plain regions up to 500 kg.

Basic characteristic of the slaughtering industry is over-capacity in relation to the numbers of animals for slaughtering, which results in a low percentage of capacity utilisation, illiquidity, obsolete equipment and production technology as well as relatively small product assortment.

Basic goals for pig production improvement are an increase in the number of piglets per litter, better feed conversion rates leading to faster growth and an improved lean meat to fat ratio; all of which could be achieved only by improved quality breeding animals. Production of breeding

material should be based on specialisation of production. For higher pork production it is necessary to establish family farms with 50 to 100 sows, fattening 1000 and more pigs annually. With improved access to better breeding animals, greater use of artificial insemination and modernised slaughtering facilities, the pigmeat sector's efficiency could be increased significantly.

In order to increase export of high-quality lamb meat in the future, it is necessary that Serbian slaughtering industry should be reorganised to meet the regulations and requirements of potential markets, notably the EU market. This requires raising and maintaining hygiene standards; intensifying veterinary and sanitary supervision; and the adoption and implementation of the sheep raising development programme that could provide higher yields and better quality meat.

The poultry sector needs to improve hygiene and technical levels in production, slaughtering and processing facilities, as well as, expanding the range of poultry meat products. The future success of the industry will depend on a whole range of factors: improving the breeding flocks in terms of capacity and quality; better animal feed production; improved feed conversion ratios; and economic factors such as the relation between prices of poultrymeat and other kinds of meat, as well as on price parities with basic inputs. Modern industrial poultry production requires extremely good harmonisation of genetic, technical and technological factors, as well as hygienic, veterinarian, organisational, economic and other ones.

In Serbia there are more than 70 large broiler farms (with capacity units between 10,000 and 120,000 animals) whose total capacity amounts to 10 million broilers per cycle. An increase in production should be based on revitalisation of existing but neglected or abandoned farms with large capacity (ex-socially owned ones) together with intensive introduction of family farms with significant market production linked to cooperatives or other producer marketing organisations.

It is difficult to forecast the livestock and meat sector's medium term perspectives as Serbia's transition processes have not yet been completed; Serbia is not yet a WTO member and its EU Accession negotiations have been interrupted; and the implications of CEFTA for Serbia's agricultural development, particularly in the livestock sector and meat production have yet to be fully felt. However, significant improvement is rather unlikely in the medium term in the absence of a clearly defined sector development policy.

7 Conclusion

- In production of livestock for slaughtering Serbia has not yet created some basic preconditions necessary for offering those products to EU markets. In the country there is vaccination of pigs against swine fever, as well as Newcastle disease in poultry and there is an absence of harmonised certification concerning export to EU except for beef and pets.
- At the moment Serbia has at significant genetic potential, which could serve as a basis for future development with additional breeding.
- According to Serbia's agricultural development strategy, family farms are central to future development. By their enlargement and production specialisation it could be possible to achieve a significant increase in the production of all slaughtering livestock categories.
- Serbia's slaughtering industry has capacities that exceed domestic needs, but with obsolete technology and very low hygienic, sanitary and veterinary standards.
- The processing industry has been partly privatised. There have been established small private processing capacities, with higher level of technology and standards, which partially fulfil conditions to supply EU markets.

Annex 1: Country profile

Table 1. Number of livestock in Serbia (2000-2006) – in 000 heads

	2000	2001	2002	2003	2004	2005	2006
<i>Cattle</i>							
Total	1246	1162	1129	1112	1101	1079	1096
Calves up to 3 months	128	119	119	120	118	111	116
Cattle from 3 months to 2 years	252	214	204	208	205	218	242
Cattle older than 2 years	15	13	16	15	17	12	14
Cows and in-calf heifers	817	787	753	741	742	721	710
- of which working cows	69	65	63	53	26	23	16
Breeding bulls	4	8	9	7	7	8	6
Oxen	30	21	28	21	12	9	8
<i>Pigs</i>							
Total	4066	3615	3587	3635	3440	3164	3213
Piglets up to 2 months	1174	1070	984	1022	1126	963	926
Pigs from 2 to 6 months	1603	1400	1434	1434	1300	1201	1306
Sows and in-pig sows	887	790	816	825	692	654	686
Breeding boars	25	37	49	44	40	30	36
Other pigs	377	318	304	310	282	316	259
<i>Sheep</i>							
Total	1611	1489	1447	1514	1586	1575	1609
Lambs and ewes up to 1 year	271	214	206	273	330	313	332
Breeding sheep	1233	1185	1130	1132	1156	1169	1183
Breeding rams, gelded rams and Barren ewes	107	90	111	109	100	93	94
<i>Goats</i>							
Total	183	180	164	170	156	152	138
<i>Horses</i>							
Total	36	29	29	24	27	26	19
Mail and mare foals	3	2	3	2	3	3	1
Mares and in-foal mare foals	20	18	16	13	13	12	11
Stallions and other horses	13	9	10	9	11	11	7
<i>Poultry</i>							
Total	20373	19290	18804	17677	16280	16631	17905
<i>Beehives (in 000)</i>							
Total	167	179	164	201	266	271	275

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Table 2. Structure of livestock number per categories in Serbia (2000-2006) – in %

	2000	2001	2002	2003	2004	2005	2006
<i>Cattle</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Calves up to 3 months	10.3	10.2	10.5	10.8	10.7	10.3	10.6
Cattle from 3 months to 2 years	20.2	18.4	18.1	18.7	18.6	20.2	22.1
Cattle older than 2 years	1.2	1.1	1.4	1.3	1.5	1.1	1.3
Cows and in-calf heifers	65.6	67.7	66.7	66.6	67.4	66.8	64.8
- of which working cows	5.5	5.6	5.6	4.8	2.4	2.1	1.5
Breeding bulls	0.3	0.7	0.8	0.6	0.6	0.7	0.5
Oxen	2.4	1.8	2.5	1.9	1.1	0.8	0.7
<i>Pigs</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Piglets up to 2 months	28.9	29.6	27.4	28.1	32.7	30.4	28.8
Pigs from 2 to 6 months	39.4	38.7	40.0	39.4	37.8	38.0	40.6
Sows and in-pig sows	21.8	21.9	22.7	22.7	20.1	20.7	21.4
Breeding boars	0.6	1.0	1.4	1.2	1.2	0.9	1.1
Other pigs	9.3	8.8	8.5	8.5	8.2	10.0	8.1
<i>Sheep</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Lambs and ewes up to 1 year	16.8	14.4	14.2	18.0	20.8	19.9	20.6
Breeding sheep	76.5	79.6	78.1	74.8	72.9	74.2	73.5
Breeding rams, gelded rams and Barren ewes	6.6	6.0	7.7	7.2	6.3	5.9	5.8
<i>Goats</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Horses</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mail and mare foals	8.3	6.9	10.3	8.3	11.1	11.5	5.3
Mares and in-foal mare foals	55.6	62.1	55.2	54.2	48.1	46.2	57.9
Stallions and other horses	36.1	31.0	34.5	37.5	40.7	42.3	36.8
<i>Poultry</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Beehives (in 000)</i>							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

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Table 3. Production of meat in Serbia (2000-2005) – in 000 t

	2000	2001	2002	2003	2004	2005
Republic of Serbia						
Meat						
Total	518	454	480	450	445	460
Beef	104	93	97	95	94	90
Pork	283	253	277	258	242	253
Lamb	19	17	15	17	20	21
Poultry	67	62	65	59	64	67
Offals	45	29	26	21	25	29
Raw fats						
Total	105	104	91	81	100	85
Pork	101	100	88	78	97	81
Beef	4	4	3	3	3	4
Central Serbia						
Meat						
Total	343	296	317	298	290	292
Beef	81	72	75	73	71	69
Pork	176	158	178	164	149	149
Lamb	18	16	14	16	18	19
Poultry	32	29	31	29	32	33
Offals	36	21	19	16	20	22
Raw fats						
Total	45	48	39	36	49	54
Pork	42	45	37	33	46	51
Beef	3	3	2	3	3	3
Vojvodina						
Meat						
Total	175	158	163	152	155	168
Beef	23	21	22	22	23	21
Pork	107	95	99	94	93	104
Lamb	1	1	1	1	2	2
Poultry	35	33	34	30	32	34
Offals	9	8	7	5	5	7
Raw fats						
Total	60	56	52	45	51	31
Pork	59	55	51	45	51	30
Beef	1	1	1	0	0	1