DEBATES

Land, Labour and Industrial Progress in Bulgaria and Serbia before 1914

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No area of Europe, not even the Balkan lands, was left untouched by the economic revolution of the XIXth century.[1] At least from the 1830's this institutionally very backward region began to be drawn by the mechanism of foreign trade into the mainstream of European economic life. Although progress was inhibited by institutional weaknesses, economic life became increasingly monetized by the export of primary products. Bulgaria exported an expanding quantity of cereals, and in Serbia the tempo of development was speeded by burgeoning trades in cereals and plum products which more than compensated the relative decline in her traditional export of pastoral produce. Products like plums, and in Bulgaria, rose oil and tobacco, were especially valuable means of intensifying cash agriculture since they utilized the thinner soils which yielded little under cereals, and provided outputs which could bear high transport costs.[2] Behind the expansion of trade followed the establishment of communications and money market infrastructures, albeit at a leisurely pace. On the whole institutional frameworks which favoured eco-

[1] A useful introduction to the economic development of the Balkan states is provided in ch. 8 of ALAN S. MILWARD and S. B. SAUL, *The Development of the Economies of Continental Europe* 1850-1914, (1977). The account in I. T. BEREND & GY RANKI, *Economic Development in East Central Europe in the XIXth and XXth Centuries*, New York, 1974 is also worth noting.

[2] This aspect of Serbia's development is treated in MICHAEL PALAIRET, "Merchant Enterprise and the development of the Plum Based Trades in Serbia 1847-1911" *Economic History Review* XXX (1977) and "Serbia's Role on International Markets for Silk and Wine 1860-1890" *Acta Historico-Oeconomica Iugoslaviae* (Zagreb) IV (1977).

nomic advance were slow to form, and as Berend and Ranki have recently reminded us, the trade in primary products did little to assist the formation of development-broadening institutions.[3] The very commercialization of the Balkan economies (according to these authors) also promoted the destruction of traditional industries. Foreign investors were less attracted to industrial enterprise than to the safer alternative of lending to the state, mainly for economically unfruitful purposes, and factory industry, when it began to appear on a significant scale after about 1890, was founded largely with the slender resources of native entrepreneurs and ambitious immigrants with little capital. The subsequent rate of industrial growth appears to have been rapid, but on the eve of World War I, value added by large scale industry still only accounted for around 5 percent of GNP in Bulgaria and Serbia.

The foundations of a historiography for the comparative economic development of the Balkan states have been proposed by Professor John R. Lampe in his pioneering comparative research on their institutional and industrial modernization. The substance of this research appeared in 1975 in two papers, "Varieties of Unsuccessful Industrialization: the Balkan States before 1914" and "Finance and pre-1914 Industrial Stirrings in Bulgaria and Serbia", which we shall designate the "first" and "second" papers respectively.[4] One interesting finding which emerged from Lampe's researches is the identification of distinct industrial "mini-spurts" in each of the Balkan states. It is claimed in Table 2 of Lampe's first paper that the gross output of large scale industry advanced at 14.3 percent per annum between 1904 and 1911 in Bulgaria and at 12.5 percent between 1901 and 1911 in Serbia. However, lest the impression be given that Bulgaria was industrializing rather faster than Serbia, the only comparable pair of series that Lampe provided from which relative growth rates may be deduced appear to indicate an annual 17.9 percent for Serbia and 16.2 percent for Bulgaria between 1904 and 1911, after allowing for 30 percent inflation in either case. (One suspects Lampe made some adjustments to these improbably large figures, but he omitted to explain his procedure).[5]

Notwithstanding the similarities in the pattern of economic development. in the Balkan states, Lampe identified significant divergences. These caused

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[3] I. T. Berend & G. Ranki, "Foreign Trade and the Industrialization of the European Periphery in the XIXth Century" *Jou. Eur. Econ. Hist.* IX (1980), 557-64.

[4] In the *Journal of Economic History* XXXV (1975) and in *Southeastern Europe* II (1975).

[5] The sources to which the relative growth rates in table 2 (p. 60) of Lampe, "Varieties" are attributed do not provide the necessary base year information to repeat the calculation. These growth rates are also restated in per capita terms, but may be disregarded since Bulgaria's 1901-11 population growth rate is given as 0.5 percent and Serbia's as 1.9 percent, while both were actually 1.5 percent.

The figures from which I have recalculated these growth rates appear in the fourth unit of table I in Lampe, "Finance", p. 27, and the inflation rate "about 30 percent" is footnoted to this table (on p. 28).

him to undertake the comparative study of the Balkan economies, primarily to elucidate the role of institutional structures in the development of backward economies. These divergences were disclosed by tabulations of quantitative data, especially on large-scale industrial aggregates. In the first paper were interwoven two issues: as to why industrialization progressed further in some of the Balkan countries than in others, and as to the reasons for considering that none of the industrial " mini-spurts " were likely to lead to sustained economic growth. The comparative aspect of discussion gave prominence to Romania and to those features of the Romanian economy which Lampe considered to differentiate it from those of Bulgaria, Serbia and Greece, and it only illuminated the mutual divergences between these other economies on certain points. However this shortcoming was compensated by the second paper which confined itself exclusively to comparison of the Bulgarian and Serbian cases. The concern of my present critique of Lampe's work is limited to re-examining the Bulgaria - Serbia comparison, as I do not read Romanian, but as much of the key statistical data and certain central features of comparative analysis were presented only in the first of the two papers, my discussion will treat the two as an organic unity.

Lampe's studies are of considerable value in preparing an agenda for further research on the comparative aspects of Balkan history. Particular emphasis was placed on the role of monetary management, and of the behaviour of financial institutions in affecting the pace of industrial development in the Balkans. On the whole, the Balkan countries were ill served in such matters, but Lampe makes a convincing argument to demonstrate that relative to Bulgaria, Serbia's industrial expansion was better supported by its profusion of tiny, mainly native-owned banks than was that of Bulgaria, with its heavy dependence on a small number of institutions, especially foreign banks with little interest in industrial finance. Another important matter raised in these studies was the way in which the modernizing ambitions of the various Balkan governments could conflict with the development process by encouraging the misallocation of resources. In particular, Lampe had interesting things to say about the siting and expansion of the Balkan capital cities, and the consequences for the development of these countries.[6] Again the location of Bulgaria's capital city is contrasted unfavourably with Serbia's from the point of view of unifying their countries' commerce and communications, and it is pleasant to be able to point to further reading on this subject in Lampe's more recent study of comparative capital-city history.[7]

Despite all this, Lampe's comparative view of Balkan economic systems cannot be sustained, even on the evidence he himself provided. Even the

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[6] LAMPE, " Varieties ", 71-3, " Finance ", 30-2.

[7] LAMPE, " Modernization and Social Structure: the Case of the Pre-1914 Balkan Capitals " *Southeastern Europe* V (1978).

non-specialist observer may legitimately feel that he seemed intent on forcing some very questionable conclusions from his material. In the first paper, his argument that the "mini-spurts" of large scale industrialization could not have sustained themselves for long failed to convince either of his discussants. One drew the conclusion that the (capitalist) system "seems to have worked well even for the peripheral units"[8] and the other that what Lampe was really observing was "very late industrialization which simply had not gone very far by 1914".[9] And they are essentially right.

Lampe's argument for industrialization having in some sense "failed" rested ultimately on the assumption that Balkan industries existed essentially to substitute imports into markets of very restricted purchasing power.[10] Balkan peasants were highly self sufficient, and the small urban sector showed little or no long run trend towards relative growth at the expense of the rural sector. The lack of internal demand because of the low consuming power of the peasants was obviously a growth constraint, but as peasants spent disproportionately to their scanty means on clothing and footwear, the structure of internal demand was at least such as to favour the introduction of industries within the technological capacity of entrepreneurs in a backward economy. Moreover, the force of home demand limitations was diminished by the fact that a large part of Balkan industry was internationally competitive. In 1911 Serbia's large-scale industry sold 43 percent of its outputs abroad[11] and Bulgaria's in 1909 placed 20.6 percent of its sales on export markets.[12] It is true that these exports were derived mainly from the processing of farm materials, so that future growth in milling, meat packing, and other land-based industries would come to depend increasingly on the expansion of the productive capacity of the farm sector. However farming and processing industry interacted to the benefit of both so that the supply of inputs showed little sign of inhibiting the expansion of the industries which processed them. The export industries also included Bulgaria's woollen manufacturing industry, 35 percent of whose cloth output normally went to the export market,[13] as also did much

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[8] Paul Hohenberg, Comment, *Jou. Econ. Hist.* XXXV (1975) 87.

[9] John P. McKay, Comment, *Jou. Econ. Hist.* XXXV (1975) 92.

[10] Lampe, "Varieties", 70-1, 85.

[11] Industrijska komora kr Srbije, *Izveštaj o radu i stanju undustrije u 1911 godini* (Industrial Chamber of Commerce of Serbia, Report on the work and condition of industry in 1911, hereafter IKKS, *Izveštaj*, 1911) Belgrade, 1912, p. 16.

[12] *Statističeski godišnik na B'lgarskoto Carstvo* (Statistical yearbook of Bulgaria, hereafter *SGBC*) 1911, p. 242.

[13] D. Mišajkov, "Očerk na fabričnata v'lnena industrija v B'lgarija" (Outline of the factory woollen industry in Bulgaria) *Spisanie na B'lgarskoto ikonomičesko družestvo* VIII (1904) 560.

of its woollen braid and carpets,[14] while Serbia's woollen cloth,[15] sugar refining,[16] and brewing industries[17] all managed to maintain a toehold on the export market, together with such formidably competitive specialties as salami manufacturing, which was capable of competing over substantial tariff walls.[18]

However this may be, Lampe's argument that the "mini-spurts" were running out of steam is not supported by the historical record. As his own figures show, 1911 was a splendid year for industry in both countries[19] and the expansion phase showed no sign of flagging subsequently. Industry in Serbia in 1912 and 1913 invested 29.6 million dinars, a figure to be placed alongside its fixed capital stock of 62 million dinars in 1910.[20] Even contemporaries may have been aware that they were living through something like a takeoff: Serbian industry, buoyed up by the acquisition of new home markets through the annexation of northern Macedonia, remarked in 1914 how consumers' purchasing power was expanding as employment rose and held that the expansion of industry itself was an important cause.[21] Similarly, a Bulgarian government report of 1912, noting expansion in the number of large scale enterprises from 265 to 320 between 1909 and 1911 anticipated "still further" industrial progress.[22] Though the expectation was not immediately fulfilled, even a run of disastrous wars did not prevent the workforce in Bulgarian large-scale industry expanding by 70 percent between 1909 and

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[14] Between 1896 and 1905, Bulgaria annually exported 787, 428 leva of woollen braid, 88 percent of it to Turkey, and 83, 650 leva of (Čiprovci) cerpets. See the official source for trade statistics *Desetogodišna statistika za v'nšnata t'rgovija na B'lgarija* 1896-1905, Sofia, 1912, pp. 648-9.

[15] Sliven manufacturers complained of the competition of "Bulgarized" Serbian cloth on the Turkish market. Such Serbian exports date back at least to 1894 and were still going strong in 1907. See S. TABAKOV, *Istorija na grad Sliven*, (History of Sliven city) III, Sofia, 1929, p. 116; "Izveštaj bitoljskog konsulata o privredi, trgovini i saobraćaju u bitoljskom vilajetu za 1894-tu godinu" (Report of the Bitolj consulate on the economy, trade, and traffic in Bitolj vilayet in 1894) *Srpske Novine* LXII (1895) 214 col. 4; *Statistički godišnjak kr Srbije* (Stat. yearbook of Serbia, hereafter *SGKS*) XII, 1907-08, pp. 460-7, data for Vranje *okrug*.

[16] IKKS, *Isveztaj*, 1911, pp. 16, 27.

[17] JASA GRGAŠEVIĆ, *Industrija Srbije i Crne Gore* (Industry of Serbia and Montenegro) Zagreb, 1924, p. 103.

[18] "Protiv Srpske salame" (Against Serbian salami) *Trgovinski Glasnik* XXI (1911) 149.

[19] LAMPE, "Finance" 27.

[20] IKKS, *Izveštaj*, 1912-13, p. 67; IKKS, *Izveštaj* 1910, table 4, unpaginated.

[21] IKKS, *Izveštaj*, 1912-13, p. 84.

[22] Bulgaria. Ministerskija s'vet, *Doklad do n.v. Ferdinand I Car na B'lgarite po slučaj 5-godišninata ot v'zšestvieto mu na b'lgarskija prestol* 1887-1912 (Report to Ferdinand I Tsar of the Bulgars at the 25th anniversary of his accession to the Bulgarian throne 1887-1912) Sofia, 1912, p. 436.

1921, motive power by 146 percent, coal use by 64 percent,[23] and the output of coal rose by 311 percent during the same period.[24] In Serbia as well, the enormous war damage to industry was speedily made good after 1918, and the number of registered industrial enterprises rose by 61 percent between 1910 and 1926.[25] The war may be seen as an interruption to a long economic upswing which only petered out during the slump.[26]

Evidently there was nothing absolute about industrial "failure" in the Balkans, since, in his second paper Lampe's central concern was to explain why it was that large-scale industrial output in Serbia persistently tended (in per capita terms) to exceed that of Bulgaria, to the extent of 32 percent by the end of the period,[27] even though, as he pointed out, Bulgaria had certain advantages over Serbia, in urbanization, money supply, educational acheivement, and government expenditure (all *per capita*).

It would be open to the critic to reject Lampe's large scale industry statistics because (in common with the growth rates of the "mini-spurts") they cannot be recalculated from the source information. For Serbia, neither the thesis table cited (nor the essay in which it was published) show the same values even when adjusted for 30 percent inflation, while it is hardly adequate to be told where "a discussion of the available sources of information on Bulgarian capital and output" may be found.[28] Surely, we need to know exactly what sources were used, and in what ways they were modified, as a spot check in the 1909 and 1925 statistical yearbooks seems to reveal substantial differences in the 1907 and 1909 totals.[29]

However, we may accept Lampe's contention that Serbia had a relatively bigger large-scale industrial sector than Bulgaria, since this is also indicated by comparison of the Serbian Industrial Chamber of Commerce figure for 1911 showing a gross output of 126.2 million dinars[30] with Popoff's 1910 figure

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[23] *SGBC* 1925, pp. 170-1.

[24] Ibid, p. 185.

[25] N. Popović & D. Mišić, *Naša domaća privreda*. (Our domestic economy) Beograd, 1929, p. 369.

[26] According to Vinski's statistics Yugoslav net domestic income per capita in 1929 had exceeded that of 1909-12 by 30 percent. I. Vinski, "National Product and Fixed Assets in the Territory of Yugoslavia 1909-1959" *Income and Wealth* IX (1961) p. 221.

[27] Lampe, "Finance", 28.

[28] Ibid, 28, sources to table 1. The statistics for Serbia referred to are however apparently compiled with great care (in 1898 prices) and annotated *in extenso* in Lampe's very useful paper "Serbia 1878-1912" in Rondo Cameron, (ed.) *Banking and Economic Development*, New York, 1972, pp. 125-7.

[29] On p. 234 and pp. 170-1 respectively.

[30] IKKS, *Izveštaj*, 1911, p. 16.

for Bulgaria of 121 million leva.[3] At net level, the balance in favour of Serbia was of still greater significance: Serbian figures indicate that raw material inputs were 45.1 percent of output value in 1910, and the corresponding figure for Bulgaria in 1909 was 67.5 percent, mainly because of a greater preponderance of milling.[32] So *net* large-scale industrial output per head of Serbia in 1911 was probably more than double that of Bulgaria. But was Serbia's superiority in large-scale industry significant in the context of economic development as a whole? The difference amounted to only 10 dinars ($ 2) per head. Lampe had no doubts that it was, presumably because of his belief that the growth of large-scale industry "lies at the heart of the most commonly accepted definition of economic development".[33] One might question whether such a view still has validity when large-scale industry produced so slight a proportion of total output. But let us suspend judgement till we have looked at some of the other large economic aggregates.

A summary of the principal quantitative differences between the Balkan economies, as Lampe saw them, was set out in table I of the first article, which we reproduce below as table 1 with the figures for Romania omitted.

TABLE 1

GROSS OUTPUT OF SELECTED INDICATORS

	total (million leva, dinars)		per capita	
	Bulgaria (1911)	Serbia (1911-3)	Bulgaria (1911)	Serbia (1911-3)
Large industry	112	95	25	33
Small industry	88	116	20	39
Agriculture	611	590	139	197
Stockraising	213	273	48	91

Source: LAMPE, "Varieties of Unsuccessful Industrialization..." *Jour. Econ. Hist.* XXXV (1975), 59

The finality with which this table was displayed (not a caveat in sight) is not entirely merited. It has certainly travelled a long way from its underlying sources. At first remove, the only attribution was a compilation by Lampe's collaborator Marvin Jackson.[34] (It must be assumed that the work is in fact

[31] KIRIL G. POPOFF, *La Bulgarie Economique 1879-1911. Etudes Statistiques*, Sofia, 1920, p. 292.

[32] IKKS, *Izveštaj*, 1910, table 8, unpaginated; *SGBC* 1925, p. 171.

[33] LAMPE, "Financial Structure and the Economic Development of Serbia 1878-1912" (Unpublished Ph. D. thesis, University of Wisconsin, 1971), p. 20.

[34] MARVIN R. JACKSON, "Quantitative Economic History in the Balkans: Observation on the Period before 1914" (Faculty Working Paper in Economics EC74-39, Arizona State University, 1974), p. 2, table I.

Jackson's since it appeared without acknowlegement to Lampe in a paper put out under Jackson's sole name, as well as in another paper under their joint authorship; [35] a point of substance as Lampe may wish to disown it.) His source for Bulgarian data appears to have been a short summary table by Leo Pasvolsky [36] (though not in the work cited) taken in turn from Popoff, who mainly used the publications of the Bulgarian state statistical bureau. On Serbia the figures come from Djuričić's national income study of 1927 [37] which were drawn in turn from a statistic which was hastily compiled for reparations purposes by Serbian politicians in Geneva in 1918.[38] This work was based on limited materials (mainly relating to 1904 and 1905) [39] with a built-in bias to inflation, as Lampe elsewhere admits.[40] (The Bulgarians, conversely, would have had good reason to understate their income so as to plead poverty before their reparations creditors). Jackson did not consider it procedurally questionable to replace Djuričić's estimate for factory industry of 35 million dinars with a figure reached by Lampe in his thesis of 91.3 million, and notwithstanding this order-of-magnitude disagreement he used the rest of Djuričić's figures without comment.

Let us see what this table implies. In the first place, it appears to confirm Lampe's belief in Serbia's industrial superiority over Bulgaria, for her advantage in small-scale industry is no less clearly marked than in large industry. However, Serbia's supposed superiority in small-scale industrial output turns out to be illusory. When we turn to Popoff, the source used by Jackson for Bulgaria, we find that so far from assessing small-scale industry at 88 million leva, he reckoned domestic industry alone at 120–130 millon leva and craft industry at 200–250 million leva making a combined total of four times Jackson's figure.[41] Jackson then placed his 88 million figure alongside a correct rendering of the exile committee estimate for Serbia's small-scale industrial production of 70 million dinars of domestic industry production plus 46 million for the craft industries.[42] Now both the Serbian and Bulgarian domestic industry estimates are grotesquely exaggerated. Take the Serbian. Savić estimated the income

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[35] LAMPE and JACKSON, "The Genesis of the State Sector in the Balkans" (Faculty Working Paper in Economics EC74-38, Arizona State University, 1974), p. 5, table I.

[36] *Bulgaria's Economic Position* (Washington DC, 1930), p. 24.

[37] V. M. DJURIČIĆ *et al.*, *Naša narodna privreda i nacionalni prihod* (Our national economy and national income), Sarajevo, 1927, pp. 15–6.

[38] Srpski Centralni Komitet, *Srbija u imovnom pogledu pre za vreme i posle svetskog rata* 1914–1918 (Serbia in its property aspect before during and after the world war 1914–1918) Geneva, 1918, pp. 58–65.

[39] Ibid, p. 58.

[40] LAMPE, "Serbia 1878–1912", in CAMERON, *Banking*, p. 130.

[41] POPOFF, *La Bulgarie Economique*, p. 292.

[42] *Srbija u imovnom pogledu*, p. 65.

generated by the Leskovac-Vranje-Bujanov rope industry, by far the largest of Serbia's domestic industries, to have been 3.5 million dinars and of this a significant part lay beyond her 1911 frontier. Inclusion of the Pirot region woollen cloth and carpet industries, and the Užice meat drying trade advances the total to 5.15 million dinars and as the remaining cottage industries within the area of Serbia before the Balkan Wars were of trifling significance, it seems unlikely that all domestic industries together could have produced more than 7 or 8 million dinars of output.[43] For Bulgaria, my evaluation of the output of domestic woollen manufacturing on the basis of data provided by Mišajkov in 1903 suggests that the output of the largest surviving Bulgarian protoindustry was only 2.91 million leva by a generous definition.[44] In both the Bulgarian and Serbian cases the huge bulk of the so called " domestic industry " arose from unsupported guesswork as to the value of what the peasants manufactured for their own consumption, an item which in any case has only a very doubtful claim to inclusion within national income type accounts.[45] Bearing this in mind, we should perhaps modify Jackson's figure for Bulgarian small-scale industry from 88 million to about 250 million, and that for Serbia from 116 million to about 54 million. Even then we should enter grave reservations about our sources.

A second point to be inferred from table 1 was that Bulgaria's farm economy was much poorer than Serbia's, both in agriculture and (even more) in animal husbandry. Jackson restated this explicitly,[46] and although Lampe never affirmed this in so many words, the arguments used in the two papers appear to suggest that Bulgaria's industrial development was retarded vis à vis that of Serbia by the relative weakness of its farming sector. For example, I assume this is what is meant in talking of an " especial piece of Bulgarian bad luck " in the legacy of the Ottoman past to its agricultural system.[47] A comparative analysis of the farming statistics of the two countries for the years 1908-12 reveals some interesting structural differences but does nothing to support the suggestion that Bulgaria was relatively disadvantaged by a less productive farm economy. In their export trade volume (which was composed overwhelmingly of farm outputs), the two countries achieved a very similar level, with Bulgaria exporting 32.0 leva of goods per capita, and Serbia 32.2. They achieved very similar

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[43] MILIVOJE M. SAVIĆ, *Naša industrija i zanati* (Our industry and crafts), I, Sarajevo, 1922, pp. 293-4.

[44] See M. PALAIRET, " The Decline of the Old Balkan Woollen Industries c. 1870-1914 ", table 8, forthcoming in *Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte* 70/2, June 1983.

[45] Popoff indicates the inclusion of self-consumed outputs under this heading in *La Bulgarie Economique*, p. 313.

[46] JACKSON, " Quantitative Economic History ", p. 3.

[47] LAMPE, " Varieties ", p. 64, " Finance ", pp. 29, 32-3.

wheat yields (Bulgaria with 10.25 q/h and Serbia 10.18). However, the Bulgarian farmer was significantly better supplied with land than his Serbian counterpart, with 69.3 ares of grain bearing land per capita compared with 50.3, and consequently produced commensurately more grain — 702 kg per rural inhabitant as against 525. The Bulgarians depended more heavily on this grain crop for cash than did the Serbians, whose export trade was more diverse in content, so (assuming urban grain consumption at the same level as consumption in the countryside and allowing for Serbia's indirect grain export through the fattening of pigs) the Bulgarians marketed 266 kg of grain per head of the rural population (37.9 percent of the crop) compared with Serbia's 179 kg, (34.2 percent). Nonetheless they left themselves a significantly greater subsistence of 436 kg per capita against 346 kg. It is impossible to reconcile these differences with Lampe's tabulated statement that Bulgaria's per capita agricultural output was only 71 percent of Serbia's even if we take account of Serbia's compensating greater production of specialist crops.[48]

Moving on from the arable statistics to those on animal husbandry, it was again estimated by Jackson and Lampe that Bulgaria's livestock economy provided her with only 53 percent of the income per capita enjoyed by Serbia. Lampe noted accordingly that among the Balkan states " only Serbia remained tied to animal husbandry ",[49] and pointed to the greater stability which Serbia's export trade enjoyed because of that country's reserves of exportable animal products. This belief that Serbia had a relatively rich livestock endowment enjoys a wide currency,[50] and is at first sight supported by comparison of the export of animal products by the two countries concerned. In 1909–11, Serbia exported 21.9 million dinars of major stockraising products (predominantly meat) and Bulgaria 13.1 million leva (mainly of sheep products).[51] However the animal stock statistics show that (if valued at 1905 Serbian prices) Bulgaria's 1910 animal stock was worth 73.83 dinars per inhabitant, to Serbia's 52.31 dinars.[52] (Both sets of statistics probably under-record because of concealment,

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[48] In cash terms, Bulgaria's grain output was worth 382.2 m. leva per annum in 1908–12 or 88.1 leva a head. By the same measure, Serbia's was 197.2 m. leva or 67.5 leva per head. Serbia's export of plum products yielded about 15.5 m. dinars (5.3 dinars per head) while Bulgaria's rose oil export yielded 6.8 m. leva or 1.6 leva per head.

[49] LAMPE, " Varieties ", p. 64.

[50] See for example the comparative livestock data tabulated for various east European countries in BEREND & RANKI, *Economic Development*, p. 57, which in the Serbian case are exaggerated by 1.6 - 2.6 times their true quantities (as may be confirmed by calculating from the Appendix table B statistics below). This miscalculation affected the qualitative comment in the text.

[51] Based on Bulgarian exports of sheep, goats, oxen, buffaloes, horses, mules, sheep and goat skins, milk products, meat and wool and Serbian exports of horses, cattle, sheep, goats, pigs, meat, lard, sheep and goat skins. From official trade statistics.

[52] See appendix table B below.

but, of the two, the Bulgarian statistics is likely to understate the more since livestock holdings were taxed here, but were not taxed in Serbia). It is thus apparent that Bulgaria's output of animal products was far more generous than Serbia's even though much less of it was sold abroad; her export of livestock and animal products amounted to 3.3 percent of capital stock while Serbia's absorbed 11.5 percent of a stock 29.1 percent smaller. Estimating that Serbia's annual consumption of meat products amounted to only 24.5 kg per person per year compared with 51.2 kg for Germany, it was not without reason that the government veterinary service of Serbia considered their peasants to be consuming so little meat as to be exporting it, so to say, out of their own mouths, to the detriment of their diet.[53] Thus Serbia's high meat export reflected a great pressure to earn cash, rather than any abundance of production, and Bulgaria's peasants would therefore have exported more animal produce, had they been as hard pressed for cash as their Serbian counterparts. Instead they seem to have enjoyed a richer subsistence in animal products as well as in cereals.

In summary, a number of conclusions are to be drawn which are the converse of those displayed in table 1- namely that on the eve of the Balkan Wars (1912/3) Bulgaria was more industrially orientated than Serbia, (taking small and large industries together) and that it also disposed a significantly greater abundance of farm produce. But as this abundance is not reflected in the export statistics, the benefits were enjoyed in terms of internal consumption of these products, mainly in self consumption by the peasantry, rather than in a higher level of cash earnings.

We turn now from static comparison to the dynamics of development in the two countries, and in particular, to the interaction of farm sector trends with those in industry. Although Bulgaria's per capita industrial output exceeded that of Serbia, the gap was probably narrowing. The 1900 censuses showed industry to be the primary occupation of 3.73 percent of the population of Bulgaria, and of only 2.62 percent of that of Serbia.[54] Although comparative occupational data are lacking after 1900, it is likely that Bulgaria was in relative urban decline. The urban percentage declined from a peak of 20 percent in 1892 in each of the subsequent three censuses down to 1910 to 19.9, 19.6, and finally to 19.1 percent. This decline was especially strong in the 14 Balkan foothill towns which were the principal seats of industry. Their share of Bulgaria's population declined from 2.0 percent in 1880-4 to 1.2 percent in 1910.[55] Over roughly the same period, 1890-1910, Serbia's urban population remained a

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[53] Serbia. *Izveštaj o radu odeljenja za poljsku privredu i veterinarstvo* (Report on the work of the department for agriculture and veterinary surgery), Belgrade, 1907, pp. 159, 164-5.

[54] *SGBC*, I, 1909, p. 507.

[55] POPOFF, *La Bulgarie economique*, pp. 11, 12.

steady 13.2 percent of the total. Even in Serbia, as also in Bulgaria, we can detect some signs of a (reverse) urban-rural drift after 1905.[56] On the whole it is likely therefore that small-scale industrial output stagnated in both countries, especially in Bulgaria, and that the greater relative importance of large-scale industry in Serbia, with the high growth rate of this sector, meant that Serbia's industrial production was expanding more rapidly than that of Bulgaria, though it had yet to catch up before the Balkan Wars.

Farming trends over time in the two countries do show divergences which may well have been significant in conditioning their industrial experience. Let us take arable agriculture first. Not only did Bulgaria dispose a greater per capita area of arable than Serbia, but there was also more abundant marginal land to be taken under the plough. Over the period 1897/9 to 1910/12, the area under grain crops in Bulgaria expanded at an annual rate of 2.54 percent while that of Serbia expanded at only 1.15 percent per annum.* This difference is highly significant seeing that population was growing in both countries at 1.5 percent per annum (in 1900-10) from which we may infer that agriculture in Bulgaria was capable of reabsorbing more than the whole of the increase of population, while the inelasticity of land supply in Serbia would have led to pressures for the extrusion of surplus rural population from the farming sector. There are reasonable grounds for postulating that just such divergent processes were in fact taking place, because of the above noted slight net urban-rural flow in Bulgaria's population, which was not exhibited in Serbia.

When we turn to the output of cereal agriculture, and its disposal, divergent trends of a different nature emerge. Unfortunately the longest intertemporal comparison with reasonably reliable data which is possible relates the data for 1903-6 to that for 1908-12. It is evident that during this period, at least, Serbia's farmers compensated for the closure of the frontier of cultivation by intensifying their exploitation of existing arable lands, whereas Bulgaria's farmers, though extending the area under the plough, obtained only static yields. As a result, Serbia's farmers, who had hitherto accepted significantly lower yields than those achieved in Bulgaria, drew level or surpassed the Bulgarians in productivity per hectare. In 1903/6 Bulgaria's grain yield per hectare was 10.90 quintals, and in 1908/12, it was 10.12. Serbia's yields rose during the same period from 8.48 to 10.43. (Taking wheat yields alone, Serbia achieved 7.97 q/h in 1900/2 and 10.43 in 1910/2). Consequently, Serbia's grain output rose between 1903/6 and 1908/12 much faster than Bulgaria's (by 29.8 percent against 7.67 percent.) Part of Serbia's incremental production was specifically aimed at the market, since exports of grain rose 47.9 percent, and the proportion of the crop traded

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[56] P. Pavlović, "Emigracija srpskih radnika" (Emigration of Serbian workers) *Borba* III (1912), 439.

* For arable statistics see Appendix table A.

rose from 30.7 percent to 34.2 percent, the volume marketed per capita of the rural population rising from 131 kg to 179 kg.

However, in both countries, much of the increased grain output remained within the farm sector itself. The 7.67 percent rise in Bulgarian grain output did not go to market. Export sales of grain fell (in quantity terms) by 22.05 percent, the proportion of the crop marketed falling from 45.3 percent to 37.9 percent. Only in part can this trend be explained by the rising subsistence needs of an increasing population, since although grain marketed per capita fell 16.8 percent, retentions for subsistence rose 13.2 percent per capita. Retentions within the farm sector also rose in Serbia and by a still greater amount, by 17.2 percent, so in both cases, it is likely that part of the increase was needed as inputs into animal husbandry for home consumption. (The use of grain for export hog fattening has already been allowed for.)

Parallel trends are indicated for the livestock economy. In both countries, especially Bulgaria, animal husbandry came under pressure from the inroads made by arable farming into the stock of natural pasture, but in this instance, it appears that Bulgaria's farmers were the more successful of the two in offsetting this pressure through intensification. Between 1892 and 1910 (taking the mean of 1890 and 1895 in Serbia's case) Bulgaria's animal stock more closely kept pace with the expansion of human population than did that of Serbia. This differential trend is even more evident over the longer period extending back before 1878, though the earlier data does not lend itself to precise comparisons. The full data are set out in Appendix table B but in table 2 below, we convert the inventory statistics, admittedly with some trepidation, into rough estimates of gross output from these inventories, by multiplying the inventory values by 75.32 percent.[57] Thence we can obtain an overall view of the long-run comparative trend in output, exports and consumption of animal products.

It is evident from this table that, in both countries, efforts to maintain livestock output (which were only partly successful) were designed principally to sustain or improve the supply of farm products for domestic consumption, at the cost of delivering sharply diminished supplies to the export market. It is true that Serbia's livestock trade was suffering increasingly seriously from Austro-Hungarian commercial pressures, which massively lowered its real value, and that Bulgaria was in a difficult position, geographically, to export

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[57] This very approximate conversion is based on a calculation made by the Serbian ministry of agriculture on the basis of 1900 data for sheep, pig and cattle raising, which indicated an internal consumption of 48.1 million dinars of outputs from these animals. As exports of these products in 1899-1901 amounted to 58.8 million dinars annually, and as the capital value in 1900 of these animals was 141.9 million, a 75.32 percent gross yield is indicated. (No commitment to 4-figure accuracy is, however, intended). See source for note 53, pp. 164, 267.

TABLE 2

ANIMAL HUSBANDRY IN BULGARIA AND SERBIA 1892-1910
(in 1905 dinars per capita)

	Inventory value	Gross Output	Exports	Domestic Consumption
Bulgaria				
1892	80.2	60.4	3.7	56.7
1910	73.8	55.6	2.4	53.2
Serbia				
1892	61.5	46.3	15.4	30.9
1910	52.3	39.4	7.7	31.7

For data and sources to this table for livestock inventories and for earlier comparative data, see Appendix table B. Export data were used for 1891 and 1894 as a mean for 1892 and for 1909/11. Bulgaria's export of animal products (excluding poultry and silk products) ran at 7.94m leva and 13.12m leva respectively, Serbia's at 25.65m dinars and 21.89m dinars. The following price indices, calculated on weighted valuations of major animal product exports were used to adjust export quantities to 1905 price terms.

	1891/4	1905	1909/10
Bulgaria	64.2	100	124.9
Serbia	73.7	100	97.6

these products anyway. But in neither country was stockraising run down on account of the problem of finding markets, or to secure alternative sources of cash income. On the contrary, grain, which might otherwise have been earmarked for export, seems to have been diverted to sustain home consumption of animal products, or simply to improve the level of grain self-consumption. Highly suggestive of this is the shift which took place in both countries towards the raising of sheep, the classic provider of subsistence goods in a peasant economy. (See Appendix table B.)

This tendency in both countries for farm output increasingly to stay within the farm sector is broadly verified by the trend of real exports per capita from both countries over the twenty years preceding the Balkan Wars, as in table 3 below. Even in the Serbian case, the slight rise in exports per capita between 1889/91 and 1909/11 arises entirely from copper mining operations which began in 1907, and which had only weak links with the rest of the economy. Evidently, the peasants of Bulgaria and Serbia were, in relative terms, seeking only to maintain their money incomes while, on balance, improving their subsistence.

Why this should have happened must remain to some extent speculative. But one incentive towards this kind of behaviour, as I have pointed out elsewhere, may have arisen from the way the fiscal systems operated. In Serbia,

TABLE 3

EXPORTS FROM SERBIA & BULGARIA 1889/91-1909/11

	Absolute (million dinars, leva)		Valuation Price 1906-11 = 100		Per Capita (1906/11 prices)	
	Serbia	Bulgaria	Serbia	Bulgaria	Serbia	Bulgaria
1889/91	45.7	74.2	69.6	70.0	30.07	32.67
1894/6	47.6	86.4	65.9	68.7	30.85	36.28
1899/1901	66.0	63.4	79.5	78.3	33.86	21.62
1904/6	68.6	140.1	76.3	84.2	32.99	41.24
1909/11	102.8	141.7	108.9	104.4	32.28	31.30

Note: Export volumes have been taken from the official foreign trade statistics for each country. The price index used to deflate the Serbian statistics is of customs valuation prices for farm commodity exports tabulated in M. PALAIRET, "The Influence of Commerce on the Changing Structure of Serbia's Peasant Economy 1860-1912" (Unpublished PhD Thesis, University of Edinburgh, 1976) p. 37. A more approximate index for Bulgarian prices was constructed from the tabulations given of total export weight and value in *SGBC* XVII, 1925, p. 191.

direct taxes (on land and on persons) formed the main, inescapable, brunt of the fiscal burden on the peasants, whose low consumption of "colonial" goods resulted in their paying relatively little in indirect taxes. And as the composition of the revenues shifted towards a reliance on indirect taxation (with the real burden of direct taxation showing a long-run decline from the early 1890's onward) so a per capita real cash farm income fall between 1887/91 and 1907/11 of 3 percent was converted after all taxes to a purchasing power increase of 12 percent. Bulgarian tax figures seem to show a similar, and even more distinct shift from direct to indirect taxation, suggesting that Bulgaria's peasants enjoyed a still greater alleviation of their tax burdens.[58] Added to this the terms of trade for farmers were probably improving, and cash remittances were being passed increasingly back to the farm sector by migrant workers abroad. In both cases, especially the Bulgarian, these changes may have permitted farmers to withdraw relatively from the market, while at the same time disposing of increasing real purchasing power, which presumably created some stimulus for the expansion of industrial output, though not a very strong one.

In so far as divergences between the two farm economies emerge from this analysis, the overall picture therefore emerges that Serbia's peasants strove to farm more intensively, and to compensate for their difficulties in exporting animal products by increasing grain sales, while at the same time increasing subsistence supplies. In doing so they maintained their cash incomes, and improved their purchasing power. To the extent that natural increase outstripped

[58] See PALAIRET, "Fiscal pressure and Peasant Impoverishment in Serbia before World War I", *Journal of Economic History*, XXXIX (1979), 733, 740.

the reabsorbing capacity of the farm economy, they released a supply of labour which would potentially become available for industrial employment. By contrast, Bulgaria's peasants provided for their natural increase by extending the area under crops (and creating new farmsteads), maintained their animal husbandry with relatively greater success, and oriented increasingly to the provision of subsistence goods, even at the cost of delivering a diminished volume of goods to the market. So as a consequence, the links between the farm sector in Bulgaria and the rest of the economy were weakening, while they were strengthening slightly in Serbia. In a way, this supports Lampe's belief that Bulgaria's industrial development was inhibited relatively by the problems of its farming sector, but in the very different sense that farming operated under conditions which caused it not to release either labour or increasing deliveries of produce to the market, and that it consequently also stagnated as a market for exchange goods. We have here, if it were needed, a reminder that levels of subsistence consumption even in similar backward economies could vary significantly, and rise even in the face of mounting population pressures, and that the overall level of economic welfare is not only reflected in the level of cash transactions. Such a point ought to be redundant, were it not that a notional subsistence level and the standard of living of a subsistence peasantry continue to be confused in discussion, along with the assumption that the fruits of economic progress tend automatically to divert subsistence goods to the market, rather than permit the reverse to take place.

The relatively favourable conditions which pertained in Bulgaria for farming — and subsistence farming at that — constrained the supply of labour available on the market and set wages at a higher going rate. Over the period 1906-9 the median wage for a labourer in Serbia was 1.39 dinars a day, in Bulgaria 1.815 leva. The difference was not only apparent for the two countries as a whole — it specifically affected the labour markets of the main provincial manufacturing towns. At Gabrovo and Sliven labourers commanded 2.63 and 1.93 leva, while at Leskovac and Kragujevac, the same sort of labour could be hired at 1.68 dinars and 1.63 dinars respectively.[59]

The existence of a wage-gradient between the two countries induced an international flow of labour from Serbia to Bulgaria. By the early 20th century, the incipient overpopulation of the meagerly endowed eastern region of Serbia gave rise to annual outflow of an estimated 40,000 workers, mainly to work for the big Romanian estate leasers.[60] But a significant fraction of this migrant

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[59] Calculated from the official price series for both countries, *Statistika za t'rgovijata na knjažestvo B'lgarija... i srednite godišni pazarni ceni... prez 1906 godina* p. 507, ... *prez 1908*, p. 517, ... *prez 1909*, p. 545; *SGKS* XI (1906), 317, XII (1907-08) 367, 375; *Godišnjak 1909-10*, pp. 361, 369.

[60] Dragiša Lapčević, *Položaj radničke klase i sindikalni pokret u Srbiji* (Condition of the working class and the syndicalist movement in Serbia) Belgrade, 1928, p. 288.

labour force also went with alacrity to build houses in Sofia.[61] Some Serbian migrants to Bulgaria were explicitly industrial workers in search of better pay. They were employed in the carpet making [62] and ropework [63] industries which Bulgaria sought to foster through tariffs, to lessen her dependence on Serbian imports. Velimir Vasić notes one instance which is instructive in this respect. In about 1910, a rope factory at Plovdiv (itself set up by a former migrant worker from Serbia) successfully overcame a strike by its locally recruited labour force by importing ropeworkers from the regions of Leskovac and Vranje (in Serbia), and this labour force was still working at the factory a year later.[64] In fact cheap, industrially oriented Leskovac labour seems also to have been the object of enticement by employers from Salonika,[65] and the authors of the principal works on Leskovac industry are almost certainly right in assuming that the development of the town as an industrial centre owed much to the cheap and underemployed labour reservoir of the town and its surrounding villages, which had been created largely by its longstanding protoindustry of ropemaking.[66]

While the mobility of labour could narrow the labour market gap between the two countries, the gap itself attracted entrepreneurs and their capital to move in the opposite direction. For example, the making of woollen braid (*gajtan*) had been the largest industry in the Balkans. Before 1878, it had been concentrated almost exclusively in the Bulgarian provinces, but subsequently it was to flourish at Leskovac and Paraćin while it decayed in Samokov and Karlovo, in no small measure because entrepreneurs from the latter centres transfered their plant to Serbia, where the cost of spinning labour was lower.[67]

In general Bulgarian entrepreneurs seem to have had greater difficulties in putting together the labour force they needed than those of Serbia. For example, employers in the textile industry at Sliven were obliged to make do with relatively highly paid urban male labourers, since there was no cheap labour

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[61] Jelenko Petrović, *Pečalbari naročito iz okoline Pirota* (Migrant workers especially from the environs of Pirot) (Belgrade 1920), pp. 20-1.

[62] R.D.G. MacDonald, *Report on the Trade and Commerce of Servia for 1889-90* (Parl. Papers 1892, LXXXIV), p. 19.

[63] Ibid; Sergije Dimitrijević, *Gradska privreda starog Leskovca* (Urban economy of old Leskovac) Leskovac, 1952, p. 78; "Izvoz kudelje i užarije" (Export of hemp and cordage) *Ekonomist* (Belgrade) I (1912) 113.

[64] Velimir Vasić, "Pečalbarstvo istočne Srbije" (Migrant labour of eastern Serbia) (Unpublished doctoral thesis, University of Belgrade, faculty of Law) 1950, p. 191.

[65] Ibid, p. 183.

[66] Dragoljub Trajković, *Istorija Leskovačke industrije* (History of Leskovac industry) Belgrade, 1961, pp. 51–4.

[67] Hr. Semerdžiev, *Samokov i okolnost'ta mu* (Samokov and its environs) Sofia, 1913, p. 214; Ivan Undžiev, *Karlovo* (2nd ed.) Sofia, 1968, p. 80.

to be had from the surrounding villages.[68] This labour force was capable of pressing its advantage through strike action, which proved successful since attempts to recruit refugee labour from Macedonia failed. The British firm which brought cotton spinning to the port of Varna was obliged to bring in girls from the far-away uplands of the mid-Balkan, with promises of attractive terms of employment, for want of local labour.[69] The cause of the shortage, at least in 1904 was " an abundant local harvest ".[70] Employers at Leskovac in Serbia on the other hand could be cavalier in their dealings with labour, since the surrounding villages provided them with children aplenty to use and misuse, as well as casual workers who were willing to work for a " trial period " for nothing.[71] There are therefore grounds for believing that a relative restraint on Bulgaria's industrialization may have been the higher price or relative scarcity of common labour.

Finally, in explaining the differing economic structures of the two countries at the turn of the XXth century, an important influence, as Lampe recognizes, arises from the divergences in their pre-1878 historical heritage. Serbia was *de facto* very nearly independent before 1878 while Bulgaria itself constituted the economic heartland of the Ottoman empire. Lampe took the familiar line that Ottoman rule in Bulgaria was a more or less unmitigated evil for the territory, the source of his two pieces of " Bulgarian bad luck " which Serbia had the fortune to escape. But the contrary view might be argued that Bulgaria reaped the *benefits* of Ottoman government at its most enlightened and inherited from the period of the Ottoman renaissance a gradually modernizing agricultural system and a moderately literate and skilled artizan class. Bulgaria (and the fragment of territory acquired from Turkey by Serbia in 1878) thus participated in the economic upsurge which unfolded in the Ottoman lands in the course of the preceding half century, when a flourishing protoindustrial economy grew up in the Balkan mountain settlements from Čiprovci and Pirot to Sliven and Kotel. It is true Lampe acknowledges its existence in the second article, but he is in error to suppose it was " being swept away " by " cheaper machine made English " goods by mid-century.[72] This simply did not happen. The key woollen sector was in high boom in the 1860's and was still more than a match

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[68] Stoil Staneff, *Das Gewerbewesen und die Gewerbepolitik in Bulgarien*, Ruse, 1901, p. 132; Mišajkov, " Očerk ", 551-2.

[69] A. Rakovska, " Ženskijat naemno-rabotniški trud v B'lgarija i negovoto razvitie " (Female labour in Bulgaria and its development) *Novo Vreme* IX (1905) 717.

[70] *Report for the year 1904 on the Trade of Bulgaria* (PP. 1905, LXXXVII), p. 5; also see *Report for the Year 1910 on the Trade of Bulgaria* (PP. 1911 XC) p. 14).

[71] Aristomen Ristić and S. Stojanović (eds.) *Leskovac juče i danas* (Leskovac yesterday and today) Leskovac, 1935, p. 69.

[72] Lampe, " Finance ", p. 30.

for foreign competition in Ottoman markets for some years after 1878.[73] This protoindustrial past unquestionably supplied both the capital and the entrepreneurship for the establishment of Bulgaria's largest post-liberation factory industry, the fabrication of woollen textiles. Besides this, the inheritance of artizan enterprise, which made up the relatively large unmechanized industrial sector was a basic reason why Bulgaria's economy was still more industrially oriented than Serbia's in the early years of the XXth century.

During the same period, the Serbians maintained a crude if affluent subsistence farming system and made few moves towards developing their economy. Little demand was created for the products of artizan industry, and the supply of labour with the requisite skills to provide them was still smaller, a situation which was exploited by immigrants from the surrounding territories who found in Serbia an insecure but often remunerative employment. Moves towards modernizing the economy, such as by the opening of railways, already underway in European Turkey, were blocked by the opposition of the Serbian army and by the trading community, which feared the more competitive conditions they would generate. Resources which could have been invested in railways were wasted in a vain attempt to establish a self-sufficient arms industry.[74] Moreover the policy pursued in Serbia before 1878 of encouraging mass immigration had the longer term effect of overpopulating the country (relative to Bulgaria). At the same time as net immigration assisted Serbia's population to rise between 1834 and 1874 at 1.7 percent per year, the migration balance of the Bulgarian provinces of Turkey was probably negative. According to one authority, the population of Turkey in Europe was if anything declining (and by as much as 23 percent) between 1845 and 1871-5.[75] Large flows of Bulgar emigrants — one and a half million of them according to one source — left for the further bank of the Danube,[76] and attempts to resettle Muslim Circassians and Tatars from the Caucasus had no lasting effect since these together with other Muslims were forced to flee the territory in consequence of the upheaval of 1876-8. The outcome was that Bulgaria, and its southern part especially, emerged as a relatively thinly peopled territory compared with Serbia, a condition which left Bulgaria with greater landed abundance in the longer term since the subsequent rate of population growth in the two countries

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[73] France. *Bulletin consulaire* XXI (1891 2nd semester) Turquie d'Europe - Commerce de la Roumelie Orientale en 1890, p. 442.

[74] M. R. PALAIRET, "The Influence of Commerce on the Changing Structure of Serbia's Peasant Economy 1860-1912" (Unpublished PhD thesis, University of Edinburg 1976), pp. 134-6.

[75] A. UBICINI, *Etat present de l'Empire Ottoman*, quoted in NIKOLA V. MIHOV, *Naselenieto na Turcija i B'lgarija prez XVIII i XIX v* (Population of Turkey and Bulgaria in the XVIIIth and XIXth centuries) Sofia, 1915, p. 338.

[76] D. P. IVANOV, "Spasenieto na B'lgarskata emigracija v Rum'nija" (The salvation of the Bulgarian emigration to Romania) *Nova B'lgarija*, I (11. Mar 1877) 270.

was nearly identical.[77] It is partly because of this divergent heritage that Bulgaria was the richer of the two countries (and not the reverse) on the eve of World War I, and although it may have been in Serbia's long-run advantage to have a more compact population, the developmental adjustments to the relative scarcity of land were only just beginning to show through.

So in conclusion it may be remarked *à propos* of the first of Lampe's papers that there are no adequate grounds for claiming that Balkan industrialization before World War I was "unsuccessful", and that the numerical data on which the argument depended were unsound. In particular, our revision shows that on the eve of the Balkan Wars, Bulgaria led Serbia in industrial, agricultural, and animal production (all in per capita terms) but that the rate of structural transition was relatively slow. As a restraint upon the rate of structural change, the performance of the farm sector seems to have been an important factor for both economies, but not primarily because of its low productivity, rather because circumstances permitted the peasantry to utilize such advances as they achieved in output to provide for subsistence needs rather than as a source of increased cash income, and so tended thereby to weaken the already tenuous links which existed between the preponderant farming sector and the rest of the economy. In this respect, the similarities between economic trends in the two countries are more striking than the divergences. Nonetheless, the tendency to withdraw from the market was especially marked in Bulgaria, whose richer agrarian base facilitated this withdrawal rather more than in Serbia, leading to a relatively sharper curtailment of the flow of resources out of agriculture. Thus in Bulgaria the supply of wage labour was less expandible than in Serbia, imposing a higher labour cost on employers. While in no way negating Lampe's valuable analysis of Balkan capital markets, the foregoing analysis places the problem of Balkan industrial development in a better delineated perspective than that which Lampe provided.

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[77] In 1880/1, the population density of Eastern Rumelia was 24.3 to the sq. km., that of northern Bulgaria 32.0, and that of Serbia 37.2. For the Bulgarian figures see *SGBC* I, 1909, p. 16.

APPENDIX

RELATIVE SERBIAN AND BULGARIAN FARMING STATISTICS

TABLE A

CULTIVATION AND OUTPUT OF 5 PRINCIPAL GRAINS BULGARIA AND SERBIA 1897-1912

	Cultivation 000 hectares		Output 000 quintals	
	Bulgaria (1)	Serbia	Bulgaria (1)	Serbia
1897	1 778	940		
1898	1 815	1 018		
1899	1 837	1 224		
1903	1 954	1 127	23 197	9 567
1904	2 094	1 156	22 454	7 002
1905	2 132	1 184	20 848	10 103
1906	2 216	1 185	24 995	12 778
1903-6			22 874	9 862
1908	2 280	1 199	21 525	9 886
1909	2 368	1 243	19 931	15 800
1910	2 481	1 235	26 637	12 724
1911	2 498	1 228	28 516	13 078
1912	2 542	1 232	26 535	12 529
1908-12			24 629	12 803

Note: (1) Grains are wheat, rye, oats, barley and maize. Bulgarian data also include mixed-grain (*smes*).

Sources:
Bulgaria - *SGBC* IV, 1912, pp. 132-3.
Serbia - *SGKS* 1896-7, pp. 198-9; *SGKS* 1898-9; *SGKS* 1903, pp. 233-8, *SGKS* 1904, pp. 253-8; *SGKS* 1905, pp. 243-8; *SGKS* 1907-8, pp. 243-4, 249-50; *Godišnjak* 1909-10, pp. 241-2; Oesterreichisches Handelsmuseum, *Serbien. Wirtschaftliche Verhaltnisse... 1912*, Vienna, 1914, pp. 12, 13.

TABLE B

LIVESTOCK INVENTORIES IN SERBIA AND BULGARIA
c 1860 - 1910

Col.	1	2	3	4	5	6	7	8	9	10
Serbia										
1859	139.9	801.3	*	*	1772.0	2385.5	490.5	141.8	1.0783	131.50
1866	123.0	741.4	*	*	1291.2	2677.3	451.2	128.1	1.2163	105.32
1879	159.8	–963.9–		*	1678.5	3480.5	586.6	165.7	1.7343	95.56
1883	123.0	–827.0–		*	1067.9	3620.8	725.0	141.5	1.9017	74.41
1890	*	819.3	8.5	1.6	908.6	2963.9	509.7	133.9	2.1854	61.29
1895	169.9	915.4	7.5	1.8	904.4	3094.2	526.0	144.3	2.3417	61.63
1900	184.8	956.7	6.9	1.9	959.6	3061.8	432.1	149.1	2.5292	58.95
1905	174.4	962.5	7,5	2.0	908.1	3160.2	510.1	149.2	2.7249	54.76
1910	152.5	957.1	7.3	*	865.8	3818.0	630.6	152.9	2.9221	52.31
N. Bulgaria										
1870	253.4	601.9	204.3	13.3	202.4	5013.0	1123.6	152.0	2.0470	74.27
E. Rumelia										
1883	43.6	312.0	58.9	33.4	107.4	1858.8	425.6	58.8	0.9233	63.68
Bulgaria										
1892	343.9	1427.8	342.2	89.9	461.6	6868.3	1263.8	265.6	3.3107	80.22
1900	494.6	1596.3	431.5	116.0	367.5	7015.4	1405.2	303.3	3.7443	81.01
1905	538.3	1695.5	476.9	136.0	465.3	8131.0	1384.1	331.9	4.0356	82.25
1910	478.2	1606.4	413.0	130.7	527.3	8669.3	1464.7	320.3	4.3375	73.83

* Denotes a missing value which has been prorated.

Cols 1-7 are livestock numbers in thousands. Bracketed figures are their valuation price in Serbia in 1905 in dinars.

Col. 1 horses (102.01)
2 cattle (82.70)
3 buffaloes (76.67)
4 asses and mules (27.89)
5 pigs (19.22)
6 sheep (9.15)
7 goats (9.44)
8 total value of livestock in million 1905 dinars
9 human population in millions
10 the value of livestock in 1905 dinars, per capita of population.

Sources for livestock population:

Serbia

1859, 1866: *Državopis Srbije* IV, p. 114.

1879: Numbers at which "the horses, cattle etc... of Serbia may at the present time be estimated" according to *Report by vice Consul Baker on the Trade and Commerce of Nisch for... 1879*, p. 904, in PP. 1880 LXXIV.

1883: Estimates for 1880-86 by the Serbian ministry of agriculture noted by RENE MILLET, in *La Serbie economique et commerciale*, Paris, 1889, pp. 75, 77, 80, 83, 86.

1890-1905: *SGKS* 1907-08, pp. 346-50.

1910: *Godisnjak* 1909-10.

Bulgaria
1870: Domestic livestock in Danube vilayet excluding Tulçea sandžak, see *Materialy dlya izucheniya Bolgarii*, Part 2/III, Bucharest, 1877, pp. 81-2.
1883: *Godišna statistika za istočna Rumelija* 1883, pp. 146-7.
1892: Actually 1.1.1893, but set to harmonise with normal census dates of 31.12. *Rezultati ot prebrojavanie na dobit'ka... v B'lgarija na 1-ij Januarij 1893 godina*, Sofia, 1894, pp. 228-9.
1900-10: *SGBC* IV 1912, pp. 166-7.

Valuation price of domestic livestock in Serbia in 1905 is given by taking valuation shown in *SGKS* 1907-8 p. 351 and dividing by stock figures on pp. 346-50 of same.

Sources for population: Serbia - Nikola Vučo, *Privredna Istorija Srbije*, Belgrade, 1955, p. 171. Bulgaria - 1874, *Materialy*... part 2/IV, pp. 95-9 (again excluding Tulçea sandžak), 1883 - (mid year) *SGBC* I (1909), p. 16, corrected as per note 1 to same table by addition of population of K'rdžalija *okolija* (mean of 1880 and 1885), 1893-1910 see *SGBC* XVII, 1925, p. 18.