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Article — Published Version

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The Economic History Review

Provided in Cooperation with:

Leibniz Institute of Agricultural Development in Transition Economies (IAMO), Halle (Saale)

Suggested Citation: Ivanov, Martin; Kopsidis, Michael (2023) : Industrialisation in a small grain economy during the First Globalisation: Bulgaria c. 1870–1910, The Economic History Review, ISSN 1468-0289, Wiley, Oxford [u.a.], Vol. 76, Iss. 1, pp. 169-198, <https://doi.org/10.1111/ehr.13185> , <https://onlinelibrary.wiley.com/doi/10.1111/ehr.13185>

This Version is available at:

<https://hdl.handle.net/10419/267891>

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Industrialisation in a small grain economy during the First Globalisation: Bulgaria c. 1870–1910

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[Correction added on 15 July 2022, after first online publication: Author affiliation has been updated in this version.]

Abstract

In Bulgaria the share of secondary production in GDP remained constantly low between c. 1870–1910. To explain the country's exceptionally weak growth, we use endogenous and unified growth theory. Gerschenkron and Palairé blame a self-sufficiency-oriented peasant economy for rising labour and raw material costs in industry, which destroyed the competitiveness of Bulgarian manufacturing and prevented industrialisation. We refute the existence of any long-lasting cost increases in industry after 1878. Quite the opposite was true: the expansion of Bulgaria's secondary sector was restricted by detrimental changes on the demand side, for which peasants were not responsible. Recent research claims that, around 1910, Bulgarian textile production was significantly lower than in 1870. Our study brings to light new data and information that clearly disproves this view. Until around 1910, a booming modern manufacturing sector more than replaced the country's proto-industries' textile outputs, which had plummeted dramatically during the early years of the newly founded Bulgarian state. However, as the rise of modern manufacturing in textile production coincided with the decline of the entire large sector of traditional manufacturing, secondary production as a whole stagnated.

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KEYWORDS

agriculture, Bulgaria, first globalisation, foreign trade, industrialisation, nineteenth century, textile industry

During the four decades before the First World War, Bulgaria experienced comparatively weak growth.¹ In striking contrast to all other eastern and south-eastern European economies, its share of secondary production in GDP remained practically unchanged (table 1). This is all the more surprising as, around the middle of the nineteenth century, the Bulgarian lands were among the most dynamic industrial areas of the Ottoman Empire, with 2.5 million inhabitants, making up 12 per cent of its total population.² Even though by global standards Ottoman de-industrialisation took on dramatic proportions in c. 1815–65, Bulgaria's export-oriented textile woollen proto-industry experienced a long-lasting boom, as did agricultural exports – mainly wheat.³ However, the promising picture of a dynamic industrial development completely changed after mid-1870.

Alexander Gerschenkron's and Michael Palairet's classic studies on the Bulgarian economy argue that it was internal Bulgarian structural weaknesses which continually dampened growth and aborted industrialisation during the entire period under consideration.⁴ According to Palairet's estimates, by around 1903 industrial output was far below the level of 1870. Export trade collapsed after the foundation of the Bulgarian state in 1878. In his interpretation, economic stagnation and absolute impoverishment of the increasing Bulgarian population were the consequences of Bulgaria's liberation from Ottoman rule and of the 'peasantization' of the economy.⁵ Palairet speaks of a retardation of the entire Bulgarian economy after 1878, caused mainly by 'retardative supply side influences common to Balkan agricultures. The most obvious was the universality of peasant farming, and its adherence to a subsistence base'.⁶ Cost increases in wages and raw materials due to the low productivity of peasant agriculture that was only weakly responsive to markets eroded the competitiveness of Bulgarian manufacturing. A sluggish development of the domestic market was added to the export crisis. At first glance, this is a compelling explanation for the stagnation of the Bulgarian economy after 1878. But first appearances can be deceptive.

A significantly improved database for Bulgaria convincingly points to alternative explanations giving, not unlike the Ottoman case, a stronger consideration to the 'Great Depression' of 1873–96.⁷ This concerns both the role of the peasant agricultural sector in Bulgarian industrialisation and the developments in the manufacturing sector.⁸ Was there any supply-side cost pressure at all or was it rather demand factors that played the decisive role in explaining phases of stagnation? Bearing in mind that the extent of peasants' subsistence orientation depends on the functioning

¹ Kopsidis and Schulze, 'Economic growth'.

² Pamuk and Williamson, 'Ottoman de-industrialization', pp. 166–7.

³ *Ibid.*; Palairet, *Balkan economies*, pp. 34–84; Lampe and Jackson, *Balkan economic history*, pp. 133–53.

⁴ Palairet, *Balkan economies*; Gerschenkron, 'Some aspects'.

⁵ Palairet, *Balkan economies*, pp. 186–202, 296, 367. According to Palairet, 'peasantization' means the advancement of the subsistence sector at the expense of the commercial sector, because in Bulgaria after 1878 peasant producers were increasingly given the opportunity to detach themselves from economic cycles. In this view, the commercialisation of the economy, which had progressed well during the 'liberal' late Ottoman period, was partially reversed after liberation.

⁶ Palairet, *Balkan economies*, pp. 340, 173–202, 243–341, 357–70; Gerschenkron, 'Some aspects', pp. 215, 222–7, 232.

⁷ Pamuk, 'Ottoman Empire in the "Great Depression"'.

⁸ Kopsidis and Ivanov, 'Gerschenkron'; Kopsidis, 'Peasant agriculture'.

**TABLE 1** Growth and sectoral structure of Eastern European economies, 1887–1911

	Population	GDP per capita	GDP per capita	GDP per capita
	growth rates		1887/9	1909/11
			(\$1990 USD)	
Bulgaria	1.4%	0.1%	1324	1384
Romania	1.4%	0.9%	1251	1619
Greece	1.0%	1.0%	1139	1307
Hungary	0.9%	1.2%	1366	1787
Russia	1.5%	1.1%	1058	1333
	Primary production	Secondary production	Tertiary production	GDP
Bulgaria	1.1%	0.4%	3.3%	1.6%
Romania	1.0%	4.4%	3.1%	2.3%
Greece	1.0%	4.4%	2.6%	1.9%
Hungary	1.7%	3.2%	2.0%	2.1%
Russia	2.0%	4.1%	2.8%	2.7%
	Sectoral shares in total GDP 1887–9			Population 1910 (millions)
Bulgaria	69%	11%	20%	4.34
Romania	58%	13%	29%	6.97
Greece	65%	11%	24%	2.68
Hungary	53%	17%	30%	20.89
Russia	59%	19%	22%	160.70
	Sectoral shares in total GDP 1909–11			Industrial Output c. 1909/11^a
Bulgaria	60%	10%	30%	132
Romania	44%	21%	35%	334
Greece	56%	18%	26%	234
Hungary	49%	22%	29%	393
Russia	51%	26%	23%	350

Source: Authors' calculation based on data from Kopsidis and Schulze, 'Economic growth'.

^aIndustrial output per capita (secondary production) 1909/11 (\$1990 intl).

of markets and not vice versa as previously thought, the transition from peasant to a fully market-dependent farmer 'can occur quite quickly under conditions of sustained economic growth, while it may halt, or even go into reverse, when countries experience stagnation or economic collapse'.⁹ For Bulgaria, this means looking at whether there were income-reducing developments on world food markets and exogenous shocks that stabilised the subsistence sector despite a strong peasant export orientation. A stabilised large subsistence sector would inhibit the development of the internal market, making industrialisation more difficult, if not impossible.

The following section presents in outline a theoretical model of Bulgaria's economic development c. 1870–1910 in light of endogenous and unified growth theory. Taking into consideration

⁹ Ellis, *Peasant economics*, p. 13.



all three economic sectors, but concentrating on agriculture, section II analyses Bulgarian economic growth c. 1870/87–1911 in the context of the eastern and south-eastern European experience. The third section focuses on the growth of the textile industry, also discussing potential growth-inhibiting developments on factor and sales markets. Section IV concludes with a discussion of whether Bulgarian peasants and supply-side factors were responsible for preventing the breakthrough of broad-based, productivity enhancing modern growth, as claimed by Gerschenkron and Palaret.

I | THEORETICAL CONSIDERATIONS

Drawing on two-sector models with manufacturing and agriculture from theories of endogenous and unified growth by Matsuyama, as well as Strulik and Weisdorf, respectively, we offer an explanation of Bulgarian ‘exceptionalism’. Bulgaria was among the very few countries in the European periphery with stagnant per capita incomes and an unchanged low share of the secondary sector in the domestic product since the end of the 1880s (table 1).¹⁰ Before the First World War, the lack of structural change in Bulgaria was associated with comparatively high population growth.¹¹

The integration of the Bulgarian lands into world markets during the First Globalisation proceeded under conditions of abundant fertile land in the plains, which opened for settlement during the late Ottoman period. The process considerably intensified after the foundation of the Bulgarian state in 1878. The shift of agricultural production from less productive highlands to fertile plains slowly but steadily increased agricultural productivity through more land of better quality, which allowed income gains for peasants without any change in farm technology. In the densely populated highlands, peasants survived mainly through by-employment in the textile proto-industry – a sector which slid into a severe structural crisis from the mid-1870s onwards. Improved access to fertile land in the plains allowed peasants to exit manufacturing and to keep population growth at a consistently high level even when grain prices began to fall in the course of the European grain invasion after 1870/80.

Following Matsuyama’s model, with sector-size dependent endogenous productivity growth based on learning-by-doing-processes restricted to manufacturing, we assume that an exogenous rise in agricultural productivity, for example the use of more fertile land, ‘induces migration of labour from the manufacturing sector, thereby reducing the rate of knowledge accumulation through learning-by-doing [in manufacturing]’.¹² Consequently, under the condition of a developing open economy, economic growth retarded in nineteenth-century Bulgaria because of growing agricultural productivity and specialisation in agricultural production.

Matsuyama’s assumption of no endogenous productivity increases in agriculture perfectly fits the case of Bulgaria. During the early modern European ‘First Agricultural Revolutions’, productivity growth in farming resulted from intensification driven by growing (urban) demand, scarcity of land, and rising agricultural prices.¹³ However, until the First World War a

¹⁰ Matsuyama, ‘Agricultural productivity’; Strulik and Weisdorf, ‘Population’. Both models can complement each other to gain theoretical insights into the retarded Bulgarian growth and industrialisation process prior to the First World War. Matsuyama concentrates on important open markets aspects, whereas Strulik and Weisdorf focus on central demographic features.

¹¹ Kopsidis and Schulze, ‘Economic growth’, p. 43.

¹² Matsuyama, ‘Agricultural productivity’, p. 328.

¹³ Federico, *Feeding*, pp. 75–6, 87–9.



productivity-enhancing intensification never occurred in Bulgarian peasant farming because of a large pool of 'free' land. With the onset of the 'Great Depression', falling agricultural prices not only put peasant incomes under pressure, but also entrenched farming further into 'extensification'.¹⁴

Population is constant in Matsuyama's model. Hence, to explain the economic consequences of Bulgaria's exceptional demographic expansion, we follow Strulik and Weisdorf. They argue that demographic fertility 'responds differently to productivity and income growth, depending on whether it emerges in agriculture or industry'.¹⁵ It should be noted, however, that in the Strulik/Weisdorf model, following Great Britain during industrialisation, land is fixed and agricultural productivity gains are also owing to learning-by-doing processes. But it is possible to adapt their model to grain economies of the European periphery with abundant land. Using more as well as better land would be equivalent to a (one-time) increase in agricultural productivity. Permission to colonise the plains, strictly speaking, only leads to a one-time jump in the level of agricultural productivity. Because the process of colonisation continues for decades, agricultural productivity remains constant at the higher level without rising further. This is a fairly accurate description of Bulgarian agricultural growth. All in all, the access to better land improves the productivity level in agriculture relative to manufacturing, making food – and, therefore, children – relatively less expensive. Large land reserves offered ideal conditions for agricultural growth to be reflected solely in population growth, but not in structural transformation, rising economic productivity, and reducing population growth.¹⁶ Stagnating incomes per capita were the consequence.

Why did the absorption capacity of manufacturing for labour not improve? A necessary condition for industrialisation is expanding (domestic or foreign) markets. As will be shown in detail below, the slump in demand for Bulgarian manufactured goods during the last quarter of the nineteenth century was not so much due to competition from European industrialised countries, but was rather related to falling international grain prices which depressed the demand for Bulgarian textiles from export-oriented peasants all over the region. Added to this was rising industrial protectionism as part of an infant industry policy in most Balkan states. In addition to economic trends, we concentrate on income-reducing exogenous shocks negatively affecting the demand of the domestic–rural market for textiles in Bulgaria. A special role is played here by the large peasant subsistence sector, which also includes household production of textiles for own consumption. Extensive peasant manufacturing was barely reduced by the onset of Bulgarian industrialisation until the First World War. Shrinking processes in peasant subsistence production only began in the 1930s.

The two growth models applied explain the continual dominance of the agricultural sector and stagnating productivity in Bulgaria during the decades before the First World War. Taking into account the obstacles to the formation of the domestic market, as well as the growing export problems for Bulgarian textiles, helps us understand the stagnation of the entire manufacturing sector beyond model considerations. Structural transformation did not occur. However, given the detrimental market conditions, the emergence of a small but robust nucleus of national modern manufacturing was a remarkable achievement.

¹⁴ The 'extensification effect' of falling grain prices was first analytically proved by [Thuenen](#), *Isolierte Staat*, pp. 15–189; [Kopsidis](#), *Agrarentwicklung*, pp. 101–35.

¹⁵ [Strulik and Weisdorf](#), 'Population', p. 195.

¹⁶ The above-described 'extensification effect' likely prevented learning-by-doing processes, leading to intensification in Bulgarian agriculture. High costs made agricultural intensification as a result of learning-by-doing only profitable at high prices.



II | THE BULGARIAN ECONOMY C. 1870–1911

Bulgaria was founded after the 1876–8 Russo–Turkish War as a tributary principality. The Berlin Peace Treaty stipulated that in terms of customs policy, it would remain part of the Ottoman Empire, and it had to pursue a liberal trade policy of open markets with the empire. It was not until the mid-1900s that Bulgaria achieved customs autonomy.¹⁷ Also, as a result of the Treaty of Berlin, the principality only included northern Bulgaria at first. The autonomous Ottoman province of Eastern Rumelia, which covered roughly the southern half of Bulgaria, was added to the new Bulgarian state in 1885. Reliable official Bulgarian data to estimate GDP has been available annually since 1887.¹⁸ Thus, our comparative GDP analysis concentrates on the 1887–1911 period. In 1912 the First Balkan War started. The two rough GDP estimates for 1870 and 1880 are used for illustrative purposes.

Table 1 reveals that, for 1887–1911 in eastern and south-eastern Europe, GDP per capita stagnated in Bulgaria because of comparatively weak GDP growth rather than exceptional population dynamics, but looking at the sectoral level provides closer insights. Agricultural growth in all Balkan countries was close to 1 per cent, with higher values only for Hungary and Russia. At least within the context of south-eastern Europe, Bulgaria's primary sector does not show any particular weakness. The picture changes when turning to the secondary sector. In manufacturing, Bulgaria clearly falls behind all other states, with annual growth rates of 0.4 per cent compared with values of around 4 per cent in all other economies except Hungary, where it was still at the comparatively large rate of 3 per cent. In turn, the Bulgarian service sector showed the highest rates, but these are not significantly different from almost all other states.

Despite all the remaining uncertainties in the data, a closer examination of levels of agricultural productivity in a broader comparative perspective going back to 1870 allows us to take a more nuanced look at the role of peasants in Bulgarian industrialisation. First of all, a cautious study of labour offers initial indications that Bulgaria followed a common 'eastern European pattern' of mainly extensive agricultural growth based on rising factor input (land and labour) compared with a 'central European pattern' (Austria–Hungary) of more intensive growth. (table 2).¹⁹

Indeed, the productivity and incomes of Bulgarian peasants not only stagnated, but also started to follow a slightly declining trend from the end of the nineteenth century. This was different to the dynamic development in Austria–Hungary and Romania, although productivity increased to a lesser degree in the latter (table 2). However, to properly assess the consequences of the weak growth in Bulgaria, it must be noted that value-added per worker in primary production was roughly similar all over central and eastern Europe around 1870 except for the significantly higher value in Bulgaria. Only Hungary managed to surpass Bulgaria's agrarian income levels until 1910. In the case of Bulgaria, therefore, agrarian stagnation did not indicate that peasant income levels were exceptionally low by central and eastern European standards. Quite the opposite was true. Extremely low Bulgarian peasant productivity and incomes were not the reason for weak

¹⁷ Weiß-Bartenstein, *Bulgariens Volkswirtschaft*, pp. 167–202.

¹⁸ Ivanov, *Gross domestic product*.

¹⁹ The little data available suggest that capital accumulation and TFP-growth seemed to have contributed significantly more to agricultural growth in Austria–Hungary than in eastern and south-eastern Europe; Schulze, 'Origins'; Schulze, 'Patterns'.

**TABLE 2** Agricultural growth in comparison, 1870–1910 (annual growth rates)

Austria	Hungary	Bulgaria	Romania	Russia ^a
Agricultural labour productivity				
1.12	1.70	0.38	0.77	0.30
Agricultural labour force				
0.27	0.45	1.02	1.40	1.24
Primary production				
1.39	2.15	1.40	2.17	1.54
Share of productivity increases in output growth				
80.6%	79.1%	27.1%	35.5%	19.5%
Agricultural labour productivity (\$1990 USD)				Year
1299	1257	1923	1387	1870
1549	1768	2361	1740	1890
2025	2464	2242	1888	1910

Source: For Austria and Hungary: Schulze, 'Patterns' and idem, 'Origins', with minor corrections for 1870–1913 by Schulze; for Bulgaria: Ivanov, *Gross domestic product*; chapter IV, online appendix; Ivanov and Tooze, 'Convergence'; for Romania: Axenciuc, *Evoluția*; for Russia: Kopsidis and Schulze, 'Economic growth'.

^aCalculation of annual growth rates of labour productivity is based on rural population instead on agricultural labour force.

domestic demand for industrially produced simple mass consumer goods like textiles.²⁰ Moreover, the little data available on labour productivity suggest that around 1870, Bulgaria had an absolute cost advantage compared with competing agrarian countries (table 2). It is reasonable to assume that Bulgaria also had a comparative advantage in agriculture, which, according to Matsuyama, promotes specialisation in primary production and de-industrialisation.

Apart from Hungary, all countries under consideration have in common that their share of agriculture in GDP decreased substantially by 8–14 percentage points. Only in Bulgaria did the share of manufacturing fall as well, from 11 to 10 per cent, whereas in all other economies it ranged between 18 and 26 per cent around 1910, having started from low levels. Even this preliminary analysis reveals that Bulgaria's comparatively weak growth seemed to be due to specific developments in the manufacturing sector. However, keeping in mind that no other country under consideration had a higher share of the primary sector in GDP than Bulgaria, not even the Tsarist empire, changes in agricultural markets and within the farming sector and their consequences on industry should be taken into account as well.

Bulgaria's foreign trade, imports as well as exports, developed most dynamically of all eastern European countries between 1879 and 1911 (table 3). The openness of the Bulgarian economy improved over the entire period. Comparing foreign trade per capita in the eastern periphery of Europe, Bulgaria rose from last place to a lower-middling position by the eve of the Balkan Wars.²¹

²⁰ A possible interpretation offers the 'Ricardian model' of growth; Hayami and Ruttan, *Agricultural development*, pp. 12–14. Until the First World War agriculture all over south-eastern Europe followed the same long-term growth trajectory of diminishing marginal returns. Growth was almost entirely based on the utilisation of the intensive and extensive margin. Under the condition of more or less constant farm technology, Bulgaria just fully exploited the intensity potential of its pre-industrial agriculture earlier, because its agrarian intensification process had started earlier than in Romania or Serbia.

²¹ Petmezas' estimations support the positive view of Bulgaria's export performance. By 1910, Bulgaria had caught up with most Mediterranean countries with an export share in GDP of 11.6 per cent; Petmezas, 'Foreign trade', p. 470.

**TABLE 3** Foreign trade 1879–1911 in the eastern European periphery (1911 boundaries)^a

	Imports	Exports	Foreign trade	Foreign trade per capita ^a		Ftpc
	Annual growth rates			1879/81	1909/11	Growth ^b
Bulgaria	4.10%	5.30%	4.60%	4.46	14.47	3.30%
Romania	0.80%	3.30%	2.00%	19.53	31.14	0.80%
Serbia	1.80%	3.40%	2.60%	8.13	12.23	1.00%
Greece	1.70%	1.60%	1.60%	13.99	22.15	0.60%
Ottoman Empire	3.30%	2.40%	2.90%	7.4	15.23	2.30%
Tsarist empire	2.60%	3.30%	3.00%	5.43	8.35	1.50%
Austria–Hungary	2.50%	2.30%	2.40%	15.94	23.26	1.50%

Source: Authors' calculation based on data from Federico and Tena-Junguito, 'World trade'. Population data from Kopsidis and Schulze, 'Economic growth'.

^a1913-\$.

^bForeign trade per capita.

New foreign trade data allows us to go back to 1840, when radical Ottoman trade liberalisation opened the Bulgarian lands for international trade.²² Although the new data for the period before 1887 may be only rough, conclusions about the structure of foreign trade are still possible (table 4). Indeed, textiles formed up to one-fifth of Bulgarian exports c. 1840–76, which plunged to 4 per cent after 1886. However, even during Ottoman times, around 80 per cent of exports were primary commodities. This share jumped to 95 per cent after 1878. Grains dominated Bulgarian exports during the entire period, but their share nearly doubled from around 50 to around 90 per cent after 1886. Wheat was dominant, but after 1880 maize gained a noticeable importance.²³

Looking at GDP but more specifically at exports, it makes sense to describe Bulgaria's economy after 1880 as a 'wheat and maize economy'. Wheat and maize exports formed the most important source of cash incomes, and domestic consumption depended on it. Exports by volume of grain grew at an annual rate of 1.2 per cent, whereas total output slightly decreased from 1887 to 1911 (table 5). This is quite the opposite of economic retardation caused by peasants going out of commercial farming to revert to subsistence as claimed by Palairret for the new Bulgarian state.²⁴ Table 6 fully supports our finding. The ratio of exported grain in total net grain production jumped from one-fifth around 1875 to one-third at the beginning of the 1890s, indicating a commercialisation drive of peasant agriculture after liberation. One reason might be that transport and trade

²² In 1842 Ottoman trade agreements with European countries, providing for the repeal of grain export bans and the dismantling of all state monopolies, were finally implemented in full. Studying contemporary German, Hapsburg, French, and Belgian consular reports, combined with various other sources, has enabled us to produce fresh estimates of commercial flows from c. 1840 to the onset of the Balkan Wars; for details see the online appendix. According to all contemporary sources, the opening of the market had an immediate impact on grain cultivation and exports. For the first time, the large agrarian potential of the fertile Bulgarian plains could be exploited (table 6); Michoff, *Beiträge* (1943), pp. 50, 71, 80, 89–90, 116; Michoff, *Contribution* (1950), pp. 173–4, 188–9.

²³ Wheat made up slightly more than 50 per cent and maize around 30 per cent of all Bulgarian grain exports from 1880–1911; see online appendix and Offergeld, 'Bulgariens Stellung'.

²⁴ A very tentative calculation is sufficient to demonstrate that even if supply per capita for domestic grain consumption significantly deteriorated from 1887 to 1911 (table 5), it could have still just been possible to satisfy the demand for food on the eve of the Balkan Wars despite a fast-rising population. Taking 2500 calories as the daily requirement per person, 258 kg of grain per capita would be needed annually to ensure an adequate supply of calories. According to table 5, even in 1909–11, almost 100 per cent of human energy needs could be met from grains alone.

**TABLE 4** Structure and levels of Bulgarian exports 1840–1911

	Structure of Bulgarian exports (in per cent)				
	1840–52	1857–76	1886–1911	1886–1900	1900–11
Textiles	16.7	21.4	4.1	4.3	3.9
Primary commodities	83.3	78.6	95.9	95.7	96.1
<i>Grains</i>	68.7	49.5	89.2	90.9	87.8
<i>Roses</i>	2.2	3.8	3.9	2.9	4.7
<i>Wool</i>	11.3	21.1	0.2	0.3	0.2
<i>Silk and cocoons</i>	1.1	4.2	2.6	1.6	3.4
	Levels of export (million Leva, in 1911 prices)				
	1848–52	1857–61	1872–6	1886–90	1907–1811
Textiles	5.4	6.0	6.9	2.7	4.1
Primary commodities	41.3	23.6	32.2	58.5	82.2
<i>Grains</i>	32.2	12.4	22.3	52.4	69.9
<i>Roses</i>	1.2	1.3	3.0	5.0	8.4
<i>Wool</i>	6.7	7.0	6.7	0.6	0.2
<i>Silk and cocoons</i>	1.2	2.8	0.2	0.4	3.7
Total	46.7	29.5	39.0	61.2	86.3

Notes: Primary commodities are grains, wool, roses, and silk and cocoons. Annual growth rates of exports are calculated on the basis of real values (in 1911 prices). Shares in total export are calculated on the basis of nominal prices.

Source: Authors' calculations; for data sources on the pre-1878 period see chapter II, online appendix on Bulgarian foreign trade, c. 1838–1912. Data for the post-1878 period is based on official statistical publication series: *Godishna statistika za trgoviata (Statistics on the foreign trade of the Bulgarian principality with foreign countries)* (1883 ff.).

TABLE 5 Growth of grain exports, net output, and domestic consumption 1887–1911 (in t)

	Exports	Net output	Domestic consumption	Consumption per cap. (in kg)	
				1887–9	1909–11
(growth rates)					
Wheat	−0.5%	−0.5%	−0.6%	166	138
Maize	4.0%	1.7%	−1.2%	86	48
Wheat and maize	0.9%	0.0%	−0.7%	252	186
Total grain	1.2%	−0.4%	−1.4%	385	257

Notes: Domestic consumption equals net output minus exports.

Source: Authors' calculations; exports: see table 4; grain output: Ivanov, *Gross domestic product*, and chapter IV, online appendix.

developed dynamically in the newly founded Bulgarian state because of high infrastructure investments and a modernisation of trade and banking innovations that progressed too slowly during the Ottoman period (table 7). Most important was the expansion of the railway network, geared towards the needs of grain exports and not of manufacturing.²⁵

²⁵ Ströhl, 'Entwicklungsgang'; Weiß-Bartenstein, *Bulgariens Volkswirtschaft*, pp. 267–310; Battenberg, *Entwicklung*, pp. 88–152, 161–79. However, railway freights that were too expensive at the beginning prevented an immediate transport cost effect of the railway; Michoff, *Prinos*, p. 448. For the late Ottoman period, contemporaries have calculated that bringing wheat from the Plovdiv area to Aegean ports (about 330 km) cost four times as much as from Paris to Marseille (770 km) – almost ten times more per kilometre; Michoff, *Contribution* (1941), p. 10, 118, 331; idem, *Prinos*, p. 448. Poor inland transport infrastructure kept inland farm–gate prices significantly lower than those around the Danubian or Black Sea ports.

**TABLE 6** Bulgarian grain exports and production, 1830–1911

	Exports (in tons)	Net output (in tons)	Share of exports (in %)	Index of exports (1870, 100)	Net output (1870, 100)
1830s	50 000	–	–	25.4	
1842–9	300 000	–	–	152.3	
1850–2	325 000	–	–	165.0	
1858–60	125 000	–	–	63.5	
1871–6	197 000	892 133	22.1%	100.0	100.0
1880–4	276 602	1 222 875	22.6%	140.4	137.1
1885–9	377 549	1 729 195	21.8%	191.6	193.8
1890–4	568 253	1 704 917	33.3%	288.5	191.1
1895–9	478 264	1 456 766	32.8%	242.8	163.3
1900–4	581 032	1 544 512	37.6%	294.9	173.1
1905–9	533 329	1 385 332	38.5%	270.7	155.3
1910–11	652 899	1 970 303	33.1%	331.4	220.9

Source: Authors' calculation; for data sources see tables 4 and 5.

TABLE 7 Development of Bulgaria's tertiary sector, 1887–1911

	Annual rate	Share in tertiary production	
		1887	1911
Railroad	11.6%	0.2%	3.9%
Total transport and communication	7.3%	3.1%	8.3%
Trade	2.7%	23.9%	24.0%
Financial services	12.2%	1.8%	13.7%
Public services	5.6%	12.7%	20.8%
Total tertiary production	3.4%	–	–

Source: Authors' calculations; data from Ivanov, *Gross domestic product*; chapter IV and tables A.3c–d, online appendix.

Bulgaria's commodity prices followed world market developments, except that special economic conditions prevented a negative impact of the 'European grain invasion' on Bulgaria's primary commodity prices until the 1880s (figures 1a, 1b, and table 8). Agrarian prices reached unprecedented heights around 1880, but, as our newly collected data reveals, this was only a short-lived phenomenon which can be attributed to the economic disorder caused by the 1877–8 war. Referred to as the 'Russian gold', during this time Bulgarians received payments for supplying food to the Tsar's army. This was followed by three consecutive crop failures in 1879, 1880, and 1881, which reinforced the disconnection from the world market. By 1884, the inflationary effects were already exhausted, the 'Russian gold' immobilised in purchases of Turkish land (see section II), and harvests had returned to normal.²⁶ Grain and wool prices sharply corrected downwards. Moreover, until the mid-1890s, Bulgarian primary commodity prices followed

²⁶ Iliev, *Staro-Zagorskii*, p. 32.

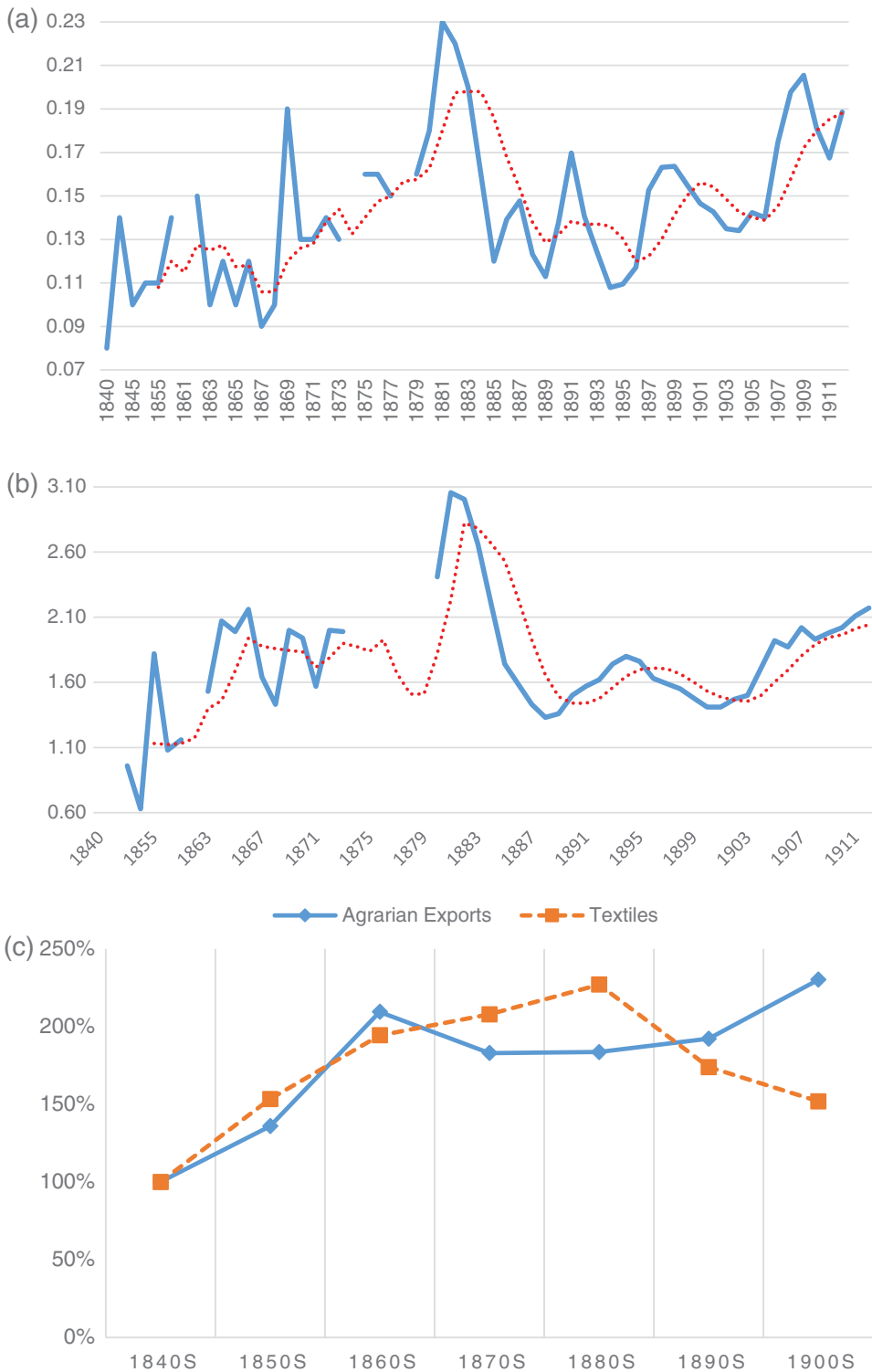


FIGURE 1 (a) Bulgarian wheat prices, 1840–1911 (Leva per kg). *Source:* Authors' calculations. Data for 1840–77: Michoff, *Contribution* (1941), *Contribution* (1950), *Beiträge* (1943), *Beiträge* (1953), *Prinos* (1970); Tsonchev, *Gabrovo*; Rusev, *Firmi*; Tabakov, *Sliven*; Primovski, *Bit i kultura*; Pavlov, 'Ikonomicheskoto razvitie';

TABLE 8 Prices of important Bulgarian agricultural commodities, 1840–1911

	1860–4	1865–9	1870–4	1875–7	1879–83	1884–9	1890–4	1895–9	1900–4	1905–11
Leva per kg										
Wheat	0.13	0.12	0.13	0.16	0.20	0.13	0.14	0.14	0.14	0.17
Barley	0.05	0.08	0.07	0.09	0.12	0.08	0.10	0.10	0.10	0.13
Maize	0.08	0.08	0.11	0.07	0.14	0.08	0.10	0.10	0.10	0.13
Wool	1.46	1.84	1.88	1.51	2.78	1.61	1.65	1.60	1.50	1.98
1879–1883, 100										
Wheat	64	61	67	79	100	68	69	71	72	87
Barley	41	66	56	77	100	65	82	81	80	105
Maize	56	58	74	49	100	59	71	68	73	89
Wool	52	66	67	54	100	58	59	58	54	71

Source: See figure 1a.

falling world market trends, causing the country's 'Great Depression'. Hence, an effort to export agrarian commodities, which accelerated the commercialisation of peasant farming after Bulgarian liberation, started under the conditions of a severe, long-lasting international agrarian price depression and deteriorating terms of trade for Bulgaria (figure 2). Agricultural prices only began to stabilise after 1895, increasing significantly from the mid-1900s onwards (table 8).

Comparing 10-year averages of price indices for agrarian export commodities (mainly grains) and of textiles (mainly woollens) reveals that only during the 'Great Depression' did prices of agrarian export commodities develop unfavourably compared with textiles (figure 1c). Around 1890, relative sectoral prices changed in favour of agriculture owing to the increasing weight of cost-reducing modern manufacturing in Bulgarian textile production. Peasant purchasing power, and thus the expansion of the domestic market expansion, was no longer affected negatively by relative prices, but over-indebtedness and stagnating agricultural productivity continued to depress peasant incomes.

Drawing from a variety of sources, we were able to calculate Bulgarian net barter terms of trade (Fisher index) from 1840 onwards. In our reconstruction procedure, we closely follow Pamuk and

Opis na osmanoturските документи; Danube newspaper, 1871–2; Berov, Dvijeniето. Data for 1879–1912: Michoff, Contribution (1941), Contribution (1950), Beiträge (1943), Beiträge (1953), Prinos (1970); Iliev, Staro-Zagorskii; Raport; Chakalov, 'Konflikta'; Mishaykov, 'Belejki'; State Gazette, 1881–2; Martisa, 1883–5; Gabrovo History Museum (Gabrovo, Bulgaria), Inv. No. 3706, 3709–10; 3713, 3754; Mladenov, Poyava na fabrichen proletariat; Izlozhenie Plovdivski okrag 1889/90; Statisticheski godishnik (Statistical Yearbooks), 1883 ff. For price series see table A.4 in the online appendix. Notes: The dotted line represents a 5-year moving average. (b) Bulgarian prices for domestic wool, 1840–1911 (Leva per kg). Sources: See figure 1a. Notes: The dotted line represents a 5-year moving average. (c) Ratio of price indices for Bulgarian agrarian exports and textiles, 1840s–1900s (1840s, 100). Sources: Authors' calculations; for sources see figure 1a and table A.5b, online appendix. Notes: The index 'Textiles' comprises the main textile commodities (gaytan, woolen cloth, and silk); for agrarian commodities and weights, see table A.5b, online appendix. [Colour figure can be viewed at wileyonlinelibrary.com]

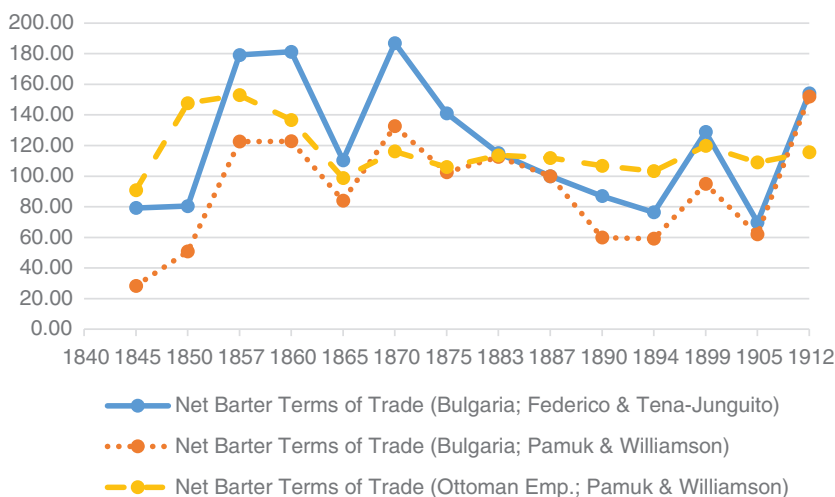


FIGURE 2 Bulgarian and Ottoman net barter terms of trade, 1845–1912 (1887 = 100)

Source: Authors' calculations. For sources and methods see section II; and table A.5a, online appendix.

[Colour figure can be viewed at wileyonlinelibrary.com]

Williamson, as well as Federico and Tena-Junguito, for an alternative series.²⁷ Reassuringly, both methods lead to very similar results (figure 2). In the following paragraphs, we use the Federico–Tena-Junguito series to calculate terms of trade for the European and global periphery because they are based on polity-specific import prices instead of British export prices.²⁸

Following the Crimean War until at least 1869, Bulgaria's net terms of trade continued to fall modestly at 0.7 per cent per annum compared to a yearly decline of 2.5 per cent for the Ottoman Empire (1857–70 in figure 2). The fact that Bulgaria's export-oriented textile proto-industry specialised in coarse woollen fabrics rather than in cotton textiles was the main factor differentiating it from the rest of the de-industrialising Ottoman Empire, whose positive trade development abruptly stopped and reversed after the Crimean War.²⁹ Due to its relative isolation, main outlets of Bulgarian textiles were not as strongly connected to world markets as major ports like Alexandria, Salonica, Izmir, or Istanbul, with their proto-industrial hinterlands.³⁰ Besides, customers of Bulgarian woollens were primarily concentrated at remote, land-locked rural areas such as inland Anatolia, northern Macedonia, and Bosnia, where local tastes preferred traditional, durable woollens and not cottons. Bulgarian craftsmen knew these markets much better than their western competitors and had gained enough expertise here, allowing them later to compete with western woollen fabrics even in the imperial capital.³¹

²⁷ Williamson, *Globalisation*; Pamuk and Williamson, 'Ottoman de-industrialisation'; Federico and Tena-Junguito, 'World trade'.

²⁸ For sources and estimation procedure of net barter terms of trade, see the online appendix.

²⁹ In the Ottoman Empire, imported woollen fabrics seemed to have cheapened by only 18 per cent while prices of coarse cotton textiles fell by almost 90 per cent between the 1820s and 1870s; Ottoman prices from Michoff, *Beiträge*; idem, *Contribution* (1941, 1950); idem, *Prinos*. In international markets, prices of woollen fabrics fell much more, but never as strongly as for cotton fabrics; international prices from Mitchell and Jones, *Second abstract*, p. 195; James, *History*, pp. 359, 378.

³⁰ Lapavitsas and Cakiroglu, *Capitalism*.

³¹ Sakaroff, *Entwicklung*; Staneff, *Gewerbewesen*; Zannetoff, *Entwicklung*; Palairret, *Balkan economies*, pp. 66–84; Lampe and Jackson, *Balkan economic history*, pp. 133–53; Pamuk and Williamson, 'Ottoman de-industrialization', pp. 166–7.



Foreign scholarship has convincingly made the case that Bulgarian woollens were so competitive that 'European goods were restricted to the fashion trade'.³² The latter seems all the more plausible in the light of the almost total dominance of Bulgarian cloth and braiding on the Ottoman market, but also in neighbouring Greece, Serbia, and Romania.³³ Interestingly, Bulgarian proto-industrial entrepreneurs used the same strategies that German merchant-manufacturers had adopted half a century earlier to compete with the superior British industry. Bulgarian and German clothiers alike concentrated on coarse fabrics to avoid direct competition with foreign imports and constantly reduced their costs.³⁴

This favourable situation continued until the mid-1870s and ended with the Russo-Turkish War of 1877–8, which coincided with a deepening of Bulgaria's 'Great Depression'. Falling international grain prices severely contracted the traditional markets for Bulgarian woollens in the Ottoman Empire, such as wheat-growing central Anatolia. The situation only improved after 1895, when world wheat prices started to recover.³⁵

In close alignment with international wheat prices, Bulgarian net barter terms of trade (NBTOT) deteriorated until the mid-1890s at 3.6 per cent annually and improved afterwards at a rate of 2.55 per cent. In contrast, the Ottoman NBTOT remained more or less stable even if the plus-minus growth trend was similar to the Bulgarian development, with an annual -0.03 per cent for the 1870–94 period and $+0.38$ per cent for 1894–1912. Thus, it looks like the Bulgarian economy was far more of a grain (export) economy than the Ottoman one. Steadily declining grain prices had a strongly adverse impact on the entire Bulgarian economy, including peasant farm management and consumption.³⁶ In accordance with Thuenen's agricultural location theory, which is also a theory of price-dependent spatial intensification differences, using the example of grain farming, contemporary Bulgarian experts mainly kept falling grain prices responsible for the low intensity of peasant farming. Depressed wheat and maize prices only allowed traditional, extensive low-input, low-yield grain farming to be profitable.³⁷ After the 'Great Depression', improving terms of trade and rising global grain prices seemed to have coincided with a slow intensification of Bulgarian farming.³⁸

Despite low levels of stabilised peasant incomes during the 1900s, the fact remains that the incomes of the agrarian population were under heavy pressure throughout the entire period. Apart from international agrarian markets, the domestic situation also helped keep peasant

³² Palairot, *Balkan economies*, p. 72.

³³ Michoff, *Beiträge* (1953), p. 337.

³⁴ Tilly and Kopsidis, *Old regime*, pp. 26–37.

³⁵ Pamuk, 'Ottoman Empire in the "Great Depression"'.

³⁶ As Pamuk writes: 'One dimension of the adverse movements in the external terms of trade during the period of the Great Depression that had a strong impact on the Ottoman economy and finances was the rapid and steady decline in world wheat prices'; Pamuk, 'Ottoman Empire in the "Great Depression"', p. 111. It is very likely that this was all the more true for Bulgaria, whose economy was even more dependent on wheat.

³⁷ Data on regional differences in crop farming clearly show that intensity was the lowest in northern Bulgarian areas well connected to the world market producing for export, and the highest in more densely populated but landlocked, isolated areas: Markoff, *Agrarwesen*, pp. 34–43, 212; Berberoff, *Untersuchungen*, pp. 53–62; Illieff, *Landwirtschaft*, p. 78.

³⁸ Markoff, *Agrarwesen*, pp. 24–41; Pantschow, *Agrarverhältnisse*, p. 79; Peyeff, *Agrarverfassung*, pp. 22–6; Weiß-Bartenstein, *Bulgariens Volkswirtschaft*, p. 15. All this points to Bulgarian peasants' sensitivity to price changes on world markets: Markoff, *Agrarwesen*, p. 112; Wlachoff, *Entwicklung*, pp. 36–7.



market demand low, even for consumer staples like textiles. In this context, the tax policy of the new Bulgarian state is not the only factor of importance.³⁹

After the Russo–Turkish War there was a mass emigration of Turks from Bulgaria. Bulgarian peasants swiftly took advantage of the exodus, occupying the land of the former Turkish landlords. According to the 1878 Treaty of Berlin, however, Bulgarians were obliged to pay, although at distressed prices, for former Turkish lands. Estimates of the overall costs of these purchases vary considerably, with figures ranging between 40 and 80 million Leva, or 5–10 per cent of the Bulgarian GDP in 1887.⁴⁰ Irrespective of which value we consider, land payments clearly immobilised most of the available savings and crowded out industrial investments.⁴¹ Neither the ‘Russian gold’, nor the peasant savings from the previous ‘golden times’, were enough to make land purchases of such magnitude. The small rural banking system (the so-called *zemedelski kasi*) that existed since the mid-1860s was put in disarray during the War of 1877–8. All that put together compelled Bulgarian peasants to resort to traditional rural personal credit. Short-term emergency loans, extended by local money lenders, came at exorbitantly high interest rates, often exceeding 20 per cent. ‘Crop usury’ dominated, which meant that peasants had to pledge their future harvests. All studies indicate that peasant indebtedness, which had already been a problem before 1870, assumed unprecedented proportions during the late 1890s and early 1900s. Crude assessments from around 1900 have estimated peasant debts to money lenders to be between 80 and 200 million Leva, or between 9 and 24 per cent of Bulgarian GDP in 1900.⁴² To pay the interest, peasant debtors had to squeeze consumption and stick to self-subsistence.⁴³ Clearly this was not only a result of the ‘land grab’ of former Turkish properties, as insisted by Palairet, but also a consequence of falling international agricultural prices and the very low profitability of farming.⁴⁴

For the first time we are able to estimate growth in the subsistence and commercial sector of an economy of the periphery before the First World War (table 9). It should be mentioned once again that commercial and subsistence sectors were closely intertwined, but developments in the former sector were the driving force of change, as argued by all contemporary Bulgarian experts and modern peasant economics. During the First Globalisation, in export-oriented agricultural countries of the European periphery, crisis developments on world agricultural markets, such as the drop in wheat prices, led to a stabilisation of the subsistence sector at a high level. Bulgaria is a prime example of this. The Bulgarian ‘Great Depression’ had a devastating effect on the emergence

³⁹ Palairet, *Balkan economies*, pp. 176–7.

⁴⁰ *Ikonomika na Bulgaria*, pp. 286–7; Natchovich, *Nyakolko stranitsi*, p. VI.; Ivanov, *Gross domestic product*, pp. 458–61.

⁴¹ Land purchases constituted between 100 and 200 per cent of all savings as late as 1890; Ivanov, *Gross domestic product*. Besides, by 1909, total investment in textile manufacturing was 12.6 million Leva, roughly a fifth of land payments to former Turkish landlords.

⁴² Ivanov, *Gross domestic product*, pp. 458–61; Lyberatos, ‘From imperial to national’, p. 159; Markoff, *Agrarwesen*, pp. 77–84.

⁴³ Fragmented data on consumption reaffirm these findings. According to official surveys, the nutrition standards fluctuated around subsistence needs, and the average lifetime of items of clothing roughly doubled from 1.9 years (late 1840s) to 4.3 years (1906); Daux and Le Play, 1879, cited in Todorov, ‘Budjetat’; Popov and Penchev, *Kasi-lak*, pp. 102–313. *Sbornik Zlatishka okoliya*, pp. 33–5, revealed a daily intake of 3040 calories per person in 1887 in an ‘average rural family’, compared to almost 3750 calories during 1906 in the village of Kasilak; Popov and Penchev, *Kasi-lak*, pp. 102–313. Later studies by Mocheva, *Hranata*, pp. 85–6, and idem, *Selskoto*, pp. 38–40, found that, to meet the requirements of hard physical labour, an adult farmer needs 3400 calories.

⁴⁴ A tentative estimate of farm profits is given in Ganev, ‘Konvertirane’, p. 120. Information on moneylenders’ interest rates and the economic consequences of peasant indebtedness are from Hristov, ‘Lihvarstvoto’, pp. 49–50; Battenberg, *Entwicklung*, pp. 143–8; Markoff, *Agrarwesen*, pp. 143–8; Wlachoff, *Entwicklung*, pp. 46–55; Weiß-Bartenstein, *Bulgariens Volkswirtschaft*, pp. 220–1.



TABLE 9 Growth of the subsistence and commercial sector in Bulgaria's GDP, 1887–1911

	Total GDP	Total peasant subsistence handicraft production	Total peasant subsistence production in farming	Total subsistence sector	Total commercial sector	Total commercial farm sector	Non-farm primary production (commercial)^a
1887–1911	1.57%	1.44%	0.95%	1.07%	1.96%	0.83%	1.79%
Annual growth rates							
1887–9	100.0%	10.7%	35.3%	46.1%	53.9%	13.3%	9.4%
1909–11	100.0%	10.3%	30.2%	40.5%	59.5%	11.4%	8.1%
Share in GDP (%)							
1887–1911	7.3%	17.8%	17.8%	25.2%	74.8%	17.8%	2.2%
Contribution to growth (%)							
Total secondary sector^b (commercial)		Large-scale protected industry (modern)	Small-scale industry (modern)	Total modern industry	Manual commercial manufacturing	Mining & quarries, construction	Total tertiary sector
1887–1911	0.28%	18.04%	2.35%	4.87%	-1.84%	5.94%	3.36%
1887–89	11.2%	0.0%	1.6%	1.7%	9.3%	0.3%	20.0%
1909–11	9.5%	1.7%	1.9%	3.6%	5.1%	0.7%	30.5%
Share in GDP (%)							
1887–1911	6.1%	5.4%	2.2%	7.6%	-3.4%	1.9%	48.8%
Contribution to growth (%)							

Source: Authors' calculations; data from Ivanov, *Gross domestic product* and section IV and tables A.6a–b, online appendix.

^a Forestry, hunting and fishing, domestic rural servants, and rents from rural buildings (minus agricultural credit).

^b Growth rate is slightly different to table 1 because of minor adjustments of Bulgarian data in table 1 to make it comparable to data from the other countries.



of an internal market. The same is true for an industrialisation path based on simple consumer goods such as textiles (table 9). During the 1887–1911 period, the share of the commercial sector in GDP, constituted by commercial farm production and secondary and tertiary production, only increased from 54 to 60 per cent, even if 75 per cent of growth occurred in the commercial sector.

Bulgaria's modern industry in total grew annually at almost 5 per cent. Small mining grew only negligibly faster. However, because modern manufacturing started from a very narrow base, it only achieved a share of nearly 4 per cent of GDP around 1910.⁴⁵ Looking at shares of different sub-sectors in total growth, 1887–1911 puts the role of modern industry even more into perspective. The share of peasant subsistence production of non-food consumer goods, mainly textiles, in total growth was almost as high as of the newly emerging modern industry (7.3 compared with 7.6 per cent). In fact, peasant handicraft manufacturing contributed more to growth than the entire secondary sector because of a shrinking proto-industry. Consequently, around 80 per cent of the Bulgarian population was only marginally included in the internal market. Thus, demand for industrially produced consumer goods was severely limited.

Even though the modern textile industry was able to outcompete the market-oriented proto-industry, it failed to reverse self-sufficiency-oriented peasant household production. Interestingly, almost 50 per cent of growth occurred in the tertiary sector. However, even if railways, public education, the development of an efficient rural credit system based on cooperative banking, and modern trade started to develop strongly before the Balkan Wars, their positive impact on Bulgaria's growth became fully effective only in the long run. Bulgarian growth remained limited before the First World War owing to the inability of the more dynamic commercial sector to replace subsistence production under the conditions of the First Globalisation, which assumed increasingly crisis-like features in the European grain exporting periphery after 1880. What this meant for the emergence of Bulgaria's modern manufacturing will be analysed in more detail in the following section.

III | THE RISE OF MODERN MANUFACTURING IN TEXTILE PRODUCTION

There is serious disagreement in the literature about when Bulgaria's proto-industry reached its peak and started to contract. Bulgarian scholarship tends to note the beginning of a decline already after the Crimean War (1853–6).⁴⁶ Palairret has challenged this view, robustly insisting that the regression of the proto-industrial sector only started in the aftermath of the 1877–8 war because reform-minded and growth-friendly Ottoman rule had ended.⁴⁷

When we reconsider these conflicting views using our new output, price, and trade data for the textile sector, many inconsistencies emerge.⁴⁸ First, during the period under consideration, c. 1840–1911, the share of textiles in Bulgarian exports was by far the highest in the two decades after the Crimean War (table 4). Hence, we see no quantitative support for the claim by Bulgarian historiography that foreign competition induced a deep crisis in the export-oriented proto-industrial sector after the Crimean War. What we can assume as certain from our data is that there was a

⁴⁵ Kopsidis and Ivanov, 'Industrialization'.

⁴⁶ Natan, *Stopanska; Hinkov, Zanayatchiistvoto*, p. 36; Kosev, *Za kapitalstichesko*, pp. 22–3, among many others.

⁴⁷ Palairret, *Balkan economies*, pp. 173–202, 298–341.

⁴⁸ A detailed derivation of our production data for the Bulgarian textile industry c. 1870–1911 is given in the online appendix.



serious general industrial decline during the period c. 1870–86, but we cannot identify the exact beginning of the downturn in Bulgaria's textile industry (table 10). Did it start before the Russo-Turkish War as part of the serious general economic downturn that hit the entire Ottoman Empire in 1873, or was Bulgarian liberation the decisive triggering factor, as suggested by Palairret? The only thing we know for sure is that during most of the country's 'Great Depression' (1873/78–1896) and a climate-, or more accurately, harvest-induced *fin-de-siècle* recession (1897–1902), market conditions deteriorated and a long-lasting slump of the entire Bulgarian textile industry took place.⁴⁹ As a result, proto-industrial non-mechanised domestic production of woollens shrank dramatically. A few dozen craftsmen, however, successfully exploited the opportunity and switched to factory production. These processes went hand in hand with substantial reductions in textile employment (table 10).

Foreign competition bore only a tiny responsibility for the Bulgarian textile proto-industry's decline.⁵⁰ Instead, diseases (silkworm) and changing fashions (the *aba*), but above all, prohibitive protective tariffs on the main export markets (*gaytan*) in the Balkans seem to have played a much greater role.⁵¹ In his ground-breaking analysis of the Bulgarian textile industry, Palairret also dismissed western competition as a culprit for the decline in woollen manufacturing. Rather, he explained that the demise of the woollen trade was attributed to upward changes of Bulgarian factor prices due to the scarcity of wool and industrial labour. In his view, deteriorating supply-side conditions in post-1878 Bulgaria led to factor shortages and cost increases in the Bulgarian textile industry, eroding its international competitiveness.

With the 1877–8 war and the Turkish exodus from Bulgaria, Palairret insisted that fertile plains opened up for settlement. According to him, the population swiftly took advantage and left the proto-industrial towns in the less fertile highlands. Owing to migration to the lowlands, arable land increased at the expense of former pastures, which negatively affected sheep farming and the supply of higher quality wool especially. The rural population's retreat from the market, which diverted large amounts of wool to self-consumption, contributed to supply shortages as well. Unavoidably, all this pushed wool prices upwards. Industrial wages were also on the rise as labourers left the old proto-industrial centres. Self-subsistence had other negative implications, too. It restricted the domestic market to the extent that it effectively blocked further growth of secondary production.⁵²

Indeed, prices reached unprecedented highs around 1880, but, as our newly collected data reveals, this was only a short-lived phenomenon, as described in more detail above. By the mid-1880s, both wool prices and labour costs had corrected downwards, returning to their pre-liberation levels. Moreover, during the next two decades, until the mid-1900s, they remained low. After c. 1880, Bulgaria's primary commodity prices followed generally falling international trends (figures 1a, 1b, and table 8).

Palairret based his assertion of considerable growth in wages on a handful of observations from Stara Zagora, as reported in Iliev and then quoted by Jireček.⁵³ These, however, were price quotations only for agricultural labour at the peak season (harvesting). Instead, we have collected

⁴⁹ From 1897–1902 Bulgaria was hit by several severe droughts.

⁵⁰ Textile imports maintained a stable share of one-fifth to one-quarter of the domestic Bulgarian market during 1870–1910.

⁵¹ An '*aba*' was an outer garment made of coarse wool. *Gaytan* was a braided woolen cord used for decoration of the outer garment.

⁵² Palairret, 'Decline', pp. 344–8, 353–4.

⁵³ Palairret, *Balkan economies*, pp. 40–1, 295; Jireček, *Knyajestvo Balgaria*, pp. 281–3.



TABLE 10 The Bulgarian textile economy, 1870–1911 (1911 prices, in Leva)

	c. 1870	1886	1896	1904	1911	1886–1911	c. 1870–1911
Total population	3280	3370	3792	4283	4743	1.4%	0.9%
Self-sufficient population	63.1	65.4	64.3	67.6	70.4	1.7%	1.2%
Market-dependent population	36.9	34.6	35.7	32.4	29.6	0.8%	0.4%
Wool – domestically used	7792	9057	9779	11 838	13 785	1.8%	1.4%
Wool – subsistence sector	53.7	82.9	73.6	70.6	67.5	0.9%	2.0%
Wool – market sector	46.3	17.1	26.4	29.4	32.5	4.5%	0.5%
Wool textile output	16 400	6450	8348	11 991	20 260	4.9%	0.5%
→ Cottage industry	98.1	87.1	44.5	40.2	23.3	–0.7%	–0.3%
→ Modern industry	1.9	12.9	55.5	59.8	76.7	13.0%	10.2%
Total textile industry output^a	18 647	8782	11 203	17 430	30 268	5.3%	1.2%
Share of textile output in secondary production ^b	15.8	7.1	9.2	16.3	18.7	–	–
Share of textile output in GDP	2.3	0.8	0.9	1.2	1.8	–	–
Total non-wool industry output ^c	470	463	770	2917	6916	11.9%	7.0%
Textile workers (total)	88 500	43 400	36 000	44 300	56 800	1.1%	–1.1%
Manual workers	87 000	42 500	33 900	40 800	52 200	0.9%	–1.3%
Factory workers	1500	900	2100	3 500	4600	7.0%	2.8%
Labour productivity – all workers	211	202	311	393	533	4.1%	2.3%

Source: Authors' calculations; for data sources see chapters I and II and tables A.8a–e, online appendix.

^aIncluding fulling and dyeing.

^bShare of textile output in secondary production.

^cWithout fulling and dyeing.

**TABLE 11** Nominal wages (Leva per day), c. 1870–98

	c. 1870	1879/83	c. 1890	1895/98
<i>Rural Wages</i>				
Harvester, Leva per hectare	0.12	0.16		0.07
<i>Urban Wages</i>				
Day-labourer, Leva per day	1.55	2.21	1.77	1.83
Textile factory worker, average, Leva per day	1.10	1.00		1.06 ^a
Factory spinner, Leva per kg of yarn		0.23		0.17
Hand weaver, Leva per 1 m. of cloth	0.22			0.10
Hand spinner, Leva per day	0.83		0.60	0.21

Source: Michoff, *Contribution* (1941), *Contribution* (1950), *Beiträge* (1943), *Beiträge* (1953), *Prinos* (1970); Todorov, 'Za naemnia trud'; Jireček, *Knyajestvo Balgaria; Izloženie Sevlievskoto okrujie 1898/99*; Iliev, *Staro-Zagorskii*; Kosev, 'Za Kapitalisticheskoto'; G. T. D., 'Parvata balgarska fabrika'; Mladenov, *Poyava na fabrichen proletariat*; Berov, *Polojenieto na rabotnicheskata klasa; Rabotnicheskoto dvijenie*, v. 1–2; Todorov, *Balkanskiat grad*; Todorov, 'Budjetat'; *Anketa, VI*; Mishaikov, 'Belezky'; *Darjaven vestnik*, 1881–2; *Doklad Plovdivskata TIK 1895/6; Izloženie Sofiiskoto okrujie 1897/8; Izloženie na Starozagorskii okrajn upravitel 1894/5; Doklad do Ministara Sofiiska TIK 1902; Statisticheski godishnik* (1883 ff.).

^aWeighted average.

TABLE 12 Annual growth of nominal and real wages, 1887–1911

	Nominal	Real	Daily wages 1909–11 ^a
GRPI ^b	1.50%		
Day labourer	0.70%	−0.80%	2.58
Harvester	0.50%	−0.90%	3.32
Ploughman ^c	0.60%	−0.90%	5.22
Mason	0.90%	−0.60%	4.88
Small scale industry	0.10%	−1.40%	1.96
Master/crafts	0.80%	−0.70%	4.44
Journeyman/crafts	0.10%	−1.40%	1.24
Cottage industry	0.10%	−1.40%	0.57

Source: Authors' calculations; data from Ivanov, *Gross domestic product*, pp. 174, 342–59, 471–83 and table A.7a–b, online appendix.

^aIn Leva.

^bThe General Retail Price Index is taken from the official Bulgarian statistics and based on 98 commodities.

^cDaily rent for one ploughman with a team of two oxen.

scattered evidence on remunerations for the manual and mechanised textile industry. The picture that emerges is clearly at odds with any claims for persistent wage inflation after 1878. After a short-term peak around 1880, Bulgarian textile wages declined and stagnated at the low pre-liberation war level for almost two decades c. 1890–1910 (table 11). Official wage data for 1887–1911 supports this view. The trend of real wages for both agriculture and industry was clearly a downward one.⁵⁴ Wages were lowest in cottage industry. As for unskilled labour, industrial wages were on average lower than agricultural ones (table 12). All this shows that agricultural incomes did not

⁵⁴ See also Galabaroff, *Preisentwicklung*.



put inflationary pressure on industrial labour costs. Bearing in mind the collapse of the Bulgarian cottage industry, which led to drastic reductions in the amount of textile workers needed, as well as a constantly rising labour supply owing to demographic pressures, any long-lasting wage inflation within industry and agriculture would have been a surprise. Furthermore, falling real incomes of the urban-industrial classes, which satisfied their demand for clothing on the market, were not conducive to the emergence of a domestic market.

With the advent of modern textile factories in Bulgaria between 1882 and 1894, both daily wages and piece-work payments in the domestic industry fell, even compared to their low 1870s-levels (table 11). Drastically deteriorating incomes in the proto-industry due to the overwhelming competition that Bulgarian mechanised production exerted on the cottage industry is hardly a surprise, and this happened in all European countries during early industrialisation. Declines in real wages were even more remarkable. It is worth noting again that it was mainly the rise of the national modern textile industry that put the Bulgarian cottage industry under pressure, rather than foreign competition.

It is difficult to square these stagnating if not deteriorating wages, which indicate a labour surplus, with Palairret's argument for the 'peasantization' of the economy. In his view, re-agrarianisation brought about a scarcity of industrial labour because 'hordes of hill villagers descended to the plains to take up vacated [Turkish] farms'.⁵⁵ However, this is too crude a simplification of a complex reality. Even if many Bulgarians descended to the plains to acquire former Turkish lands, enough remained in the proto-industrial towns in the foothills. Remaining in the highlands, these people sought by-employment either in agriculture or in trade, as many craftsmen did.⁵⁶ Small, low-productive landholdings in industrial regions enabled poor, by-employed households, earning their living in both the primary and secondary sectors, to survive, even with desperately low wages in spinning and weaving⁵⁷ – a frequently observed phenomenon in many European proto-industrial areas. The situation in the larger towns that had avoided war destruction, like Sliven for example, was not very different either. Here, according to the *Rabotnik* newspaper, 'the market is full of workers [former artisans] who hope for the goodwill of the manufacturers to hire them'.⁵⁸ In fact, there was no urban-industrial area that offered higher real wages as a pull factor to encourage rural–urban migration (table 12).⁵⁹

Even if the modern textile industry grew annually at double-digit rates, it was nevertheless too small to absorb the still redundant labour from proto-industry, let alone from a large agricultural sector (table 10). Moreover, there was no labour shortage in the proto-industrial areas in the mountains. The mountain population of about 450 000 was big enough to accommodate both the needs of the woollen proto-industry, about approximately 90 000 workers, and the growing migration to the lowlands in the north. In areas with regional (and temporary) labour shortages, seasonal migration from other parts of the Balkan Mountains seemed enough to keep the textile production going.⁶⁰ Despite outmigration, population in the Bulgarian mountain regions increased to 730 000 persons until 1910.

⁵⁵ Palairret, *Balkan economies*, p. 175.

⁵⁶ Svedenia, pp. 106–9; 50 godini, p. 20.

⁵⁷ Vlaykov, *Belejki*, p. 22; Staneff, *Gewerbewesen*, p. 135.

⁵⁸ *Rabotnicheskoto dvijenie*, (1953), v. 1, p. 222.

⁵⁹ According to all contemporary, highly detailed studies on living standards, rural ones were higher than those in urban areas despite the peasants' debts; *Anketa*, VI, pp. 27–32; Popov and Penchev, *Kasi-lak*, pp. 102–313; *Domakinski budjeti*.

⁶⁰ Manev, 'Vatreshen', p. 511; Arnaudov, 'Iz minaloto', pp. 55, 58.



It is now obvious that, after the Russo–Turkish War, the Bulgarian textile industry came under pressure not because of deteriorating supply-side conditions that pushed up production costs, but because of shrinking internal and external markets. For internal markets, not only did the ‘Great Depression’ squeeze peasant incomes, but urbanisation stagnated after 1878, partly because of mass emigration of the wealthy Muslim population, who were often based in towns (table A.8a, online appendix). The Muslim population formed one of the main pillars of the commercial demand for textiles in the Bulgarian domestic market. According to our tentative estimates, approximately 200 000 Muslims either fled or perished during or immediately after the Russo–Turkish War. Bulgarian population losses between 1874 and 1880 seem to have been about half that figure. These totals are reassuringly close to contemporary estimates by the Bulgarian chief statistician Popov, but with more plausible breakdowns across ethnic lines.⁶¹ Another 170 000 emigrated from Bulgaria to Turkey between 1880 and 1912.⁶² For the Bulgarian textile industry, these outflows represented a significant loss of customers. Muslim mass migration further aggravated the critical economic situation during Bulgaria’s ‘Great Depression’. In the period of 1870–1911, the population of those who were self-sufficient in textiles increased at an annual rate of 1.2 per cent, whereas the market-dependent population that formed the domestic markets for textiles only rose at a rate of 0.4 per cent. Hence, the share of the market-dependent (urban and other non-peasant rural) population in total population decreased from 37 to 30 per cent (table 10). This was quite the opposite of what should have happened during industrialisation and was all the more threatening as the domestic market became increasingly important for the Bulgarian textile industry over time. On the eve of the First World War, according to contemporary estimates, just over 80 per cent of Bulgaria’s commercial textile production was sold on the domestic market.⁶³

Similar forces of impoverishment were also at work on most export markets of Bulgarian woollens.⁶⁴ In a detailed study from 1880 about the ‘decline of Bulgarian textile [proto]-industry’, the Belgian consul Janssen attributed the recession to the ‘misery of the Turks in Anatolia’—prime customers of Bulgarian *gaytan* until just recently. In addition, Janssen also pointed to prohibitively high new tariff walls erected in Bosnia, Serbia, and Romania.⁶⁵ Remarkably, only access to the Ottoman market after 1878 remained possible without additional complications.⁶⁶ Furthermore, after the Russo–Turkish war, tastes in the western Balkan markets drifted away from braids (*gaytan*), a Bulgarian export success, which were slowly replaced by sewn and lace decorations. Braids were among the most expensive woollens. Falling living standards brought a deep depression to Bulgaria’s *gaytan* industry. Between c. 1870 and 1886, braid output fell to slightly less than one-third of the initial level (table A.8b, online appendix).

⁶¹ Popov, *Stopanska Balgaria*, p. 23.

⁶² Karpat, *Ottoman population*, p. 75.

⁶³ ‘Bulgarian textile products are not exported to such a large extent, but are primarily consumed by the domestic population. While annual exports today amount to about 4 million Francs, sales in the home country amount to about 18 million Francs’; Weiß-Bartenstein, *Bulgariens Volkswirtschaft*, p. 120 (authors’ translation). These figures are consistent with Ivanov’s estimates that the export share of wool products fell from 30 to 18 per cent in 1886–1911 (table A.8c, online appendix).

⁶⁴ For falling living standards in the Ottoman Empire see Quataert, ‘Age of reforms’, p. 912.

⁶⁵ Michoff, *Contribution* (1941), p. 124.

⁶⁶ The 8 per cent Ottoman duty was equal to the taxes on internal land trade between provinces charged within the empire at least until 1874. Pamuk, *Uneven centuries*, p. 100. Besides, in 1899 Bulgaria and Turkey agreed on duty-free export of woollens.



Fashion also played a crucial role in the replacement of *abas*, with the lighter and softer *shayak* appearing first and the *sukno* later. The process probably started during late 1860s and early 1870s when the first pieces of handmade *shayaks* appeared. The 1877–8 War greatly accelerated the process by acquainting all strata of Bulgarian society with European-style garments. With the emigration of the Turkish population, the last diehard customers of traditional wide and loose cuttings disappeared.⁶⁷ During the late Ottoman period, people were content with the natural (black and brown) colour of the wool. Around 1900, however, urban buyers were already looking for finer striped or chequered fabrics in various shades.⁶⁸ Coarser cloth types were unsuitable for these kinds of clothes. The cottage industry that used to be the main producer of textiles before 1877–8 had neither the technical expertise nor the production facilities to make cloth from fine yarns in bright colours. This, among other things, compelled the textile industry to transform from artisan craftsmanship to factory production during the worst years of the ‘Great Depression’.

Our new output estimates, which are presented in detail in the online appendix, allow us to track the broad contours of the textile downturn from the mid-1870s to the Balkan Wars (table 10). Regardless of more solid statistical foundations for the post-1878 period, our figures are only indicative of general trends.⁶⁹ In light of all available qualitative information and quantitative data, however, the margin of error seems acceptable and the only important question that remains debatable is whether by 1911 the textile sector exceeds its c. 1870 levels and to what degree.

Until now, only Palairret has offered a comprehensive estimate of the main woollens’ output, as well as of the value-added of the entire wool industry for the 1870s.⁷⁰ However, he never published his calculations, or at least the method he applied. Careful reading of his publications reveals only the broad contours of his estimation technique. In our study we apply an approximation procedure broadly comparable to that adopted by Deane and Cole for British wool and by Pamuk for Ottoman cotton industries to estimate the Bulgarian textile output for 1870–1912.⁷¹ Instead of relying only on speculative ex-post data from regional studies, we reconstruct the value chain from the raw materials up to the final products (see online appendix).

Shorter observation periods prevented previous studies from noticing the complexity of changes in the Bulgarian textile sector. In his pessimistic account, Palairret mentioned that the ‘displacement of proto-industrial with mechanised production ... failed to compensate the decline in woollen proto-industry’. According to his data, Bulgarian value-added of commercial woollen output almost halved (–48 per cent) in the period of 1867–1903.⁷² This, however, is only part of the story. The main finding of our new set of output estimates is that Bulgarian de-industrialisation, just like in many other countries of the global ‘periphery’,⁷³ followed a U-shaped trajectory. Instead

⁶⁷ Pavlov, ‘Opit’, p. 432. ‘Aba’ and ‘shayak’ were the two most popular types of rural woollen cloth. Their coarseness differed. As we knew from ‘experimental ethnography’, however, their weight varied only slightly between roughly 0.95 and 0.79 kg per square metre.

⁶⁸ 50 *godini*, p. 33.

⁶⁹ Chakalov, ‘Belejki’.

⁷⁰ Palairret, ‘Decline’; *idem*, *Balkan economies*.

⁷¹ Deane and Cole, *British economic growth*, pp. 192–201; Pamuk, *Ottoman Empire*, pp. 113–17.

⁷² Palairret, ‘Decline’, pp. 349–50; *idem*, *Balkan economies*, p. 296.

⁷³ Pamuk and Williamson, ‘Ottoman de-industrialization’; Panza, ‘De-Industrialization’.



of an 'abrupt decline of the old woollen industries',⁷⁴ we see a three-decade long double-dip recession, followed by a swift recovery from the early 1900s onwards. The trough of the contraction was probably during the 1880s, before mechanised manufacturing took over production from the declining cottage industry, followed by a second milder trough at the end of the nineteenth century. By 1911, however, the modernised wool industry clearly outperformed 1870 levels.

In 1911 the Bulgarian wool industry produced 24 per cent more by real value than in c. 1870. After the deep recession until the mid-1880s, the output of the wool industry rose annually at 4.9 per cent from 1886–1911. Wool textile production in square metres almost quadrupled from c. 1870–1911 owing to lighter, less wool-intensive fabrics being adopted after 1878 (table A.8c, online appendix). What these figures conceal, however, is the restructuring of the entire textile production. If we include the non-woollen segment, we would find 62 per cent growth in real terms for total textile output between the late Ottoman period and the eve of the Balkan Wars (table 10). The rise of modern cotton manufacturing, but also of hemp and flax manufacturing, made the greatest contribution to the establishment of a viable non-woollen textile industry. The relative share of non-wool output in all textile production increased notably from 3 per cent in 1870 to 25 per cent in 1911 (table A.8e, online appendix). Since Palairet's data for Bulgaria's woollen industry end in 1903, he did not take the restructuring processes of the Bulgarian textile industry into account and underestimated the dimensions of re-industrialisation until the beginning of the Balkan Wars.⁷⁵

The spread of factory production led to a significant reduction in textile employment. According to our rough calculations, around 1870 almost 90 000 people were employed in the textile proto-industry, including dressmakers, who unfortunately could not be separated out. By the mid-1890s employment had more than halved. After the recession was finally over, during the 1900s, there was a mild recovery owing to increased export opportunities to the Ottoman Empire and modestly improved living standards at home (table 10). But fundamental structural change occurred. In 1911 three-quarters of the woollen output was produced in a few factories. The share of proto-industry in all commercial production of woollens fell from 98 to 23 per cent from 1870–1911. Simultaneously, labour productivity in the entire textile industry increased by two and a half times from c. 1870–1911, from 211 to 533 Leva in 1911 prices (table 10).

Generally, de-industrialisation is defined as shrinking labour input, which was clearly the case in Bulgaria where the absolute numbers of textile workers plummeted from 88 500 to 56 800 in 1870–1911. But given that re-industrialisation was on the way after 1902, reduced employment seems more a sign of technological modernisation, rather than just of de-industrialisation. Moreover, in relation to this, the share of value-added of factory production in total value-added of the woollen industry increased from 1.9 to 76.7 per cent in 1870–1911 (table A.8d, online appendix). Owing to the fact that modern manufacturing in textile production increased annually at a rate of nearly 13 per cent from 1886 to 1911, Bulgaria's textile industry had almost completed the transformation to modern manufacturing before the Balkan Wars (table 10). A large part of the additional production was carried out by the few remaining factory workers (4600 in 1911, table 10). However, the transition to modern manufacturing in this key industry was achieved under difficult conditions.

⁷⁴ Palairet, 'Decline', p. 343.

⁷⁵ It should be mentioned here that even if state industrial policy worked in favor of re-industrialisation during the 1900s its impact on industrial growth was rather limited; Kopsidis and Ivanov, 'Industrialization'; Hadjidimov, 'Kakvo e poluchila', pp. 547–8; Mishaykov, 'Ocherk', p. 466; Mladenov, *Poyava na fabrichen proletariyat*, p. 49.



IV | CONCLUSIONS

Bulgaria's industrialisation only achieved a 'mini-spurt' during the First Globalisation.⁷⁶ Small nuclei of modern manufacturing developed, but structural transformation towards an 'industrial state' did not occur. However, was a 'great spurt' ever possible? Does it really make sense to speak of a missed opportunity in the Bulgarian case, as Gerschenkron did?⁷⁷ Our results do not show this to be the case. All necessary 'classic' substitutes for 'missing prerequisites', like a modern state and a banking system, were lacking and had to be created from scratch after 1878. Furthermore, c. 1880s, Bulgarian integration into market cycles was at levels even lower than these experienced in western Europe at the beginning of the early modern period. Almost half of Bulgarian GDP was still generated by the subsistence sector. As our fresh data revealed, however, this was a legacy from Ottoman times and not the result of any rapid 'peasantization' after 1878 as Palairet argued. Speaking neither of Lewis's⁷⁸ 'traditional sector' nor of Gerschenkron's 'peasant backwardness' makes sense when one bears in mind that peasants were mainly responsible for Bulgaria's primarily grain-based export success from 1840 to 1911. Bulgarian peasants were very responsive to international market developments, and their insistence on self-sufficiency in textile production after 1878 was a reaction to adverse grain prices and terms of trade developments in the course of the First Globalisation. Adverse conditions of the 'Great Depression' in international grain markets prevented the expansion of the nascent Bulgarian domestic market and created 'peasant backwardness', not vice versa. Stagnating urbanisation and falling real incomes within industry further obstructed the development of a larger domestic market necessary for a broad-based industrialisation.

Capitalistic creative destruction, as characterised by Schumpeter⁷⁹, marked the emergence of modern manufacturing in Bulgaria before the First World War, which was connected to a shrinking secondary sector. Significantly more jobs disappeared in the old proto-industry than were created in modern manufacturing. No income-related pull factors supported the transition from an agrarian to an industrial economy. Remuneration of labour and labour productivity in secondary production were lower than in primary production until the First World War, even though value-added per capita in both sectors converged over time. Contemporary household studies comparing urban-proletarian and peasant living standards fully support this view.⁸⁰ Thus, the shifting of labour from agriculture into secondary production would not have resulted in productivity gains in the Bulgarian economy (figure 3). The reason for this is that, compared with other more industrial regions of the Ottoman Empire, the decline of Bulgaria's formerly flourishing textile proto-industry occurred very late and was not the result of foreign competition rather than of the emergence of a national modern industry. Even if it grew at two-digit rates over the entire period, however, the modern factories were too few to absorb the surplus labour from the declining cottage proto-industry, not to mention any additional agricultural labour. Unskilled labour was never in short supply in the manufacturing sector.

⁷⁶ Lampe, 'Varieties', p. 59.

⁷⁷ Gerschenkron, 'Approach', p. 362.

⁷⁸ Lewis, 'Economic Development'

⁷⁹ Schumpeter, *Capitalism*.

⁸⁰ Rural food standards were significantly higher than urban ones; Popov and Penchev, *Kasi-lak; Domakinski budjeti*. Besides, factory workers worked significantly longer hours than farmers. Around 1910 the average industrial worker spent 3300 hours per annum on the factory floor. Peasants, as Popov and Penchev's study has established, had an annual workload of 2350 hours per year; *Anketa*, VI, pp. 27–32; Popov and Penchev, *Kasi-lak*, pp. 102–313.

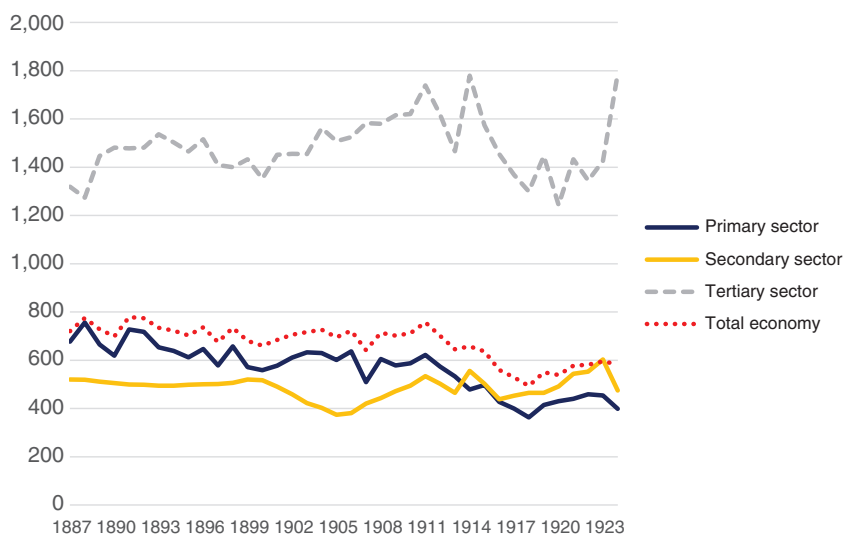


FIGURE 3 Social product per employee broken down by economic sector, 1887–1924 (1911–Leva)

Source: Authors' calculations. Data from Ivanov, *Gross domestic product*, pp. 512–7, and chapter IV and table A.3a–b, online appendix.

[Colour figure can be viewed at wileyonlinelibrary.com]

Successful broad-based industrialisation needs an expanding domestic market, especially when faced with growing protectionism abroad. Quite the opposite happened in Bulgaria. Not only depressed international agrarian markets, but also over-indebtedness and over-taxation due to internal causes put peasant cash incomes under heavy pressure, restricting the market demand for simple consumer goods. The situation was aggravated not only by rising protectionism but also by shrinking rural incomes on traditional export markets of the Bulgarian textile industry during the 'Great Depression'.

Despite all odds, a modern textile industry emerged at high social cost in the course of a rapid structural change, which, however, was confined within the secondary sector. Even this was a big achievement under the prevailing conditions. At closer inspection, the prolonged stagnation in Bulgaria's secondary production from the mid-1870s to about 1900 was more than just a decline. Rather, it reflects a 'transition crisis' that was severely aggravated by unfavourable developments on the demand side. Contrary to Palairé's claims, a rise in the price of key industrial inputs and labour costs was not present in independent Bulgaria.

While German, Austro-Hungarian, or Russian textile manufacturers gained privileged access to large protected imperial domestic markets during industrialisation, their Bulgarian counterparts had to survive in the face of stagnating, if not shrinking, domestic and foreign markets. In the age of intensified imperialism and nationalism, any south-eastern European customs union or common market comparable to the German one of 1834 was not a serious option.⁸¹ The market of the Ottoman Empire was only a temporary and inadequate substitute when compared with the powerfully industrialising and more stable European empires. Summing up, in contrast to what

⁸¹ At the beginning of the twentieth century, Bulgarian politicians had clearly realised that the Bulgarian national market was too small to enable the development of a strong domestic industry. But the envisaged customs union with Serbia was blocked by Austria-Hungary for geopolitical reasons, and political relations with the Ottoman Empire were not stable; Weiß-Bartenstein, *Bulgariens Volkswirtschaft*, pp. 186–98; Offergeld, 'Bulgarien's Stellung', pp. 255–7.



has been argued by prior research, there was not a missed opportunity for industrialisation in Bulgaria from 1878 to 1911 that was overlooked by Bulgarian elites.

ACKNOWLEDGMENTS

We would like to thank Hakon Albers for his valuable suggestions about our theoretical workings, Sevket Pamuk who made valuable suggestions to an earlier version of this paper, and the three anonymous referees for their helpful criticism and recommendations.

Open Access funding enabled and organized by Projekt DEAL.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

How to cite this article: Ivanov, M. and Kopsidis, M., 'Industrialisation in a small grain economy during the First Globalisation: Bulgaria c. 1870–1910', *Economic History Review*, 76 (2023), pp. 169–198. <https://doi.org/10.1111/ehr.13185>