

GÁBOR DEMETER

Agrarian Transformations in Southeastern Europe

(from the late 18th century to World War II)

**PUBLICATIONS OF THE BULGARIAN–HUNGARIAN
HISTORY COMMISSION**

3.

A MAGYAR–BOLGÁR TÖRTÉNÉSZ VEGYES BIZOTTSÁG
KIADVÁNYAI

ИЗДАНИЯ НА БЪЛГАРО–УНГАРСКАТА ИСТОРИЧЕСКА
КОМИСИЯ



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Institute for Historical Studies, BAS
Institute of History, RCH, HAS

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Dedicated to Imre Ress

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I. Introduction

This book deals with the agrarian transformations of the Balkan Peninsula in the 18th-20th centuries. While focusing on the external and internal challenges and responses the volume gives a brief summary on the socio-economic transformations these had caused, and at the same time it tries to compare the evolution of the Balkan agriculture with the development of the neighboring Hungary – representing a different agrarian system.

Though agrarian systems in Southeast-Europe were able to play decisive role in supplying Europe only for short periods,¹ the agriculture of the Balkan Peninsula yet deserves deeper investigation as

- (1) 80% of the population of the Balkan Peninsula earned their living from agriculture even in the 1930s, and the state budget also relied on the agrarian incomes for a long time (tithe constituted 30% of state revenues not only in the Ottoman Empire around 1900, but in successor states as well);
- (2) thus, agrarian production was deeply intertwining with social and even with political questions, which was not so characteristic for Western Europe after the industrial revolution;
- (3) as this region was still characterized by the preindustrial stage of development, determined by climatic impacts, geographic conditions, self-subsistence and peasant mentality alien to the capitalist thinking;
- (4) as the development here can be rather described by constant transformations, responses to external (shift from the Levantine to the Atlantic world economy with all its consequences) or internal challenges (extreme population growth), than by quantitative increase (output/hectare);

1 As it was in 1847 for example. But generally, the region could not compete with the mass production of Russia, USA, etc. Even the famous special exports products, like Greek raisins, Bulgarian rose oil, Romanian walnut were more significant for the producer, than for the target country (probably with the exception of Macedonian tobacco).

- (5) thus, the region gives a good (and still actual) example for adaptation problems: extensification vs. intensification, large estates vs. smallholdings, for the failure of general modernization financed by agriculture, or for growth consumed by population increase, etc.;
- (6) though the area was not homogeneous regarding its climate, land tenure systems, products etc. (that most of us might think of the Balkans), but despite this diversity these states had a common fate in failing to give adequate answers for the challenges on the long run;
- (7) this highlights, that adaptive-reactive models – a key feature of peripheries and peripherization² – are not always successful;
- (8) without a knowledge on these problems, the (level of) sovietization (which also showed a diverse pattern on the Balkans) of the agriculture between 1945-1990 with its present consequences also remains incomprehensible;
- (9) the moral of the changes in the long 19th century (the shift from Asian-type production system to a capitalistic world economy) might be informative in identifying recent problems and a cure for these, as the transformations during the EU-integration process (return from a Soviet-type system to the capitalistic order) could be interpreted similarly to the changes that took place in the 19th century.

The key process determining the outcome of events (and that also helps us understand some of the recurring problems) was the so-called “first globalization”, during which the region shifted from the Levantine economy to the Atlantic system. This resulted in drastic changes. Prior to its integration to the global market this region represented an area with optimal landuse fit in the physical geographical and climatic conditions characterized by best practises fit to the economic needs of the Levantine centre. This resulted in a diverse economy, where

2 The difference (and thus the border) between Southeast-Europe and other, neighboring peripheric regions (East-Central Europe) applying *reactive model* is the *success* in adaptation. (This also implies that the boundaries of regions are not stable on the long run).

smallholdings, large estates, dry economies, irrigated cultures and mediterranean cultures existed together. But the shift from the Mediterranean economic system to the Atlantic world economy (a process repeated again after the EU-accession) induced basic changes in agriculture and rural societies, like

- *the formation of complementary economies* (the region became the wheat supplier of the West, while the latter abandoned grain production and turned toward supporting urban markets with milk, butter and eggs) as a result of the increasing international division of labour;
- *a decrease in diversity of products*, the retreat of animal husbandry (landuse conflicts owing to large population increase);
- *creating an economic system highly exposed to external circumstances*;
- *the dominance of smallholdings* (which offers a possibility to analyze the competitiveness and sustainability of small dry and mediterranean economies over centuries);
- *the decay of large estates*: this allowed us to compare the competitiveness of different forms of land-tenure system (smallholdings vs. large estates);
- *the oversupply of labour force*, which resulted in low labour utilization and overpopulation, clearly marking the limits of the sustainability of the existing systems, while it hindered the reallocation of workforce into industry, determined the living standards and the general macroeconomic situation as well;
- *the transformation of traditional social patterns* (*zadruga*, egalitarianism, the lack of individualism, political movements, etc.);
- *inducing de-industrialization* (data allow us to compare competitiveness in industrial and agrarian sectors, and to analyze microsocial strategies, political ideas and institutions, which had to cope with the problem of low outputs);
- *the dissolution of communal property* (partly reversed by the Sovietization in some countries).

Based on local data and sources – instead of reconstructing the uncertain macroeconomic data for this region as regional economists did earlier – using a *regional and temporal comparative approach* the study

aims at investigating the *competitiveness, resilience and sustainability* of different agrarian systems through a *quantitative analysis* of the data and their versatile (re-)interpretation (including historiographic debates). Our approach is based on *Wallerstein's center-periphery* and *Toynbee's challenge-response* theory. As we intended to focus both on *specific and common* agrarian problems and solutions in the region (though the Balkan Peninsula was a periphery of the Atlantic system, but this did not necessarily imply that its agrarian system was homogeneous) instead of sketching multiple parallel agrarian histories supranational approach was applied; and the different countries appear in order to illustrate certain specific/key patterns or important processes. This causes differences in emphasis regarding the separate sub-chapters. The *long-term analysis* of trends offers a possibility to get acquainted with the consequences of the integration process, which may be helpful in judging the changes and in promoting agrarian planning after the EU-accession.

(a) Problems

When investigating the agriculture of the Balkan Peninsula and Hungary in the 18–20th century several factors have to be taken into consideration, which may influence the agricultural outputs and systems:

- (1) As each plant has specific needs, the *climatic diversity* of the region has an effect on the pattern and production of cultures. Climatic conditions limited the prospects of production (cotton or orange was simply unfit for the climate in Hungary despite the efforts during the communist regime). Fruits, tobacco, rose and olive need sunshine over yearly 2000-2200 hours and hot summer. Orange, figs, almond and vegetables are not frost-resistant. Wheat is sensitive to precipitation, rye tolerates colder climate, etc. Sometimes production did not have evident climatic constraints, but it was simply not worth, if outputs are compared to the input costs and work (rice in Bulgaria).

- (2) The *diverse physical geographical conditions* (mountain ranges, gentle sloping hills and great plains, dissected coastal areas and landlocked basins) also influence the scope of available crops and their yields through their influence on microclimate, soil productivity and mechanization. Carstic plateaus along Dalmatia and in the Dinarides suffer from water shortages. Mountain soils are thinner, less fertile (owing to the leakage of nutrients), more exposed to erosion and require more energy (due to slopes) to produce the same amount of crop, compared to the loess covered plains of Hungary, Romania and North-Bulgaria characterized by chernozem soils.
- (3) By the 19th century peasants also had to face the *consequences of the previous human impact on the landscape*. Deforestation of Mediterranean mountainous regions resulted in the abundance of secondary vegetation, macchia shrubs; in continental plains the spread of Carpathian steppe: the '*puszta*'. The changing microclimate threatened with local droughts, while increased wind erosion destroyed cultivated land (in South-Hungary *Robinia pseudoacacia* and lowland grapes were planted in the 18th century to halt this process). Animal husbandry in mountains resulted in increased soil erosion, and this hindered reforestation.
- (4) The region was culturally versatile with *different (often inimical) political and social systems* (Orthodox-Byzantine-Osmanli and Catholic-Western). The investigated area was a *contact (or frontier) zone of civilizations*, thus different social structures and behavior patterns characterized the region throughout centuries. This also influenced the agrarian systems (taxation, surplus, landholding size, land tenure system etc.).
- (5) Due to the above mentioned, the *economic structure was strikingly different* (belonging to two "world" economies at the beginning of our investigation) showing great temporal and also spatial variety (serfdom-freeholders; prebendal³ estates-private property; *Grundherrschaft* and *Gutsherrschaft*, etc.) even in regions with same climatic and social patterns.

3 Estates given to fulfill certain (military) services without transferring full property rights (not inheritable, not for sale, etc.) in the Ottoman empire (*timars, ziamets*).

- (6) *Internal problems (population pressure) and external challenges (market demand, integration into the international division of labour, climatic events) can further modify the original (or optimal) patterns of landuse, overwriting the existing natural differences.* Owing to these, the variation of continental-monocultural and policultural-mediterranean; self-sustaining or market-oriented; smallholdings dominated and large-scale agriculture characterized the region – with a general tendency towards homogenization after the 1850s. Almost all combinations appeared during the investigated 200 years: monocultural smallholdings for tobacco, cotton, olive oil and grape existed in the Mediterranean regions, and there were also monocultural large landholdings producing rose, cotton, etc. Policultural smallholdings operated in Greece at the end of the 18th century. Prior to the 1840s animal husbandry dominated both smallholdings and large estates in Bulgaria and Hungary. In the 19th century these smallholdings were transformed into monocultural grain-producing continental small farms in Serbia and Bulgaria, while Romania, Macedonia and Hungary was characterized by the dominance of large, grain producing monocultural estates of continental type. Both were responses to the same challenge - the grain hunger of the West. The actual responses often turned out to be inadequate, if conditions changed and the producers could not adapt to the changes (the loss of diversity in production ruined the ability to respond to changes). Extensification, that was once a real solution, became exigence: low technological level or the lack of capital (that usually appeared together) often conserved obsolete and unreasonable structures.
- (7) *The lack of synchronous and unilinear trends.* Administrative or political changes did not go always side by side with social and economic changes: for a long time the composition of government revenues did not change in some of the successor states of the Ottoman Empire, while on the other hand these were characterized by remarkable socio-economic changes (in Bulgaria); in other cases the apparent changes in the political system did not trigger

structural/social changes in the agriculture for decades (in Greece and Romania).

- (8) The *problems of quantification* (lack of data) make it hard to assess the level of development in case of agrarian economies. Reliable and methodologically consistent statistics from larger areas exist only from the second half of the 19th century (data collection was guided by statisticians like Jakšić for Serbia, Popov for Bulgaria, Keleti and Fényes for Hungary), by the time some of the great transformations⁴ had already taken place rendering comparisons problematic.⁵ If we want to get accurate knowledge on the improvement agrarian productivity (represented by t/ha or income/ha values) prior to the 1870s, we have to obtain information both on area sown and yields or prices. But Ottoman tax conscriptions in the early 19th century often lack mentioning these all at the same time. Assessing input costs is also difficult: sometimes the volume of seed is given in conscriptions without the area sown, sometimes the opposite. Furthermore, prices changed quickly in case of agrarian products of regions in preindustrial phase, where outputs were mainly determined by the climatic impacts. Therefore five-year averages are required in order to measure development trends properly, but these are rare in the early decades of the 19th century. Furthermore, high grain unit prices do not necessarily imply low output (low unit prices can refer to regional scarcity), such as high income/ha values do not always mean an increase in output (t/ha) – this can indicate shortages as well. The uncertainty in tax-ratio is another problem (see *iltizam* or *tax-farming entrepreneurship*) that hinders us to measure the output ratio – even in cases when the extent of cultivated land

4 Like the integration into the Atlantic economy as grain producers in the 1840.

5 Most of the data used prior to the 1890s was based on conscriptions or tax-registers, which covered only smaller areas, so instead of systematic sampling one has to rely on local scale (district level) case studies. Commercial registers concentrate local data to one point, but both the extent of attraction zone, and the relation between exported and total production remains problematic. Systematic statistics (censuses) are neither reliable nor comparable to each other (their system also changed over time) – and even the recent estimations on national income for the period between 1850-1920 differ significantly (see the difference between Gini, Clark, Bairoch and Maddison).

and the value of tithe is given. This explains the remarkable difference between Palairet's, Popov's, Lyberatos's and Ivanov's calculations on agrarian incomes regarding Bulgaria, or we may mention the different agrarian GDP estimates of Stoyanovich, Palairet and Lampe for Serbia as well.

- (9) The *regional differences in measurement units and the diversity of coexisting currencies* are further hindrances. Current prices are not informative in case of temporal comparison (due to inflation), real prices (expressed in golden francs, or in grams of silver) are not informative, if we want to compare two regions. Purchase power is a better index, but it is much difficult to estimate.

(b) The agro-ecological features of the region

(i) Vertical and horizontal dissection

The investigated area is characterized by great vertical and horizontal dissection, which influenced both the history and mentality of nations beyond agrarian systems. Geographers of the 19th century claimed that crop producing nations tended to consider rivers and basins as basic elements determining their geographic approach, but for livestock-raising transhumance societies mountain chains, watersheds are the real axes that rather connect than separate. The physical geographical units (like the great basins along river Danube) are and were divided between political entities. The Hungarian Great Plains extends to the northern part of Serbia (indicating the direction of the geopolitical aspirations of the Hungarian Kingdom based on the above mentioned approach), the Romanian plains lay towards N-Bulgaria (but the Romanian aspirations targeted the mountains owing to the difference in the way of living). Rivers of the region connect large basins with each other (like river Danube), but also connect mountainous zones with plains, functioning as trade routes in order to exchange goods produced in different regions (Sava, Drava, Morava, Olt, Jantra, Lom, Isker). Beyond the watershed of Danube small basins functioning as local production centers and rivers

delimiting trade directions (Vardar, Tundzha, Marica and Haliakmon in Thessaly) diversify the general picture, making it more fragmented.

The geological settings of the Balkans are complicated due to the abundance of both compressive and dilatational tectonism and the numerous micro-plates. The mountain chains of the younger, Eurasian system are diverse regarding their direction, base rocks, and physical geographical features as well. Beside limestones, volcanic and magmatic rocks are also abundant in the Carpathian ranges, which continue in the Balkan Mountains. As these relatively young mountains did not undergo remarkable denudation processes, ores of the hydrothermal phase dominate as raw material (copper, silver, gold, etc. in Majdanpek, Bor, Zalatna). The Dinarides in the West show a more massive outlook with narrow and quick rivers dissecting the ranges. Here only carstic plateaus offer some space to settle and cultivate land, but surface waters are rare. Towards the South both the rock composition and direction of mountains becomes more diverse owing to tectonism (ores compounded with steel are more frequent in Albania). The older (Variscan), blocky and folded granitic-metamorphic mountains of Rila, Pirin and Rodope exposed to longer denudation, therefore eroded to the zone of iron ores (Samokov mines) were later rejuvenated due to young tectonism, pleistocene glaciation and the erosion of torrent waterflows under the subsequent humid subtropic climate. The shores are dissected: while along the Adriatic coast abrasional shores are frequent giving a fragmented outlook to the southern parts of the Balkans, limans and sandy strands are rare and occur in the Black Sea region.

(ii) Climate

From climatic aspects the investigated area is bimodal. The Hungarian plains surrounded by mountains show basin character, where the natural zonation of climatic belts became discontinuous-concentric. In the centre of the basin the amount of yearly precipitation is under 500 mm, while it increases concentrically to 800 mm towards the basin fringes and over 1000 mm in the mountains. The Icelandic minimum

brings maximum precipitation in May-June, which is excellent for wheat. The average yearly temperature is between 8–12 °C, in winter it hardly falls below -3°C, but remains under 0 °C even in the southernmost parts in the basin due to the penetration of Arctic-Siberian drier air masses (Voyeykov-axis). The number of frosty days is around 90–120: the vegetation period lasts from April to September, with drought threatening in July-August. Summer temperature increases concentrically from 19 to 22 °C to the south. The number of shiny hours in the basin exceeds 2000–2200 yearly (*Dfb*: cold temperate climate in Köppen style).

The Balkan Peninsula is characterized by 'normal zonation' with gradually increasing yearly temperature averages to the South (from 11 to 18°C with 20-26°C summer monthly averages and -1 to +10°C in winter), and decreasing precipitation to the East (from 1500 to 500 mm). The Dinarides ranging from the North to the South even emphasize this latter phenomenon further, creating a 'shadowzone' east of the ranges. The southern and western shores are dominated by Mediterranean climate (*Csa* and *Csb* in Köppen style) with moderate winters over 0 °C (monthly average) and with substantial precipitation between September-February due to the predominant Genovese minimum. This air mass is pushed out by the downward winds from desert Sahara during summer: the season is therefore hot and dry, between 23–26 °C.

The other parts of the peninsula are dominated by wet (Serbia) and dry continental climate with substantial precipitation during spring and summer allowing optimal circumstances for different cultures. Due to the substantial horizontal and vertical dissection the climate is very diverse. Mountain chains generated a drier continental district around Saloniki (*Bsk*, semi-arid climate, Köppen-type) and around Ruse-Burgas (500–600 mms, *Cfa*). The number of shiny hours exceeds 2000 again only in the southern parts of the peninsula and in Romania, where the climate is similar to the Hungarian. In the Romanian plains the drier, warmer *Dfa* type also occurs, excellent for maize.

The old map of Cvijić (1922) indicates *temperate continental* climate down to the Ruse-Burgas line in the East and to the Kavala-Seres-Janina-Mostar-Zadar line in the South and West. From Edirne to Ruse

and Craiova *steppe climate* was indicated. Vertical zonation and additional precipitation modifies this simplified categorization. Thus from Sarajevo to Prokletije Mts., in Rila, Pirin and Pindos Mts. *alpine (oceanic)* climate was indicated (or *Cfb*), while in the Vardar, Marica, Tundja, Shkumbi and Haliakmon valleys *wet mediterranean* climate appeared.

(iii) Soils

Beside climate the quality and condition of soils also influence productivity. In continental climate *chernozem* (lowland steppe with woods) and *brown soils* (wet woodlands on hills) are dominant (climazonal soils), which are favourable for the agriculture due to their high Ca-humate content and their good structure. Other soil types formed under local (even secondary, anthropogenic) processes. *Sandy soils* of alluvial fans are not favourable for agriculture owing to their low humus content and bad water capacity. They are threatened by wind erosion. *Soils along rivers* are often characterized by unfavourable conditions: clayey aggregates, Fe-humates and their high water-table.

In the Mediterranean regions *terra rossa* is the dominant climazonal soil. The shortage in Ca- and K-humates (these soils are rich in Fe) and bad structure (loose and thin upper layer) or low water-table influence productivity unfavourably in these terrains. Mountain slopes built up of limestones (Dinarides) have good buffer capacity, but the soil is thin and erodable, while the low pH (acidic soils with low buffer capacity) and high Fe-content of granitic base rocks (Rila, Pirin) are not favourable for agriculture. *Calcareous* mountain soils are optimal for olive trees, viticulture (the long roots reach the deep water table and stabilize both the plant and soil) and animal husbandry, the *podsol*ic soils of volcanic rocks for the latter.

In Mediterranean climate the main anthropogenic threats are *soil erosion* owing to *deforestation* and *compaction* owing to *overgrazing* (beside the enumerated natural constraints). In continental plains *salinization* was one of the major threats due to the features of base rocks and the

water table. This process was accelerated after river regulations in the Carpathian basin in the 19th century.

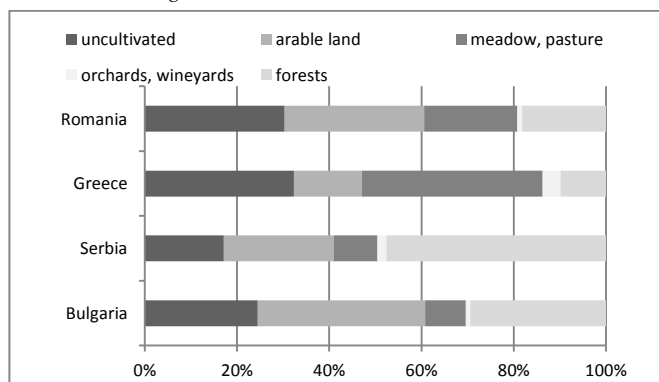
(iv) Agroeconomic needs and best practices

Optimal places of production are delimited by the ecological needs of plants determined by soils and climate. In order to produce *orange and lemon* the average daily temperature should be minimum 12.5–13 °C, the optimal is 23–24 °C, but cannot exceed 37–39 °C. Air humidity should be over 75%, thus the proximity of seas is also required. *Olive trees* grow slowly (it takes 15 years to produce olive oil) but can live 1000 years. They prefer calcareous soils (limestone), sunshine, light winds. Their water demand is low, they do not require intensive cultivation (contrary to wheat), rather space. Olive trees grow huge and deep roots (down to 6 meters) to collect water. As the fruits always appear only on new branches, the tree density in olive orchard should be low – offering a possibility to secondary crops or grazing. Olive tolerates drought during summer, but cannot bear too much water and long frosty periods. In case of *grape* minimum 10°C is required for biological processes to be triggered. After the beginning of vegetation period even a frost of -1– -2 °C at night can severely damage the output. Grape cannot endure permanent daily average temperature over 35 °C, but has small water demand thanks to the deep roots. Grape needs light, therefore often planted to slopes facing to the south. The optimal zone for its production is delimited by yearly average temperature between 9–21 °C. Good *wheat* outputs can be expected only on chernozem soils on the natural or artificial steppes characterized by temperate climate. It also favours brown soils of former woodlands or riverine soils (not too sandy or clayey and wet). Wheat needs balanced precipitation conditions in spring (May), dry weather during harvest. Summer droughts and winter colds (temperature under -20 °C) severely affect outputs. *Maize* needs 25–35°C in the vegetation period and hot weather in late summer and early autumn, or 1100–1400°C altogether between April and September. In this period maize needs at least 450–550 mm precipitation and sunshine over 2000 hours. A sudden drought can

reduce the output by 30–50%, and high precipitation can also have harmful consequences, if the proportion of soil pores filled by air exceeds 80%.

Agroeconomic needs are only one side of the coin, the other is the application of best practices to produce high output. (1) In Serbia and Bulgaria monocultural grain producing smallholdings became dominant, though small unit size is not favourable for grain production. (2) Replenishment of organic matter was also rare, animal manure was used up to heat houses during winter. (3) Since dry soils need deep ploughing for which iron ploughs are optimal, the abundance of ralo-type wooden ploughs in the Balkans enlightens the fact, that the term 'best practice' (best output) should always be interpreted according to the *actual conditions* of agriculture. (4) Tobacco, rice, rose, vegetables are labour intensive cultures or need special knowledge and irrigation. The lack of skills can cause severe secondary effects: the over-irrigation resulted in sunken roads, and abandoned ricefields – after the emigration of Muslims – led to the recurrence of malaria around Plovdiv. (5) Potato (in W-Europe planted to solve famines) remained relatively unwelcomed in the Balkans, although the climatic conditions were not unfavourable for this products.

Figure 1. Landuse of the Balkans in 1898



Szende, Gy.: Földrajz-statisztikai tabellák a Föld összes államairól. s.l. 1898.

Thus, the versatility of physical geographical conditions resulted in diverse agrarian systems (in Greece pastures dominated, the proportion

of arable land was small; in Serbia forests dominated) from the beginnings (*figure 1*), that were later overwritten by the changes of external circumstances.

(c) Concept

The story outlined here does not offer the ultimate truth as neither of the narratives are able to do so. There are still many debated questions regarding the output of the agriculture both at macro- and local level (especially for the 19th century), as well as concerning the profitability of different estates or the welfare of producer society. (1) These phenomena often have regional patterns, (2) the interpretations are influenced by the selected variables, (3) and finally, the interpretations of the agrarian performance were often not impartial, as this had relevance in legitimizing political regimes and ideologies.

Data accessibility and reliability is another problem of investigations. Official statistics (after the 1870s) are often methodologically different from those of the 1920s. Despite efforts on harmonizing and analyzing data,⁶ there are still many uncertainties. In preindustrial countries the output is determined by climatic events, therefore there is a constant fluctuation beyond general trends or cycles, making it more complicated to estimate wealth or trace periods of prosperity. Comparative works from Balkan scholars are missing,⁷ they rather focus on one country⁸ (in that case there is the problem of changing state-borders) or on small localities (to avoid any involvement in politically

6 *Sundhaussen, H.: Historische Statistik Serbiens 1834–1914. Südosteuropäische Arbeiten 87. München, 1989; Axenciuc, V.: Evoluția economică României: Cercetari statistico-istorice, 1859–1947. Vol. 1-3. Bucharest, 1997, 2000.*

7 The only exception is the trend-analysis from Berov.

8 *Tomasevich, J.: Peasants, Politics, Economic Change in Yugoslavia. Stanford, Oxford, 1955; Vučo, N.: Poljoprivreda Jugoslavije 1918–1941. Belgrade, 1958; Daskalov, R.: Balgarskoto obshtestvo. Tom. 1–2. Sofia, 2005. and Calic, J.-M.: Sozialgeschichte Serbiens, 1815–1941. München, 1994.*

sensitive issues),⁹ while western comparative works are rather syntheses built on a certain theory,¹⁰ than deep methodological analyses.¹¹

Thus, the same events were often interpreted differently by western and local scholars, partly because of certain political reservations, partly because of the different methodology or accessibility to data. Palairet claims, that prior to 1878 the Balkan agriculture showed better performance than after, while Ivanov challenged this statement raising the issue of “convergence or decline” and “what happened if...” again.¹² Berov in the 1980s stated, that agrarian development was slow between 1840–1878, as any increase in outputs was consumed by population increase,¹³ thus the era of growth began only after 1878 (but export quantities and local data contradict to his statement), while Palairet calculates with increasing population pressure and stagnating-declining per capita output only after 1878 and speaks about prosperity in the Ottoman era. Lyberatos criticize the methodology of both.¹⁴ The estimations of Stojanović in 1919, then the recent calculations of Sundhausen, Palairet and Lampe on Serbian agrarian GDP are contradictory even for 1910,¹⁵ because in the case of self-subsisting societies with low marketization it is hard to estimate the production

9 Like Draganova, Sl.: *Berkovskoto selo v navecherieto na Osvobozhdenieto: statistichsko izsledovane spored osmanskite danachni registri*. Sofia, 1985.

10 Palairet, M.: *The Balkan Economies, 1800–1914: Evolution Without Development*. Cambridge Univ. Press, 2003. (international division of labour, globalization); Lampe, J. R.–Jackson, M. R.: *Balkan Economic History, 1550–1950: From Imperial Borderlands to Developing Nations*. Bloomington, 1982.

11 An example for the latter in western countries: Zagorov, S. D.–Bilimovich, A. D.–Vegh, J.: *The Agricultural Economy of the Danubian Countries, 1933–45*. Stanford Univ. Press, 1955.

12 Ivanov, M.–Tooze, A.: *Convergence or Decline on Europe’s Southeastern Periphery? Agriculture, Population and GNP in Bulgaria, 1892–1945*. *The Journal of Economic History* 67, 2007/3. 672.

13 The basic difference between the two approach is that Palairet considers the Tanzimat as an economically prosperous era (successful integration into the Atlantic economic system – with present analogies with the EU-accession), while Bulgarians refuse this as their legitimations stems from the refusal of the Ottoman past.

14 Lyberatos, A.: *From Imperial to National Lands: Bulgarian Agriculture from the Russian–Ottoman (1877–78) to the Balkan Wars (1912–13)*. In: Eldem, E.–Petzemas, S. D. (eds.): *The Economic Development of Southeastern Europe in the 19th century*. Athens, 2011. 137–72.

15 Lampe, J. R.: *Varieties of Unsuccessful Industrialization: The Balkan States before 1914*. *The Journal of Economic History* 35, 1975/1. 56–86; Stoyanovich, K.: *The Economic Problems of Serbia*. Paris, 1919. 89. and 145–50.

through the tax incomes of the government. The performance of different landholding patterns is often also a political question, thus vigorously debated: Greek large estates did not show better outputs than smallholdings, while the Bulgarian or the Romanian large estates seemed to be more effective. The interpretation of agrarian crises (which layers suffered the most) is also contested: Labrousse stated that the smallholders were the losers, while Landes and Post denied this.¹⁶

Even pure statistical considerations without presumptions can lead to different interpretations: per hectare and per capita values, such as the usage of current or fixed prices or purchase power will not give the same result. Calculating with the numerous currencies is also a source of uncertainty when measuring wealth or growth.¹⁷

In our approach the history of the agriculture in the Balkans between the 18th-20th century can be described at macro-level by a gradual shift from the Levantine economy towards the Atlantic. Due to the changing circumstances (external demands) the original role of the peninsula in the international division of labour had to be abandoned and new agrarian systems and cultivation patterns were adopted to fit into the new system of international division of labour. Some of the responses proved to be successful, some eventually failed (like grain producing smallholdings). As a consequence, the agrarian development in the Balkans differed from that in other parts of Europe: the “green revolution”¹⁸ (meaning either a change in cultures or in applied technologies) took place in the Balkans later, the radical changes in the 19th century pointed to another direction. The production of fruits, vegetables, milk, eggs, tobacco or industrial plants, that became regular in West-Europe, remained of secondary importance here: intensification in cultivation – as an alternative – became important only after 1900.

16 Labrousse, C. E.: *La mouvement ouvrier et les idées sociales en France de 1815 à la fin du XIXe siècle*. Paris, 1948; Post, J. D.: *A Study in Meteorological and Trade Cycle History: The Economic Crisis Following the Napoleonic Wars*. The Journal of Economic History 34, No. 2. 1974. 339–40.

17 The piaster/franc ratio moved between 5:1 and 4.5:1 even when piaster was considered stable, thus one may wonder whether data reflect a 10% growth in the examined economy or simply a change in exchange rates.

18 Zanden, J. L., van: *First Green Revolution: The Growth of Production and Productivity in European Agriculture, 1870–1914*. Economic History Review 44, No. 2. 1991. 215–39.

There were two main reasons for the belated progress: (a) the *low level of urbanization (low consumption, self-sustaining economies) and low level of industrialization (low demand for raw material, low mechanization)*, depressed demand and slowed down the spread of modern technology in farming; partly (b) because the *Balkan served as food supplier of western Europe* in the new economic order, while the latter abandoned self-subsistence and turned towards more intensive cultures (regarding both capital and labour). Contrary to all achievements and the misleadingly profitable periods (1840–78) on the Balkans, this ‘detoured’ or ‘complementary’¹⁹ development and the abandonment of ecologically viable landuse²⁰ had serious consequences for the future: because of path-dependency it decreased competitiveness, hindered renewal, and even delayed industrialization.

The structure of each chapter begins with the analysis of global trends on the Balkans as – in our opinion – external impacts were the main determinative factors.²¹ On the other hand chapters will highlight divergent developments: as neither the initial agrarian structure(s) were homogeneous, nor did all sub-regions responded to the same challenges in the same way, the alternative paths are analyzed as case-studies. Beside the process-oriented approach, spatial comparison also characterizes the structure of sub-chapters. We examine how much globalization uniformized the production of agrarian systems (*table 1*), how it transformed agrarian societies, and how it affected productivity, social mobility, wealth and livelihood. Thus our approach is not purely of economic nature. The chapters use local-scale data to control the traditionally used macroeconomic data and to grasp regional variation.

Table 1. The types and transformation of Balkan agrarian systems (1780–1940)

<i>Legend</i> PR = prebendarial estates S = smallholding L = large estate n.a. = non-allodial a. = allodial (landlord’s demesne)	g = grains m = meat c = cotton t = tobacco, poppy o = olive, grape	M = monocultural dry D = diverse continental, policultural, combined Dm = Diverse Mediterranean T = transhumance H = animal husbandry	U = unfavourable price tendencies F = favourable price trends
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19 A development *not parallel* with the Atlantic way.

20 A shift towards a landuse exposed to external (but not climatic!) circumstances.

21 The Balkans pursued not proactive, but reactive policy, which is the feature of peripheries.

Country		1780–1810	1815–1840	1840–1876	1880–1910	1920–1940
Serbia	dominant estate type	PR	S	S	S	S
	dominant product	m, g	m	m	g, plum	g
	character	D	M	M	M	M
	market prices	U (fixed price)	m: F	F	U then F	F, then U
Bulgaria	dominant estate type	PR	1. S, 2. L (non a., sharecroppers)	1. S, 2. L (non a., sharecroppers)	S	S
	dominant product	m, g	m, g	g	g	g, tobacco, vegetables
	character	D	M with H	M	M	D
	market prices	U (fixed price)	m: F	F	U then F	F, then U
Romania	dominant estate type	L	L	L	L	1. L, 2. S
	dominant product	g, m	m, g	g, m	g, m	g
	character	M with T	M with T	M with T	M with T	M with T
	market prices	U (fixed price)	F	F	U then F	F, then U
Bosnia	dominant estate type	PR	PR	1. L (a. and n.a.)	1. L (a. and n.a.)	1. S, 2. L
	dominant product	m, g	m, g	g, plum	g, plum	g, plum
	character			M with H	M with H	M with H
	market prices	U (fixed price)	U (fixed price)	F	U then F	F then U
Macedonia	dominant estate type	PR	L	L	1. L (n.a), 2. S	S
	dominant product	g, c	g, c	g	t, g	t, g
	character	Dm	Dm	M with T	D	D
	market prices	U (fixed price)	F	F	F (for g U)	U
Greece	dominant estate type		1. L, 2. S	1. L, 2. S	1. L, 2. S	1. S, 2. L
	dominant product	o, c	o, c	o, c	o	o, g
	character	Dm	Dm	Dm	Dm	Dm
	market prices	U (fixed price)	F	F	F	for g U

II. Agriculture and rural societies during the Napoleonic Wars (1780–1820)

In order to analyze the transition of natural economies to market economies we have to reconstruct the initial – more or less natural – conditions, when the area was the part of the Levantine economic system. The 18th century brought about significant internal changes in taxation, population numbers, regional distribution and social stratification, as well as in the agrarian system (including landholding size, composition of products and state intervention into land-tenure systems). External challenges – like the increasing demand on food in Western Europe due to the Napoleonic Wars – and the given responses modified these transforming patterns further, challenging the provisionist policy pursued by Istanbul (which was based on supplying the capital with food on fixed, low prices). The response to the increasing demand on food – exploited by local landlords (*ayans*) – resulted in the realignment of trade routes, thus this process contributed to the decentralization of the state. Though these changes in the Ottoman economy proved to be then temporal and socially limited, but paved the way to the great economic transformations that took place during the 1830–70s in the Balkans (This process also went side by side with political changes: the Tanzimat).

(a) Agriculture in the Ottoman Empire

(i) Changing structures

Internal changes

By the end of the 18th century significant changes had taken place in the structure of the agriculture as a result of epidemics, wars, migration and external factors. (1) *The raiyet chift*, this peasant landholding ranging to averagely 10 hectares, created from *miri* (state) lands to serve as basis

for taxation *lost its function* owing to the progressive social differentiation and growing population pressure (*figure 1*). The Ottoman state failed to halt this process – partly owing to its internal weakness. The raiyet chift was originally planned for the optimal exploitation of the workforce, as one adult male was able to cultivate 5 ha of land (supposing 50% fallow land in a year). But as the Christian population increased by 50% during the 18th century in the Balkan Peninsula,²² this growth created a surplus in labour force and the fragmentation of economic units (since primogeniture was not common in the Balkans).

This change had a significant impact on state incomes, it increased social burdens, and influenced livelihood of *askeris* as well. (2) The second significant change was that the askeri landholdings also lost their original functions: as military service became more expensive (due to the changes in warfare and the inflation between 1780–1830), low incomes ruined their competitiveness. The main goal of the *spahis* and *janissaries* (like the 4 *dahi* in Belgrade) then was to transform the existing prebendal system into a new one, where their ownership is more or less secured, and the influence of landlords over the *reaya* (and his output) is strengthened, while (military) services towards the state are eliminated or can be substituted for money. As this ambition coincided with the state's need for extra income owing to the wars, new forms of usufructus, like life-long tax-farming of lands and customs (*malikane*) appeared. These later became heritable even without military service. The transformation of agrarian system thus created a new „feudal“ elite, and the competition for private property between the producers, the landlords and the state sharpened. Until the state maintained the concept of internal borrowing (and tax-farming was a part of this policy), this system blossomed. But when the state – owing to shortage of money – changed its financial policy and generated inflation (first artificially, later because of supply shortages due to overexport), the positions of the 'feudal' elite began to weaken.

22 McGowan, B.: *The Age of the Ayans, 1699–1812*. In: İnalçık, H.–Quataert, D. (eds.): *An Economic and Social History of the Ottoman Empire*. Vol. II. Cambridge Univ. Press, 1994/1997. 653. and Minkov, A.: *Conversion to Islam in the Balkans: Kisve Bahası – Petitions and Ottoman Social Life 1670–1730*. Leiden, 2004. 81.

External challenges

The *growing western demand on wheat* (induced by the wars of the Napoleonic era and by climatic anomalies) contributed to the birth of proto-capitalist activities on the Balkans (and tax-farming can be interpreted like this), which accelerated the transformations in agriculture. The demand, side by side with the political challenges (the Russian economic advance through the Black Sea after 1783) led to wheat speculations – tax-farmers and local ayans bought grains at low, fixed prices from the producer, but exported it to the West at real market prices instead of supplying Istanbul.²³ The local “strong men” even encouraged peasants to hide the grains or organize local markets – as this activity was more risky for the officials (they were threatened by confiscation of their wealth as punishment). Unfortunately, speculation and overexport often generated local shortages, which caused inflation,²⁴ destabilizing the situation further. Istanbul soon had to face both the decrease of central incomes and food shortages, while inflation further encouraged the practice of overexport. The partial abandonment of state provisionism and centralized grain redistribution did not help: the bread in Istanbul had become more expensive by 1806 than in rural areas, however it was just the opposite in 1798.²⁵ Inflation and shortages created unrest among artisans (including the janissary troops), which weakened the central power further.²⁶ This social crisis was marked by enhanced social mobility and migration.

The *numerous wars* also exerted heavy pressure on peasantry: between 1768–1812 there were only 20 years of peace out of 45. This means that extraordinary taxes (*avariz*) became more or less regular. Military expenses reached 1.5 million pound sterling in 1776 (150–180 million grams of silver or 35–40% of the budget), similar to the English

23 See the case of the speculant Ibis aga. *Dimitrov, Str.: Istoriyata na edin ayantin*. Sbornik v chest na akad. Dimitar Kosev. Sofia, 1974. 65–78.

24 Beyond the state driven depreciation of coins to get more silver and gold for the treasury.

25 *Vinaver, V.: Ceni i nadnici u Dubrovniku u XVIII veku*. Istorijski časopis, 1958. 315–332.

26 Increasing food prices were harmful for craftsmen as well, but fortunately the demand towards industrial article also increased, as the increase in number of new guild masters proves. *Todorov, N.: Balkanskyat grad XV-XIX v*. Sofia, 1972. 59.

value. While this sum put the Ottoman Empire in parity with other Powers in the 1740s, in the 1770s the same amount was considered small in a war, therefore the state was continuously seeking new sources.²⁷ Together with the demographic pressure (due to estate fragmentation and refugees arriving from the lost Crimea) wars and fiscal burdens also decreased the political and economic stability, while social mobility increased. This forced peasants to develop several strategies from banditism to more peaceful practices in order to avoid the increase of burdens.

(ii) Agricultural production and society

The differentiation and social strategies of peasantry

Agrarian systems were more diverse than in the 19th century during the wheat prosperity. Smallholdings were dominantly *not* monocultural units, like crop-growing estates later, but rather economies adapted to the physical geographical and climatic conditions and seasonal changes (and not to external demands, as later). Peasant economies were based on the division of labour. Large estates were rare in this century: only 10–20% of farming units exceeded 30–40 ha:²⁸ prior to the great prosperity of the 1840s the elite was mainly involved in the trade of wheat, rather than in production.

As the number of Christian tax-payers grew by 30–50% between 1700–70 showing great regional variety²⁹ – prior to the „kirdzhali” era, when stagnation came –, social differentiation and fragmentation of peasant landholdings increased (*figure 1*). Around Edirne 40% of the family economies were under 10 hectares or *raiyet çift* (producing 4000–

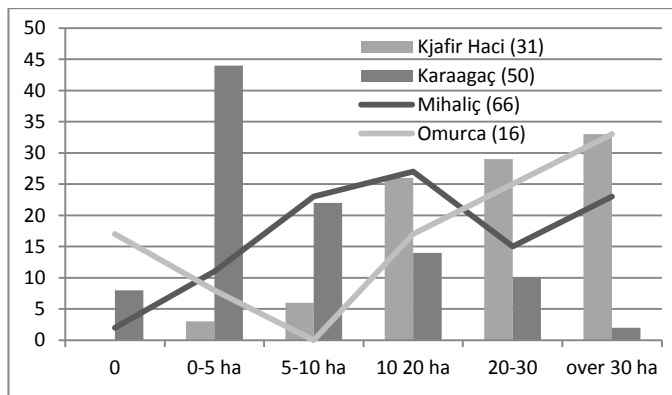
27 Eton, W.: *A Survey of the Turkish Empire*. London, 1799. 41–47. This was also similar to the Austrian value: one year of war meant 180 million grams of silver additional costs in 1740, but it grew to 350 million in the 1760s, marking the desperate needs of central budget.

28 For the size of large landholdings see Gerber, Ch.: *Social Origins of the Middle East*. Boulder, CO, 1987. 26–39. Though only 10–20% of the units exceeded 40 ha, their proportion from the land was significantly greater. For the involvement in trade see: Dimitrov, Str.: *Istoriyata na edin ayantin...*

29 McGowan, B.: *The Age of the Ayans*, 653.

5000 akçe, the minimum required for self-subsistence in case of a family of six), thus were considered poor, while 30% of peasants had more than 20 ha land (with 7000–10 000 akçe income or 1000–1500 grams of silver).³⁰

Figure 1. Social differentiation in rural areas during the 18th century (based on 4 villages and cca. 180 estates)



Data from: Parveva, S.: Village, Town and People in the Ottoman Balkans 16th-mid – 19th Century. Analecta Isisiana CVIII. Istanbul, 2009. and Istoriya na Balgariya. Tom. 5. Sofia, 1985.

Muslim landholders were a bit richer: 55% of *askeris* had more than 2 *raiyet çifts* around Edirne, while among *Christian reaya* this was 20% (table 1).³¹ As the average peasant estate size was still 0.9 *raiyet çift* for the total region, this differentiation took place contrary to the theoretical possibility of maintaining an egalitarian peasant society.³² Furthermore, although Istanbul was near, thus transport costs were low, fixed prices (peasants were paid only 60 akçe per grain units instead of 120–150 akçe, the real market price)³³ limited the participation of peasants in trade and commerce.

30 Parveva, S.: *Zemyata i horata prez XVII – parvite desetiletiya na XVIII v.* Sofia, 2011. 223–24. 374.

31 This difference had been eliminated in Bulgaria by the 1870s owing to general enrichment, as Draganova's data evidenced this.

32 Gerber, Ch.: *The Social Origins*, 30.

33 *Ibid.* 227–28.

Table 1. Difference between the landsize of askeri and reaya layers around Edirne (18th century)

Layer (prs)	under 1 çift	1–2 çifts	2–3 çifts	3–4 çifts	4–12 çifts	above 12 çifts
Reaya (592)	231 (39%)	185 (31%)	79 (13%)	44 (7%)	53 (9%)	0
Askeri (75)	19 (25%)	15 (20%)	8 (11%)	4 (5%)	21 (28%)	8 (11%)

Parveva, St.: *Zemyata i horata*, 374.

During the second half of 18th century taxes paid by the *reaya* (the *tithe*,³⁴ the *avariz*; for Christians the *cizye*, *ispence* and overtaxation due to tax-farming) could reach even 25–30% of the peasants' income,³⁵ while in the second half of the 19th century this fell to 15–18%, (but increased in absolute numbers, as peasant production also grew). One could imagine how hard this burden could be, if the lower tax rates of the 1870s were still heavy enough to produce unrest, although that time the increase of state revenues went side by side with the economic prosperity of the agriculture.

It is also true that peasant incomes expressed in grams of silver had doubled by the 18th century compared to the 16th (from 400–500 grams of silver to 800–900 grams),³⁶ but as the tax rate remained the same, this meant increasing taxes as well. In the 18th century agrarian output was stagnating (partly due to the lowly fixed prices) while the price index

34 The tithe was 12–18% according to McGowan, B.: *The Age of the Ayans*, 681.

35 Berov, Ly.: *Ikonomicheskoto razvoitie na Balgariya prez vekovete*. Sofia, 1974. From this, the *muaccele* values of *mukataas* were not larger than 10% of the production. A rich Bulgarian village with averagely 12 hectares per household paid 200 grosh/household around 1780 as taxes (1000 grams of silver for a family of 5), while 1 ton of wheat cost 300–400 grams of silver that time (increasing from 40 to 400 grosh due to the inflation between 1780–1820). If we suppose 40–50% as fallow land as usually, wheat production could not exceed 6 tons, which would make income to 3000–4000 grams of silver together with husbandry. Demeter, G.: *A Balkán és az Oszmán Birodalom. Társadalmi és gazdasági átalakulások a 18. század végétől a 20. század közepéig*. Vol. I. Budapest, 2014. 49.

36 Berov puts the *ispence* to 25, the *cizye* to 40, the *avariz* to 25 akçe, while the income of the household did not exceed 500 akçe (400 grams of silver) in the 16th century. Together with the tithe paid to spahis, total taxes reached 150 akçe. Berov, Ly.: *Ikonomicheskoto razvoitie*, 55. The value for the late 18th century is given by Canbakal, H.–Filiztekin, A.: *Wealth and Inequality in Ottoman Lands in the Early Modern Period*. AALIMS – Rice University Conference on the Political Economy of the Muslim World, 4–5 April 2013 (working paper) http://aalims.org/uploads/Rice_v1.pdf and by own calculations using Parveva's data.

increased.³⁷ These eliminated any increase in welfare. The Gini-index between the richest 25% and the rest of the urban society grew until the *kardzhali era*, and towns were still twice as rich as rural areas regarding the income expressed in silver (1800 vs. 900 piasters per tax-payer around 1810).³⁸

Regional and denominational differences were also not negligible. While Pamuk puts central tax incomes per capita to 20 grams of silver,³⁹ which is 120 grams per family, Bulgarian sources cite even 200 grams/household in richer rural areas. This difference may also refer to the leakage of central incomes.

Overtaxation could lead to the transformation of landuse and land-ownership. In Khalika village (Peloponnese) the tax, altogether 400–700 piasters/household proved to be too high compared to the productivity. The settlement asked for a loan of 50 000 piasters to pay the debts, but failed pay it, thus the village was turned into a chiflik large-estate of the tax-farmer, where debts were redeemed by corvée.⁴⁰

Most of the calculations showed, that the mentioned social differentiation stopped during the *kardzhali era*, while both social and horizontal mobility increased. Differences between urban layers were decreasing in 1780–1800,⁴¹ the role of social ranks in explaining differences in wealth also sank from 50% to 25%,⁴² and religious differences also faded. Unfortunately, these positive tendencies went parallel with the general impoverishment of the society.

37 Özmucur, S.–Pamuk, Ş.: *Real Wages and Standards of Living in the Ottoman Empire, 1489–1914*. The Journal of Economic History 62, No. 2, 2002. 293–321.

38 Canbakal, H.–Filiztekin, A.: *Wealth and Inequality... and Atanasov, Hr.: V osmanskata periferiya: obshchestvo i iekonomika vao Vidin i okolinostta prez XVIII vek*. Sofia, 2008. 28.

39 Karaman, K.–Pamuk, S.: *Ottoman State Finances in European Perspective, 1500–1914*. The Journal of Economic History 70, No. 3, 2010. 593–630.

40 McGowan, B.: *The Age of the Ayans*, 689.

41 Using average wealth/median wealth index based on the data of Atanasov. Atanasov, Hr.: *Property Trends among the Urban Population of Rumelia in the 18th Century as Indicated by Inheritance Inventories from Russe, Sofia and Vidin*. Bulgarian Historical Review, 2013/3-4. 33–59. Using the data of Todorov, but correcting it with purchase power and inflation one would also come to the conclusion, that urban wealth did not increase between 1790–1810. Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol II. fig. I.7-8; esp. I. 12. and tables I.27; I. 29.

42 Canbakal, H.–Filiztekin, A.: *Wealth and Inequality...*

As no effective government measures were taken to stop social differentiation, the population had to apply several micro- and macrosocial strategies – beside the adaptation of economies to these changes (see next chapter).

The instability resulted in *ruralization* at the end of the 18th century. This could be observed even in the composition of urban incomes in Morea: agricultural incomes constituted 50% of the total (like in the 16th century Sliven)⁴³ referring to the collapse of trade pattern as autarchy became dominant due to banditism.⁴⁴ Around Edirne the ratio of arable land varied between 20–80%, while grazing land reached 30–60%: this versatility implies rather local markets and small-scale *intraregional* division of labour, than direct involvement in international trade. Marketization even during the Napoleonic Wars remained low, as indicated by the small number of participants in trade: as a result of the provisionist state policy and centralized redistribution, the profits dominantly accumulated in the hands of Istanbul merchants and ayans collecting the surplus, and did not leak down to broad layers of producers. This is a major difference between the Napoleonic and the consecutive economic prosperity of the 1840s. The *rural regions turned to autarchy as political destabilization ruined markets* (and mainland transportation costs were high).

Migration was one of the exit strategies. When the inhabitants of Matruki village offered their land as a chiflik, because they were unable to pay the loans, many peasants fled to the nearby town, Agrafa and became weavers (weavers often had tax-exemption).⁴⁵ This did not help the rest of the community, who had to take over their burden as well (the community had similar obligations as in Russia).⁴⁶ Although migration was forbidden, because lower outputs could ruin incomes from tax-farming (thus it was detrimental to the state as well),⁴⁷ the weakening of the central government made these regulations often

43 Parveva, S.: *Village, Town and People in the Ottoman Balkans 16th-mid – 19th Century*. Analecta Isisiana CVIII. Istanbul, 2009.

44 Vacalopoulos, A. E.: *History of Macedonia 1354–1833*. Thessaloniki, 1973. 427 and 468.

45 McGowan, B.: *The Age of the Ayans*, 689.

46 In the old Slavic world the community (*obština*) bears responsibility, not the individual.

47 Peasants were forced to return unless they left the *obština* 10–15 years ago.

unenforceable. The attacks of Ali Tepeleni or that of the Bushatlis generated migration waves and these not only modified population density or the ethnic pattern of a region,⁴⁸ but influenced landuse too. The abandoned lands became exposed to the land-concentration attempts of the *ayans*, while in overpopulated areas the consequences of extensification and deforestation caused a landuse conflict between animal husbandry and crop-producing. The facts that forests had almost disappeared by the end of the 18th century from the Southeast and that 75% of ploughlands were under cultivation refers to land scarcity, overpopulation and progressive fragmentation of estates.⁴⁹

Unlike earlier, *conversion to Islam* as a strategy of survival was not general in the 18th century. Convertite families could receive cca. 5000 *akçe* support from the ruler once in a lifetime,⁵⁰ which equaled to the yearly income of a middle-class peasant farm. But this rarely was enough to establish a new farm, rather to stabilize an existing one. The strategy of conversion was often applied to avoid *cizye* – large parts of Albania became Muslim around the Albanian Opar and Shpat due to this –, or to handle inheritance problems within a family. Although wealth was usually distributed among Moslems and even far relatives could inherit, in a family with only one Muslim convertite Christian relatives were excluded from the heritage,⁵¹ thus further land fragmentation could be stopped (as primogeniture was unusual in Balkan societies).

Hiring poor relatives was another strategy to avoid fragmentation (Morea); extended families of cohabiting relatives (*zadruga*) played a similar role. Family heads cultivating even 30 ha worked together with 3-4 married brothers and sons in Croatia.⁵² In mixed-combined

48 Thessaly and S-Macedonia was emptied, while the Christian population of the NW-Balkans has tripled.

49 In regions, where the proportion of uncultivated land (this is not equivalent with fallow!) remained extreme, as it was in Dalmatia (50%), it was the result of soil erosion owing to deforestation. This also led to overpopulation and impoverishment. *Stoyanovich, Tr.: A Study in Balkan Civilization*. New York, 1967. 18–19.

50 See *Minkov, A.: Conversion to Islam in the Balkans...*

51 *Serafimov, A.: Motivi za dobrovolna islyamizaciya na Balkanite ot sredata na XVII do kraya na XVIII v.* http://sashekashe-istoria.blogspot.hu/2009/01/blog-post_6092.html.

52 *Grandits, H.: Familie und sozialer Wandel im ländlichen Kroatien.* Böhlau, 2002. 90.

economies this was normal, because these farms required extra labour force. In Tărnovo (Bulgaria) 20% of the *cizye*-payers had no land at all in the 18th century, they were conscripted as wage-labourers, *argats*.⁵³ The division of labour on these farms was well-organized: one of the males dealt with bees or olive-orchard, the other took care of sheep and draft animals, the third looked after the crop, etc. But this landless stratum was susceptible to all forms of violence: paramilitary *kardzhali* troops of the late 18th century were recruited from these landless peasants (also from Christians), who wanted to become *askeri*.⁵⁴

The differentiation even took place among the Muslim agrarian-military elite (*askeri*). As *timar* landholdings usually exceeded 30 hectares to produce the minimum 3000 *akçe* surplus (beyond the producers' needs) to feed a *spahi* – smaller units were even confiscated as these were inapt to maintain a cavalryman –, the frequency of smaller *askeri* landholdings⁵⁵ can be considered as the sign of another strategy, referring to the external dilution of the class. Rural peasants often tried to become *janissaries* while keeping their land, as the *askeri* status was still very prestigious: the janissaries of Vidin became the wealthiest social class from the poorest under Pazvandoğlu.⁵⁶ Tax-exemption, guild membership (allowing market activity), regular salary were very attractive for rural masses searching for supplementary income to compensate the fragmentation of their land. On the other hand, janissaries also tried to acquire smaller landholdings with peasants.

Finally, *the transformation of production structure* in accordance with the available land and workforce was also among adaptation techniques to cope with the changes of the 18th century. In Arcadia town households cultivated no more than 2 hectares: ploughlands were missing, olive orchards were flourishing instead.⁵⁷ Here even households with more than 1 male workforce were not automatically among the richest, which refers to absolute overpopulation.

53 Dimitrov, Str.–Stoykov, R.: *Socialnata diferenciaciya sred selyachestvoto v Tirnovsko kam kraya na XVII i nachaloto na XVIII v.* Izvestiya na Instituta za Istoriya. Sofia, 1964. 188–90.

54 See Mutafchieva, V.: *Kardzhaliysko vreme*. Sofia, 1993.

55 Only 30% of *askeris* owned more than 4 *chifts* around Edirne according to Parveva.

56 From the data of Atanasov, Hr.: *V osmanskata periferija...*

57 See Parveva, S.: *Village, Town and People...*

Production systems, outputs and economic strategies

If we compare the income from grains at the end of the 18th century with that of the 1840s and 1870s, one may find that there were only small differences in output/household (expressed in silver), contrary to the doubling grain prices. The similarity in revenues of these two periods is due to the fact, that the average peasant landholding was larger in the 18th century, reaching 8–15 ha, while in the 1870s the average in Eastern Rumelia was 3.5 ha (and 4 ha in Serbia). This implies that income per hectare has doubled within 100 years. This was only partly the result of the increasing grain prices, another factor was the decrease of the proportion of fallow land, which decreased from 50% in the middle of the 18th century in Bulgaria and Serbia to 35% by 1880 and to 20% after 1920. (This puts the area of sown land/household to 4–8 ha in the 18th and 3–6 in 19th century). The extensification and price increase also meant that the improvement in yields/ha could not be significant: in case of wheat the output ratio was only 4:1 in the 18th century far away from the European average⁵⁸ and was around 5:1 hundred years later. The same ratio was mentioned in Hungary.⁵⁹

These implied further two features: (1) small economic units under 10 ha could not be considered as monocultural grain producer systems in the 18th century, as these simply could not supply a family of 6, thus would have been unsustainable. Beside *bad and fluctuating yields and fixed prices, geographical conditions and decreasing unit sizes* (overpopulation) also made grain production unprofitable in many places. Due to the *zaharea* (compulsory delivery at low fixed prices to Istanbul) the Romanian principalities marketed only 100 000 quintals of wheat in the 1750s, only 15% of the volume marketed a century later. Ottomans abolished fix prices to encourage exports after 1774, but only temporarily: by 1833 wheat had reached only 20% of the exports.

58 Beside the low technological level another reason for the low output ratio regarding grains can be the abundance of other crops on arable lands!

59 Glósz J.: *Területi hiány és felesleg Magyarország gabonatermelésében a 19. század első felében*. Korall 36, 2009. 119–40. The output was around 0.6 tons/hectares, equalling with 3.5:1 output ratio. The values for the Balkans are calculated from the data given by Parveva. See explanation under *table 2* referring to grain output under 600 kg/ha.

Peasants rather shifted to produce maize, as it was free from *zaharea*, while provided food for animals, and offered the possibility to plant other vegetables between the rows.⁶⁰ Even Romanian landlords on large estates refrained from producing grains: only those were involved in form, who were using gypsy slaves for cultivation.

(2) The high proportion of fallow land implies that the significance of *animal husbandry* could not be negligible. Husbandry had greater significance in the eastern parts of the peninsula (supplying Istanbul) and in the Serbia (supplying Austria and Hungary). Even in the 1840s the bulk of the income of peasantry came from animal products in the fertile plains around Pleven,⁶¹ and pig export constituted more than 50% of the value of Serbian exports. In the Romanian principalities – as the price of cattle and horses increased fivefold during the Napoleonic Wars – the Ottomans installed a 50% *ad valorem* export tariff on them (either to increase state revenues, or to hinder shortages due to overexport). This compelled many to turn towards pig exports, which was not taxed by Ottoman authorities – the value of exported swine and pork reached that of the grain exports in 1812–19.⁶²

The fragmentation of land compelled villagers to adapt and search for alternative products. The mentioned remarkable intraregional differences in landuse were the result the contraction of markets and the consequence of this diversification. For example, in Karaağaç the average farm size was 3–5 ha land/household, only half of the unit size measured in the neighboring Mihaliç, while tax/household was the same. This means twice as much tax/hectares. But small farms do not necessarily mean poverty: the higher tax per land unit was the result of the higher output/ha, because Karaagaç was located near Edirne, and became its *fruit-supplier* (table 2).⁶³ On the other hand, in Kjafir Hadji village, rich in arable lands, 50% of villagers had more than 10 ha (figure 1), thus here *wheat* production was still profitable.

60 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 83.

61 Draganova, Sl.: *Documents of the 1840's on the Economic Position of the Villages in Central North Bulgaria*. *Bulgarian Historical Review*, 1988/2. 87–100.

62 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 84.

63 Thus we cannot estimate the wealth of a settlement based on tax per land unit without knowledge on landuse.

Table 2. Average grain incomes of different farm types around Edirne (beginning of the 18th century) (7 *akçe* = 1 gram silver)

Settlement	Households	Tax (<i>mukataa</i> value in <i>akçe</i>)	Total sown dönüms	Dönüm/ household	Sown dönüm /house	Mukataa /household	Grain income/ household*
Mihaliç	66	18 000	5 478	200	83 (40%)	273 (3%)	3500+6400 <i>akçe</i> cca. 1400 grams of silver
Karaağaç	54	15 000	0	80	0	277	0 (fruit, orchard)
Omurca	16	7 000	1 600	270	96 (40%)	438 (4%)	11 500 <i>akçe</i> 1650 grams of silver
İsmece, Pavlikyan, Sökün, Hasköy, Yürükçekler	86	220 000	16 168	680	188 (28%)	2 558 (11%)	22 560 <i>akçe</i> 3220 grams of silver

* Calculating with 2 kile products / dönüm, which equals with 120 *akçe* (at low fixes prices, which is half of the price in Istanbul). Based on Parveva, S.: Village, Town and People ...

Another alternative strategy against fragmentation was *winegrowing*. One hectare of vineyard produced 3000 *akçe* per year, 5 times more than a wheat growing economy of the same size (table 3). One hectare of olive orchard produced 7000 *akçes* yearly.⁶⁴ It is not surprising that Inalcik pointed out that the grain-producer Anatolian peasant economy was worth less, than the diverse, mixed farming of the Balkans.

Unlike grape and olive, wheat gave yield even in the first year, the wheatland was cheaper, and thus secured a quick return rate, while viticulture was a labour and capital intensive activity.⁶⁵ But – contrary to its relative cheapness – only large estates invested in grains that time. Nevertheless, this still was a rational choice: since the technical level did not enable famers to decrease the fallow, animals were raised to utilize them by fertilizing the land during grazing, while eating up a part of the produced crops. The boiars of the Romanian principalities were

64 1 olive tree gave 3 *okes* or 35 *akçe*: one hectare of land could grow 200 trees.

65 Although the price of 1 dönüm (0.1 ha) of vineyard and its yearly production was rated around 1000 *akçe*, giving a 3 year return – even better than the return rate in case of grains – the initial capital was higher.

involved in husbandry and wine-growing in the 18th century due to the limited prospects in wheat-production. Peasants delivering *corvée* spent 10 times more days with cultivating winestocks than on arable lands, and income from husbandry and spirits was 3-4 times higher than from grains in the 18th century.⁶⁶ Due to low prices and limited export facilities (the costs of wheat transportation over 50–70 kms or 18 hours, eliminated the profits, reasoning the high number of local market centres), *allodial lands* in the Romanian principalities produced not more than 5% of all grains. Neither their extent was more than 5% of the total land owned by the *boiars*. Despite this, the wheat that appeared on local markets (securing the food-consumption for example of wine-growers) still came from large estates: wheat-producing smallholders hardly had surplus that time.

Cotton could have been another alternative for wheat-producing monocultural economies. One hectare produced 3600 *akçe* (4-5000 was considered as minimum for a family of 5) exceeding the productivity of wheat by 4 or even 6 times. It was one of the export products of the South in the 18th century. The temporary decline of cotton production⁶⁷ can be reasoned by the fact, that cotton required intensive commercial relations both with foreign and inland partners: each cotton growing area needed a local market to buy foodstuffs. The wheat to supply the cotton growing population could not have been transported from more than 200 kms, because its high transports costs in the 18th century would have eliminated the profits earned from cotton. That is another reason why we meet so mosaic agricultural pattern on the Balkans in this century, and it is evident why cotton exports decreased during the Napoleonic Wars (the blockade and anarchy made commercial ties unsustainable). In many cases the lack of labour force or the unpopularity of intensive work (cotton required cca. 5 times more days

66 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 84.

67 S-Macedonia exported 3.2 million kile of wheat (15 million grosh), 0.8 million okes of wool (S-Albania, Larisa, Doiran, Strumica) and cotton for 5 million grosh from Seres and Melnik prior to the devastation that emptied the region. *Vacalopoulos, A. E.: History of Macedonia*, 427. 468.

spent on fields compared to grains) hindered its spread.⁶⁸ As cotton also required irrigation, its production costs were also greater, thus the rate of return was not exceeding that of the grains.

In the 18th century *mixed farming* had certain *advantages* compared to *monocultural units*, like (1) smaller area secured self-subsistence owing to the greater productivity (*table 3*);

Table 3. The output of 1 dönüm (0.1 ha) land in the 18th century

50-65 kgs of wheat	60-100 akçe*
20 olive trees	720 akçe
cotton	360 akçe
vineyard	300-400 akçe

*minimum 4000-5000 akçe is required yearly to sustain a family of 5-6.

(2) The diversity of products also decreased the threats imposed by extreme weather and price fluctuations (to which monocultural units were more likely to be exposed). In Arcadia town (Morea) 80% of farmers had at least vineyards or olive orchards. The averagely 70 olive trees/family provided 2500 akçe income yearly (375 grams of silver) which was not enough to subsist, therefore other forms of agriculture (or industry) were also considered as additional income source. Diversity was abundant not only at regional level or between villages, but within the settlements as well: in Arcadia 50% of inhabitants worked in all forms of agriculture. But it was definitely not the wheat production that saved the population from starvation as the average size of arable land was 0.7 hectare/households (*table 4*).

(3) Finally, the accessibility to cash, as olive or wine could not be all consumed locally, but had to be marketed.

Mixed farming also had two features that later proved to be fatal in the competition: (1) the diverse product structure required access to different agro-ecological microenvirons: in practice it meant numerous parcels often far away from each other. (2) The mentioned diversity required extra workforce to spare time. And when the great shift to

68 That is why it met with resistance even in Egypt. Girard, M. P. S.: *Memoire sur l'agriculture, l'industrie et le commerce de l'Égypte*. Description de l'Égypte, état moderne. I, Paris, 1822. <http://gallica.bnf.fr/ark:/12148/bpt6k621>

grains took place owing to external demand (in Bulgaria) or overpopulation (in Serbia) the fragmented pattern became disadvantageous. This shift generated oversupply in labour force: in case the parcels had not been fragmented, 1 man's workforce would have been enough to cultivate 5 ha grainland. (Furthermore, many farms totalled even less acreage).

Table 4. Composition of agrarian income in settlements with different geographical conditions (in *akçe*, without animal husbandry) in the 18th century*

Revenue source (in <i>akçe</i>)	PLAINS Arcadia town (217 house)	PLAINS Filiatra village (168)	HILLS Varibobi village (11 households)	HILLS Hristianou village (18 households)	Income per house Arcadia	Income per house Filiatra	Share in %, Arcadia	Share in %, Filiatra	Income per house: Varibobi	Income/ house in Hristianu
Grains	50 000	310 000 (0.5 <i>çift</i> /hh.)	110 000 (2.4 <i>çift</i> /hh.)	47 000 (0.6 <i>çift</i> /hh.)	250	1850 1 <i>çift</i> = 140 kile (7:1 output)	5.0	40.1	10 500 * 1 <i>çift</i> = 67 kile (4.5:1 output)	2 600 * 1 <i>çift</i> =73 kile (5:1 output)
Grape	400 000	390 000	6 000	14 000	1 843	2 300	34.8	48.2	500	780
Olive tree	603 000	106 000	1 200	4 500	2 779	630	52.2	13.1	110	250
Cotton	90 000	8 000	0	1 440	415	47	8.0	1	0	80
Total income in <i>akçe</i> *	1 145 000	815 000	110–120 000	60–66 000	5 276	4800	100.0	100.0	11 000	4000

* 7 *akçe* = 1 gram silver. Based on Parveva, St.: *Zemyata i horata*, 165–69.

In the Peloponnese the differences between the continental and Mediterranean agriculture were even more obvious. Here orange and pomegranade orchards, apricot and cherry trees were grown in small gardens of 100x25 m. This agrarian system had its own natural cycle: from December to March olive oil was produced in oil presses, in March-April (as a preparation for the hot summer in order to replenish salt and energy) cheese and butter was produced and wool was collected; in May-June wheat was harvested, in July mulberry leaves were collected to feed silk-worms; from August to October tobacco and fruits were gathered, and the latter were dried as food for the winter.⁶⁹

Sometimes combined or Mediterranean economy was not a question of choice, but remained the only viable option (in case of prograding

69 Parveva, St.: *Agrarian Land and Harvest in South–West Peloponnese in the Early 18th Century*. In: Parveva, St.: *Village, Town and People*, 71–75.

estate fragmentation or overpopulation). The economic units of 3-4 hectares in Filiatra (Morea) would have been insufficient to supply a family of 5 or 6, even if we calculate with 1 ton/ha average wheat yield on 3 sown hectares (and this became regular in the Balkans only in the 1910s). Neither physical geographical conditions did favour this solution. And since the limited availability of land hindered extensive animal husbandry, the only way out was to adapt the combined economy based on grape, figs, olive orchards. This also implies that territories suffering from absolute land scarcity could not profit from wheat even when transport costs fell and wheat prices went up in the 1840s (unless yields did improve significantly).

The real problem was, that by the end of the 19th century this alternative form of agriculture became more expensive pushing peasants towards crop-growing. An olive orchard of 1 ha (enough for self-subsistence!) in Preveza cost 130 £ (and a fruit plantation with trees was 80 £),⁷⁰ while in case of cropland an investment of 30 £ was needed to buy 6 ha land – enough to sustain a family. But while investment cost did not change over time (and were in favour of grains), the difference in productivity of the two landuse types decreased due to the amelioration of wheat yields and the increase in wheat prices. In 1870 one hectare of ploughland cost 6–700 piasters and produced around 1 ton of grains worth at least 800-900 piasters, while one hectare of olive orchard cost 18,000 piasters with yearly 6000 piasters income.⁷¹ For a smallholder arable lands meant a definitely cheaper investment with quicker return. In Preveza the averagely 120–150 olive trees/families on small parcels of 0.5 ha produced 2700 piasters yearly income, similar to the North-Bulgarian households⁷² producing wheat on 4–5 hectares. But the Greeks were still in a worse situation as their children could not afford to buy an own orchard of average size owing to its greater capital requirement (9000 piasters) and there was simply not enough space to

70 For data on Preveza see: *Mihov, N.: Naselenieto na Turciya i Balgariya prez XVIII i XIX. v. Tom. IV. Sofia, 1935. 392.* In other words, 5 hectares of wheatland (enough for self-subsistence) produced 10 units of income in cash in the 1860s, while an orchard producing originally 12 gave only 6.

71 For calculations see: *Demeter, G.: A Balkán és az Oszmán Birodalom, Vol. II.*

72 Data: *Draganova, Sl.: Berkovskoto selo...*

establish new, maize producing units of 3-5 hectares (producing the same yearly income), even if they had money for this (2500–3000 piasters). Thus, the population surplus was forced to migrate or re-stratify into the industry (if there was any)!

So, in order to operate a viable economy based on *dry cultivation of grains* (producing 4–5000 *akçe* yearly)⁷³ at least 5–7 *sown* hectares were needed in the 18th c. That is the reason why the *raiyyet çift* was originally set to 10 hectares in continental economies. Such an economic unit (like farms in Omurca, around Edirne), would have produced 2500–3500 kgs of wheat (calculating with 50% fallow and 3.5:1 output/input ratio producing 600 kg/ha grain), while a family of 5 consumed 1.3 tons.⁷⁴ With the tax equalled to 300–500 kgs, and seeds for next year (0.7–1 ton) the farm still remained viable.

The example above *hardly shows any surplus*. This means, that extra expenses, like the regular collection of war taxes (*avariz*) from the end of the 18th century on – meant a heavy additional, unplanned burden and contributed to the destabilization of rural areas and to the spread of banditism as a strategy to break out. Hristianou, a village producing grains on small economic units, exemplifies well the threats of this phenomenon (*table 5*).

Table 5. Limits of livelihood in a wheat producing smallholder community in the 18th c. (data given in grams of silver for a household)

Income from land*	Tithe**	Seed***	Food	Remainder	Cizye, ispence	Other expenses (avariz)
640	100	100	360	80	60	20

* or 4500 *akçe* without animals; ** calculated with 14% due to tax farming; *** Total income (from grapes an olive trees) was converted to grain equivalent to simplify calculation.

73 See *table 2–4* and also the value of *kisve bahası*.

74 Calculating with 250 kgs of grain consumption per capita.

(iii) The system of provisionism and its collapse

The collapse of provisionism

We can enumerate several synergic events that shocked the provisionist policy of the Ottoman Empire and allowed the infiltration of elements of market economy – resulted in growing exports from the Balkans, internal shortage of foodstuffs, increasing local prices, social crisis and destabilization and finally, the abandonment of economic isolation.

(1) The impact of climatic anomalies shocking Western Europe was one of these. According to Grove the *El Niño* was responsible for the series of bad harvest in France between 1789–93 causing longlasting social and political consequences.⁷⁵ Lamb stated that volcanic eruptions also contributed to the bad weather in 1783–1806 and 1811–18 (Mount Soufrière and Tambora eruptions).⁷⁶ As all this correlated with increasing grain prices, Ottoman *malikane* owners began to export the grain overseas instead of carrying it to Istanbul. This not only meant that the central treasury lost huge sums (the crop monopoly produced 10 million kurush income for the elite),⁷⁷ as it was then the local ayans who exported the grain instead of the state⁷⁸ (the government was also unable to raise the prices of *malikane* rights as this was sold life-long!), but central authorities also lost control on local prices. Soon food shortage occurred (the capital city required 140 000 tons of wheat

75 Grove, R. H.: *The Great El Niño of 1789–1793 and Its Global Consequences: Reconstructing an Extreme Climate Event in World Environmental History*. *Medieval History Journal* 10, No. 1–2, 2007. 75–98.

76 Lamb, H. H.: *Volcanic Dust in the Atmosphere: with a Chronology and an Assessment of its Meteorological Significance*. *Philosophical Transactions of the Royal Society, Ser. A*, 266, 1970. 425–533.

77 Kosev, D.: *Kam izyashnyavane na nyakoi problemi ot istoriyata na Balgarya prez XVIII i nachaloto na XIX.v*. *Istoricheski Pregled*, 1956/3. 32. It was a great business, however we do not know how much income would have been produced in case of free trade.

78 Here we refer to the fate of Ibis aga, who was executed for speculation. *Dimitrov, Str.: Istoriyata na edin ayantin...*

yearly),⁷⁹ local prices went up and the central power weakened. In 1780 one *oke* of grain cost 5 para (0.1 kurush/kg) both in Istanbul and Saloniki (that time wheat from Saloniki was exported only to Istanbul). By 1800 the price had increased to 12 para (0.25 grosh/kg) in Istanbul, but this was still half of the price measured in Saloniki, where western prices dominated!⁸⁰ The bread in Istanbul became more expensive by 1806 than in rural areas (28 piasters/*oke* in Istanbul, 21 in Bosnia) however it was the opposite in 1798 (11 vs. 14 piasters/*oke*).⁸¹

Inflation caused social crisis among urban dwellers and artisans, including the janissaries as well. (They were supporters of protectionist policy, thus opponents of trade liberalization propagated by the Powers). Rebellions broke out. The sultan – who earlier sold *berats* to many merchants (granting them the right to trade) in order to increase the state revenues – soon prohibited exports in a *ferman* (1804) written to the governor of Saloniki. But merchants continued their activity, because they wanted to get rid of the worthless Ottoman currency (inflation always encourages exports!).

(2) The second factor was the effect of the Napoleonic Wars with its permanently high wheat demand and prices. The blockade made expensive mainland transport the only solution: this caused price increase and the strengthening of Balkan ayans (similarly to the first factor), and the Empire started to fall apart into 'local enterprises'.

(3) The third phenomenon breaking the shell of 'splendid isolation' was that the Ottomans lost the monopoly of trade over the Black Sea after 1783. Ships under Russian flag (often Greek indeed) appeared offering better price for the goods than the Empire did – now *legally*. As a consequence, Istanbul lost its hinterland that secured its food consumption at low prices. This exacerbated the effect of *illegal* maritime trade around Saloniki, which was then a double blow.

79 Aynural, S.: *Bakers and Millers of Istanbul*. In: Faroqhi, S.–Deguilhem, R. (eds.): *Crafts and Craftsmen of the Middle East. Fashioning the Individual in the Muslim Mediterranean*. New York, 2005. 153–73.

80 Kasaba, R.: *The Ottoman Empire and the World Economy: The Nineteenth Century*. Albany, 1988. 19. and Walpole, R.: *Travels in various countries of the East; being a continuation of Memoirs relating to European and Asiatic Turkey*. London, 1820. 112.

81 Vinaver, V.: *Ceni i nadnici u Dubrovniku*, 315–32.

Finally, the Empire abandoned the practice of fixed prices to secure the inflow of grains to Istanbul, but this meant extra costs for the state. The integration into the world market economy began.

Prior to the partial liberation of prices,⁸² during the preindustrial (Napoleonic) upswing, the duties of agrarian producers increased due to the sharpening rivalry between the state and tax-farmers over resources. The central treasury tried to increase the price of tax-farms by prohibiting life-long *mukataas* in order to compensate the losses, while local landlords and tax-farmers tried to shift this burden on peasants. In practice this meant that in the kaza of Dobrich in 1786 the 6250 kile tax-wheat was still sold at 50 akçe instead of 140.⁸³ Stagnating prices confirm, that the main goal was to exclude producers from market competition. Regions that were unable to bypass Constantinople, like Varna, tried to sell wheat as processed foodstuff in 1817,⁸⁴ as these were not under price limitation (*narh*). The harvest in 1834 was so good, that Bulgarians sold wheat even without permission through Bräila.⁸⁵ This also confirms, that the agreement on free trade in 1838 merely legalized the formerly existing practices!

Not only wheat, but other products also participated in this traffic turning from intraregional into interregional trade. Meat price in Vienna increased from 2 to 3.5 grams of silver between 1770–1850, while in the Balkans it was only 1.5–2.5 grams of silver (*figure 2*).⁸⁶ So, transporting meat to Vienna was profitable despite the more expensive

82 In 1833 Istanbul increased fixed prices to 9.5 grosh/kile, but Bulgarians were still able to sell it illegally at 11–12 grosh prices (380–460 piasters). Paskaleva, V.: *A Contribution to the History of Trade in the Bulgarian Lands during the 1st half of the 19th c.* Bulg. Hist. Review, 1980/2. 33.

83 Dimitrov, Str.: *Osmanski izvori za istoriyata na Dobrudzha i Severoiztochna Balgariya*. Sofia, 1981. 118–120. and Parveva, St.: *Zemyata i horata*, 228. In 1764 80–90 kgs of wheat was collected from households around Saloniki by the new tax-farmer compared to the 60 kg levied earlier. Coetkova, B.: *Izvanredni danaci i darzhavni povinnosti v balgarskite zemi pod turska vlast*. Sofia, 1958. 142.

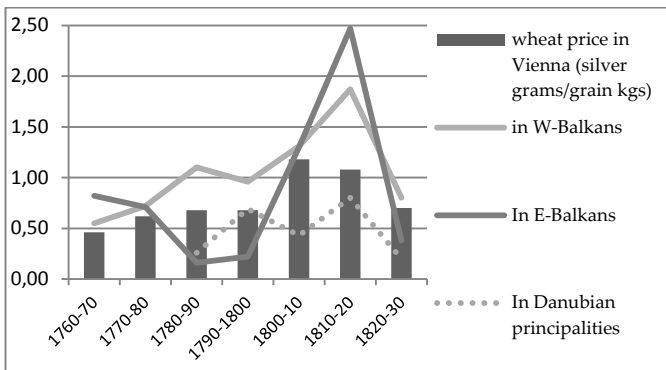
84 *Istoriya na Balgariya*, Tom. 5. 80–81.

85 *Dokumenti za Balgarskata Istoriya*, Vol. III. Dokumenti iz turskite darzhavni arhivi 1564–1908. Ed.: Dorev, P. Sofia, 1940. 190–97.

86 Berov, Ly.: *Änderungen der Preisbedingungen in Handel Österreichs mit den Balkanländern im 15–18 Jahrhundert*. In: *Österreichs Handel mit Südosteuropa und die wirtschaftliche Bedeutung der bulgarischen Länder bis zum Ende des 18. Jahrhunderts*. Mitteilungen des Bulgarischen Forschungsinstitutes in Österreich. IV/B/II. Wien, 1981. 13–35.

upstream transportation. (While the advantage of cheaper downstream transport was eliminated by low fixed prices in Istanbul, which cut back profits). Contrary to this, wheat was cheaper in Vienna (0.5–1 grams of silver between 1760–1830 and 0.5 to 1.7 grams in the Western Balkans without transport costs). This meant that Balkan wheat producers were unable sell their product in Central Europe, it was the market of Hungarian producers then. This turned Balkan grain merchants towards the maritime harbors, while mainland transport routes were exploited by those who dealt with animals, wine, etc.

Figure 2. Changes in grain prices on the Balkans



Data: Berov, Ly.: *Änderungen der Preisbedingungen in Handel Österreichs mit den Balkanländern im 15-18 Jahrhundert.* In: *Österreichs Handel mit Südosteuropa...* Mitteilungen des Bulgarischen Forschungsinstitutes in Österreich. IV/B/II. Wien, 1981.

So, beside the actual Western consumption patterns and prices there were two other factors that could limit the profitability of grain exports: (1) the tariff policy of western states and (2) the costs of mainland and maritime transportation. The Balkan wheat was temporarily pushed out by the protectionist policy of Britain and France soon after the Napoleonic Wars (Corn Law), as both countries wanted to protect the interest of local producers from the cheap Balkan grains, especially after steamships decreased transportation cost from 40% to 15% by the 1840s.⁸⁷

⁸⁷ Berov, Ly.: *Transport Costs and their Role in the Balkan Land in the 16–19th centuries.* Bulg. Historical Review, 1975/4. 75.

The wealth of agrarian strata measured to other classes

Land was the major source of wealth in the 18th century and it remained in the 19th century too: among the *askeris* its proportion reached 30–50% of the *wealth* enumerated in heritage inventories (even among *janissaries*, who originally did not own land), houses constituted further 10–20%, and the rest came from other activities (industry, mills, weapons, loans). Those who earned their living from agriculture were not among the richest in the 18th century. Peasants were poorer than artizans and left behind not more than 60–75 kurush (then 1000–1300 grams of silver), the agrarian middle class (or *janissaries*) had 500–700, while the rich *timariots'* *wealth* reached 2000–5000 kurush (over 35 000 grams of silver) according to the inventories of Vidin (1710–1810).⁸⁸

In the 1830s – prior to the great upswing – the *yearly earnings* of agricultural wage labourers were not higher than 200 piasters (or 2 grosh daily),⁸⁹ while craftsmen like *abadjis*, *boyadjis*, *arabadjis* still earned more (between 350 and 500).⁹⁰ Agricultural smallholders – *çiftçi*, either free peasants or shareholders – were richer, than artisans in the local center, Priština (600–900 piasters), but not in the nearby rural Vuçitrn.⁹¹ Although landlords were still dominating the leading social class (20 out of the 50 richest tax-payers were landowners in Priština), but the variety of terms applied on them (*çiftlik sahibi*, *timar süvari*, *spahi*) testifies the changes in the agrarian structures. *Spahis* were pensioned, and those who managed to keep their land were not richer (1750 grams of silver yearly income), than the emerging new layer of *çiftlik owners* (1900 grams silver yearly income). The progressive differentiation of the 'feudal' ruler class meant that 25–30% of the local *spahis* were unable to buy a single rifle from their land revenues in the 1840s in Priština,⁹² and

88 See the data of Atanasov.

89 1 gram silver = 1 grosh = 1 kurush = 1 piaster = 0.2–0.25 French francs.

90 The price of 1 ha was 400–700 grams of silver in the 1860s.

91 Data from: *Osmanlı Arşiv Belgelerinde*. Kosova vilayeti. Istanbul, 2007. 363–413. Temetuat defters Nr. 15477. and Nr. 15465. The two towns represent locations isolated from maritime markets.

92 A rifle worth 50 grosh in 1750 means 800–1000 grams of silver/grosh in 1844.

80% was unable to produce the 3000 grams of silver (3000 grosh)⁹³ income yearly. In Radovich 50% of timariots reached this limit in the 1840s, but after their pensioning only 20% earned more than 3000 grosh in 1869.⁹⁴ Pensioning meant an immediate relief for the state, that spared yearly 1000 grosh per *spahi* after pensioning. Furthermore, their state lands could be sold to the producers after 1858. The sum spared by the pensioning could finance the establishment of the modern army without causing any additional fiscal burden for the central treasury (the salary of one foot soldier substituting the *spahi* was 5–6 piasters daily, for half a year cca. 1000 piasters, just the same value mentioned above).⁹⁵

(b) Agriculture in landlocked non-Ottoman lands

The term Southeast-Europe covers borderlands of the Ottoman Empire and also some – geographically diverse – frontier areas⁹⁶ that were not (always) subjected to Ottoman rule. The gradual retreat of the Ottoman Empire created a mosaic-like, fragmented transitional zone with diverse patterns. Sometimes phenomena similar to the Ottoman structure prevailed (the salary and organization structure of military personnel in the Croatian *Militärgrenze* resembled that of the *spahis*), while sometimes the development took a sudden turn (the abolition of large estates and prebendal estates in Serbia). Some areas retained their pre-Ottoman structures (civil Croatia), or were integrated into a new center earlier than others (Southern Hungary to the Habsburg Empire), or were put under special administration, which influenced landuse and agriculture (*Militärgrenze*).

93 The original limit in the 16th century – that time equalling with 3000 akçe – for timar-estates.

94 See data: Dimitrov, Str.: *Kam vaprosa za otmenyavaneto na spahiyskata sistema v nashite zemi*. Istoricheski Pregled, 1956/6. 36; Dimitrov, Str.: *Politikata na upravlyavashkata varhushka v Turciya prez XVIII v*. Istoricheski Pregled, 1962/5. 32–60. and Draganova, Sl.: *Materiali za Dunaovskija vilayet: Rusenska, Silistrenska, Shumenska i Tutrakanska kaza prez 50-te-70-te godini na XIX v*. Sofia, 1980. 1st page of Table 19.

95 For this see Demeter, G.: *Essays on Ottoman Modernization. Industrialization, Welfare, Military Reforms*. Sofia, 2017. Chapter 3.

96 Rivers and large moors surrounded by forests could be as good frontiers as high mountain ranges or less populated dry carstic plateaus.

(i) *The birth of a smallholder society – The origins of Serbian agrarian structure*

The Serbian agrarian system represented a different model compared to the prevailing Ottoman. Although according to Bataković it was not only the economic oppression that fuelled the Serbian uprising in 1804, as from the 36 petition written to the Sublime Porte between 1793–1806 only 5 mentioned agrarian problems, the fight for supremacy between the elite groups (*janissaries, spahis, orthodox starešinas*) over the land and *reaya* resulted in the dissolution of existing *çiftlik* estates. This was against the then general trends in the Empire.⁹⁷

However, this did not mean that abuses were immediately over: the Serbian elite tried to substitute the old landlords and exploit the *reaya*. Matija Nenadović had 1005 peasants serving with *kuluk* (corvée). The *starešina* of Krumla used force to acquire land from peasants in 1825. Usury was another form to acquire land: Vučo mentions that for a loan of 130 ducats, 310 had to be repaid within 2 years, and a loan of 40 ducats finally cost 140 after 3 years.⁹⁸ The expropriation the Ottoman *çiftliks* instead of distributing them among producers was also frequent: in Batini village, the *starešina* bought the land under market price from expatriating Muslims. Peasantry was not an unified stratum that time, their rights and obligations differed: Vučo mentions 6400 tax-payer peasants and 7900 serving with *kuluk* in 108 villages.

In order to abolish these practices, and thus to hinder the emergence of new landlords, Prince Miloš considered all expropriated Ottoman land as state or *obština* property (he decided not to distribute all land among producers).⁹⁹ Although this approach was similar to the former Ottoman practice, the abolishment of *kuluk* in 1821 (state taxation was introduced instead, unifying the obligations) increased the costs of cultivation and made it unprofitable for *çiftlik* estate owners.

97 Bataković, D.: *A Balkan-Style French Revolution? The 1804 Serbian Uprising in European Perspective*. *Balkanica* 36, 2005. 113–28.

98 Vučo, N.: *Prvobitna akumulacija kapitala u Srbiji*. *Istorijski časopis* 29–30, 1983. 289–94.

99 *Ibid.*

The socio-economic structure has transformed: Serbia became a smallholder society: only 10% owned more arable land than 3 hectares in 1834.¹⁰⁰ In order to avoid further differentiation and the impoverishment of peasantry (that forced many to become a *hajdut*, and hindered the consolidation of state) Miloš also introduced the *okučje* in 1836 based on the practices in the Croatian Militärgrenze. This meant that the house of the peasant and a small parcel of land cultivated by a pair of oxen became unalienable and could not be mortgaged. (Similar practise also existed in the Ottoman Empire: there the *reaya* owned 500 m² unalienable land). This was just the opposite of what was happening in Hungary, where these restrictions originating from 1351 had been abolished by 1848 in order to promote loans and accessibility to capital for modernization.

This change had serious consequences: (1) it slowed down capitalistic development, land (and capital) concentration, accessibility to credits, restratification. Thus it hindered modernization efforts, while (2) it did not save the existing economic units from fragmentation, division between inheritors. The optimal size of economic units originally set to the socio-economic needs was slowly decreasing. The free trade of land after 1844 also influenced the process of fragmentation.¹⁰¹ The increasing number of economic units – up to 370 thousand in 1910 – also meant the increase in proportion of land (%) under the *okučje*. (3) Contrary to the original purposes, usury also prevailed, as the new, differentiated head-tax (substituting the tithe paid to *spahis*) had to be paid in cash (so-called *maktu* system), but smallholders hardly had marketable surpluses to obtain money. (And in case of tax arrays the state retained the right to confiscate property under *okučje*). Unlike in Bulgaria in the 1840s, producers in Serbia were not able to profit from favourable price trends due to the monopolization of exports by Miloš and his manipulation with the currency. Thus increased peasant participation in market processes due to the *maktu* system did not mean their participation in external trade: in the 1820s only 60–70 merchants were able to compete with the prince (a

100 Ljušić, R.: *Knjezevina Srbija, 1830–1839*. Belgrade, 1986. 51–71.

101 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 115.

decade later under the liberal *ustavobranitelji* 1000 new licences were issued). Livestock was the main product (new resistant species like *mangalitsa* were raised), partly because the roads were in such a bad condition that it took one week to reach Belgrade from Kragujevac and this made grain trade expensive, doubling the prices. (The transport price of 100 oke grain cost 9 dinars between Smederevo-Belgrade, while the local price was 10 dinars). The other reason for the preference of animal products in exports was that general price index of meat was 50% higher in Europe in 1830, than in Serbia (the difference decreased to 20% in 1890 and 5% in 1910).¹⁰²

Although taxes paid to *spahis* were abolished, state taxation did not mean a relief for the peasantry. The differentiated head-tax produced more (7 million grosh in 1835), than the tithe earlier.¹⁰³ On the other hand the subsidy paid to the Ottoman state had fallen from 45% of the central state revenues to 11% by 1834–38, which was a great difference compared to Bulgarian lands.

The introduction of head-tax triggered the dissolution of *zadrugas* (which also lost their 'defensive' functions as peace came), because costs grew: head-tax increased from 35 to 60 grosh. In Serbia 118 thousand *zadrugas* existed with 1.7 million members in 1886, by 1903 their number had been halved. Until the increasing state taxes met with increasing export incomes (*per capita* exports increased from 6.6 dinars in 1835 to 34 in 1875, but then stagnated till 1910),¹⁰⁴ the problems of the old and new structures remained invisible.

The existence of the *okučje* or the *zadruga* or the prevalence of animal husbandry became problematic only when demographic pressure met with decreasing profits (and the increasing demand of the budget). Overpopulation was partly the result of the settling policy of the principality offering a 3 year tax exemption and 3 ha of land to each newcomer (very small compared to Hungary in the 18th century) to increase population number and state revenues (thus 33% of the

102 Bairoch, P.: *European Foreign Trade in the 19th Century*. Journal of European Economic History 2, 1973. 20.

103 Ljušić, R.: *Knjezevina Srbija*, 51–71.

104 Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol. III. 20–21.

population increase reaching 666 thousand between 1835–75 was due to settlers).¹⁰⁵ Natural reproduction rate was also among the highest in Europe. Population increase induced a conflict between grain production and animal husbandry. The political stability promoted the expansion of ploughlands (while during the instability of Ottoman rule pig was preferred as wealth due to its greater mobility). Peasants came down from the woodlands of Šumadija to the valleys, and started to grow maize for the animals, which were earlier fed on acorns. The gradual dissolution of *zadrugas* which were typically engaged in mixed farming also paved the way towards monocultural grain producing units more vulnerable to external challenges.¹⁰⁶ But the shift to monocultural grain production simply does not fit to smallholdings.

Soon after the shift to grain production the decrease of wheat prices meant the next shock to tackle. Side by side with the shrinking revenues labour surplus on small farms became extreme – an estate of 5 hectares was able to sustain a family of 5 persons, but its cultivation required only the workforce of 1.5.¹⁰⁷ In western Europe only 15–20% of the labour capacity remained unexploited in the 18th century, while in Hungary it was 25%, but 45% in Romania! In Serbia a woman worked 180 days, a man 160, elderly people 70, children 110, while in Europe the average was 205 days.¹⁰⁸ But only 50 days were spent on the fields (see: Rakovica village in 1930), the rest was spent around the house.

Self-exploitation for economic reasons – to earn more profits – was rare in Serbia.¹⁰⁹ The reason for this was not inborn laziness (orthodox people had more than 180 religious holidays, when they did not work, and this was high compared to the 70 catholic holidays), but rather the

105 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 116.

106 Although the criticism on the productivity of *zadrugas* might be true, but their larger estates and labour force surplus contributed to the diversification of production, thus decreased the vulnerability of economies (which was one of the strategies in the 18th century).

107 Franješ, O.: *Problem relativne prenapučenosti u Jugoslaviji*. Arhiv ministarstva poljoprivrede 5, 1938. 11. 3–46.

108 Avramović, M.: *Selo u Srbiji pre rata*. Društveni život 2, 1941. 244.

109 Calic, M.-J.: *Sozialgeschichte Serbiens*, 92. and 314. Even Kanitz recognized, that Bulgarians are more industrious than Serbs, though they are unable to exploit their possibilities and did not show significant development. Kanitz, F.: *Donaubulgarien und der Balkan. Historisch-geographisch-etnographische Reisetudien aus den Jahren 1860–1879*. Leipzig, 1882. Band II.

recognition, that *under these technical conditions the land would not produce more even if all members of the family spent all days with fieldwork*. This unutilized labour force was especially significant in *zadrugas*, as Strausz recognized. And as the development of the industrial sector was slow, the labour surplus could not be reallocated.

Thus the economic system built up by Miloš had its own weaknesses. The need for cash pushed the peasants toward the loans provided by usurers, as there were no banks. The difficulties of accumulating wealth in land encouraged investors to invest into trade. On the one hand it hindered the accumulation of passive capital in land (contrary to Greece where 1000 million drakhmas were invested into land compared to the 850 million active capital of which 35% came from trade), on the other it increased consumption, although the population had low purchase power. It is not surprising that Miloš wanted to keep shopkeepers away from villages (there were only 200 in 1852) as he calculated with the harmful effects of increasing consumption on self-sustaining peasant economies,¹¹⁰ and of course also wanted to hinder any capital accumulation that might endanger his economic power.

The dethronement of Miloš resulted in the victory of *ustavobraniteli* and the liberalization of economy (but this went side by side with the further centralization of administration). Lands became subjects of mortgage, which increased social mobility and made capital accumulation possible in agriculture. When Miloš returned and his son, Mihailo Obrenović became the ruler, the Minimum Homestead Act was reinstated in order to conserve the existing structure of agriculture. To mitigate the increasing land hunger some community lands were distributed (1861) among the members of the new generation. In 1873 a new law on *okučje* was issued, but those farms having tax debts towards the state were still excluded from the protection, and still many practices existed in private sphere to bypass the law.¹¹¹ Finally, the new law of 1898 increased the amount land under protection to 3.5

110 Merchants were rather interested in trade (imports) than in investing into other sectors of economy, and within trade imports were preferred to exports (comprador capital).

111 Tomasevich, J.: *Peasants, Politics*, 462.

hectares/household saving 15% of the peasantry¹¹² from the loss of their landholdings. According to the amendments the house and 2000 m² could not be mortgaged or confiscated even by the state in case of tax arrears. As land fragmentation went on (contrary to the Slovene lands, representing a different way of development where smallholdings also played a great role, but primogeniture was usual, and where animal husbandry – cattle breeding, Alpine milk-production – also prevailed owing to geographic circumstances and due to the fact that labour surplus migrated or was urbanized) by 1920 42% of the lands in Serbia had fallen under this prohibitive law.¹¹³ But it still did not mean an improvement in general conditions: since indebtedness was usually the consequence of the insufficient amount of land or production, this measure only took away a possible solution (credits: interest rates were maximized in 12% in 1860) instead of solving the problem.

The problem of *okučje*, tax arrears and mortgaging (as a consequence) is best illustrated by the fact that 87% (20 thousand cases) of forced auctions owing to debts between 1850–1909 was executed on peasant landholdings, although their share from total debts reached only 35% (5.8 million dinars). The average peasant debt in these auctions was only 300 dinars (while in case of urban dwellers it was 2500 dinars), referring to poverty and scarcity of cash. 70% of forced auctions in case of peasantry was in connection with tax arrears.¹¹⁴ Smallholdings under the given circumstances (low technological level, great population increase, products with low added value) seemed to be unsustainable, but politicians could not work out an alternative.

The Serbian agrarian model was definitely the opposition of the traditional English (or of the transforming Hungarian): it hindered free reallocation of labour of labour force and capital accumulation. Such a structure could not trigger industrial revolution (that's why guilds survived till 1911, while they were abolished in Hungary in 1872

112 In other words, half of the stratum owning less than 3.5 ha was endangered. Data Petrović, J.: *Prelaz seljaka u varoši radnike*. Belgrade, 1924. 34.

113 *Ibid.* 30.

114 Vučo, N.: *Razpadanje esnafa u Srbiji*. Vol. II. Belgrade, 1954. 114–15.

inducing a migration of artisans from Vojvodina to Belgrade).¹¹⁵ By 1897 11% of rural population became landless and 55% of farms (160 thousand families) was smaller than 5 ha.¹¹⁶ Agrarian yields were low: in Užice, Pirot and Vranja grain production was only 6 quintals/ha and since estates were under 3-4 ha, these regions were unable to sustain a family of 6 from grain production without supplementary revenues.¹¹⁷ Thus, the lack of factories and the isolation of urban guilds forced villagers to migrate as itinerant craftsmen (*torbari*), or to participate in household industry, or simply became *pečalbari*, agricultural wage labourers. Approximately 100 thousand males (or 25% of farms) was engaged in these activities in Zlatibor (pottery), Nišava (wood-carving, pottery, carpet and rug making) and Suva Planina.¹¹⁸ In some regions revenues from home industry could reach even 20–25% of the agricultural income in the 1860s.¹¹⁹ Of course their work was not efficient: Savić claimed that a ropemaker could produce 1000 kgs yearly, but as he was engaged in agriculture too, he only produced 60 kgs to substitute the missing agrarian income.¹²⁰

The *urban-rural dichotomy* remained significant even after the rule of the 'defenders of constitution'. Urban dwellers earned averagely 190 dinars per capita at current prices in the 1860s, while villagers 112 dinars. This difference had increased further by 1910 as the nominal income of urban dwellers had doubled, while the income of agrarian

115 Vučo, N.: *Položaj seljastva*. Bd. 1. Eksproprijacija od zemlje u XIX veku. Belgrade, 1955.

116 Konstantinović, N.: *Seljačko gazdinstvo u Jugoslaviji*. Belgrade, 1939. 18–19.

117 The statistics of Sundhaussen show an average output of 6 q/ha of grain in Užice, Pirot and Vranja, 7.4 in Niš (while 9.2 in Kruševac). Average landholdings were under 3 ha in Užice, Vranja and Toplica and under 4 ha in the mountainous Pirot and Niš. In the latter the average household size was 6.8 persons and it was 7.3 in Vranja (compared to the Serbian average which was only 6 persons). 3 sown hectares could not produce more than 2 tons of wheat, and 7 persons consumed the same amount – without calculating with seeds, animal consumption and taxes. In Serbia *overpopulation was more important coercive factor than the changing external circumstances* (unlike in Bulgaria) that motivated structural changes.

118 Calic, M.-J.: *Sozialgeschichte Serbiens*, 105.

119 In Pirot 7000 people was engaged in ropemaking producing 1.3 million dinars, almost 200 per family, constituting 25% of the yearly income for a family of 6. But this was ruined by the Bulgarian competition after 1878.

120 Savić, M.: *Naša industrija i zanati – njine osnovice, stanje, odnosi, važnost, putevi, prošlost i budućnost*. Vol. 2. Sarajevo, 1922–1928. 180.

population was around 160–170 dinars at current (1910) prices. This also means that real income per capita in agriculture decreased from 190 dinars (expressed in 1911 prices) in 1860 in the next 50 years.¹²¹ Serbia was even more ruralized than Bulgaria: only 4 % of the population lived in settlements over 2000 inhabitants in 1834 and it was 7% in 1863. 25% of urban dwellers still earned their living from agriculture.

Beyond the urban-rural dichotomy *differentiation between villages* also took place. In the rich Belica village 66% of the farmers earned profits from animal husbandry (averagely 166 dinars), while in the poor Trnava only 31% had incomes from animal husbandry rated to 37 dinars averagely. Poverty was great: 40% of farmers had no ploughs, 72% had no carts pulled by horses, 38% lacked beds, 20% even tables.¹²²

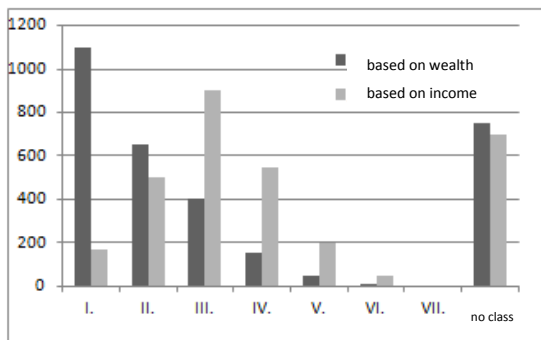
Despite the conservative policy of Miloš, that even hindered the establishment of shops in rural areas, the social differentiation of peasantry did not stop and this prohibition was soon abolished by the supporters of *ustavobraniteli* to secure the positions of urban layers (rural-urban dichotomy). The number of shops increased over 1000.¹²³ Thus, when the law of 1868 classified the inhabitants into 8 categories based on their *wealth and income*, serving as basis for the taxation, the categories for peasantry and urban dwellers were set differently, reflecting the significant difference in their wealth. While in Veliko Gradište 60% and in Majdanpek towns 80% of households owned more than 150 ducats wealth, among the agrarian population of Jagodina district this was only 20%. Based on wealth, the poor layers had similar shares from both urban and rural population: the proportion of dwellers grouped into I-II. tax categories was 50% in the villages, and only a bit smaller in towns. The unclassified (exempted) population was 25% in rural areas, while only 12–15% in the two towns (*figure 3*).

121 The original value in 1860s was similar to the Bulgarian, but while the latter rather stagnated, the Serbian per capita value decreased according to Palaret.

122 *Avramović, M.: Selo u Srbiji*, 243.

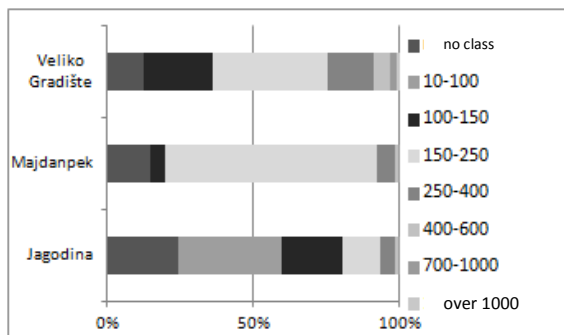
123 Markets were small and isolated: the Serbian peasant spent 15 dinars yearly in fairs (70–90 dinars/family), which is only 15% of the net income of an estate of 5 ha. The main articles bought in shops were sugar (87% of peasants bought sugar in local stores), coffee (62%) and only 44% bought rice or oil (supplementary foodstuffs).

Figure 3. Stratification of peasantry based on wealth and incomes in Jagodina district in the 1860s



Katić, B. M.: Poljoprivreda kneževine Srbije i. m. 311–313.

Differences of urban and rural welfare (in ducats)



Katić, B. M.: Poljoprivreda kneževine Srbije, 311–13. és Katić, B.: Štruktura stanovništva ...

Despite the rural-urban dichotomy, *sectoral differences* in welfare were not so evident. Though only 9% of agrarian earners was classified into the (III–IV.) wealthier tax-category in the mentioned 2 towns,¹²⁴ but *people living from agriculture in urban environment were not poorer, than artisans*. In Veliko Gradište the 164 agrarian families constituting 26% of the population owned 28% of the total wealth. This means average wealth: industrial workers and craftsmen constituting 23% of tax-payers

¹²⁴ Katić, B.: Štruktura stanovništva Velikog Gradišta i Majdanpeka. Istorijski Časopis 35, 1988. 119–31.

and owned 20% of the total wealth. Since artisans were not richer than agrarian population, this could be *another reason why farmers refrained from restratification into industry, if having enough land*. Merchants constituting 15% of the local society were definitely the richest, as they owned 40% of properties, similarly to the Bulgarian case.

Contrary to the differences measured in agrarian wealth, the incomes in rural areas were surprisingly similar. Since greater wealth did not produce larger agrarian incomes, as proven by the analysis of Jagodina (the average wealth dispersed between 50–190 ducats,¹²⁵ while the deviation of average incomes was monthly 5–11 Thalers/family) and Gorna Resava,¹²⁶ this confirms, that peasantry focused on self-subsistence and did not produce more than it needed, even if circumstances were given to produce surplus (figure 3)!

(ii) Borderlands

Croatian lands were composed of at least two different landscapes and three administrative systems. The climate and landforms in *Slavonia* (between Drava and Sava rivers) were similar to the Hungarian: cattle, grains and wine (Srijem) characterized the region, with numerous non-allodial large estates (Erdődy-family). *Civil Croatia* (and even more Dalmatia) with its less fertile carstic limestone mountains offered a different way of living. The *Militärgrenze* located along the Ottoman border had a special administrative status with a different social structure, dominated by orthodox peasant-soldiers (*graničari*) exempted from peasant taxes in return for their compulsory military services.

The situation in Croatia was somewhat better than in Bosnia, where *kmets* (*çiftlik*-peasants subjected to landlords) working on 20 ha

125 1 ducat = 50 grosh.

126 Katić, B. M.: *Poljoprivreda kneževine Srbije (1834–1867)*. Belgrade, 2014. 311–13. Village Plažana (Gorna Resava) had altogether 8000 ducats wealth, meaning 55 ducats per family, while the income was monthly 7.5 Thalers per family. This put the village into the I. category based on the wealth, but III. based on income. In Medvedi village a household had averagely 155 ducats (category III.) but the income was only 8.5 Thalers/month/family, slightly higher than in the first example.

produced approximately 7 t grains of which only 3.5 remained after taxation. (Even the free Muslim smallholder with his only 6 ha could not keep more than this.) The local elite of the military borderland, the *kapetans* of *graničari* earned yearly 720 livre (or 3200 grams of silver) from their 60 *jutar*¹²⁷ of arable land and 25 *kosać* days of pasture in the 18th century, reaching the minimum income of a viable *spahi-timar* in the Ottoman Empire. (It is not surprising that similar structures persisted and similar salaries were given along the frontier zone). They were allowed to have 20 horses, 30 cows, 20 oxen, 100 sheep. Since 1758 their salary has been doubled to 58 Ft monthly (1300 livre/year).¹²⁸

Table 6. Estate sizes among nobility prior to 1848 (sample)

Estate size in <i>sessio</i>	Croatia				Slavonia			
	Number of estates	%	Total number of <i>sessio</i>	%	Number of estates	%	Number of <i>sessio</i> (selište)	%
0–3 <i>sessio</i>	17	3.3	73	0.6	0			
3–9	218	44.8	915	6	1	2.5	7	0
9–45	208	40	4472	31	9	23	253	3
45–90	42	8.1	2531	17.6	5	12.8	308	3.53
90–180	21	4	2645	18.4	9	23	1215	13.5
180–270	6	1.2	1356	9.4	4	10.2	924	10.5
270–360	6	1.2	2077	14.4	1	2.5	285	3.2
over 360	1	0.2	387	2.7	5	26	5762	65
Altogether	519	100	14 456	100	36	100	8754	100

Bičanić, R.: Počeci kapitalizma u Hrvatskoj ekonomici i politici. Zagreb, 1952. 77.

In Civil Croatia three quarters of the arable land was held under feudal titles, but the bulk of this was *urbarial*, not allodial. The estates of poorer *landlords* (3-5%) were similar to that of the *kapetans* (reaching 3

127 1 *jutar* = 1 cadastral hold = 0.5575 ha. Thus it is 33 ha or more than 2 *sessio*.

128 Bičanić, R.: Počeci kapitalizma u Hrvatskoj ekonomici i politici. Zagreb, 1952. 58.

sessio). 40% of the noble owned between 3–9 *sessio*¹²⁹ and another 40% between 9–45 *sessio* (table 6), thus the proportion of noble landlords with more than 3 *sessio* was greater than that of the askeris around Edirne!

Although the *theoretical* peasant landholding was said to reach 19 jutar arable land and 5 jutar pasture in Croatia, while 32 jutar arable land and 10 jutar pasture in Slavonia, but if we analyze the distribution of peasant economies we may come to the conclusion that 60% of producers worked on 30% of land (similarly to Bosnia). This means an average of 0.5 *sessio*/family¹³⁰ (similarly to Hungary) (table 7) not better than around Edirne! In 1850 the *zadruga* existing here became hereditary, but its dissolution was not permitted. This hindered land concentration in Croatia.¹³¹

Calculating with 30% fallow, the sown area of a peasant ranged to 13 jutar (7 ha), producing 5200 kg of grain according to Bićanić. This is somewhat better output/ha than measured in Bosnia. But after the deduction of the 10% given to the Church, the 10% tithe to the landlord and the seed for the next year, the remainder totalled 3200 kg/household, which was now not much higher than in Bosnia. In Croatia 1 jutar arable land produced 22–35 francs income in 1847 (table 8).¹³² Compared to the data from the 18th century (12 livre or francs) the development is undeniable, but this growth was partly the result of the 40% price increase and not of the improvements in yield/ha.¹³³ The tax was worth altogether 80–140 francs (20%), or the income of 4 jutar: thus any difference between Bosnia and Croatia was the result of the better still yields or higher prices, but not of the lighter taxes.

Based on the tax, the income of the nobility can be calculated as well. A nobleman with 9 full *sessio* had only 600–800 francs yearly from the lands, while the “*bene possessionati*” had 8000–14 000 francs. The Count

129 Hypothetic land unit cultivated by 1 peasant workforce unit: one *sessio* reached 14–22 jutar in Croatia and 24–40 jutar (or 12–20 ha) in Slavonia and Hungary.

130 In Požega or Srijem 50% of landholdings were under 0.5 *sessio*, while in Zagreb only 33%. But in the former case the average *sessio* size was greater (see previous footnote), eliminating the regional differences.

131 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 68–69.

132 Or 40–70 francs/ha putting the yield under 1t/ha.

133 In 1785 10 Kreuzer was worth 3.8 kg in rye and this fell to 2.2 by 1848.

Batthyany-estate produced 100 000 francs income, while wealthy urban citizens also earned 8000 francs yearly.

Table 7. Average size of Croatian kmet estates (peasant *sessio*) based on 133 estates in 1847

Region	Sessio	Kmets	Average size (in <i>sessio</i>)	0–0.5 <i>sessio</i>		0.5–1 <i>sessio</i>		1–2 <i>sessio</i>		over 2 <i>sessio</i>	
				kmets	total <i>sessio</i>	kmets	total <i>sessio</i>	kmets	total <i>sessio</i>	kmets	total <i>sessio</i>
Zagreb	2671	3020	0.86	1112 (33%)	397 (15%)	978 (30%)	800 (28%)	814 (20%)	1183 (34%)	116 (4%)	291 (12%)
Varaždin	1017	1477	0.67	653 (45%)	248 (25%)	649 (45%)	523 (52%)	168 (10%)	231 (23%)	7 (0.5%)	16 (1%)
Požega	1380	2441	0.6	1244	467	1021	696	175	218	1	2
Srijem	1382	3530	0.4	3037	980	459	351	31	44	3	7
Total	6450	10 468	0.6	6046 (60%)	2092 (30%)	3107 (31%)	2370 (35%)	1188 (12%)	1676 (25%)	127 (1,2%)	316 (5%)

Bičanić, R.: Počeci kapitalizma, 107.

Table 8. Regional differences in productivity of 1 jutar (0.55 ha)

Region	Yearly income (in Ft)*	Price of one jutar arable land (in Ft)	Output of 1 jutar wheatland	Output of 1 jutar rye	Output of 1 jutar maize	Return rate (in years)
Croatia	17.6	70	12	11	17	4
Dalmatia	7.4	37	5	5.5	9	5
Hungary	15.2	61	11–14	9–12	10–15	4
Vojvodina	18.3	73	14	16	15	4
Styria	22	110	9.5	9.5	18.5	5
Moravia	22.3	180	15	13.5	19	8
Militärgrenze	10.7	43	10	9	20	4

Bičanić, R.: Počeci kapitalizma... *1 Ft = 2 francs = 10–11 grams silver.

Southern Hungary (Bácska-Vojvodina, Banat) was almost depopulated in the Ottoman era. During the 18th century intensive resettlement policy took place encouraged by the Habsburg Empire. The proportion of Orthodox population (serving formerly as auxiliary troops of Ottomans, later of the Habsburgs,¹³⁴ also including many

134 In the temporary military district along Tisza and Danube rivers. Koroknai, Á.: *Gazdasági és társadalmi viszonyok a Dunai és Tiszai határövidéken a XVIII. sz. elején*. Budapest, 1974. 23–69.

refugees from Kosovo) dominating in the 1720s decreased, as the Catholic German newcomers (considered as more reliable subjects, than Hungarians for example) had received huge parcels and tax exemption for three years.¹³⁵ They were settled as tenants on lands owned by the state treasury (their landlord was the state), their large settlements were planned by engineers. As a consequence, inequalities in S-Hungary were small in 1780 (landless were rated here only to 20%, while in other parts of Hungary it was over 35%). Side by side with the general enrichment due to the possibilities of extensification, a great change took place in landuse and product structure too. In 1720 60% peasant-soldiers of the Danubian Military Border owned less than 2 ha ploughland (which is a small value compared to the peasant-soldiers in Croatia) as they were involved in livestock farming and trading-smuggling.¹³⁶ By 1767 the average extent of farms exceeded 16 ha, higher than in Croatia and Hungary, and land was also more fertile. The output per economic units was among the highest as early as in 1720, but as economies were also large, the yield/ha was not outstanding.¹³⁷

Intensification began only in the second half of the 18th century: the growth of taxable population between 1720–1780 was well above the country average (the number of tax units increased by 60% vs. 10%) and by that time grain yields/ha also became the highest in the country (over 600 kg/ha).¹³⁸ Partly to population increase, partly to high soil-fertility, crop production won, husbandry retreated: as early as in the 1850s the proportion of arable land increased to 65% from total cultivated in Southern Hungary (while in other parts of the country this took place only in the 1890s).¹³⁹ Land fragmentation remained low: the average

135 After the initial 3 years of tax exemption expired, the settlers were burdened with indirect taxes. Until 1829 the German inflow to the Banat was free, than a limit of 300 forints wealth was set, making an end to the migration wave (in Serbia, the migration wave just begun, but the land offered for peasants was definitely smaller, thus settlers were also poorer).

136 Koroknai, Á.: *Gazdasági és társadalmi viszonyok*, 118–19.

137 For data see: *Magyarország története*, Vol. 4/2. Budapest, 1989. 926–85. The chapter on agriculture was written by Vörös, K. and Wellman, I.

138 That time outputs on 'free' and non-allodial lands was higher (1:4) in Hungary, than in allodial lands cultivated by compulsory unpaid *corvée* (1:3).

139 See maps in *Historical Geographical Atlas of Hungary for Regional Analysis of Socio-Economic Phenomena*. Budapest, 2016. Ed.: Demeter, G. (<http://www.gistory.hu/g/hu/gistory/gismaps>)

parcel number per estate was 5-6 (favourable for future mechanization and land-concentration), while it was above 10 in other regions.

During the reign of Joseph II the purchase of state lands became free for local inhabitants and soon for noblemen as well. The latter managed to oblige peasants to *robot* (corvée) and *tithe* as it was elsewhere in Hungary. During the Napoleonic era these services were commuted to money, but after the wars and the collapse of grain prices and due to the inflatory policy of Habsburgs resulting in the depreciation of coins landlords rather required tax and services in form of fieldwork (from 52 days with animals or 104 days on foot - in case peasants had less than 1 *sessio*, the burdens were proportionally smaller). Taxes, dues, attempts on redemption and population increase all contributed to the process that by the 1840s 50% of the peasants living here had become landless.¹⁴⁰

(iii) Integration into the imperial division of labour – Hungary

In Hungary there had been numerous changes after the liberation from Ottoman rule both in production systems and in social patterns and processes (migration, land availability, services to landlords). Despite its efforts to consolidate the circumstances and uniformize services and burdens, the first centralized regulation in the 1770s did not terminate regional diversity in agriculture. The existing diversity was only partly due to the differing geographical conditions. In urbanized regions, like Vác and Sopron, peasants recognized the significance of crop rotation as early as the middle of the 18th century.¹⁴¹ In many places the traditional redistribution of lands was abandoned (while it survived in Transylvania till the middle of the 19th century), which was a step forward to private property (contrary to the Balkan *zadruga* or *obština* – communal lands), though serfdom itself survived. Nonetheless, obligations of peasants were less serious in liberated lands (tax exemption, greater farm sizes) due to the low supply of labour force compared to overpopulated and furthermore mountainous

¹⁴⁰ Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 67.

¹⁴¹ *Magyarország története*, Vol. IV/2. 931.

northwestern Highlands (Slovak regions characterised by low soil fertility). Corn began to spread on fallow instead of backyards and as it required hoeing: this contributed to the increase of fertility even without manuring.¹⁴² Tobacco remained the crop of the poor with small amount of land (similarly to Macedonia at the end of the 19th century), large estates' share in tobacco production was then insignificant. Former soldiers with western experience contributed to the spread of potato, which was important in decreasing the threat of famines (for example in 1772–73) in mountainous regions with low soil fertility. Potato soon substituted grains in spirits production, thus grains could be either exported to the Cisleithanian parts of the Empire or serve as food for areas characterized by shortages.

Extensivity remained a rational choice on large estates – many of the former moors were regulated in the 18th century (the Hanság in Moson County, or the Ecsedi-moor in Szatmár County, which was utilized by German settlers). However, the old autonomy of Counties hindered professional cooperation between the territorial entities, and this often caused more harm than benefits. Corn also began to spread on large estates as animal fodder for swine (the deforestation during the Ottoman period decreased the availability of acorns). Orthodox merchants traded with huge amount of livestock, which required new, rough species (*mangalitsa*). These merchants often leased the '*pusta*' (villages abandoned during the Ottoman) to feed their animals, which is a remarkable change compared to the first decades, when these former '*mezraa*' were distributed among the local peasant smallholder-serfs still small in numbers. Forestry also began to develop – Robinia pseudoacacia was planted on quicksand areas in the central part of the country by central initiative. As animal husbandry and forestry were to cover the central needs of the Empire (for example military purposes, warfares), goats and sheep were prohibited from woodlands, and a 30-year rotational system of clearcuts was implemented in the whole country. There were also failed initiatives, like producing cotton, for which the climate was inapt (and it remained inapt during the next

142 *Ibid.* 932.

attempt of the communist regime). Horse-breeding also developed owing to military needs (Mezőhegyes, Bábolna). Silkworm-breeding was abundant in peasant economies, when silk became popular in elite circles. Merino sheep appeared especially on large estates to supply Bohemian and Moravian textile industry with raw material of better quality. After the first attempts in 1773 in Croatia the merino sheep husbandry remained prosperous until the arrival of Australian and Argentinian wool (1850s).¹⁴³

As Hungary became the grain-supplier of Austria, new trends occurred in grain-production as well: quantitative approach was substituted by qualitative. Thus rye was replaced by wheat, while exports declined and internal consumption grew. Though the extensive approach was not abandoned and output/ha did not improve, Hungary became self-subsistent from grains: famines only occurred due to bad routes and local climatic anomalies.

In order to promote the production of surplus and the implementation of crop-rotation system the central government abolished the tithe paid after fallow if it was cultivated. The state also regulated the extent of peasant lands and their obligations towards the nobility, but it was unfortunately executed regardless of local circumstances. Thus it meant a more strict regulation for the peasants of lowlands (formerly occupied by the Ottomans), where earlier a shortage of labour force secured better conditions. On the other hand, the burdens of peasants in the relatively overpopulated Western and Northwestern regions were decreasing after the implementation of the changes. These regulations were originally opposed by the nobility, but the peasant revolts in Transdanubia in 1765 finally forced the noblemen to accept it – but they still found many possibilities to exploit the new situation in favour of their interest. These regulations were not implemented in Transylvania (as it remained unaffected by the mentioned uprising, there had been no coercive factor for the nobility to enter into a bargain with the central government), here only proposals without any obligation were made by the central government. Thus it is

143 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 69.

not surprising, that the average ploughland in a peasant *sessio* in the not so fertile Transylvania was limited in 5 ha, while it was above 10 ha in Hungary. (In Transylvania the estate sizes of noblemen were also smaller and they wanted to spare the land for their *allodium* that way, while creating circumstances that would force the peasants to work for them). This led to the impoverishment of the Transylvanian peasantry, thus the outbreak of the Horea-uprising in 1784 was not surprising from retrospective approach.

Furthermore, peasants thought that the new regulations were to set up new taxes, thus they admitted less land officially as they really cultivated. As the regulations of 1767 were made based on these declarations, the peasants became deprived of these unadmitted lands. These so-called remanency-lands were given back to the landlords and were either incorporated into the allodial lands producing for markets, using cheap labour force based on compulsory work (*corvéé*, limited officially to 2 days/week or 1 day per week in case of the application of horsepower) or were leased again to/by peasants, but now for money, meaning an extra income for nobility. The third possibility was to exploit them as grazing land for merino sheep.

These meant changes in estate structure as well. For example in Pest County 17% of the lands was remanency land belonging to the nobility, but used by peasants, while the proportion of *sessio* (land under direct peasant cultivation) reached 48% and allodial lands reached 30% (*table 9*). The extent of communal lands decreased very quickly to 5%, while in the Balkans these could make up to 30-50% even in the middle of the 19th century. Peasant lands decreased especially in the central regions, while *corvéé* was increasing. In the western parts of the country *corvéé* reaching 4 days/week on foot decreased remarkably. Thus the average peasant landholding was over 0.5 *sessio* (6 ha ploughland + meadows, pastures and garden = 8 ha), which means that there were many landless among their lines. The landless were compelled to pay the yearly 1 Forint (10-12 grams of silver) regular tax for the landlord, as the peasants with land did so, but not the tithe. (Peasants also paid originally 10% of their incomes to the Church, but this had decreased by that time, ad taxes were paid to the state as well). Their *corvéé*

obligation was only one-third, one-fourth of services delivered by peasants with land.

Regional differences were also remarkable: landless (35% of the peasants) were underrepresented in the central and southern part of the country (25%) characterized by land surplus.

Table 9. Landuse and distribution of land between productive layers
(Pest County in the 1780s, in %)

%	Forest	Pasture	Meadow	Ploughland	Vineyard	Total
Peasant farms	3.4	55	45	54	96	48
Community land		20				5
Landlords' land leased to peasants		21	17	20	1	17
Landlords' land	96.6	6	38	26	3	30
Total	100	100	100	100	100	100

The substantial decrease in *corvée* days after 1767 in the western and northwestern regions meant that noblemen did not have enough workforce: this threatened with the decrease of incomes, while the expenses remained the same, as they wanted to maintain their lifestyle. Therefore landlords found illegal ways to secure the surpluses (like collecting extra grains), as the punishment for violating the regulations was very small (they would rather paid the fine after illegally used *corvée*, than to abandon this practice). The new system of *corvée* itself preferred grain production, as wheat required less workdays compared to other crops, and work could be concentrated to one period (the summer work was very disadvantageous for the peasants, as they had to harvest their own grains and the landlords' also). In the central areas animal husbandry managed to keep its positions: 50% of the land was used as pasture. This was not typical in the western parts of the country.

Regarding the composition of revenues and profitability of large estates, in Gödöllő (Central-Hungary) 25% of the *income* of a large estate with traditional structure came from feudal services dominated by the *tithe* and *corvée* (it could be redeemed by paying money for the landlord). 33% of the revenues came from leasing land to peasants or

merchants. Allodial incomes (the potential marketable surplus from wine, cattle, grains, spirits and beer) constituted 40% of the incomes, but in case of wine and grains this came mainly from the tithe and not from marketable surplus. Incomes based on tithe and *corvée* were the cheapest forms of collecting revenues: only 33% of the *expenses* came from here and further 2% from leasing land, while the cultivation of the allodial land constituted 66% of the total costs. Thus the profit rate of allodial lands was low in these traditional estates. Furthermore, only 13% of these expenses were recycled into the development and maintenance of the economy, while 66% was spent on representation, luxury and unprofitable activities, like buildings. On the other hand it is also true, that total expenses (owing to the low costs of landlease and collecting tithe) still reached only 25% of the incomes, thus even this obsolete structure was profitable.

In other words, incomes from allodial estates reached 40 units, expenses were $0.66 \times 25\% = 17$ units. Income from feudal taxes was 25 units, costs were $0.33 \times 25\% = 8$ units. Leased land produced 33 units income and no costs.

In order to quantify the development between 1720–80 we used a regional approach. The distribution of population became more even by that time, but differences still did not diminish. The number of tax units increased in Central-Hungary, referring to the increase in general wealth (and the former overtaxation of western regions). The relatively small population number in the central areas and the grain surplus resulted in smaller unit prices (*table 11*). In many of these central counties there were no grain markets at all, referring to general self-subsistence and low profitability. The grain production increased remarkably (tripled between 1720–1780, especially in the central plains), but the extension of arable lands was even greater (*table 12*). Thus output/ha or output/capita did not increase within this 60 years (the data from the two years are slightly comparable, as the extent of fallow was unknown).

Table 10. Regional distribution of population and tax-unit increase

Regions	1720 (households)	1780 (prs)	1720 (%)	1780 (%)
W and NW-Hungary	99 769	2.1 million	60	50
Area formerly under double taxation	32 642	1.1 million	20	25
Central (Ottoman) Hungary	33 452	1.2 million	20	25
Total*	165 863	4.3 million	100	100

*Without Transylvania and Croatia.

Regions	Tax units, 1723	Tax units, 1780	% in 1723	% in 1780	Change in %
W and NW-Hungary	3597	3121	67	58	-13
Area formerly under double taxation	990	1106	18	21	12
Central (Ottoman) Hungary	733	1152	13	21	57
Total	5320	5380	100	100	1

*Without Transylvania and Croatia.

Table 11. Regional differences in grain prices in 1780 (in Fts/hl)

Region	Wheat	Rye	Oat
W and NW-Hungary	3.77	2.55	1.6
Area formerly under double taxation	3	2.1	1.1
Central (Ottoman) Hungary	3	2.1	1.2
Total*	3.5	2.4	1.4

*Without Transylvania and Croatia.

Trade showed positive balance despite the double tariff zone (see below). Exports (including trade with other parts of the Habsburg Empire) reached 11 million Forints (1 florin = 11 grams of silver) yearly average between 1767–88, while imports were rated to 9 million Forints. The structure of exports showed remarkable changes until the 19th century. Agricultural goods kept their share – they constituted 90% of the exports and only 15% of imports, – but the 5 most important export products (constituting 75% of the agrarian exports) changed over time. Cattle as traditional article kept its position (27%), but it was followed

by grains (19%) – a new phenomenon. Grain overtook wool exports, which was also as new product (13%), the traditional wine and grapes (10%) and tobacco (6%, also new).

Table 12. The extension of ploughlands, grain production and per capita outputs

Ploughlands	1720 (ha)	1780 (ha)	1720 (%)	1780 (%)	Increase
W and NW-Hungary	176 000	760 000	50	43	4.3
Area formerly under double taxation	63 000	358 000	20	20	5.7
Central (Ottoman) Hungary	98 000	640 000	30	36	6.5
Total*	337 000	1 758 000	100	100	5.2
Grains	1720 (hl)	1780 (hl)	1720 (%)	1780 (%)	Increase
W and NW-Hungary	1 279 000	3 350 000	48	44	2.6
Area formerly under double taxation	556 000	1 235 000	21	16	2.2
Central (Ottoman) Hungary	808 000	3 000 000	30	40	2.8
Total*	2 654 000	7 626 000	100	100	2.9
Output	1720 (hl/ha)	1780 (hl/ha)	1720 (hl/family)	1780 ** (hl/capita)	1 hl = 65 kgs
W and NW-Hungary	11	5.6	12.9	1.6 (11.2)	o
Area formerly under double taxation	13.5	5.2	17.3	1.1	-
Central (Ottoman) Hungary	12.2	6.5	24.2	2.6 (18.3)	-
Total*	11.7	6.5	16	1.8 (12.6)	-

* without Transylvania and Croatia, ** output per family in parenthesis: 1 family = 7 persons

The role of Hungary and Transylvania within the economic system of Habsburg Monarchy at the turn of the century resembled that of the Balkans – but only from certain aspects. The tariff law of 1754 enhanced division of labour between Austrian and Hungarian lands by creating a double tariff zone, an external and internal one. Tariffs had to be paid twice for Hungarian products, if they were to leave the Habsburg Monarchy (this was similar in the Ottoman Empire, where *gümruk* often had to be paid between vilayet boundaries as well!), and for foreign

import products if they targeted Hungary. This increased export and import costs, thus prices too. The tariffs were even increased further by 30–60% during the Napoleonic Wars, and the export of wheat, wine, cattle was banned towards foreign lands to secure the internal needs of Austria (this was also similar to the provisionist stance of the Ottoman Empire regarding exports before the 1780s). Due to this only 8% of exports went and 10% of imports arrived from abroad even in the 1820s. The goal of the double tariff zone beyond securing the Hungarian foodstuff and industrial raw material for the developing Austrian parts, was to also to secure the Hungarian market for Czech and Austrian industrial products, while to protect the local industry from the German Zollverein. Thus, Czech and Austrian goods paid maximum 5% tariff at this internal tariff border, while foreign products paid over 20–30%. Due to the protectionist-provisionist policy of Vienna, Hungary did integrate into the European economic system, but was a part of the imperial economic order.

Table 13. Regional differences in social stratification of peasantry, 1780

Region	<i>Sessio</i> and population (%)	Peasants on <i>sessio</i> (%)	Landless (%)	Houseless (%)
W and NW-Hungary	45 / 50	45	48	60
Area formerly under double taxation	20 / 25	25	29	17
Central (Ottoman) Hungary	35 / 25	31	22	22
Total without Croatia and Tr.	100	100	100	100
Region	Average farm size (in <i>sessio</i>)	Peasant (%)	Landless (%)	Houseless (%)
W and NW-Hungary	0.46	64	28	8
Area formerly under double taxation	0.37	64	31	4
Central (Ottoman) Hungary	0.51	75	22	5

In order to maintain this system in Hungary, the system of production, the obligations of peasants, the relation of peasants to the land and to the landlord had to be redefined (1767). This regulation

(*urbaria*) beyond its social aspects and internal consequences discussed earlier, also secured the frames of mass production for imperial markets – such as the increasing length of state roads (770 kms in 1790 and 1770 kms in 1850) were to do so. Prior to this overall regulation peasants paid their services in cash or in crop instead of *corvéé* in the central parts of the country, while *corvéé* (*robot*) was dominant only in the western parts of the country near the Viennese markets.

The consequences of these two measures (the *urbaria* and the double tariff zone) are still debated in literature as many claimed that the tariff-system and the division of labour contributed to the de-industrialization of Hungary. Although the Hungarian exports of processed goods increased by 75% between 1831–46, the 2.7 million francs was still low (cca. 3-5% of exports) compared to the doubling imports reaching 85 million francs.¹⁴⁴ Food and raw materials still constituted 85% of exports in the 1830s. On the other hand, exports exceeded imports by 15–30% not only between 1767–89, but the balance remained positive until the 1840s, and agrarian exports have doubled in value during the second half of the 18th century (from 10 to 25 million forints), exceeding the value of Hungary's contribution to the imperial budget (*table 14*).¹⁴⁵

Many claimed that Hungary could have sold his wheat and wool at distant markets, but the truth is, that unless extreme circumstances existed (Napoleonic Wars and the Western subsistence crisis in 1810–17), the transport of these goods had been very expensive prior to the revolution of transportation. It is not surprising that grain production (and as a consequence, large allodial landholdings) characterized only the area supplying Vienna. The distant Hungarian regions were able to export only non-perishable articles with high added value (like wine) or livestock¹⁴⁶ that time, but not grain. Although the per capita grain production had exceeded 300 kgs by 1800 (*table 15*), the country could not tackle its local famines (Maramureş) owing to the bad infrastructure.

144 Magyarország története, Vol. 5/1. 266.

145 Gyimesi, S.: *Útunk Európába. A magyar és az európai gazdaság viszonya a honfoglalástól a 20. század elejéig*. Budapest, 1999. 73. (2 francs = 1 forint).

146 Gunst, P.–Veliky, J.–Velkey, F.: *Polgárosodás és szabadság. Magyarország a 19. században*. Debrecen, 1999. 34.

Another argument is that the tariff zone did not protect Hungarian grains from the competition of the Galician or Russian wheat, especially after the construction of Kaiser Ferdinand Nordbahn, that decreased transport costs – while Hungary lacked railways prior to 1845 and shipping was slow.¹⁴⁷ But the truth is that Hungary was able to cover only 35% of the raw material needs of Austria in the beginning of the 19th century (the remainder came from elsewhere even without the existence of the mentioned railway line) and received only 45% of its exports,¹⁴⁸ while Austria's share was over 90% from the Hungarian export-import. This relationship was asymmetric, typical for center-periphery relations.

Table 14. Hungarian trade with the Habsburg Monarchy
(in million francs, representing 90% of the total trade of the country)

Yearly averages	Exports	Imports
1789	24	18
1819–28	75	63
1840–46	110	100

From macroeconomic aspects the Habsburg Monarchy expected (1) the increase of central revenues from this policy. (Hungary did not pay indirect taxes after consumption, since the Hungarian nobility was exempted from taxation, while self-subsisting peasants hardly purchased anything – and the tariff zone was 'justified' to compensate this).¹⁴⁹ Further goals were (2) the integration of the Empire – promoted by the division of labour –, and (3) to catalyse industrial revolution (Czech textile and glass). But an integration effort based on the emphasis of borders and diverging economic structures seemed to be paradox indeed and failed in 1848.

147 It took 3 weeks to reach Vienna from Buda prior to the era of steamships, that reduced the time for 2-3 days.

148 Gyimesi S.: *Utunk Európába*, 73.

149 *Gunst, P.–Veliky, J.–Velkey, F.: Polgárosodás és szabadság...* The net income of the state was 50 million forints and only 20% of this was provided by Hungary, while constituting 42% of the Empire's population.

It is true that – beyond functional similarities – there were also remarkable structural differences between the Balkan and Central-European practices. Hungarian goods were not sold at fixed prices, even if were not allowed to leave the tariff zone. Thus landlords were able to earn profits during the Napoleonic prosperity. This era meant a great change compared to the end of the 18th century, when securing autarchy was the main goal of economic policy. Prior to the Napoleonic turn only the large landholdings of Transdanubia and state lands produced surpluses directly to markets: the allodial lands (*demesne*) of the Festetich family increased tenfold between 1740–90. It was precisely these noblemen living near the Viennese markets who urged the changes in 1767 stressing the *corvée* instead of services paid in kind or cash, while noblemen in the other parts of the country sold only the collected tithe on the markets with no intention to increase marketable surpluses. For example in the distant Zemplén County only 28% of lands was allodial, in Pest County, nearer Vienna it increased over 45%. The Napoleonic increase in demand initiated a radical change: allodial production began to increase against peasant production on the *sessio*:¹⁵⁰ in Gödöllő (near Pest) the size of the allodial estates increased fourfold within 20 years.¹⁵¹ This was the opposite what happened in the Romanian principalities (also characterized by large estates): here the tithe was increased, thus allodial lands were distributed among shareholders.

But some of the allodial lands were not utilized as manors, but were rather re-leased to peasants under heavier conditions as originally (*censual lands*) to extract more revenue. In 1780 in Zemplén 33% of lands cultivated by peasants belonged to this type.¹⁵² Thus several parallel processes existed in the agriculture: *one was characterized by the extensification of production*, deprivation of land from peasants in order to create allodial estates (similar to the Bosnian *beglik*, Mediterranean *latifundiums*, etc.). Here the production was secured by *corvée*, which was very cheap, but rather inefficient, although that way the peasant

150 *Magyarország története...* Vol. 5/1. 325.

151 Gyimesi, S.: *Utunk Európába...* 72.

152 *Ibid.*

could be excluded from competition for markets. Another variation of extensive economies was based on the collection of revenues in kind from peasants (similarly to the practices in Balkan *çiftliks* and Romania), the third was the same based on collecting cash (this form encouraged peasants to market the surplus).

A general sign of the extensification was the increase of arable lands and pastures against forests: in the middle of the 19th century 250 thousand ha of woodland was transformed. As a consequence of deforestation floods, gulying and soil erosion was regularly mentioned in hilly regions as threats remaining unhandled at the end of the 18th century.¹⁵³

Table 15. Grain production and exports, animal population and wool production of Hungary, 1789–1848

Year	Grain production (1000 tons)	Grain exports (1000 tons, %)	In million francs	Prices in francs/t	Per capita grain output
1798	2325	93 (4%)	4.6	50	270 kgs
1831–40	4185	190 (4.5%)	26	136	370 kgs*

Magyarország története, vol. 5/1. 270. 2.7–4 million ha sown area. * Compare to table 11 (ch. 4).

Year	Cattle (1000)	Pig (1000)	Sheep (1000)	Horse (1000)
1789	2396 (260)*			451
1819	2321	3000	6000	700
1845	4800 (390)*	4000 (295)*	18 000	1000

*() Animals per 1000 persons in brackets.

Year	Wool production (1000 t)	Wool exports (1000 t and %)	Unit price in francs	Wool output/sheep
1809	13 440	n.a.	n.a.	2 kgs
1822–27	9240	n.a.	1000	1.53 kg
1842–44	21 000	13 160 (60%)	2100	1.2 kgs

153 Data from: Takács, P.–Udvari, I.: *Zemplén megyei jobbágy-vallomások az úrbérrendezés korából*, Vol. I–III. Nyíregyháza, 1995, 1996, 1998. and Csorba, Cs.–Tóth, P. (eds.): *A Mária Terézia kori úrbérrendezés 9 kérdőpontos vizsgálatai. Borsod, 1770*. Miskolc, 1991.

The other process was to modernize the estate based on intensification,¹⁵⁴ through the implementation of new species, crop-rotation, enhancement of knowledge and the application of wage-earners. But modernization concerning the composition of products was not necessary until the demand for traditional products remained high (*table 15*).

Prior to the Napoleonic era 50% of the exports came from livestock while only 4% of grain production was 'exported' in broad terms. Despite this, the increase of allodial lands due to the growing wheat demand meant that grazing lands were turned into arable lands: this resulted in a decrease in the proportion (but not in the value) of livestock exports in the next decades. The continental blockade from 1806 increased the role of domestic sugar beet production and revitalized the Levantine trade as well. After 1815 things have changed a little, the demand on grains and sugar beet decreased, and the export of wool became prosperous in order to supply the western industrial revolution with raw material. The wool export of the 1840s was equal to the total wool production in 1809 (under war prosperity!) or 66% of the production in the 1840s, thanks to the doubling prices (from 1 franc/kg to 2 francs). This enhanced the landuse conflict further between crop producers and animal husbandry.¹⁵⁵ As a result of this conflict, wool output per sheep began to drop, while total production still grew and – until prices began to decrease – exports also increased due to the lack of local processing industry.¹⁵⁶ The prosperity of Hungarian wool ended when the Australian and Argentinian wool flowed the markets in the 1850s, lowering the prices, and giving a good opportunity to wheat producers to increase their influence.

The favourable conditions for wheat exports did not end with the Napoleonic prosperity. The price of wheat tripled between 1798–1840

154 The first agricultural high-school, the Georgicon was established in 1797 in Keszthely. *Gunst, P.–Veliky, J.–Velkey, F.: Polgárosodás és szabadság*, 35.

155 *Ibid.*, 37.

156 This process was unfavourable for the economy as recognized by the statistician Elek Fényes in the 1850s. He argued, that the balance of trade could have been +20 million instead of the measured +8 million (total exports reached then 50 million), if processing industry had operated, and the country had exported processed products instead of exporting raw material and buying back end-products.

(still prior to the great prosperity between 1840–1870), grain production has doubled (per capita output reached 370 kgs,¹⁵⁷ well above the personal needs), such as exports. But still only 5% of the production was exported, which rather refer to the fact that the country hardly had any marketable surplus, than to decreasing demands (the wheat targeted Viennese markets and not France or Britain protected by tariffs after 1816). The fivefold increase of export incomes was rather based on the favourable prices than on the broadening of marketed quantity, and this had serious consequences after the 1870s.

The decline of wool did not mean a dropback for husbandry in general. Between 1803–15 the price of pigs tripled (partly due to the depreciation of banknotes, partly to the increasing demand).¹⁵⁸ The number of livestock grew further after the end of the Napoleonic prosperity (*table 15*), despite the rivalry between the region and the Balkans. (The number of pigs showed the smallest increase: it was only 25% as the result of the Serbian exports). Wine production increased from 9 to 14 million hl between 1809–47, and 25% of this production was exported. Finally, tobacco production also doubled from 16 000 to 32 000 tons, and 50% of this was exported. As an interference of the external processes and the tariff system Hungary had 4 main export products in the 1820s: wool (30 million francs), grain (25 million), livestock (12 million) and wine (*table 15*).

In Hungary 90% of the population earned their living from agriculture in the beginning of the 19th century. By 1910 this decreased to 62%. The extensification (as a result of the changes in external circumstances and the regulations of 1767) caused an already discussed landuse conflict between peasantry and nobility competing for revenues.

More than 0.5 million noblemen lived dominantly from agriculture. In Transylvania their number was 0.1 million. Their social differentiation was significant regarding both welfare and occupation. The Esterházy-family had more than 100 000 hectares, other aristocrats (*magnati*), like the Count Széchenyi family had 50 000. The elite of the

157 It was 3 tons on 5 ha – to make it comparable with Balkan values.

158 *Magyarország története*, Vol. 5/1. 248.

countryside was called “*bene possessionati*” (Kölcsey, Lónyai, Szemere, Deák, Beöthy and Tisza families). The Count Tisza family had 5000 ha, while 90% of the nobility owned nothing beyond the title (*armalists*) or had only 1 or 2 *sessios*. Although nobility was differentiated in economic sense, it was united in terms of law until 1836, when tax was levied on those noblemen who were sitting on peasant *sessio* or had less than 2 peasants. This meant the dilution of the ‘one and the same freedom of nobility’. When taxation became general in 1848, these layers were compensated by granting them the right of voting regardless of their wealth (in order to win them for the cause of modernisation, since they tended to behave conservatively after taxes had been imposed on them).

Peasants cultivated (but not owned) 70% of the land in Hungary, (in Transylvania they 0.9 million ha out of the 3.7 million ha was worked by them).¹⁵⁹ The aggregate number of days spent on *corvéé* reached 35 million, and peasants paid more than 26 million francs yearly tax (this amount was similar to the contribution of Hungary to the imperial budget in the beginning of the 19th century, or it meant 40 francs per family head). In Transylvania the tax/economic unit was even 30% higher. This definitely means that the share of peasants from the production was smaller, than their proportion from the total population. The average size of peasant landholdings in the 1840s was 5 ha arable land¹⁶⁰ (less than 4 hectares in Transylvania), with large regional disparities: in the northernmost part of the country 1 *sessio* was officially 10 ha, while in the more fertile south this could be even 25 ha (Banat). This also means that significant fragmentation took place between 1767–1848: serfs averagely cultivated half of a *sessio* (although they were allowed to rent other, censual or remanency lands). Peasants had no more than 2 million hectares at their own disposal around 1800: due to extensification this had increased to 3.5 million ha by 1848, but the number of *sessios* also increased by 66% (from 190 to 313 thousand), thus unit sizes did not increase.¹⁶¹ After the reforms of 1848 former serfs obtained 40% of the land in Hungary and 20% in Transylvania, while

159 Gunst, P.–Veliky, J.–Velkey, F.: *Polgárosodás és szabadság*, 47.

160 To this the grazing land used jointly by the community or the landlord had to be added.

161 Gyimesi, S.: *Utunk Európába*, 95.

constituted more than 70% of the population. Since the proportion of land units under 10 ha was still around 20–30% in 1900 in Hungary, one may conclude that the living standards of peasantry depended mainly on prices and technological advance, since the bulk of land was obtained by the former landlords.

In Hungary the traditions of peasant market production did not fade away (peasants were competing for markets since 1514). Especially the inhabitants of *oppids* (600 towns inhabited by serfs paying the tax to the landlord collectively, approximately 1 million people, or 10% of peasants) who lived under better circumstances, were able to produce surplus and market products. The towns of the Plains (Debrecen, Kecskemét, Cegléd, Szeged) paid their duties to the landlord in cash (or soon received the status of free royal towns and became exempted from taxes paid to landlords), thus they commanded their own labour force and time. Szarvas and Nyíregyháza paid more than 2 million francs to their landlords in the 1840s to redeem their duties forever. This was a rare case: only 2% of the land used by peasants managed to get rid of duties and services and became real private property prior to 1848. Redemption before 1848 referred to the welfare of the community.¹⁶²

Others were not so lucky. Fragmentation of peasant estates is confirmed by the fact, that the proportion of landless *cotters* reached 50% by 1848 within peasantry (similarly, in 1900 50% of the farmers had less than 2.5 ha, thus the situation did not ameliorate significantly in the next 60 years). 0.7 million persons were applied on allodial estates as labourers and thus were in personal dependence from the landlord.

Beyond differences within and between classes, the regional disparities were also not negligible. The most profitable lands (more than 36 Kreuzer profits on 0.2 ha) were located along the Danube and in the Banat, in the Hajdúság and in Borsod and Heves counties. No profits were measured in the northeastern part of the country, and 0–12 Kreuzer was measured in Croatia, Slavonia and the Partium (W-Transylvania).¹⁶³ In Transylvania the extent of arable land/person decreased under 0.5 ha as early as in 1815, resulting in a migration

162 Gunst, P.–Veliky, J.–Velkey, F.: *Polgárosodás és szabadság*, 41–43.

163 *Magyarország története*, Vol. 5/1. 348.

during the subsistence crises.¹⁶⁴ Pasture per peasant family was under 1 ha, while on the Plains it exceeded 2 ha.¹⁶⁵ It also means that highlander peasants did not have enough fodder to feed their draft animals, furthermore in the less fertile mountainous areas (only 10 % of the cultivated land was of good quality in Transylvania) 4-6 oxen were needed for ploughing, while on the Plains 2 was enough. Slovakian and Rusin peasants of the hilly regions in Zemplén County had less than 1/2–1/4 sessio, while suffered from soil erosion in hills and floods in valleys at the end of the 18th century, so dire necessity compelled them to work as harvesters in summer on the Great Plains.

The society of noblemen was differentiated in Transylvania: only 21 (0.5 %) had more than 1000 serfs, 3200 (85%) had less than 50, 422 had between 50–500 serfs. These circumstances hindered the intensification of production and capital accumulation, while the surplus to be marketed remained small. Production was inefficient: the allodial land was usually small and dispersed: 15% of total allodial lands was on small parcels (0.5 ha per village!). Only 15% of noblemen had their land concentrated in *one* village.

Therefore market processes could not be general. In the beginning of the 19th century three types of landlords existed. The first collected the services from serfs in cash or kind, let the serf lease the *remanency* lands instead of attaching these to their allodial estates. As their allodial land remained small, *corvée* was not preferred. This was characteristic for the nobility in 'Tiszántúl' owing to the bad traffic possibilities prior to the great river regulations. The poorer noblemen or landlords of Transylvania also refrained from using *corvée* (using *corvée* was the second type of behavior) and the marketization of surpluses. Here the *colonicatura*, the arable land of serf was usually greater than the allodial lands between 1792–1818.¹⁶⁶

The third type was not only prone to land concentration, depriving peasants from any land surplus, but also shifted from *corvée* to paid labour. Early in the 1840s in Keszthely (Transdanubia), 50% of the

¹⁶⁴ *Ibid.* 327.

¹⁶⁵ *Ibid.* 329.

¹⁶⁶ *Magyarország története*, Vol. 5/1. 332.

works on the Festetich-estates were carried out as paid labour. These noblemen reinvested their profits into land or buildings, or lent it for interest, but still did not pay attention to invest into industry. They propagated extensification even when wheat prices fell, in order to compensate their losses, and turned pastures into arable land (South-Transdanubia) first after the collapse of wool prices (1850s), then after the decline in grain prices (in the 1870s). While in case of the former event many were able to react successfully to the challenge by transforming their farms, in the latter case they failed to give an adequate answer: the response was further extensification without landuse changes, producing a vicious circle.

The story of these large holdings is full of turns. Though after the 1770s *remanency* lands were often attached to allodial holdings, many of these landlords leased the expropriated lands to peasants for a certain share of the crop or extra *corvée* in the 19th century again. The reason for this was that while during the Napoleonic prosperity it was worth demanding labour (to produce more and to deprive peasants of surplus, thus excluding them from competition), after 1815 due to inflation and the contraction of markets this strategy – maximizing the amount of wheat from allodial estates – was not profitable any more, and alternative income sources had to be taken into consideration. As the conditions were not unbearable for the leaseholder peasant, many of the declassed-landless peasants paid for the land to cultivate it. So, statistics stating the general impoverishment of peasantry prior to 1848 do not always reflect the reality, first because the country average was cca. 0.5 sessio per peasant even in the 1780s (as was in 1848), second, because the remanency land cultivated by peasants was not counted in these statistics!

In the 1820s the extent of pastures began to increase owing to the wool-hunger of Czech textile-industry. The Esterházy-estates had more than 150 thousand sheep. The traditional Hungarian *racka* sheep was substituted by western *merino* species giving more wool: the number of *racka* fell to one-third in Sárospatak, while on the Hunyady estate (S-Transdanubia) the number of western sheep increased from 4000 to 20 thousand. New methods to wash the wool were also developed on the

Wesselényi-estates (the output was 4 *oke* of unwashed or 1 *oke* of washed wool/sheep, similar to the values in the Balkans). But in Western Slovakia sheep were still raised for their flesh, milk, cheese and skin, while ethnic Germans rather focused on wool.

Some of these large landholdings began to modernize the cultivation methods as well. The Festetich estates in Keszthely used a 10-year crop rotational system early in 1799 (this means less than 10% fallow). After the foundation of the Georgicon – established by the Festetich landlords in 1797 in Keszthely providing experts and space for experiments – a second modern agrarian high school was established in Mosonmagyaróvár on the estate of Habsburg princes in Moson County. While in 1720 only 27% of the villages used a three-year rotation system with fallow, by 1828 this increased to 66%.¹⁶⁷ Two-year rotational system was used by 45% of the settlements in 1720, this decreased to 24% in 1828.¹⁶⁸ Thus, the proportion of fallow also decreased to 35% by 1828 (while it was around 45-50% in Bulgaria that time). Western crop rotational systems were adapted on the estates of Prince Karl in Magyaróvár, Count Széchenyi in Nagycenk, Count Batthyány in Ikervár. On the other hand, according to the conscription of 1828 still only 1% of villages exploited fallow land by producing crops, the most frequent utilization of fallow remained animal husbandry, which provided the essential manure as well. The regional shortage of manure often hindered the transformation of fallow: in Transylvania manure was used only in every 14 years instead of the normal 5-7 years because of shortages. The reason for the small proportion of sown fallow was not only the low level of agriculture,¹⁶⁹ but also that landlords retained the right to collect the tithe from here as well between 1806–36 (earlier these were tax-free lands). Contrary to peasants who – in order to replenish organic matter – began to plant potato in fallow lands (this was rare on the Balkans), landlords rather tended to utilize fallow as pasture. In order to get higher outputs fallow was tilled thrice before

167 In Transylvania the 3-year crop rotational system dominated only 47% of villages in 1815.

168 *Magyarország története*, Vol. 5/1. 340.

169 Maize was initially sown in fallow land as a step to exceed the level of the three-year crop rotation system, but this was often hindered by the landlords.

sowing. Alfalfa was sown on fallow land, which – beyond being fodder – also contributed to the replenishment of Nitrogene content in the soil.

Another sign of modernization (and diversification) was the spread of sugar beet (on the Jósika-estates) or the rape (in Csákgorbó), referring to the fact that the interaction between industry and agriculture – as *conditio sine qua non* of industrial revolution – had just begun. Tobacco became popular again during the era of continental blockade, when the Virginian tobacco was excluded from Europe. The extent of peasant vineyards also increased by 13% between 1770–1813: in Croatia (Fruška Gora) this increase exceeded 20% between 1804–17. The demand on wine also increased owing to the wars. Intensive ways of wine-growing as well as new species occurred.

Iron ploughs appeared not only in the western part of the country close to the Viennese markets, but in Central-Hungary (Heves, the Kunság and Jászság). These required less draft power, while tilled the land deeper, which was especially important in case of dry soils or economies lacking enough draft animals. Sickles were substituted by scythes: the latter was 4 times more efficient. In Munkács and in Pest the first thresher-factories were built, threshing machines started to substitute horses.

It is not surprising therefore that yields were improving. But they were still not significantly better than outputs in the Balkans. While in the 17th century the output ratio was 3.5:1, in the 1840s it increased to 4:1, in other words 225 kgs of seed sown on 1 ha produced 0.9 tons/ha.¹⁷⁰ In Austria this level was exceeded as early as in 1790, while in Mecklenburg the output ratio was 8:1 even in 1750, then 12:1 in the 1840s. The reason for the lag can be explained partly by the difference between the effectiveness of allodial and peasant production: for example, the rye output was 3 times greater in allodial lands.

Stalling became more frequent in the country – formerly oxen in the Great Plains were kept on the fields even in winter and exported as livestock or used as draft animals. In Transylvania transhumance prevailed. Contrary to these, in regions, where stables and stalling

170 Magyarország története, Vol. 5/1. 347.

became dominant, cattle were mostly kept for their milk, cheese and butter – these products were sold at the urban markets, especially in Vienna – but not for flesh. This was the most profitable form of utilizing cattle: in 1828 the profit/cattle was measured the highest in Western-Transdanubia and in Heves and Szolnok Counties – in regions where milk production dominated. In the center of the country horses were used as draft animals instead of oxen – partly because these could participate in transportation in these regions distant from markets.¹⁷¹ From military purposes horse-breeding was also of key importance: the activity of Count Széchenyi therefore was welcomed by Austrian politicians as well.

(iv) Quantification of grain production and its distribution between social strata – Hungary

As grains began to overshadow animal products in the 19th century, it is worth investigating the distribution of grain production between different social strata and the role of local and external markets in the redistribution of production and profits. A similar study is carried out for Bulgaria as a comparison in the next chapter, but the results are hardly comparable, due to the many problems regarding the reliability and the quantification of data in both countries.

Although Hungary appeared as an exporter (furthermore, a net exporter indeed, as it exported more grains, than imported) in 'external' grain markets, this did not imply automatically, that it had enough grains to feed its population. *Even a country with a positive grain balance (producing more than demanded), could suffer from internal shortages, if production was unevenly distributed between the different social strata and regions, or price trends/purchase power favoured exports rather than internal marketing.* The positive grain balance in Hungary was composed of the balance of allodial production and the balance of peasant production. While allodial estates showed evident surpluses (the production largely

¹⁷¹ *Ibid.* 353.

exceeded the consumption needs of the owners) and thus most of the grain exports stemmed from these estates of the nobility, this still could imply a deficit in peasant grain production, if peasants had insufficient land at their own disposal. Furthermore, this hypothetical grain deficit can be true either for only few or for all peasant strata; and it could show territorial patterns as well: deficits can be local, regional or valid for the total territory of the country. Local and regional shortages would imply the great role of internal markets in grain redistribution and also a competition between export and internal markets. On the other hand, if peasants had surpluses, they could also participate in exports, although this was not encouraged by the authorities: a report from 1794 argued, that peasant participation in foreign trade would deteriorate their taxability, therefore we may suppose that they rather appeared on internal markets.¹⁷²

In order to analyze these processes and to quantify them (1) the volume of internal trade was compared to the exports; (2) the proportion of peasant grain production was measured to grains coming from large estates. (3) The surplus of peasantry (and the distribution of surplus between peasant layers, including the question of viable estate size) and (4) the average output/hectare of smallholdings compared to large estates is also discussed, (5) as well as the changes in social stratification of peasantry and (6) the surplus ratio on allodial estates.

Glósz claims, that grain balance was fragile prior to the 1840s and outputs neither increased quickly, nor constantly, thus *any increase in exports* (which constituted only 5% of the production prior to the 1840s, while in Bulgaria this could reach 30% after the great turn) *supposed a decrease in internal markets*. Thus *the prioritization of exports indirectly led to a deterioration in intraregional food redistribution and division of labour, invoking an increasing influx of population from the highlands (suffering from grain shortages) to the plains*. In order to test this hypothesis it is worth analyzing the distribution of grain production and demands of the different social classes (nobility, urban population, peasantry) and the internal stratification of producers.

172 Glósz, J.: *A birtokviszonyok hatása Magyarország gabonamélegére a 19. század első felében*. In: *Eszmék, forradalmak, háborúk*. Vadász Sándor 80 éves. ELTE, Budapest, 2010. 207.

In order to do this, first we have to calculate the distribution of arable land between peasants and nobles. The estimations differ: in the 1850s 58% of *cultivated area* (including forests) was *owned* by the nobles, 32% was freed from servage after 1848, and further 8% was free peasant estate prior to 1848 according to Galgóczi. Contrary to this, Wellmann puts the proportion of *cultivated lands worked* by peasants to 60%, while Orosz stated that 70% of the *arable lands* was *cultivated* by peasant-serfs, 10% was owned by towns and only 25% was allodial large estate in 1848. In my opinion, there's no contradiction, as everybody above used different measurement units. Galgóczi mentions the structure of ownership after the land reforms, Wellman spoke about land worked (but not owned) by peasants (including leased land), while Orosz wrote only about arable land, and since forests were also abundant among allodial large estates, this could explain the high proportion of land owned by nobility given at Galgóczi.

It is generally accepted, that at the end of the 18th century only 33% of the cultivated land was considered as *sessio*¹⁷³ cultivated by peasants for their own needs, while they constituted the majority of society.¹⁷⁴ This means (compared to Galgóczi's data) that peasants were unable to acquire substantial land beyond their *sessios* during the reforms after 1848. Our calculations for 1865 show that 75% of the total cultivated area was smallholding¹⁷⁵ (although this category includes not only peasantry, but the lower strata of nobility too), and large estates reached 25% (*table 17b* in chapter III). (Knowing that in 1767 50% of the *sessios* – ranging to 33% of the cultivated land – belonged to large estates over 1000 *hold* owned by the nobility, one may put large estates to 40% of the cultivated land).

Patterns showed a regional variation: in Heves and Győr Counties arable lands on *sessios* were estimated to 50% of the total cultivated ploughlands, while in Sopron and Moson Counties in the West this was

173 Economic and tax unit of peasantry showing a regional versatility in size, but usually considered 32 *cadastral hold* or 17 hectares.

174 Wellmann, I.: *A mezőgazdaság a felvilágosult abszolútizmus korában*. In: Ember, Gy.–Heckenast, G. (eds.): *Magyarország története 1686–1790*. Budapest, 1989. 931–84. *Fónagy, Z.: Nemesi birtokviszonyok az úrbérrendezés korában I-II*. Budapest, MTA BTK, 2013.

175 Under 5-6 ha.

85% even in the beginning of the 19th century. At the end of the 18th century a very diverse picture could be observed even *within* a smaller area: the arable land of the *sessios* ranged from 30 to 90% at settlement level in Zemplén (*see map 1*).¹⁷⁶

This meant, that prior to 1848 some 13.5 million *hold arable land + meadows* were used as *sessios*,¹⁷⁷ some 2.1 million hold of ploughland was cultivated by other tax-payers (urban dwellers, lower nobility, landless peasants) while 5.7 million hold was considered allodial estate, worked by the *corvéé* of peasants (and daily wage labourers after 1848). If we accept the calculations of Glósz, putting the output of smallholders to 10 pm/ha and the output of the allodial estates to 13 pm/ha (including fallow and supposing similar landuse for these layers), this means, that 25-33% of the grain was produced on allodial lands constituting 20-25% of the arable lands owned by less than 5% of the population (nobility).¹⁷⁸ Thus (1) the relative productivity of large estates was some 30% better, than of smallholdings, (2) and the evident population growth from 4 to 8 million (without Croatia) between 1720–1780 put the pressure especially on peasantry. Was the number of *sessios* enough to sustain the growing population? If the extent of cultivated lands had not increased, the 'hypothetic' per capita 'grain output'¹⁷⁹ for the peasantry would have been halved between 1720-85 (as yields did not improve). But the extent of *sessios* cultivated by peasants also increased from 5 million *hold* to over 11 million between 1767–1850. The number of *sessios* also grew from 193 000 to 313 000 side by side with the population increase. This also implied, that contrary to the marxist claims, *the average landsize/serf family did not decrease* (on the other hand, the number of peasants with less than 0.25 *sessio* significantly increased!). As the number of peasants (families) having some land increased from 430 to 540 thousand, the average unit size increased modestly from 0.5 to 0.6 *sessio* from 1767 to 1848 according to Varga,¹⁸⁰ while Galgóczi and S.

176 Data from: Barta, J.: *Ha Zemplén vármegyét az útas vizsgálja, I-II*. Debrecen, 2009, 2015.

177 While it was only some 5 million in 1767.

178 The majority did not have large estates.

179 Including meadows income converted to grain equivalent.

180 Varga, J.: *A jobbágyi földbirtoklás típusai és problémái*. Budapest, 1967. 110–31.

Sándor¹⁸¹ speaks about stagnation regarding average unit sizes (*table 18*). As 1 *sessio* then meant averagely 32 *holds* (15 hectares), this meant 14 and 18 *holds arable land and meadows* per serf family respectively. The so-called remanency lands (for example clearcuts) ranging to 3 million *holds* increased this value to 19 and 24 *holds* respectively.

In 1767 there were 293 000 peasants with *sessio* and further 150 000 (33%) lived without significant amount of land. (The latter had averagely 1.6 *hold* compared to the 17 *holds* of the former group. They were hired/obliged to work on allodial estates). 50% of the peasants with land had less than half a *sessio* (cultivating 33% of the land and of the *sessios*), while only 5% had more than 1 *sessio* even at the 'beginnings' (12% of the total land, 10% of the *sessios*) (*table 16*).

Table 16. The differentiation of serfs in 1767 based on *non-allodial estates* size (I)

Based on unit size I	Number of sessio	Total size in hold	Serf with sessio	Landless serf with house	Landless serf	Average sessio size for 1 serf	Average unit size in hold for 1 serf
over 1 sessio	12 391	397 504	9315	3533	1568	1.33	42.67
0.75-1	22 668	744 112	25 692	8344	1654	0.88	28.96
0.5-0.75	43 364	1 450 572	70 278	19 989	5100	0.62	20.64
0.25-0.5	48 161	1 751 333	122 686	38 503	12 004	0.39	14.27
under 0.25	12 419	562 361	65 267	38 168	5729	0.19	8.62
other	1267	61 902	0	23 020	2879	0.05	3.00
Altogether	140 270	4 967 784	293 238	131 557	28 934	0.48	17.00
<i>0.5-1 sessio</i>	<i>66 032</i>	<i>2 195 000</i>	<i>95 970</i>	<i>28 333</i>	<i>8700</i>	<i>0.69</i>	<i>22.87</i>

Comparing the distribution of peasant landholding sizes in 1767 with the later statistics of S. Sándor Pál, in the 1850s only 6.5% of peasants had more land than 1 *sessio* (it was 10% in 1767) and 48% had less than 0.5 *sessio* (43% in 1767). This means, that *declassification within peasantry was not significant (table 19), due to the growth in the number of total sessios* from 140 to 250 thousand! Only the proportion of larger

181 Galgóczi, K.: *Magyarország-, a Szerbovajdaság s Temesi Bánság mezőgazdasági statisticája*. Pest, 1855. 103. and S. Sándor, P.: *Parasztágunk a Habsburg önkényuralom korszakában 1849–1867*. Budapest, 1951. 13–14.

peasant estates decreased significantly. The statistics of Galgóczi (1855) claimed, that 3% of sessios were bigger than 1 sessio (it was 9% in 1767). (It is also true, that the *number* of peasants with less than 0.25 *sessio* grew from 12 000 to 50 000, while their proportion remained the same).¹⁸²

Table 16b. The differentiation of serfs in 1767 based on *non-allodial* estates size (II)

Based on unit size II	Number of sessio	%	Total size in hold	%	Serf with sessio	%	Landless serf with house	Landless serf	Average sessio size for 1 serf	Average unit size for 1 serf
under 8 hold	8379.63	5.98	246 672	4.96	41 361	14.10	17 400	4287	0.20	5.96
8-16	43 219.18	30.82	1 450 650	29.18	119 586	40.78	43 963	10 679	0.36	12.13
16-24	46 809.38	33.38	1 671 993	33.63	84 873	28.94	27 647	7840	0.55	19.70
24-32	25 391.33	18.11	902 193	18.15	32 780	11.18	12 562	3496	0.77	27.52
over 32	15 165.75	10.81	638 372	12.84	14 638	4.99	6965	1755	1.04	43.61
other	1267.63	0.90	61 902	1.25	0.00	0.00	23 020	2879	0.05	3.00
Altogether	140 232.88	100	4 971 782	100	293 238	100	131 557	30 936	0.48	16.95

Compare with table 7 for Croatia. Own calculation based on Fónagy, Z.: A nemesi birtokviszonyok.

Table 17. The differentiation of serfs in 1767 based on *non-allodial* noble estates size

Estate size in hold	Number of sessio	%	Unit size in hold	%	Serf with land	%	Landless peasant with house	Landless peasant	Sessio/serf	Land (hold)/serf	Land (hold) for all peasants
under 11	546	0.39	15 881	0.32	2468	0.84	15 090	2148	0.22	6.43	0.81
11-20	1006	0.72	34 808	0.70	3280	1.12	1848	223	0.31	10.61	6.50
20-50-	3490.7	2.49	119 015	2.39	9540	3.25	7400	1049	0.37	12.48	6.62
50-100	5734.8	4.09	194 068	3.90	14 672	5.00	9289	1359	0.39	13.23	7.66
100-200	9870.8	7.04	330 060	6.64	24 767	8.45	14 721	1973	0.40	13.33	7.96
200-500	26 672	19.02	867 148	17.44	61 861	21.10	26 327	5753	0.43	14.02	9.23
500-1000	30 096.8	21.46	992 519	19.96	63 279	21.58	22 116	6218	0.48	15.68	10.83
over 1000	63 575.5	45.34	2 444 113	49.16	114 667	39.10	35 479	12345	0.55	21.31	15.04
<i>Altogether</i>	140 233	100	4 971 782	100	293 238	100	131 557	30 936	0.48	16.95	10.91

Own calculation based on Fónagy, Z.: A nemesi birtokviszonyok...

182 As Sándor and Galgóczi used different categorization, there is some contradiction between the two statistics referring to the same era (after 1848), see the category of 16 holds.

Table 16 refers to the differentiation of peasantry based on the land at their own disposal. Table 17 offers another classification: it indicates peasants working on the lands based on the size of large estates. Some 50-66% of the (non-allodial) land distributed to *sessios* was owned by large estate owners (while 60% of peasants cultivated them). It is also evident, that peasants working on these lands had larger average farm size. As an average peasant family hardly could cultivate 20 (or, if the landless peasants are included into the set) averagely 15 *holds* alone, one may assume larger families for them, or weaker land quality. *Many serfs were not bound to their sessio and were free to move (map 1)*: this is another marxist statements that was falsified. It is also true, that the layers retaining the right of free movement had less land then the average (see the case of Zemplén County).

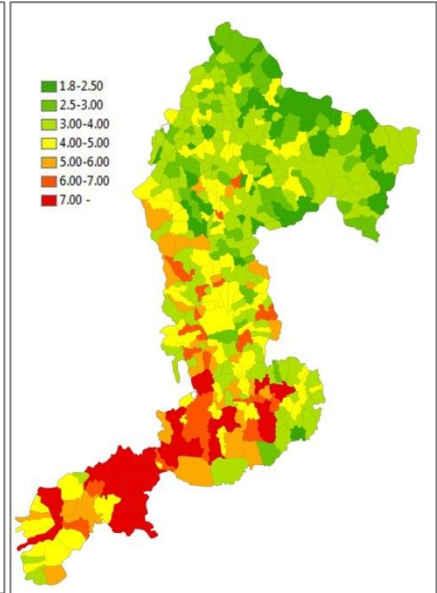
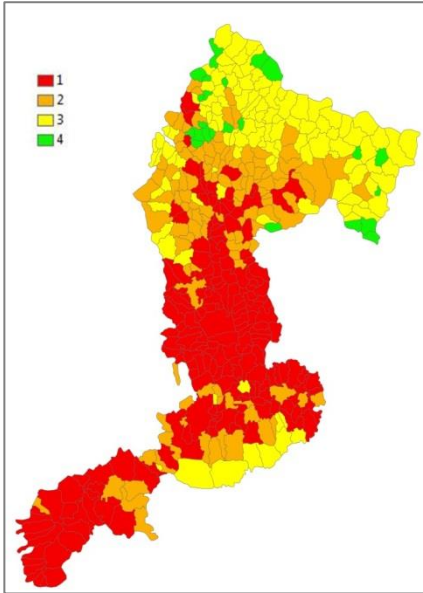
Table 18. The differentiation of serfs over time (1767–1850)

Literature	Serfs	Number of sessios	Average unit size
Fónagy (1767)	293 238*	140 232**	0.48
Varga (1767)	429 378	193 506**	0.45
Varga (1848)	539 753	313 417	0.58
S. Sándor (1850s)	624 134	254 048	0.40
Galgóczi (1850s)	545 252	256 711	0.47

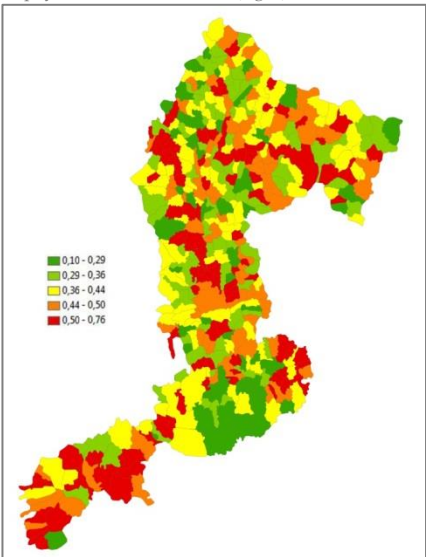
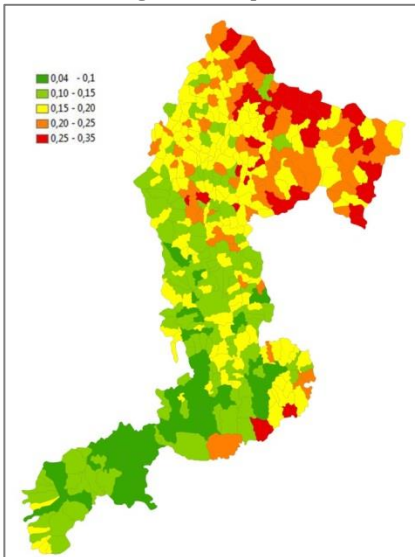
*Serfs with land included, without Croatia and Transylvania. ** Landless serfs also had some land.

Regional differences in land fertility were not negligible and this influenced the official size of one *sessio* (that also showed regional differences). The arable land on a *sessio* in Bács County was set to 38 *holds*, while it was only 20 *holds* in Pölöske at the estate of Count Széchenyi. A whole *sessio* (including inner gardens and meadows) in Torontál was twice greater than a *sessio* in Veszprém.¹⁸³

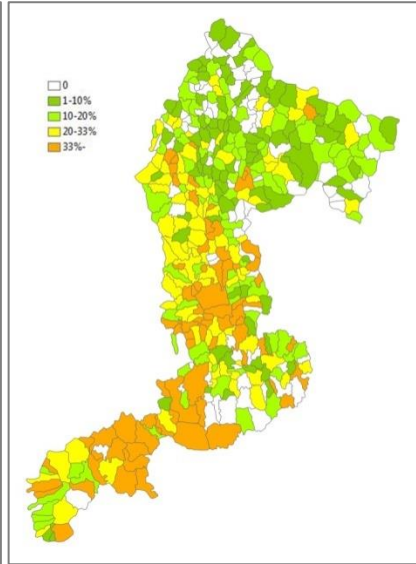
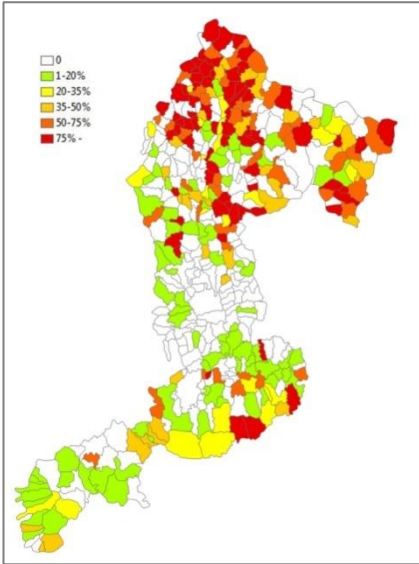
183 In Kecskemét the landhold size varied between 20-200 *cadastral hold*, and 150 peasants had even more, 200-500, while officially one *sessio* ranged only to 32 *hold*. In Hajdúszoboszló 1100 peasants had less than 5 *holds*. In Veszprém County farms ranging to 13-19 *holds* were considered large locally. Glósz, J.: *A birtokviszonyok...*



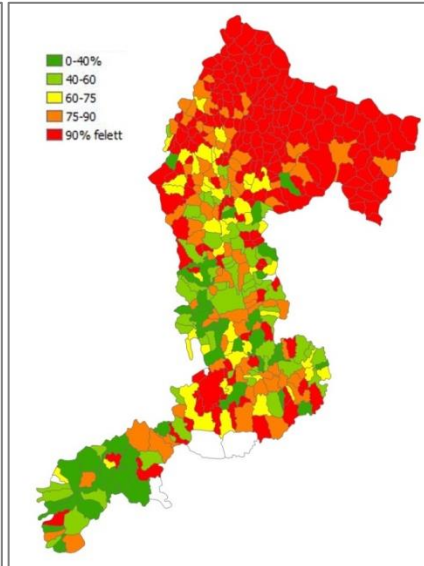
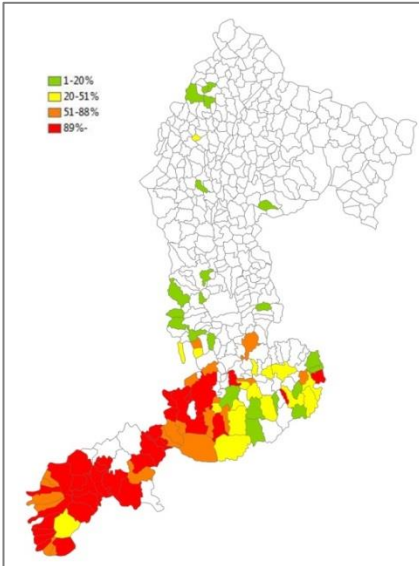
Agroecomic diversity: land quality in 1800 in Zemplén (1=good) – compare pattern with the next map!
Differences in agroecomic potential: tax value/tax payers in Rhenish florins (right)



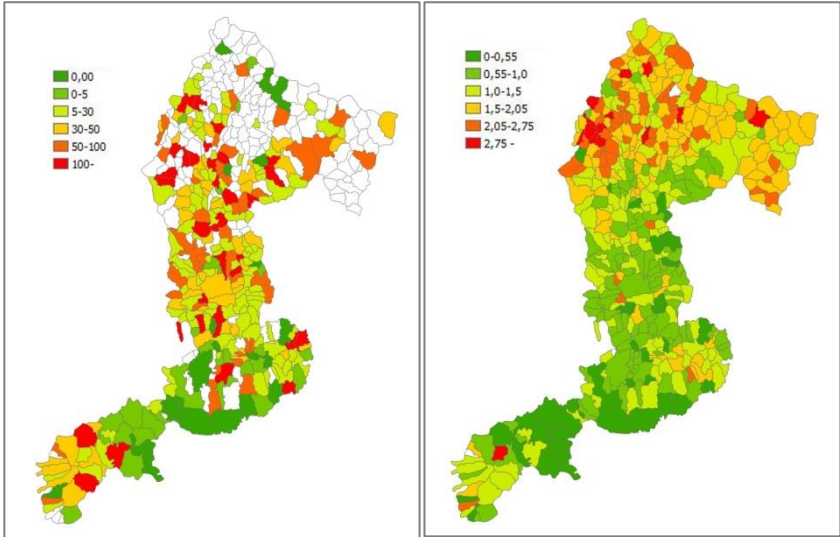
Regional versatility of agrarian tax incomes: income from head tax measured to total tax income (left) (1=100%, 1 dica = 1.5 Rft). Income from land tax in percent of the total tax income (right)



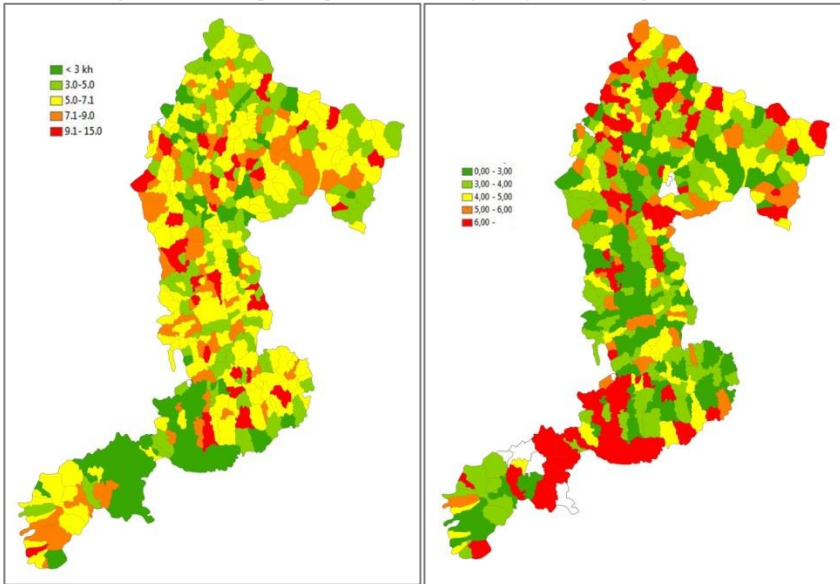
Spatial pattern of the social differentiation of serfdom: proportion of landholder serfs with less than 0.5 sessio (left). / Proportion of landless serfs measured to peasantry under taxation (right, in %)



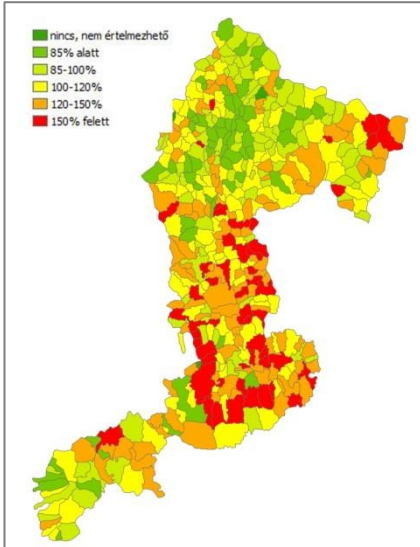
Proportion of landholder serfs retaining the right of free movement (left). / Distribution of agrarian sources between social classes: spatial pattern of proportion of land (in %) cultivated by serfs (right)



Average extent of land per 1 noble person (including family members and landless noblemen, left, in hold). / Average extent of land per one peasant (including family members, right, in hold)



The intraregional features of demographic pressure: average extent of arable land per one tax-payer peasant family head (left, in hold) in 1776. / Number of tax-payers per one *sessio* (right)

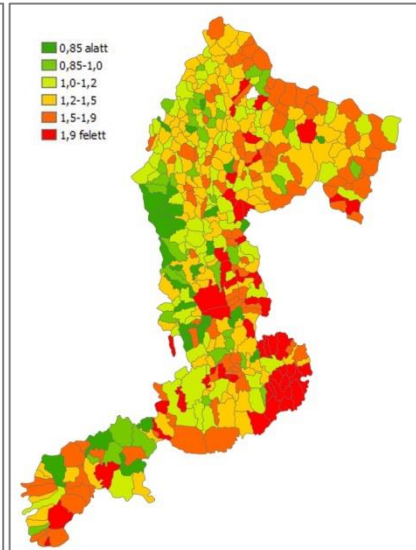
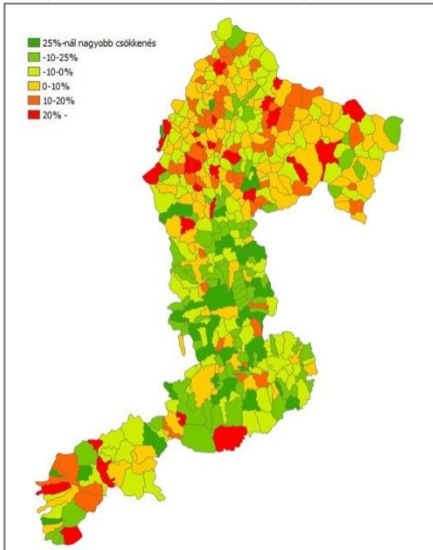


Map series 1

Based on the data collected by
Barta, J.: Ha Zemplén vármegyét... Vol. 2.

Maps were created within the framework of
project K 111 766 (Elaboration of GIS
platform to study the regional differences in
Austria-Hungary), supported by the
Hungarian Research Fund.

Change in number of serfs (including landless) between 1776-1800 (1776 = 100 %)



Differentiation rate within serfs: change in number of serfs with landholding, 1772–1800 (difference between their proportion in 1772 and in 1800 measured in %, red: increase, green: decrease)

Tax-pressure: the change of the number of tax units measured to the change in number of serfs (including landless) (right, red: increase of tax units exceeds that of serfs)

The differentiation of peasantry also showed regional variations: in Krassó County (Banat) the upper limit of *arable land* was 28 *holds*, while the poorest had only 5-6 *holds*. In Mohács 1744 hold was distributed between 530 peasants, and although peasantry was quite differentiated here, no-one had more than 18 *holds* in 1778 (compare this to Zemplén in *map 1*). In the mountainous Mátraalmás the average extent of arable land did not exceed 6 *holds* (8 *holds* together with the meadows and inner gardens).¹⁸⁴ This implies grain scarcity in mountains.

Table 19. Different estimations on the declassification of serfs between 1767–1850

Sándor Pál (in 1951, for the 1850s)			Galgóczi (1855) and Glósz			Fónagy and Varga (1767)		
over one <i>sessio</i>			over 1 <i>sessio</i>	17 262	3.1%	over 1 <i>sessio</i>	12 391	8.9
1 <i>sessio</i>	40 380	6.5%	1 <i>sessio</i>	48 599	9.0%	0.75-1 <i>sessio</i>	22 668	16.2
0.66 <i>sessio</i>	6458	1%	0.5-1 <i>sessio</i>	43 865	8%	0.5-0.75 <i>sessio</i>	43 364	3.0
0.5 <i>sessio</i>	281 260	45%	0.5 <i>sessio</i>	173 119	32%			
0.25 <i>sessio</i>	254 160	41%	0.25 <i>sessio</i>	239 692	44%	0.25-0.5 <i>sessio</i>	48 161	34.4
0.12 <i>sessio</i>	41 872	6.7%	under 0.25	22 715	4%	under 0.25	12 419	8.9
under 0.5		47%	under 0.5		48%	0.5 or under		43%

Glósz put the lower limit of self-subsistence to 0.25-0.5 *sessio* (8-16 *hold* or 5-9 hectares, which implied 6-11 *hold* or 3-6 *ha* arable land calculating with the average grain outputs, 3.5:1 or 4:1) based on the wheat demand. The consumption of richer families was considered twice as great as the poor families with the same family size, because the larger farms required extra workforce¹⁸⁵ and draft animals to feed. He also estimated the *total* grain output for different farm sizes and their consumption in order to assess the surplus (*table 20*). Thus, according to Glósz only some 8-10% of the peasants (beside the landless) were unable to sustain themselves prior to 1848: those who had less than 0.25 *sessio*. Wellman claims, that this limit has to be drawn at 0.5 *sessio* on the example of Bakony Peterd. On the other hand, Dávid Zoltán claimed that 18 out of the examined 29 serfs with less than 0.25 *sessio* also had

184 Glósz, J.: *A birtokviszonyok*, 204.

185 Farms over 0.5 *sessio* could not be cultivated by the workforce of a simple family.

positive balance – but this balance did not stem exclusively from grain, but from other income sources as well. Our calculations for the Balkans rather confirm the 0.5 *sessio*-limit.

Table 20. The differentiated grain balance of peasant households after Glósz (in *pm*)¹⁸⁶

Sessio size	Arable land in hold	Sown area	Grain output in <i>pm</i>	Household size	Consumption per capita (draft animals, seeds, tax)	Household demand in <i>pm</i>	Surplus or scarcity in <i>pm</i> per household	Total surplus or demand in <i>pm</i>
1.50	42	28	280	8	10	80	200	3 452 000
1	28	18	185	7	10	70	115	5 588 000
0.75	21	14	140	6	10	60	80	3 509 000
0.5	14	9	93	5	9	45	50	8 309 000
0.25	7	4.5	46	5	9	45	0	0
0.12	4	2.2	23	5	9	45	-22	- 500 000

Glósz, J.: A birtokviszonyok...

Summing up the calculations in *table 20*, out of the 50 million *pm* total grain produced on the *sessios*, 20 million *pm* occurred as net surplus for peasants (or 40%), similarly to Bulgaria after the 1840s. (Sándor puts the surplus to 18.5 million, and the demand of estates under 0.25 *sessio* to 1 million). The hypothesis on large surpluses is confirmed by the evidence, than even in the mountainous Nógrád County 14 settlements and further 11 settlements in the very small Torna County appeared in internal markets to sell their grains, well prior to the Napoleonic prosperity.¹⁸⁷ The peasant replies to the official questionnaire on marketing habits in Abaúj and Szepes County also confirm this (1770s).¹⁸⁸ Surplus was measured in Gömör and Túróc Counties (both mountainous) decades later, in the 1840s.¹⁸⁹ Even grain from the smallholdings with 5-6 *hold* arable land around Sárospatak could appear

186 Pozsonyi mérő = 62 litres or 46-49 kgs.

187 Schneider, M.: *Dézsma és robot. A jobbágylakosság helyzetet a XVIII. század végén a mai Nógrád megye területén.* Salgótarján, 1971. and Rémiás, T.: *Torna vármegye társadalma a XVIII. században.* Bódvaszilás-Miskolc, 2002.

188 Takács, P.-Udvari, I.: *Adalékok Abaúj vármegye XVIII. század végi vásáraihoz és az Abaúj megyei lakosság vásárárszási szokásaihoz.* A Herman Ottó Múzeum Évkönyve XXVIII-XXIX. Miskolc 1991. 66.

189 *Magyar Gazda*, 1843/38-39. 1843/65.

on markets. In Maramureş, a county characterized by large grain and food deficits, 50% of the potato and maize production was forced to sell because of taxation reasons in 1870. *Oppids* in the plains paid their taxes in cash collectively, this also required participation in internal markets. Production was so specified and division of labour was so advanced in these towns, that for example in Kecskemét 2/3 of the farmers did not produce any grain at all, leaving a good market for the rest 33% to sell grains to them and buy meat or fruits and vegetables in return. Here a peasant estate of 160 hold in 1829 could store 500 *pm* grain.¹⁹⁰ It is therefore not surprising that the Balkan countries could not sell substantial amount of grain to Hungary with the exception of extreme cases (as in 1830-31 during the *cholera* epidemics).

But this seemingly huge surplus is elusive, because not only the conscripted 150 000 landless peasants (33% of the peasant layer, who cultivated averagely 1-3 *hold* land in 1767, utilizing the clearcuts, remanency-lands) had to be fed from this surplus, but there were other landless strata simply omitted from the conscription and thus from the previous calculations. Their total number was estimated to 600 000 in the 1840s with an uncovered need of 19 million *pm* consumption (calculating with 6 *pm*/capita – no draft animals, no seeds and tithe tax). Further 90 000 had some land (averagely 2.5 hold), but not enough to feed themselves. Further 100 000 had no house at all. Thus their total need with the need of serfs having 0.25 or less than 0.25 *sessio* was estimated to 23 million *pm*.

This means, that the formerly mentioned 18.5-19 million *pm* surplus of wealthier peasant layers was *not sufficient to cover the needs of the poor layers*. Therefore internal marketing seemed to be a good business not only for the wealthy peasants, but for the nobility as well to sell the grains produced on their allodial estates, as *cca. 4-5 million pm grain was missing from peasant households as net deficit. Peasantry as a whole was not self-sustainable owing to the estate structure favouring allodial lands, but was dependent on the nobility in economic sense too* (regarding grains). The formerly mentioned deficit of 23 million *pm* had two main reasons: *the*

190 Iványosi Szabó, T.: *Kecskemét gazdasági fejlődése 1700–1850*. Kecskemét, 1994. 221, 107.

*territorial deficit between lowlands and highlands owing to different fertility was assessed 17.5 million pm responsible for 75% of the deficit,*¹⁹¹ while the rest 5-6 million stemmed from *the internal differentiation of the peasantry, responsible for only 25%*. So, although differentiation was advanced as we pointed out, regional differences in fertility still had a greater role in determining the deficits. This also implies, that if external markets offered favourable prices than local markets, allodial grains were rather sold there generating local shortages and price increase in internal markets. This triggered migration processes as highland peasants were forced to come to the lowlands to work as daily wage labourers to earn extra incomes or grains. Seasonal migration further ameliorated the possibilities of large allodial landholdings (the higher the labour surplus, the cheaper the workforce was). Cheap labour meant cheap production and greater profits in case of export. This created a vicious circle until world grain prices began to fall or a local climatic impact disturbed the markets. (A similar process occurred, when in the 1880s the *phylloxera* ruined the highlanders' income surplus and a new movement toward the lowland grain producing areas began). Furthermore, this *feedback was based on external factors, which decreased the possibilities of tackling with the problem.*

Did allodial estates have substantial surpluses to supply both peasants and foreign markets? Orosz puts the ratio of allodial lands to 20–27% of the *total* in 1851 (total cultivated arable lands and meadows that time were rated to 22 million *hold*, thus allodial estates ranged to cca. 5 million *hold*),¹⁹² while 10% was cultivated by towns and privileged communities (*jász, kun, hajdú* districts).¹⁹³ He estimated the total output of allodial estates to 14 million *pm* calculating with 13 *pm/hold* yield. This amount exceeds the deficit of peasantry. But there are uncertainties regarding the absolute numbers. The total grain output of the country was 85 million *pm* in 1858, and if the nobility used 20% of the *arable land*,

191 Glósz, J.: *A gabonakereskedelem feltételrendszere Magyarországon a 19. század első felében. A hiány és a felesleg területi mérlege*. Aetas, 2009/4. 16-32.

192 10 million in 1865 together with not noble large estates.

193 Orosz, I.: *Magyarország mezőgazdasága a feudalizmus alkonyán*. In: Orosz, I.–Für, L.– Romány, P. (eds.): *Magyarország agrártörténete*. Budapest, 1996.

their grain production should be also at least 20%, 17–18 million *pm* (calculating with similar output on large estates and smallholdings). If we accept that the yields/ha were greater on allodial estates than on smallholdings, this value should be even higher. Orosz used a relatively high output/ha value, but despite this, his total numbers are still small: so, either the output/ha or the quantity of allodial land was miscalculated. Glósz used a different method: he calculated the *extent of grain growing areas* putting them to 7 million *hold*, 20% of which (1.4 million *hold*) was exploited directly by the nobility. Supposing the same, 13.5 *pm/hold* output, this means 19 million *pm* grain, from which the production of Croatia, Slavonia and the military districts has to be deduced. Thus 17.5 million *pm* remains. If we accept that the allodial land ranged up to 25% instead of 20%, this means 20 million *pm* output. This seems to cover the needs both of nobility and the net deficit (the 4-5 million *pm*) of the peasantry at first sight,¹⁹⁴ but the seeds (20%) and the consumption of draft animals, families and wage labourers has to be deduced from this value, while the 10% tithe tax paid by serfs to the landlord has to be added. Orosz puts the local consumption of the nobility to 2 million *pm*, that of the harvesters to 5 million, thus he calculated with 6-10 million *pm* surplus. However, he fails to mention the consumption needs of animals. Glósz calculates with 0.2 million family heads working on allodial estates (1 million with family members). Although in 1828 there were only 217 000 people – including family members – living on '*puszta*', but this value is underestimated, and the increase in their numbers was great: in Regéc it increased from 94 to 246 between 1826–1843, in Mernye from 131 to 208 between 1829–1848 referring to the expansion (prosperity) of allodial production.

Finally, Glósz put the consumption of nobility together with these labourers to 2 million *pm* (calculating with 5 *pm/capita*). Animal consumption was estimated to 2 million *pm* based on Schwartner (1809)

194 That is why we accept the higher value – Hungary was a grain exporter (although only 4-5% of the production was sold) and this could not have been maintained for a long time if internal shortages had been general, without finding a product (like potato) to substitute grains in case of overexport (For the possible effects of overexport see the example of the Ottoman Empire in the 1790s).

and Érkövy (1863),¹⁹⁵ seeds were calculated to 4 million *pm* (or 20%, referring to 1:5 output), while the 10% tax of the peasants was also 3-4 million. This means, that some 14–15 million *pm* would still remain as marketable surplus. But this seems to be a high value (over 66% of the production), if we compare it to specific, but well-documented cases: the allodial estate at Vrászló (ranging to 3000 *hold* in Somogy County) sold only 24% of its grains from the 30 000 *pm* produced, even in 1846 during the great grain prosperity (these numbers also reflect to low output/ha values).¹⁹⁶ Prior to this, the Gindly family in Tolna County was able to market also 25% of its grain in 1790. (So, there was no real difference between the proportion of surplus before the Napoleonic prosperity and during the general upswing). The Esterházy dukes in 1831 managed to market 146 000 *pm* out of the 468 000, which is 31%. In Tata-Gesztes this was 24% in 1829 and 34% in 1831. In Csokonya (Somogy County) this was 50% between 1812–14 – possibly influenced by high prices of the Napoleonic era.¹⁹⁷ On the other hand, the grain surplus of the noble Darvas family was not more than 10% of the production in the same era, while the Deák family in Zala County with modest estate size managed to sell 30% of its grain production.

Thus, generally speaking, allodial estates could not spare and market more than 33% of their production – similar to Bulgarian peasants and *çiftlik*-owners. Using this analogy, the surplus for the whole layer could not be more than 7 million *pm* in that case. If we reduce this value with the 4-5 million *pm* deficit of peasant smallholders and landless peasants, we may assume that the exportable surplus could not be more than 2-3 million *pm* or 3-4 % of the total production prior to 1848 (*table 21*).¹⁹⁸ This was a low value compared to that of the Balkans (it was 10% even in Bosnia in 1910), but it coincided with the data mentioned in the previous chapter (90 000 to 190 000 tons between 1800–40) validating the calculations. It is surprising, that while

195 *Schwartner, M.: Statistik des Königreichs Ungern. Ofen, 1809; Érkövy, A.: Az 1863. évi aszályosság a Magyar Alföldön. Pest, 1863. 63.*

196 *Kaposi, Z.: A vrászlói uradalom termelése és gazdálkodása a XX. század első felében. Somogy megye múltjából, 1988. Levéltári Évkönyv 19. Kaposvár 1999. 193–94.*

197 Data collected by Glósz.

198 Glósz puts yearly exportable surplus varying between 0 and +10 million *pm*.

Bulgarian peasants could sustain themselves from grain production, but the Hungarian peasantry could not (we used *average hypothetical* values in our calculations regarding Bulgaria, supposing farm sizes above 5 ha and export volumes of different harbours deconstructed to producer level: *table 3 and 7 in Chapter III*; while in the case of Hungary Glósz calculated with differentiated values).

If we compare these results to the quantities sold at the internal market (which ranges to minimum 4-5 million *pm*, the net deficit of peasantry), one may come to the conclusion, that internal markets were more significant prior to the 1820s, than external markets (like in Serbia). It was mainly after 1848 – parallel with the economic transformation and the next price increase –, when foreign exports overshadowed the internal markets.

Table 21. A simplified balance of Hungarian grain production in the 1830s, after Glósz

	In <i>pm</i> (46 kgs units)	In holds (0.5 ha)
Total grain production	85 000 000	22 000 000*
From this: allodial grain production of noblemen	20 000 000	5-5.5 000 000
Allodial surplus	7 000 000	
Peasant grain production	50 000 000	11-13 000 000
Surplus of wealthy peasants	19 000 000	* Including fallow over 33%, thus the output/hold is not 4 <i>pm</i> , but 5.5 indeed (275 kgs/0.5 ha)
Deficit of smallholders and landless	23 000 000	
Deficit of peasantry (covered from internal market)	5 000 000	
Net surplus (to external markets)	2 000 000	

III. Integration to the world market (1840s–1870s)

This era brought dramatic changes in the production system at many places, clearly indicating that the shift from the Ottoman economic space to the Atlantic in the Balkans has begun. A huge part of the peninsula became involved in the “*grains for manufacture*” international division of labour. As economic changes (1838: free trade, introduction of market prices) went side by side with the social changes of the Tanzimat (abolition of *spahi*-landlordship in 1832, securing property rights: 1858),¹⁹⁹ and transports also became cheaper, broad layers of the society were able to participate in this division of labour – compared to the earlier, Napoleonic stage. The most evident sign of these transformations – beside the political challenges – was the spread of smallholdings and monocultural grain production both on small and large-estates.

(a) The effect of the liberalization on prices, trade patterns and wages

(i) Regional effects of international division of labour

The demand for food in western Europe did not decrease after 1815. Population growth and high production cost (or even shortages) in the West acted as pressures towards greater market integration of the Balkan farming economies. Increasing grain prices together with a drastic change in tariff policy of western states made exports profitable for the Balkan, while steam shipping reduced the transport costs from 40 to 13%.²⁰⁰

There were numerous events behind the changes in western tariff policy. First, Germany, the former wheat supplier of England and

¹⁹⁹ The reforms of the Tanzimat could be successful partly because these coincided with the economic prosperity.

²⁰⁰ Berov, Ly.: *Transport Costs*, 75.

consumer of British industrial articles, changed its economic policy and turned to protectionism (List). Britain had to find new markets for her industrial stuff, and new supplier of food for the increasing population. Therefore the wheat–industrial stuff trade shifted to the area of the Ottoman Empire. Then the bad harvest after the eruption of the Cosaguina and the famine of 1846–47 (which is also driven back to climatic anomalies)²⁰¹ convinced western statesmen that autarchy in agriculture has to be abandoned, as it neither produces cheap, nor enough food. As the industrial revolution increased not only the population number in the western countries, but the purchase power as well, the trade of industrial stuff made it possible to finance grain imports. Thus, contrary to the Napoleonic prosperity, it was neither the war demand, nor the climatic events that maintained this process, but it was the restratification of western population into industry and its growing purchase power that broadened the division of labour between the two regions.

This caused structural changes on the Balkans as well. The fall of the *janissaries* (propagators of protectionism and defenders of small-scale industry) in 1826, the Balta Liman agreement in 1838, that deprived the Ottoman state of monopolizing the trade, putting an end to the provisionist economic policy, and finally the abolition of high import tariffs on grains in Britain in 1846 (indicating the victory of the industrial lobby over landlords)²⁰² created a new economic order in the region, allowing the free influx of Balkan wheat to the West. *Increasing wheat prices* (from 400 to 800-1000 grams silver/ton) *were then accompanied by growing exports, clearly marking the prosperity cycle* (growing output could also result in price decrease, as in 1929!). This grain prosperity increased the living standards, thus it prolonged the Ottoman rule over the peninsula even when other cohesive forces beyond economic interests did not work at all. The process lasted till the elimination of price differences in the two regions and until the equilibrium was disturbed by the dumping of Russian and Argentinian wheat, which finally led to the decrease of export prices.

201 Lamb, H. H.: *Volcanic Dust...*

202 Cheap wheat meant cheap labour force and larger profits.

But for the Balkans the era of “*first globalization*” was also the period of *de-industrialization*. Since the wealth accumulated from trade was not invested into the industrial sector, but rather into agrarian production, the end of the favourable external circumstances deprived participants of profits and of tools to give successful responses to the new challenges. (The Hungarian noble elite suffered from the same at the end of the Napoleonic Wars, but the story repeated itself on the Balkans 60 years later).²⁰³

After these changes in trade policy, the import dependency of Great Britain regarding wheat soon increased from 5 to 65%. Local production fell from 3 million tons to 1.3 million, while imports grew from 0.3 to 3 million tons – in order to secure the 250 kg/capita consumption for the population, that increased from 14 to 26 million between 1830 and 1880. The grain exports from Saloniki indicates this phenomenon well. Ranging to 480 thousand *kile* (12 000 tons or 3.5 million grams of silver) at the end of the 18th century – and this did not increase significantly up to the 1830s (16 000 tons, 4-4.5 million grams of silver) with the exception of 1810–16 – exports exceeded 40 thousand tons in 1847 during the great Irish famine.²⁰⁴ This meant a tenfold increase in export values (35 million grams of silver) due to the increasing unit prices, while the exported volume only tripled.

Even relatively distant areas were able to react to the changes in Western European demands due to the decrease in transport costs and the changes in supply policy of the Empire. Sulina’s export was 54 000 tons already in 1837, and this increased to 124 000 tons after the liberalization of trade by 1847 and to 265 000 tons by 1862.²⁰⁵ In 1851 366 thousand *hl* of wheat and 500 thousand *hl* of maize traveled from Brăila to Istanbul, but 460 and 1000 thousand *hl* to Europe, marking the

203 After wars had been over, grain prices fell, the artificial inflation eliminated the internal state debt towards the war-suppliers, and many of the traditional families lost their wealth, because they were unable to modernize their economies, as noble lands could not be mortgaged, and banks refrained from crediting to properties considered as *manus mortua*.

204 *Istoriya na Balgarija*, Tom. 5. 71.

205 Berend, T. I.–Ránki, Gy.: *Európa gazdasága a 19. században 1780–1914*. Budapest, 1987. 592.

changes both in production structure and in trade routes. Grain exports increased to 500% during the Crimean War.²⁰⁶

Prior to these changes the Romanian principalities were dominantly focusing on animal husbandry to supply Istanbul with meat (the transportation of livestock was cheaper than that of wheat). In the 1820s only 16% of cultivated area was ploughland. This changed dramatically after the 1840s. Nonetheless, this not only changed the structure of economy and the distribution of social burdens, but the structure of exports as well, pushing agrarian societies towards increased vulnerability owing to price fluctuations.²⁰⁷ Here, the elite was able to exclude producers from trade, while this failed in Bulgarian lands.

In Moldova the proportion of grains from exports has doubled (reaching 80% from total exports) between 1837–47 owing to the 60% price-increase and the doubling of exported quantities (*table 1*). This increase – both in prices and exports – can be explained by the fact, that the devaluation of Ottoman *piaster* increased export exigency (merchants wanted to get valuable currency). Contrary to this, the next price increase (33%) in 1859 was unable to increase the exported quantity further, and this refers to the local limits of export capacities (climatic impact). Finally, in 1863 an only 10 percent increase in prices generated the doubling of export quantities: it definitely meant that export exigency persisted even when price conditions were not so favourable at all. The principalities became increasingly dependent on the export of grain, and it was the direct consequence of the homogenization of the Moldavian agrarian structure, which proved to be very dangerous. The three events (of different type) represent the driving processes for the *whole* Balkans.

The early stages of wheat prosperity and the *sensitivity of grain exports determined by external processes* can be observed on the example of Burgas. Here exports first increased from 1000 to 12 000 *tons* between 1826 and 1839 as the result of the Ottoman devaluation policy and the

206 Diculescu, Vl.–Iancovici, S.–Danielopolu, C.–Popa, M. N.: *Relațiile comerciale ale țării Românești cu Peninsula Balcanică (1829–58)*. București, 1970. 18–19.

207 In preindustrial societies agrarian outputs usually oscillate as cultivating methods are not developed enough to overwrite the harmful impact of climatic events.

introduction of free trade, then it grew to 30 000 tons in 1847 due to the Western subsistence crisis, peaking once again with 30 000 tons in 1853 as the result of a war prosperity.²⁰⁸

The revitalization of trade was observable in the acceleration of urbanization processes. The population of Danubian ports, like Ruse increased by 40% between 1831 and 1866, a 25 percent increase was measured in Vidin at the same time, while in the landlocked Sofia and Shumen – though these were also important grain producing centers – this remained under 10%.²⁰⁹

Table 1. Wheat export of Moldva and grain prices

Year	Total exports (million lei)	Wheat exports (million lei)	Wheat volume (1000 hl)	Price increase in %	Wheat from total exports (%)	Grain in tons	Grain prices in Lei/ton ²¹⁰
1837	30	12	691		40	53 898	222.6
1843		30	1118	57		87 204	344.0
1847	52	45	1591	-8	87	124 098	362.6
1857	58	40	1527	-7	69	119 106	335.8
1859	73	59	1728	33	81	134 784	437.7
1863	134	120	3409	10	90	265 902	451.3

Based on: Lampe, J. R.–Jackson, M. R.: Balkan Economic History...

The second consequence of trade liberalization beside the increase of exports was an unfavourable change in the balance of trade. While Austria-Hungary had negative trade balance with the Ottoman Empire prior to the 1830s, it suddenly reversed. Upstream transports from Ruse were smaller than downstream imports from Austria, although 22% of the North-Bulgarian wheat exports went to Austria-Hungary.²¹¹ This unfavourable process culminated after the 1870s, when the balance in

208 Shterionov, St.: Juzhmoto chernomorie prez vazrazhdaneto. Sofia, 1999. 165.

209 Todorov, N.: The Balkan Town in the Second Half of the 19th century. Etudes Balkaniques, 2. 1969. 32–35.

210 1 leu equalled to 40 para prior to 1837 (equalling to the piastre), 60 paras prior to 1843 and 100 para after 1850. Diculescu, Vl.–Iancovici, S.–Danielopolu, C.–Popa, M. N.: Relațiile comerciale...

211 Paskaleva, V.: Ikonomicheskoto pronikvane na Avstriya u nas ot 30-te godini na XIX. vek do Krimskata vojna. Istoricheski Pregled. 1956/2. 37–38.

most of the Balkan ports became negative, contrary to situation in the previous decades, when – according to Redens's data – mainly Constantinople showed deficits.²¹²

Thus, the Danubian trade did not create such great extra revenues as one would expect. Danubian merchants, as the Rachkov, Sahatchiyski and Arnaudov families had some 250–300 000 *gros*h capital (50–60 000 francs).²¹³ In Svishtov the free capital did not exceed 40 000 francs for large trade houses, which equalled to the value of 400 hectares of cropland – which is a larger *çiftlik* indeed. Thus, the value of mobilized capital enabled merchants to invest into agriculture, but the lack of capital concentration – neither of the mentioned merchants were match for the great traders in Saloniki, whose capital (whether be Jews, Greeks or English) reached 100 000–1 000 000 million francs²¹⁴ – hindered investments in industry. To establish a large factory – like the one that was operated (but not owned) by Dobri Zhelyazkov – at least 1 million *kurush* (200 000 francs) was needed. This condition could be fulfilled by hardly anyone in the central parts of the peninsula: probably Tapchilestov in Istanbul and the Georgiev brothers in Bucharest had such amount of money. When the grain prosperity was over, many of these middle-scale merchants could not response to the challenge by transferring their capital into other sectors, compared to those who diversified their activity earlier.

Intermediating trade was still a great business.²¹⁵ During the Crimean War the Kisimov merchant house collected a capital of 1.2

212 Reden, Fr. W. von: *Die Türkei und Griechenland in Ihrer Entwicklungs-Fähigkeit*. Frankfurt am Main, 1856. 259.

213 Berov, Ly.: *Ikonicheskoto razoitie*, 78.

214 For this see: Damianov, S.: *French Commerce with the Bulgarian Territories from the eighteenth Century to 1914*. In: Vacalopoulos, A. E.–Svolopoulos, C. D.–Kiraly, B. K. (eds.): *Southeast European Maritime Commerce and Naval Policies from the mid eighteenth century to 1914. War and Society in East Central Europe*. Thessaloniki, 1988. In Saloniki Argiri Matheos had 100 000 francs capital and 250 000 francs yearly income. The Jewish merchant houses, like the Allatini, Modiano and Fernandez had more than 1 million francs capital, the yearly turnover reached 2 million. The English Abbots had 1.5 million francs of capital, while Theagenis Kharissis had 0.25 million.

215 Kosev, D.: *Otrazhenieto na krimskata voyzna (1853–1856) v Balgariya*. Istoricheski Pregled, 1946–47/2. 185.

million *kurush* from transportation. The comparison of data collected by Mihov and Draganova shows that wheat prices at ports were much higher than in the centre of the peninsula (2:1).²¹⁶ Together with the changes in transportation costs – freight rates fell from 40% of prices at the end of the 18th century to 25%, then to 13% in 1840s' in case of wheat – this enables us to estimate the benefit of transport heading towards the large harbours. Subtracting freight costs from harbor prices one may get a profit rate in transport exceeding 25%. It was a huge benefit compared to other regions and to other economic activities: in Poland the profit rate of traders using mainland roads decreased from 14–17% to 5–15% in the 18th c.²¹⁷

The mentioned price difference was partly the result of the external demand, but geographical conditions were also responsible for it. Interregional differences regarding the value and composition of production and exports were not negligible prior to 1873. Regions producing grains over 10 *kile*/capita (250 kgs) like Thrace, Rila-Vitosha and the Danube vilayet became involved in grain exports according to the data of Sax (*table 2–3*). While production in Thrace was stagnating, the Danubian vilayet showed a remarkable increase.

Regarding total *per capita* export values, the 35 francs in Macedonia and the 65 francs in Thessaly were considered extremely high compared to the imperial average (15–20 francs). It is not surprising that these provinces were in the centre of interest of the young Balkan states.²¹⁸ In Bulgaria, prior to 1878 grains constituted 66% of the exports (10 francs/capita), but the value of *per capita* grain exports was even greater in Romania, exceeding 15 francs/capita. The total grain export of the peninsula was worth 90 million francs securing the consumption of 2 million western inhabitants and 66% of this came from Romanian lands.

216 In 1853 1 kg of wheat equaled with 0.77 gramms of silver in Saloniki and 0.65–0.80 in Varna, while in Berkovica and Sofia the grain bought from producers was 0.33 gramms in silver. *Berov, Ly.: Parvite ciklichni krizi na evropeyskiya kapitalizma i stopanskata konyunktura v balgarskite zemi prez XIX. v. Istoricheski Pregled, 1978/6. 22–36.*

217 *Berov, Ly.: Transport Costs, 75.*

218 *Dufour, B. J.: Étude du mouvement commercial de la Turquie en 1863. Annales du commerce extérieur. Paris, 1865. 3–71.*

Table 2. The agrarian output in the South-Balkans according to Sax (1870s)

Agrarian product	Thrace, 1873		S-Macedonia 1873		W-Macedonia	
	1.1 million, without Burgas, Sozopol, Midia, Aitos	per capita	1.3 million Maleš, Plaškavica	per capita	0.8 million Monastir, Janina, Ohrid, Prilep	per capita
Grain altogether (kile)	12 000 000	10.9	6 000 000	4.62	4 320 000	5.4
Silk (oka)	200 000	0.2	200 000	0.15		
Cotton (oka)			3 000 000	2.31	100 000	0.13
Tobacco (oka)	1 000 000	0.9	3 000 000	2.31	280 000	0.35
Sheep (db)	2 000 000	1.8	1 000 000	0.77	1 000 000	1.25
Goat (db)	1 500 000	1.4	800 000	0.62	1 500 000	1.88
Cow(db)	200 000	0,2				
Swine (db)	50 000	0			50 000	0,06
Vinestock (db)	50 000 000	45,5	38 000 000	29,23	70 000 000	87,5

Agrarian product	Rila-Vitosha, 1873		Danube vilayet 1873		Danube vilayet, 1864		Thrace, 1877	
	0.5 million	per capita	2.5 million, Niš, Danube delta without Sofia	per capita	2.3 million	per capita	1.5 million	per capita
Grain altogether (kile)	16 000 000	32	42 500 000	17	7 200 000	3,13	15 000 000	10
Silk (oka)			1 500 000	0,6			200 000	0,13
Cotton (oka)							500 000	0,33
Tobacco (oka)	700 000	1,4	1 000 000	0,4			1 000 000	0,67
Sheep (db)	1 500 000	3	3 500 000	1,4	6 300 000	2,74	2 500 000	1,67
Goat (db)	500 000	1	500 000	0,2			700 000	0,47
Cow(db)	100 000	0,2	500 000	0,2	1 000 000	0,43	250 000	0,17
Swine (db)	12 000	0,024	100 000	0,04	300 000	0,13	50 000	0,03
Vinestock (db)	1 000 000	2	12 000 000	4,8			50 000 000	33,33

Table 3. Production and exports of main harbors

Port and attraction zone	Wheat production in million kile	Exports in million kile and %	Value of total production (million piasters)*	Value of exports in million piasters*	Families (6 persons averagely, in millions)	Production per family (kile)	Production and exports per family in piasters
Surroundings of Edirne, 1849	2.6	0.5 (25%)	25-27	5	0.1	25 (500 kg)	250 50
Pleven, 13 villages, animal husbandry, 1840	200 000 kg		0.1		385 households		250
Moldva, 1837 1847		54 000 tons, 124000 tons		21.6 50*	0.2		110 250
Edirne, 1846		5.2		40	0.1?		400?
Enos, 1845		0.4		4	0.06-0.1		50
Enos, 1847		1.5		15	0.06-0.1		150
Burgas, 1851, 1852		0.3 and 0.9		3 and 9	0.1		30 and 100
Svishtov		2.5		25	0.12		200
Macedonia 1847 (and Saloniki, 1852)	5.7-6	2.6 (33%)	67	26* (total of Saloniki = 40 million piasters, 1847)	0.12	50 (1000 kgs)	510
Seres, 1851-1853	1.9 and 3.1		20 and 33		0.03	60 and 100 (1500-2500 kgs)	600 and 1000
Volos	4.1	0.4 (10%)	41	4	0.03	120 (3000 kgs)	1200 130
Bulgaria and „Rumelia“ 1848		4.4-5		45-50	3 million persons = 0.5 m families		95-100
Anatoly, 1858	25		250		7.4 million persons, =1.25 m families	20	200
Stara Zagora kaza, 1859	0.75	0.2 (30%)	14	4	0.0055	125	2300 700
Kazanlik kaza, 1859	1	0.3 (30%)	15,2	4,5	0.008	122	1855 550
Sanjak of Plovdiv, 1867, (here 1 kile =60 okes!)**	4.5	1.2 (25%)	260**	70**	0.8 million persons= 0.15 m families	30** (90) (2250 kgs)	1700** or 460**

*Original data are indicated by bold letters, others are calculated using 400-500 piaster/ton prices = during the wheat boom the prices had doubled, thus the per capita production and exports mentioned here should be doubled. 1 kile of Constantinople = 20-22 okes, 25 kgs. 1 ton = 40 kile.

** In 1867 calculated with 1000 piasters/t and 1 kile = 60 okes

Data: Heuschling, X.: L'Empire de Turquie. Territoire. Population. Gouvernement. Finances. Industrie agricole, manufacturière et commerciale. Voies de communication. Armée. Culte... Bruxelles, 1860; Farley, J. L.: Modern Turkey. London, 1872; Ubicini, A.: Letters on Turkey. London, 1856. 327.; Viquesnel, A.: Voyage dans le Turquie d'Europe. Description physique et géologique de la Thrace. Paris, 1868; Hochstetter, F.: Reise durch Rumelien im Sommer 1869; Kanitz, F.: Donau-Bulgarien und der Balkan. Historisch-geographisch-etnographische Reisestudien aus den Jahren 1860-1879. Leipzig, 1882. Band II. 214.

For the population of administrative units see *Fényes E.: A Török Birodalom leírása történeti, statisztikai és geographiai tekintetben.* Pest, 1854. 387–424. and *McGowan, B.: Economic life in Ottoman Europe: taxation, trade and struggle for land, 1600–1800.* Cambridge Univ. Press, 1981. 88–92.

The fact, that the highest export/capita values were not measured in the grain exporting regions warns, that originally there had been more favourable agrarian products than wheat (like cotton, as industrial raw material). Wool became of secondary importance in everywhere (18 million francs) due to the trends in international division of labour. Thessaly was in the lead regarding cotton production/capita, but most of the cotton exports stemmed from Macedonia (50% of the exports) overtaking tobacco (15%), silk (15%) and grains (12%).

(ii) Trends, prices and wages in agriculture

These structural changes had impacts not only on agriculture, but on Balkan societies as well. The general (export) price index based on 26 foodstuffs showed cycles in the Balkan Peninsula (similar to the Kondratieff-cycles, *figure 1*). The curve rather represents the impacts of global processes on the Balkan peninsula (the local price index showed great correlation with western trends) than local effects, referring to the high degree of integration into the global system. The first price cycle began at the end of the 18th century due to the shortages stemming from overexport to the West during the Napoleonic Wars and high transport costs.²¹⁹ After the wars prices fell. The abolition of fixed prices, trade monopolies and the liberalization of markets initiated an increase in the prices of local foodstuffs again. Prices converging to the western prices were favourable for the rural Balkan societies. The process lasted

219 Palairet, M.: *The Balkan Economies*, 41. and Berov, Ly.: *Transport Costs...*

till the end of the Crimean War, then another decline of prices came, which was followed by the upswing during the Great Eastern Crisis. But the dumping of Russian and American wheat on markets in the 1870s finally put an end to high prices.

Land prices were also similar to food prices, with a minor lag between the two curves ($r=0.65$). These cycles were the result of the interference of prices in different sectors:²²⁰ the period of high industrial prices did not always coincide with high agricultural prices ($r=0.5$) on the Balkans: while in 1780–1800 both were high, the next cycle in 1800–20 was dominated by the price increase of foodstuffs together with animal products, referring to international division of labour. The cycle in 1840–70 was dominated by crop prices (de-industrialization), while the last cycle after 1880 was determined by increasing livestock prices and decreasing wheat prices (*figure 1*).

The economic prosperity made the execution of Ottoman reforms possible. While the reforms of Selim III at the end of the 18th century lacked fiscal stability, during the Tanzimat era the central budget was increasing. The price fluctuations and cycles not only influenced the macroeconomic situation, but the living standards of peasantry (and other layers) as well.

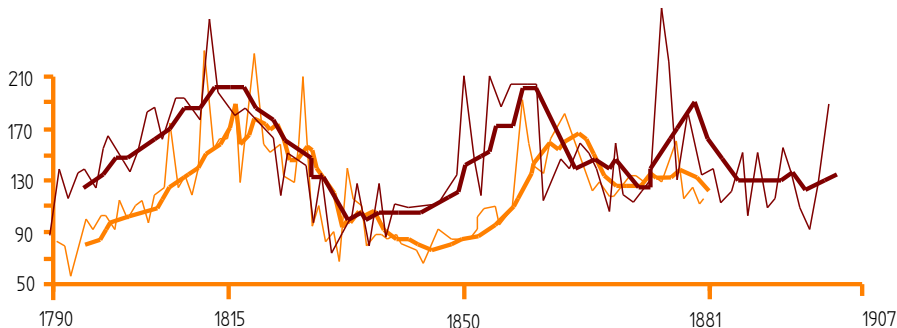
While wheat prices were increasing, the price of wool and cotton goods declined. Agricultural wages increased parallel with wheat prices. Industrial wages also grew, but the price decrease of industrial products and the price increase of bread endangered local entrepreneurs' (guildsmen) profits. While in the 1840s it was evident that agrarian labour was cheaper, than the industrial owing to the oversupply, this changed within years. First growing wheat prices

220 Berov, Ly.: *The West European Trade Cycle and Price Movement in the Salonica Economic Region during the Nineteenth and Early Twentieth Centuries*. In: Vacapoulos, A. E.–Svolopoulos, C. D.–Kiraly, B. K. (eds.): *Southeast European Maritime Commerce*, 285–86. Cotton was cheap, its price was stagnating at the end of the 18th century (1.1 franc/kg). European demand increased only after the 1820s, but prices did not increase as tariffs on American cotton were abolished. The civil war pushed prices up to 5 francs/kg, and Saloniki's export grew from 2.8 million francs to 15 million. After 1867 the dumping of Egyptian cotton lowered the prices again. Tobacco prices were around 1.3 francs/kg in 1780, by 1900 it went up to 3 francs/kg.

increased agrarian wages, pushing workers towards the agrarian sphere between 1850–70, then the lack of industrial labour force produced increasing industrial wages. The low supply of agrarian labourers after 1878 also triggered price increase among agrarian wage earners,²²¹ and finally the recurring agrarian price increase (after 1900) increased the fieldworkers' wages once again (see process in *table 5*).

As the unit prices of industrial goods were decreasing, the agricultural wage-labourers purchase power on industrial goods increased to tenfold (!), while it only doubled measured in bread (*table 4*). The purchase power of industrial workers on bread even decreased in 1847–70, then improved. By 1910 both layers were able to purchase the same amount of industrial and agricultural stuff. It is also evident based on the wages, that the era prior to 1840 was favourable for industrial workers, and the period between 1850–80 favoured the agrarian labour force (*table 5*).

Figure 1. Export price index based on 26 goods (yearly and 5-year average) (1888=100, dark), and price index of land in Bulgaria (1800=100, current prices, light)



Berov, Ly.: *Parvite tsiklichni krizi...* and Berov, Ly.: *The West European Trade Cycle...*Berov, Ly.: *Dvizhenieto na tsenite na Balkanite prez XVI–XIX v. i Evropeyskata revolutsiya na tsenite.* Sofia, 1976. and Berov, Ly.: *Dvizhenieto na tsenite na balkanite prez XVI–XIX v. i Evropeyskata revolutsiya na tsenite.* *Istoricheski Pregled*, 1975/3. 92–102.

221 After 1858 then 1878 many wage-labourers was able to obtain own land and was not compelled to work for others.

Table 4. Prices, wages and purchase power of workers

Index	1840	1847	1860–1870	cca. 1900
Wheat price (piasters/t)	400	800	600–900	600–700
Wheat price in gramms of silver	400	800	600–900	600–700
Price of cotton cloth (francs/kg)	24	10	8–10	
Price of woolen cloth (francs/kg)	26	24	17–22	16**
<i>Purchase power on cotton stuff for agricultural workers (index)*</i>	1	4	10–15	
<i>Purchase power on woolen stuff for agricultural workers (index)</i>	1	2	5.8–7.5	10
<i>Purchase power on grain for agricultural workers (index)</i>	1	1	2.2–3.3	3.4–4
Purchase power on cotton stuff for industrial workers (index)	1	3.1	7–9	
Purchase power on woolen stuff for industrial workers (index)	1	1.35	3.8–5	5
Purchase power on grain for industrial workers (index)	1	0.6	1.7–2.3	1.7–2

Wages from Ta Van Long: Razvitie na naemnija trud v zanayatchiystvoto v Balgariya (1888–1910). Istoricheski Pregled, 1991/12. Grain prices from Dokumenti za balgarskata istoriya iz germanski arhivi 1829–1877. Sofia. 1963. 94–150. No. 22. Doklad-statisticheski tablici na pruskiya konsul. Ch. Blunt do Lecoq otnosno koraboplavaneto, targoviyata i predeneto na koprina v Solun prez 1840–1845 g. Sächsisches Landesarchiv, Dresden, Korrespondenz mit dem königlichen Konzul zu Konstantinopel. No. 23. Doklad statisticheska tablica na Ch. Blunt do Lecoq za dvizhenieto na korabite na Solunskoto pristanishte prez 1847 g., No. 24–32. Industrial products' prices are from Michoff, N.: Contribution a l'histoire du commerce de la Turquie et de la Bulgarie III. Rapports consulaires français. Svichtov, 1950. *See table below. **In 1892, Sariivanov.

Table 5. Differences in the wage of agricultural and industrial workers of the centre and the periphery

Year	Daily wage of harvester in grosh	Bulgarian industrial daily wage unskilled/skilled in grosh	Ratio of industrial/ agricultural wage
1840	2	4	2 = favourable for industrialization
1850	4	5 / 7	1.2
1870	10	10 / 14	1.2
1883	15	8 / 10	0.5 =critical for industrialization
1900/1905	12.5–14	10 / 14	1

Sources: Ta Van Long: Razvitie na naemnija trud... and Özmucur, S.–Pamuk, S.: Real Wages...

*The higher the value, the greater the pressure is toward stratification of labour force into industry. Low ratio represents a reverse process – re-stratification into the agrarian system. 5 grosh = 1 franc

(b) The profitability of agrarian production

(i) The formation and transformation of chiftliks

Unlike in the early 19th century merchants during the grain prosperity tended to invest into grain production beside transportation. Thus, large estates created in the beginning of the 19th century prevailed. Their regional distribution was diverse, such as their origin, and also numerous types and forms existed: the *beglik* represented the allodial type large estate (*demesne*, *latifundium*) cultivated often by *corvéé* (forced, unpaid labour), while *chiftlik*, *gospodarlik*, *agalik* represented the non-allodial Grundherrschaft-like type large landholding, which was distributed among shareholders (averagely 10 ha/unit).²²² The proportion of chiftlik lands was only 10% in E-Rumelia, 22% in N-Bulgaria, 10% around Sofia, but 50% in Macedonia.²²³

Although Lampe stated that large estates declined after 1815 in the eastern part of the Balkans,²²⁴ this is only true for their share from total cultivated land, but not for the productivity. Data suggest that 10 or 20% of peasants worked on 20-25% of the cultivated land producing 30-40% of crops.²²⁵ These numbers suppose that per capita and per hectare outputs in large estates were somewhat better than on smallholdings in Macedonia and Bulgaria (the merchant Brakalov rented an estate of 1000 ha producing 20 000 Burgas kile, which meant 1500 kg/ha output exceeding the production of smallholdings in Kjustendil or Berkovica

222 Beside the expropriated quantity (fixed or proportional), the method of cultivation (forced or paid labour) could be a further feature to typify the large estates.

223 Levintov, N. G.: *Agrarniy perevorot v Bolgarii v 1878–1879gg.* In: *Osvobozhdenie Bolgarii ot tureckogo iga.* Moskva, 1953. 158–60.

224 Lampe, J. R.– Jackson, M. R.: *Balkan Economic History*, 132–40.

225 See different data from Berov, Ly.: *Ravnishite na ikonomichesko razvitie na balgarskite zemi po vreme na osvobozhdenieto.* Trudovi na visshiya ikonomicheski institut „Karl Marx“. I. Sofia 1979. 45–50. and Quataert, D.: *The Age of Reforms, 1812–1914.* In: *Inalcik, H.–Quataert, D. (eds.): An Economic and Social History of the Ottoman Empire.* 864.

reaching only 1000 kg/ha output).²²⁶ However researchers do not agree in the proportion of applied workforce, thus per capita outputs and the efficiency of large estates is still debated (and it had regional pattern as well: unlike in Bulgaria, in Greece the productivity of smallholdings exceeded that of large estates owing to the different composition of products).

Although the increase in proportion of chiftliks from total cultivated land has stopped by the 1860s in European Turkey (considered as the sign of decline by Lampe), but as *the extent of cultivated lands had doubled owing to the extensification* between 1840–70,²²⁷ the same was true for the extent of large estates. This is also a good indicator of the extensive nature of farming in the Balkans, where output growth mainly depended on increased acreage and not on the intensification of production. Until corvée existed or daily wages remained low (around 2 grosh in 1840s, this increased to 4-5 by the 1860s),²²⁸ the cultivation of large estates was cheap, and until the decline of grain prices they were usually profitable.

Ottoman reforms, like the abolishment of timars and spahiluk in the 1830s did not mean the dissolution of large estates or that peasants automatically became landowners. Although *spahis* were deprived of the right to collect taxes in kind and were pensioned, the local Muslim elite – able to pass life-long *malikane* down to their descendants (in Vidin, in Macedonia, in Bosnia and in the šop region) – often managed to maintain control over lands (in Vidin, Niš). This meant double taxation for these peasants, as not only the new representatives of the central government (*voivoda*) collected the tithe usually in cash after the reforms (*maktu-system*), but the landlord expropriated as well at least 5-10% of the production (in Bosnia and Macedonia even 33%).

The transformation of spahiluk to chiftlik estates was even promoted by the state purchases in the beginning, during the era of provisionist

226 See Draganova, Sl.: *Kyustendilski region 1864–1919: Etnodemografsko i socialno-ikonomicheško izsledvane*. Sofia, 1996. These data challenge the 18th c. theory of Arthur Young, who claimed, that free peasantry provided greater productivity, than serfdom or forced labour.

227 Berov, Ly.: *Ravnishite*, 20.

228 See Kosev, D.: *Vastanieto na selyanite v severozapadna Balgariya prez 1850 g. i negovite prichini*. Istoricheski Pregled 6, 474–93.

policy: in 1834 Istanbul ordered 550 000 kile of wheat from North-Bulgaria, but 1 million in 1837. Later it was the the export price-increase that fuelled this process: after the abolition of price limits Bulgarian grain exports increased tenfold.²²⁹ Thus, beside the traditional Muslim elite, Christian tax-farmers, *voyvodas* or merchants (*chorbadjis*), also bought their own chiftlik.²³⁰ Large estates were no more exclusively *askeri* (or Muslim) landholdings.

According to Hristov most of the early *chiftliks* were established as a result of some kind of indebtedness of peasants. If the *reaya* was unable to pay the tithe to the *spahi* – and this was a common phenomenon between 1803–14 – a loan was offered (*borch*). If the peasant could not pay it back, he had to offer a share from the harvest or to work for the *spahi*.²³¹ In Karamanica village a *spahi* bought a small estate and within 10 years most of the villagers lost their estates owing to *borch* and were forced to pay an amount from their crop to the *spahi* (*kesim*).

Precedent was also a driving force. Vodnjanci village was given to Memish aga by Pazvandoğlu through a *tapu*, although this was *miri* (state) estate, and Pazvandoğlu had no rights over it. After the death of the aga and Pazvandoğlu the estate was declared emptied (*mahlul*) by the state and given to Celebi aga instead of giving it back to the peasants.²³²

During the Russian-Turkish war in 1806–12 and 1828–29 100 thousand Bulgarians escaped to Romania, and though many returned, the local ayans have confiscated their property, as they did not pay the taxes.²³³

229 Berov, Ly: *Agrarnoto dvizhenie v Iztochna Rumeliya po vreme na osvobozhdenieto*. Istoricheski Pregled, 1956/1. 5.

230 *Istoriya na Balgariya*. Tom. 6. Sofia, 1987. 41. Like Hadji Mano in Sofia. Coko Kableshev in Plovdiv, the Robev brothers in Monastir did the same.

231 Hristov, Hr.: *Nyakoi problemi na prehoda ot feodalizma kam kapitalizma v istoriyata na Balgariya*. Istoricheski Pregled 17, No. 3, 1961. 91. and Hristov, Hr.: *Kam vaprosa za zagrabvaneto na selskite zemi i sazhdavaneto na chiftlici i gospodarlici v Evropeyska Turciya prez XVIII-XIX v*. Izvestiya na Instituta za Istoriya. 1964. 153–55.

232 Zahariev, J.: *Kamenica*. SBNU. Tom. 40. 1935. 379.

233 *Statistische Mitteilungen über Bulgarien (Aus der Zeitung von Odessa) – Das Ausland*. 5 Jahrg. Bd. 1. Nr. 30-41. München, 1832. 161. As local ayans were responsible for taxation, defence,

The smaller spahi estates not transformed into chiftliks or gospodarliks were not profitable – in Radovishte Çaus Ahmed managed to collect only 1500 grosh from the villagers, which is not more than the production of a smallholding itself. Husein in Padeš also collected 1500 grosh revenue.²³⁴ Prior to the pensioning of spahis (*bedel-i timar*) around Belogradchik 38 out of 45 villages served Muslim landlords. After their pensioning peasant burdens decreased by 20–40%. But peasants could not become landowners here prior to 1858: in 1842 twenty villages were given again to Muslim tax-farmers and landlords.²³⁵ This was not unique: between Niš and Sofia more than 300 villages under *chitflik* or *gospodarlik* managed to get rid of the burdens only after 1878. Here 55% of the villages depended from a landlord compared to the more prosperous coastal areas, where 70% of the peasantry owned his estate by the 1870s.²³⁶

Were the chiftliks profitable? If not, there hadn't been investments here, and we have detailed data on this even from the 1860s. (It is also true, that 23 chiftliks had already been distributed by 1874 owing to the decrease of grain prices or the increase in labour costs).²³⁷ The rental costs of the chiftlik rented by the mentioned Brakalov – who borrowed the money from Topchileshtov – reached 400 000 kurush for 6 years (yearly average: 70 000), which – calculating with 800 piasters/ton price – was hardly more than 100–150 tons or 10% of the production.²³⁸ The chiftlik was cultivated by 100 men (*chift*), each worked 10 ha. Further 350–400 part-time workers were needed in summer.²³⁹ The 100 permanent workers kept 0.9 million grosh value from the harvest (including animal fodder and seeds), harvesters received 4–5 grosh daily which meant daily 1400–2000 grosh for 350–400 workers and

and local budget, their interest was to maintain the system of services regardless of who pays the tax.

234 Dimitrov, *Str.: Kam vaprosa za otmenyavaneto*, 48–49.

235 *Istoriya na Balgariya*, Tom. 5. 242.

236 Tonev, V.: *Balgarskoto chernomorie prez vazrazhdaneto*. Sofia, 1995. 75. Further 15% had to take part time jobs, and 15% was working on chiftliks.

237 Berov, *Ly: Ravnishte*, 20.

238 Tonev, V.: *Balgarskoto chernomorie*, 73–74.

239 *Ibid.*

altogether 0.15-0.2 million grosh for 100 days. Adding up these and the rental price the total costs reached 1.1 million kurush a year. So this estate was only profitable, if the averagely 1500 tons of wheat was sold at least at 700 grosh/ton (140 francs) price. Wheat price reaching 1000 grosh/ton (200 francs/ha), as in 1868, meant a 25% profit rate. But after 1878 prices fell from 160 to 110 francs/ton (1882–94), eliminating profits.

A smaller *chiftlik* of 60 ha needed 3 workers in winter and 9 in summer (1864). The *chiftchi* working on the fields received 1000-1200 grosh in cash and crop and each cultivated 5 sown hectares by a pair of oxen. For such an estate the permanent workers meant 12-24 000 grosh expense. The 150 harvesters in summer meant additional 6000-10 000 grosh. The 60 hectares could produce 90-100 tons of wheat. As that time 1 ton of wheat was worth 100-130 francs, the total income was 10 000 francs (50 000 grosh), while the expenses reached 7000 francs (33 000 grosh),²⁴⁰ making the profit rate to 30% – without subtracting the seeds. But if we use prices from 3 years earlier, this profit would disappear.

As it can be seen from *table 6* the profitability of large estates was limited by external circumstances, like price fluctuations and labour wages.²⁴¹

Table 6. Profitability of a large estate (chiftlik) with 600 dönüm of sown arable land in optimal and deteriorating case (1870s–1880s)

	Wheat price in francs (t)	Daily wage of labourers (grosh)	Yield /ha (kg)	Income (grosh)	Expenses (grosh)	Income/Expense ratio
Maximum value	160 (before 1880)	16 (after 1880)	1800	80–90000	40000	Optimal case (cca. 1870): 3 : 1
Minimum value	100 (after 1880)	5–10 (prior to 1880)	1500	50–60000	20–30000	Worst case (cca. 1880) 5 : 4

Work on chiftliks was not mechanized. As wheat prices fell after 1873/1878 owing to the oversupply (Russian and American grains), the labour wages – which were increasing – eliminated the surplus. The

240 Data from: Todorov, N.: *Novi dannii za agrarnite ottnosheniya u nas ot 60-te godini na XIX. vek.* Istoricheski Pregled, 1958/5. 102–113.

241 Hristov, Hr.: *Nyakoi problemi na prehoda ot feodalizma...* 83–107. and Todorov, N.: *Novi dannii za agrarnite ottnosheniya...*

liberation of the Bulgarian state and the distribution of land abandoned by Muslims created a temporary oversupply of land and shortage of labour force on large estates: everyone had his own small holdings of 5 hectares that made self-subsistence possible, thus was not compelled to work for others any more. In Stara Zagora daily wages increased from 10 grosh/day in 1877 to 15–17 grosh, in Gabrovo harvesters received 5–12 grosh in 1877, but asked for 40 in 1885.²⁴² This put an end to the prosperous chiftlik estates here, while these survived in Bosnia, Macedonia and Thrace, that is, in lands which remained under Ottoman rule. Here the different social and agrarian conditions – the lack of freeholdings with proper size to secure self-subsistence, which pushed the peasants to work for others, the persistence of cheap enforced labour (corvée) and sharecropping – maintained these large estates.

(ii) Profitability of agrarian production: peasant economies

This chapter investigates the numerous (intertwining) problems of smallholdings still debated in literature: (1) whether these were profitable enough to compete with large estates in case of similar conditions, (2) whether monocultural grain production fit to smallholdings or not, what alternative ways of cultivation were practised in this period (landuse conflicts), (3) what transformations these changes induced in families, whether there was an oversupply of workforce or not, (4) where and why the smallholdings could exceed the level of self-subsistence, etc. Some special cases will be discussed separately (the Greek model or Croatia in the next chapters), this part focuses on “free” smallholdings turning towards grain production (Serbia, Bulgaria). The above mentioned questions regarding “smallholdings” that were parts of non-allodial large estates (chiftliks) will also be discussed in a later chapter (Macedonia, Bosnia), as these were only indirectly influenced by the external circumstances (their profitability is discussed in the chapter on large estates).

242 Mollov, J.–Totev, Yu.: *Ceni na zemedelskite proizvedeniya u nas prez poslednite 54 godini 1881–1934*. Sofia, 1935. 90. and Palairot, M.: *The Balkan Economies*, 181.

Grain production

Although cultivation techniques were obsolete on small estates (an average chiftlik used 3-4 iron ploughs and 10-15 wooden ploughs, *ralo*, while smallholders mostly used the latter),²⁴³ this did not necessarily mean that they were not profitable, especially if we consider, that their number increased in many districts.

The present chapter investigates the distribution of production between different social layers in the Balkan regions and the changes in this – comparing the situation in the Napoleonic Wars (1780–1815) to the next prosperous stage in 1840–73. Our presumption is that if producers managed to participate in earning profits from the increasing grain prices it could decrease social tensions. For example, in Ottoman Bulgaria numerous revolts broke out (1835, 1836, 1837, 1841, 1842, 1850, 1862, 1867, 1868, 1872, 1876), but none during the great western famine of 1846–50, and the revolutionary wave of 1848 – with the exception of Romania, where the socio-economic system completely differed from that in Serbia or Bulgaria – did not reach the region.

Although wheat prices doubled during the Napoleonic era compared to 1787, transport costs also increased by 50%. This also meant that most of the profits was realized in/consumed by transport and trade that time, local producers did not benefit from the processes until freight costs decreased. By the 1840s this situation changed: grain prices has doubled again, while freight rates declined. The abolishment of fixed prices and the implementation of *maktu* system in 1832²⁴⁴ (the spahi-tax farmers lost their right to collect taxes in kind, and voyvodas collected it in cash instead) compelled peasants to sell their wheat in markets. With the infiltration of western (higher) grain prices into the peninsula, even smallholders were able to receive extra income, unless they were excluded from market processes.

243 Dimitrov, Str.: *Chiftlishkoto stopanstvo prez 50-60-te godini na XIX. vek.* Istoricheski Pregled, 1955/2. 16.

244 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History...* 135.

Table 7. Wheat exports and production at different localities decomposed to one family

Region	Population	Production or export	Production per capita (and per family of 5 members)	Value of production/exports per capita (and per family of 5 members)
<i>Production of Tuna vilayet, 1876</i>	2 300 000	32 000 000 kile	360 kgs and 2000 kgs	300 p and 1500 p
Exports of Tuna vilayet, cca. 1850		3 million kile = 78 000 tons	35 and 200 kgs	30 and 180 p
Exports of towns along the Danube, 1854	110 000 families	250 000 kile (1 kile = 50 p for wheat, altogether 10 million.	15 kg and 7 kgs	20 and 100 p
Exports of Ruse and its hinterland, 1876	55 families = 300 000 persons	500 000 centner = 25 000 tons, 21 million p	100 kgs (and 450 kgs)	100 and 400 p
Exports of Bulgaria and E-Rumelia, 1840	2 500 000	800 000 kile = 21 ezer tons	8 and 45 kgs	4 and 20 p
<i>Vidin, total production in 1847</i>	<i>7000 families</i>	<i>1,1 million kile = 28 000 tons</i>	<i>0.8 t and 4 t</i>	<i>700 and 3800 p</i>
Exports of Burgas, 1848	700 000 prs (total Sanjak of Plovdiv)	1.3 million kile = 32 500 tons	50 kgs	25-40 p and 125-200 p
Exports of Bulgaria and E-Rumelia, 1847	2 500 000	4.3 million kile = 110 000 tons	44 and 220 kgs	35 and 200 p
Production of Tuna vilayet, 1865		7 100 000 kile = 185 ezer tons	85 and 420 kgs	85 and 420 p
Exports of Tuna vilayet, 1865		4 335 000 kile = 110 000 tons	50 and 250 kgs	50 and 250 p
Exports of Edirne vilayet, cca. 1870	1 300 000	28 million piasters		25 and 125 p
Prior to prosperity				
<i>Production of Saloniki, 1839</i>		<i>75 million piasters (12-20 piasters/kile)</i>		<i>250 piasters/household</i>
Exports of Saloniki, 1839		5 million piasters (7-8%)		17 piasters/household
Production of Macedonia, 1840	800 000	3 million kile = 78 000 tons	100 kgs and 500 kgs	40 and 200 p
Exports of Macedonia, 1840	800 000	450 000 kile	15 and 75 kgs	8 and 40 p

Prior to 1846 the grain price is calculated as 400 p/t after 1846 we calculate with 840 p/t.

Based on Bulgarie et Roumelie. Annales du commerce extérieur. Paris, 1850. 9-10. and Michoff, N.: Beiträge zu Handelsgeschichte Bulgariens II. Band 1-2. Sofia, 1953.

So, liberalization had the potential to decrease social tensions. However, this depended on the distribution of the surplus production between the different social groups and this showed significant regional differences too. For example, in the Romanian principalities peasants became excluded from the markets by the 1830s. Though the Romanian elite and the Orthodox Church had managed to acquire one-third of land from the peasants by the beginning of the 19th century,²⁴⁵ merging them to their own allodium,²⁴⁶ from the 1820s on (after the Reglement Organique of Count Kiselev) the process reversed. The role of allodial estates soon began to decrease in the Romanian principalities, as the tithe was increased from 1/10 to 1/5 of the production.²⁴⁷ Grain delivered to landlords by peasants exceeded the amount produced on allodial holdings using corvée by three to five times, therefore for landlords it was more profitable to lease the land for sharecroppers, than forcing the corvée. By 1833 50% of the cultivated land had been worked by peasant smallholders, who were deprived of the surplus through heavy taxes and compulsory services. Therefore peasants were excluded from

245 In order to avoid increasing central taxes (the principalities were farmed out as huge 'tax-farms' for the Phanariots, and the candidate who paid the highest price received the right to rule them as temporarily assigned prince), the peasants of the Romanian principalities offered their land to monasteries or *boiars* keeping the right to use it, while paying the 10% tithe. Peasants became sharetenants (they often even gave up their individual liberty to get rid of the head-taxes), whose free movement was forbidden (contrary to the processes in Serbia). Rouček, S.: *Contemporary Roumania and Her Problems*. Stanford Univ. Press, 1932. 295.

246 In the first half of the 18th century the Romanian ruling class expropriated the production through a tithe in kind or in cash rather than to apply. Corvée (*clacă*) was only 12 days a year in 1750 and further 12 days convertible into cash – very low compared to Habsburg lands. As the wars in 1736–39 forced many to flee to Transylvania, the lowlands began to suffer from labour shortages, and this was against both grain production and corvée. Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 84. The temporary turn after 1780 in the grain prices and the depreciation of Ottoman coinage reversed the pattern in compulsory services: the redemption of *clacă* days in cash was increased tenfold. Though this hardly exceeded the rate of the inflation between 1780–1818, for peasants usually lacking cash it meant a great problem. Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 84.

247 McGowan, B.: *Economic life*, 73. The wars forced the *boiars* to leave for safe places, like Bucharest and they leased their estates to merchants, who were profit-oriented as temporary owners, which resulted in the doubling of tithe, now extended to corn as well, which was spread earlier together with pigs, because of low taxes and the lack of compulsory delivery.

profiting from grain sales (by 1847 80% of the export income came from grains): markets were dominated by the 665 merchants.²⁴⁸

In Macedonia the profits of producers (peasants) was also smaller compared to Bulgaria, where smallholdings dominated and the proportion of chiftliks from total cultivated land was around 20%.²⁴⁹ In Macedonia the proportion of chiftliks reached 50% (87/165 settlements were considered chiftliks in Monastir, 87/150 around Skopje)²⁵⁰ and the producer was deprived of one-third or even half of the production sold directly by the landlord. Landlords even tended to substitute tenants' share from the yield with paid labour, just to deprive producers from the grain itself.²⁵¹ Since smallholding was not exclusive, in order to estimate peasant participation in exports, the share of the landlords from total grain production was calculated based on the frequency of large estates and then subtracted from the total output together with the profits on transportation.

The regional differences and the differences in intensification of trade are revealed through the export values measured to the population of the harbours' hinterland (*table 3 and 7*). These values refer to the possible maximum earnings per households from exports, from which the costs of transport and the profits of merchants (25%) also has to be subtracted, while the remainder has to be distributed between the different social groups (landlords and producers) participating in market processes.

Thus, for example the 34 million piaster surplus (measured to the previous year) in Saloniki in 1847²⁵² would produce 225 piasters income surplus per family without subtracting the above mentioned. These modifying factors reduce the *income surplus* to 30, 90, 20 piasters per

248 Berend, T. I.–Ránki, Gy.: *Európa gazdasága*, 592.

249 There is a debate about the effectivity of chiftliks. If we accept Lampe's data that only 10% of the Bulgarian peasantry worked on the 20% of the lands, producing 30% of output, that would put per capita effectiveness too high, which is in contradiction of the statement, that "corvéé-like services" are not profitable. But on the other hand, most of the chiftliks were not allodial units, rather composed of smallholdings.

250 Hristov, H.: *Agrarnite otnosheniya v Makedoniya prez XIX. v. i nachaloto na XX v.* Sofia, 1964. 86.

251 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 134.

252 *Dokumenti za balgarskata istoriya iz germanski arhivi 1829–1877*. Sofia. 1963. 94–150. No. 22.

peasant farms between 1846–48 in Macedonia. Due to the better social structure in Bulgaria this was 50 piasters in 1847, around Svistov it could reach 100 piasters and 200 piasters around Plovdiv.²⁵³

Was this a significant amount to mitigate social tensions? Definitely, especially compared to the situation in the Romanian principalities. This 30–60 piasters of surplus equalled to the yearly *cizye*²⁵⁴ (in Moldova this was still responsible for 70% of central incomes in 1839, even after the limitations of the Reglement Organique by Count Kiselev, who decreased its value from 78 piasters), or with the monthly salary of an industrial worker. Furthermore, the *total income* of peasants from grain trade reached 250 piasters per family, higher than the tithe-income of the central government in the Danube province, which was 150 piasters per household in 1864 (60 million piasters total) increasing to 250 in the next few years.²⁵⁵ So, in these very years the income surplus of peasantry exceeded per capita taxes. (That is why subsequent tax-increases – depriving peasants of these surpluses – created heavy unrest in the 1870s). Without these remarkable profits, Bulgarian peasants could not have bought land after the Ottoman land reforms in 1858. In Bulgaria 30-40% of the produced grains was exported²⁵⁶ – the Hungarian allodial large estates produced similar surpluses, but this was divided between internal and external markets, thus it was a very high value for smallholdings indeed.

On the other hand one year's profit was not enough to buy a modern plough which cost 370 grosh (70 francs).

253 In the region of Varna French shipped grains worth 45 million piasters, 50 thousand tons. *Damianov, S.: French Commerce*, 20. After the deduction of the trade profits 30 million piasters remain, which makes the total income per household to 150 piasters calculating with 200 thousand families. After the deduction of the landlords' share (chiftlik was significant in this region) 75–100 piasters still remained.

254 *Hadzibegić, H.: Džizja ili Harač. Prilozi 5. Sarajevo, 1954–55.* 102.

255 *Palairat, M.: The Balkan Economies*, 48.

256 *Berend, T. I.–Ránki Gy.: Közép-Kelet-Európa gazdasági fejlődése a 19-20. században.* Budapest, 1969. 84. During the decline in 1880–1910 it was only 15–18%.

Animal husbandry

As we saw the profit rate of large estates could reach 20-25% under favourable circumstances, so it was similar to that of the transport. Smallholdings could send the same proportion of their production to external markets. But what about other agricultural activities? There was a growing rivalry over the lands between grain production and animal husbandry, due to the diverse production structure of the latter:²⁵⁷ the wool was consumed by the textile industry, supplying the Ottoman army prior to 1878, while livestock supplied the the capital with meat (Plovdiv transferred alone 250 thousand animals yearly).²⁵⁸ The high proportion of fallow land offered plenty of space for animals producing manure to fertilize arable lands. In 1847 623 thousand Transylvanian sheep were grazing in Bulgarian lands. Calculating with 50 grosh per each, they were worth 25 million piasters. These animals gave 1.2 million okes of wool, which meant 5 million piasters (calculating with 4 grosh/oke). This meant an added value of 20%! Subtracting the costs of land rents, which was 2-3000 piasters for 1000 sheep, at least 3.5 million grosh profit still remained, making the profit rate over 12%. This wool worth 4 piasters in Ottoman Turkey was sold at 10 piasters/oke in the Viennese markets owing to the great demand. (Transport costs from Brasov to Vienna would mean only a 10% increase in prices).

Lacking grain surplus, Serbia participated in the new Atlantic system of division of labour by exporting livestock. Due to cheap transportation of livestock²⁵⁹ Serbian animals rather headed for Austria and not for Istanbul, because the previous was nearer and did not fix

257 25% of the animal products were dairies, 33% was given by meat, the rest was considered industrial raw material (wool, skin).

258 Paláret, M.: *The Balkan Economies*, 61; Hochstetter, F.: *Reise durch Rumelien im Sommer 1869*. Mitteilungen der kaiserl. und königl. geographischen Gesellschaft in Wien. Band XIII-XV. 1871-1873. 175. In 1869 150 thousand sheep arrived from Albania and Bosnia towards Plovdiv, while from the neighborhood of Istanbul further 160 thousand sheep and 100 thousand horses arrived to the summer grazing. Plovdiv was a redistributive center.

259 The reason was the higher added value for the same amount of meat compared to grains. The added value was 100 kg grains was 150 grams of silver, but was 250 for animals and 290 grams for wool (transport costs were fixed and based on weight).

the prices. In the 1840s only 60 000 Serbian sheep traveled to the Ottoman capital²⁶⁰ worth maximum 3 million piasters (calculating with 50 piasters unit price), while the value of animal exports towards Austria exceeded 10 million dinars (50 million piasters).

Owing to the great demand the number of sheep and goats increased from 4.8 million to 6.3 million between 1866–74 in the *lowland* Danube province.²⁶¹ In the 1870s 28 percent of the farms fed more than 50 animals, 25% had less than 10.²⁶² Diverse utilization of sheep increased their unit prices from 50 to 75 piasters. Prosperity is also shown by the fact that beglik tax reached 20% of the value of animals (17 piasters) in *mountainous areas*, while elsewhere it remained 5 piasters. This ruined the traditional woodland grazing as the costs of animal husbandry became higher than the benefits from selling firewood.

Large-scale sheep-breeding in *mountainous areas* (like in the Rhodopi) was usually organized in a *transhumant way*: during summer, the sheep were pastured in the mountains near the villages of the shepherds. During winter, they were kept in lowlands, for example north of the Aegean, where there usually was no snow and where big landlords rented land to the pastoralists, who in turn also watched the flocks of the lowland landlords.²⁶³ The flocks were pastured by professional shepherds and not, such as in (semi-)nomadism by the whole household. Women, children and the elderly remained at home in the native villages, where they cared for the small mountain farms and were also often employed in household industry (weaving). In the mountainous regions it was the border changes since 1878 and the increasing transformation of community land into privately cultivated land which undermined the conditions for transhumance and disadvantaged animal husbandry vis-à-vis agriculture.

In *lowlands* it was the increasing grain prices that endangered the prosperity of animal husbandry by intensifying a landuse conflict.

260 Džambazovski, K.: *Snabdevanje Carigradske pijacije srednom XIX veka sitnom stokom iz Knježevije Srbije*. Istorijski časopis 29–30, 1982–1983. 315–25. and *Istorija na Balgariya*, Tom. 5. 278.

261 Draganova, Sl.: *Kolichestvo analiz na ovcevadstvoto v balgarskite zemi pod osmanska vlasti ot sredata na XIX. vek do osvobozhdenieto*. Sofia, 1993. 11.

262 *Ibid.* 35.

263 BEUERMANN; BRUNNBAUER

While in the 1840s around Pleven grain production gave only 1/3 of the rural income (totalling 3000 piasters per household),²⁶⁴ a generation later, in 1859 in Kazanlik kaza only 15% of the income (ranging to 3700 piasters/household) came from animal husbandry. The proportion of textiles from income did not exceed 10% even in the more urbanized Stara Zagora district, while grains were responsible for 70% of revenues – clearly indicating the change and the decrease in the diversity of the production as well.²⁶⁵

Summing up all these mentioned we may come to the conclusion that the profit rate of almost all forms of agrarian activities were similar to that of industrial activities, or even surpassed that, while the latter definitely required much capital,²⁶⁶ which was missing. This explains the process of deindustrialization.

(c) Modernization efforts

This chapter includes not only the efforts on the modernization of production (which can be considered partly as a local initiatives), but also the efforts of central government on the modernization of tax revenues and land tenure system, which resulted in increasing burdens (discussed later).

Ottoman Turkey produced only 33% of its own potential. The British consul in Galați pointed out early in 1844 that Varna and Burgas could transfer 80 million piasters export (half of this in form of wheat), equalling with 20% of the total export of the peninsula. This was thrice as much as the actual export.²⁶⁷ It is not surprising therefore, that the British were devoted to the construction of the Ruse-Varna railway

264 Since grazing lands constituted only 10% of lands, it was evident that fallow land was used for animal husbandry.

265 Poyet, C. F.: *III^e lettre du docteur Poyet á la Sociéte de géographie contenant la description de Quezanlik Turquie d'Europe (Thrace)*. Bulletin de la Sociéte de géographie. IV^e série. Tome 18. Année 1859; Poyet, C. F.: *II^e lettre du docteur Poyet á la Sociéte de géographie contenant la description du kaza de Eski-Zagra (Bulgarie)*. Bulletin de la Sociéte de géographie. IV^e série. Tome 18. Année 1859. Paris, 145–79.

266 The first factory of Zhelyazkov cost only 140 000 piasters, the second one 1 000 000.

267 Demeter G.: *A Balkán és az Oszmán Birodalom*, Vol. I. 153.

(1866), which enabled them to compete with Austrian transports on the Danube. On the other hand the Empire represented 20% of the grainland of Europe. British capitalists argued, that European wheat production could be increased by 15% in case of the optimal exploitation of Ottoman lands, that way decreasing the feeding costs the western industrial workers. This idea reveals, that beyond making the Ottoman Empire more stable, British had their own well-calculated interest behind each advice.²⁶⁸

In the era of growing demand on wheat the English advised the *transformation landuse*, that of grazing lands to arable land. For example around Varna 3750 hectares was used as meadows producing 11 000 piasters state tax. If this had been exploited as ploughland – calculating with 1 kile (25 kgs) seed for a dönüm and 5:1 output ratio and 50% fallow land – this would have produced more than 2500 tons of wheat rated to 1.2–2.5 million grosh after which 120-250 000 piasters of tithe could have been collected as state tax. Nevertheless, it meant more work, and the observers had certain negative reservations about the enthusiasm of peasants in case of such a structural change. (The proposed increase of state taxes on animal husbandry could push producers to turn towards wheat production).

Another idea of the English observers was to put consumption under taxation instead of production (*tax reforms*). But the Ottoman Empire did just the opposite in the case of trade, because the volume of consumption was yet not high enough in the Empire to compensate the losses in direct taxes. The rate of indirect taxes in the Balkans remained low until the 1900s.

The third British idea was to tax the land unit instead of production, because it would force the producer to cultivate the fallow land. The proposed 1 franc/dönüm²⁶⁹ meant 45 piasters/ha, totalling 250 piasters/household of 5 hectares. But as statistics show, the average tithe in the Danube vilayet – then collected after the production – has already increased from 100 to 170 piasters per household early between 1864-

268 St. Clair, S. G. T.–Brophy, Ch.: *Residence in Bulgaria. Twelve year study of the Eastern Question in Bulgaria*. London, 1877. 160.

269 *Ibid.* 198.

1867, then to 250 piasters by 1868 (and it was even higher in Plovdiv sanjak) even without implementing this change. This made the proposal of land tax obsolete within a decade. Nevertheless, the idea was not forgotten: the Bulgarians utilized it after 1878, when they wanted to expropriate the uncultivated lands of Muslim refugees.

The Ottoman *land reforms* in 1858 were also the part of the modernization attempts, although there is still a debate in literature whether the government intended to (1) support the extensification of cultivation, (2) stabilize large landholdings, (3) maintain smallholdings, or (4) simply extract extra revenues regardless of the impact on the regionally diverse land tenure types.

Owing to the implementation of free circulation of land many peasants managed to get full ownership of cultivated land by purchasing it from the state. But land reforms were not always successful, like the Greek (discussed later). Sometimes they induced unfavourable tendencies (even against the original will) on the long run (1878, Bulgaria), or merely postponed a crisis generated by demographic pressure (Serbia, 1860s, 1920s). What is common that land reforms alone, without other changes were *unable to contribute significantly to the increase of outputs and competitiveness of the agrarian sector*. Later events proved, that *land reforms were essential, but not sufficient condition for modernization*.

By the 1870s decreasing wheat prices and increasing labour costs threatened the profitability of large landholdings. Could *mechanization* be a solution for these estates? Maybe. In 1869 Zafiropul bey bought a threshing machine that produced 4 times greater quantity of grains than 70 horses and 24 men at the same time.²⁷⁰ But this implied huge costs, 10 000 francs (1885),²⁷¹ and such expenses were not available for a mediocre chiflik of 60 hectares within few years (the yearly profit was not more than 4000 francs). Therefore *state intervention* was required for the amelioration of the situation: 33 steam yokes and 33 harvesters were purchased in 1869. Although from economic aspect this was a rational

270 Tonev, V.: *Balgarskoto chernomorie*, 74.

271 Keleti K.: *A Balkán-félsziget némely országai- és tartományainak közgazdasági viszonyai*. Budapest, 1885. 169–70.

step, but as all members of the provincial *medjlis* were large estate owners (except one),²⁷² they were accused of using state taxes to promote their own interest.

The lack of knowledge to operate these machines was another hindrance. Unfortunately, the neighboring Hungary also invested a lot in buying threshing machines in order to appear on the markets as early as possible before the dumping period began. The density of threshing machines was very high in Hungary, especially compared to other engines: van Zanden claims, that this was the major advantage for the Hungarian wheat.

The state neither abandoned smallholders. Since a modern plough cost 70 francs, while a smallholding economy over 5 ha made less than 50 francs net profits in Serbia²⁷³ according to Palairat (after the collapse of grain prices in the 1870s), external sources were required for the modernization of smallholdings. To overcome usury, the governor of Danube vilayet, Midhat pasha introduced the system of *agricultural credits*. Originally these were financed by a 5% surtax on the tithe from 1865.²⁷⁴ But only 10% of the male population received some credits: 10% of them over 2000 piasters, while the average amount was 800–900 grosh.²⁷⁵ Although 50% of farmers did not earn more than that in a year, this still was not enough to fully modernize an economy or to buy new lands (this sum equalled to the price of 1.5 hectares of ploughland or to a pair of oxen with cart). Though the success of the project was questioned even by contemporary observers, the idea was not bad and it revived in the forms of cooperatives at the turn of the century.

272 Lásd: Dimitrov, Str.: *Chiflishkoto stopanstvo...*

273 Palairat, M.: *Fiscal Pressure and Peasant Impoverishment in Serbia before World War I*. The Journal of Economic History 39, No. 3. 1979. 724. and Sundhaußen, H.: *Historische Statistik Serbiens*, 274.

274 Todorova, M.: „*Obshtopolezite kasi*“ na Midhat pasha. *Istoricheski Pregled*, 1972/5. 63–65.

275 The total value of land credits reached 11 million in the Danube vilayet and 9 million in the Edirne vilayet.

(d) Social consequences

The socio-economic changes in Western Europe resulted in a shift in taxation towards indirect (consumption) taxes, and the revolutionary waves between 1789 and 1849 are claimed to decrease the burdens of agrarian societies. The Ottoman state differed from European tendencies from this respect, as it still relied on direct and agrarian incomes, though the proportions expropriated from the producers changed over time, and there was also a remarkable difference between the expropriated income and income reaching the central budget. It is also worth comparing the burdens on agrarian societies in the liberated Serbia or Bulgaria with areas remaining under Ottoman rule (Bosnia, Macedonia), because in the newly formed (but still agrarian) states the burdens in the beginning decreased (thus state incomes also), as an independence without offering a decrease in burdens would not have been attractive for masses. This measure did not help overcome the differences between the eastern and western parts of Europe.

(i) Burdens of agrarian societies

As the Ottoman state could only rely on the agriculture to finance administrative and industrial modernization and to repay the foreign debts, the burdens on society (which had decreased from 25-40% of the production during the spahi era to 16-20% by the 1850s)²⁷⁶ increased again in the 1870s. The central incomes of the Danubian province has grown from 79 to 113 million piasters between 1858–64,²⁷⁷ then within 3 years another increase of 40% was measured (to 150 million). Most of this increase stemmed from the agriculture and the proportion of agricultural incomes in the budget exceeded 50%.²⁷⁸ In the Danubian Province *tithe* incomes between 1864-67 increased from 40 million to 68

276 Berov, Ly.: *Ravnishte*, 45–50.

277 Poujade, E.: *Chrétiens et Turcs. Scènes et souvenirs de la vie politique, militaire et religieuse en Orient*. Paris, 1859. 254.

278 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 150., *Istoriya na Balgariya*, Tom 6. 65. and Palairet, M.: *The Balkan Economies*, 19.

million, then to 108 million (1868) (or 100, 170, 280 piasters per household respectively), *beglik* increased from 16 to 28 million. The tithe in Eastern Rumelia increased from 22 million in 1866 peaking at 50 million piasters in 1875.²⁷⁹

The question is, how much of this growing revenue stems from (1) the increase of tax rates, (2) from the extension of lands, or from an increase (3) in productivity or (4) of prices. The abolishment of export tariffs in the 1860s to encourage exports was compensated by the 2.5% increase of tithe: thus *burdens were shifted from merchants to producers*. But this tax-increase would mean only a 25% increase of tithe incomes, while tithe doubled indeed.²⁸⁰ (And yet we have to add the sums disappeared in iltizam-system: British observers also wrote about tax farms bought for 400 pounds, but 900 was collected instead).²⁸¹

It is therefore not surprising that – although the rate of expropriated harvest decreased compared to the 17-18th century –, peasants of Plovdiv in 1844 still paid 18% of their land revenues as taxes and it was 15 % in Berkovica.²⁸² The Russian consul, Moshnin put taxes to 1300 piasters in case of 5000 piasters wealth, reaching 25%.²⁸³ The Austrian consul, Martyrt also stated that the old *vergi* tax was too high and taxes altogether reached 20% of the wealth. (Only independence brought relief, when *iltizam* was abolished, and taxes decreased under 10% – *figure 2–3, table 8*).

This would not necessarily mean impoverishment, if incomes (either yields or prices or both) increased as well. Although we have

279 Palaret, M.: *The Balkan Economies*, 176–78.

280 After 1867 further 2.5% was imposed on those, whose private property was state land prior to 1858, to compensate the state. Thus, tithe reached 15% without the profits on iltizam. (The tax-increase ended in revolts in 1857 after bad harvest).

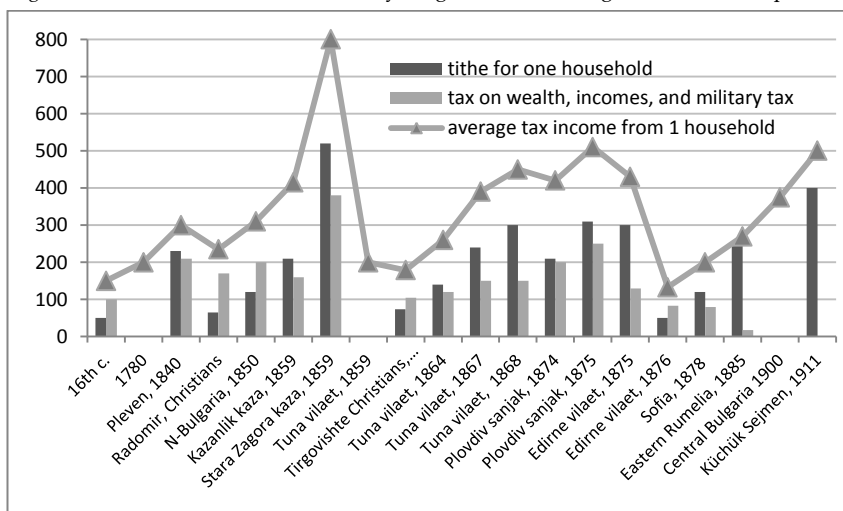
281 St. Clair, S. G. T.-Brophy, Ch.: *Residence in Bulgaria*, 178. The Chomakov merchant house bought the tax-farm in Plovdiv for 2.7 million piasters and made 0.6 million piasters of profits (22%) in 1849. It is very characteristic that they bought a chiftlik from the revenue instead of investing it to industry. Yaneva, Sv.: *The Non-Muslim Tax-Farmers in the Fiscal and Economic System of the Ottoman Empire in the 19th Century*. In: Nielsen, J. (ed.): *Religion, Ethnicity and Contested Nationhood in the Former Ottoman Space*. Leiden, 2012. 56–57.

282 Berov, Ly.: *Ravnishte*, 45–50.

283 Moshnin, A. N.: *Pridunayskaya Bolgariya*. Slavyanskiy sbornik. Sanktpeterburg, Tom. II. 1877. 367.

evidence that local outputs also grew (in Berkovica incomes in grosh/dönüm increased from 35 to 70 in case of a landholding of 45 dönüms; and increased from 20 to 75 in case of a farm of 70 dönüms),²⁸⁴ all our calculations show, that *the increase in income of peasantry did not keep up with the pace of the tax increase.*²⁸⁵ Thus burdens became heavier in the last decade of Ottoman rule (figure 2–3). This was a preindustrial prosperity determined by external factors (demand).

Figure 2. Tax-burdens in the 19th century Bulgaria for an average household of 5 persons



(columns represent current prices, lines silver grams)

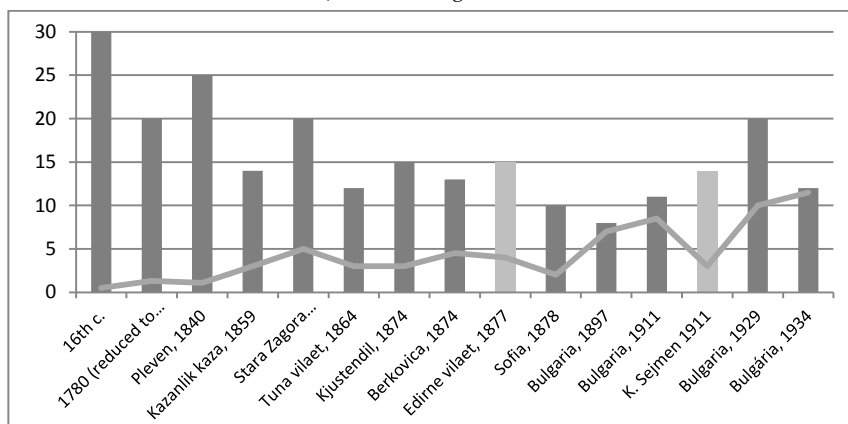
What was behind this phenomenon? In order to finance administrative and industrial modernization the state had to rely solely on the agriculture. Although huge surpluses were gained owing to the prosperity driven by favourable external circumstances, two factors

284 See *Draganova, Sl.: Berkovskoto selo...*

285 During the Midhat-era the increase of non-tithe taxes has exceeded that of population growth (50% vs. 11% measured in Kjustendil). Here the value of tithe also increased by 50% between 1864–74. This was only partly compensated by the extensivity and the increase of yields, thus taxes rose from 14% of the income to 17–18%. See table II. 56. in *Demeter, G.: A Balkán és az Oszmán Birodalom, Vol. I.* calculated from the data of *Draganova, Sl.: Kjustendilski region...*

hindered the industrialization of the Ottoman empire. Unfortunately, global tendencies were against industrialization: high grain prices had a pull factor on labour force and investing into agriculture was more attractive than competing with western industrial imports.

Figure 3. The increase of incomes (line: silver kgs) and tax ratio measured to income (in %, columns) for an average household of 5



Based on Berov (16th century), Draganova (Pleven, Berkovica), Mihov (1859, Edirne 1876), Popov (1897, 1911), Keleti (E-Rumelia) Palairret (Danube vilayet, Sanjak of Plovdiv), Daskalov, Ivanov (tax incomes after 1912), Vasilev, Razbojnikov (Kuchuk Seymen, 1912), Poyet (1859), and Todorov, G. The Vilayet of Edirne symbolises area that did not undergo the reforms, the chiftlik of Kuchuk Seymen indicates the situation in areas remaining under Ottoman rule in 1912, Stara Zagora represents industrialized regions.

Table 8. A regional comparison of taxes (in grams of silver)

Tithe	Serbia, 1880	Serbia, 1910	Macedonia	Macedonia	Macedonia after 1903	N-Bulgaria, 1864**	N-Bulgaria, 1867**	Bulgaria, 1900
silver gram / capita	40	60	21+60*	34+100*	21+60*	30	60	50

*with 33% tretina

compare to table 9.

**with beglik

Table 9. Agrarian taxes measured to income (%) in different regions

Romania	Croatia	Bosnia	Bulgaria	Serbia	Macedonia and Thrace	Greece
20%	20%	35%	16-18% in the 1870s,	6-10%	10+35%, at least 20%	10+20% for share-croppers
after 1820	tithe+Church tax	10% for Muslim freeholders	10% after 1878	head tax instead of tithe till 1884	state tax +tretina or tax-farming	5 % draft animal tax after 1880

Furthermore, profits from agriculture were consumed by the central government as the consequence of the Crimean War. Although the state survived the Russian aggression, but became indebted, and since both the policy of *internal borrowing* (*malikane*) and *devaluation* was unable to fuel the modernization earlier, there had not been any other fiscal choice than turning to *external borrowing*. The loans unfortunately consumed the agrarian profits and when the favourable external circumstances were over, the empire went into bankruptcy.

From macroeconomic level the abolishment of high export tariffs (10-12% *ad valorem*) to encourage exports²⁸⁶ did not mean any losses for the state, as tithe was increased instead. Since cca. 30% of wheat was exported, tariff incomes reached 3.5% value of the total grain production, thus the imposition of an extra +3% tax on the total grain production could simply compensate the losses. But it generated a heavy burden for the producers.²⁸⁷ Another problem was that by the 1870s the proportion of the local income used outside the boundary of the Danubian and Eastern Rumelian region increased from 55 to 75 % (it was 60% in Janina)²⁸⁸ sucking out capital from these regions.²⁸⁹ This caused tensions, especially because the principality of Serbia paid a negligible tribute to the Ottomans compared to the Bulgarian taxes.²⁸⁹

It is also true that there were great regional and religious disparities regarding the burdens. Although land-tax did not show religious differences – around Varna Muslim villages paid 15%, Christians 10-20% of their production – Christians constituting 60% of the population in 1875 in the Plovdiv sanjak paid 75% of *total* taxes (twice as much per capita as Muslims) – not because they were wealthier, but as a result of the new military tax, for example.

286 This step was partly driven by the market contraction after the end of the Crimean War, which generally decreased central incomes. *Lampe, J. R.–Jackson, M. R.: Balkan Economic History*, 137.

287 This was enough to produce revolts after the catastrophic harvest of 1857.

288 *Poujade, E.: Chrétiens et Turcs*, 254. and *Draganova, Sl.: Les Dépenses du vilayet de Janina et du Danube pour L'Année Budgétaire 1870–1871*. In: *Relations et influences Réciproques entre Grecs et Bulgares XVIIIe-XXe siècle*. Institute for Balkan Studies, 1991. 151–63.

289 Expenditure on administration took 60%, 18% remained for education, social and religious institutions had only a share of 6%. *Draganova, Sl.: Selskoto naselenie na Dunavski vilayet*. Sofia, 2005. 27–31.

But the new military system, with a head-tax on Christians was disadvantageous for Muslims as well, who had to serve half a year in the army, and this meant a loss of workforce for the economic unit. While a Christian male had to pay yearly 25-30 piasters military tax, Muslims had to pay 5000 piasters for the 20 years, if wanted to buy exemption. Therefore Muslims felt, that they could not compete with Christian economies: the production per household varied between 100–240 kile (2600 to 6000 kgs) in the villages around Varna and the Muslim smallholders produced worse output values!²⁹⁰

Beyond social burdens, as each preindustrial society, the Balkan societies were also threatened by recurrent *climatic anomalies*. This was especially true for smallholders. According to Labrousse²⁹¹ the loss of revenues stemming from a sudden decline in outputs usually exceeds the supposed profits stemming from the increasing unit prices (owing to shortages). Although this concept was challenged by Post who statistically proved that the opposite can also be true at macroeconomic level,²⁹² in countries where masses lived in smallholdings balancing between self-subsistence and food scarcity, the population was more likely to suffer from the first outcome. Even a 20% decrease in outputs would mean that the peasant not only lost the opportunity to sell his surplus at markets,²⁹³ but this could also endanger next year's seeds, thus the maintenance of the whole system.

This happened during the bad winter of 1875, when peasants had to buy grain for foodstuff and seed. In the beginning of the year the Balkan peasant sold his grain for 25 piasters/kile (this was a high price, 1000 piasters/tons), but could buy only for 90 piasters by August! The usury and speculations – in Constantinople the grain prices were fixed at 28–32 piasters/kile; and those who offered loans for the peasants wanted to

290 St. Clair, S. G. T.–Brophy, Ch.: *Residence in Bulgaria*, appendix F (423.)

291 Labrousse, C. E.: *La mouvement ouvrier*, 30–31.

292 In France wheat prices increased by 80% in 1815 after the eruption of the Tambora, while the volume of output decreased only by 12% (136 million hl in 1816 and 154 million in 1818).
Post, J. D.: *A Study in Meteorological and Trade Cycle History*, 339–40.

293 In 1929 after the fall of grain prices the Bulgarian state had to face the consequences of its export-supporting policy, which could help those farmers who had marketable surpluses, but was ineffective for hundreds of thousands smallholders who hardly had any.

get back double grain quantity – together with the tax increases exacerbated the tensions culminating in the 1875–76 revolts in Herzegovina and Bulgaria.²⁹⁴ The same happened after 1815 to the Habsburg Monarchy: due to the decrease of outputs 50% of smallholders and only 10% of large estate owners went into bankruptcy. *Seed and food shortages were more dangerous than falling prices for a smallholder society for an autarchic agrarian system.* These all prove, that in Southeast-Europe in 1840-1870 we still speak of preindustrial prosperity determined by external factors (demand, climate) which was not really sustainable.

(ii) The living standard of agrarian classes

These all take us to the question how the wealth of agrarian layers changed over time? While around 1730 in Tirnovo kaza based on the *cizye* 66% was considered poor and only 5% was rich, by 1831²⁹⁵ the proportion of poor decreased to 30–40%, that of the middle class increased from 30 % to 50%.²⁹⁶ But there were still great differences between the layers. While in Provadia 20% of artisans, 45% of merchants and 70% of former landlords earned more than 1000 gros, only 10% of peasants belonged to this group (50% of peasants earned less than 500 grosh here, similar to Lom 30 years earlier: *table 10*).²⁹⁷ *The Tanzimat rather enriched the layer of merchants, than agrarian producers – similarly to Serbia, where reforms leading to different direction were implemented.*

294 Kosev, D.: *Polozhenieto na balgarskiya narod predi aprilskoto vastanie*. Istoricheski Pregled, 1948/2. 145–54.

295 Dimitrov, Str.–Stoykov, R.: *Socialnata diferenciaciya*, 188–90.

296 Draganova, Sl.: *Materiali za Dunavskija vilayet*, 15. Table 1. (1841); Karpat, K.: *Ottoman Population 1830–1914. Demographic and Social Characteristics*. The University of Wisconsin Press. 1985. 36. This difference could also be the result of changes in taxation system!

297 Todorov, N.: *Socialni-ikonomicheski oblik na Provadiya*: Istoricheski Pregled, 1963/2. 68–85; Todorov, N.: *Za naemniya trud v balgarskite zemi, kam sredata na XIX. v.* Istoricheski Pregled, 1959/2. and Todorov, N.: *Iz demografiyata na gr. Anhalo (Pomorie)*. Izvestiya na Balgarskoto Istorichesko Druzhestvo, 1967. 159–60.

Although according to Berov the income of peasantry grew between 1837–77,²⁹⁸ but so did the population, which eliminated per capita growth.²⁹⁹ Palairret argues, that an increase per economic unit was observable, but if it is true, it is rather due to the price increase of the period than to increasing per hectare outputs. Agrarian growth was fuelled rather by extensification and by price increases (this was negligible in the previous period, 1800–37, only 5–10%).

There were several social layers among the landless peasants constituting 15% of Bulgarian and 30% of Macedonian society. The Macedonian *momak* did not have any contract, he worked on the allodial estate and for 6 months received 250–300 grosh (*hak*) and some seeds to sow, or 500–600 grosh yearly, or 2 tons of wheat (worth 1000–2000 piasters). Contrary to the situation in Bulgaria Macedonian agrarian labourers' wage dramatically decreased after 1880 parallel with the fall of crop prices,³⁰⁰ and this compelled them to apply for seasonal work in industry. Cheap labour made Macedonian industry temporarily prosperous, despite the lack of capital to modernize factories. The Bulgarian *momak* was called *rataj*, earning 250–1000 grosh around Nova Zagora and some seeds – their earnings were similar 30 years later (100–150 francs in 1896).³⁰¹ Other wage labourers like *chupaljis* or *kopachi* owned some land (2–5 hectares in Dobrich), but this was not enough to subsist without another temporary occupation.³⁰² *Kesimdjis* were contractual peasants handing over a certain *amount* to the landlord (they were not sharecroppers), thus they were interested in the increase of production. *Chiftchi* or *izpolichari* were sharecroppers, they usually gave 1/3–1/2 of the production to the landlord as tax. Those chiftliks that paid

298 Berov, Ly.: *Promeni v obshthiya obem i tempovete na narastvane na selskostopanszkata produkciya v Balgariya prez XIX.v do 1912*. Sbornik v chest na akad. Hr. Hristov. Sofia, 1988. 113–14.

299 In 1815 some 23% of the 5.7 million people in Rumelia lived north of the Balkan Mountains (not more than 1.5 million persons), and then it increased to 2 million by 1860s (then stagnated till the 1880s), which is an increase of 33% altogether.

300 In Bulgaria the land reforms provided enough land for *argats*, and agrarian labour prices went up!

301 Ireček, K.: *Patuvanija po Balgarija*. (Cesty po Bulharska. Prague, 1888). 238–41. and *Trifonov, S.–Georgiev, V.: Istorija na balgarite v dokumenti*. Vol. I/1. Sofia, 1996. 449.

302 Dimitrov, Str.: *Za klasovoto razsloenie sred selyanite v Severoiztochna Balgariya prez 70-te godini na XIX. v*. Izvestiya na Institutata za Istorija 8, 1960. 228. and 234.

wages instead of offering or expropriating a certain share from the harvest, could be considered protocapitalistic units.

Ireček and Sarafov measured the obligations of peasants living under the *gospodarlik* towards the landlord in Küstendil in 1878.³⁰³ The 22 houses of Dragalevci cultivated 70 ha and gave 6000 oke grains (7500 kgs) and 25 days *angariya* (corvée) for the *gospodar*. This is 3.2 ha and 340 kg/household grain tax, equalling with the production of 0.5 hectare. Thus, at least 15-20% of the income was given to the landlord. As the extent of smallholdings grew from 70 ha to 120 ha between 1870–93, the 50 ha difference was the large estate itself: each household had to cultivate further 2.5 ha of allodial estate for 25 days.

Table 10. The social stratification of Provadija town in the 1870s

Social group	Average income per tax payer	Number	Income under 500 grosh in %	Income over 1000 gros in %
Artizans, craftsmen	940	149 (40%)	34%	20%
Merchants	1143	49 (13%)	20%	44%
Farmers	667	40 (11%)	52%	10%
Wage labourers	660	74 (20%)	Todorov, N.: Socialni-ekonomicheski oblik na Provadiya. Istoricheski Pregled, 1963/2. 68–85.	
Industrial workers	661	17 (5%)		
Apprentices	575	45 (12%)		

The regional and ethnic differences within the agrarian population are also worth discussion. Draganova's research proved that Muslim landholdings were not significantly larger in North-Bulgaria compared to Christian estates (table 11–12).³⁰⁴ The former differences mentioned by Parveva characterizing the 18th century slowly vanished. But differences in Eastern Rumelia were still significant: around Kazanlik the 16 Muslim villages had averagely 7.3 ha per household, in the 36

303 Ireček, K.–Sarafov, B. P. (eds.): *Raport na komisiya izpratena v Küstendilski okrug da izuchi položenieto na bezzemlenite selyani*. Sofia, 1880. 10–13.

304 Draganova, Sl.: *Razpredelenie na pozemnata sobstvenost v severozapadna Balgariya v navecherieto na osvobozhdenieto*. Studia Balcanica XVII, 1983. 164–71.

Bulgarian villages this was only 3.5 ha.³⁰⁵ Data from the late 19th/early 20th century for the Rhodopi Mountains show that Muslim (Pomak) families owned on average more land than Christian ones, that is why most itinerant artisans and shepherds were Christians.³⁰⁶ According to Berov, the wealth of peasantry determined their behaviour during the uprisings: in Strelec (Nova Zagora) and in Skalica (Sliven) where the average size of landholding was 83 and 125 uvrat (over 25 hectares) only 25% of the male population participated in the revolt of 1876.³⁰⁷

Table 11. A comparison of estate size in 4 kazas (in dönüms in 1870)

	Berkovica k.	Ruse k.	Shumen k.	Silistra k.
Average size	76	61	60	158
Average size (Muslim)	50	57	58 (52 Tatars)	189 (74 Tatars)
Average size (Christian)	87	67	64	147
Proportion of Muslim and Christian smallholders	–	15 and 19% (20 dönüms)	x and 2x (30 dönüms)	24 and 16% (50 dönüms)

Draganova, Sl.: Berkovskoto selo, 30. and Draganova, Sl.: Imushtestvena i socialna struktura na naselenieto v Rusenska, Sumenska i Silistrenska kaza predi Osvobozhdenieto. Istoricheski Pregled, 1977/3. 98–101.

Table 12. Average yearly income of tax-payer population

	Ruse	Shumen	Silistria
Bulgarian	431	566	285
Muslim	393	366	257

Draganova, Sl.: De la production agricole, l'imposition fiscale et la differentiation sociale de la population paysanne en Bulgarie Nord-Est durant les années 60 et 70 du XIX siècle. Bulgarian Historical Review, 8. 1977. 91.

For the 19th century Berov calculated daily 2-2.2 grams of silver food consumption per capita, or 8 to a family of five. So, a peasant family needed at least 2800 grosh yearly in kind to subsist. As he put the revenues from wheat to 54 piasters per dönüm,³⁰⁸ at least 5 sown hectares (8–10 ha) were needed to reach this. In Provadia the average was below 700 piasters per household, referring to 2.5 ha (1.5 sown), but

305 Berov, Ly.: *Agrarnoto dvizhenie v Iztochna Rumeliya po vreme osvobozhdenieto*. Istoricheski Pregled. 1956/1. 14.

306 Brunnbauer, U.: *Gebirgsesellschaften auf dem Balkan*. Böhlau, 2004. 169. 210.

307 Berov, Ly.: *Agrarnoto dvizhenie*, 19.

308 Husbandry meant an annual 20–25% surplus.

urban dwellers had other sources of income too. In the 1840s Pleven, when animal husbandry was the main source of income (and wealth), peasants with 10–15 ha had 4500 piasters income, while peasants with 3 ha earned 1200 piasters.³⁰⁹ In Stara Zagora and Kazanlik (1859) the yearly income/household was 3700 piasters. At the end of the wheat prosperity in Keremetli district (in Sofia) 3300 piasters/household was measured. In Kyustendil it was 2500–4000 piasters on 10 ha, in Berkovica 3500–5000 was measured in 5 ha in the 1870s, in the chiftlik of Küchük Seymen 2500–3000 piasters was calculated for units of 4–6 ha in 1910. All these values refer to the fact, that Palairet's 200 francs/capita for the 1870s is a bit high, while Berov's 54 grosh/dönüm is low.

The total value of a peasant economy was 2500 piasters without the house (mainly land) in Pleven prior to the great prosperity, it was 8000 piasters in Berkovsko 30 years later. The house was worth further 3000 piasters in both cases.

(e) Alternatives of monocultural grain production

The grain-producing smallholding was only one of the alternatives. Many areas due to climatic conditions or their inherited-unchanged socio-economic structures did not participate in the international division of labour “grains for manufactures” or integrated in a different way to the Atlantic system. Greece for example participated in transportation, exported wine, oil and raisins, while both its estate structure (resembling the Ottoman ages for decades) and product composition was very different from the Serbian and Bulgarian model.

Peasants had adopted many strategies of survival to decrease their burdens and earn their livings. In Serbia they earned extra income from *rakija* and prunes due to its high income per hectare values; or made supplementary earnings from home industry (see previous chapter). In Bulgaria potato and other vegetables produced for home consumption were not taxed by Ottoman authorities (only when marketed). This

309 Draganova, Sl.: *Documents of the 1840's on the Economic position of the villages in Central North Bulgaria*. Bulg. Hist. Review, 1988/2. 87–100.

strategy was working prior to the wheat prosperity. But, – unlike in Ireland – potato did not become a common product even after the collapse of grain prices in 1870s due to its greater inputs (1000 kg/ha), while its output/input ratio was not higher than that of the grains (5000–7000 kg in the 1890s).

Prior to the great wheat prosperity forests were rather turned into grazing lands than to arable lands, because taxes on sheep were small, 3-4 piasters per animal, but the peasant had the right to cut down trees, which produced him more income, than expenses.³¹⁰ For 200 ha of *miri* (state) woodland it was enough pay 400 piasters after 100 sheep, while trees cut down produced cca. 3000 piasters. (The small number of animals in this example clearly enlightens the fact that this economic strategy was extensive, and these grazing lands continued to function as woodlands for years). But the increase of beglik tax – especially on mountainous areas specialized in sheep-husbandry – ruined this alternative (and also stopped deforestation).

Contrary to the external demand, the Greek (Mediterranean) agricultural model remained different from the monocultural continental. After the liberation (1830) most of the Ottoman-owned land, 580 thousand hectares, 33% of wheat-lands, 75% of vineyards, 87% of olive orchards became state property,³¹¹ so producers were excluded from the trade-driven prosperity and were considered only as agricultural labourers. Similarly to Romania, the large landholdings together with state and church estates constituted 60% of the cultivated land, with great regional variety (in the wheat-producer Macedonia and Epirus their ratio was 75%, in Thessaly 50%, while in the geographically dissected regions, in Morea and the Ionian Islands it was below 25%). Very often the original land tenure system prevailed, the redistribution of land was postponed. The total value of large estates reached 1 billion drachmas in 1896, twice as much as all other forms, however only 33% of the products came from large landholdings. This means, that here the

310 St. Clair, S. G. T.–Brophy, Ch.: *Residence in Bulgaria*, 150.

311 Babanászisz, Szt.: *A görög ipar kialakulása és fejlődése*. In: Berend, T. I.–Ránki, Gy. (eds.): *Gazdasági elmaradottság, kiutak és kudarcok a XIX. századi Európában*. Budapest, 1979. 359.

smallholdings constituting 40% of the cultivated land had greater output per hectares (unlike in Macedonia) definitely referring to a different production structure and composition of products.

After 1830 the peasantry owned only 700 thousand ha, 1 ha per household. This was deeply below the Serbian or Bulgarian value, therefore it was not enough for self-subsistence in case of traditional dry grain cultures. Furthermore, 200 thousand out of the 700 000 peasants still owned half of the land (with averagely 2 ha/household), while half a million households had no more than 0.5 hectares. They had to work for others to earn their living: but even calculating with state land and large estates, the cultivated land did not mean more than 1-2 ha/worker averagely. Thus the population pressure was extreme. Peasants working on large landholdings had to pay the tithe plus 20% of the products. This system was very similar to the chiftlik system – accompanied by overpopulation.

The first agrarian reform was carried out in 1871. 265 000 hectares, 33% of cultivated territories, 55% of orchards was sold to 360 thousand smallholders for an interest rate of 5% for 25 years. It was not cheap, but one-third of peasantry became the owner of the land – averagely under 1 ha. The reason was not simply the failure of large landholdings to subsist from wheat export – rivals like Argentina, USA, Russia has just appeared on the market – it was the physical constraints that made the maintenance of monocultural dry economy under such extreme demographic pressure unsustainable. This urged the state to intervene: in 1880 tithe was abolished, and instead of this a tax after draft-animals was implemented, reaching 4-5% of the production. This was among the smallest burdens on the Balkans, and the difference, cca. 10% of the agrarian GDP could be accumulated in the private sphere.³¹² This resulted in an increase of yields as peasants became interested in producing marketable surplus: while between 1830–70 the production of raisins, wine, tobacco and olive oil has doubled (exceeding that of grains showing only +70% increase), in the next 40 years it increased further fivefold, reaching 50% from cultivated area. By 1910 not only the

312 Babanászisz, Szt.: *A görög ipar kialakulása*, 360.

landholding structure, but the composition of products also differed both from the Romanian and Serbian agriculture.

Until 1911 further 265 thousand hectares were given to peasants. Although Greece was able to obtain South-Macedonia's fertile fields, thus was given a chance to handle the population pressure (compared to Bulgaria or Serbia the emigration to the USA was extreme in Greece), the failure in Anatolia put an end to these colonization efforts and more than 1 million refugees had to be settled down in the acquired Balkan areas. Beyond nationalistic hatred economic motives also fuelled the ethnic cleansing that had taken place there.

After the failure of expansionism the economic strategy was reconsidered and in 1922 2 million hectares were distributed among 270 thousand families, thus viable mediocre holdings were established (9 ha averagely), that time when in Serbia and Bulgaria showing the signs of overpopulation average landholding size decreased below 5 ha.

Due to geographical circumstances only 20% of total land was under cultivation. As wheat production proved to be unsustainable, the policultural character of the agriculture strengthened: while the total extent of croplands had grown from 230 000 to 330 000 hectares between 1860–80, the share of grainlands decreased from 66% to 50%.³¹³ The extent of lands producing raisins has grown 35-fold between 1830-1860, and the extent of vineyards has increased to 50-fold.³¹⁴ Between 1860–1910 the raisin output increased to 14-fold (peaking with 120 000 tons exported), tobacco showed a sevenfold increase (*table 14*). The output of wheat also increased to fourfold after the acquisition of the economically so important Thessaly in 1881,³¹⁵ but Greece still required grain imports, which was unique among Balkan countries. The average yield was not greater than 700 kg/ha (the growth in production hardly exceeded the growth in sown lands) or 120 kgs/capita, low compared to

313 As the output grew by 70% that time, per ha outputs did not improve, income increased only owing to prices.

314 Babanászisz, St.: *A görög ipar kialakulása*, 361.

315 *Ibid.* 362.

both the Serbian 1 tons/ha or to the Hungarian 500 kgs/capita,³¹⁶ while grapes produced 1700 kg/ha.

Table 13. Costs and profitability of different forms of cultivation in Greece, 1835

1835	Land in ha	%	Value in golden drachmas	%	Production in golden drachmas	%	Value/ha	Production value/ha	Ratio of yearly production and initial capital
grains	775 000	96	387 500 000	84	25 000 000	67	500	32	0.06, cheap, low return rate
vegetables	5000	0	50 000 000	13	10 000 000	27	10 000	2000	0.20, expensive, quick return rate
raisins	150	0	4 500 000	1	400 000	1	30 000	2667	0.09, expensive, quick return rate high income
grape	900	0	9 000 000	2	700 000	2	10 000	778	0.08, delayed income (3 yrs)
olive	25 000	3	1 200 000	0	1 000 000	2.3	48	40	0.83, cheap, quick return rate, low and delayed income
fruits	2000	0	400 000	0	30 000	0	200	15	0.08
altogether	808000	100	463 400 000	100	36 430 000	100	575	45	0.08

Based on Babanászisz, Szt.: A görög ipar kialakulása...

If we compare the yearly income with that of the land prices, the return rate of 1 ha of wheatland was low: 16 years was required. This was lower, than in Bulgaria, as land in Greece was more expensive, while output was lower. The return rate of vegetables was 4 years, that of raisins 11 years, while in case of (productive) olive trees it was 1-2 years (*table 13*). The latter was very cheap, but the output value per hectares was still 20 times smaller than that of the grapes (but this was an expensive investment), and it needed 10 years to produce the first yields. But for poor peasants an olive plantation was still ideal producing more incomes than wheat at lower costs (while requiring less space). As there was plenty of space between trees, secondary crops were also planted there. The share of olive orchards from cultivated lands reached 25%, while the output increased to sixfold (*table 14*). But yield/ha values did not increase, thus the strategy of poorer peasants was still based on extensivity. If we put the minimum livelihood to 700–

316 In Hungary this was 370 kgs even in 1830.

800 drachmas (over 3500 piasters) for a family, based on Bulgarian analogies, it seems that 1 ha of vineyard could cover the yearly expenses, while to obtain the same incomes 10 hectares of wheatland was required.

Table 14. The production of different branches of agriculture in Greece

Culture	1835, million golden drachmas	1860, million golden drachmas	share in %	1909, million golden drachmas	share in %	Increase between 1860–1909 in %
Grain production	25	43.4	39	128	38	195
Other crops	12	30.6	28	165	49	439
Husbandry	n.a.	36.6	33	44	13	20
Total	n.a.	110.8	100	337	100	204

Culture	1860, ha	1860, %	1909, ha	1909, %	increase, %
Grains	356000	78	567000	57	59
Raisins	5300	1	55700	5.6	951
Grape	49250	11	104000	10	111
Olive	37000	8	260000	26	603
Altogether	452260	100	1 000433	100	121

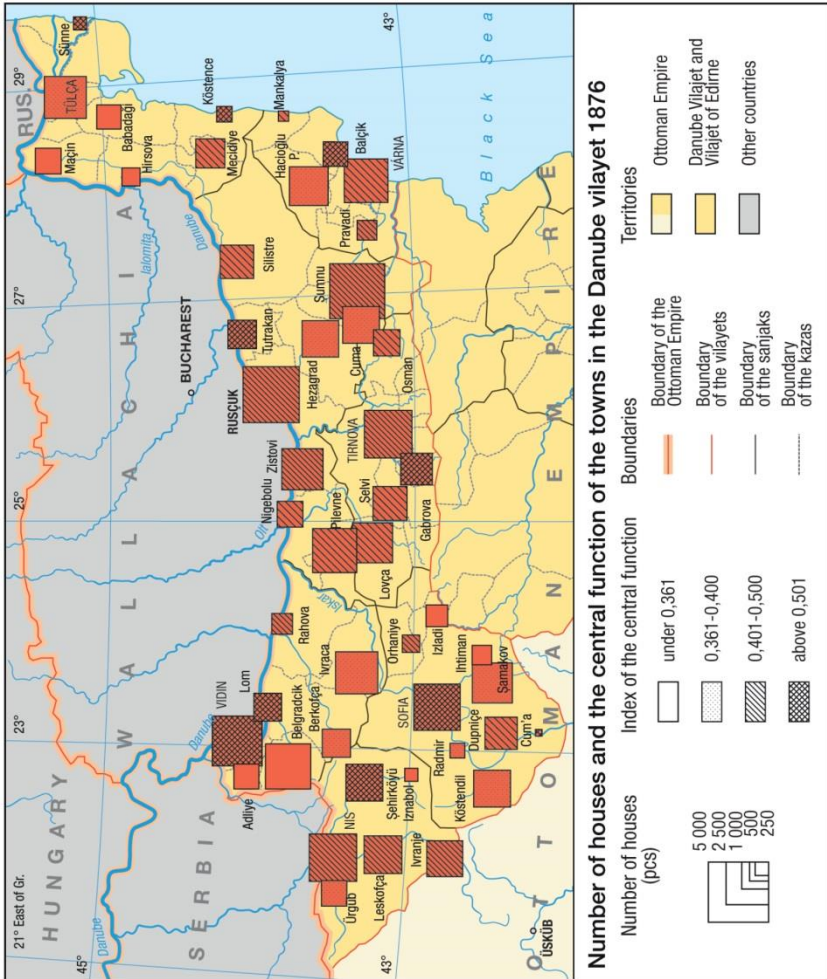
own calculation based on Babanaszisz, Szt.: A görög ipar kialakulása...

Pushed out to fringe areas animal husbandry also became of secondary importance. An average Greek cattle weighted about 130 kgs, while a French one 370 kgs. Although their number increased by 60% between 1860–1909, cattle were usually considered as draft animals. Regarding the other possible draft animal, horse, while in Romania the average was 3.5 horses/km², in Hungary 6.6, in Britain 9.0, in Greece it was only 1.4 horses/km². Animal density was low. In Romania the average was 106 sheep/100 inhabitants, in Hungary 97, in Greece only 81. The same index regarding cattle was 7.5 animals in Greece, 40 in Romania, 34 in Hungary, 32 in France, and 18 in Spain compared to the 77 in Ireland. The Greek sheep weighted 20 kgs, while the French 36 kgs. The unproductive limestone slopes were preferred rather by goats: in Greece the ratio was 91 goats/100 inhabitants, in Hungary this was 4 and in Spain 28 in the 1870s. The dominance of goats always refer to poverty, and as their number showed only a 25% increase, while the

territory of the state has doubled, their decreasing density referred to ameliorating conditions in agriculture.

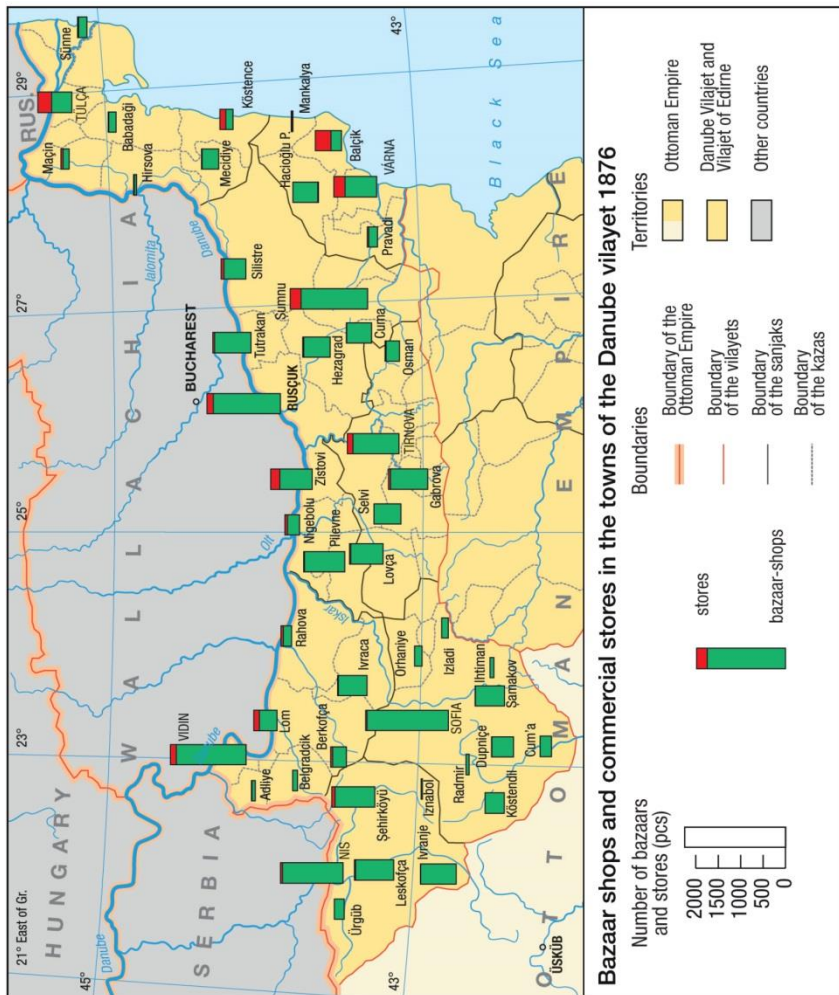
Urbanization and economic progress in Ottoman Bulgaria on maps

(maps were drawn by Zsolt Bottlik based on the data of Kornumpf, J.)³¹⁷



*Central function index is calculated based on the number of buildings with communal functions (hane, hamams, mosques, churches, pazaar shops, stocks, schools), divided by total number of houses.

317 Kornumpf, H.-J.: Die Territorialverwaltung im östlichen Teil der europäischen Türkei vom Erlass der Vilayetsordnung (1864) bis zum Berliner Kongress (1878) nach amtlichen osmanischen Veröffentlichungen. Freiburg, 1976.



IV. Shrinking opportunities of extensive agriculture (1873–1914)

The collapse of grain (and cotton) prices after the overdemand of the Great Eastern crisis and the dumping of Russian (1861 abolition of serfdom), Argentinian and US (1865: end of civil war) products meant a serious problem for smallholdings producing for markets and also for the newborn states, which had just restructured their systems in a hope that former trends would last for a long time. As the agrarian crisis went parallel with a loan crisis (1876, 1897), not only internal (due to the decrease of central incomes), but also external sources of modernization and transformation were limited (to the redistribution of state and community property, for example). Both the states relying on large estates and states dominated by smallholdings were forced to export grains contrary to price trends. The loss of diversity in production made them more vulnerable, while population increase was great and yields were fluctuating. These economies were still determined by external circumstances.

(a) The impacts of global trends on agriculture, 1873–1900

After 1878 the Eastern Balkans managed to get rid of Ottoman rule thus the deprivation of local incomes: new possibilities of capital accumulation occurred that could pave the way for industrialization. Distribution of land became more even, social tensions decreased, landholdings of averagely 5 ha were formed. From this respect the Bulgarian and Serbian independence can be considered a success, but the expectations did not fulfill. Another interpretation of 1878 depicts a more unfavourable picture. First, in many regions of the Balkans social problems of agrarian population prevailed (Macedonia, Bosnia), even if the agriculture itself showed progress (in Bosnia owing to intensification, in Macedonia owing to change in product composition). After the dissolution of the integrated markets which were based on the

traditional division of labour, Bulgaria and Serbia lost imperial purchases and had to fit into the new, Atlantic system. Partly to mitigate the shock (it is still debated how much this was intentional), but rather from social perspective, Bulgaria adopted to a system of dominantly monocultural small-holdings. Smallholdings made economy more vulnerable to external changes. By the time the region gained independence western wheat prices had just begun to fall (from 160-200 francs/ton to 100-130 francs), owing to the further globalization of wheat market (the penetration of Russian and Argentinian wheat), causing a deterioration both in state incomes and in peasant living standard. *The new structure was able to secure autarchy, but did not offer a chance to modernize the smallholdings. The idea of the 'free peasant-state' relied on the formerly favourable external circumstances.*

The vanishing of the expected income surplus hindered the modernization of small-holdings (and the industry as well) and together with the persisting population pressure it resulted in increasing total, but stagnating per capita output. The new structure was able to secure autarchy, but nothing more: a peasant economy of 5 ha could hardly earn some 50 francs net profit yearly with an average gross yearly income of 700-1000 francs. The lack of profits and capital made possible only small-scale investments, which could only ensure the purchase of a plough or draft animals.

*From agrarian perspective 1878 can also be interpreted also as the failure of large estates (largely depending on wages and prices) and animal husbandry: this made the agriculture more **unifacial** and vulnerable.* The eastern Balkans lost its original functions as textile supplier of the imperial army³¹⁸ and meat-supplier of Istanbul, and – owing to the penetration of western artifacts as the result of free trade – had to tackle the deteriorating competitiveness. Shifting from the Mediterranean economic space to the Atlantic, the region could pursue neither proactive nor protective strategies any more (western merchants enjoyed the same tariffs and advantages in Serbia and Bulgaria for the next decades, as they enjoyed earlier in Ottoman Turkey), thus became a

318 Ottomans tended to secure military equipment from local products if possible, therefore Rumelian textiles did not have to compete with cheap western products of better quality.

periphery.³¹⁹ As a consequence of shrinking markets the purchase power also decreased. Together with the decline in textile industry herds disappeared after 1878. This decreased the diversity of economy further. Thus neither industry could serve as the source of modernization, while the persistence of population pressure resulted in a land-use conflict between animal husbandry and grain production in Serbia.

Since everyone became a freeholder in the northeastern parts of the Balkans (contrary to Macedonia or Bosnia), as land became cheap after the dissolution of large estates and the deprivation of many Muslim emigrants from their land (even smallholders), noone wanted to work for industrial companies. This relative shortage of agrarian labour force and the oversupply of land caused an increase in wages, which cut back profits both on large estates and in industry (where profits were not greater than measured in agriculture). Under these circumstances – the flow of labour force to agriculture (or the increasing industrial wages to hinder this), decreasing industrial profits, western competition and the collapse of sectors producing raw material for industry – many industrial enterprises gave up, and deindustrialization continued in the Balkans between 1880–1900, even when external circumstances (global trends after 1873) would have been favourable for industrialization. Until an estate of 5 hectares produced more income for a family, than permanent application in industry, restratification did not take place (with the exception of Macedonia, where agrarian wages remained low owing to small peasant farm size – 80% was below 5 ha – and the larger proportion of producing allodial large estates, *beglik-Gutsherrschafts*, based on compulsory *corvée*).

The Balkan countries were still in preindustrial phase, where economic cycles were primarily determined by the available quantity of food and cultivation technologies (and not by the industry) as agriculture still determined the industrial output.

319 The integrated markets based on division of labour in Ottoman Empire offered economic security for the Balkans (consuming its industrial goods of different quality), but after 1878 this opportunity has vanished.

The problem with agriculture is that industry usually provides greater added value and per capita outputs.³²⁰ On the one hand this is true: in Serbia 80% of the population worked in agriculture producing only 66% of the GDP (while it was 32% in Britain, 40% in Belgium).³²¹ This means that industry and tertiary produced at least three times greater value per capita (on the other hand the initial capital was also higher here). The productivity of agriculture was around 58 in Yugoslavia (measured to the country average, 100) even in 1938, while some industrial branches reached 300–400.³²² In Salonica around the 1850s the average value/ton of incoming goods (40% of which were textiles) increased from 400 to 800 piasters, while export unit prices (dominantly agrarian products) fell from 500 to 350 piasters. In 1911 the volume of the Bulgarian exports was twice as much as the imports (1 million and 500 thousand tons respectively), while their value were the same.³²³ This means that the added value of agricultural products dominating the Balkan exports was radically smaller compared to industrial, although added value in industry fell to 50% after the liberation of Bulgaria.³²⁴

On the other hand it is important to point out that agricultural specialization does not necessarily invoke underdevelopment. Canada and Argentina had not developed significant industry by 1910, but produced similar GDP/capita to France.³²⁵ Hungary also had strong, developing agriculture despite the structural changes (abandonment of animal husbandry) and the social tensions (landless layers). But in the

320 Proportionally agriculture provides greater added value considering 5:1 seed output (80%), even if local consumption is taken into consideration (deduction of further 20%), but the absolute value is greater in case of industry (raw material can reach 40–60%, while wages mean another 15–20%).

321 *Daskalov, R.: Balgarskoto obshtestvo, 1878–1939. Vol. I. Sofia, 2005. 249.*

322 *Vinski, I.: Klasna podjela stanovništva i nacionalnog dohotka Jugoslavije u 1938 godini. Zagreb, 1970. 93.*

323 *Vachkov, D.: Balgarskata ekonomika i voinite na XX vek. Razum, 3-4./2005. 187. See also Fig. I. 2. in Demeter, G.: A Balkán és az Oszmán Birodalom, Vol. I.*

324 *Palairt, M.: The Balkan Economies, 193–95.*

325 *Maddison, A.: Monitoring the World Economy 1820–1992. Paris: OECD, 2000; Maddison, A.: The World Economy. A Millennial Perspective. Paris, OECD, 2001; and Maddison, A.: The West and the Rest in the International Economic Order. In: Braga de Macedo, J.–Colm, F.–Oman, Ch. (eds.): Development is Back. OECD Publishing, 2002.*

above mentioned countries land concentration was progressing offering better possibility for animal husbandry and grains, while in the Balkans just the opposite phenomena (fragmentation and wheat-maize production) became dominant.

Thus, not only the availability of land or the stage of initial capital accumulation (land concentration) in agriculture, but its structure was also a determining factor (beside technologies, mechanization etc.). Many consider animal husbandry as a better indicator of agricultural development level than crops: the share of animal husbandry from total output of agriculture was 77% in the UK, 66% in Germany in the 1910s, while 33–36% in Spain and even in Serbia, famous for its pigs (*table 20*).³²⁶ Although wheat output per hectare in Bulgaria and Romania was better than in France, and per capita wine production in Greece or in Romania exceeded the French, these did not represent the general development level of the agriculture. This also reveals why countries with great land supply showed better performance: Argentina and Canada could invest into animal husbandry (and food processing industry), when meat prices were increasing, while the Balkan states could not. Here an opposite phenomenon took place: grains became dominant even contrary to the price decrease or the dominant holding size, causing a landuse conflict.

Thus, these countries chose grain production not only because of the increasing wheat prices, but because of relative overpopulation: the Argentinian model was simply not adaptable owing to land scarcity, as it was not simply the export prices that determined the events, but the local market needs as well. 1 kg flesh equalling to 7-8 kg wheat regarding calory content gave enough food for only 3 days, while wheat for 8 days.³²⁷ Hajnal explains the differences between Western and Southeastern Europe with higher reproduction rates of the latter that consumed the increase in outputs. This resulted in increasing total, but

³²⁶ Foreman-Peck, J.–Lains, P.: *European Economic Development. The Core and the Southern Periphery, 1870–1910*. In: *Sevket, P.–Williamson, J. G. (eds.): The Mediterranean Response to Globalisation before 1950*. Routledge, 2000. 79–87.

³²⁷ See Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol. III. Budapest-Debrecen, 2016.

stagnating per capita outputs.³²⁸ Mazower even claims, had the rate of reproduction been similar in these two regions of Europe, the differences in GDP would not have increased.³²⁹

It is true, that between 1830–70 wheat production has doubled in the Danubian vilayet owing to the western demand, and population increase was only 50% (from 1.35 million to 2 millions), but between 1880–1910 the population of Bulgaria increased by 80% and this was neither followed by the increase of per hectare outputs nor by the significant expansion of lands. *The possibilities of extensivity reached its limits by 1910*. Without technical advance, labour intensification or changes in produced cultures the adopted farming system became untenable and also showed signs of labour oversupply. In Serbia 93 persons dealing with agriculture lived on one square km, this increased to 120 by 1930, while in Denmark – choosing the intensification of agriculture – this was only 32, and the European average was between 40–50.³³⁰ Thus, the structure of agriculture and the composition (and quantity) of marketed products also determined the level of development – beside the demographic pressure. Smallholdings were inapt for competitive grain production, large estates without mechanization (exposed to labour prices) also. Intensification was not considered a solution for a long time, partly owing to lack of capital and technological knowledge, partly owing to market problems (external markets were lost, internal markets were characterized by low consumption). The Balkan smallholdings became quite introverted by the turn of the century: grain exports shrank to 15-20% of the harvest compared to the 30-35% during the great prosperity.

The relative overpopulation is also reflected in the decreasing size of economic units (side by side with the increase in number of landholdings): in Serbia average landholding size decreased from 5 ha to 4 ha within a generation (in Greece it did not exceed 2 hectares), in Bulgaria Egoroff estimated, that 30% of the workforce in agriculture

328 Hajnal, H.: *European Marriage Patterns in Perspective*. In: Glass, D.V.–Eversley, D.E.C. (eds.): *Population in History*. Aldine Publishing Company, 1965. 101–43.

329 Mazower, M.: *The Balkans*. Phoenix Press, 2001. 17–44.

330 Foreman-Peck, J.–Lains, P.: *The Core and the Southern Periphery*, 79.

remained unexploited.³³¹ Under these circumstances the land reforms executed in Greece, Serbia or Bulgaria could solve the problem only temporarily: as the average farm size decreased below 5 ha/household regionally – and this was the lower limit of profitable/self-sustaining traditional (monocultural) dry cultivation that time – it became a futile effort to eliminate the recurring differences: despite of all social demagogu, these smallholdings simply did not work. Either landsize or product structure had to be modified. (Land-concentration would need the improvement of industry to handle the landless masses).

And as internal capital was missing for the transformation, these states had to wait for favourable external circumstances again (for the increasing grain prices between 1900–29) either to prolong the existence of this structure or to change it (protectionism, new products, intensification). Agriculture was unable to finance even its own renewal from internal resources (one can see it from the failure of the Ottoman Empire after 1878 to finance the industrial revolution from agricultural surpluses). So when Calic agreed, that demographic revolution without industrial revolution was a sort of committing a suicide, and when Cyril Black wrote that industrial revolution begins, when the agriculture can finance industrialization, both were probably right.³³² It seemed that the economists of neoclassical theories – propagating the globalizational convergence between the Balkan (1870–1913) and the rest of Europe, which is still debated – were also right when claimed, that modernization could be successful in this region only relying on external sources (trade, crediting). But after 1878 the balance of trade became generally negative for this region³³³ reversing the trends dominating in 1800–50³³⁴ (except for the over-consumption in

331 Egoroff, P.: *Die Arbeit in der Landwirtschaft*. In: Molloff, J. (Hrsg.): *Die Sozialökonomische Struktur der Bulgarischen Wirtschaft*. Hrsg. Berlin, 1936.

332 Black, C. E.: *The Process of Modernization. The Bulgarian Case*. In: *Bulgaria, Past and Present*. Columbus, Ohio, 1976. 111.

333 Romania also lost the Ottoman market for its grains and became subjected economically to Austria-Hungary until the 1890s. Serbia was exposed to Austro-Hungarian influence, but had positive balance in many years (it was not a maritime country).

334 Reden, Fr. W. von: *Die Türkei und Griechenland in Ihrer Entwicklungs-Fähigkeit*, 259.

Constantinople).³³⁵ These economists refuse the positive role of internal resources, even of population growth (cheap labour force, extending markets) that could attract investments, thus ameliorating per capita outputs on the long run. Others even challenged the idea of slow convergence³³⁶ claiming that the GDP of this region was 40–50% of the western in 1820 and was stagnating around 30–40% between 1870–1950.

The question is, whether it was the agriculture responsible for the supposed divergence³³⁷ between the West and the Rest or not. In an experimental study of Foreman-Peck and Lains explaining the character of differences, climate (representing agriculture) was responsible only for 10% of differences in GDP/capita between GBR and the Balkans, while social conditions were calculated responsible for 33% of differences between 1870–1910 (and its role was growing). The role of other economic factors (taxes, tariff policy, railways) was measured 50% in explaining the differences, while physical geographical conditions (natural resources, like the abundance of coal) were thought to have been responsible for 6–25% of the lag in case of Romania and Bulgaria but 45% in case of Greece.³³⁸

335 The exports of Danubian vilayet was 32,5 million francs prior to 1859, imports were 22 million. Eastern-Rumelia also had a surplus of 1 million pounds. *Mihov, N.: Prinos kam istoriyata na targoviyata na Turciya i Balgariya*. Tom. 6. Sofia, 1971. 350–51.

336 Convergence was supposed by *O'Rourke, K. H.–Williamson, J. G.*: *Globalization and History*. Cambridge, Mass. MIT Press, 2009.

337 Those, who challenge the idea of convergence are not unanimous, when divergence began: between 1820–1870 or between 1870–1910. *Bourguignon, F.–Morrisson, Ch.*: *Inequality Among World Citizens*. are on the opinion, that divergence was observable between 1870–1910, *Maddison (Maddison, A.: The World Economy...; Maddison, A.: Monitoring the World Economy 1820–1992...)* states that the whole period was characterized by this process, while *Morys* claims, that differences grew especially after WWI. *Morys, M.*: *South-Eastern European Growth Experience in European Perspective, 19th and 20th Centuries*. In: *Monetary and Fiscal Policies*. BNB, 2006. 34.

338 *Foreman-Peck, J.–Lains, P.*: *European Economic Development...*

(i) Problems of measuring productivity and development – data interpretation

Of course, these numbers cannot be considered as unquestionable, and there are still ongoing debates on the question of agrarian profitability. Palairet's calculation show, that although absolute outputs increased both in Serbia (from 180 million to 340) and Bulgaria (from 395 million to 645 million leva between 1865–1911, but

- (1) considering the beginning and the end of the period (1870s-1910s) per capita outputs were rather decreasing-stagnating (in Bulgaria it fell from 220 to 180 leva, in Serbia from 180 to 130 dinars) as the population increase in agriculture was great;
- (2) output was rather fluctuating, than declining within this period due to the numerous crises after the 1870s. As an effect of the liberation and the decrease in wheat prices agrarian output per capita soon fell to 160 leva in Bulgaria. Once again a decline was observable at the turn of the century (the agrarian crisis of 1897–1900).
- (3) the reliability of these data (especially prior to 1878) was challenged by Ivanov and Lyberatos; and there is also contradiction in (and between) the calculations of Berov and Palairet.³³⁹

Ivanov claimed that the Bulgarian data from 1923 could not serve as basis of comparison as it is still prior to the recovery of the agriculture, reflecting the effect of war. The output data prior to the liberation are also extreme (giving 2 t/ha yield) and unfortunately scarce. Thus data prior to 1878 are not comparable with each other. Our calculations based on local data also show, that the output was somewhat smaller, than given by Palairet: it regularly did not exceed 5000 grosh/5 hectares, or, in other words per capita output in the 1870s was under the Palairet estimated 200 francs. Berov calculates with the 3000 grosh. Lyberatos warned, that both Berov and Palairet committed mistakes in their calculations owing to the problems of reliability of sources.³⁴⁰ There is

339 Ivanov, M.: *Understanding Economic and Social Developments in the Periphery: Bulgarian National Income 1892–1924*. East Central Europe 24, Vol. 35. 2007–2008/1–2. 221–44;

340 Lyberatos, A.: *From Imperial to National Lands*, 137–72. See his criticism on: *Direkciyata na Financiite na Iztochna Rumeliya* (Plovdiv, 1884) and *Statisticheski soedeniya za zemledelcheskata proizvoditelnost na Balgariya pri navecherieto na I-to zemledelchesko-promishleno izlozhenie* (Sofia,

contradiction in the average size of landholdings, as Dimitrov puts it to 6 ha based on 9300 economies, Draganova calculates with 8 ha, Berov with 10-12 ha. The rate of extensivity is also not unambiguous as Berov first calculated with a 100% increase in arable lands between 1870–1910, than revised his view and put it to 35%.³⁴¹ On the other hand the 5:1 seed output accepted by Palairet as well does not seem to be low (measured to the 12:1 in western Europe), especially if compared to the input work and capital, and other examples confirm this even from the 1910s (*table 1–2*).³⁴²

Table 1. Average wheat yields prior to WW I

Wheat yields (q/ha)	Romania	Bulgaria	zerbia
1862–66	9.6	n.a	9.5
1891–95	11.1	n.a.	8.7
1896–00 (crisis)	8.9	7.9	9.4
1906–10	11.3	9.3	9.3
1911–15	11.6	11.1	11.1

Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 188.

1892). Official statistics only exist since 1896 in Bulgaria. Tax incomes cannot serve as reliable basis for estimating income, because of the iltizam and quickly changing tax rates. Incomes to estimate output in tons can only be used with precaution as prices were fluctuating, not to mention the regional differences in the measurement units. The interpretation of yields is often dubious as we do not always know whether it is measured to cultivated or to sown land (the proportion of fallow was not negligible). This modifies the output ratio, which is also problematic: Berov calculated only 0.5 tons/ha from income data, considered too low by Palairet (this ratio was reached early in 1750–1840). Contrary to this, Razboynikov calculated 1 kile (26 kgs) of seed/dönüm in Thrace, which means that output was 1 ton/ha if we accept the 5:1 output ratio. Jakšić put the output to 1100 kgs/ha, meaning a 7:1 ratio in Serbia in the 1860s.

341 *Berov, Ly.: Zemedelieto v Balgariya prez 1878-1912 g.* Upravlenie na selskoto stopanstvo 25/8. 1980. 47–48; *Berov, Ly.: Promeni v razpredelenieto na pozemlenata sobstvenost v Severna Balgariya prez parvite dve desetiletiji sled Osvozhdenieto.* Izvestiya na Institutata po Istoriya 27, 1984. 224–73; *Bairoch, P.: New Estimates on Agricultural Productivity and Yields of Developed Countries, 1800–1990.* In: *Bhaduri, A.–Skarstein, R. (eds.): Economic Development and Agricultural Productivity.* Cheltenham, 1997. 48.

342 *Razboynikov, A.: Chiftlitsi i chiftligari v Trakiya predi i sled 1878 g.* Izvestiya na Institutata za Istoriya 9, 1960. 176–77. measures 1:5 – 1:10 output ration in thrace. In Iowa per hectare yield of maize was 6 times as great as measured in India, but comparing it to the invested capital and work, the output was only double than in India. *Endrei W.: A textilipari technikák termelékenységének története.* Budapest, 1993. 11.

Table 2. Income of peasants and output ratio in Silivri okolie in 1912

Total land in kile* seed	Fallow	Name	Wheat seed in (kile)	Cost of sowing (grosh)	Output in kile	Input / output ratio	Product value	Tithe in kile	Tithe to output, %
30	4	Stavri Nikolov and 7 children	11	330	100	1:9	2600	19	18
120	15+45	Ivan Trendafilov	28	952	150	1:5.5	4500	19	12.5
30	4	Todor Dimitrov	14	476	75	1:5	2325	10	12.5
40	18	Petko Tanev (kmet, muhtar)	18	648	120	1:7	3120	15	12.5

*1.5 dönüm needs 1 kile seed (20-25 kg), thus 30 kile land = 4.5 ha. This amount of seed is similar to that of calculated by Palairet. Razboynikov, A.: Chifflitsi i chiffligari v Trakiya, 175-76.

Although estimations on Bulgarian GDP vary in a wide range (825-1109 million leva in 1890, 1648 million in 1912),³⁴³ all agreed that 60-66% came from agriculture. 40% was produced by smallholders under 10 ha, 10% by large estate holders in the 1930s.³⁴⁴ But there is a debate between Palairet and Ivanov about the value of GDP/capita (it increased from 336 leva to 386 leva at current prices): the former calculates with a 20% decrease between 1890-1910 at real prices, while the latter with stagnation.

The output of the Serbian economy – including the production of agriculture – is also debated. Stojanović – in 1919, when assessing the devastations of war – put the yearly agrarian output to 900 million francs showing a return rate of 35-50% (without amortization). Lampe put this to 600,³⁴⁵ while Palairet recently to 350 million.³⁴⁶ Accepting Lampe's data would mean, that the Serbia's total agricultural output was similar to the Bulgarian, thus per capita values even exceeded that, contrary to Palairet's presumption. Only the share of agriculture from total GDP seems to be certain: everybody puts it between 60-70%. As the amount of agrarian output influenced the adjudication of total GDP (estimated from 560 to 1185 and to 1350 million dinars in Serbia) and

343 See the estimations of Manushev (900 million), Popov (1109 million) and Gueshev (825 million) for the 1890s and Popov for 1912 (1648 million). *Topalov, V.: Stopanska kriza v Balgariya prez 1897-1900 g.* Izvestiya na Institutata za Istoriya 13, 1963. 65.

344 *Demeter, G.: A Balkán és az Oszmán Birodalom*, Vol. I. 515, 520; *Topalov, Vl.: Stopanskata kriza v Balgariya...*

345 *Sundhaussen, H.: Historische Statistik Serbiens*, 439. 444.

346 *Palairet, M.: Balkanskite ikonomiki*, 341.

GDP/capita, ranging from 233, 300 to 400 francs (the latter calculated by Lampe, the former by Palairt and Stojanović) as well, it would be wise to recalculate agrarian output based on available data. We accepted a value between 300–400 million francs.³⁴⁷ This means that the return rate could not be 35% in 1910 as indicated by Stojanović, but only 12%³⁴⁸ (measured to the value of a farm), which is smaller than calculated for 1840–70, but similar to the general industrial return rate according to Lampe (8%).

(b) The agrarian decline

(i) Transformations I. – Land reforms and introversion in Bulgaria

The following chapter highlights on the example of Bulgaria, that land reforms were not always progressive from economic aspects on the long run (even if they were considered successful from social aspects by some historians). Redistribution of land was not always optimal response to a challenge as it could even shrink the future possibilities to react successfully.

According to Draganova 57% of the Bulgarian peasantry had his own estate of 5–10 ha prior to 1878 and only 25% of estates were larger than 25 ha. The estate structure did not change significantly during the reforms (*table 1*), only ownership. Although the stratum of agrarian wage-labourers (landless cheap labour force, *rataj, argat*) disappeared

347 If we calculate only with wheat hypothetically extended to the total area, it could have produced 190–240 million francs value yearly (calculating with 20% fallow, 1000–1200 kg/ha yield and 120–130 francs/ton price). Adding further the production of husbandry and other cultures (like plum), it is evident, that the two higher estimations are incorrect. Palairt puts the value of marketed agrarian products to 140 million (both inland and abroad), which cannot be less than 20% or more than 33% of the total production, if we accept Stojavljević's data on marketed surplus depending on estate size. *Stojavljević, B.: Prodiranje kapitalizma u selo (1919–1929)*. Zagreb, 1965. 31. (A farm under 1 ha could not market more than 10%, while a large estate over 20 ha could take 40% of its products to markets).

348 It is even lower, 7% if calculating with net profits (deducing the seeds and animal and personal consumption ranging up to 50%).

after the reforms (contrary to the the Hungarian reforms in 1848), there were only 40 thousand (10%) new economies in 1890.³⁴⁹ This means that most of the land was given to those who already had some, in order to make their holdings more viable. The reform could be considered radical only from ethnic aspects (Jireček claims, that in Stara Zagora 75% of the sold/redistributed lands were owned formerly by Muslims),³⁵⁰ but not from economic point of view (although it had longlasting socio-economic consequences), as only 20% of total lands were distributed. But, as this proportion exceeds the proportion of Muslim (and Christian) large estates, many Muslim smallholders also fell to victim of the “reforms”,³⁵¹ Furthermore, not all chifliks were distributed: we can also speak about a change in ownership beside the dissolution of large landholdings: in the district of Stara Zagora the number of Bulgarian large estate owners increased from 313 to 442 acquiring 2/3 of the redistributed land, while the number of Muslim large estate owners decreased from 251 to 176.³⁵²

The collection of the tithe based on the size of the land (even if uncultivated) and not after the volume of harvest was unfavourable for absent, mainly Muslim owners.³⁵³ This, together with the shortage of labour force³⁵⁴ and the price decrease of wheat forced emigrant Muslims to sell their legal property at low prices (land prices fell by two-thirds as pressure from the state on Muslim landowners increased).

Driven either by the egalitarian concept to moderate social differentiation or by a calculation to eliminate the layers threatening the positions of the new elite, the state did not allow to establish new

349 Topalov, T.: *Borba na Balgarskiya narod za demokratichno ustroitelstvo i nezavisimost na Balgariya (1878–94)*. Istoricheski Pregled. 1945–46/4–5. 442.

350 Irecek, K.: *Putovanie po Balgariya*, 234. (Jireček, K. J.: *Cesty po Bulharska*. Praga, 1888).

351 Data: Hristov, Hr.: *Istoriya na Balgariya*. Vol. 4. Sofia, 1987. 42.; Berov, Ly.: *Agrarnite otnosheniya u nas po vreme na Osvobozhdenieto*. Trudove na Visshiya Ikonomicheski Institut ‘Karl Marx’. 2. 1956. 67–148.; Draganova, Sl.: *Selskoto naselenie*, 83, 91; *Ikonomika na Balgariya do socialisticheskata revolutsiya*. Sofia, 1969. 3.

352 Berov, Ly.: *Agrarnoto dvizhenie*, 33–34.

353 *Ibid.* 29.

354 Macedonian workers were cheaper, therefore they were hired in Bulgaria, while 50 thousand Bulgarian *pechalbari* migrated to Romania and Besarabia.

holdings over 9 ha, which decreased competitiveness.³⁵⁵ While in Hungary the reforms of 1848 produced a broad landless layer that still had to serve on large estates – but now for wages – as they could not afford to buy their own land, this agrarian stratum (from where industrial workers could have been recruited) remained thin in the Balkans. This hindered the future capitalistic transformation of agriculture and the accumulation of workforce in industry as well. Furthermore, this happened when wheat prices generally dropped, shrinking state revenues and eliminating local capital accumulation.

It is also undeniable that speculation also characterized the activity of the elite profiting from land reforms: in Eastern Rumelia the value of lands purchased by Christians from Christians was 25 million piasters constituting 25% of all purchases.³⁵⁶ The Bulgarian smallholder often bought his land from Bulgarian *chorbadjis* at high prices, while the latter managed to obtain it from the original Muslim owner at low prices.

The land reform was also exposed to fierce political fights: the Russophile Bulgarian government sold the land at low prices (50–80 francs/ha) to get the benevolence and votes of the small peasantry, while the conservatives sold them at real market prices (180 francs/ha), to secure the interest of layers with higher purchase power, excluding small peasantry from the great redistribution.

This also meant that those peasants who received land at higher prices became indebted: though the changes also eliminated the debts of peasants toward the Ottoman state (originating from the purchases after 1858), lacking agrarian banks and access to credit until 1894, Bulgarian peasants fell to the hands of usurers offering loans at monthly 12% interest rate (instead of the yearly 12%). In Stara Zagora only 25% of their debt was paid in time. The decrease in number of owners (100 thousand) between 1887 to 1892 partly reflects confiscations owing to debts. Mass indebtedness has appeared in 30% of settlements.³⁵⁷ Crop

355 *Istoriya na balgarite v dokumenti*, Vol. I/1. 441.

356 *Ireček, K.: Patuvanie po Balgarija*, 235–36; *Kosev, D.: Selskoto dvizhenie v Balgariya v kraya na XIX v. Istoricheski Pregled*, 1948–49/5. 551. See also: *Topalov, T.: Borba na Balgarskiya narod*, 442.

357 *Svedeniya po zadalzheniyata na zemledelcitate kam lihvarite*. Centralno Upravlenie na Zemledelskite Kasi. Sofia, 1901.

failures of 1897–99 also contributed to the process. By 1908 36 000 parcels out of the 80 000 parcels of community lands were confiscated from peasants by the Agrarian Bank.³⁵⁸ According to Gueshov, the indebtedness of Bulgarian peasantry reached 90 million leva by 1900³⁵⁹ or almost 200 leva/economic unit (calculating with 420 thousand smallholders), in other words 20-30% of the yearly income. Only the inflationary policy of Stamboliyski managed to eliminate some of these debts after 1920³⁶⁰ (the same happened to Hungary).

Not even productivity improved significantly. The theory of Arthur Young “gold from sand” (the mirage of private property) did not fulfill, total production did not increase even after the establishment of smallholder society, although this was the presumption of Bulgarian marxist historians, challenged by Palairt and Lyberatos. (The similar hypothesis of Hungarian historians, that uneven distribution of lands – the overwhelming role of large estates – hindered agrarian development between 1850–1910, has recently also been falsified. We have seen that neither chiftliks were obsolete *ab ovo*. The abolition of serfdom did not fulfill the expectation of scientists: in Hungary the abolition of *robot* increased agricultural output only by 1.5%,³⁶¹ as *corvée* – surprisingly – constituted only 5% of total working hours in agriculture as calculated by John Komlos and Scott M. Eddie).

As these reforms took place side by side with the decrease of wheat prices, this eliminated the possibility of local capital (land) accumulation. The new, smallholdings dominated economy meant a return to a self-subsistence. The land reform did not create a sustainable agrarian structure in Bulgaria after 1878: owing to demographic pressure, the average size of landholdings continuously decreased.

358 Daskalov, A.: *Zemedelskiyat kredit v Balgariya ot 1864 do 1913*. Sofia, 1912. 137–38; Berov, Ly.: *Rolyata na zadalzhitelni darzhavni dostaoki oav vatreshna i vanshna targovija na balgarskite zemi prez XVI–XIX vek*. In: *Iz istoriyata na targoviyata v balgarskite zemi v XV–XIX vek*. Sofia, 1978. 107–52.

359 Geshov, I. E.: *Dumi i dela*. Sofia, 1899. and *Stopanska istoriya na Balgariya*. Sofia, 1982. 225.

360 Todorov, G.: *Politikata na balgarskite burzhoazni pravitelstva po agrarniya i bezhanskiya vapros sled darzhavniya prevrat ot 1881g.* (1881–1886). *Istoricheski Pregled*, 1961/2. 29.

361 Equalling to a 2% increase in capital and workforce. See: Eddie, Scott M.: *Ami „köztudott” az igaz is? Bevezetés a kliometrikus történetírás gondolkodásmódjába*. Debrecen, 1996. 52–54.

(table 3). The situation even deteriorated by 1897, as the % of viable smallholdings decreased from 51% to 35%. The collapse of zadruga and the emergence of nuclear families was partly behind this phenomena. For example in Dobrich kaza the average land size was 15 ha/households prior to 1878, but one household consisted of 3 adult males.³⁶² Until industrial wages were lower, than the income of a land unit of 5 hectares, these males rather distributed the land, then to work in industry (contrary to the landless Macedonian peasants).

Table 3. Changes in the distribution of land owing to Bulgarian 'land reforms' (in %)

Size	1872-77		1897 (the same in 1908)*	
	units	land	units	land
1-3 ha	18	3	45	7
3-10 ha	51	35	35	30
10-20-ha	23	35	14	29
over 20 ha	7.5	26	7	33

Lyberatos, A.: From Imperial to National Lands, 156., and Draganova, Sl.: Selskoto naselenie, 91-99. 10% of the country was included in the investigation.

*Due to the recovery of wheat prices at the turn of the century revitalization of agriculture was realized in extensive forms, which temporarily stopped fragmentation. (Data from: Trifonov, S. – Georgiev, V.: Istoriya na Balgarite I/2.)

(ii) Transformations II. The landuse conflict of animal husbandry and grain production in Serbia

The conflict between animal husbandry and grain production (illustrated on the example of Serbia) has different interpretations in historiography. A Malthusian approach is adapted by the ecological history writing arguing that a gradual overpopulation induced the landuse change, while traditional history writing emphasizes external circumstances, mainly the policy of Austria-Hungary.

³⁶² Dimitrov, Str.: *Za klasovoto razsloenie*, 234. 5 ha/ 1 one male workforce was optimal indeed, later this value deteriorated.

The retreat of animal husbandry was general on the Balkans: according to Tomashevich the per capita livestock unit in Serbia fell from 1500 to 700 between 1860–95, while in Bosnia between 1895–1910 it decreased from 1540 to 1140.³⁶³ Parallel to this process the average grain yields increased from 3.6 hl/ha (1818) to 5.6 hl (in 1895) in the Croatian Militärgrenze, and potato consumption per capita increased from 26 kgs to 121 kgs.³⁶⁴ A recovery in the significance of animal husbandry only took place after 1929 (in Bulgaria).

In order to understand the phenomenon a number of factors has to be taken into consideration. The *zadrugas* and the lack of primogeniture enabled early marriages even without creating the basis of financial independence for the new family. It means that the productive age of women began earlier in the Balkans than in Western Europe allowing more children to bear.³⁶⁵ In Serbia the net population increase was high (1.5% yearly even after 1880), often exceeding the increase in grain yields. The principle of equal male heritage led to decreasing farm sizes and growing fragmentation – *zadrugas*, until they existed, were to moderate this effect.

Originally, there were plenty of space for woodlands and grazing lands for animals: cultivated land reached only 9% of the total surface of Serbia in 1844, and 21% in 1867,³⁶⁶ while it was over 62% hundred years later. Forest were utilized by swine herds, woodlands cut down were grazed by sheep. Animal husbandry gave 50% of the production of agriculture in the 1860s in Serbia – never again approached –, but measured to the extent of involved territory it was not high, indicating low productivity.³⁶⁷

Until there was enough space, the extensive way of animal husbandry was sustainable. The population of the country was under

363 Tomasevich, J.: *Peasants, Politics*, 163.

364 Vrbanić, F.: *Prilozi gospodarskom razvoju hrv.-slav. krajine u 19. vijeku*. In: Rad Jugoslavenske akademije znanosti i umjetnosti. Knj. 144. Zagreb, 1900. 115–21.

365 Hajnal, J.: *European Marriage Patterns*, 101–43; Sklar, J. L.: *The Role of Marriage Behavior in the Demographic Transition: The Case of Eastern Europe around 1900*. In: *Population Studies* 28, 1974. 231–247.

366 Katić, B. M.: *Poljoprivreda kneževine Srbije (1834–1867)*. Belgrade, 2014. 70. and 86–88.

367 Palaret, M.: *The Balkan Economies*, 92.

one million in the 1840s, but by the 1900s in reached 3 million. Though per capita cultivated land grew from 3 to 3.6 hectares per farm (330 to 780 000 ha) during the extensive period between 1834–67 (*table 4*),³⁶⁸ the extension of meadows and pastures did not keep up with this pace (30% decrease measured to 100 persons), and their proportion fell from 30% (1833) to 19% (1867).³⁶⁹ After 1867 a decrease in absolute numbers occurred as well, limiting the possibilities of husbandry.³⁷⁰

Neither arable lands, nor wheat production increased at the same pace of with population increase. Between 1834–47 the population grew by 36%, while the cultivated area by 24%. Between 1840–60 while the population increased by 20%, per capita grain consumption fell by 20% according to Jakšić. The relative welfare of the 1830–40s turned into relative poverty after the 1860s. The share of maize on ploughlands – serving originally as animal fodder – also decreased from 80% to 50% between 1832–67, while wheat reached 25% indicating the landuse conflict.³⁷¹

Table 4. Landuse changes and per capita values in Serbia, 1834–67

Year, Index	Arable land	Pasture	Vineyard	Total cultivated area
1834, in 1000 ha	225	94	9.5	330 (9%)
1834, %	68	22	2	100
1834, to 1000 prs	225	94	9.5	455 (2.7 ha/hh.)
1847, in 1000 ha				600 (3.6 ha/hh.)
1867, in 1000 ha	604	133	24	781 (21%)
1867, %	75	17	3	100
1867, to 1000 prs	445	100	17	560 (3.4 ha/hh.)
Increase	+180%	+40	+150 %	+240% and +180% population increase

1 day kosač meadow = 0.2 ha, 1 day arable land = 0.6 ha (1 jutar or 1 kat. hold)

Based on Katić, B. M.: *Poljoprivreda kneževine Srbije...*

368 Katić, B. M.: *Poljoprivreda kneževine Srbije*, 79–80. and 84.

369 Cvijetić, L.: *Popis stanovništva i imovine u Srbiji 1834 godine*. Mešovita gradja, XIII, 1984. 9–118. esp. 110–114.

370 Katić, B. M.: *Poljoprivreda kneževine Srbije*, 79–80. és 84.

371 Cvijetić, L.: *Popis stanovništva*, 110–14.

The question is which produced more profits: animal husbandry or grain production? While 1 kg of wheat contained 3600 calories, 1 kg pork 2600–4000 calories. The price of the latter was 8 times higher than that of the wheat. But, to produce 1 kg of meat 8 kgs of grain is needed,³⁷² thus the costs were the same, while 8 kgs of wheat contained more calory than 1 kg of pork: 8 kgs of wheat gives enough food for 8 days for a person, while 1 kg of meat provided food only for 3 days.

Therefore an average peasant economy could not feed more than 6 pigs yearly, if animals solely depended on grains. Until the population remained low and uncultivated woodlands sprawled across the country, this did not create a conflict. But when population increase resulted in the extensive transformation of woodland to arable lands, it became unwise to feed porks from the grain.

As the joint output of wheat and maize never really exceeded 300 kgs per capita (with exception of the 1890s) (see *figure 3*) that could cover the yearly need of a grown-up and draft animals, grain would have been insufficient to supply animals beyond human consumption. While from purely economic point of view – if exports are considered – animal husbandry could give more profits, (it is not surprising that 1 ha of meadow cost 867 dinars, while 1 ha of arable land only 306 dinars), wheat was more advantageous from the aspect of subsistence consumption under conditions of overpopulation.

Thus the question, which Serbia faced, was similar to the Bulgarian case: *either to chose self-subsistence and low standard of living in order to maintain social stability, or to adapt to market demands*. The latter option would entail efforts to increase competitiveness and to accumulate land, which in turn would lead to intensified *social differentiation and the de-classation of the rural masses*.

The population increase resulted in the decline of forests, economic space for animal husbandry. While in 1867 25% of the country was conscripted as woodland within 50 years 2 million hecares (one third of the country) disappeared.³⁷³ In 1884 still 1.3 million ha was woodland calculated it shrank to 0.85 million by 1905. (The same process took

372 The Hungarian historian, István Szabó came to the same conclusion.

373 *Sundhaussen, H.: Historische Statistik Serbiens*, 221.

place in Hungary, S-Transdanubia, where 200 000 hectares of forests were destroyed).³⁷⁴

The 1890s brought some relief: the increase of cultivated land exceeded 80%, while that of the population was only 7%. But the last stage of development (1893–1905) was characterised by a stagnation of ploughlands and a 20% of population increase putting the pressure again on agriculture (*figure 1, table 5*). And this great extensivity of arable lands is overshadowed by the fact that 50% of the cultivated land still remained fallow owing to the undeveloped techniques, while in Romania this decreased to 20% by that time.³⁷⁵ Fallow was not exploited by clover or other cultures to restore the Nitrogene-content of soils. Intensification was not a choice owing to the lack of proper knowledge (70% of the Serb intelligentsia received his degree abroad, but there was not any agronomist among the 350 persons in the 1840s).³⁷⁶ 40% of peasants had not enough ploughs to plough the available land.

Regional differences were also great, and wheat yields per hectare were still varying between 0.5 ton/ha (1860) and 1.8 ton/ha (1857).³⁷⁷ In Knjazevac average land per household fell from 9 ha to 4–5 ha between 1844–89, in Valjevo it was stagnating, in Šabac it increased from 3.8 to 6.5 ha.³⁷⁸ The situation was especially problematic in the NW territories: in Toplica and Užice only 11% of the land was cultivated compared to the 55% in Smederevo and Požarevac. Maize – inherited from animal husbandry – still remained the prevalent grain, because its output ratio was 25:1³⁷⁹ compared to the 7:1 of wheat. Bread made from maize was even cheaper by 25% compared to bread made of wheat – but it contained 25% less calory as well. The substitution of corn with potato was not considered seriously in the Balkans: potato yields/ha increased

374 Kaposi, Z.: *Válság és alkalmazkodás. A 19. század végi agrárkrízis hatásai a dunántúli uradalmak működésére*. In: Kövér Gy.–Pogány Á.–Weisz B. (eds.): *Magyar gazdaságtörténeti évkönyv*, 2016. 196.

375 Calic, M.-J.: *Sozialgeschichte Serbiens*, 71. In Hungary fallow was cca. 10% by 1900.

376 Many of the graduating 228 students did not return to agriculture.

377 Katić, B. M.: *Poljoprivreda kneževine Srbije*, 116–18.

378 *Ibid.* 94. This is partly due to the dissolution of zadrugas. Average family size fell from 6.5 to 6 within a generation, and the number of households has doubled from 100 to 200 thousand (1834–67), while the population did not increase at such a pace.

379 Keleti K.: *A Balkán-félsziget...*

only threefold between 1850–1910, while the maize yields increased by 4 times.

The result of these processes was that while cattle population increased by 20% in 1846–59, in the next 7 years it decreased by 10%. The cattle/inhabitant index decreased from 0.75 to 0.33.³⁸⁰ The number of pigs per capita fell from 1.65 to 0.3 between 1860–1910,³⁸¹ while – a complementary process – the number of sheep increased from 2.4 million to 3.8 million. Swine exports first increased from 7 million dinars to 18 million dinars reaching a share of 70% in the total exports (even per capita exports increased), but this fell back to 12 million in 1879–80 and to 8.3 million in 1896–1900 contrary to the favourable price trends (*figure 2*). The number of pigs also sank from 1.8 million to 1.3 million between 1859–66, then to 0.9 by 1910. Exported volume from the total swine population also fell from 24% to 16%. The total value of animals decreased from 69 million to 38 million by 1900, while per capita value of pigs decreased from 65 to 15 francs between 1860–1900. Per capita swine exports also shrank from 12 to 3.3 dinars between 1871–1900 (*table 6*).³⁸²

The income from exports was influenced by price fluctuations, while the profit rate was determined by price differences. For example while the price of a pair of pigs increased from 350 to 550 grosh in Vienna (thanks to the military campaigns) between 1837–48, it was only 70–80 groshes in Belgrade. Between 1865–66 the price of pigs fell from 700 grosh to 250 in Vienna, while in Belgrade it decreased from 250 to 120. The ratio of pigs from total animal populace fell from 33% to 25%.³⁸³ After the 1860s, prices trends and the development of traffic (railway from the Banat to Vienna was ready in the 1860s)³⁸⁴ would have been

380 Ivanić, S.: *Poljoprivreda u Srbiji. Prilog za poučavanje ishrane i narodnog zdravlja*. Belgrade, 1938. 57.

381 Sundhaussen, H.: *Historische Statistik Serbiens*, 214.

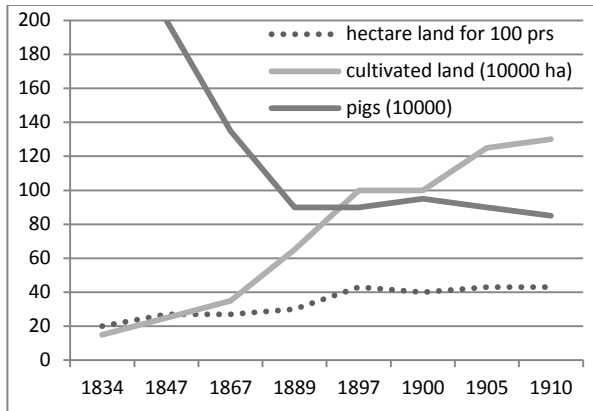
382 Palairot, M.: *Balkanskite ikonomiki*, 325.

383 Katić, B. M.: *Poljoprivreda kneževine Srbije*, 207–14.

384 Palairot, M.: *The Balkan Economies*, 103–04. The creation of the Bazias railway track in 1856 made it possible for the exporters to feed the pigs on the grains of Banat. This increased the profit rate of Serbian exporters, making it possible to bypass the mediating merchants in Győr (Raab), who previously bought up and fed the animals, then sold them to Viennese markets.

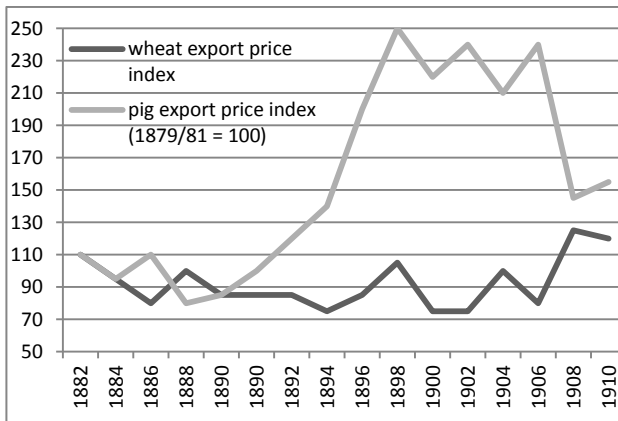
favourable for meat export, but overpopulation, the lack of processed food industry (to mitigate the effects of epidemics making for livestock export risky)³⁸⁵ and the political relations with Austria-Hungary made the utilization of these favourable circumstances impossible.

Figure 1. Changes in the availability of land



Sundhaussen, H.: Historische Statistik Serbiens, 234–35. 265. and Calic, J-M.: Sozialgeschichte Serbiens, 132.

Figure 2. Changes in export prices of main products



Sundhaussen, H.: Historische Statistik Serbiens, 234–35. 265. and Calic, J-M.: Sozialgeschichte Serbiens, 132.

385 Like in years 1854, 1859, 1879.

Table 5. Phases of Serbian agriculture: land availability versus population increase

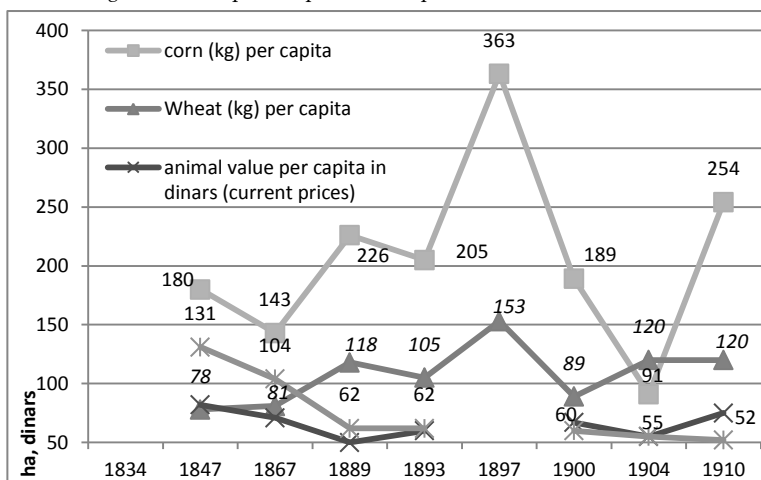
Period	Population increase	Increase of cultivated land	Net changes
1834–47	24%	36%	+10% growth of estate sizes
1840–60	21%	6% +20% cattle	-20% per capita grain consumption attempt to live from animal husbandry
1867–89	40%	40% -10% cattle -25% pig	Income/household from grain exports 2x, income/ha from grains 2x, exports and production per ha is stagnating (price fluctuations are determinative), costs of living are increasing unit prices of wheat are falling
1889–93	7%	80% -30% pig	Income/household from grain exports 4x, income/ha from grains 2x size of economic units +50%, temporary success of extensive grain production
1893–1905	20%	0%	yield/ ha +10%, failure of extensive grain production
1860–1911	180%	agricultural income: +80% per capita agricultural income: -30% real income per economic units: -20% real income per ha -60% cultivated area: +400% number of economic units: +90% population increase +150%	

Table 6. Changes in swine exports (at constant prices of 1860)

Period	Animal exports (million dinars)	Animals altogether (million dinars)	Exports measured to total animal population	Value of exported animals (million dinars)	Value of animals/capita (dinars)	Animal export per capita (dinars)
1859–60	10	79	13%	69	65	10
1871–75	17.4	72	24%	55	40	12
1879–80	12	74	16%	62	36	7
1896–00	8.3	46.2	18%	38	15	3.3
1911–12	8.5	43	20%	34	11	3

Modified after Palairet, M.: *Balkanskite ikonomiki*, 325.

Figure 3. Per capita output of main products in Serba 1847–1910



Based on Sundhaussen, H.: *Historische Statistik Serbiens*, 203.

It would be unwise to focus only on the monocausal explanations of ecological history-writing. Concepts stressing the activity of Austria-Hungary to create an economic vassal state from Serbia are also relevant in this question. Austria-Hungary often tried to exclude Serbian pigs from the markets of Austria-Hungary under the pretext of health condition of animals. The number of pigs exported to Austria-Hungary first rose from 67 thousand (1856) to 300 thousand (1886), then it fell back to 122 thousand (1901),³⁸⁶ owing to both the counter-strike of Hungarian agrarian lobby and the mentioned structural changes. But it is also true, that the export values still showed an upward trend until the “Pig War” of 1906: between 1884–93 the 57 000 exported cattle and the 200 000 pigs were worth 16.5 million francs, while between 1894–1905 the number of exported animals was only 36 000 and 122 000 respectively, but were still worth 26 million francs owing to the favourable price trends. Furthermore, the balance of trade of the state remained positive, which was very important for modernization.

³⁸⁶ Strausz A.: *Szerbia közgazdasági viszonyai*. Iparosok olvasótára. IX évf. 1–2 sz. Budapest, Lampel Róbert, 1902. 47.

Serbia's main problem was, that the state was deprived of free tariff-policy: the same tariffs were valid as in Ottoman Turkey. When the Serbs tried to increase tariffs to 5% in 1845, it was vetoed by Metternich. When Turkey successfully increased import tariffs to 8% ad valorem, it was not valid for Serbia, therefore the state introduced the *trošarina*, some kind of VAT. After gaining its political independence Serbia lost its economic independence in 1881 for further two decades and was prohibited to conclude any economic agreement without Austrian consent. The building of the Beograd-Niš railway line was also burdened on the Serbian treasury, while was advantageous for Austrian industrial import goods.³⁸⁷ By the time the Serbian economy became dependent from grain exports (*table 18*), Hungary just abandoned the price support of imported wheat (formerly the state paid back the tariff costs of each 100 kgs of imported wheat processed and exported as flour), threatening Serbian exports, although there was no direct political link between the two acts. Only the political turn after 1903 created a way out of this situation. Although Serbia and Bulgaria abandoned their plans to establish a free-trade zone (1904) under the heavy Austro-Hungarian pressure, but the Serbs refused to buy Austrian military equipment, thus the 'Pig War' broke out. Hungary forbade the imports of Serbian pigs and cattle (worth then 30 million francs), and Serbia had to find new economic partners in Europe. This explains the increasing Serbian territorial aspirations towards the Albanian coast and Macedonia.³⁸⁸ The long distance to Marseille, as new market forced Serbian exporters to invest into the food processing industry.³⁸⁹

Forced grain exports

Not only meat exports, but local meat consumption also decreased: in 1907 in Serbia meat consumption per capita sank to 25 kgs, while it was 51 kgs in Germany. (Meat was rather exported than consumed locally).

387 Calic, M-J.: *Sozialgeschichte Serbiens*, 122.

388 Stoyanovich, K.: *The Economic Problems of Serbia*, 22–24.

389 Strausz A.: *Szerbia közgazdasági viszonyai*, 47.

In Užice the proportion of meat from daily calory intake remained between 1 to 20%. The retreat of flesh in human consumption was evaluated by Abel, W. as the result of a „Malthusian demographic crisis“. Losses in exports had to be compensated somehow, but owing to the lack of industrial products only grains could substitute animal products in home consumption and in exports. Calic defines this phenomenon as “hunger exports”: the proportion of grain in exports increased from 1% in the 1840s, to 30% in 1910 (animal husbandry still gave 25%, *table 18*),³⁹⁰ while 28% of households suffered from food shortages early from October and this increased to 50% from January. In Zlatibor (1906) a 35% lack in calory intake was measured.³⁹¹

Wheat export was forced and after 1878 it was against the price trends. Flour had three times bigger added value than grains, but milling capacities were missing from Serbia, while the rival Hungary developed the largest in Europe. The quantity of Serbian grain exports doubled three times (*table 16*). First between 1865–80 from 50 to 100 thousand tons owing to new railway connections that broadened the market and due to the favourable price trends; the second jump took place contrary to price trends in the extensive period of 1890, the third, from 102 000 to 243 000 tons coincided with improving price trends, improving yield/ha³⁹² and land shortages after 1900.³⁹³

After 1880 while import per capita grew steadily, the agrarian output per capita and exports could not follow this.³⁹⁴ Marketed volumes remained small compared to Europe, where exports reached 17% of the NNI, while in Serbia the exports and internal markets *together* reached the same value (130 million francs out of 330, or 40% were marketed from the total agrarian production, and from this exports grew from 12%³⁹⁵ of the production to 20% by 1910).³⁹⁶ The Serbian agriculture

390 Lampe, J. R.–Jackson, M. R.: *Balkan Economic History*, 122.

391 Avramović, M.: *Selo u Srbiji*, 241–50. esp. 245.

392 From 0.9 t/ha to 1.1 t/ha.

393 Calic, M.-J.: *Sozialgeschichte Serbiens*, 116.

394 Sundhaussen, H.: *Historische Statistik Serbiens*, 346.

395 It was 25% in Bulgaria and 45% in Romania that time. The share of local markets was about 30% in 1900 measured to production and decreased to 15% by 1910, with stagnating quantities (referring to stagnating local consumption).

remained vulnerable, depending on external processes. The failure in intensification – up to the tariff war in 1906 – is marked by the attempts of sugar-beet production by the companies Solvay and Thurn und Taxis which remained unsuccessful owing to the Romanian and Austro-Hungarian dumping.

Table 7. Total (in 1000) and per capital animal population in 1898

Animal	Greece		Serbia		Romania		Bulgaria	
Sheep	2900	1.21	3094	1.32	5212	0.90	7060	2.14
Cow	370	0.15	915	0.39	2520	0.43	1200	0.36
Goat	360	0.15	525	0.22	n.a.	n.a.	1450	0.44
Horse	100	0.04	169	0.07	595	0.10	150	0.05
Pig	180	0.08	904	0.39	926	0.16	440	0.13

Based on: Szende Gy.: Földrajz-statisztikai tabellák a Föld összes államairól...

(iii) Transformation in the borderlands I.: traditional conditions and development driven by colonization processes (Bosnia)

The agrarian system in Bosnia was special from several aspects: first, the Muslim feudal elite survived here by making their fiefs inheritable. In Bosnia there were more than 3000 spahis in the 1720s and 50% of them was still wealthy enough participate in the Russian wars outside the boundaries of the province.³⁹⁷ Second, occupied Bosnia received huge amount of money after 1878, which was spent on the improvement of its economic performance (it was unique compared to other Balkan states). Third, animal husbandry played an important role in the improvement.

The fate of Bosnia more or less represented the future of Serbia, if it had failed to gain its independence. The number of landlords was 6000 in 1870 constituting 2% of the society, further 30% was free smallholder, while kmets (sharecroppers) constituted 50% of the population. Further

³⁹⁶ Export/farms grew from 70 kgs in 1867 to 600 kgs (or to 75-100 dinars) in 1910.

³⁹⁷ Skarić, V.: *Popis bosanskih spahija iz 1123 (1711)*. Glasnik Zemaljskog Muzeja u Bosni i Hercegovini 42, Sarajevo, 1930. 1-99. and Skarić, V.: *Postanak i razvoitak kmetstva u Bosni i Hercegovini*. Pregled. Sarajevo 11, 1937. Pregled, Sarajevo, 1937. 481-89.

18% of the earners was not involved in agriculture. Catholics and Orthodox were mainly kmets, while 75% of Muslims was freeholder. In 1870 23 thousand Catholic and 60 thousand Orthodox kmets and 75 thousand Muslim freeholders lived in the province beside the landlords. The position of the freeholders was not always favourable: it improved only from the middle of the 18th century, when they revolted against the state, that wanted to extend taxation on them beyond compulsory military service. Finally, the government acknowledged that Muslim freeholders were the part of the *askeri* order, and had to pay only the 12.5% state tax, which was lower compared to the 33% of Christian kmets working for landlords.³⁹⁸ (However, their land was also smaller). Tensions in the province were mainly of social character and not of religious prior to the 1870s.³⁹⁹ The basic turn was when military service was introduced to Christians as well, while their tax burdens did not decrease, and could not become owners of the cultivated land.

Generally, the region was poor, poorer than i.e. Bulgaria. Prior to the reforms of 1858 the following estate categories did exist. *Mülk* was free landholding not paying the tithe, but ranging only to 500 m² including the house of the producer. The kmets could have owned only these in case of a redemption realized without the dissolution of large Muslim landholdings (which did not happen even after the Austro-Hungarian occupation in 1878). *Üsherie* land was given to the conquerors or convertites, under the obligation of tithe-paying. *Kharadzhije* land was given to the subjected Christians paying the *cizye* beyond the tithe. The *miri* lands were owned by the state and given to the military elite in order to secure the financial basis of their service, but these were not inheritable (prebendal estates). *Vakuf* lands (lands of pious institutions) were also frequent. These financed the maintenance of roads, bridges, hospitals, schools from their revenues,⁴⁰⁰ thus had crucial role in social cohesion. As vakuf lands became *manus mortua*, thus cannot be mortgaged and taxed, while the donator retained the right of *ususfructus* in return for offering a certain amount of income, vakufs served as

398 Tomasevich, J.: *Peasants, Politics*, 108.

399 Malcolm, N.: *Bosnia. A Short History*. NY Univ. Press, 1996.

400 Asbóth, J.: *Bosznia és Hercegovina*. Budapest, 1887. 158.

asylum for peasants with debts. Spahis also adapted this strategy to make their lands inheritable. This abuse caused the loss of large sums for the central treasury. *Mevat* was uncultivated, *metruke* was communal land owned by the sultan, but used by the local people. These were not allowed to sell, but if a peasant planted some trees or built a house on these, he acquired the right to sell the products of the trees. Export of prunes gave an income of 12 million francs for the peasantry from such lands, while the total income from grains was not more than 50-60 million, thus it was not a negligible revenue source.⁴⁰¹

Although the hatt-i sherif of 1839 abolished spahiluk, thus for example the Čengić-family lost Zagorje as a timar, most of the former spahis was able to continue the practice of tax-farming up to 1851. Contrary to the spahi-landlords living in towns without strict control over the reaya, the janissaries settling down in rural areas were more cruel in doing this. In order to unify the regionally diverse burdens of peasants in 1848 Tahir Pasha introduced the *tretina*: one-third of the production had to be paid to the landlord, but in cash, which forced the peasant to market the products. This required the abolition of *corvée*. In North-Bosnia this brought some relief, but here it was the tax burdens that increased from the original 10%. With these changes large landholdings successfully exploited the possibilities in grain hunger of the West, while the peasantry became deprived of the surplus. But as the landlords still needed peasant work for their allodial lands, they revolted in 1849–50 against the reforms and after putting down the revolt Ömer Latas pasha abolished tax-farming once and for all.⁴⁰²

The law of 1858 triggered changes in this system. Kmetts could now redeem their *sessio* for money. They also got the right to buy *mülk* land or *miri* landholding, if they owned the trees or the house. The kmet settling on a *miri* land was not allowed to remove by force after 1858 (but was allowed to leave at his own will), unless he denied to pay the share of the landlord (still ranging from 25% to 50% after the deduction of seeds) or resisted to cultivate the land. Peasants were deprived of uncultivated land and this determined the size of kmet-landholding,

401 Sugar, P. F.: *Industrialization of Bosnia-Herzegovina, 1878–1918*. Seattle, 1963. 17.

402 Tomasevich, J.: *Peasants, Politics...* 104.

which was around 20 ha owing to the great share given to the landlord. Their obligations were similar to the *chiftchi* in Macedonia, and the corvée could reach even 3-4 days weekly. The size of Muslim freeholders' estate was somewhat smaller, around 8 ha, as they did not have to pay tax towards any landlords.

To find a way out from the new situation (which more or less secured the rights of peasants) the rebellious landlords began the transformation of *agaliks* (land distributed between peasants for a certain share from crops, similar to *chiftliks*) to *begliks*, large allodial estates merged from lands abandoned by peasant cultivators, plus the original *hassa* of *spahis* and *mevat* involved into cultivation, which were exempted from state tax-paying. Peasants were forced to cultivate these using corvée. The state tried to hinder this process with the regulations of 1862, but the maintenance of *agalik* was also harmful, because the reinstalled restrictions on free peasant migration resulted in overpopulation and low labour intensity on the *sessios*. Furthermore, these regulations increased the state's share from the tax from 10 to 20%. Since the landlords also retained their coercive measures to extract the revenues, thus – contrary to the laws – according to Paskal Buconjić, peasants in Herzegovina paid altogether 44% of their income to the landlord beyond the state's share even in 1875, and state corvée still existed even in 1872.⁴⁰³ This unresolved agrarian situation was one of the major causes of the revolt resulting in the Austro-Hungarian occupation of the two provinces.

Although after 1878 there was a possibility to redeem the land from the landlord through bank loans supported by the state, from among the originally 83 000 *kmets* only 28 thousand families were able to pay the redemption between 1879–1911, and further 13 000 in 1911–14, while still 96 thousand families were working on *agaliks* owing to the great reproduction rate.⁴⁰⁴ The Austro-Hungarian authorities avoided radical intervention (like land reforms), referring to the Berlin Treaty which

403 Sugar, P. F.: *Industrialization of Bosnia–Herzegovina*, 10.

404 Tomasevich, J.: *Peasants, Politics...*

secured the property rights of Muslims,⁴⁰⁵ as it was supposed that the Muslim landlords did not want to sell the land. This was not true, since many of them were prone to invest into industry, but unfortunately the kmets did not have capital to buy the land (according to Sugar's interpretation). The vakufs – places of many abuses – also survived after 1878 owing to the Treaty of Berlin, and the tax reform of 1875 (taxation based on the last 10 years yield average would have meant a decrease in burdens, as tax was usually overestimated prior to this) was only introduced in 1905.⁴⁰⁶ By 1910 the kmets constituting 33% of inhabitants had cultivated only 0.8 million ha (or 8.5 ha/family), or 16% of the total land (while the freeholders and landlords, 50% of the agrarian society owned 1.3 million, or 30%). State and treasury lands ranged to 1.5 million ha forest and 0.7 million ha land. The average economic units of both kmets (from 20 to 10 ha) and freeholders (from 8 to 6 ha) shrank owing to population increase reaching 33% between 1886–1904.

Table 8. Estate structure in Bosnia around 1906

Farm size	Freeholders	%	Kmets	%	Altogether	%
under 2 ha	97 000	51	19 000	20	116 000	41
2-5 ha	48 000	25	21 000	28	69 000	24
5-10 ha	26 000	14	27 000	28	53 000	19
over 10 ha	18 000	10	23 000	24	41 000	14
Altogether	189 000	100	96 000	100	285 000	100

Frangéš, O., von: Die sozialökonomische Struktur der jugoslawischen Landwirtschaft. Berlin, 1937. 149.

Thus, despite the efforts to promote redemption the number of kmets also increased by 33% within 25 years: in 1910 there were 137 thousand free families, and 110 thousand kmet families beside the 10 thousand landlords. Owing to the redemption the share of Muslims among freeholders decreased from 75 to 55%, but as 75% of kmets were Orthodox, the social structure was the most unfavourable among Orthodox inhabitants (table 9). From economic aspect the situation is

405 Fónagy Z.: *Bosznia-Hercegovina integrációja az okkupáció után*. Történelmi Szemle. 2014/1. 27–60. The same treaty also secured Muslim property in Bulgaria, but we have seen, that Bulgarians found a way to bypass it.

406 Asbóth, J.: *Bosznia és Hercegovina*, 145–46.

even more complicated as 50% of free peasants had less than 2 hectares, which was unsustainable from economic point of view (*table 8*). Thus the landsize structure of Bosnian freeholders was worse than in Serbia in 1897! Kmet landholdings were usually larger owing to larger tax obligations. If we take into consideration the family size and the differences in taxation we still get 23 thousand kmets and 45 thousand freeholders living in relative welfare, which is equally 25–25% of their group. So the statement, that Muslims enjoyed better conditions compared to Christians is only true for the large estate owners. Of course, there are examples confirming this statement. In Banja Luka 94 out of the 95 opština was kmet community, 80% of the 4400 families were Orthodox, but 80% of the 671 landlords were Muslim. 65% of lands was under 50 ha, all owned by Serbs.⁴⁰⁷

Table 9. Stratification of population according to farm size and religion (1000 persons)

in thousands	Orthodox	Catholic	Muslim	Altogether
<i>Large estate</i>	2	1	13	16
Freeholder	40	30	74	137
Shareholder	15	10	5	30
Kmet	60	16	4	80
Altogether	115	53	83	250+16
%	Orthodox	Catholic	Muslim	Altogether
<i>Large estate</i>	9	5	85	100
Freeholder	27	20	55	100
Shareholder	50	33	17	100
Kmet	75	20	5	100
Altogether	46	22	32	100
%	Orthodox	Catholic	Muslim	Altogether
<i>Large estate</i>	2	2	13	5
Freeholder	34	53	77	55
Shareholder	13	18	6	12
Kmet	52	28	5	32
Altogether	100	100	100	100

Stojavljević, B.: Prodiranje kapitalizma u selo, 35. Families employed in other sectors reached 60 000.

407 Plamenac, Z.: *Jauci sa zmijanja*. In: Selo i seljaštvo. Sarajevo, 1937. 171.

Extensification as response to the population increase was also limited: the extent of cultivated land grew only by 12% (while population increase was 33% between 1886–1904). Even in 1955 the amount of cultivated land exceeded only with 5 % the 1.5 million hectares in 1904. Leaving the social structure intact up to 1920, only intensification was considered as solution by Benjámín Kállay in order to reduce demographic pressure and social tensions. Between 1886–1904 per hectare outputs improved by 85%, while per capita output by 40%.⁴⁰⁸ It is unique compared to Serbia or Bulgaria or to Macedonia which had similar land-tenure system (although the original values were low in Bosnia).

Thus, another question to investigate is the productivity of these estates and the standard of living to understand whether the existing structures in Serbia or Croatia were attractive or not, as this could influence the sentiments and national affinity of the inhabitants in Bosnia. Based on the tithe data of Strausz, the total production could be estimated to 360 million piasters in 1865, while this was 400–500 million in Eastern Rumelia with similar population, 450 million in Serbia and 600–700 million in the Danubian vilayet.⁴⁰⁹ This means that effectiveness did not characterize the region, which is not surprising either, if physical geographical or social conditions are taken into consideration. Only 33% (1.8 million ha in 1910) of the 5.4 million ha land was under cultivation. Marketization was so weak that 27 out of the 47 districts still paid the tithe in kind.⁴¹⁰ The grain production was 500 thousand tons in 1886, this meant only 300 kg/ha (including the fallow land and other cultures). If we calculate with the average kmet landholding in 1910 (8.5 ha) and the mentioned increase in yields/ha, an estate like this produced 7 tons of grain, only twice as much as an estate of 5 ha in Serbia. And only 50% of this belonged to the producer after paying the taxes. Since the consumption of 6 persons reached 1.7 tons, while the seed was

408 Paláiret, M.: *Balkanskite ikonomiki*, 221.

409 The given value may be correct, since if the total value is divided by total production (500 thousand tons of grain), we get 140 francs/ton as unit price, which is realistic.

410 Strausz A.: *Bosznia és Hercegovina politikai, közigazdasági és földrajzi leírása*. Budapest, 1883. 227.

calculated 1.2 tons (20%), the average kmet hardly have any marketable surplus. (A free peasant with average units decreasing to 6 ha by 1910 produced similarly 3.6 tons of grain). This also confirms the role of alternative cultures, like prunes. Output reached 200 francs/ha (600 kgs), which was higher than from wheat.⁴¹¹ Tobacco also produced net 10 million piasters yearly, so diversification also contributed to the livelihood.⁴¹² If we compare this situation with that in Croatia or Serbia prior to 1848, we may find the Serbian model being more attractive.

Table 10. Total and per capita crop production in Bosnia

Year	Total crop production (million quintals)	Population (in million)	Per capita crop production (q)	Population density per km ²
1882	5.0–6.0	1.16	4–5.2	22
1910	17.5	1.90	9.2	37

Hauptmann, F.: Die Österreichisch-Ungarische Herrschaft in Bosnien und Herzegovina, 1878–1918. Wirtschaftspolitik und Wirtschaftsentwicklung. Graz, 1983.

Table 11. Per capita grain production in the Balkans in 1899 (kgs)

Bosnia	Croatia	Serbia	Styria	Dalmatia	Greece	Romania	Bulgaria	Macedonia
from 245 to 356*	414	378	228	97	110**	800	540	500–600

*1895/1910. ** 1880.

Demeter, G.: A Balkán és az Oszmán Birodalom, Vol. 3. 148. (table I.72.). Hauptmann, F.: Die österreichisch-ungarische Herrschaft in Bosnien...

But while in Croatia the situation ameliorated after 1848, in Bosnia the reforms did not decrease the burdens of peasantry. The tithe had already grown from 3 million francs to 7 million between 1865–75. After 1878 the cizye (1.5 million) disappeared, and income taxes decreased from 3.2 to 1.3 million francs, although state monopolies on salt, tobacco and coffee increased.⁴¹³ Most of the Christians perceived this as a tax decrease owing to their consumption habits, but the implementation of compulsory military service after 1878 resulted in a revolt. The

411 Asbóth, J.: *Bosznia és Hercegovina*, 164.

412 *Ibid.*

413 Strausz A.: *Bosznia és Hercegovina*, 203.

governor, Kállay was generally criticized that burdens on agriculture grew during his rule: population increase was 40% between 1880–95 while the tithe increased from 4 to 8.4 million francs and thus per capita tithe increased from 4 to 6 francs (+50%). But it is only due to the selection of the time interval. The increase of agrarian taxes under Habsburg rule was measured great because of the previous decay in 1875–78 and the subsequent classical 'restoration period'. Comparing the tax revenues choosing a year from the late Ottoman era, like 1874, the increase of tax revenues till 1895 (+20%) was similar to the population increase of the same era,⁴¹⁴ thus the accusations against Kállay that he overtaxed the population cannot be maintained.⁴¹⁵ The impressive increase in number of animals (+160%) and production (+150%) between 1878–95 is also the result of the restoration period and the methodologically incorrect selection of the time-interval. (If we compare these results with pre-war data, this increase, like of tax-burdens, is smaller).

Furthermore, not only agrarian taxes, but total agrarian output also increased by 60% after 1880 (from 116 million to 194 in 1914). Thus, per capita output also grew (*table 10*). The growth was partly due to the *increase in the output of animal husbandry* (this was not under taxation) and *special cultures*, like tobacco (the state income grew from 4.6 million francs in 1885 to 17.4 in 1910), but not owing to grain production, which was increasing, but per capita values were still low (*table 11*). (This is another difference compared to Serbia, Bulgaria or Macedonia). After 1890 as a result of the increasing population pressure the increase decelerated to 20% within 20 years, and per capita outputs also decreased by 10%. However, it was still above the value measured in 1879 (76 and 113 dinar/capita while state tax ratio fell from 12–20% to 10%), although the value of agrarian output/capita was smaller than the Serb or Bulgarian. The difference in GDP/capita between Bosnia and other regions was rather eliminated by the better performance of

414 There was a great emigration in 1878, then a wave of return after 1880, that is the reason of the two different data (20 and 40%) for the two different period.

415 Sugar, P. F.: *Industrialisation of Bosnia–Herzegovina*, 34–35. In 1878 many left the province, thus the population growth in 1874–1895 or in 1881–1895 also differed.

Bosnian industry. Agricultural products still constituted 50% of the export bucket, and although only some 10% of agrarian product was exported, this was low compared to Serbia and Bulgaria where it was 20% (+ further 15–20% was sold in internal markets).

(iv) Croatia, Slavonia, Slovenia and Dalmatia – the dissolution of communal lands

The numerous changes in the 19th century did not uniformize the Northwestern parts of Southeast-Europe, which were not only characterized by different landuse, but also by different structures, where transformation was neither synchronous (1848 for Bačka, 1853 for Slovenia, 1881 for the military district), nor led to the same direction. The geographical diversity determining landuse of the microregions, the differences in feudal services made the borderlands, this transitional zone integrated to different empires very mosaic-like (*table 12*).

Table 12. Landuse in the discussed region in the 1900s

Region	Arable land %	Meadows %	Pastures %	Woodlands %	Grape %
Slovenia	17	16	17	41	2
Dalmatia	11	1	46	30	8
Bosnia	24	9	12	50	1
Croatia	27	11	15	38	1
Slavonia	43	9	11	30	1,5
Bačka, Banat	69	6	12	12	1,2

Strakosch, S.: Lagen der Agrarwirtschaft in Österreich. Wien, 1917.

In the 1850s, during the great grain prosperity the lack of direct railway connections to Viennese markets accompanying with the radial construction of lines from Budapest linked the Croatian agriculture to trends in Hungary. Slavonia was cut off from Civil Croatian markets owing to customs formalities of the Military Border detaching the parts

from each other. Thus, the reorganization of these regions seemed to be reasonable, and it was further enhanced by Hungarian fears, that the Military Border regions would once again serve the political interest of Vienna as in 1848 did so. Therefore the Hungarian government tried to abolish all old privileges (and thus the economic viability of this region) on the pretext of propagating free economic development and its unification with Croatia.

In Slovenia and the western parts of Croatia feudal services (abolished in 1853) were not based on compulsory work and the collection of tithe (as it was in Hungary or the Balkans), but rather on services connected to the usage of forests and woodlands (*Servitutenrechte*). In the Carstic plateaus of Dalmatia, *contadinaggio* (a type of serfdom), was substituted by *colonatus*, in which sharecroppers cultivated the terraces dominated by wine and fruit production, owned by the urban (noble) elite in Dubrovnik.⁴¹⁶ The small forests of secondary vegetation (*Busch*) in North-Dalmatia made forestry and animal husbandry unprofitable compared to the mountains in Styria and Carinthia or in Bosnia. The latter with its high mountains and the lack of tax on animals offered a splendid opportunity for peasants to earn extra income: there 50% of the arable land remained 'fallow' (in fact it was utilized rather by husbandry owing to high taxes on grain) even in the 1900s, explaining the relatively low grain yields/hectare.⁴¹⁷

The abolishment of feudal rights in order to shift from self-subsistent economies to farms producing for markets took place in different ways and in many regions this shift was still not finished by 1910. The transition to capitalism in Slovenia was based on milk-producing smallholdings, in Vojvodina based on large estates, while in Croatia the persistence of smallholdings did not result such an outcome (self-subsistence remained significant). The share of large estates from lands was 12% in Slovenia,⁴¹⁸ 15% in Croatia, while it grew to 22% in the

416 Katus, L.: *A mezőgazdaság tőkés fejlődésének főbb vonásai az Osztrák-Magyar Monarchia délszlávlakta területein*. Történelmi Szemle, 1959/2–3. 362.

417 *Ibid.* 364.

418 Estates over 100 ha ranged to 40% of the land in Carinthia and 22% in Krajna. *Österreichische Statistik, Neue Folge*, vol. LXXXIII.

Vojvodina by the 1870s, although a century ago freeholders dominated the area. There were also differences in the composition of large estates: in Croatia 66% was dominated by woodland, while in Bačka (Vojvodina) arable land constituted 66% of large estates, and both were producing for markets: Croatian tree exports exceeded 30 million francs by 1895 (wood was important also in Bosnia).

This was the era of the *dissolution of communal property*. The extent of these was not insignificant in these regions. Although in Hungary its proportion was only 14%, but in Croatia it was 27% (70 % of pastures in Croatian and 40% of woodland), and it had similar significance in Serbia. The abolishment of feudal rights went hand-in-hand with the redistribution or redemption of these communal lands, partly due to population pressure (in the military border in 1819 36% of farms were over 10-16 ha, while in 1895 it decreased to 10%), partly to promote the development of private property and market processes. These changes were not always favourable for peasantry. In Bosnia 2 million ha of **communal** forest was turned into state property after 1878 (partly to prevent the general overuse), peasants received initially 50% of the profits in forestry (*baltalik*), but this decreased to 33% by 1913 (1.2 million m³, 2 million francs or 1 franc per capita). In Slovenia peasants received only 26% of their former forests and just 16% of the pastures. Furthermore, these small parcels were often surrounded by large estates, thus peasants had to sell their share within few years at low prices.⁴¹⁹ In the Military District the state forests (0.65 million ha) worth 500 million francs were divided, but the peasants receiving 50% of the total woodland, demanded all (while the state wanted to prevent these forests from illegal overuse). In Dalmatia the communal forests and pastures ranged to 700 000 ha (57% of total land), but only 10% was distributed until 1910.

Generally, the dissolution of community land resulted in the abolishment of life-long military service and state corvée, but on the other hand new taxes were introduced, soldier-peasants lost their privileges on distilling spirits, selling tobacco, and smuggling was also

419 Katus, L.: *A mezőgazdaság tőkés fejlődésének főbb vonásai*, 367–68.

forbidden. These resulted in unrest in 1871 and 1883. The *zadruga* was also abolished, but this decision was soon withdrawn (1889) owing to its risk (in Bosnia and the military border for example only *zadrugas* were entitled to get/cultivate land as a contractor party). This also means, that here the self-subsistent traditional peasant economy also survived within certain limits, but these lands showed worse performance compared to other.⁴²⁰ On the other hand, due to the new circumstances 17 000 peasants decided to dissolve the *zadruga* by their own will (illegally) and this resulted in smallholdings under 2-4 ha (such small estates were forbidden to establish). Thus, the traditional animal husbandry of the military border along Sava River, based on community lands was also ruined. Thus, existing *zadrugas* (especially strong in Orthodox regions, like Lika, where 70% of the families were living in *zadrugas* even in 1895) soon began to decline. An average family had then 7 members by 1850-1900 (it was 14 in 1780 in the villages of Turopolje).⁴²¹ Though the process showed regional differences (in Varaždin in Slavonia *zadruga* members constituted only 1% of the society), in 1915 (including the military district) still 112 000 *zadruga* existed in Croatia with 0.85 million members (40% of peasantry cultivating 36% of the land).

Though communal lands were dissolved, but the advanced fragmentation of farms hindered the formation of modern farming and private property. Furthermore, the land in the military district remained *manus mortua* (like the *okučje* in Serbia), the original *sessio* (16 ha) could not be sold (only the land surplus, the *Überland*), hindering the accumulation of land as capital.⁴²² Here the large landholding was completely missing and ranged only to 5% even in 1895.

There were evidently progressive consequences of the changes as well. The abolishment of *contadinaggio* in Dalmatia included the abolition of *corvéé* (90 days a year, after 1836 it could be redeemed for 10 golden forints). By 1902 35 000 persons worked as shareholders (*colonus*) on 42% of farms and 40% of these lands were wine-producing.

420 Vrbanić, F: *Prilozi gospodarskomu razvoju*, 40–131.

421 See: Grandits, H.: *Familie und sozialer Wandel im ländlichen Kroatien*. Böhlau, 2002. 90.

422 Katus, L.: *A mezőgazdaság tőkés fejlődésének főbb vonásai*, 369.

The *coloni* had larger farms, than freeholders (45% of farms under 1 ha), but the former paid 33% of the product to the owner.

The changes were fruitful in Bosnia as well, where potato yields increased sixfold and prune production reached 6 million francs. In Croatia grain output per capita grew from 3.6 hl (1806–1818) to 5.4 hl in 1888–1895,⁴²³ balancing the unfavourable price trends (due to the declining price trends incomes from grain did not grow!), and the advanced fragmentation of farms (in 1819 only 19% of estates was under 4 ha, in 1895 this grew to 39% along the military border).⁴²⁴ The number of animals increased by 80% within this period, which was smaller than population increase. Goat number (referring always to poverty) decreased by 80%, while the number of horses grew by 125% as a favourable effect of the military district. Despite the decrease in animal population per 1000 prs (450–490 cattle/1000 prs, while this was 690 in Bosnia, the leader of the region in this respect), the animal exports of Croatia grew from 83 000 to 178 000 cattle, or from 7 to 45 million francs between 1900–1913. (Exports reached 200–300 000 animals in the neighboring Bosnia ranging to 33 million francs).

In Slovene lands cattle-breeding was even more advanced, such as the agrarian cooperative movement: it had 200 000 members in Slovenia while only 65 000 in the larger Croatia, offering 46 and 16 million francs loan respectively (with 210 and 40 million francs deposit).

Renting (arable) land was rare in Croatia (only 10%), which means that the transformation to monocultural large estates was not finished here. Not surprisingly then, the amount of loans was only 78 million francs, while this reached 412 million in South-Hungary by 1910.⁴²⁵ In Croatia 80% of engines operated in large estates, which means that the modernization of smallholdings did not begin (unlike in Hungary, where 48% of engines were applied on smallholdings!). Contrary to these data smallholdings performed well in Croatia. The sown area of wheat doubled between 1886 to 1913, and that of the potato increased by +180% (reaching 136 000 ha), while the increase of yields was even

423 *Ibid.* 385.

424 *Ibid.* 370.

425 *Ibid.* 380–81.

higher than this, +200% and +310% respectively. The wheat output of large estates grew by 60–75%, but this was tripled on smallholdings (reaching 1.1 t/ha). Thus, small farms also could participate in market processes in Croatia at a certain extent despite their lack of modernization. Furthermore, the proportion of landless was relatively small (128 000 agrarian wage labourers, versus 318 000 freeholders) compared to South-Hungary (221 000 labourers versus 150 000 freeholders).⁴²⁶ On the other hand, this did not mean that agriculture was able to suck up all labour force: more than 200 000 persons left Croatia and 85 000 left Slavonia between 1900–1914, while in South-Hungary emigration was under the country average. Internal migration was also significant: woodcutters from the Orthodox Lika regularly went to Slovenia, as their small parcels were unable to sustain their family after the dissolution of *zadrugas*.

Estate size was often in connection with ethnicity, which helped politicians link the social issues with nationalism. Large estates in Bačka were hardly ever owned by Serbs (4 owners, compared to the 71 Magyars and 11 Germans). The abolition of serfdom in 1848 did not mean the redistribution of allodial lands (only the non-allodial *sessio* cultivated by the peasant was distributed), and this created numerous wage labourers without land (in Subotica 13 000 out of the 20 000 peasants had no land).⁴²⁷ In 1919 in Slovenia the 41 non-Slovene large estate owner owned 53% of large estates (in size).⁴²⁸

So, the agriculture of Croatia was different from the Hungarian, partly because of its geographical diversity, partly because of structural differences. Slavonia was similar to the Hungarian plains, in Srijem high grape (even higher than in Hungary) and grain outputs were measured, while in Croatia the newly introduced potato, forestry and animal husbandry was dominant. The distribution of land was also different in these 2 sub-regions: in Slavonia the proportion of smallholders under 5 hectares was the smallest in whole Hungary, but large estate owners

⁴²⁶ *Ibid.* 382–86.

⁴²⁷ *Stojsavljević, B.: Prodiranje kapitalizma u selo*, 30–32.

⁴²⁸ *Magyar Statisztikai Közlemények. Új sorozat*, Vol. 56. 431–54. *Statistički godišnjak Kraljevina Hrvatske i Slavonije u 1905*. Zagreb, 1913. 326–27.

were also rare. Contrary to this, in Croatia inequalities were greater: the proportion of farms under 3 ha was double of the Hungarian % value. There were not any significant changes in distribution of land until the end of WW2. In 1931 still 40% of the farms were under 2 ha (similarly to the 1910s, *table 13*).⁴²⁹

Table 13. Distribution of lands in Croatia around 1900

	under 3 ha	3-5 ha	5-10 ha	20-50 ha	over 50 ha	Total (ha)
farms %	44	27	20	7.5	1	407 403
land %	8.5	17	24	18	31	4 663 000

Karaman, I.: Uloga malog i srednjeg poduzetništva...

The level of mechanization was lower in Croatia than in Hungary, where 80% of grains were processed by steam engines, but was only 50% in Slavonia and some 25% in Croatia (the latter was characterized by high animal numbers). Agrarian density was much greater in Croatia than in Hungary (600 vs. 430 persons per 500 ha), partly due to different social structure⁴³⁰ and partly due to the lower percentage of cultivable land. Thus, average farming incomes generally did not exceed 60–70% of the Hungarian averages in terms of income per persons, although incomes per ha were similar: 110-160 francs/jutar in Croatia, 130 francs on average in Hungary. But the net income of an agrarian employee was 300 francs in Hungary in 1900, the gross output per agrarian earner was 1,000 francs – in Croatia it was 200 and 600–900 francs respectively with the exception of meadows, which performed generally twice better in Croatia than in Hungary (*figure 5*).⁴³¹

429 *Karaman, I.: Uloga malog i srednjeg poduzetništva u oblikovanju kapitalističkog privrednog sustava na tlu Hrvatske. Povijesni Prilozi 9, 1990. 1–36.*

430 The difference between Croatia and Hungary is smaller if not income/agrarian earner, but income/agrarian population is measured, as the proportion of helping family members was much higher in Croatia referring to the traditional structure of smallholders.

431 *Nagy M.: A magyar mezőgazdaság regionális szerkezete a 20. sz. elején.* Budapest, 2003. Appendix.

(v) Transformations in the borderlands II: Macedonia – the alternatives of shrinking grain exports

As in Bosnia, in Ottoman Macedonia *chiftlik* type large estates played a great but declining role. In 1894 16% of the population was in connection with this form, which decreased to 80 000 persons, or 10% by 1903. But the extent of involved land was way larger. In Bitola only 15% of the villages were organized in *chiftliks*, but 50% of the land belonged to this form, and as further 30% was considered as *vakuf*-land, this means that the estate of free peasants was very small. In 1910 estates under 1 ha reached 33% of economic units, while 1.3% of landowners owned 35% of the land in 1910. Altogether 80% of farms were under 5 ha, which is worse than in Serbia or Bulgaria (65%). Beside the large estate owners, only 10 000 free peasants subsisted (*table 14*).⁴³² Most of the peasants were unable to subsist due to heavy taxation (*bedel-i askerie* or military exemption tax had to be paid after children as well) and land scarcity, they had to search for alternative ways of livelihood, like seasonal migration, banditism, industrial occupation, or simply apply for work in a large-estate. It is also not surprising that Macedonia experienced substantial internal and overseas emigration: between 1902–06 25 000 males (or 10% of workforce) left the country.⁴³³

The *chiftchi*, shareholders of Macedonia paid 50% of the harvest either in cash or kind after the deduction of seeds and state taxes (ranging to 12.5%+20%), and he was also compelled to *angariya* (corvée). These peasants owned only the draft animal and the house. Those who lost their equipment, became daily wage-labourer: *momak* (*hamal*).⁴³⁴ Contrary to Bulgaria, agrarian wages remained low. In Leskovac the *momak* had to sustain his family from yearly 200 francs⁴³⁵ and 1 ton of grain, worth altogether 400 francs. *Momci* received only 800–1000 oke grains worth 200 francs and 10 francs in cash in Radomir too. The *hamal*,

432 Strauss, A.: *Grossbulgarien*. Posen–Leipzig–Budapest–Konstantinopel, 1917. 52–60.

433 Adanir, F.: *Die makedonische Frage ihre Entstehung und Entwicklung bis 1908*. Wiesbaden, 1979. 41.

434 *Ibid.* 35–39.

435 Stojančević, Vl.: *Društveni položaj seljaštva u Niškom i Sofijskom sandžaku 1877–1878 godine*. Istorijski časopis, 1974. 165–85.

though did not lose his right for free move or for alternative earnings, was forced to give a share from his wage earned in industry to the landlord.⁴³⁶ Nevertheless this inequality enhanced social tensions.

The persistence of chiftlik – beside the social conditions – was due to the fact, that contrary to grain price decrease it provided secure (but low) incomes: while in case of applying *wage-earners* on large estates, expenditure cost 65 'units' and produced 90, resulting in 25 units profits, in case of using *shareholders* it resulted 40 units income (after dividing the crop between the contracting parties) and no expenditure.⁴³⁷

It is evident from the report of the Patriarchate that in Macedonia prior to 1878 the Slavic population owned less land compared to their proportion of the population even compared to 'Greeks'. In Vodena district this conscription mentions 5800 Greeks, 23 000 'Graecophile' Bulgarians and 1800 Bulgarians, the latter two groups without any substantial land.⁴³⁸

In 1878 altogether more than 300 villages (55% of the total)⁴³⁹ were liberated from seviccs to landlords, when attached to Serbia.⁴⁴⁰ In territories remaining under Ottoman rule the number of chiftlik villages reached 50% from total (Prilep: 61/131, Petrich: 31/40, Melnik 53/72). It is not suprising that these regions soon became the hinterland of IM(A)RO, the left wing of which was socially more susceptible (Sandanski), than the right wing that emphasized the necessity of unification with Bulgaria (Protogerov).

436 Strauss, A.: *Grossbulgarien*, 52–60.

437 Adanir, F.: *Die makedonische Frage*, 35–41.

438 *Correspondence respecting the Objections raised by Populations inhabiting Turkish Provinces against the Territorial Changes proposed in the Preliminary Treaty signed at San Stefano. Presented to both Houses of Parliament by Command of Her Majesty*. London, Harrison and sons, 1878. 61. cites: Memorandum des Sylogues Grecs de Constantinople. Jean D. Aristocles, 6 Avril, 1878. M.A.H. Layard, Ambassadeur de Sa Majesté Britannique à Constantinople.

439 Formerly in the district of Niš there were 50 chiftlik-villages and only 16 village of freeholders, in Vranja the number of chiftlik-villages was 65, while 98 was free.

440 *Stojančević, VI.: Društveni položaj*, 176.

Table 14. Distribution of land (385 000 ha) in Macedonia in 1912.

Macedonia	Farms	Farms %	Land %	Macedonia	Farms	Farms %	Land %
0–1 ha	31 720	33	3.5	10–20 ha	764	0.8	3.1
1–5 ha	45 200	47	29	20–200 ha	1100	1.2	19
5–10 ha	17 160	18	31	above 200 ha	177	0.1	15

Data from Strausz, A.: Grossbulgarien....

Furthermore, after the collapse of grain prices (1880s) agriculture started to shrink in the three Macedonian vilayets, while the state needed extra revenues to pay indemnity, loans, or finance provinces with deficits, etc. In Kosovo vilayet still 50% of central revenues came from land tax, referring to a traditional social and economic structure, while its share decreased to 25–30% in the more industrialized Saloniki and Monastir. Akarli proved that tendencies of reindustrialization between 1878–1900 resulted in a 15–20% decrease of rural population. Thus, although per capita grain output increased by 20%, this still meant the stagnation of total grain volume and also a 15% decrease of total revenues owing to the falling prices weakening the position of the agrarian elite. Parallel with the 40% increase of total taxes this meant a 70% increase of per capita burdens within 10 years (1890–1903)! Thus the economic reasons behind the Ilinden uprising in 1903 are evident (table 15). While in the 1850s 30% of the grains was exported, this fell back now to 5% (even imports occurred),⁴⁴¹ which is even lower than the Bosnian 10%, clearly indicating the future unsustainability of the existing socio-economic formations.

Table 15. Land tax and agrarian output in Macedonia

Year	Tax income	Rural population	Tax per capita	Grain price index	Grain production (million t)	For one inhabitant (t)	Tax burden index
1888–1890	41.5 million	2.04 million	20	100	1.1	0.5	100
1901–1903	58.3 million	1.7 million	34	85	1	0.6	170

Modified after Akarli, A. O.: Growth and retardation in Ottoman Macedonia 1880–1910, 121.

441 Akarli, A.: *Growth and retardation in Ottoman Macedonia 1880–1910*. In: Pamuk, S.-Williamson, J. G. (eds.): *The Mediterranean Response to Globalisation before 1950*. Routledge, 2000. 121.

The central incomes, population and yields/ha in Macedonia in the 1900s were similar to the Bulgarian values in the 1860s, thus Macedonia lagged behind some 40 years measured to Bulgaria. There was one major difference: grain prices, which were higher in the 1860s. But this also meant that in order to produce the same amount of central income as in Bulgaria in the 1860s, the government needed higher tax ratio in Macedonia! Even the reforms of the Powers did not bring relief. Although in Bulgaria the tithe per farms grew from the average 100 grosh to 270 between 1864–1867/68 and it was only 80–120 in Macedonia in 1903–1906 (per capita tax decreased from 34 piasters back to 21), thus one would conclude that the situation was ameliorating in Macedonia, other forms of taxes, tax-arrays (that could reach 25% of the total provincial budget!), the obsolescence of the land-tenure system, the product composition and the survival of tax-farming and illegal practices made *the situation for the peasant intolerable* under Ottoman rule.

As for overtaxation, the tax of Küchük Seymen (Silivri, Thrace) chiftlik (500 ha) was farmed out for 50 000 grosh, but 70 000 was collected⁴⁴² resulting in a 40% profit rate. For the peasant this simply meant that the state tithe was 20% instead of the official 12.5%, beside the military exemption tax and the state schooling tax, which grew from 1.5% to 6% (although the population rather visited religious schools maintained by either the Patriarchate or Exarchate). Furthermore, Christians had no chance to interfere into the course of events, as prior to 1903 only 10% of the gendarmerie was non-Muslim. 30 out of the 40 Macedonian representatives in the Parliament were Muslims even after 1908.⁴⁴³ Nedkov, the Bulgarian consul enumerated several examples of overtaxation: Apostol Georgiev with his family of 10 paid 300 grosh after 1.5 ha arable land⁴⁴⁴ (meaning 20% without the military tax, goat-tax and vergi, which totalled another 250 grosh). If he produced grain,

442 Razboynikov, A.: *Chiftlitsi i chiftligari*, 176–77.

443 *Istoriya na Balgarite v dokumenti*, Vol. I/2. 35. and 38.

444 *Ibid.* I/2. 80–81. ref. *Central State Archives (Sofia)*, fond 321, Inventory 1. archival unit 1616. I. 2–13.

this would only create 300 francs income, which is low to feed 10 people.

Many illegal practices prevailed (on both sides). Forced auctions were frequent even for small debts. In these cases the peasant was deprived of the land, but the difference between the value of the debt and the land was not paid to the peasant, who was turned a chiftchi (shareholder) from being an owner. When the villagers refused to pay the beglik (goat-tax) unilaterally increased by a landowner, Jusuf bey, he gave the pasture to Muslim *muhadjirs*, who expelled the local inhabitants. In Kumanichevo conscriptions did not indicate chiftliks, but a bey from Nevrokop insisted on collecting 25% of the harvest.⁴⁴⁵ If the state was unable to maintain security and lawful order, Albanians were hired by local people to do so (Mavrovo, Tetovo district) and to protect private property from plunder, but the weakening of public security meant extra costs (not only at local level, but at macro level as well: the budget of the three vilayets showed serious deficits in 1903–06 owing to high military and security expenses).

The decline of chiftlik system continued after 1903 owing to emigration (Macedonian workers in the USA sent home yearly 70–100 liras) and the collapse of public security. As a result of the latter in Kosovo vilayet only 0.4 million hectares were under cultivation out of the 3.2 by 1912.⁴⁴⁶ In 1907 in only 8.5% of the total arable lands in Ottoman Turkey was sown with cereals, referring to a change in product composition and the obsolescence of grain, as merchandise.⁴⁴⁷ While the rural population of the 3 vilayets decreased by 10%, the Jewish population (as proxy for the urban – industrial – economic situation) increased by 40% between 1896–1903. Muslim owners rented their landholdings often to Jews.

Since producers used ralo and the output ratio of grain was under 6:1, the total output per ha never exceeded 200 francs in case of wheat. It is also not surprising why IMRO encouraged the production of tobacco and opium in areas under his rule, compelling peasants to abandon

⁴⁴⁵ *Ibid.* Vol. I/2. 88.

⁴⁴⁶ Strauss, A.: *Grossbulgarien*, 52–60.

⁴⁴⁷ Tomasevich, J.: *Peasants, Politics*, 124.

their original product structure (although this had already started earlier, without the encouragement of the organisation). Greater rationality of poppy seed can be underlined by the fact, that 1 ha produced 10–15 kg opium (with unit prices of 25–30 francs), thus the output per ha reached 250–450 francs. The total opium output of the Skopje sanjak was 100 000 kgs or 2.5–3 million francs. Altogether 100 thousand farmers participated in tobacco in Macedonia growing on 30 thousand ha resulting in 30 thousand tons total production. Owing to the external demand and intensification in labour the output increased from 640 kgs (1890) to 1100 kg/ha (unit prices also grew indicating a real prosperity, not a shortage-induced price increase). This resulted in 700–1200 francs/ha output or 350–600 francs/farmers with averagely 0.5 ha (table 16). Thus, the labour intensive tobacco production was a possible outbreak for smallholders. Even daily wages were larger than in case of *momci* cultivating wheatland; monthly wages rose up to 250 francs (40 piasters/day). But on the other hand, this was a capital intensive investment too: tobacco lands were sold at 100–2000 leva/dönüm, while arable land was only 100 leva – this limited the spread of tobacco.

Table 16. Income from tobacco in S-Macedonia around 1910

Area	Farmers (1000)	Land (in 1000 dönüm)	Production (in 1000 t)	Production value (in 1000 francs)	Land/farmer (dönüm)	Production /farmer (t)	Income / farmer	Income / ha
Kavala-Nevrokop	36.7	128	15	19 909	3.5	0.40	542	1500
Xanthi-Deridere	28.6	134	6.8	10 350	4.7	0.23	361	730

Data: Strauss, A.: Grossbulgarien, 64–66. 1 dönüm = 0.1 ha.

Local examples also underline the profitability of opium trade. 3 ha produced 25 oke of opium, the total costs reached 530 dinars (collecting was 12 dinar/oke, tilling-sowing 80 dinars) meaning 21 dinars/oke, while the market price of opium was 60 dinars⁴⁴⁸ – the profits reached 60% of the income! A merchant trading with the output of 1000 ha (8000

448 There was a great difference between the market price of opium and poppy seed: the unit price of the latter was 0.5.

oke opium and 160 000 oke poppy seed) could earn an income of 0.5 million dinars while the expenses were 0.17 million.⁴⁴⁹

The average income of peasantry can be calculated from the visitation data of the Bulgarian school-inspector, Vasil Kanchov. Without animals and grape the income varied between 1000–3000 grosh/family showing a regional diversity (*table 17*). As comparison, in the chiftlik of Küchük Seymen 2500–3000 piasters was calculated for units of 4–6 ha in 1910.

Table 17. The regional distribution of the value and composition of rural incomes in Macedonia, 1890s

1890	Sown grains in uvrat,	Grain output in oke	Sown tobacco, poppy, cotton in uvrat,	Tobacco, poppy, cotton output	Population	Grain output (oke/uvrat)	Other output	Grain oke / prs.	Other product oke/ prs.	Income / family in piasters
Seres kaza + Nigrita	325 600	33 000 000	30 000	1 200 000	88 000	101	40	375	13.6	2796
Zikhna kaza	55 000	7 100 000	470 000	1 650 000	32 600	129	3.5	218	50.6	2991
Demirhisar kaza	100 000	8 400 000	12 000		50 000	84		168	0	1028
Petrich kaza	116 000	12 000 000	11 000	606 000	39 000	103	55	307	15.5	2043
Melnik kaza	52 000	6 300 000	3000	86 000	26 000	121	28	242	3.3	1965
G. Dzhumaja kaza	80 000	82 00 000	18 000	550 000	29 000	102	30	282	19	1983
Nevrokop kaza	200 000	23 000 000	7000	550 000	76 300	115	78	301	7.2	1723

Based on Kanchov, V.: Makedonija. Patopisi. Sofia, 2000.

1890	Horse, oxen	Sheep, goat, pig	Animal / capita	Animal / capita	Wool in oke	Vineyards in uvrat	Grape in oke	Grape (oke/dönüm)	Grape / capita (oke)
Seres kaza + Nigrita	180 000	380 000	2.05	4.32	180 000	25 000	12 500 000	500	142
Zikhna kaza	12 000	153 000	0.37	4.69		6880	4 000 000	581	123
Demirhisar kaza	14 000	194 000	0.28	3.88		6500	3 000 000	462	60
Petrich kaza	25 000	116 800	0.64	3.00		1200	480 000	400	12
Melnik kaza	8700	81 000	0.33	3.12	30 000	13 600	5 440 000	400	209
G. Dzhumaja kaza	30 000	123 000	1.03	4.24					0
Nevrokop kaza	3800	186 000	0.05	2.44					0

1 kg grape is 0.1 frank or 0.5 grosh. 1 oke of tobacco = 6–10 grosh. 1 uvrat here = 1000 m² = 1 dönüm.

449 Németh, J.: *Szerbia egyetemes leírása*. Budapest, 1919. 344–45.

(vi) Forced grain exports against price trends

The alternative of grain exports soon became an exigence in Balkans: while import per capita grew steadily, the agrarian output per capita and exports did not.⁴⁵⁰ It meant that greater and greater proportion of income was spent on import products measured to incomes, and this led to the indebtedness of the society. Serbian domestic urban markets (90 million dinars) in the 1890s were more intensive than foreign markets (40 million). An urban dweller spent 200 francs yearly (compared to the tax of an urban earner reaching 88 dinars, and their income, 1000 dinars it is not negligible), while rural inhabitants spent only 45 dinars on agrarian products (peasants realized only 30% of their income in cash based on the marketed volume). Even the decrease of taxes could not promote production and marketing.

Table 18. Grain export periods in Serbian economy

Period	Export in t	Reason
1862–1865	500	Mainly domestic consumption. Grain exports are overshadowed by animal exports.
1865–1870	27 500	
1871–1875	11 000	
1881–1885	42 000	First export upswing caused by the construction of Belgrade-Niš line – cheaper transport.
1886–1890	58 000	
1891–1895	128 000	Second export upswing caused by the extensive period in agriculture.
1896–1900	121 000	
1901–1905	102 000	
1906–1910	243 000	Third export upswing caused by increasing yields and foreign prices.
1911–1912	210 000	

It is questionable whether under the given circumstances – the agrarian output increased altogether by 66% between 1865–1910 from 217 to 340 million dinars, while the population increased by 200% in Serbia – grain production was profitable or not. The Hungarian prime minister with evident agrarian interests, István Tisza pointed out that in

⁴⁵⁰ Sundhaussen, H.: *Historische Statistik Serbiens*, 346.

Austria-Hungary the consumption of grains has doubled between 1871–90, but per capita expenses on bread were stagnating, because the prices were also halved (*table 19*). This may increase the living standard of urban/industrial population but was unfavourable for the producers (in this case it includes the large estates of the nobility).⁴⁵¹ By the time the Hungarian river regulations were over and plenty of lands became available (especially for the political elite, like Andrásy, Tisza or Lónyay families), wheat prices began to fall. (The effects of regulations also ruined many small-peasants, wetlands and animal husbandry as well).⁴⁵² Bulgarian and Serbian smallholdings were even more unfavourable for wheat production, because of the lack of capital and mechanization. Van Zanden stated that the abundance of harvesters and threshing-machines in Hungary – the by the existence of large parcels made the application of machines possible – was driven by the will of Hungarian producers to antecede their Balkan rivals in the markets. In the 1840s Hungary was only able to export (excluding Austria from this calculation) 5% of its grains, while it was 30% in case of Bulgaria and similar in Macedonia. While exports from Hungary to Austria showed a fourfold increase in 1843–82 and grew by another 50% till 1896, the share of export to foreign countries sank from 20 to 10% by 1896 and to 5% in 1912. Therefore the Austrian markets were of vital importance for Hungary, and this led to the active participation of the grain producing nobility in political life. (The change in this situation after 1920 endangered the positions of the ruling class).

Table 19. The impact of oversupply on prices and consumption in Hungary

Austria-Hungary	Production (million hl)	Exports (million hl)	Exports in % of production	Consumption in million hl	Consumption per capita	Wheat price (Budapest franc/quintal)	Value of consumption /capita
1871–75	30	0.1	0.3	30	0.83	12.7	10.5
1886–90	62	6	10	56	1.4	8	11.2

Calculated after Tisza, I.: *Magyar agrár-politika. A mezőgazdasági termények ... Budapest, 1897.*

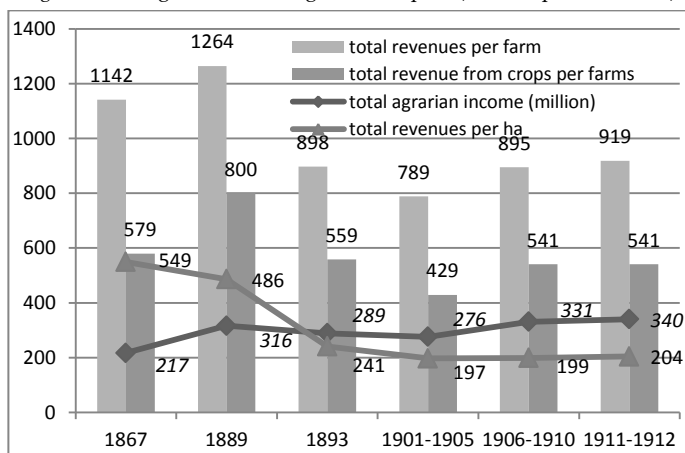
⁴⁵¹ Tisza, I.: *Magyar agrár-politika. A mezőgazdasági termények árhanyatlásának okai és orvosszerei.* Budapest, 1897. 12.

⁴⁵² Pinke Zs.: *Alkalmazkodás és felemelkedés – modernizáció és leszakadás – kis jégkorszaki kihívások és társadalmi válaszok a Tiszántúlon.* PhD-dissertation, 2015.

Unlike Hungary, the Serbs did not have the luck to have an integrated, protected market. The Serbian grain export reached only 12.5% of the total output in 1900 due to the population pressure, while it was 26% in Bulgaria and 46% in Romania (*table 22*). The export amount per 'average' economy grew from 70 kgs to 370 kgs (35–50 dinars) between 1867–93, then it reached 600 kgs (or 75–100 dinars) by 1910, or 16–20% of the total output. The yields/ha also increased and were similar to the Bulgarian: 810–880 kg/ha in 1896–1907 and 1100 kgs in 1911. In Bulgaria the draft power was somewhat greater⁴⁵³ and families were smaller, thus per capita output was greater here.

In regional comparison, while the per capita agrarian GDP fell from 186 to 130 francs in Serbia from 1860 to 1910 (*figure 4 and 6*), in Hungary it grew to 200–240 by 1910 from 150 according to László Katus. As the production structure was quite similar (both countries turned from animal husbandry to grain production) it was the (1) agrarian structure (smallholdings versus large estates), (2) the differences in population pressure (the Hungarian reproduction rate was smaller, *table 22*), (3) land quality and the (4) technical level (mechanization) that were responsible for the differences.

Figure 4. Changes in Serbian agrarian outputs (in fixed prices of 1910)



Calculated from the data of Palairet, including animal husbandry

453 Palairet, M.: *The Balkan Economies*, 316–317.

Table 20. Changes in the export structure of Serbia (in million francs)

Product	1884–1893	1894–1905	1906–1912
Livestock	17.3	23.3	8.5
Grain	8	13.8	33.5
Fruits	10.2	11.2	14.5
Animal products	3.6	8	13.1
Total agrarian exports	40	56	67

Stoyanovich, K.: The Economic Problems of Serbia. Paris, Graphique, 1919. 44–46.

Table 21. Constraints of Serbian agriculture, 1860–1910

Cultivated area	+400%
Population increase	+150%
Number of farms	+90%
<i>Number of farms under 5 ha*</i>	+40%
Total agrarian income**	+80%
Production from crops**	+100%
Total income per farms***	–20%
Total income per ha***	–70%
Costs of living	+50–70%

* between 1897–1910; ** because income from animal husbandry declined; *** at 1910 prices

Table 22. Serbian agriculture compared to Europe

Agrarian worker/km ²	Export measured to GDP (%)	Animal husbandry measured to total agrarian production (%)
Europe 46–52		GBR 74
France 32	Romania 25	Germany 66
Denmark 32	Bulgaria 20	France 44
Serbia 93	Serbia 15	Serbia 36
	Portugal 13	Spain 30
		Bulgaria, 25
		Greece, 25
		Italy, 25

Pamak, S.–Williamson, J. G. (eds.): The Mediterranean Response, 79–80.

Is this calculation correct? To check the validity of these macroeconomic data full of uncertainties at least for agrarian output we analyzed the data provided in the settlement level agrarian conscription of Hungary in 1865. In some cases (3.5% of the total dataset, considered to be representative) settlements were purely consisting of small estates, therefore we were able to calculate the average extent of farm units, their average income, and the net income per ha values as well. And the results show that the average peasant smallholding was 5 ha, just as in

Serbia. The net profits (if it means the same as in Palairet's calculation) per farm units was 26 Forints (or 52 francs) in 1865 (*table 23*). According to Mariann Nagy, this had to be multiplied by 2.5 to get the value of gross income (in other words, the net marketable surplus in Hungarian agrarian economies was about 30%). Gross profits were cca. 130 francs, similarly to Palairet's calculation for Serbia at the end of the century. This means that (as the deterioration of Serbian agrarian outputs is valid only for per capita outputs due to the overpopulation, but not for outputs per farm, which were stagnating) the average peasant economy showed similar outputs in Hungary in 1865, as Serbia produced in 1900. (By 1895, the agrarian income in Hungary grew by 30% per capita, thus Serbia was unable to decrease its 30 year lag.

Table 23. The productivity of smallholdings and large estates measured to country average

	smallholders (sample)	large estates (sample)	dominantly ** large estates	country average***
number of farms	144864	269	250	4 300 000
total extent of land (kh) 1 kh=0.55 ha	1 610 000	913 000	393 141	58 000 000
utilized land (kh)	1 480 000	815 000	360 000	55 000 000
net profits in Ft (1 Ft = 2 francs)	380 0000	2 973 000	1 465 000	182 540 000
average landholding size (kh)	11.11	3394	1572	13.49
net profits per farm (Ft)	26.23	11052	5860	42.45
net profits (Ft) per 1 kh	2.36	3.26	3.73	3.15
utilized land in % (woods included)	91.9	89.2	91.5	94.8
total farm number	4 260 000	35 000		4 300 000
sample %	3.4 % of units, 0.3% of land	0.8% of units, 1.5% of land	0.7% of land	100.00

* *There were 370 000 smallholdings in Serbia with an average of 5 ha in 1910, and some 200 000 in the 1870s with 4 ha. Smallholdings in Hungary constituted 75% of the land, large estates 25%*

***x large estates with max. 3x smallholders. 117 smallholders lived on selected large estates*

****without Croatia Transylvania,*

But as the Hungarian agrarian structure was more diverse, the output of large estates may modify the overall situation. The average net income per ha of large estates (in cca. 100 cases the settlement

comprised of large estates only, so-called „puszta”) exceeded that of smallholdings by 33%, reaching 3.2 Forints/cadastral holds or 65 grams of silver (for smallholdings it was 2.4 Forints). Of course, this could be the result either of different cultivation techniques or different land quality. Although one might think, that the Hungarian nobility was able to acquire better lands after 1848, this question is still disputed in Hungarian literature. The assumption, that the evident lack of any difference in official statistics regarding the land-quality of the nobility and peasantry was the result of the pressure of nobility on influencing the value of land tax (land tax was officially based on land quality), had been recently challenged by Scott M. Eddie. So, as we cannot prove cheating in levying land-tax, and thus the differences in land quality are also unproven, it seems that technology was more advanced even in 1865 on large estates, as it was in Bulgaria (but not in Greece).

We even managed to select a set of settlements, where alongside with the 1–2 functioning large estates, several (from 1 to 4) smallholdings also did exist (column 3). The result was surprising: the net income per cadastral holds was even higher here compared to large estates cultivated by daily wage labourers (column 2), and compared to free smallholders. Unless it is a result of a coincidence (like the abundance of these estate-types on lands of good quality, which is only partly true)⁴⁵⁴ the revival of the old thesis of Adam Smith (and the marxists) that output is greater, if producers are interested in production should be (re)considered. The owners of these small estates might be trained agrarian experts, who were also participating in the direction of production in the large estates.

We created maps based on the whole dataset containing cca. 10 000 settlements, and the picture draws our attention to facts, that would change during the next decades. First, in 1865 it was the Great Plains rich in meadows and pastures and not the mountainous regions! As the water regulations went on, the proportion of grazing lands decreased. The question is why it was necessary to carry out these regulatory works. The traditional answer is to increase income and feed the

⁴⁵⁴ In N-Hungary we found no extremely fertile lands in this estate type, while S-Hungary comprised the best lands in this category, but unfertile were abundant as well.

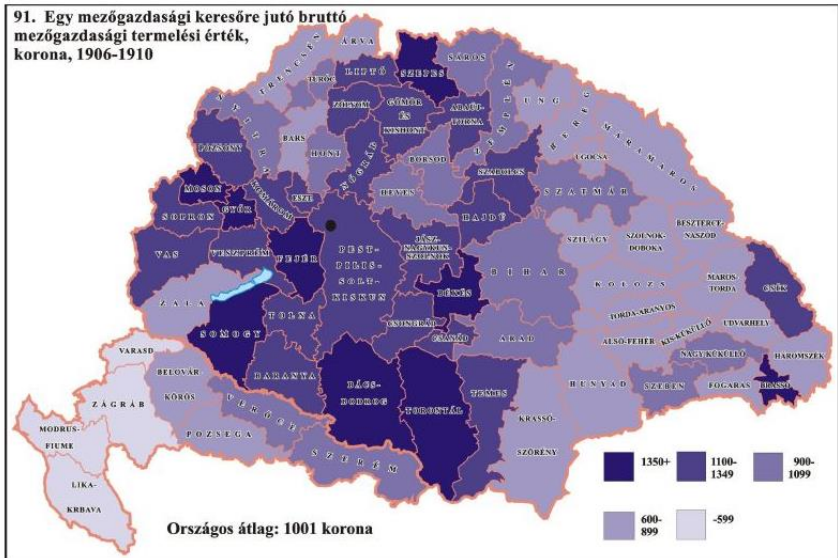
population. Net income per farms was very high in the plains, but it was not because of the high net income per ha (it was mediocre indeed, except the Vojvodina and Banat), but because of the larger estate size! Thus, this does not refer to absolute overpopulation, but to *an extensive strategy to acquire more land* and utilize favourable export price trends. Even in the 18th century population density was the greatest in the western and northwestern parts of the country. Of course, relative overpopulation might still occur among the smallholders of the Plains owing to the extent of large estates, but the transformation of pastures and their redistribution among peasants as arable land was (1) rare in Hungary compared to Balkan states, furthermore (2) it did not result in better outputs on smallholdings as proved by the examples in other regions. Thus the change in landuse had a different reason: the nobility was motivated indeed in transforming grazelands to arable lands as Zsolt Pinke proved this.

What is more impressing, the so-called „market line“ (the hilly region, where the mountains and plains meet) showed better features. Although economic units were here averagely smaller, but net income/ha values were better (contrary to the unfavourable conditions for arable lands), than in the Plains, which results in mediocre income per farms. As there were hardly any pastures and meadows that time (this changed over time), only grape or large estates (their relative frequency was greater in the 'market line' compared to the country average) could be responsible for the good income/kh values. I guess that prior to the *phylloxera* (1880–1896), this could handle or postpone the overpopulation in this region of Upper Hungary, but after the decline of wine-growing, the population here was also mobilized, as incomes decreased.

Thus, the appearance of the workers on the labour market of the Great Plains was partly owing to “vis maior”, but it would have been futile, unless there was some labour opportunity (which could not be extensive animal husbandry, as it was not labour intensive). The relation between the course of events and causes remains in shade (was the transformation of pastures to arable land merely a consequence of the progression in regulatory works? or was the process in connection

with / accelerated by mobile masses or by the *phylloxera*?), but the events were finally favourable for the large estate owners of the Plains. The huge influx of labour surplus from the overpopulated mountains, which made cultivation cheaper was able to sustain the profitability of grain production even during the general decline in price trends. This cheap labour force could also substitute mechanization which was hindered by the lack of capital after the end of “Gründerzeit” in 1873. It is therefore not surprising that Hungarian estate owners invested only into harvester-machines, both the lack of capital and labour surplus made further investments inefficient. It is also not surprising that a general extensification took place in the 1880-90s.

Figure 5. Regional differences of gross agrarian output/agrarian employee (country average=1001 francs)



Source: Nagy, M.: A magyar mezőgazdaság, Appendix.

There is one more phenomena worth mentioning. Traditional history writing claims that the Plains were characterized by large estates. On the one hand this is true, but the number of smallholdings here was also great. The *relative frequency* of large estates (measured to the number of smallholders) was surprisingly high in the mentioned ‘market-line’,

where local urban centers developed (Lučenec, Rožňava, Košice, Oradea, Užhorod, Mukačeve, Berehove Carei, Oradea). Though that time, in 1865 they lacked connection with each other, but by the 1890s they were linked together through a transversal railway line – the only one that was not radial starting from Budapest as centre. The construction was probably due to the political lobby of local landlords (Lónyay, Andrásy, Tisza were Prime Ministers) who recognised the significance of such a line. The region became a revitalized dynamic ethnic and economic contact zone⁴⁵⁵ (satisfying both the landlords' and local interest), where a great influx of population was observable (the population of Košice and Sátoraljaújhely had tripled between 1828–1910). This happened only partly in forms of organized settling on large estates which needed working hands. This also modified ethnic proportion in some localities.

(vii) The effects of independence on the agriculture of Bulgaria

The Serbian and Bulgarian agrarian model represented the struggle between 'social stability and stagnation' (smallholder society) versus 'economic competitiveness and declassation' (land concentration). The first would cause increasing demographic pressure, while the latter would result in increased social mobility.⁴⁵⁶ The chosen frames were worst among the combinations: either agricultural production had to be adjusted to the estates' structure – in that case it should have meant intensive agriculture based on vegetables and fruits – or the landholding structure had to be adjusted to the agricultural production (in case of wheat production it would have meant large states). Bulgaria and Serbia had to pay the price for the maintenance of social stability: smallholdings were incompetent under the given circumstances. This structure had unfavourable impacts on industrial development as well.

455 This was ruined as a consequence of the peace treaties.

456 If the task of the agriculture was to secure self-subsistence, then the smallholder society was a solution (for a time). If the goal was to enhance the competitiveness of agriculture and the increase of state revenues, large landholdings had to be preferred (when maintaining the same production system).

The sustainability of agrarian structure was constantly discussed by contemporary politicians. Agrarian socialists (BZNS) arguing for the maintenance of smallholdings stated, that industry would not develop owing to the lack of capital, therefore could not suck up the oversupply of labour force. But those who were arguing against smallholdings used the same reasons: industry would not develop within the existing structure, thus the positions of Bulgaria/Serbia for the competition over the resources of the Balkans would weaken. For the smallholders, losers of the industrialization (and land-concentration) process, it was indifferent whether they are exploited in the industry for low wages or earn the same amount of money in their autarchic peasant economy (industrial wages reached the income level of agrarian smallholdings by 1910), but industry produced greater per capita output, thus its development would be more reasonable from macroeconomic point of view. The opponents of this view argued, that industry had only seemingly greater added value, but its demand on raw material was also great, thus profits per added value expressed in % was greater in agriculture. No matter who was right, one thing is for sure: substantial free capital generated by agriculture and favourable external circumstances were both missing to initiate industrialization prior to the 1900s.

In Bulgaria the effect of the land reform was not longlasting. Within a generation (1872–97) the number economic units under 3 ha increased from 18% to 45% (while constituting only 3 and 7% of land respectively). The structure of production also changed, diversity decreased.⁴⁵⁷ The rice exports of Plovdiv earlier constituting 3 million francs collapsed, tobacco exports also, not to mention silkworm-breeding. Ami Boué mentioned that in the 1850s the irrigated cultures were flourishing, but overirrigation ruined the roads, ricefields turned into swamps and finally Russians forbade the production fearing of malaria. In Lovech the cocoon production was 50 thousand in 1877, but only 15 thousand in 1880, as the result of the expatriation of Muslims. The expatriation of Tatars – who received only small parcels when

⁴⁵⁷ Lyberatos, A.: *From Imperial to National Lands*, 161–63.

settled down and therefore became the pioneers of intensification in tobacco, fruit and rose production – was also disadvantageous from this aspect. (In 1885 roses still produced 10 million piasters yearly in Eastern Rumelia).

First the government reacted to the collapse of grain prices with the moderation of taxes (decreased under 10% from 15%) to maintain the income level of peasants. But this resulted in the expansion of fallow land and in the decrease central incomes. Every step of the state to give further concessions created a vicious circle instead of encouraging production. Finally (unlike in Serbia), the Stambolov government changed this agrarian policy and started to increase taxes in order to encourage peasants for production.⁴⁵⁸ But, the interpretation of this period (1885–94) is contradictorius in literature: Topalov claimed that these measures had ruined peasantry (see the decrease in the number of landowners and increasing indebtedness) instead of encouraging them as Palairet stated.⁴⁵⁹ While the latter thinks that oversupply of land was the reason of deteriorating yields (under self-subsistence), the marxists claim that the (absolute) shortage of land was the reason of impoverishment.

What is evident: Bulgaria entered into a phase of extensification and any later improvement was driven by this process until WWI. The expansion of arable lands to slopes abandoned by herds (due to the loss of imperial purchases the number of sheep was halved in Plovdiv and fell to 10% in Chepelare)⁴⁶⁰ accelerated the erosion and decreased soil

458 The increase of tithe (+50%) exceeded the growth rate of the population, but tax rates were still lower than during the Ottoman era. There are two ways: (1) if land is taxed and not the production (see the tactics against Muslims); (2) if tax ratio is high enough to endanger self-subsistence. In that case – if peasants have unexploited workforce/or land uncultivated they are able to increase the produced amount. Example: if 1000 food unit is needed to subsist and the tax is 100 units, the peasant will produce 1100 units (if not interested in market processes). If the tax is 200 units, and the peasant produces 1100 units, he will 'die', therefore, he will produce the 1000+200 units if this is possible (there's enough land and workforce).

459 Topalov mentions the following factors that contributed to the deterioration of peasant economies. (1) The lack of agrarian support system resulted in the persistence of usury. (2) State taxation was in its experimental phase. (3) The third factor was free trade beyond the collapse of grain prices and the agrarian crisis in 1897–1900.

460 *Ochevadstvo v Rodopite, prichini za otpadaka mu i sredstvo za povdiganeto mu*. Sofia, 1902. 28.

fertility owing to the lack of manure and the decrease in fallow lands (from 40% to 20% between 1870–1920). As a consequence, per hectare grain outputs, 7:1 around 1878, shrank to 4.5:1. The decrease of grain prices would urge producers to export more and more wheat to produce the same amount of revenues, but the production itself was fluctuating. Thus, while in 1904–1907 40% of the grain production was exported, in the crisis years of 1896–1900 it shrank to 20–22%.

Recovery was hindered not only by *price depression*, but by *climatic anomalies* in 1897–1900 as well. Although this was a local and short-term crisis, it is worth discussion, because it proved that the agriculture of the Balkans was still determined by preindustrial conditions. (1) The agriculture was unable to tackle with the climatic effects, and was characterized by unstable and low outputs; (2) the crisis in the agriculture infiltrated into other sectors of economy (which is important to understand the crisis in 1929 in this region), as industry was mainly based on agrarian raw material;⁴⁶¹ (3) the tithe still played a dominant role in the state budget (30% in 1897 and in 1911 too). Thus, any fluctuation in outputs threatened the balance of Bulgarian budget itself, also suffering from unpaid loans by that time. The risks generated by expiring loans associated with budgetary problems could be best exemplified on Greece, which declared the bankruptcy of the state in 1897 after a defeat in a war with the Ottomans. In Bulgaria prior to 1918–23 this was the only case when peasants revolted against the existing structure (Durankulak in 1900 cost cca. 100 lives) which claimed itself “egalitarian”.⁴⁶² And this crisis was also a good example for the Labrousse-hypothesis: it was the smallholders who suffered the most from the decline in production (which is another important phenomenon to understand the situation in 1929, though that time climatic anomalies did not play a role in the decline).

461 Hristov, H. :*Kam karakteristika na Stamboloviya Rezhim*. Istoricheski Pregled, 1951–52/1. 30. 40% of revenues or half of the taxes came from peasantry.

462 In Serbia the Timok-revolt (1880s) was partly politically driven and encouraged (not spontaneous). The serious Romanian revolt of 1907 does not fit into the image as Romania was not a smallholder-society.

These consequences are said to be triggered by the El Niño: between 1897–99 wheat production decreased from 2.6 million tons to 1.5 million tons (as 2 million adults with 2 million children consumed 1 million tons of wheat, and the remainder 0.5 million ton was spared as seed /20%, this decrease threatened the livelihood in general). The production of alfalfa fell from 3.5 million tons to 1.9 million and draft animals had to be sold under low prices owing to fodder shortages (horse prices fell from 125 leva to 90 leva). In Haskovo 80% of the population had to ask for a loan to pay the taxes. The crisis infiltrated into industrial branches based on agricultural raw materials: the output of brewery decreased from 5.9 million litres to 4 million. Capital invested into industry remained under 3 million francs in 1899–1901 (it was 3.3 million in the sole year of 1897). Daily wages in agriculture also fell from 1.9 leva to 1.45.

Beyond the decline of tithe incomes, wheat exports also collapsed owing to the shortages (the decrease was altogether 387 thousand tons of grain worth 47 million leva in 1896–97). Furthermore, the fall in outputs did not induce an increase in export prices (this remained 120 leva/t, while wheat prices increased from 110 to 160 leva in internal markets). Thus, the losses of the budget could not be compensated, as trade balance turned into negative. Imports had to be decreased. Furthermore, the agrarian crisis was deepened by a credit crisis. The state was unable either to pay its expired debts or to help the poor: the budget deficit soon increased to 60 million. Only a new loan of 80 million could solve all these problems, thus Bulgaria became indebted.⁴⁶³ From this time on the budget showed strong correlation rather with the loans and expenditures than with incomes.⁴⁶⁴

Finally, an increase of grain export prices (140 francs/tons in 1903 and 200 francs in 1910) generated a 26% increase in yields, but it was rather the result of the 20% increase of croplands than the consequence of increasing productivity. Grain output between 1897–1900 was 0.96 t/ha and 0.91 in 1908–11. Per capita output was 0.57 ton in 1889–92, 0.5

463 Topalov, Vl.: *Stopanskata kriza*, 50–68.

464 Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol. I.

in 1897–1900 and 0.51 in 1908–11.⁴⁶⁵ Although the weight of imported agricultural engines increased from 400 tons in 1900 to 4400 tons in 1910, the extent of land cultivated by one draft animals also increased from 2.5 ha to 3 ha, thus did not keep up with the pace of extensification.⁴⁶⁶ Industrial plants were underrepresented in the production structure, the first sugar factory was established only in 1898. Therefore the warning of the contemporary statistician Popov that this increase after 1900 was based solely on extensivity and on favourable changes in external circumstances (again) seemed to be correct,⁴⁶⁷ but politicians did not consider any other solution than expansion (which is interpreted broadly including the externalization of internal problems through nationalism).

(viii) Frozen agrarian conditions – Albania (1870-1930s)

In Albania the land-tenure system was diverse. Former timars turned either into chiftliks or to allodial large holdings ruled by the noble beys, but free smallholdings, communal lands (pastures, woodlands) persisted side by side. In many cases communal lands were controlled by the head of the *fis*. The estate structure showed also regional diversity.⁴⁶⁸ In Tirana kaza 75% of land (15 000 ha) was owned by the Toptani clan in 1910, while 16% of the peasants was landless (were forced to work on lands or serve as guards). In other words, 84% owned only 25% of the land. The wealth of the Toptani's was extreme compared to other beys, like Ibrahim Biçaku from Elbasan who had 2500 hectares. Beys needed yearly 40 000 francs income to secure their position and maintain their 'private' army, but most of them could not earn more than 15 000 francs from their lands, thus they were forced to

465 *Statisticheski Godishnik na Balgarskoto Tsarstvo*, 1912/4. Sofia, 1915. 242–43; Lyberatos, A.: *From Imperial to National Lands*, 164; Popov, K.: *Stopanska Balgarija*. Sbornik na Balgarskata Akademija na Naukite. Sofia, 1915 and 1916. Tom. 8. 140–41.

466 Popov, K.: *Stopanska Balgarija*, 140–41.

467 Lyberatos, A.: *From Imperial to National Lands*, 164.

468 Mile, Ligor K.: *Çështje të historisë agrare shqiptare*. Tirana, 1984.

serve in Ottoman bureaucracy.⁴⁶⁹ The situation prevailed during the Interwar period: in Albania altogether 77% of farms, but only 33% of land was under 3 ha in 1945. Only 3 % of farms, but 27% of lands were over 10 ha. (By 1950 this had changed to 1.5% and 7% respectively).⁴⁷⁰ Both production structure and quantities were determined by the climate, the level of technical development was very low. Thus, grain outputs were very unstable, ranging from 1.5 t/ha to 0.7 t/ha around the plains of Skutari even at the turn of the century. Owing to the insecure internal situation and the local traditions husbandry was preferred to crops (only 13% of the land was sown around Skutari),⁴⁷¹ as animals (3 million goats and sheep) were more mobile. In the South income from animal husbandry meant yearly 46 million francs or 66% of the local GNP (100 francs per capita) in 1885, while grains meant only further 10 million francs.⁴⁷² In the 1870s Sax put the total Albanian grain production to 4.3 million kile, which means 137 kgs per capita, thus the region was not self-subsistent from grains.⁴⁷³ In good years Skutari was able to export grains to Dalmatia or Montenegro, but could supply no more than 30-50 000 persons.⁴⁷⁴ Local customs often prohibited exports.⁴⁷⁵ Mountainous areas (Mirditia, Malizi, Skreli, Hoti, Klementi) were dependant on Skutari or Prizren (that is why the borders of 1913 made great unrest here).

On the other hand, there were more than 78 million winestocks (or 70 per capita) prior to the *phylloxera*, highly exceeding the 38 million in South-Macedonia and the 50 million in Thrace. Forestry was another alternative form of livelihood, but it resulted in overuse and deforestation (often beys, like Nedzhip Draga in the 1910s were involved in this). Cotton ranged to 0.1 million kile (while in South-

469 Csaplár-Degovics, K.: *Österreichisch-ungarische Interessendurchsetzung im kaza vom Tirana*. Südostforschungen 71, 2012. 129–182.

470 Lange, K.: *Die Agrarfrage in der Politik der Partei der Arbeit Albaniens*. München, 1981. 48-49.

471 Horváth Ö.: *Albánia (II)*. Budapesti Szemle, 1902. 308.

472 *Ibid.* 48–49. and Demeter G.: *A Balkán és az Oszmán Birodalom*. Vol. 3. 205. See also: Keleti, K.: *A Balkán-félsziget...*

473 Sax, C.: *Türkei. Bericht verfasst im Austrage des Comité für den Orient und Ostasien*. Wien, 1873. 375.

474 Horváth Ö.: *Albánia (II)*. 308.

475 Nopcsa F.: *A legsötétebb Európa. Vándorlások Albániában*. Budapest, 1911. 56–59.

Macedonia this was still 3 million kile), industrial plants were rare, as local industry contributed only with 15% to the GNP.⁴⁷⁶ Total per capita income was low even in the industrialized Southern Albania: it was 48 million piasters or 44 piasters per capita – it was 45 piasters/capita in Bosnia in 1865 and 55 piasters was the Imperial average that time –, and though it increased 80 in 1885 it still did not overtake any of the mentioned regions.⁴⁷⁷

Albania's economy was not market oriented in the 1860s (in Janina for example only 1 out of the 29 great merchants dealt with local agricultural products, and in Valona 3 out of 13),⁴⁷⁸ and it was characterized by North-South inequalities. Agrarian export in the North was composed of leather, wool (over 70% of the production was consumed locally) and some textiles worth 2.6 million francs, or 3-4 francs per capita in the 1860s.⁴⁷⁹ This meant 15 francs per capita (altogether 9 million francs) for S-Albania (also 15 francs in Bulgaria and 25 francs for Romania),⁴⁸⁰ but the balance was highly negative.⁴⁸¹ In 1885 50% of Kosovar exports were animals, 25% grains. In the South the main components of exports were maize and olive oil in 1900 (after the collapse of wine-production).

(c) The era of extensive growth (1900–14) and price recovery

(i) Alternatives of grain production

As the general price trends of grains began to increase again at the turn of century, this made the situation Bulgaria, Serbia and in Romania (all mainly relying on grain, the latter dominated by large estates) tolerable. In Serbia and Bulgaria grains still composed 50% of the agrarian

476 Sax, C.: *Türkei*, 375.

477 Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol. 2. 293. Table II. 38.

478 Keleti K.: *A Balkán-félsziget...*

479 Collas, B. C.: *Turquie. Renseignements, statistiques, sur le commerce extérieur et sur les principaux produits Turquie. Annales du commerce extérieur*. Paris, 1861. 3–20.

480 Dufour, B. J.: *Étude du mouvement commercial*, 3–71.

481 Horváth Ö.: *Albánia*, 308.

output,⁴⁸² while the Atlantic agriculture shifted towards producing eggs, butter, milk, dairies and other higher-value products. This was partly the result of the emergence of modern food-processing plants, totally missing in the Balkans – thus, peasants here lacked a local stimulus to shift production. The long price depression resulted in the lack of capital to modernize farms heading to the dead-end of extensive growth in order to maintain the former income levels. The “complementary” agricultures on the peninsula remained overspecified and export-dependant, thus were vulnerable to external changes even in this period.⁴⁸³ In Romania 80% of ploughlands were sown with grains, 50% of wheat was exported (the highest ratio on the Balkans) constituting 45% of total exports in 1910. Romania was the 6th greatest grain exporter of the world.⁴⁸⁴ In Serbia grain export volumes doubled again after 1900. Grain exports of Bulgaria also recovered from 20% of grain production back to 40%. Here, grain-fields increased in size by 50% between 1889–1911, though Van Zanden was on the opinion that only diversification in production (and in exports) could offer a way out.⁴⁸⁵ But intensification efforts in Serbia (sugar beet) or establishing milling industry (flour had 3 times higher price than wheat) failed due to Austria-Hungary’s policy. Serbia’s turn toward processed food was successful only after the ‘Pig War’ due to the redirection of trade.

The alternative models (based on intensification) in the region (Greece: grape, raisins olive oil; Serbia: pig and plum, Macedonia: tobacco, opium) were yet not adapted for Bulgaria, Romania and Bosnia. While Italy, with great labour surpluses turned to labour intensive vegetables, which also needed huge capacity of synthetic fertilizers, thus an improvement in chemical industry started from the 1890s, Bulgaria took the same step only in the 1930s. Intensification and

482 *Ivanov, M.–Tooze, A.: Convergence or decline*, 685.

483 Price fluctuations influenced incomes from export. Although per capita production of wheat highly exceeded the needs of the society – in Romania the average grain production was over 0.8 ton per capita, while one person consumed maximum 300 kgs yearly (in western societies this was under 200 kgs) – grain exports/capita fell from 62 francs to 45–55 francs between 1891–1905, while the volume of total grain export increased a little.

484 *Roucek, J. S: Contemporary Roumania and her Problems*, 1932.

485 *Zanden, J. L, van: First Green Revolution*, 215–39.

the role of alternative cultures remained low. While tobacco production was dominated by smallholdings in Macedonia, in Bulgaria the average size was 20 ha and only 225 persons earned their living from tobacco in 1905. Rose oil production concentrated in the Tundzha valley was characterized by 43 thousand small parcels, but in 1905 only 500 heads of families were engaged in the rose oil production.⁴⁸⁶ Those who had the knowledge to grow intensive cultures rather left their home country in order to earn more, than to work as agrarian wage-labourers: the 10 thousand Bulgarian *gradinari* in Hungary sent home 2000 leva yearly,⁴⁸⁷ while a Bulgarian smallholder on 5 ha could not earn more than 700-1000 leva from wheat. Only 25% of cattle gave milk – 1000 litres output compared to the western 3000 litres. Phylloxera ruined grape production. Outputs per dönüms decreased to 120 kg from 350–700, incomes from grape became similar to the income from wheat production (13 leva/dönüm). It is not surprising, that this labour intensive culture became neglected.⁴⁸⁸ Fruits were grown only on 60 thousand hectares⁴⁸⁹ in Bulgaria in 1911 and although this had tripled since 1887, the 15 kg per capita production was still low compared even to Serbia. Per capita pig density was only one-third of the western.

Comparing the profitability and output values of other cultures with wheat, the Hungarian Balkanist, Adolf Strausz analyzed the chances of diversification in agriculture. Sesame produced 11.5 leva/dönüm output, therefore it was also not profitable. Industrial raw materials, as sheer/flax would have been profitable giving 55 leva/dönüms,⁴⁹⁰ but the level of the Bulgarian and Serbian textile industry made its cultivation futile: there was no market for it. Flax, like potato was uncommon in the Balkans. Tobacco and poppy seed showed high outputs (over 50 leva/dönüm), but owing to climatic conditions their production was limited to the southern part of the peninsula. Mulberry tree plantations were abandoned after the emigration of Muslim silkworm breeders.

486 *Istoriya na balgarite v dokumenti*, Vol. I/1. 458.

487 *Peykovska, P.: Balgarskite obshtnosti v Ungarya prez XIX–XX vek. Migracii i istoriko-demografska harakteristika*. Sofia, 2011.

488 *Strausz, A.: Grossbulgarien*, 122.

489 *Ibid.*

490 *Ibid.*

Rice required high initial investment costs, land concentration (0.1 hectare of riceland was 15 Ottoman liras, while wheatland was worth only 1-2 liras),⁴⁹¹ and needed irrigation (expertise and technical advance), furthermore, climate was also a limiting factor. Thus, though it showed better profitability, than large estates involved in grain production (dry economies), it could not become general. In Macedonia, Kočani the cultivation of 1 dönüm riceland cost 100 grosh (profitability partly depended on cheap labour force secured by the numerous landless *hamals*), while the rice output was 240 okes at 30 paras, producing altogether 180 grosh income (+80%). In large estates producing wheat (dry economies) the expenses were estimated only to 63 grosh, but incomes were also lower: 120 oke of wheat (150 kgs) on one dönüm produced 90 grosh (+33%).⁴⁹²

Considering only dry cultivation corn was more productive than wheat. In Bitola the cultivation of one dönüm of wheatland (22–30 oke seeds, tilling 50 grosh, harvesting 20 grosh) cost 100 grosh in 1908, while the expenses on one dönüm cornfield were estimated higher, to 170 grosh.⁴⁹³ But maize produced 500–800 grosh, while the wheatland produced only 450–650 grosh even at extreme, 12:1 output ratio.⁴⁹⁴ Wheat only had chances when western prices started to increase again.

Though the average estate size was around 5 ha both in Serbia and Bulgaria, this average veiled great regional inequalities and standard deviation in estate sizes. In Bulgaria 66% of the 900 thousand farmers had less than 5 ha in 1897,⁴⁹⁵ and the situation did not improve till WWI (*table 25*). Though the extent of cultivated land increased, the number of smallholdings under 5 ha also grew by 90 thousand, while the total increase of farm number was 133 thousand. The Serbian peasant at least could earn income from animals, later from prunes and spirits, while

491 *Central State Archives (Sofia)*, Fond. 321. Inv. 1. archival unit 1616. l. 2–13.

492 *Strausz, A.: Grossbulgarien*, 122.

493 Only 8 oke seed owing to better output ratios, tilling for 60 grosh, hoeing twice: 60 grosh, harvesting: 30 grosh).

494 *Istoriya na balgarite v dokumenti*, Vol. I/2. 97.

495 Appr. 50 thousand Bulgarians and Macedonians worked on Romanian wheat lands as wage labourers to find a way of living.

Greek peasants could count on the raisin-production consumed by the West.

Table 24. Average value of a peasant economy in Bulgaria (given in francs)

Components	1871, Kötेश village (5 ha)	1885** (5 ha, 6 persons)	1885 (2 ha)	1912 (5 ha, 5 persons)
House	1200-1500	300-500	300-500	3300-5000
Land	1100-1400	3300	1200	
Animals	n.a	100	100	200
Gross yearly production	900-1000	1000-1200	1000	800-1000
Total value in francs	4000	5000-5500	2500-3000	4500-6000

Based on the data of Keleti, Daskalov, Draganova and Palairret. See table 28 as comparison.

Table 25. A comparison of Bulgarian and Serbian estate structure

Size	Bulgaria, 1897		Bulgaria, 1908		Serbia, 1897		Serbia, 1910	
	farms in 1000	in %	farms in 1000	in %	farms in 1000	in %	farms in 1000	in %
Under 1 ha	257	32	293	31	54	17	99	26
1-2 ha	106	13	131	14	31	10		
2-5 ha	185	23	212	23	93	30	141	38
5-10 ha	149	19	174	19	118	38	88	23
10-20 ha	77	10	93	10			32	9
20-50 ha	21	3	26	3	10	3	7.7	2
over 50 ha	3	0	3	0	1	0	1.1	0
Altogether	800	100	933	100	308	100	370	100

Statistika na zemledelskata sobstvenost na 1908. Sofia, 1914. 4. and Tomasevich, J.: Peasants, Politics...

The contemporary leading statistician, Popov – challenging the opinion of the BZNS (BANU) – stated that smallholding was introverted, it was the barrier of capitalization, industrialization. The added value was small compared to other, more intensive forms of cultivation, and the producer was exposed to the fluctuation of external prices and climate. Profits measured to expenses were a bit smaller in the industry compared to agriculture, but a peasant produced not more than 1000 dinars while an industrial worker generated 4000 leva in 1910. Investment costs were similar. A farm with house, animals and equipment cost 4000 francs producing 700-1000 leva (table 24), while 15

thousand workers were applied in industry, where 100 million francs were invested into by 1910, giving an average of 6600 francs per worker.

The prosperity between 1900–12 (the “mini-spurts” of Lampe were observable in agriculture as well) was completely based on *extensivity and the improvement of prices and not of the yields* in Bulgaria and Serbia, unlike in Romania. Area sown by grains in Bulgaria increased from 1.7 million to 2.4 million ha between 1896–1911, total output grew from 1.6 million to 2.6 million tons in Bulgaria, which means that yields/ha and area/worker were almost stagnating. In contrast to this, in the large-estates dominated Romania, yields per hectare were improving by 60% (table 26) referring to intensification, whilst the sown area/worker was decreasing referring to relative overpopulation. The latter remained a problem here generating growing social tensions,⁴⁹⁶ while the possible solution (land reforms after 1917) resulted in the decrease of outputs.

Although the total agrarian output of Bulgaria increased from 500 million golden francs (1892) to 1100 (1939), the population has also doubled, thus per capita outputs also stagnated as per hectare outputs did so. The *lack of technical advance* (as a cause for stagnating per hectare yields) is shown by the fact that in 1911 only 20% of the farmers had *plug* (iron plough) in Bulgaria,⁴⁹⁷ and in 1933 it was still under 50%. Mechanization of production was hopeless until 8-15 parcels constituted an average smallholding as the result of fragmentation (this was true for Hungarian smallholdings as well). In 1920 there were only 20 tractors in Bulgaria and although this had increased to 1503 by 1933, still only the landuse of 400 000 hectares (10% of the sown land) had been optimized by 1940. Beside land fragmentation, the weakness of purchase power also hindered the spread of machines: a tractor cost 10-year total income of an estate of 5 ha.

Another problem was, that skilled experts tended to leave the sector: in Bulgaria 216 students studied in agrarian vocational schools in 1896, but only 8 remained in agriculture (4%), the others became state

496 Mollov, Ya.–Totev, Yu.: *Tseni na zemedelskite proizvedeniya u nas prez poslednite 54 godini 1881–1934*. Sofia, 1935.

497 Crampton, R.: *Bulgaria*. Oxford Univesity Press, New York, 2007. 290.

officials.⁴⁹⁸ By 1911 this increased to 40%, but the expenditure on agrarian education remained critically low, between 3 to 7% from the total expenditure on education. Education was rather of elitist (western) character in Serbia instead of being adjusted to the needs of local population.⁴⁹⁹

Table 26. Per capita cereal production, total outputs and total area sown

Period	Romania			Bulgaria			Serbia		
	Area sown (in 1000 ha)	Production (1000 t) tons/ha	tons/worker ha/worker	Area sown (in 1000 ha)	Production (1000 t) tons/ha	tons/worker ha/worker	Area sown (in 1000 ha)	Production (1000 t) tons/ha	tons/worker ha/worker
1896-00	4649	3800 0.85	0.82 1	1763	1579 0.9	0.54 0.6	1107	1171 1.05	0.56 0.6
1911-15	4987*	6000* 1.15	0.98 0.8	2428**	2637 1.1	0.75 0.67	1202	1307 1.1	0.54 0.5***

* Intensification. ** Extensification. *** Overpopulation – stagnation.

Mollov, Ya.–Totev, Yu.: *Tseni na zemedelskite proizvedeniya u nas prez poslednite 54 godini*. Sofia, 1935.

(ii) Livelihood, taxation, wealth, living standards

The small size of farms was the most significant problem for farming in many areas of Southeastern Europe. It prevented technological modernization and kept living standards of peasants down, which in turn greatly depressed domestic demand as the peasants formed the bulk of the population, but they were weak consumers. Southeastern Europe seems to prove by default the assumption that the modernization of farming is a pre-condition for industrialization. On the example of Serbia we try to highlight the productivity and profitability of estates, social strategies and living standards of the smallholder agrarian society.

An investigation of 835 estates by Avramović proved that landholdings under 4 ha were not profitable in Serbia: these (55%, cca. 230 000 households)⁵⁰⁰ ranged to 30% of total cultivated land. 90 000 peasants were landless: it is not surprising that 33% of peasants had

498 Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol. I. 554–55.

499 Daskalov, R.: *Balgarskoto obshtestvo*, Vol. I. 267; Strausz, A.: *Grossbulgarien*, 26.

500 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 31.

problems even with paying their taxes in 1908.⁵⁰¹ But the proportion of the viable farms between 5-20 ha (45% in 1897) was still better than in Croatia (27%) and in Bulgaria (25%) (table 25).⁵⁰² Based on Avramović's data Palairet proved, that a farm of 20 ha produced not 20 times, but 60 times more than an estate of 1 ha, thus was more efficient (but there were only 100 farms over 100 ha in Serbia).⁵⁰³ This means that per hectare output was three times greater in large estates (contrary to Greece) than these estate fragments.

Regional disparities were also among the numerous problems of agriculture. In 1897 the two-third of landholdings were under 5 ha in Vranja, Toplica. By 1905 Niš joined this group. In Valjevo, this ratio increased from 40% to 53% within 8 years. Also two-third of urban households did not have any land at all, which was a dramatic changes compared to the situation 50 years earlier. Although the number of modern ploughs increased from 50 thousand to 100 thousand, the number of ralo-type wooden ploughs also grew from 35 thousand to 100 thousand.⁵⁰⁴ Adding up these two values it is evident that 33% of peasantry did not have any ploughs at all (while 'only' 20% had no land)!

As regards *productivity*, Avramović found that in Serbia (and similarly in Bulgaria) altogether 35% of male workforce remained unexploited.⁵⁰⁵ In Slovenia this was only 25%: 300 000 people working on the fields used up 60 million workdays out of the total 80 million.⁵⁰⁶ In Bulgaria only 355 million workdays were used up from the possible 564 million calculated by Egoroff. The oversupply of labour force on fields and the lack of industry to utilize it created and free time and poverty, that also enhanced the political susceptibility of masses

501 Djordjevic, D.: *Serbian Society 1903–1914*. In: Djordjevic, D.–Király, B. K. (eds.): *East Central European Society and the Balkan Wars*. New York, Columbia Univ. Press, 1987. 231. The Romanian settling policy in S-Dobrudja was also aware of the fact that viability starts over 5 ha: here 55% of new economic units were over 6 ha, while in Serbia this was 36% in 1910.

502 Tomasevich, J.: *Peasants, Politics*, 207.

503 Németh J.: *Szerbia egyetemes leírása*, 202–03.

504 Sundhaussen, H.: *Historische Statistik Serbiens*, 231.

505 Avramović, M.: *Naše seljačko gazdinstvo*. Belgrade, 1928. 27–32.

506 Maister, H.: *The Employment of Peasant Population*. In: Maister, H.–Uratnik, F. (eds.): *Socialni problemi slovenske vasi*. II. Ljubljana, 1938. 91–116.

exploited by the Radical Party led by Pašić, which often meant the externalization of internal problems. Similarly to the Hungarian agrarian “reform” of 1928, when 400 000 peasants were given only 400 000 ha land (!) and further 200 000 received only houses, the Serbian okučje also blocked the flow of population from agriculture to industry. But while in Hungary the large estates were able to employ the workforce of agrarian proletariat, in Serbia this was missing (see next chapter, *table 4 and 6*).

Table 27. Pauperization index in Serbia 1897 in %⁵⁰⁷

No own land	Not enough land to subsist	Not enough draft animals	No pigs	No sheep	Tax array	Not enough food for a year	Not enough food for half a year	No plough
20	50	30	32	46	32	60	46	41
No own house	Unhealthy living conditions	No window glass	No table	No drinking water	Inapt for military service	No lighting	No bed	No cart
18	72	14	20	95	25	38	38	57

Sundhaussen, H.: *Historische Statistik Serbiens*, 231. and Djordjevic, D.: *Serbian Society 1903–1914*, 231; Đorđević, D.: *Srbija i srbsko društvo 1880–tih godina*, 418. Avramović, M.: *Naše seljačko gazdinstvo*, 17. and Avramović, M.: *Selo u Srbiji*, 243. and Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 30–40.

Poverty was general in smallholdings (*table 27*): early in 1881 in Valjevo from the levied 216 persons 55 was unfit and inapt for military service.⁵⁰⁸ In 1918 around Sombor in Vojvodina 877 of 4773 peasants were landless, 883 had less than 1 jutar, 1400 did not own a house, in Titel 1753/5637 did not have any land (people worked as wage-earner).⁵⁰⁹ Between 1891–1900 more than 19 800 rural estates fell victim to forced auctions in Serbia.⁵¹⁰ In Croatia 50% of lands sold at auctions were under 2000 dinar value, thus were smallholdings (*table 24*). 30% of all land purchases was realized because of indebtedness.⁵¹¹

507 The values are similar in Hungary, where 70% had no draft animals in the 18th century.

508 Đorđević, D.: *Srbija i srbsko društvo 1880–tih godina*. Istorijski časopis 29–30, 1982–1983. 418.

509 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 30–32.

510 Vučo, N.: *Proobitna akumulacija kapitala u Srbiji*. Istorijski časopis, 29–30, 1983. 294.

511 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 24. 32.

In the *mountainous regions* grain producing economies could not sustain the population. While Mocheva calculated that 75–85% of households were self-subsistent from grains in most of lowland Bulgaria, in Devin (Rodope Mts.) only 102 kg/capita was the average value instead of the required 200–250 kgs. In Chepino 40% of households had to buy wheat, because their landholding was under 4 hectares. Smolyan produced only 4000 tons of wheat instead of the required 10 thousand even in 1938.⁵¹² The average wheat yield in mountainous Bulgaria was 930 kgs/ha even after the first world war, while it exceeded 1500 kgs/ha in lowlands. The technology was also obsolete: in 1910 around Rupchos only 44 modern ploughs were found in the 4400 farms (33% had no ploughs at all). Extensivity here was not a choice. Diversification might have meant a way out, but the collapse of tobacco prices after 1929 ruined the hopes of families. Thus the significance of itinerant craftsmen were not negligible: in 1891 Christian villagers worked as shepherds (14%), tailors (16%), or stonemasons (26%), only 15% dealt with land (contrary to the Muslims, who were dominantly farmers, but usually on smallholdings under 5 ha).⁵¹³

One *strategy against pauperization* was the *zadruga* itself. Yet, as it owned property collectively and made decisions usually only with the consent of all male adult members, it slowed down capital flows and was not very flexible changing conditions.⁵¹⁴ The *cooperatives* established in 1871 by Svetozar Marković to stop the practice of usury also failed as these were based on the *zadrugas* loosing ground after the implementation of head-tax. But Raiffeisen-type cooperatives prevailed. These were small-scale savings banks, also issuing credits to promote the modernization of estates (for example tobacco production in Bulgaria), to encourage marketing, or simply to give a helping hand in cases of natural hazards by offering a loan. They also became the political-financial basis of agrarian movements in Bulgaria (BZNS). The

512 Mocheva, H.: *Selskoto zemedelsko domakinstvo v Bulgariya prez 1935-1936 g.* Sofia, 1938. 24. and Brunnbauer, U.: *Gebirgsesellschaften*, 169. and 210.

513 Brunnbauer, U.: *Gebirgsesellschaften*, 181. and 127–128.

514 Mosley, Ph.: *The Peasant Family. The zadruga or Communal Joint Family.* In: *The Cultural Approach to History.* Columbia University Press, 1940. 95–108.

capital was collected from the cooperatives' members, who paid monthly 0.5–1 dinar throughout 3 years at 4–6% interest rate (this is cca. 15% of the profits of an average peasant economy) and the collected money was distributed as credit for the applicants. The conditions were much better than offered by usurers, who so often had led peasants into unsustainable debts. By 1909 670 cooperatives were operating with 27 thousand members in Serbia, but half of them was illiterate.⁵¹⁵ In Bulgaria there were 931 cooperatives, in Croatia they had some 60 thousand members. Thus only 8–10% of farmers were involved into this system in Serbia, and 2/3 of members acquired credit. Per capita credit values were small, similarly to the Bulgarian case: their overall impact was still too small to modernize the economy.

Emigration was another exit strategy to avoid pauperization, but unlike in Macedonia (140–200 million dollars was sent home in 1921–1922 by emigrants) this was not characteristic for Serbia and Bulgaria. In both countries, the governments took emergency measures to restrict emigration to America. In the mountainous Dalmatia suffering from land scarcity, the migration rate was 4/1000 persons early in 1857–68 and it was similar later in 1891–1900. But even this high ratio was insufficient to solve the problem of overpopulation: by 1902 50 thousand economic units were under 2 ha (60%) and 13 500 from this were under 0.5 ha.

Seasonal and internal migration (pečalbarstvo, gurbet) was also not negligible: in Macedonia 95 thousand people was involved in this process. Even in 1933–36 some 20 thousand villagers migrated in the Timok valley between Bulgaria and Yugoslavia and 25 thousand left the region of Ohrid and Tetovo. In Veliki Jovanovac village 14% of the population (almost 1 men from each household) was missing owing seasonal migration, because in Mačva the "Pig War" ruined the poultry exports which was the main source of living with estates under 5 ha. High birth ratio (above 5% in Pomoravlje in 1881), the collapse of local industry (the Bulgarian Koprivshtica), unpaid dues, high land prices were also motivating factors. 33% of these seasonal migrants were

515 Sundhaussen, H.: *Historische Statistik Serbiens*, 233.

stonemasons, 20% was gardeners, greengrocers (*gradinari*), and 45% was unskilled *argat* (daily wage-earner). Compared to the mentioned Bulgarian *gradinari* who earned more than 2000 francs yearly, the masons of Jovanovac earned yearly 400 dinars in Pirot in 1912 (50% of the yearly income of an average estate), while unskilled workers earned 200 dinars. Argats working in Romania received only 120 dinars for half a year.⁵¹⁶ In N-Albania the population often migrated to Greece for seasonal work earning 150-200 francs in winter. Indebted Albanian catholics (here the unofficial loan interest rate was over 50%) left their home behind forever and resettle in the plains of Metohija as tenants, thus modifying the ethnic pattern of Kosovo.⁵¹⁷

We may attempt to reconstruct the wealth of an average peasant economy. In Serbia the total value of the land had increased from 192 million dinars measured in 1863 to 474 million dinars by 1897. Calculating with 33% inflation and the increase of total cultivated area, per hectare values/prices were then stagnating around 250 dinars. But between 1897 and 1905 the value of land grew to 783 million dinars parallel with their extension, which resulted in 400 dinars/ha and 470 by 1910.⁵¹⁸ One hectare land of excellent quality was even worth 2000 dinars. The price of orchards also grew from 275 dinars to 590/ha. These all refer to shortage of land (and a change in product composition – the increasing role of plum). In whole Europe only Greece and Norway had less potential agricultural land than Serbia (52%), while other Balkan states were able to cultivate some 70% of the country's area.⁵¹⁹

Based on these values we may calculate the value of a peasant economy. An average economy had 2.5 cattle worth 250 dinars, 2.5 pigs worth 70 dinars, 8 sheep (54 dinars altogether), 0.5 horse totalling 440 dinars. A house was rated 1000 dinars around 1863 and approximately 1500 dinars in 1910 similarly to Bulgaria (see *table 24* as comparison)

516 Calic, M.-J.: *Sozialgeschichte Serbiens*, 180–189. 210. and Pejkovska, P.: *Balgarskite obshtnosti*,

517 Nopcsa F.: *A legsötétebb Európa*, 56–59.

518 Sundhaussen, H.: *Historische Statistik Serbiens*, 233–45.

519 And 20% of this area in Serbia was forest. (This ratio was 37% in Bulgaria, 29% in Hungary, 23% in Romania).

Equipments should be added to this value, which totalled 1400 dinars in case of 1 ha, 4700 in case of 5 ha and 27 000 dinars in case of 20 hectares.⁵²⁰ In case of smallholdings 50% of the wealth was invested in farmlands, while in case of economies over 15 ha landholdings represented only 15% of total value (*table 28*).

Table 28. The value of Serbian peasant economies in 1910 without the yearly production

Size (ha)	Value of Land	Value of buildings	Value of furniture	Value of equipment	Value of draft animals	Other animals	Total value
2	910	860	115	66	260	100	2311
5	2350	1210	285	190	490	180	4705
10	4875	2300	530	380	620	240	8945

Based on Sundhaussen, H.: *Historische Statistik Serbiens*, 273.

We may also calculate the total value of peasant economies. The total value of agricultural goods and holdings was put to 2400 million francs (without harvest) by Stojanović⁵²¹ after WWI, when Serbs claimed substantial indemnity for the devastation of inimical troops. Calculating with 1.9 million hectares the value of land reaches 900 million francs, together with the buildings, animals and equipments it totals to 1800–2000 million, thus Stojanovic’s data in this respect are correct (while they were quite incorrect regarding the value of yearly production analyzed earlier).

Palairet put the value of marketed agrarian products to 140 million (both inland and abroad), which means that the net income (the remainder after the deduction of seeds and consumption), was 360 dinars per farms (calculating with 5 ha and 370 thousand units). After the deduction of expenses, only 2 dinars surplus remained on an estate of under 5 ha (in other words: no profits), while 50 dinars in case of estates between 5–10 ha and above 100 dinars over 10 ha according to Palairet’s calculations (*table 29*).

⁵²⁰ Sundhaussen, H.: *Historische Statistik Serbiens*, 273.

⁵²¹ Stojanovich, K.: *The Economic Problems of Serbia...*

Table 29. Net incomes and expenses of Serbian peasantry in 1910

Farm size (ha)	Net income from grain* (dinars)	Total net income (incl. animals)	Expenses clothing	Salt, sugar, lighting	Equip-ment	Animals, health, culture	Tax	Total ex-penses	Balance
1-2 ha	64	102	92	13	18	10	31	164	-62
2-5 ha	180	290	163	23	26	13	63	288	2
5-10 ha	320	480	201	31	34	27	136	429	51
10-15 ha	690	874	257	53	88	142	242	784	98

Data from Palairet, M.: Fiscal Pressure and Peasant Impoverishment...

Was this income enough to subsist? Who bears the burden of maintaining the state: was it the peasantry that contributed more to the budget or other strata? Palairet wrote that more taxes were paid by the urban population after the 1880s than by peasantry constituting the bulk of society. Furthermore, even the per capita tax values were smaller in the case of peasantry from the beginnings, and this is true for tax ratio measured to revenues too.⁵²² *Unlike in Ottoman Turkey, the Serbian state did not finance its modernization on the cost of masses*, thus fiscal pressure on peasantry was not unbearable. Contrary to this, Yugoslav marxists claimed that state taxes were to serve the intentional pauperization of peasantry and the creation of the working class.⁵²³ Calic or Berend was also right when argued that even a smaller tax rate could mean such a great expense for a peasant economy, that it could threaten livelihood: farms smaller than 5 ha had no profits after paying the taxes, they needed extra revenues to reach balance indeed. Thus the argumentation, that it was the urban population that bear the burden of modernization may be true (if per capita urban taxes are measured to urban incomes), but this did not ameliorate the situation of the masses. It is not surprising that in 1884, when land taxes were reinstalled (after their abolition in the 1830s), progressive taxation was approved! Furthermore, although Simms stated, that overtaxation could lead to

522 Palairet, M.: *Fiscal Pressure and Peasant Impoverishment in Serbia before World War I*. The Journal of Economic History 39, No. 3, 1979. 719–40.

523 Vučo, N.: *Priovredna istorija naroda F NR J*. Belgrade, 1948. 220–22.

decreasing agrarian outputs (Russia),⁵²⁴ but high taxes can also result in increasing output, as we saw in case of Bulgaria, while small tax burden did not result in the increase of private or state revenues, but the opposite!

Thus, it is worth examining the situation further. Taxes in general increased from 8 million in 1862 to 120 million (15x) by 1910 exceeding the increase in total agrarian outputs. This seems high, but was moderated by the population increase (3x): thus although the total taxes increased fivefold from 9 dinars to 45 per capita, it did not exceed for example the rate of export-increase. Furthermore, 50% of the tax income came from indirect taxes paid mainly by urban dwellers (as consumers), representing only 0.4 million people. These urban dwellers paid 90 dinars tax averagely, while peasants only 11.5 dinars per capita in 1911. As tax per capita was 20 and 8 dinars in 1880 respectively, thus per capita increase was smaller in case of agrarian society (*table 30*), though it was still higher than the increase of per capita outputs. Urban earners paid 13% of their average income (calculated to 600–700 dinars per capita), while peasants paid less measured to their gross production (8%). The only exception was the years between 1880–90 when per capita values were doubled owing to the introduction of the new progressive land taxes (1884) culminating in the Timok revolt. It is also not surprising, that the fluctuation of tax rates and values was in connection with political regimes. The Radical Party usually tried to moderate taxes as its main basis was peasantry. Smaller taxes meant more voters, since in Serbia a (small) wealth and income census existed. After the turn of century, when Radicals finally came into power for a longer period, taxes of peasantry started to decrease compared to the years of King Milan and the liberal government (1873–83, 1884–89, 1893–1900).

Contrary to this seemingly favourable situation, after analyzing the balance of payments of peasant households under 2 ha (*table 29*) we may come to the conclusion that not even the total abolition of taxes (in their case: 15–31 dinars, while their yearly deficit was 60 dinars) could

524 Simms, J.: *The Crisis in Russian Agriculture at the End of the Nineteenth Century: A Different View*. Slavic Review 36, 1977.

help them. Only a ban on selling and mortgaging their properties could have saved them from indebtedness and usurers (thus reasoning the persistence of *okučje*). Estates between 2–5 ha had no profits and more than 20% of their expenses (or 20% *net* income) was spent on taxes (constituting 8% of their total revenues). This layer suffered the most from the taxes, as these really deprived them of capital dooming them to stagnation without any progress.

Table 30. Increase of taxes at constant, 1906/11 prices

Period	Agrarian population			Urban population			Tax and income ratio for the 2 layers
	Direct tax per capita	Indirect tax per capita	Total tax and its proportion to production	Direct tax per capita	Indirect tax per capita	Total tax and its proportion (%) to total production	
1867/71	7.65	1.05	8.7 (6 %)	7.65	16.92	24.5 (5%, 480 fr.)	2.8 (3x)
1879/81	8.31	1.40	9.7 (6 %)	10.08	13.81	24	2.5
1887/91	14.68	2.36	17.1 (11 %)	17.91	37.01	55	3.2
1897/00	10.14	3.60	13.7 (10 %)	20.37	59.17	80	5.8
1907/11	7.69	3.81	11.5 (8 %)	19.23	68.7	88 (14%. 650 fr.)	7.6 (4-6x)

Modified after Palairet, M.: Fiscal Pressure and Peasant Impoverishment...

Thus, despite low taxes in Serbia, peasants still suffered and this gave way to their increasing politicization, as evident in the rise of the Radical Party in Serbia, whose power base was the peasantry. In Bulgaria as well, the creation of a peasant party (Bulgarian Agrarian National Union) was the consequence of peasant unrest and mobilization at the end of the 19th century. In Romania, where peasants suffered from a particularly exploitative system of share-cropping, peasant dissatisfaction erupted in the mass rebellion of 1907, which was brutally put down by the government at the cost of thousands of peasant lives.

One could argue that the policies of territorial expansion and the declaration of war against the Ottoman Empire in 1912 was a failed attempt by the political elites of the Balkan countries to deflect public attention from the glaring inequalities in their countries and to mobilize peasants for their nationalist agenda. The mobilization of peasants first for the Balkan Wars, and then for World War One – Balkan countries had the highest mobilization rate in Europe and peasants made up the bulk of recruits – would lead to unexpected change: the experience of

fighting and making huge sacrifices gave peasants a new sense of pride and entitlement, so that they would refuse to acquiesce with the inequality of land distribution that characterized some regions until 1918. Considering these consequences (beyond the territorial ones) the internalization of external problems was not a viable choice. It is not surprising that – especially after the experience of the agrarian regime of Stamboliyski (which denied of nationalism, the key ideology of the formerly ruling bourgeoisie parties) in Bulgaria (1920-23) – both Yugoslavia (a successful example for expansionism and for that it would not solve the problems) and Greece (an example for failure in expansionism) decided to implement radical reforms to mitigate social unrest.

Recruiting peasants also meant that wheat production decreased again from 2.8 million tons to 1 million by 1918 in Bulgaria.⁵²⁵ This was not enough to feed the population and animals as well. As the price of bread increased to tenfold, requisitions began to secure supply for urban workers. These sharpened the dichotomy between urban and rural dwellers. Agrarian production reached prewar values only after 1924! Live stock losses in Romania reached 40-50%.⁵²⁶ In Serbia the production of agriculture was halved in WWI, 44% of agrarian equipments were destroyed.⁵²⁷ Though the devastation was great, this 'tabula rasa' was still not enough to implement radical changes in production structure after WWI: major changes were primarily occurred in estate structure.

(iii) A dead-end success – the polarized agrarian system of Hungary in the 1870s-1914

The different land-tenure system in Hungary offered better possibilities compared to the Balkan states even during the the crisis years, although the social situation of peasantry was not significantly better as testified

⁵²⁵ Demeter G.: *A Balkán és az Oszmán Birodalom*. Vol 1. 559.

⁵²⁶ Roucek, J. S.: *Contemporary Romania and her Problems*, 260.

⁵²⁷ Vučo, N.: *Poljoprivreda Jugoslavije 1918–1941*. Beograd, 1958. 6.

by the numerous movements in Békés County. Compared to the Balkan peasant secluding himself into self-subsistence, the Hungarian agrarian system also did not adapt to the Atlantic market economy in the sense, that it was still stuck between larger scale-provisionism and self-subsistence, as 50% of the agrarian exports (esp. grains) were consumed by the twin-state.

The political appeasement between Vienna and Budapest (1867) coincided with favourable external economic conditions. Hungary was thus able to exploit the grain prosperity through the abolishment of the internal tariff zone: grain exports increased to 1.6 million tons in 1868 attracting investments fuelling industrialization. The bad harvests in 1870–73 and the financial crisis decreased the speed of development, but did not deter it from the previous paths. Wheat exports fell to 0.2 million tons in 1873, the total production from 3 million to 1.6 million between 1868–73 (this could feed only 6.5 million persons without other grains). But soon recovery took place in agriculture and after 1875 the milling capacities in Budapest increased to the second largest in the world (after Minneapolis). The new center substituted the old one, Győr. Although the Hungarian wheat was pushed out from external markets it still could keep its positions in Vienna, compensating the price decrease with increasing outputs. This doubled the consumption of the inhabitants, while their expenses on grains remained the same.⁵²⁸

In Hungary 4.4 million people worked in agriculture in 1870 and this decreased to 3.5 million by 1900. Since the number of total employees remained constant in that period (6.6 million), we have to calculate with significant restratification into industry (20%). 1 million landless people worked as daily labourers, part of them was employed at the great river regulations, but when these were over, they burdened the agrarian sphere again. Further 6-6.3 million family members should be added to this value as auxiliary workforce, putting the total number of people employed in agriculture to more than 10 million (thus still over 50%). Although landlords usually complained about, that “it is not the taxes that ruin the economy, but high agrarian wages”, in the country

528 Tisza, I.: *Magyar agrár-politika...*

agrarian labour surplus was observable indeed, measured by the statistician Keleti to 35% (similarly to the Balkans). Out of the 900 million workdays only 480–550 million was utilized (it decreased in the last cholera plague in 1872). Thus, the above mentioned complaint rather meant a political goal to limit wages, than a real shortage of labour force. The distribution (and oversupply) in agrarian labour force showed remarkable regional differences. The average arable land/farmer was more than 3 ha, but interestingly in the most fertile regions of Bacska, Banat, Békés, Csanád, Csongrád it was over 5 ha (owing to the great number of larger estates). In the mountainous regions with small parcels this decreased to 1.5 ha showing huge amount of labour surplus, indicating also the directions of seasonal population movements.⁵²⁹

The reason for this can be found in the land-tenure system. Although serfdom was abolished in 1848 the laws did not allow the distribution of allodial lands, including those, that were rented by peasants, but were officially qualified as allodial or remanency land (in 1767). Thus 57% of lands remained in the hands of landholders with above 50 ha in 1870, although it is debated whether better land remained in the hand of the elite (Varga János) or not (Scott M. Eddie).⁵³⁰ The number of large estate owners between 100–500 ha was still some 7–8000 (the former *bene possessionati*, noblemen were also involved in local administration). Only some 1–2 thousand had more land. The agricultural elite was still among the richest layers even compared to representatives of other sectors (bankers, entrepreneurs) as proved by their position on tax-lists (*virilists*, list of richest taxpayers). The serfs were able to acquire their *sessios* (with the help of state loans to pay the redemption), which means that the average landhold redeemed was only the often mentioned 0.5 sessio/farm. It caused relative overpopulation and many peasants were compelled to work on large estates – the only difference was that they were paid for it instead of working in compulsory *corvée* (*robot*). Thus the Hungarian land reforms were completely different from the Serbian or Bulgarian model and secured the persistence of large estates, by

529 *Magyarország története*. Vol. 6/2. 1044.

530 See: Scott M., E.: *Ami „köztudott” az igaz is?* 84.

providing substantial labour force. The law of 1878/XIII. even decreased the mobility of wage-labourers further in order to secure labour force for the exporting large-estates. The number of owners decreased by 100 thousand within 20 years (similarly to the Bulgarian process), while the number of farms increased by 300 thousand. This means that land concentration progressed, while fragmentation still did not stop (one owner could have numerous estates in different localities. On the other hand a modernized estate of 15-35 ha near the urban markets was more prosperous, than a badly equipped distant, but remarkably larger estate.

Total land cultivated was 25 million ha, with only 7.3% remaining uncultivated, which was among best utilization percentage in Europe. The increase of cultivated land was less than 10% in this period contrary to the Balkans, which means *that extensivity was over here earlier*. There were significant transformations in the structure of agriculture: the proportion of arable land increased from 33% to 43% (in Romania this was 30% in Austria in 37%, but 50% in France) within 30 years (+23%), in order to compensate falling grain prices. The share of pastures decreased by some 4% and of woodlands with 2%, which was moderate compared to the Balkans. The increase of arable lands exceeded that of the population (0.8% vs. 0.5% yearly average), therefore it secured the possibility of maintaining exports even without the amelioration of yields.⁵³¹

The proportion of fallow also decreased from 25% to 10% between, this meant that Hungary finally overcame the three-year crop-rotational system: only 29% of the settlement used the latter by 1910. (In 1870 33% of the lands were sown by wheat, 33% by maize pushing out animal fodders referring to the old system of three-year rotational system). But land consolidation (merging small parcels) had taken place still in only 44% of settlements (nevertheless it was better, than the Balkan average).

As railway-constructions were one of the flagship-developments of the state, the transport costs declined to one-sixth between 1850–85 integrating the distant regions into the market centres. Local price

531 *Magyarország története*. Vol. 6/2. 1045–47.

differences within Hungary decreased from 100% in the 1820s to 15% in 1885. But this did not help Hungarian grains that lost foreign markets owing to the US competition (the USA doubled its output, while its population grew only by 50%). Grain prices fell by 25% between 1867–1891, but despite this grains constituted 50% of the agrarian exports.⁵³² Only Austria remained as partner owing to the joint tariff zone. Thus, contrary to the Balkans, Hungarian agriculture was still not integrated into the world economy. The nivellation of wheat prices measured to other grains continued: while in the 1820s wheat price was the double of other grains, in the 1870s this gap decreased to 25%.

Contrary to price decrease the incomes from grain increased steadily as the output in case of **wheat grew from 2 million tons to 4 million between 1870–90.**⁵³³ 50% of this increase was the result of extensification, the other 50% of increase came from the increase of yields – still fluctuating between 0.7–1.9 tons/ha. The average yield was 1 t/ha. Technological advance produced better output in N-Transdanubia or in the Plains, where 90% of the ploughs were made of iron. The most mechanized process was threshing, however based on solely the capacity of engines, it would take 130 days to process the grain in the 1870s. In other words it means that only 25% of the harvest was threshed by the 5400 engines. By 1890 their numbers increased tenfold and 16% was driven by steam.

The conditions for investments were more favourable than in the Balkans owing to the numerous (thus cheap) credit possibilities: between 1867 and 1890 the values of mortgages on lands increased from 170 million francs to 1 billion (similar to the total value of large estates in Greece)! To break down usury, interest rates were maximized in yearly 8% owing to a government intervention in 1873, to moderate the impacts of the crisis.

The 50% increase *in total agrarian exports* (wheat exports doubled between 1871–1890) contrary to price trends and to the insignificant

532 *Ibid.* 1051. 1054–56.

533 For the problem of measuring agrarian output see Katus, L.: *Economic Growth in Hungary during the Age of Dualism (1867–1913): a Quantitative Analysis*. Studia Historica Academiae Scientiarum Hungariae 62. Budapest, 1970.

increase in cultivated land refers to production (and milling) capacities largely exceeding local needs. Compared to the 1840s when 50% of exports were given by animal products, a great turn had taken place in animal husbandry as did in the Balkans. Animal livestock, wool, processed food constituted only 33% of the agrarian exports by the 1870s (and even animal imports increased, see the Balkan quota-war or the Serbian “Pig War”).⁵³⁴ Wool prices also decreased from 3200 to 2600 francs/ton⁵³⁵ between 1867–87 (reasoning the decrease in proportion of pastures), and the share of wool from agrarian exports also fell (from 11 to 7%) owing to the Australian oversupply.⁵³⁶ As sheep giving wool were mainly raised in large estates this did not cause much harm for the peasantry. But the decline forced these large estates to turn towards grains. However, this decline in share did not mean a decrease in absolute numbers, as the **total agrarian export increased from 500 million francs to 750 million.**

The animal population suffered from fodder shortages as wheat production expanded. The fodder of oxen was measured to 4 million tons, and as 1 ox needed 4 tons yearly, this amount was only enough to feed 1 million draft animals, while the total number of cattle increased from 4.6 to 5.8 million between 1870–95.⁵³⁷ Since cattle was utilized in many forms, the recovery of their number measured to population was an important phenomenon. The Hungarian gray was substituted by western species (their share grew from 21% to 42% till 1895, then reached 78% by 1911) giving more milk and flesh, but requiring intensive raising (stables, fodder). And though European cattle density decreased by 10% measured to the population, and meat consumption increased by 40%, Hungary was unable to enter into markets as did it prior to the 1840s, because of the relative shortages within the country. While in 1857 the number of cattle per 1000 inhabitants reached 400 (increasing from 270 in 1789), it decreased to 335 in 1880, increasing only to 366 by 1895 owing to the 50% increase in meat prices. This ratio

534 *Magyarország története*. Vol. 6/2. 1061.

535 See *table 15* in Chapter II.

536 *Magyarország története*. Vol. 6/2. 1058.

537 Without Croatia. *Ibid.* 1084–85.

was not bad measured to countries like France, 317, Germany 387, but was definitely low measured to Denmark (750), or even to Bosnia (644) and Serbia (573). In Romania it was 372, similar to the Hungarian value, but Romania (as an ally) also exported animals to Hungary owing to relative scarcity, causing problems for Hungarian producers.⁵³⁸ Competition for internal Hungarian and foreign markets was great (the Hungarian cattle population grew to 7.5 million including Croatia by 1911). While in the 1830s the cattle of peasants gave 500 litres of milk yearly, this increased to 750 litres per animal, and if we calculate only with cows giving milk, this was over 1000 litres – similar to the Balkans. Cattle remained dominant in smallholdings, like pigs (77%) contrary to sheep (50% in large estates). In pig breeding changes also occurred: the Balkan mangalica pushed out the Hungarian 'bakonyi' species.

The decrease in number of animal units⁵³⁹ also meant that – after giving up fallows – there was not enough organic manure and draft force. But while the latter was substituted by mechanization, artificial fertilizers remained uncommon.⁵⁴⁰ To produce 1 ton of grains 4 tons of manure was calculated yearly. This put Hungarian manure demand to yearly 68 million t, while the 8.6 million „animal units” produced only 50% of this. By 1895 the number of animal units increased to 11.5 million, but still covering only 66% of manure demand of the soil. But the replenishment of organic material was generally not taken into consideration that time. The fertilizer consumption was under 15 kg/ha or 2.3 million tons, while in Belgium it was over 300 kg/ha, in Italy 120 kg/ha. In Hungary replenishment through alternative crops was dominant.

Similarly to the distribution of exports, 55% of the production came from crops in 1870 (including industrial crops beside grains), 33% from animal products, 7–10% from wine, grapes and fruits. By 1890 this shifted to 70, 25, 5% respectively decreasing diversity further. But this tendency soon changed owing to the great crisis in 1873, which not only

538 *Ibid.* Vol. 6/2. 1087.

539 The number of animal units per 55 ha was 59 in 1820, 67 in 1851, but only 44 in 1884 and 50 in 1890. Gyimesi, S.: *Utunk Európába*, 105.

540 *Magyarország története*. Vol. 7/1. 313.

affected the agriculture, but almost resulted in the bankruptcy of the state. As the consequence of the agrarian crisis in 1910 50% of the total output came from animal husbandry again and only 50% from crop production.⁵⁴¹ 83% of incomes from animal husbandry was generated then by peasant smallholdings, while specifications resulted that grains dominated in large estates (remarkable turn compared to previous decades, when animal husbandry was significant in large estates as well. The low share of animal products from exports is due to the fact, that smallholders tended to enter only into local markets).

The agricultural crisis had the most serious effect on the plains because it had the least diverse product structure. The mountainous fringes were not effected as they did not produce substantial marketable surpluses, while Transdanubia had a more diverse structure, therefore the crisis did not have longlasting impact there.⁵⁴² To tackle the agrarian crisis of 1873 tariffs were increased in 1887, following the German example on wheat and oxen. Due to the decreasing wheat prices Hungarian exporters turned to flour, which has three times greater unit prices: the milling capacity played a great role in the recovery. While wheat exports fell from 525 thousand tons to 416 thousand between 1882–1911 (even contrary to rising grain prices after 1900), flour exports increased from 333 thousand tons to 700 tons. Large proportion of the processed grains stemmed from foreign countries (mostly from the Balkans). Another pull factor was the increase of livestock and meat prices: cattle exports increased from 96 thousand to 348 thousand in the same period. This was a great progress compared to period before 1890s, when the number of cows for 1000 persons were decreasing. By 1910 cattle population peaked at 7.3 million (still not exceeding 366 animals per 1000 capita).

Although swine population also increased from 4.4 million to 7.5 million between 1869–1911, swine exports decreased from the average yearly 673 thousand to 484 thousand. For Hungary the Serbian pig export was a great rival, especially since diseases struck on the Hungarian swine population in 1894. Exports fell then from 1.3 million

⁵⁴¹ Katus L.: *A modern Magyarország születése*. Pécs, 2012. 440.

⁵⁴² *Magyarország története*. Vol. 7/1. 293.

to 0.25 million. More than 2 million pigs decayed within 2 years and 4.5 million in a decade.⁵⁴³ Owing to the fall of wool prices the number of sheep declined continuously from 10.5 million (1885) to 7.5 million (1895) even after the great crisis. These together with the peak of grain price decrease and the *phylloxera* destroying 50% of the country's vineyards culminated in a second crisis of smaller extent (similar to that taken place in the Balkans) in the 1890s.

The land reforms in 1848 resulted in a very unbalanced landholding structure (*table 31*). Such polarization in the agrarian society was measured only in Romania in whole Europe. 53% of farmers had not enough land to sustain a family, this was similar to the Serbian or Bulgarian value, but the proportion of lands over 1000 ha was also above 25% (meaning that the establishment of a smallholder-society would have been more realistic here than in the Balkans). Between 1880–1910 only 0.5 million ha (2%) was distributed among peasants from large estates, river regulations added further 0.6 million ha (construction works also provided occupation for agrarian proletariat), while the total land cultivated ranged up to 25 million ha. Leasing smallholdings was not common: while 16–20% of the lands above 500 ha was leased, this proportion was only 2% among lands between 5–50 ha. But leased large estates were often re-leased to smallholders at higher prices by entrepreneurs obtaining the landlease of large estates.

The situation of landless peasants was not promising: by 1913 only 33% of the agrarian proletariat, 700 thousand persons had any kind of insurance. Between 1871–1913 more than 1.3 million left the country (in which national minorities were overrepresented) and only 50% returned. The more than 1500 cooperatives had only 100 thousand members (small proportion compared to the Balkans), and the peasant parties were also divided. Their demands (distribution of state lands and private large estates, voting right, social insurance) were not welcomed by the elite.

Most of the large estates were concentrated in Transdanubia, while the least was found in Transylvania. Landholdings between 5–50 ha

543 *Ibid.* Vol. 7/1. 296.

were the most common in the central part of the country (40%), while their share was under 30% in the northeastern parts of the country. Of course there were significant differences regarding the outputs: a cow in a smallholding weighted 280 kgs, while in large estates it was 570 kgs. The milk production was also different: 1130 and 1720 litres respectively.⁵⁴⁴

Table 31. Estate structure in Hungary in 1900

Farm size	Farms (%)	Land (%)
0–0.5 ha	23	0.5
0.5–2.5 ha	30	4
2.5–5 ha	19	6.8
5–10 ha	16	11
10–50 ha ha	10	17.5
50–500 ha	1	11.5
over 500 ha	0.2	24.3

Magyarország története. Vol. 7/1. 300.

The total agrarian output constituting 50% of the GDP (produced by 65% of the employees) increased to 4.5 billion francs in 1910 (the export was 17% of this),⁵⁴⁵ or 225 francs/capita increasing from 150–170 francs, exceeding the value calculated for the Balkans. Per capita number indicate formidable development. But it was only partly the consequence of a successful shift in agrarian structure after the turn of the century (revitalization of animal husbandry in smallholdings) or of the increasing outputs, that prove the modernization of the agriculture. As the extent of cultivated land did not increase between 1890–1910 the price trends (meat prices were increasing) also contributed to the better results and the change in the composition of production value.

For the modernization efforts the required capital was supplied by loans. But, while the total value of credits increased from 1 billion to 3 billion francs until 1910, still 35% of the cultivated land (state lands,

544 Nagy I.: *Agrárpolitikai tanulmányok*. Budapest, 1950. 188–90.

545 Net output (excluding animal fodder and seeds) was 3.1 billion francs or 70%. *Katus, L.: A modern Magyarország születése*, 444.

community lands, lands belonging to the Churches) could be only mortgaged limitedly (like in Serbia owing to the *okučje*). The costs of modernization were also high: debts reached 160 francs/ha, or almost one year's production in case of grain for an estate of 5 ha in the central parts of the country, while in Transylvania it was only 30 francs (Serbia or Bulgaria reached this share only in the Interwar period.).⁵⁴⁶

Regarding *technological advance* Raiffeisen-type cooperatives enabled the modernization of some smallholdings. The development of ploughs made it possible to maintain viable economies even with two oxen, instead of the former four. Mechanization progressed further: between 1895–1915 the number of thresher engines increased from 9 to 29 thousand, now threshing 85% of the grains (it was under 33% around 1870).⁵⁴⁷ The number of tractors reached some thousands by 1910 (in Bulgaria this was under 20). Furthermore, 44% of the sowing machines was owned by smallholder peasants.⁵⁴⁸ Despite the shortage in organic manure and artificial fertilizers, yields/ha also increased. Maize reached 2 t/ha (0.7 t in 1870), wheat 1.3 ton/ha (under 1 ton in the 1840s) (*table 32*). The increase of yields in case of potato was greater, from 2.5 tons to 9 tons between 1870–1911, in case of sugar beet it was 17 t in the 1890s and 25 tons in the 1910s. It was stated that general output of agriculture increased from 2 tons/hectare to 5 tons/hectare in 1911,⁵⁴⁹ representing a 3% increase yearly. However, this increase – among the greatest in the modern world the 19–20th c.– has recently been challenged by cliometrist. First, the selection of the compared years (the beginning and the end years of the investigated period) did not take trends and fluctuations into consideration. Scott M. Eddie proved, that if these output numbers are not based on 5-year averages but on deliberately selected years. Thus one can select years, which put yearly increase under 1%, but if different dates are chosen, the growth can reach even 3.5% yearly. The growth based on 5-year averages is not more than 2.5%

546 Or in other words: as agrarian output was 4.5 billion francs on 25 million ha, the output was 180 francs/ha.

547 *Katus, L.: A modern Magyarország születése, 444.*

548 *Magyarország története* Vol. 7/1. 310.

549 *Ibid.* Vol. 7/1. 321.

according to Eddie, while Katus claims that the growth of total agrarian output was not higher than yearly 1.9%.⁵⁵⁰ (The difference had many reasons: Katus put the role of animal husbandry from total output to 30%, while Eddie used the data of Fellner, who put it to 40%).⁵⁵¹ If we take into consideration population increase as well, this growth decreases to yearly 1.5% according to Eddie and to 1% according to Katus (but still higher than in the Balkans). In countries with not so unbalanced estate structure, for example in England this growth was yearly 1.3% in the most dynamic period between 1820s–1860s, 1.2% in Germany (1853–1910) and 0.9% in the USA (1840–1900) and 2% in Japan (1885–1919, by stagnating population). This means, that *despite its estate structure claimed to be “unfavourable” the Hungarian growth reached the European average, and highly exceeded the growth in the Balkans* (which also showed improving total production, but stagnating-decreasing per capita values). It is also evident, that the uneven estate structure can only partly be responsible for the differences measured between Hungary and the Balkans, as the latter showed all kind of patterns from smallholding-dominated (Serbia, Bulgaria) to large estate-dominated countries (Romania), but all lagging behind the performance of the Hungarian agriculture.

Some of the crops showed remarkable increase in outputs. The Hungarian average was above the European yields regarding sugar beet, while in case of other crops the yields/hectare exceeded the values measured in the Balkans (*table 33*). The reorganization of wine production also began, as the price of 1 hl wine increased from 15 francs to 40 francs (while in the 1870s, 7% of the exports came from wine, the country even became a net importer in the 1890s). Although the extent of vegetable gardens reaching only 15 thousand ha in 1895 increased fivefold, they still ranged only to 70 thousand ha (relatively small compared to Bulgaria, where it was also not dominant). Despite this, the onions of Makó, the watermelons of Csány, paprika of Szeged and Kalocsa, the apricots and peaches of Kecskemét and stud of Bábolna

550 See: Scott M., E.: *Ami „köztudott” az igaz is?* 36. 41–42.

551 Fellner, F.: *Die Schätzung des Volkseinkommens*. Bulletin de l'Institut International de Statistique 14. 1905. 109–151.

became famous that time in Europe (partly owing to the activity of Balkan experts).

Table 32. Development of agrarian outputs and yields/ha in Hungary (and Croatia)

in 1000 tons	Wheat	Maize	Grains altogether	Potato	Sugar beet
1871–75 (crisis years)	1298	1153	4800	840	242
1891–95	4014	3162	11 000	2840	1382
1911–15	4102	4210	12 200	5167	3812
Average yearly growth (%)	3	3.3	n.a.	4.6	7.1

Average yields/ha	Wheat (q)	Maize (q)	Potato (q)	Sugar beet (q)
1871–75	6.5	7.4	23	123
1891–95	12.8	15.3	63	178
1911–15	12.4	17.2	83.4	246

Katus, L.: A modern Magyarország születése. Pécs, 2012. 442–45.

As for absolute values, the Hungarian grain production was the 4th in Europe,⁵⁵² producing 60% of the grains in Austria-Hungary. Potato production was also ranked 4th, but per hectare outputs were not outstanding, rather average.⁵⁵³ But while even Serbia exported 20%, Bulgaria 30% of its wheat production by 1910, Hungary exported only 16% of its agrarian output, not more than Turkey in 1900. Hungary mostly relied on the internal „imperial” markets (Cisleithania), that is why the collapse of this system after 1918 was so harmful.

The other country with similar structure, Romania was the 6th in the world regarding the value of its grain exports, constituting 70% of the exports. Both extensification and the price increase after 1900 contributed to the increasing value, and per capita output was growing, but in Hungary intensification was more visible.⁵⁵⁴ The Romanian per

552 Totalling 130 million tons. Russia was leading with 540 million tons, followed by Germany (460 million t) and France (170 million). *Gyimesi, S.: Utunk Európába*, 110.

553 With 54 million tons. Germany produced 458 million t, Cisleithania 127 million, France 118 million. *Gyimesi, S.: Utunk Európába*, 110.

554 Lampe, J. R.: *Varieties of Unsuccessful Industrialisation*, 63.

hectare outputs still exceeded other regions of the Balkans by 15–30%. The economic growth of Romania was driven by grain exports up to the crisis in 1897–1900, but then oil took its place. Grain exports even helped surviving the Austro-Hungarian-Romanian tariff war in 1886–92, making the balance of trade positive.⁵⁵⁵

Table 33. Agrarian yields in Europe (q/ha) in 1910 and 1930

1910	Wheat	Maize	Potato	Sugar beet	1930	Wheat	Maize	Potato	Sugar beet
Denmark	33.1		148.3	306		27.6		157	301
England	21.2		156.4						
Austria	13.7	15	83.4	204		15.5	20.6	130	242
Hungary	13.2	17.5	80.2	254		12.3	16	57	192
France	13.1	12.1	87.1	239		14.1	16.2	108	290
Romania	12.9	13.1		205					
Serbia	10.5	13	41	208		10.1	15	54	152
Russia	6.6	11.3	70	161					
Bulgaria	9.9	12.9	36.7	129		12.6	13.4	58.4	176

To sum it up, the Hungarian „model” proved to be a *dead-end success*, partly because it also highly depended on external factors (the existence of Austria-Hungary). The growth after 1900 was rather limited, no further breakthrough was achieved. Beside its favourable possibilities the unbalanced estate structure also meant a burden, because it created unresolved social problems.

Regarding historical *topoi*, Scott M. Eddie and Katus proved, that the economic growth of the Hungarian agriculture was average, not extreme and not too low (which would contradict to marxist assumptions, that large estates hindered economic growth). The abundance of large estates did not hinder agrarian improvements,⁵⁵⁶ although it is also true, that large estates were not exclusively the catalysators of development: Scott M. Eddie also proved, that its role

⁵⁵⁵ *Ibid.* 62.

⁵⁵⁶ Scott, M. Eddie: *Ami „köztudott” az igaz is?* 42.

was not so predominant as assumed in earlier historiography (burghers owned 38% of estates over 50 ha and their income, while aristocrats 34%, the state and churches together 18%).⁵⁵⁷ While Hanák argues that the abolishment of the internal tariff boundary within the Habsburg Monarchy promoted agricultural development, John Komlos states, that his data are incorrect and the decomposition of tariff boundary had no real effect on the agrarian performance of Hungary.⁵⁵⁸

Another *topos*, that the liberation of serfs had increased the agrarian output was also challenged (see earlier), such as the statement that the tariff system in Austria-Hungary rather served the interest of the agriculture than that of the industry. The hypothesis that the aristocrats managed to acquire lands of better quality due to the reforms in 1848 (Varga János) cannot be verified, neither falsified (Szekfű in the 1920s stated, that the estates of aristocrats were recently turned into arable lands from pastures and fallows, as the names testify this, thus were not of the best quality). There are numerous examples supporting both statements. At the present state of research there is also no sign that the nobles tried to distort the land-taxation system in favour of their interest and pay proportionally less tax compared to the quality of their lands.⁵⁵⁹ (These contradictory assumptions basically influenced the adjudication of the land reforms in 1848).

Finally the statement, that the tariff system in Austria-Hungary was unfavourable for the Hungarian parts proved to be true in case of agricultural exports (and agricultural goods constituted the majority of Hungarian exports), but only up to the 1890s, when there was a recompensation built in the tariff-system regarding the 'classical' export

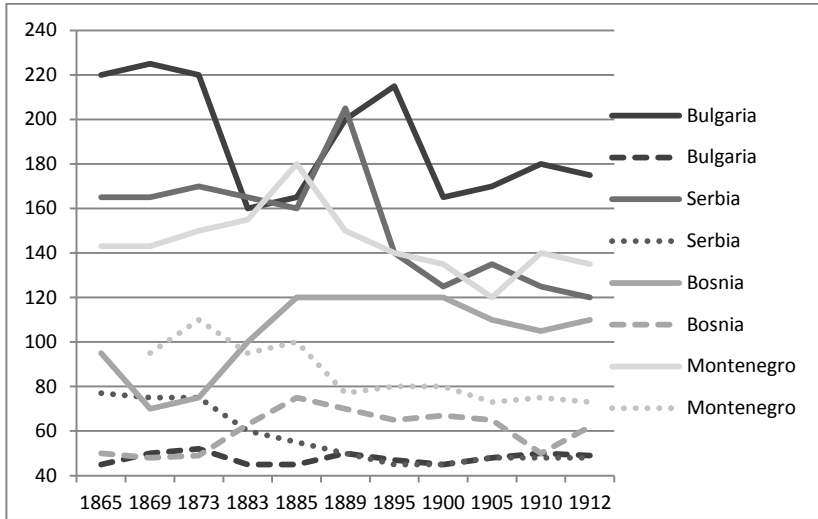
557 *Ibid.* 26. and Eddie, Scott M.: *Agricultural Production and Output per Worker in Hungary, 1870–1913*. *Journal of Economic History* 28, Nr. 2. 1968. 197–222; Eddie, Scott M.: *The Changing Pattern of Landownership in Hungary, 1867–1914*. *Economic History Review* 20, Nr. 2. 1967. 293–310.

558 Komlos, J.: *Austro-Hungarian Agricultural Development, 1827–1877*. *Journal of European Economic History* 8, No. 1. 1979.

559 From the four possible solutions: 1, the aristocrats acquired average or better lands and paid proportionally less tax; 2, the aristocrats owned average or better lands and paid proportionally *not less* tax; 3, the aristocrats owned average or worse lands and paid proportionally less tax; 4 the aristocrats owned average or worse lands and paid proportionally *not less* tax; the second solution is the most realistic according to Eddie.

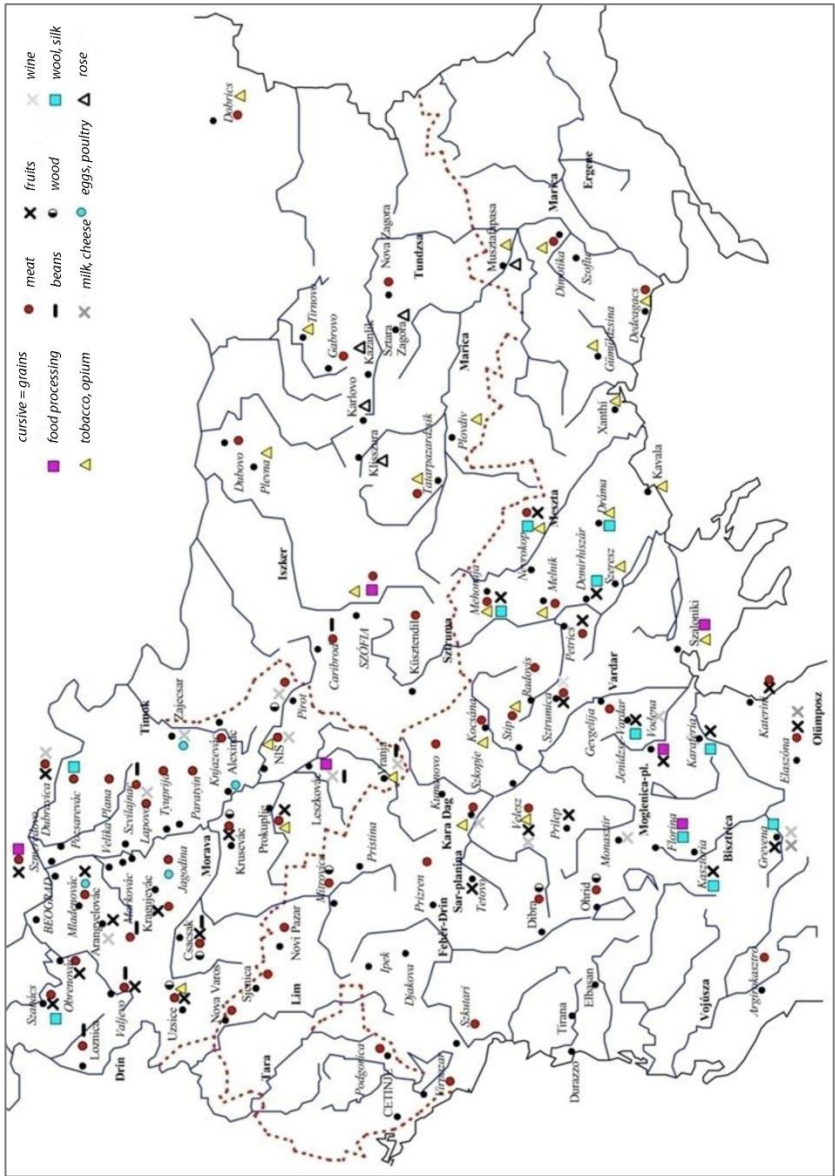
articles (grains). As these products were stemming mostly from large estates, the changes were favourable for large estate owners – among them for the aristocracy.⁵⁶⁰

Figure 6. Total agricultural production per capita in the Balkans, and the per capita contribution of animal husbandry to the agriculture



Based on the tables given by Palairet, M.: The Balkan Economies...

560 Those involved in milling industry also profited from this lobby. Eddie, Scott, M.: *The Terms of Trade as a Tax on Agriculture: Hungary's Trade with Austria, 1883-1913*. *Journal of Economic History* 32, No. 1. 1972. 298-315.



The agriculture of the Central-Balkans cca. 1910. Földrajzi zsebkönyv, 1912.

V. The postwar agriculture, 1920s–40s

The interwar period brought about significant changes, like land-reforms on broadened base and attempts towards intensification, but neither of these was executed consistently in all countries of the region, nor was considered successful enough to solve the old problems. Land reforms in the Interwar period had (1) to cope with the problems of agrarian overpopulation, (2) to eliminate the significant regional differences, (3) and were to serve security issues by settling ‘reliable’ population along the new borders with a slight modification of the ethnic pattern. Intensification efforts were partly the consequence of the great economic crisis that proved the vulnerability of the less diverse Balkan economies.

(a) Persisting problems

The dualism in the structure of agriculture of Southeast-Europe persisted after World War I. In Greece and Hungary 50% of the population lived/worked on estates over 50 ha, in Romania it was 33%, while it was only 10% in Yugoslavia after the post-war land reforms, and 2% in Bulgaria.⁵⁶¹ The agrarian proletariat in % was highest in Hungary (30% of agrarian earners or 780 thousand, while 731 thousand in the more populous Greater Romania, *table 4*). Owing to the frequency of large estates cereal production was still profitable for Romania and Hungary in the 1920s. In Romania, where estates over 100 ha comprised only 0.2% of economic units, but 46% of lands (compared to the Serbian 1%)⁵⁶² yields/ha were 20% higher, than in Yugoslavia, where – unlike in Romania – the *product structure was adjusted to the existing estate structure*.

561 Moore, W. E.: *Economic Demography of Eastern and Southern Europe*. Geneva, League of Nations, 1945. Appendix, table 2.

562 Zagoroff, Sl.–Vegh, J.–Bilimovich, A.: *The Agricultural Economy of the Danubian Countries, 1935–1945*. Stanford University Press, CA, 1955.233. Estates over 500 ha gave 17% of the lands and only 0.1% of economies, while farms under 5 ha gave 75% of economic units and 28% of the land, similar to Bulgaria.

Table 1. Characteristics of agricultural production and and its cost

Country	Net National Production (million USD)	Agricultural production in million USD and in % of NNP	Net agrarian output (million USD)	Net agrarian output in million golden francs	Net agrarian production measured to total	Price of foodstuffs (USA=100)
Hungary	1100	400 (35%)	290	1080	72.5	130
Romania	n.a.	580	500	1446	86.2	100
Yugoslavia	861	443 (50%)	310	1449	70.0	110
Bulgaria	500	230 (46%)	150	691	65.2	128
USA	72 500	9100 (12%)	5500	23 000	60.4	100

Table 2. Characteristics of agricultural production and and its cost II

Country	Retail prices compared to US	Total and net output to 1 agrarian worker (in USD)	Total and net output of 1 ha (in USD)	Agrarian area per worker (in ha)	General calory content / quintals (kcal)	Ratio of self-subsistence (%)*
Hungary	65	180 (120)	56 (38)	3.1	250	121
Romania	41	66 (57)	36 (31)	1.8	291	110
Yugoslavia	54	78 (56)	44 (32)	1.8	289	105
Bulgaria	48	77 (55)	53 (33)	1.6	320	106
USA	100	1000 (600)	51 (30)	20.2		

Zagoroff, Sl.-Vegh, J.-Bilimovich, A.: The Agricultural Economy of the Danubian Countries, 15–18.

*100% means self-subsistence, values over 100% represent the surplus (to trade with)

Measuring net output to total would suggest that the effectiveness of agriculture was the highest in countries dominated by large estates. But the situation is not so evident if other indicators are taken into consideration. Agrarian products were especially cheap in the smallholdings dominated Bulgaria and in the large estates dominated Romania (under 50% measured to the value in USA), while Hungary dominated by large estates had higher food prices (65% measured to USA). Thus, the price of foodstuffs was not determined by the estate structure (not even by production surpluses), rather by other factors (like general incomes and purchase power). Hungary was characterized by the greatest surpluses (+20% over home consumption), while Yugoslavia and Bulgaria was balancing on the edge of self-subsistence

by 1938. Overpopulation threatened Hungary the least (3.1 ha/agrarian worker compared to 1.6–1.8 in other countries), it is therefore not surprising that total output/capita was here the greatest (*table 1–2*). But regarding per hectare values the difference is not so significant (56 to 36–53 USD). This means, that the favourable positions of Hungary were in connection with the lack of labour oversupply in agrarian sphere. The calory content of products was 15% smaller in Hungary, than in the southern countries. It is evident, that restratification progressed in Hungary the most, as agrarian production gave only 40% of NNP, which was the highest in the examined region (regarding both total and per capita value). The high production per hectare in Bulgaria (53 USD) refers to structural changes of the 1930s (intensification), while the low Romanian value (36 USD) refers to the fact the large estates did not react well to the changing circumstances after the fall of grain prices in 1929. In Bulgaria the proportion of industrial plants increased to 35%, grains decreased under 50%, while in Romania the latter still constituted 60% of the produced volume (*table 3*).

Table 3. Distribution of produced crops 1934–1938

Country	Cereals %	Fodder and other crops %	Industrial plants %
Romania	60	30	10
Bulgaria	50	17	35
USA	25	25	50

Zagoroff, Sl.–Vegh, J.–Bilimovich, A.: *The Agricultural Economy of the Danubian Countries*, 22. 50.

Contrary to the relatively good index values in the agriculture, the Hungarian peasantry was relatively overloaded (especially compared to the Serbian calculations prior to 1910). The per capita taxes increased by 60% between 1910 and 1924. The middle class (18%) paid 40% of the taxes, the richest 50 thousand paid 21%, while the poor (constituting 80% of tax payers, including all peasants under 55 ha) gave 38% of the state tax incomes. This means that taxation was not progressive: peasants still paid 20% of their income as at the end of the 18th century, while the middle class and the high society paid 25–30%.⁵⁶³ Both leftist

⁵⁶³ Romsics, I.: *Magyarország története a 20. században*. Budapest, 2000. 156.

(Ferenc Erdei, Péter Veres, Gyula Illyés, Géza Féja) and conservative writers (Dezső Szabó, Zoltán Szabó) complained about the health conditions and living circumstances of peasants.

Table 4. The supply of workforce: agrarian proletariat and draft animals in 1938

Country	Animals in metabolic units/ha)	Draft animals in metabolic unit/ha)	Agrarian proletariat in 1000 persons	Agrarian proletariat in %
Hungary	0.75	0.45	787	38
Romania	0.67	0.42	731	9
Yugoslavia	0.88	0.55	475	9
Bulgaria	0.99	0.54	140	5

After the Great War the tendencies of estate fragmentation and overpopulation generally became more pressing in the Balkans. Totev and Egorov put the unexploited workforce to 650 thousand in Bulgaria.⁵⁶⁴ Population increase in Yugoslavia exceeded yearly 2% even after 1929. According to Sundhausen the yearly increase in agricultural output was under 1 %, under the rate of industrial development. Calculating with the population growth this meant a 0.5% decrease per year. Turina claimed that the efficiency of male labour force was about 70% (250 million workdays to 360 million total days), while that of the women was over 90% (480 million days/542 million).⁵⁶⁵ In Banjane village a family of 5 with 7 ha needed 51 workdays from sowing to harvest in 1930, while it was only 30 days on an estate of 20 ha.⁵⁶⁶

This decreased competitiveness and efficiency. Outputs per ha were 30% under the European average, labour productivity was 57% lower than in Europe.⁵⁶⁷ In Yugoslavia 70% of the population generated only

⁵⁶⁴ Mollov, Ya.: *Problemi na balgarskoto zemedelie*. Sofia, 1935. 24.

⁵⁶⁵ Turina carried out a similar investigation between the 2 world wars like Avramović did in 1910. He calculated that housewives worked for 346 days yearly, husbands 200–245, assistant labour force 315 days and maidens 100–150. Turina, B.: *Poljodjelstvo u Nezavisnoj Drzavi Hrvatskoj*. Zagreb, 1943. 141–44. For better labour force exploitation among Catholics see: Maister, H.: *The Employment of Peasant Population*, 91–116.

⁵⁶⁶ Calic, M.-J.: *Sozialgeschichte Serbiens*, 92. quotes Petrović, A.: *Banjane. Socialno-zdravstvene i higijenske prilike*. Belgrade, 1932.

⁵⁶⁷ Calic, M.-J.: *Sozialgeschichte Serbiens*, 238.

45–50% of the GDP. *The improper use and small amount of agrarian credits,⁵⁶⁸ primitive agrotechnics, dominance of monocultural smallholdings, small parcels, yields still exposed to climate, incomes determined by external conditions, bad composition of exports were the reason of the low output and weak competitiveness.* Governments also lacked a coherent strategy and interest in improving farming, reflecting the lack of political power of the peasantry.

Until grain prices remained high – the upswing in 1921–25 created higher grain prices than in the war (1912: 160 golden francs/t, 1925: 260–300 francs/t),⁵⁶⁹ and this offered a possibility to earn incomes through the expansion of exports in Yugoslavia (31 000 tons in 1922, 417 000 tons in 1924 wheat+maize, producing 150 and 930 million dinars income respectively) – the problems could be deferred. But during the great crisis the unsustainability of the current practices became evident. Furthermore, any increase of incomes was partly eliminated by the 40% inflation of that period: costs of living (1913 = 100) grew from 553 in 1919 to 1400 in 1922 (measured in paper dinars) in Yugoslavia. Thus, in 1924 average national income per capita was 4800 dinars at current prices making it only to 290–300 in golden francs, which is slightly higher than the value prior to the War.

From among the possible internal solutions (extensification, labour intensification, technological advance, changes in product structure, land concentration) *extensification of landuse was unable to keep up with the rate of population increase in Yugoslavia,⁵⁷⁰ which grew by 4 million within 20 years.* This 33% increase (similar to Romania, Bulgaria and Poland) was among the highest in Europe. Because of the immigration restrictions in the United States, imposed in the early 1920s, and in other overseas countries, emigration was not a viable exit strategy for these

568 For example in Bulgaria between 1878–1903 state support was completely missing, thus this was favourable for usury again.

569 Vučo, N.: *Agrarna kriza u Jugoslaviji 1930–1934*. Belgrade, 1968. 21–23. and 178.

570 Lampe's theory that population increase was initiated by the agrarian upswing in the middle of the 19th century may be true, but not for the postwar era. There is more reason in traditional explanations (like child as workforce; the lack of pensions and social security system. Even in the industrialized Czechoslovakia the average number of children was 3.8 in agrarian families, while 2.8 in industrial families between the two world wars).

regions any more: from Yugoslavia, around 335 000 people emigrated to Europe and the US during the Interwar period, of whom 155 000 returned.⁵⁷¹ The refugee question after the war further aggravated problems for Greece and Bulgaria.

The possibilities for extensification were rather limited. Between 1921–31 the extent of cultivated land grew by 700 thousand ha from 6.9 to 7.6 million in Yugoslavia, meaning a 10% increase, which remained under the rate of population increase. Although fallow land decreased from 0.9 million to 0.4 million ha, only 40 thousand new farms were established on these new lands, the rest, 170 thousand were the result of further fragmentation of estates. This meant that the living standards of more than 1 million people decreased. Extensification neither could be a choice owing to lack of animal power. During the Great War 35% of horses (0.55 million), 27% of cows (1.7 million), 46% of pigs (2.4 million) perished in the area of future Yugoslavia.⁵⁷²

Thus, according to Zagoroff, Bulgaria and Serbia became the most overpopulated European countries;⁵⁷³ in 1930–34 the number of agrarian inhabitants per square kms was 116 in Bulgaria, the same in Yugoslavia, 'only' 97 in Romania and 72 in Hungary, 52 in Germany and 17 in the USA.⁵⁷⁴

*Emigration was limited*⁵⁷⁵ and neither industry, nor tertiary sector suck up the labour surplus (re)produced by the agrarian sphere partly because of the persistence of okučje, partly because of their weak capacities. These sectors created yearly 9000 new employments in Yugoslavia, while the number of grown-ups increased yearly by 50 thousand. Between 1921–31 the increase of labour force in agriculture was still greater (1.5 million) than in industry and trade (0.8 million).

571 See: Brunnbauer, U.: *Globalizing Southeastern Europe: Emigrants, America, and the State Since the Late Nineteenth Century*. Lexington Books, 2016. 131. and *Yugoslavia: Annuaire statistique* 1929, 1936, 1940. (Belgrade, 1932, 1937, 1941). 131.

572 Tomasevich, J.: *Peasants, Politics*, 229. 282. 335.

573 Zagoroff, Sl.–Vegh, J.–Bilimovich, A.: *The Agricultural Economy*, 99. (table) and 369–448.

574 Totev, A.: *Sastojanieto na zemedelska prenaselenost na Balgaria*. Spisanie na Balgarskoto Ikonomichesko Druzhestvo 39, 1940/6. 353–84.

575 The average yearly contingent of 20 thousand people from Yugoslavia was limited in 5 thousand for the US after 1929.

Furthermore, only 0.425 million of this 1.5 million came from villages, the others were the descendant of urban craftsmen or labourers.⁵⁷⁶ Although in mining the ratio of workers with peasant origins was 75% and in construction industry 50% of the workers had some land, in chemical industry this was only 36%. Restratisation remained limited: only 12% of all industrial workers was born as landless peasant, further 10 percent had less than 3 ha, while 65% was the child of urban workers.⁵⁷⁷

So, agrarian *fragmentation* continued (*table 6*): the number of agricultural wage labourers increased from 350 thousand to 450 thousand in Yugoslavia. Dire necessity compelled many to take up secondary jobs either in agriculture or in industry. In Rakovica village 40% of working hours was not spent on fields by 1932: many commuted to Belgrade carrying fresh milk to supply urban dwellers, exploiting the possibilities given by the expansion of the town. Regularly 45 villagers appeared in labour market as construction workers each year.⁵⁷⁸ Generally 80% of farmers with 0.5–1 ha was still employed in agriculture, as the 55 thousand larger estates ranging to 4.5 million hectares out of the total cultivated 11 million suffered from labour shortage.⁵⁷⁹ (Due to territorial aggrandisement the proportion of large estates significantly increased in Yugoslavia temporarily providing occupation for the labour surplus).

In Croatia the number of economies has doubled in rich villages within two generations (1850–1924), and this increase in case of estates under 2 ha was even higher (from 77/332 to 445/650), reaching 60% from the total. In poor villages more than 60% of the economies were under 5 jutar (2 ha) early in 1850, but their number doubled within 70 years (from 104/171 to 209/309). In whole Yugoslavia 33% of farms were under 3 ha, another 33% between 2–5 ha even *after the land reforms*, similar to Serbia in 1910. In Bulgaria agrarian population grew by 46%

576 Tomasevich, J.: *Peasants, Politics*, 331–33.

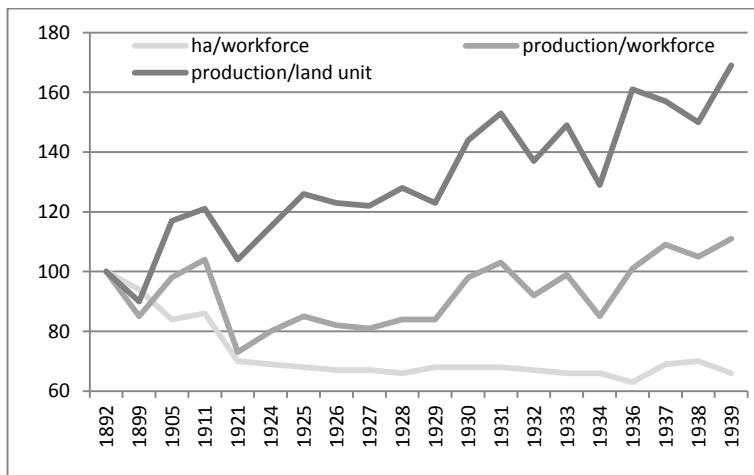
577 Kostić, Cv.: *Seljaci – industrijski radnici*. Belgrade, 1955. 166.

578 Calic, M.-J.: *Sozialgeschichte Serbiens*, 242.

579 Stojasoljević, B.: *Prodiranje kapitalizma u selo*, 246.

between 1911–39, while the extent of cultivated land only with 20%.⁵⁸⁰ Thus, average landhold size fell from 5.3⁵⁸¹ ha to 4.3 (table 7). (Although population/economic unit also fell from 5.7 persons in 1900 to 4.7 in 1934, this decrease did not solve the oversupply of labour force, as landholding sizes were also decreasing). Total production and output per hectares were increasing indeed, but it still meant stagnation in terms of output/person owing to the great population increase (figure 1)! The output/person values (in Bulgaria around 280 francs, as in Yugoslavia), were higher than prewar values, but in Yugoslavia this was partly the result of the effect of the incorporation of developed territories, partly owing to the grain prices remaining high after the war and not of the increase in output/ha value. (In 1933 this value decreased from 280 francs to 110 in Yugoslavia!) Bulgaria remained a smallholder society, where only 13% of the peasants worked both on own and rented land, and only 7% was considered wage labourer in 1926.⁵⁸²

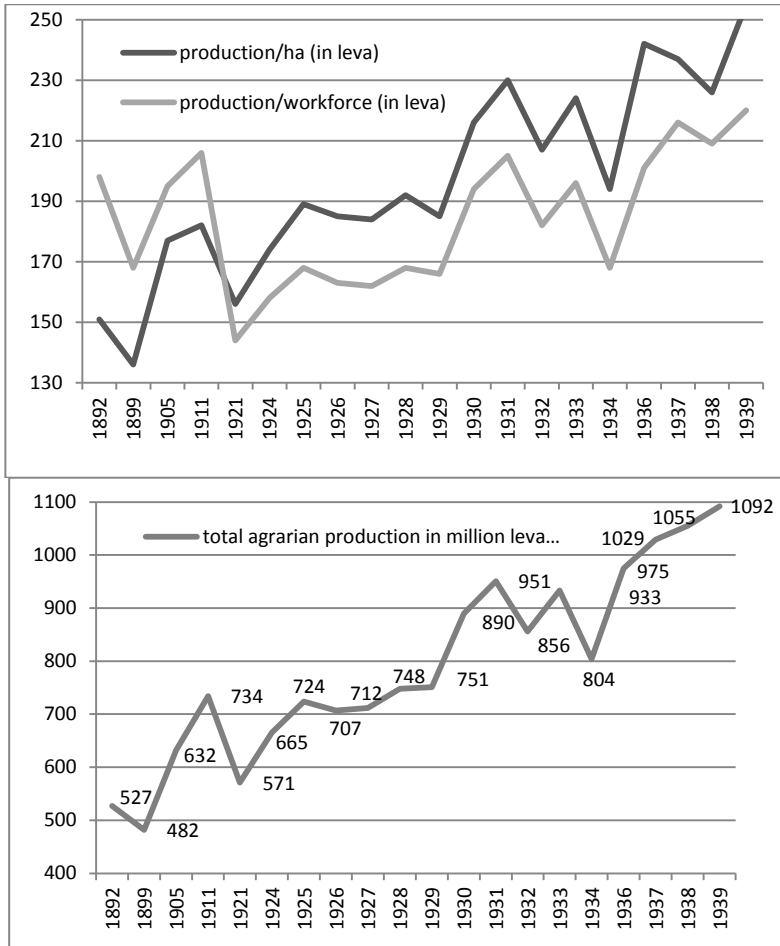
Figure 1. Yield/ha, Yield/workforce and ha/workforce values in Bulgaria (1892=100)



580 See: Berov, Ly.: *Ikonomicheskoto razvitiie*, 120.

581 Without landless agrarian wage-earners included. Crampton, R. J.: *Historical Foundations*. In: Grothusen, K.-D. (hrsg.): *Südosteuropa Handbuch*. Band VI. Bulgarien. Vandenhoeck and Ruprecht, Göttingen, 1990. 53.

582 Roucek, J. S.: *The Economic Geography of Bulgaria*. *Economic Geography* 11, No. 3, 1935. 309.



Ivanov, M.-Tooze, A.: Convergence of Decline, 624.

As for *technical advance*, industry had no decisive impact on the productivity of agriculture, which would have been one of the major conditions for industrial revolution according to Black.⁵⁸³ Although the import of agricultural machines increased from yearly 500 tons (1888–98) to 2500 tons (1906–11) in Bulgaria, World War I put an end to this

⁵⁸³ Black, C. E.: *The Process of Modernization*, 111. The other basic condition is the restratification of labour force into industry.

process and the import in 1929 was still the same.⁵⁸⁴ The available capital was not always used up to modernize an economy: although in Bulgaria the number of cooperatives increased from 37 in 1903 to 721 in 1910 with 218 thousand members in 1926, and the establishments were also supported by the BZNS government, only 25% of agrarian loans was spent on the purchase of animals, goods and personalties, while 50% was spent on the redemption of old loans in 1936.

Table 5. Agrarian overpopulation, wage labourers (1930)

Country	Agricultural population to 1 km ² arable land	Proportion of population working on 1–5 ha	Proportion of population working on 5–10 ha	Proportion of population working on 10–50 ha	Proportion of population working* on estates over 50 ha
Bulgaria	95	29	37	32	1.5
Czechoslovakia	69	20	19.5	39	21
Greece	87	17	12	21.5	50
Hungary	63	14.5	12	22	51
Italy	53	17.5	13.5	26	42
Poland	87	15	17	21	47
Romania	80	28	20	20	32
Yugoslavia	100	28	28	35	9.7

Moore, W. E.: Economic Demography, Appendix, Table 2.

*Includes agricultural labourers as well as owners.

The failure of further extensification and/or land concentration, the lack of capital to modernize farms and the constant attempts to recreate the viable smallholding resulted in that on the Balkans finally the system of agriculture and landuse had to be fit to the structure of landholdings (and not reversely) – thus, *intensification* remained the solution to solve low outputs and oversupply of labour force.

One problem with the intensification was that only a labour-based intensification could be executed as capital was missing for mechanization. The question is could such a half-reform be productive? It is true that while in the mechanized USA the cultivation of one acre

584 Ivanov, M.–Tooze, A.: *Convergence or decline*, 696.

cornfield took 28 hours a year, it was 305 hours in Bulgaria in 1939,⁵⁸⁵ but on the other hand – from methodological aspect – it is more correct to measure the output to the input work. In this respect the mechanization was often a waste of energy compared to traditional systems. For example, in the USA the number of work hours decreased by 40% and the output grew to 250% between 1945–70 owing to mechanization, but in numbers referring to energy input and output it meant that while 1 kcal input resulted in 3.7 kcal output in 1945, it decreased to only 2.8 kcal by 1970. Thus mechanization resulted in a waste of energy!⁵⁸⁶

Table 6. Basic indices of postwar Bulgarian and Serbian agriculture

Bulgaria	Bulgaria 1926–46	Serbia* 1910–31
Number of farms	+25%	+80%
Number of smallholdings	+66%	+90%
Increase of cultivated land	+5%	+80%
Increase of population	+70%	+30
Average holding size	-15%	0%**
Holdings under 5 ha	0 %	+70%
Holdings above 5 ha	-15 %	+70%

Based on *Bíró, L.: A jugoszláv állam 1918–1939.* Budapest, 2010; *Daskalov, R.: Balgarskoto obshtestvo,* and *Tomasevich, J.: Peasants, Politics...*

*Based on Tomasevich, recalculated from Yugoslavian data, ** Due to reforms.

The question still remains: was unmechanized smallholding sustainable or profitable? Although in Mollov's opinion – to underline its viability – a small estate of 5 ha produced 25% more than a large estate regarding per hectare yields,⁵⁸⁷ but it was simply owing to the large (and unexploited) surplus of labour force. Production measured to workforce was evidently bigger on large estates. (This takes us back to the question of selecting the proper variables to characterize efficiency).

585 *Clark, C.: The Conditions of Economic Progress.* London, 1951. 223. and *Crampton, R. J.: Historical Foundations,* 53.

586 *Endrei W.: A textilipari technikák,* 11.

587 *Mollov, Ya.: Organizacionna struktura na balgarskoto zemedelsko stopanstvo.* Godishnik na Sofiyskiya universitet. Agronomicheski fakultet. Tom. 14. kn. 1. 1935–36. 391–432. This is in contradiction to the above mentioned regarding the output/ha of large estates in Romania!

Table 7. Estate structure in Bulgaria

Size	Number of estates in 1000			Estates in %			Size of estates in %		
	1926	1934	1946	1926	1934	1946	1926	1934	1946
Under 5 ha	428	559	712	57	63	69	23.6	30	37.5
5–10 ha	210	232	254	28	26	25	34.5	37	39.3
10–20 ha	94	81	64	13	9	6	29.3	24.3	18.6
20–50 ha	17	12	6	2	1	1	10.6	7.2	3.9
Above 50 ha	0.8	0.5	0.2	0	0	0	2	1.6	0.7
Altogether	750	884	1036	100	100	100	100	100	100

Based on Daskalov, R.: *Balgarskoto obshtestvo...*

In Bulgaria Mollov's investigation in 1932–33 showed that 90% of holdings over 5 ha had "chista pechalba" after the deduction of seed, taxes and personal needs. In case of holdings under 5 ha this was only 43%. After the deduction of loans, these percentage values decreased to 23% and 0% respectively! Since this investigation was carried out during the great crisis and the results can be distorted due to the export price support of the state – and large holdings had more surplus, therefore received more state support – the investigation was repeated after the great economic crisis. While "chista pechalba" occurred in 82% of the investigated 57 farms (and 71% of these were bigger than 5 ha), real profits characterized only 5% (all were over 5 ha).⁵⁸⁸ Thus we may assume that the lower limits of sustainable smallholdings were somewhere over 5 ha. The results of this investigation also mean that agricultural credits and indebtedness had a crucial role in determining the sustainability of peasant economies and the living standards of the stratum, as real incomes were very nearly the same in the 1870s and in 1944 in a Bulgarian peasant farm (*table 11–12*).

588 Mollov, Ya.–Kondov, N.: *Dohodnostta na 44 zemedelski stopanstva v Balgariya za 1929–1930 godina*. Sofia, 1932. 20–21. 50–55. and Mollov, Ya.–Kondov, N.: *Dohodnostta na 66 zemedelski stopanstva v Balgariya za 1931–1932 stopanska godina*. Sofia, 1936. 156–58; Mollov, Ya.–Kondov, N.: *Dohodnostta na 73 zemedelski stopanstva v Balgariya za 1930–1931 godina*. Sofia, 1934. 55. Daskalov, R.: *Balgarskoto obshtestvo*, Vol. I. 285–86.

Another problem was that – according to Sanders – individualism and entrepreneurship was not a characteristic feature of Balkan peasant mentality. The autarchic family refrained from participating in market processes.⁵⁸⁹ Peasants were prone to exploit prosperous cycles according to Calic, but innovation, reinvestment of capital and high work moral was rare. The contemporary of Mollov, Chayanov in the Soviet Union also stated that smallholders were not interested in producing surplus beyond their consumption needs (goods bought at / brought to markets covered cca. 20% of their consumption in the 1900s), that is why they were less competitive compared to large estates. Though one might think that Chayanov was a protagonist of *sovietization of estate structure*, but not: he rather challenged the viability of socialist-type land-concentration, claiming that it would not increase production per capita (as socialist cooperatives were based on collective property and cultivated by the peasants of the same mentality). This theory was later applied by Halil Inalcik for late the Ottoman conditions. This means that – according to them – there is hardly any difference between a mechanized chiftlik and a sovietized large estate (the latter could be interpreted as large estate cultivated by shareholders).

Sundhaussen claimed that the adjustment of social structure and jurisdiction to 'global' economic processes destroyed traditional values by the time the great prosperity of the 1840s–1870s was over, without the internalization of the new values. The implementation of western laws and educational system rather created new fault lines within the society, like rural-urban dichotomy in Serbia and Bulgaria, than promoted the adaption of western mentality.⁵⁹⁰ Peasantry refused central modernization attempts like in 1937 in Dragalevci, when the Bulgarian government wanted to substitute sheep-husbandry with the macroeconomically more rewarding cattle-breeding.⁵⁹¹ This not only represents the conservativeness of peasantry, but also their recognition, that any centralized attempt would result in the attrition of traditional structures (and their potential to resist changes as well).

589 Sanders, I.: *The Balkan Village*. Lexington, 1942. 142.

590 Sundhaussen, H.: *Historische Statistik Serbiens*, 22 and 29.

591 Sanders, I.: *The Balkan Village*, 145.

(b) Reconstruction attempts of smallholder agrarian societies: land reforms and consequences

Beyond the general problems of overpopulation and underdevelopment, Yugoslavia was even characterized by significant regional disparities in agriculture. This was observable not only in output values – in 1938 Sava and Dunav banovinas were the most developed regarding agriculture, the previous in animal husbandry, the latter in crop production: per hectare output of maize exceeded that of in Vardar banovina by 125% and that of in Zeta by 100%.⁵⁹² – but regarding available land as well. In Dalmatia the average density was 250 persons per 100 ha, in Serbia 166, in Croatia 190 (in Romania 107, in Hungary 76, in Bulgaria 109), while the limit of sustainable agriculture at the present technical level and agrarian structure was 80 persons/100 ha.⁵⁹³ Beside extensification or intensification, the *modification of estate structure* could have been a solution – but only theoretically. Although with the acquisition of Bosnia, Macedonia, Croatia and Vojvodina the extent of redistributable large estates increased, *even a full-scale land reform could not solve the problem without the reallocation of population, as not only the estate structure was problematic, but there was simply not enough land to create average estates of 5 ha for everyone!* If we compare the distribution of land in Yugoslavia in 1931 (after the reforms) with the situation in Serbia in 1897, we hardly find any difference, although 2.5 million ha was redistributed during the land reforms (30%) and 637 thousand families received land (averagely 4 ha). Although this reform was definitely broader than the Hungarian or the Bulgarian one, it was only able to reinstall the situation a generation earlier, thus merely postponing the solution for another generation. So, the restratification of population into industry or intensification would have been essential.

The reform was neither full-scale, nor carried out in similar manner for each region, or quick: in Bosnia the land of 4000 *begs* was distributed, but there were 13 000 landlords: thus cca. 33% of the land was involved into the reforms. Compensation was only 1000 dinar/ha,

592 Tomasevich, J.: *Peasants, Politics*, 282.

593 *Ibid.* 317.

lower than market land prices, but it meant 750 million dinars expenditure for the government (*table 8*). 113 thousand kmets received land (775 thousand ha),⁵⁹⁴ and they obtained viable estates of averagely 7 ha. Further 50 thousand tenants working on begliks received 400 thousand ha, averagely 8 ha.

In Macedonia the *chiftchi* was entitled to get 5 ha land without compensating the landlords, and further 10 ha if he paid the tribute to the landlord (instead of the state). Until 1936 20 thousand chiftchi out of the 40 thousand received 120 thousand hectares (6.5 ha averagely), while the state paid 40 million dinars (40% of the total compensation) to the 4000 landlords, only 333 dinar/ha. (In Bosnia the higher compensation was a part of a political deal between the government and Bosnian landlords, who supported the centralized system of the SHS Kingdom contrary to the Croatian wills on decentralization). Colonization process also took place in Macedonia: 30 thousand families from the overpopulated Montenegro and Dalmatia received altogether 160 000 ha (*table 9*).⁵⁹⁵

North of Sava river 735 large estates were involved in land distribution, 375 belonged to private persons (126 Hungarian and 145 Austrian citizens) and 77 to Churches. 1.2 million hectares were planned to be distributed, but the status changed till 1935 only half of these. 173 thousand persons received land and further 55 thousand were allowed to buy land by licits. But 140 thousand of them received only 1-2 ha (as they owned some earlier). For example, the 14 thousand hectares of Count Chekonits was distributed among 4000 applicants. Further 25-30 thousand colonists received averagely 4 ha. Here the land was of better quality reasoning the smaller estate size.

State security also played a role in the reforms as Muslim owners in Kosovo were limited to have 5-15 ha, and in the northern borders land purchases were forbidden after 1938,⁵⁹⁶ to stop the recovery of German

594 *Bogojević, D.: Agrarna reforma. Jubilarni zbornik života i rada Srba, Hrvata i Slovenaca 1918–1928. Belgrade, 1928. 315.*

595 *Tomasevich, J.: Peasants, Politics, 361.*

596 *Müller, D.: Property between Delimitation and Nationalization: the Notions, Institutions and Practices of Land Proprietorship in Romania, Yugoslavia and Poland. In: Müller, D.–Siegrist, H.*

and Hungarian peasantry. However, until the expulsion of Germans in 1945, when 60 thousand highlanders settled on the plains⁵⁹⁷ neither ethnic, nor economic breakthrough was made in this respect (22% of agrarian population remained wage labourer).

Table 8. Yugoslavian state expenditure on land reforms until 1935

Expenses	Kmet lands	Woodlands, pastures	Beglik lands in Bosnia	Dalmatia	Sphiluk in Macedonia and Kosovo	Support of settlers
Million dinars	130	50	600	400	100	185

Kršev, B.: *Finansijska politika Jugoslavije 1918–1941*. Novi Sad, 2007. 248.

Table 9. The results of land reform in Yugoslavia, 1919–35

Area	Head of family	Landlord	Land (ha)	Land/farmer	Land per landlord (taken away) in ha
Bosnia*	170 000 v. 250 000	4000	970 000 v. 1 200 000	5.7 vs. 4.9	242.5
Dalmatia	90 000	n.a.	50 000	0.5	n.a.
Macedonia**	50 000	4700	590 000	12.0	127.6
North of Sava	250 000	700	550 000	2.3	714.2
Altogether	560 000	9500	2 120 000	3.8	223.1

* Other data suggest 250 thousands persons with 1,2 million ha land including pasture and woodland.

** Others claim 300 000 ha land to be distributed.

Markert, W. (hrsg.): *Osteuropa Handbuch. Jugoslawien*. Köln-Graz, Böhlau Verlag, 1954. 216.

Despite the reforms smallholdings under 5 ha became more frequent.⁵⁹⁸ Average estate size was 5.4 ha in Serbia, 4.4 in Croatia, 3 in Dalmatia, 5 ha in Bosnia, 7.1 in Vojvodina and 8 in Slovenia characterized by its bipolar system.⁵⁹⁹ The situation ameliorated in Bosnia and Croatia comparing the 1900s and the 1930s, but deteriorated for Serbia, Macedonia and Montenegro (*table 10*). Contrary to the extent of involved land the Yugoslavian land reform was not much progressive than the Bulgarian in 1878, criticized earlier. The average

(eds.): *Property in East Central Europe: Notions, Institutions, and Practices of Landownership in the Twentieth Century*. Berghahn, 2015. 126–27.

597 Tomasevich, J.: *Peasants, Politics*, 367.

598 Markert, W. (hrsg.): *Osteuropa Handbuch. Jugoslawien*. Köln-Graz, Böhlau, 1954. 216.

599 Tomasevich, J.: *Peasants, Politics*, 388.

landholding size only a bit exceeded that of in Bulgaria (4.3 ha), that did not carry out significant land reforms in this period.

In Bulgaria the peasant government (BZNS) of Aleksandar Stamboliyski meant a big (but temporary) ideological change compared to the previous 'bourgeois' governments, but it had to face several troubles. The post-war land reforms could only postpone the earlier mentioned processes by the total dismemberment of existing large estates (the proportion of farms over 20 ha fell from 14 to 4.5 % from the cultivated land), as only 82 thousand hectares could be distributed,⁶⁰⁰ while hundreds of thousand refugees – mostly of peasant origin – arrived to the country after the war. Despite the radical intentions of Stamboliyski, to create peasant economies of similar size producing surpluses and participating in exports too,⁶⁰¹ the land reforms remained moderate owing to the shortage of land: only 4% of the lands were distributed among peasants, while in Romania it was 30%. Though the proportion of units under 1 ha fell from 30% to 12%, inflationary policy was able to cancel most of the former debt of peasants (like in Hungary), village schooling improved, and maximum property holding was set, this was only a temporary relief. As the peasant-government failed in moderating the strict reparations payments, a coup d'état murdered Stamboliyski and soon the proportion of units under 5 ha increased from 57% again over 66% by the 1940s, as it had been earlier in 1897–1908. Though the formation of *Druzhibi*, special (not Soviet type) local cooperatives was to promote peasants' access to internal and external markets, but hyperinflation deterred producers from marketing surplus (if had any: the agrarian output in 1924 was still only the 80% of the prewar output).⁶⁰²

Both cases revealed that changes in the production system should be carried out, as the estates structure could not be ameliorated further.

600 Crampton, R. J.: *Historical Foundations*, 43. and Bell, J. D.: *Peasants in Power*. Princeton, 1977. 22–54.

601 For the problems of this see Chayanov's theory on the productivity of 'non-capitalist' smallholdings above.

602 Palotás E.: *Kelet-Európa története*. Budapest, 2003. 439.

Hungary – together with Albania, where 77% of the farms, but only 33% of land were under 3 ha⁶⁰³ – was the only country refraining from large-scale land reforms in the interwar period. In Hungary the level of agriculture in 1928 did not exceed significantly that of the pre-war era and the polarized land-structure was conserved. 90% of the farms were under 10 ha and 72% under 2.5 ha in 1935 (while this was 53% in 1895). The extent of farms under 10 ha did not exceed 30% of the cultivated land as was in 1895.⁶⁰⁴ These two data refer to advanced fragmentation. Only 0.5 million ha land was involved in the postwar land reforms (8.5% of the cultivated land) significantly less than in Czechoslovakia (16%) or in Romania (33%).⁶⁰⁵ Furthermore, this small amount of land was distributed among 0.5 million farmers, thus the average size of new holdings did not exceed 1 ha. Smallholdings were still not competitive: *output per hectare* values on large estates over 500 ha were 30% greater in the case of maize and potato and 20% in the case of wheat and sugar beet.⁶⁰⁶

Table 10. Comparison of prewar and postwar estate structure
(% based on number of estates, most frequent category is indicated by bold)

Size	Serbia 1897	Serbia 1931=1910!	Croatia 1895	Croatia 1931	Bosnia 1906	Bosnia 1931	Vojvodina 1931
under 2 ha	18	24	44	36.5	41	34	34
2–5 ha	30	37	27	38	26	35	27
5–20 ha	43	35	28	24	33	29	32
20–50 ha	4	2	1	1		2	5.5
Size	Slovenia 1902	Slovenia 1931	Dalmatia 1902	Dalmatia 1931	Macedonia 1912	Macedonia 1931	Montenegro 1931
under 2 ha	31.5	33	61	64	33	41	48
2–5 ha	19	24.5	26	25	47	33	28
5–20 ha	39	34.5	11	10	18	24	20
20–50 ha	8.5	7	1	1	2.5	1.5	3.5

Tomasevich, J.: Peasants, Politics, 389. without taking landless agrarian wage-labourers into consideration.

603 Lange, K.: *Die Agrarfrage*, 48-49.

604 Berend T. I.–Ránki Gy.: *A magyar gazdaság 100 éve*. Budapest, 1972. 150.

605 Romsics I.: *Magyarország története a 20. században*, 160.

606 *Ibid.* If output/person is used instead of output/ha, the numbers differ from the given.

Figure 2. The regional structure of land distribution in Yugoslavia

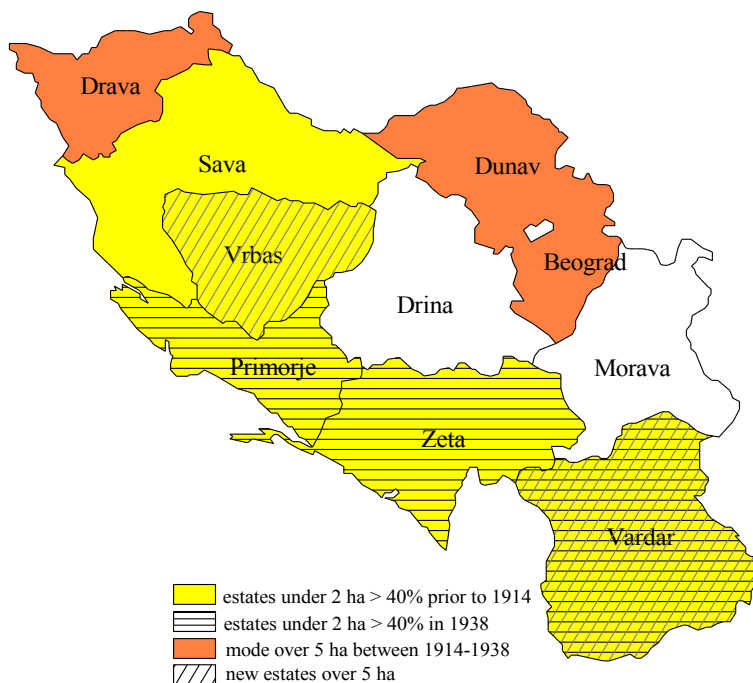


Table 11. A comparison of total and per capita GDP of economic sectors in Bulgaria between 1911 and 1934 (Inflation was 17–20x between 1910–1934)

Sectors in 1934	Persons in 1000	%	Per capita production and increase measured to 1910 in current prices*	Total production (in current 1000 leva) and growth measured to 1910	Distribution of production value %
Agriculture	2800	88.2	10 000* (16–18x)	25 000 000 (27x)	55–60
Industry	200	6.3	62 500 (17x)	12 500 000 (27x)	25
Tertiary	200	6.3	35 000 (16x)	7 000 000 (18x)	17

1910	Persons in 1000	%	Average income (francs/leva)	Total income (in 1000 leva)	Production value %
Agriculture	1300	80	560-660	650 000–900 000	55
Industry	125	7.8	2500	310 000	20
Tertiary	190	11.8	2200	400 000	25

In Romania the situation was also untenable as the revolt in 1862 then in 1907 had already proved it (the latter resulted in 10 000 killed). Though in 1864 serfdom was abolished, and 0.5 million family heads were emancipated, but it did not mean radical changes: villagers still had to work on the landlord's land, who hindered free movement (and restratification) and 66% of pastures and forests was given to landowners. Peasants had to choose either to live without land in freedom, or live with their land without freedom – summarized the situation Roucek. The lands distributed were not enough, and therefore from 1889 on the state lands constituting 33% of the cultivated area – in 1864 the landholdings of Orthodox monasteries were secularized (ranging to 20% of total cultivated land) – , had to be sold in small lots in order to maintain the system and save peasants from declassification owing to the great population increase (as their free movement was hindered). 66% of lands owned by large estate owners were rented by peasants in 1910 (this was an increase compared to the situation a century earlier).⁶⁰⁷

As an immediate result of 1907, contracts between peasants and landlords became public to defend the producer as well, and the old tithe based on the possessed area was abolished. But peasants still did not own enough land. Thus in 1917 in order to maintain the morals of peasant troops, lands belonging to the Crown were expropriated for future redistribution meaning more than 2 million ha. This was partially extended to private large estates in 1921. In Old Romania maximum landsize was set to 500 ha, but was set smaller (250 ha in Transylvania) in newly acquired territories.⁶⁰⁸ Owners were compensated with 40 year rental price in state bond, but the depreciation of leu to one-fourtieth of its original price meant drastic losses.⁶⁰⁹ Altogether 6 million ha was redistributed, thus while in the Old Kingdom farms over 100 ha reached 3.4 million ha, or 42% of lands before the reforms, in 1927 this was 0.6 million ha (or 8%). Smallholdings earlier constituting 60% of land, reached 90%. By 1927 two million ha had been given to peasants (or 3.6

607 Roucek, S.: *Contemporary Roumania and Her Problems*, 299.

608 Müller, D.: *Property between*, 125–26.

609 Roucek, J. S.: *Contemporary Roumania*, 303.

million in the whole country for 1.3 million peasants). This means, that the average land per capita given to producers was around 3 ha, still higher than in Hungary or in Bulgaria – but on the other hand, 0.6 million peasants entitled to get some land received nothing.⁶¹⁰

The reform did not create a balanced situation: like in Yugoslavia in the 1930s 65% of farms (30% of land) were under 5 hectares (unlike in Dobrudja, where colonization efforts resulted in farms of dominantly 5-6 ha).⁶¹¹ Only 22% of farms were between 5-20 ha (one third of lands).⁶¹² During the crisis years many peasants became indebted, and their landholdings were confiscated according to a law issued in 1929. Similarly to Yugoslavia the general increase in difference between the prices of industrial and agrarian goods (while in 1913 264 kgs wheat was needed to buy a certain industrial article in 1939 690 kgs was needed for the same)⁶¹³ eliminated the positive effect of land reforms (even wheat output could not compensate this harmful effect as it was 1.2 t/ha in 1911 and remained 1 t even in 1935–38).⁶¹⁴

Table 12. The distribution of land in Romania and Albania (%)

	Romania, 1935		Albania, 1945	
	landholdings	arable land	landholdings	arable land
under 3 ha	55	12.5	77	34
3-5 ha	23	15	20	39
5-10 ha	17	20		
10-20 ha	5.5	12	3	27
over 20 ha	2.5	40		

Axenciuc, V.: *Evoluția economică României: Cercetari statistico-istorice 1859–1947*. 183.

Lange, K.: *Die Agrarfrage*, 48–49.

610 Roucek, J. S.: *Contemporary Roumania*, 304.

611 Demeter G.: *A Balkán és az Oszmán Birodalom*, Vol. 3. 442. and Strausz A.: *Grossbulgarien...*

612 Murgescu, B.: *Agriculture and Landownership in the Economic History of Twentieth-Century Romania*. In: *Property in East Central Europe...*

613 Palotás, E.: *Kelet-Európa története*, 367–68.

614 Fagarasan, G.: *Die Entwicklung Rumäniens zwischen Sgrarwirtschaft und Industrialisierung*. St. Gallen, 1986. 154–59.

The Romanian reforms did not result in remarkable changes: though 80% of the population were farmers, but only 40% of the national income was based on the agrarian sector (similarly to Yugoslavia, Bulgaria). Romania was dominated by ploughlands: meadows, pastures decreased under 10–12%. Contrary to the fact, that Romania was 6th in 1910 and 7th after the war among the greatest wheat-exporters, wheat-growing declined in Romania from 730 to 580 kgs/capita⁶¹⁵ in the Interwar period partly owing to population growth, partly owing to the decrease of yields per ha,⁶¹⁶ which could be a consequence of land reforms and the spread of smallholdings. Total production also decreased by 30% in 1923-1929 owing to bad harvests,⁶¹⁷ which was not so characteristic for other Balkan states. However, grains share from agriculture did not decrease: 80% of arable lands were used for grain production (owing to the large proportion of smallholdings with self-subsistence), while the total value produced by animal husbandry fell from 45 to 37%.⁶¹⁸ Despite the decrease in per capita outputs, cereals still constituted 45-50% of exports (live stock only 12%, timber 16%, petrol 19%), thus low prices during the crisis also affected the peasants, who became indebted, as in other Balkan countries. Generally speaking the production stagnated until the 1930s, or was similar to the adjacent Balkan states (during the crisis). So, neither this reform resulted in structural changes or intensification (vegetables and industrial crops reached only 400-400 thousand hectares out of 20 million, under 5% of cultivated land).⁶¹⁹ The only exception was that maize began to substitute wheat (including local consumption) again (as it was in the 18th century).

615 Murgescu, B.: *Agriculture and Landownership...*

616 Axenciuc, V.: *Evoluția economică României: Cercetari statistico-istorice 1859-1947*. Vol. 2. Bucharest, 1997. 525–26, 579–80.

617 *International Institute of Agriculture. International Yearbook of Agrarian Statistics, 1928-1929*. 567. Roucek, J. S.: *Contemporary Roumania*, 255.

618 Axenciuc, V.: *Evoluția economică României*, 53. The number of sheep after the quick recovery from 8 to 11 million (1919-21) did not exceed 13 million, oxen stagnated around 5 million until 1930.

619 Roucek, J. S.: *Contemporary Roumania*, 257.

(c) Social tensions: living standards, prices, wages and indebtedness, regional differences

The estimation (and comparison) of living standards is problematic from several reasons.

First of all, *inflation* rates were different and make the recalculation of outputs, incomes and purchasing power in the 1920s and 1930s difficult. Inflation was 1000-1500% in Yugoslavia and 1500-3000% in Bulgaria measured to golden francs between 1923–1940. For example, measured at constant prices, the Great Crisis decreased incomes per capita only by 20–25% in Yugoslavia, while in terms of current prices the decrease was over 50% according to Stajić.⁶²⁰

Second, *taxes* do not represent the burdens well, *indebtedness* also played a great role by that time. If we compare per capita taxes measured to the indebtedness in agriculture, the latter exceeded the value the taxes. Although Zeta and Primorje provinces paid small taxes after 1929 (referring to weak agrarian performance), indebtedness was still 3–10 times greater than yearly taxes. So, it was not the state taxes that ruined the average peasant, rather loan interests. Nonetheless this is a complex question: in Vojvodina taxes were higher, such as the per capita value of indebtedness, but the latter did not exceed the value of the yearly tax, while the performance of agriculture was the best in the state.

Incomes or expenses, and thus *purchase power* – representing standard of living better – are difficult to assess due to the previously mentioned processes and the modifying effect of the great crisis.

Finally, the *regional disparities* regarding both agrarian outputs and taxes were enormous, especially in Yugoslavia, which resulted in unbalanced burdens (*figure 3–4*). The taxation system was harmonized only after 1929. While 3 ha cultivated land paid 210 dinars in Croatia and Vojvodina as land tax, and 340 dinars after 5 ha, Serbian regions paid half of this value. But the GDP/capita in the agriculture was 2360

620 Stajić, S.: *Nacionalni dohodak Jugoslavije 1923–1939 u stalnim i tekucim cenami*. Belgrade, 1959.

dinars⁶²¹ in Vojvodina, 1620 dinars in Croatia, while only 1190 dinars in Serbia which explains the different agrarian taxes (and their ratio). However, other tax kinds were also levied unequally. A family of 4 with 10 ha in Vojvodina with 250 000 dinars wealth paid 5400 dinars as taxes, while a similar economy in Serbia paid only 1500 dinars. The reason was that inhabitants of Vojvodina paid more military tax (420 vs. 37 dinars), more contribution to the war-injured (840 vs. 74 dinars), more local surtax (700 vs. 0) and even paid more after their income (380 dinars vs. 0).⁶²²

The income of the Bulgarian peasant increased by 28% in real prices compared to 1911, but the economic crisis ruined this. According to Roucek, the income levels of 1911 were exceeded again only in 1934. But by that time great changes happened to the wages of industrial workers compared to smallholders' revenues. While prior to the 1870s industrial wages were lower than agricultural incomes, and they were similar in 1870–1910, by the 1930s industrial wages had exceeded the yearly income of smallholders by 30%,⁶²³ reaching 50% of the wage of a *chinovnik*. One reason for low peasant incomes in Bulgaria, as elsewhere, was the high share of subsistence production: marketed rural products reached only 35–40% of the total output in Bulgaria in the 1930s, not much higher than in the 1900s, while in Germany it was 80%.⁶²⁴ Considering low marketing, the officially measured 6:1 income difference between urban and rural dwellers was 'only' 3:1 in terms of total income (if incomes in kind are added to incomes in cash).

As both *figure 2* (in chapter 3) and *table 13* prove, the GDP/capita of Bulgarian peasantry increased by 1939, but conditions were hardly better than in 1911, incomes were not even higher than prior to the 'osvobozhdenie'. In 1935–36 a statistical analysis based on 939 households showed that only 44% of the households had separated

621 At current prices, inflated dinars are not comparable to prewar dinars, which were nearly equivalent with French francs.

622 Kršev, B.: *Finansijska politika Jugoslavije 1918–1941*. Novi Sad, 2007. 119–122.

623 Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol I. 574.

624 Chakalov, A.: *Natsionalniyat dohod i razhod na Bulgaria*. Sofiya, 1946. 59; Toshev, A.: *Sastoyaniето na zemedelska prenaselenost na Balgariya*. Spisanie na Balgarskoto Ikonomichesko Druzhestvo 39. 1940/6. 30.

kitchen, 11% of villagers slept on the ground, 17% of houses lacked toilet. In Yugoslavia in Drina banovina only 15% of the houses were built of bricks, 50% had solid floor and basement and 45% had toilets of any kind. 20–40% had no beds at all.⁶²⁵ In the more developed Sava banovina 70% of houses had only one room, in 66% of houses more than 5 people lived in one room⁶²⁶ and 50% of the dwellings had no toilets. In Bulgaria Mocheva wrote that the usual food was bread, leek, garlic, at least with some pork in winter. Nutrition became one-sided in Yugoslavia as well: although the daily calory intake reached 3000 calories averagely, while in Hungary this was 2770 (and 2710 in Poland), its composition remained unbalanced. Only 10% of daily calory needs was covered from meat or fat. The yearly consumption of a villager was 19 kgs meat, 116 litres of milk, 65 kg of potatoes in 1925.⁶²⁷ (Meat consumption did not show any progress since the turn of the century). Daily protein intake was 100 gramms (mainly from plants), while the consumption carbohydrates reached 620 grams! In 1932 the differences in calory intake of flesh eater and grain consumer societies were analyzed: while the former (consuming processed meat) reached even daily 4000 calories in winter and 2200 in summer, the daily calory intake of a grain producer did not exceed 2600 calories, showing a 25% difference at least.⁶²⁸

Table 13. Incomes of smallholdings under 4 ha in Bulgaria in 1944

Farm size	Lower boundary of income (in current prices and in golden francs)	Upper boundary of income (in current prices and in golden francs)
0–1 ha	3900 (200)	6000 (300)
1–2 ha	7400	10 100
2–3 ha	8100	13 200
3–4 ha	9800 (500)	15 200 (750)

Berov, Ly. (ed.): *Protekcijonizam i konkurencija na Balkanite prez XX. vek. Sofia, 1989.* Compare data with *table 10, 1910.*

625 Isić, M.: *Seljaštvo u Srbiji 1918–1941. I. Socijalno-ekonomski položaj seljaštva.* Beograd, 2001.

626 Malojčić, M.: *The results of Survey of the Prevalence of Tuberculosis in the village.* Socijalno-medicinski pregled 1940/4. 437. These data were similar in Hungarian small towns – but in 1870!

627 Škatarić, A.: *Zdravstvene prilike našega sela.* In: *Selo i seljaštvo.* Belgrade, 1937. 158.

628 Petrović, A.: *Banjane,* 62.

As Yugoslavia was a grain consuming society, the export of cereals reached only 10% of the production, while in the case of meat, lard and fish this was over 15–20%.⁶²⁹ The Yugoslav peasants rather sold these products (to earn money), than ate them despite the protein deficit. The peasant sold only one third of his grain production in inland and foreign markets (two-third secured internal consumption and reproduction). Although Bulgarian peasants produced 80% of their food, and covered only 20% of their needs from markets, still 50% of their market expenditure (cash) was spent on foodstuff (in case of urban dwellers this was 20–40%).⁶³⁰ This also means, that altogether 66% of their income (in cash and kind) was spent on nutrition.⁶³¹

Therefore most of the Bulgarian peasants had no savings: only 18% of deposits were owned by peasants (while the basically narrower class of industrial workers owned 16% from the total).⁶³² Although 60% of peasantry became involved in cooperative movements by the 1930s (which was a great step compared to the 1900s), their debt totalled 9 billion leva or 12 000 leva per economic unit by the 1930s. This equalled to 75% of the yearly income of a farm of 5 hectares! Indebtedness per economic unit had doubled since 1900 (from 200 to 400 golden leva), and cooperatives were unable to solve this. The Yugoslavian value (averagely 10 thousand dinars/households) was similarly critical on the eve of the Great Economic Crisis.

In Bulgaria 55% of the poor lived in villages (0.64 million), but constituted only 13% of villagers, while 66% of rural inhabitants (3.3 million) were classified into the lower middle class.⁶³³ Peasants (75% of the society) paid only 35–40% of the total taxes, this means that the taxes of urban dwellers were 6 times greater regarding per capita values (as in Serbia in 1910). The tax rate of villagers was 7–16%, while in case of urban dwellers it was 18–33% in 1931 (due to the indirect taxes). This also gives us possibility to calculate urban incomes as well, which

629 Tomasevich, J.: *Peasants, Politics*, 543.

630 Mocheva, Hr.: *Hranata na balgarskata seljanin*, 137–39.

631 Food from land: 50 %, food from market: 17%, other stuff from market: 17%, other stuff from land: 17%.

632 Demeter, G.: *A Balkán és az Oszmán Birodalom*, Vol I. 466–67.

633 *Ibid.* Vol. I. 491.

remained three times greater in towns than in villages (5000–9000 leva vs. 2100–5600 leva in current prices) even during crisis years, similar to the value in 1911. Therefore the gap between these two classes did not decrease. During the great crisis, the income of rural households in Bulgaria shrank by 30% between 1931–33 (2000–4200 leva) and only by 10–20% in urban households according to the calculations of Nedkov.⁶³⁴

Table 14. Income distribution and productivity of farms based on their size in Yugoslavia

1931	Farmers	%	Secondary occupation (1000 prs)	Land in 1000 ha	%	Income in dinars*	Total income in m. dinars*	Output in dinar/ha	Distribution of yearly income in %
	1000 prs								
0-0.5 ha	159	8	54 (or 33%)	43	0.4	350	55	1279	0.6
0.5-1 ha	175	9	31 (or 18%)	135	1.3	840	147	1089	1.6
1-2 ha	337	17	34 (or 10%)	514	4.8	1700	570	1109	6.2
2-5 ha	676	34	35 (or 5%)	2287	22	3400 (340)	2297	1004	25
5-10 ha	407	20.5	13 (or 3%)	2873	27	6500	2637	918	29
10-20 ha	174	9	5	2380	22	11 000	1976	830	21.5
20-50 ha	50	2.5	2	1388	13	21 000	1038	748	11
over 50 ha	7	0.5	1	1000	10	68 000	480	480	5.4
Total or average	1985	100	175 (10%)	10 645	100	4600	9200	864	100

Calculated after Stojsavljević, B.: *Prodiranje kapitalizma u selo...*

*In order to get values in golden francs, the given numbers should be divided by 10.

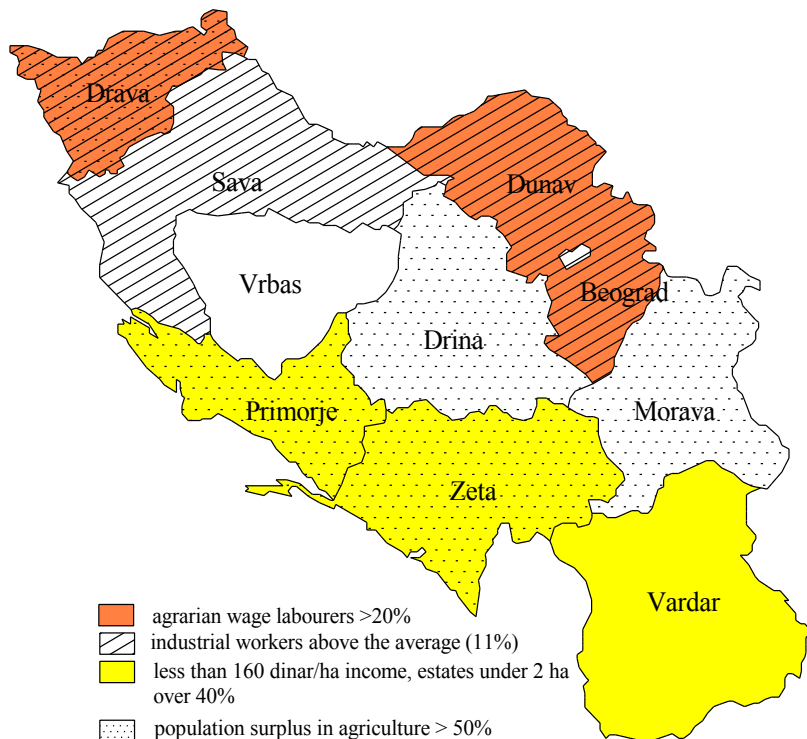
In Yugoslavia the dominance of smallholdings (70% of the farmers had less than 5 ha, while 70% of the land was owned by the remainder 30%) and their low profits together with the increasing consumption of imported goods and the need for land forced peasants to turn towards credits.⁶³⁵ Estates under or around 1 ha produced only 1000 dinars income (80 golden francs). The yearly income of an agrarian wage labourer was also not more than that (daily 10 dinars, less than 1 golden

634 Nedkov, B.: *Razvitiето na Balgarskata finansova sistema prez poslednoto desetiletie*. Trudove na stopanskiyat institut za socialna poruchvaniya pri Sofiyskiya darzhaven universitet 3, 1937. 77.

635 Tomasevich, J.: *Peasants, Politics*, 602.

franc, like prior to the 1870s). Despite increasing pauperization, the restratification into other sectors of economy was still not usual. Only 25% of farmers under 1 ha took up a secondary job (*table 14*).⁶³⁶

Figure 3. Regional characteristics of agriculture in Yugoslavia



Pauperization even increased during the great economic crisis. While an estate of 5–10 ha produced 480 francs net and 1000 francs gross income in 1910, in 1930 the gross income was only 650 golden francs in Yugoslavia (similar to the Bulgarian value). While an estate of 6.5 ha produced 26 thousand dinars (1500 golden francs) after the crisis in 1938, in 1931 10–20 ha was needed for the same amount of income. Per

636 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 246.

hectare output fell back to 100–120 golden francs, while the average income/ha was 220 dinars in 1928.⁶³⁷ (The reason was the falling prices, as output/ha did not decrease significantly). During the crisis 70% of estates (this means the category under 5 ha) produced less than 3500 dinars income (350 golden francs), while Konstandinović claimed⁶³⁸ that prior to 1929 even an estate of 2–5 ha produced 5000–11 000 dinars from grains, with 1500 dinars (140 francs) of net income! (In Stojsavljević's calculation around 1931 this became the feature of farms over 5 ha). Similarly to the Bulgarian case (see Mollov's calculation above) prior to the crisis, in 1929 10% of peasants had net income (after the deduction of seeds and taxes) between 1000-2000 dinars in Yugoslavia, 70% had less than 1000 dinars and only 10% had no profits at all (*table 15*).

Owing to falling prices, actually more land would be needed to earn the same income from farming, which was missing. In mountainous regions extensivity was not a choice: in Smolyan (Bulgaria) 40% of wheat was produced instead of the required even in 1938.⁶³⁹ The collapse of tobacco prices after 1929 ruined the hopes in diversification as well. Though the crisis was generally accompanied by overproduction, in order to cope with the frequent local shortages during the crisis in Yugoslavia, huge amount of grains had to be transferred from the fertile Vojvodina.⁶⁴⁰

As for *modernization*, a new plough cost 90 golden francs or 1000 dinars (a tractor was still over 6000 francs). Thus only 10% of the peasantry could afford to invest into a new equipment immediately even prior to the crisis. A wine-press was even more expensive, worth 580 francs. An estate of 40 ha produced 20 thousand dinars profits yearly prior to the crisis, but they also needed at least 4 years to purchase a tractor. At the same time, although each family had some kind of plough, 70% of peasant farms under 5 ha had no oxen or horse as draft animals.

637 Krstić, Đ.: *Veličina i snaga našeg selskog poseda*. In: *Selo i seljaštvo*. Sarajevo, 1937. 94.

638 Konstandinović, N.: *Seljačko gazdinstvo u Jugoslaviji*, Vol. II. Belgrade, 1939.

639 Brunnbauer, U.: *Gebirgsesellschaften*, 169. 210.

640 Vuković, Sl.: *Srbsko društvo i ikonomija 1918–1992*. Novi Sad, 2012. 195–99.

During the crisis Uratnik came to the conclusion that even estates above 5 ha became *unprofitable*, the threshold increased to 10 ha.⁶⁴¹ Filipović stated that medium sized estates also had to face with a 20% decrease during the crisis. But it is also true that small estates hardly had marketable surplus, thus did not suffer from the decline of purchase power directly (unless they had to pay their debts in cash). An estate of 4 ha earned 80% of its revenues in kind (while this was only 45% in case of an estate over 8 ha),⁶⁴² and only clothing and taxes meant expenditure in cash.

Table 15. Distribution of peasantry according to net profits, 1929

Net profits (dinars)	Families in 1000	Total land in 1000 ha	% of families	Average holding size	Net income by Palairet in 1910 and according to Vučo in the 1930s*
0	492	939	11	1.9	
0–1000	2900	5900	69	2.1	102 / 95
1000–2000	440	2500	10	5.7	290 / 95–190
2000–4000	280	2300	6.5	8.2	480 / 190–390

* Income categories can be compared to Palairet's data on 1910 (table 29 in chapter 4), if divided by 12. Vučo, N.: *Poljoprivreda Jugoslavije 1918–1941*. Belgrade, 1958. 48.

The structure of expenditures did not change significantly compared to the pre-war era (table 29, previous chapter): still 33–50% was spent on clothing (this was very favourable for the imports and local industrial development), seeds for a holding over 10 ha cost 1.6–2.7 thousand dinars, while direct state and obština taxes reached 5–6%. Such a family spent 400 and 200 dinars on spirits and tobacco. But during the crisis the incomes even here fell from 34 to 18 thousand dinars, thus expenses (30 thousand dinars) remarkably exceeded the incomes!⁶⁴³ In 1932 a smaller estate of 6 ha produced only 10 600 dinars income and from this 16% was paid as tax, 6070 dinars (60%) were spent on self-subsistence (while in Denmark this was only 17% as there 1.8 person cultivated 6 ha

641 Uratnik, F.: *Pogledi na družavno in gospodarsko strukturo Slovenije*. Slovenske poti VII. Tiskovna Zadruga v Ljubljani, 1933.

642 Stojsavljevič, B.: *Prodiranje kapitalizma u selo*, 194. and Dubić, Sl.: *Prilog istraživanju seljačkog gospodarstva*. Križevci, 1933. 16–33.

643 Filipović, F.: *Izbrani spisi*. Vol. I. Belgrade, 1962.

instead of the Yugoslavian 6 persons). The rest, 2900 dinars or 27% had to cover all other personal needs.⁶⁴⁴

The average peasant economy was even poorer. In village Vojska (Srijem) only 80 peasants from the 1000 had no land at all, but still 900 had to buy food. In Banski Dušanovac only 20 out of the 200 households had no land, but 78 households did not have animals and 50% of the households did not have not enough food or seed for the next year. In a village in Šumadija 100 of the 300 households had no cattle, 115 had to buy food early in January. 60% of the children was illiterate.⁶⁴⁵ In Dvorovi-Hanište the ratio of farmers under 4 ha increased from 5% to 47% within 20 years.⁶⁴⁶

Zadruga was still among the possible microsocial strategies to tackle pauperization. The Babić zadruga in Zrinj village was composed of 19 persons (9 workforces) owning only 12 jutar (7 ha) land, 3 cows. The output was 0.7–1 ton of wheat or potato per jutar. In good years this estate produced 500 kg per capita value in grain equivalent, in bad years the production remained under 300 kgs without the deduction of seeds, thus the family was forced to buy food in these years.⁶⁴⁷

(d) The great economic crisis: causes, consequences and responses; agrarian policy during the protectionist era

The depression appeared mainly as an agrarian crisis in the Balkans. Prior to 1929 in Yugoslavia the average agricultural output per economic unit peaked at 1700 golden francs owing to the price increase between 1920–26, totalling 30 billion dinars, doubling the average income measured in 1910. But the great crisis eliminated these achievements: The unit price decrease exceeded 50% in agriculture, setting the prices of the 1910s again, thus agrarian output fell to 15 billion. The situation was similar across the region.

644 Krstić, Đ.: *Veličina i snaga*, 99.

645 Škatarić, A.: *Zdravstvene prilike našega sela*, 158.

646 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 266.

647 *Ibid.* 274–75.

The early signs of the great economic crisis can be traced back to 1926, marked by a decrease in agrarian outputs (in Bulgaria this was generally 91 golden leva/farm or 11%).⁶⁴⁸ But this time the decrease in outputs did not result in the increase of prices as *internal markets* could not consume the produced goods. In Bulgaria in case of industrial workers the share of flat rents from total expenditure increased from 25% to 33% (or from 107 leva to 413 leva exceeding the 22% inflation) between 1923–26.⁶⁴⁹

External markets were full because of the overproduction. Although Europe's grain production was stagnating, the index of global production grew from 114 to 233 between 1925–29 (considering 1913 as base value = 100).⁶⁵⁰ In Yugoslavia the general price index (1923=100) also decreased from 74 in 1928 to 36 in 1932. Thus, although industrial goods became also cheaper, but the price gap between agrarian and industrial goods was increasing indeed, because the industrial price decrease was generally smaller (did not exceed 35%) than the decline measured in agriculture.⁶⁵¹ For example, the unit price of artificial manure decreased from 110 to 95 dinars, that of the cement fell from 80 to 55, while the price of agrarian products, like pork declined from 25 to 12 dinars/kg between 1923–29. Wheat prices dropped from 2650⁶⁵² to 1100 dinars/t measured at current prices (reaching pre-war 1600 dinars again in 1936).⁶⁵³ Thus, the price of a plough expressed in wheat kgs increased from 360 to 880,⁶⁵⁴ while that of the phosphate-manure

648 Vasilev, At.: *Stopanskata konyunktura v Balgariya prez 1925–1929*. g. Istoricheski Pregled, 1963/4. 94; Vasilev, V.: *Polozhenieto na trudeshтите se v Balgariya v nachalniya period na ikonomicheskata kriza ot 1929–1933*. Izvestiya na Instituta za Istoriya 8. 1960.

649 Vasilev, At.: *Stopanskata konyunktura v Balgariya*, 93.

650 Vučo, N.: *Agrarna kriza u Jugoslaviji*, 71.

651 In Hungary price decrease in agriculture was around 45% and it was also smaller in the industry. Vučo, N.: *Agrarna kriza*, 149.

652 In 1910 this was around 140 francs (1500–1800 dinars in 1924 prices).

653 Bodrožić, M.: *Obrazovanje jugoslavenske radikalne seljačke demokratije*. Istorijski glasnik. 1964/2–3. 49.

654 It is an increase of 150%, while this was only 30% measured in dinars. Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 174.

stagnated expressed in dinars, but increased from 50 to 85 kgs wheat equivalent (*table 17*).⁶⁵⁵

In Bulgaria the unit price of industrial plants fell by 33% from 6 to 4, prices of vegetables were halved, and dropped from 9 to 5. The tobacco merchants reacting to the price collapse – in order to keep their share in external markets – decreased the prices paid to producers to one third (from 60 to 17 kgs/leva between 1928–32). Wheat prices also fell by more than 60% between 1928–33 (from 6 leva/kgs to 2 and from 3 leva to 1 in case of maize) below prewar prices.⁶⁵⁶ The average agrarian income per capita fell from 8400 to 7500 leva at current prices (280 and 250 golden francs respectively) early between 1926–29 (see *table 16*). (This also means that per capita GDP was not higher in 1929 than in 1911).

Table 16. Decrease of agrarian income in Yugoslavia at the beginning of the crisis (dinars)

Index	1923	1928
Rural economy between 6–10 ha	22 222	17 420
Income per capita	4350	3414**
Daily income per capita	12*	9.5

Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 213.

*In industry it was 26 and fell back to 21. ** Later decreased under 1400.

Table 17. Price decrease of agrarian products

Product	Unit	1928	1930 (1933)	Decrease in % between 1928–30
Wheat	100 kg	686*	438 (234 in 1933)	36.2
Potato	1 kg	7.8	3.4	56.4
Pork	1 db	2700	2200	18.5
Wool	1 kg	74	55	25.7

Vasilev, V.: *Polozhenieto na trudeshтите*, 12.

This crisis was different from that in 1897 generated by harvest failures. Peasants first reacted with overproduction to the falling prices

655 Calculated from *Vučo, N.: Poljoprivreda Jugoslavije*, 83. and *Agrarna kriza u Jugoslaviji*, 194–95.

656 In 1912 1 ton of wheat cost 130–150 golden leva, in 1928 this was 230 (6860 at current prices), in 1930 145 (4380 at current prices), in 1931 only 80 golden leva.

in order to compensate the losses,⁶⁵⁷ thus – according to Stajić – per capita agrarian output remained around yearly 1350-1400 dinars at constant 1938 prices during the first crisis years.⁶⁵⁸ Wheat exports first grew from 252 thousand tons and 474 million dinars in 1930 to 309 thousand tons and 475 million dinars in Yugoslavia, creating a vicious circle. Even the yields/ha and sown area began to increase: maize yields grew from 14.4 q/ha to 19 q/ha between 1930–32, its area from 34.5 million ha to 48 million ha putting the total output from 48 million q to 91 million.⁶⁵⁹ Total grain output has doubled, revealing the real work-capacities of peasantry if its livelihood is threatened.

But the immediate feedback was the further collapse of prices. This, together with the consequences of the protectionist policy (high import tariffs both on agrarian and industrial goods) applied as a reaction to the crisis, shrinking the markets further⁶⁶⁰ finally made exports unprofitable. Bulgaria exported in 1934 only about 40 percent of the value of 1924. Price decrease ultimately resulted in a reduction of production volumes as well. Wheat exports of Yugoslavia fell to 13 thousand (!) tons, its yields shrank under 1 ton/ha in 1928–35. Thus – in order to restore original internal and export prices in Yugoslavia – the total production of agriculture also decreased from 30 billion to 12 billion. Total exports also collapsed from 9.5 billion in 1924 to 3 billion in 1932 (out of this approximately 2.9 billion came from agriculture, constituting 20% of the agricultural output) and 3.8 billion in 1934 (then constituting 11% of agrarian output). Despite the positive balance of trade, the proportion of exported products measured to total agrarian production became less significant.

The Yugoslav case is emblematic for the consequences of these developments for peasant families. Krstić drew our attention to the fact, that despite the huge regional differences, the agrarian decline was

657 This was a new response contrary to the reactions of former crisis years between 1876–85, or compared to 1897–1900 (this was not a climate induced shortage-crisis).

658 Stajić, S.: *Nacionalni dohodak Jugoslavije...*

659 Bodrožić, M.: *Obrazovanje jugoslavenske radikalne seljačke demokratije*, 48–51.

660 The target countries of Balkan wheat exports also began to apply protectionism, or purchased cheap grains from elsewhere.

similar in all regions of Yugoslavia: the value of production decreased by 60-65% (*table 18*) sometimes ending even in regional shortages!⁶⁶¹

Table 18. Regional patterns in decline of per capita production in 1925–1932
(given in dinars)

Region	Crop production		Husbandry		Altogether	
	1925	1932	1925	1932	1925	1932
Slovenia	1467	560	1409	540	2876	1100
Dalmatia	1507	560	721	266	2228	826
Bosnia-Herzegovina	1028	373	1443	525	2471	898
Montenegro	344	114	1270	438	1614	552
S-Serbia	1142	418	1562	572	2704	990
Vojvodina	4684	1716	1975	721	6659	2437
Croatia and Slavonia	2217	846	1609	615	3826	1461
N-Serbia	1813	656	1188	429	3001	1085*

Krstić, Dj.: *Veličina i snaga*, 97.

*108 francs/capita in 1910 prices, while then 150 francs/capita was the agrarian income.

Similarly to per hectare outputs per capita income crushed by more than half as well; in 1932 they were below the 1910 value. The average income of peasant farms fell from 21 000 dinars to 7000 between 1925 and 1933 according to Vučo. Per capita income decreased from 4800 to 3400 dinars (300 francs) early between 1924 to 1928. In constant prices it meant stagnation indeed, but by 1932 this fell further to 1350 dinars (135 golden francs), below the value in 1910. Agrarian daily wages also fell from 20–35 dinars to 10 dinars, below the wages in the 1870s (while in the industry wages remained around 20 dinars).⁶⁶²

As taxes and other expenses had to be paid – contrary to most of the industrial goods the price of clothing increased in Yugoslavia between 1913 to 1930, while prices were only 70% of the prewar era in Germany, and 60% in the USA – peasantry became completely *indebted*. Total debts reached 6.9 billion dinars (or 600 million francs, similar to the

661 *Vuković, Sl.: Srbsko društvo i ekonomija*, 195–99.

662 *Vučo, N.: Agrarna kriza*, 51.

Bulgarian value). The average debt was 3400 dinars/household (300 golden francs) or 9400 dinars/indebted households – reaching the yearly income of small peasant economies. The payment of interests (sometimes reaching yearly 40% instead of the general 12%)⁶⁶³ ranged up to 1 billion, while the complete income of the agrarian sphere was not more than 15 billion, thus it was equal with an additional 7% 'surtax' on production! State income from direct taxes decreased by 25% – illustrating the critical situation. But as the collapse of prices was greater than this, it also indicated the increase of burdens on peasantry. The general decrease in purchase power of peasantry can be observed in the decrease of consumption of basic articles: although population increased by 7% between 1929–34, tobacco consumption decreased by 28%, match consumption by 33%.

Peasants owning less than 2 hectares used up the loans for consumption purposes. Buying new lands, constructions were rare, but loans given for the purpose of stabilizing the existing economy were also regular (*table 19*). It was the layer owning 5–10 ha land that tended to purchase new lands, but even in this category 20% of the loans were used up to buy food, or to pay older loans (27%).⁶⁶⁴ This means that half of the farmers in this category asked for loans because they had difficulties during the crisis.

Peasant cooperatives offered favourable conditions with their 12% interest rate (8% in Slovenia), but there were private bankers available for 120% interest rate as well (meaning 12% monthly interest instead of the yearly 12%). As the macroeconomic situation in Yugoslavia worsened and the state declared moratory to bank transactions, the role of private financiers (usurers) increased. Not surprisingly, by 1932 45% of total loans had been given by private persons.

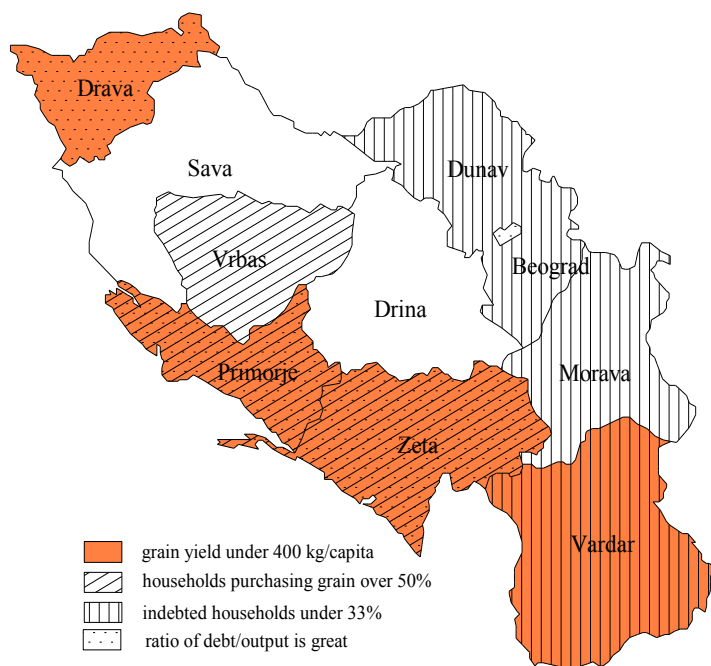
Most of the loans were required by smallholdings between 2–5, but the total value of debts here was the smallest here. (Estates between 5–10, 10–20 and 20–50 ha had a similar share of 23–23–23% from the total debts). Regional differences were also not negligible: in Macedonia estates over 10 ha had the largest share from the debt, while in Bosnia,

⁶⁶³ Vučo, N.: *Poljoprivreda Jugoslavije...*

⁶⁶⁴ Komadinić, M. J.: *Problem seljačkih dugova*. Belgrade, 1934. 51.

Dalmatia and Croatia it was the landholdings under 2 ha. In Vojvodina the proportion of indebted households was the smallest, but the value of the debt was the greatest (19 000 dinars). When measuring indebtedness to output it was Primorje banovina in the worst situation (see figure 4).⁶⁶⁵

Figure 4. Territorial pattern of indebtedness and agrarian output



In order to handle the situation and to hinder the further pauperization of peasantry, half of the value of debts towards the state under 25 000 dinars were abolished in 1932, and a fixed 4.5% interest

665 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 228–29. 233. and Komadinić, M. J.: *Problem seljačkih dugova*, 60–64.

rate was set on the rest of the sum for the forthcoming 12 years. Indebtedness towards private persons was also moderated, i.e. private persons were allowed to calculate only with 3% interest rate, deadlines were extended, and half of the debt was also annulled. In case of debts towards shopkeepers the sum of the loan was not halved, but the interest was abolished.

Table 19. Distribution of debts (%) based on land size in Yugoslavia in the 1930s

Purpose of loan	Landless	Under 2 ha	2-5 ha	5-20 ha	20-50 ha	over 50 ha
Buying land	9	16	21	32	49	72
Buying animals	2	4	7	6	2	0
Construction	8	15	17	13	9	12
Production	10	6	7	3	7	11
Maintaining the economy, paying younger generations to leave the house	26	15	16	9	5	0
Paying back debts	3	12	12	27	26	4
Buying food	41	31	20	9	2	0

Komadinić, M. J.: Problem seljačkih dugova. Belgrade, 1934. 51. Columns are cumulated to 100%.

The *other burden* that deteriorated the living conditions of peasants was taxes. The total sum of direct taxes was measured to 1500–1900 million dinars in 1930 and 1931, but only 900 million came from rural economies (this was 12% of the marketed products then valued at 7–8000 million dinars, while the latter was 40% of the total agrarian output). Together with indirect taxes (which is hard to estimate in case of peasantry) Tomasevich put the tax burden of peasantry to 3200–3500 million dinars, which was 16–20% of the total agrarian output in the crisis years, or 40% of the cash income of peasants! In our opinion Tomasevich's data are exaggerating, and we may presume a 10–15% tax ratio.⁶⁶⁶ The increase of tax ratio above 15–20% (some of the taxes, as

666 He calculated that almost half of the total tax came from peasants (but this was less according to Palairret even in 1910!). If we accept this presumption and compare per capita urban and rural taxes we get a ratio of 3:1 like in the 1860s, although this was 7:1 in 1910! Urban dwellers paid thrice as much indirect taxes even then, compared to rural population. This could not change significantly even if we calculate with an increasing consumption of

head and land-taxes were not proportional, but fixed, and this meant increasing tax key measured to the decreasing household incomes) was also a problem in Bulgaria, where taxes were stagnating around 47 golden francs/capita, the highest since 1878.⁶⁶⁷ (This could even challenge the reasonability of independence from Ottoman rule).

The collapse of prices had the most serious impacts on peasantry, while in industry falling food prices could counterbalance the decrease of salaries and increase of housing costs. What could be done? Peasant debts reached 10 billion leva or 25% of the total national income in Bulgaria, therefore state intervention targeted primarily the agrarian layers. During the crisis years in Bulgaria the state supported altogether 1.2 million indebted peasants by 6.6 billion leva (5000 leva per capita in current prices or 50% of the yearly income of a peasant with 5 hectares, 166 golden francs). The state purchased over 800 thousand tons of grains within 2 years through the Hranoiznos at fixed prices of 4 leva (well over market prices) to support exports, which meant an extra expenditure, while state incomes were shrinking. Since 33% of the land tax was simply not paid in by the peasants, new sources were required to cover these extra costs and to balance the budget. One solution was that 10–30% of the officials' salary was held back over 2000 leva, which generated a surplus of 500 million within 3 years.⁶⁶⁸ But this was still not enough and the state had to ask for new loans at very strict terms.

Another result of the state intervention was that agrarian cooperatives lost their autonomy.⁶⁶⁹ Furthermore – although Hranoiznos was established also to secure social peace – price support usually helped those who had exportable surplus, thus usually farmers with more than 5 hectares. Large estates over 100 ha were responsible for the

peasantry. Thus we had better to put the tax of rural population to 2400 million. In this case we get 1000–1200 dinars per family instead of the 1700–2000 given by Tomasevich. This is maximum 10% tax ratio in case of the income of a 6–10 ha unit and 20% measured to the income of a 2–5 ha unit.

667 Vasilev, V.: *Polozhenieto na trudeshtite*, 21–23. Those farmers who had less than 2 hectares earned only 157 golden francs, while the average income of those who had 2–10 hectares was calculated 264 francs.

668 Berov, Ly.: *Stopanska politika na narodniya blok*. Istoricheski Pregled, 1953/3. 263.

669 Tooze, A.–Ivanov, M.: *Disciplining the 'Black Sheep of the Balkans': financial supervision and sovereignty in Bulgaria 1902–1938*. *The Economic History Review* 64. 2011/1. 46.

50% of exports: landholdings over 7–8 ha produced 20% of the exported crops, while farmers with only 4–5 hectares (8% of the land, but 60% of farms) produced only 5% of exported wheat. So, the activity of Hranoiznos helped the poor less.⁶⁷⁰ Therefore other solutions were also considered. The first 10 ha of land was given tax exemption from the tithe from 1932 on. This helped 400 thousand smallholders. Of course it was advantageous for large estate owners as well, as calculations show that while a farm of 3 ha paid 210 leva tax less, this exceeded 700 leva in case of landholdings over 10 ha.⁶⁷¹

In order to solve the problem of falling prices, Balkan states also turned to the weapon of *isolation and protectionism* that became an 'evolutionary stable strategy' (ESS) in terms of play theory, because most of the participants decided to react like this. This had three main components: *high import tariff rates or import contingents* (fixed quantity) to moderate imports, thus to decrease competition for the internal markets and the outflow of revenues; *exports encouragement and transports support*. In case of Bulgaria the tariff of 100 kgs of wheat was 150 leva at current prices, reaching 50% of its retail price! Greece also applied a protective tariff policy similar to most of the Balkan states: the tariff of maize increased from 2–4 drachmas to 5–6 drachmas.⁶⁷²

Beyond market protectionism *export price support* was also introduced (high import tariff rates did not help agrarian producers-exporters, rather the industrial firms). In Romania the agricultural council offered 30% of VAT and tariffs to compensate falling prices and the effect of shrinking markets early in 1926. The price of wheat here also fell to 50% between 1928 to 1932 and in the case of maize the decrease (75%) was even more serious. The price support was only able to stabilize the prices increasing them from 2 to 3.3 lei between 1931–32. Greece offered 10 drachmas for each kg of exported cotton, Romania gave 10 thousand lei for each carriage of flour after 1935. This premium

670 *Ibid.* 250. and Berov, *Ly. (ed.): Protekcionizam i konkurencija na Balkanite*, 118–19. 139. (the chapter was written by V. Katsarkova és E. Damyanova).

671 Berov, *Ly.: Stopanska politika na narodnija blok*, 249.

672 Berov, *Ly. (ed.): Protekcionizam i konkurenciya na Balkanite*, 118–119. (V. Katsarkova és E. Damyanova).

reached 2500 million lei between 1935–39. But the scarce financial resources limited these efforts.⁶⁷³ When the state in Bulgaria donated 0.5 leva for the producer after each exported kg of wheat, in order to cover the costs new credits had to be negotiated with the western countries under unfavourable circumstances.

Bulgaria and Romania also applied *low railway freight rates* (decreased from 35% to 25%) in case of exports, and higher freight rates in case of imports. Summing up this means that while importing crops cost 100% (producer price) + 50% (tariff) + 35% (transport price) = 185 % of the original price from a country that did not adopt price support policies, exporting grains cost 100% + 25% (transport cost) – 25% (price support) + lower tariffs. Of course this pushed the partner country which was applying free trade also towards protectionism.

The non-self subsistent Greece was also severely affected by the crisis – but from other aspects. The production of 1928–31 was so low, that it was hardly enough even for seeds. As grain imports had serious impact on the balance of trade (because exports were shrinking), the state initiated reforms aiming at self-subsistence. Between 1932–38 the extent of wheatlands increased from 606 thousand hectares to 882 thousand hectares, first time since the 1870s. This meant that by 1940 60% of the consumption was provided by inland grains contrary to the 30% in 1931.⁶⁷⁴

The agrarian crisis was finally solved by state intervention (state purchases, new loans). The development of industry based on agricultural products, the barter trade with Germany from the 1930s based on the clearing-system together with the intensification of agriculture pulled agrarian society out from the pit (next chapter). But these neither solved the structural problems in agriculture, nor were longlasting: the process was interrupted by World War II.

673 *Ibid.* 118–119. 146. and 154.

674 *Ibid.* 118–119.

(e) The beginnings of modernisation: technological advance and intensification in the agriculture

The economic crisis of 1929 strengthened tendencies urging for the modernization of farming which had already begun before the crisis. But the *intraregional* pattern of this development was very uneven. In order to illustrate this, we compare a country (Bulgaria) that initiated structural reforms successfully (though land reforms were moderate), with Yugoslavia, which failed to modernize its agriculture contrary to its efforts invested in the redistribution of lands.⁶⁷⁵ This exemplifies that a *land reform may be essential, but not enough* to modernize an economy. In this period the Balkans can be considered separate region due to its *low per capita* values, but the *rate of development* was neither lower, than in other regions, nor uniform. Finally, in order to show the character of *interregional* differences we compare the agrarian situation with the neighboring Hungary, which also lost its impetus compared to the previous decades.

In Bulgaria the early signs of intensification can be traced back before the agrarian crisis (outputs were increasing such as yields/ha).⁶⁷⁶ The extent of fallow land decreased from 20% to 12% by 1934,⁶⁷⁷ tobacco output increased tenfold between 1913–23,⁶⁷⁸ and contrary to the previous trends, the number of pigs per capita has also doubled. But it was not these changes that altered the situation basically, as tobacco prices collapsed in 1930. Traditional silk production also decreased further in the area of Harmanli and Mastanli by 50% during the crisis.⁶⁷⁹ It was the great economic crisis itself that put an end to the rule of cereals – contrary to Greece which has just adopted a new grain policy – , and 50 years after the Italian attempt Bulgaria finally started to adopt

675 See also Romania's case.

676 Tomasevich, J.: *Peasants, Politics*, 371.

677 Daskalov, R.: *Balgarskoto obshtestvo*, Vol. I. 259. 264. 274–76. 281.

678 Haskovo and Asenovgrad became the center of cooperatives involved in tobacco production, shifting their basis to the south. Thus, tobacco production supported the maintenance of BZNS power as well. *Neuburger, Mary, C.*: *Balkan Smoke: Tobacco and the Making of Modern Bulgaria*. Cornell Univ. Press, 2012.

679 Roucek, J. S.: *The Economic Geography of Bulgaria*, 310–13.

the model based on fruits and vegetables. This turning point can be observed generally in the curves indicating the changes in per capita and per hectare outputs between 1892 and 1939 (*figure 1*). Per capita output exceeded the 200 golden leva of 1911 again in the late 1930s, while per hectare outputs rose from 150 to 230 leva.⁶⁸⁰

What were the components of this success? Although at crisis years most of the increase was realised within arable lands,⁶⁸¹ intensification and diversification continued after 1930. The proportion of rose, tobacco and vegetable gardeners increased from 3% of agrarian producers in 1905 to 18% in 1939. The unit prices of cereals remained low after the crisis had ended, therefore contrary to the 40% increase in per capita grain production by 1939, per capita income from grains stagnated. As a consequence, the value of cereal production from the total crop production fell from 70% in 1892 to 45% in 1939, while the share of fruits and vegetables increased from 10% (in 1911) to 30% by 1939. Fodder increased from 6 to 10–20% and the share of industrial crops, rose and tobacco reached 10 % between 1924–39, while in 1892 it remained under 1%.⁶⁸²

Animal husbandry also regained its importance in the economy. Its share from agrarian production rose from 15 to 28%, mainly due to an increase in constant prices between 1923–39 (+20%). And while in 1896–1900 the share of animal products was 25% from the exports, in 1935–39 it increased to 35–40%. Hand in hand with this, the share of grains from the exports fell from 85% (1896–1900) to 40% in 1921–25, then to 13% by 1936–39. Cereals were overtaken by tobacco, vegetables and animal products too. There were years when 38% of the Bulgarian export value came from tobacco, and taxes on inland tobacco consumption (controlled by powers in order to finance state debt) reached 10% from the budget (unfortunately these incomes functioned as cover or token

680 *Ivanov, M.–Tooze, A.: Convergence or Decline, 694.*

681 The increase was +200 000 between in 1930–36 as an extensive response to the fall of wheat prices: the index of cereal production also rose to 150 in 1931 compared to 1912 as peasants wanted to compensate their losses of income.

682 *Ivanov, M.–Tooze, A.: Convergence or Decline, 697.*

for the new loans issued by western states, as it was in Greece after 1897 and in Turkey between 1878–1914).

The increasing dependency on the German market played a great role in the restructuring of farming. Germany's share from Bulgarian export was 30% early in 1931, and soon it increased to 43%. (In Hungary it grew from 11% to 42% in 1933–37). Germany and Italy undertook to buy wheat above world prices, in return the countries of Southeastern-Europe bought German industrial products.⁶⁸³ The different way of agrarian development in Greece can be explained by the fact, that Greece was never dependent on exporting agrarian products to Germany. Yugoslavia also took place in this barter trade, but rather with her industrial raw-material, thus the effect of foreign demand on agrarian products was smaller on agrarian development. Thus, the trend towards gradual improvement was not universal. In Yugoslavia agriculture remained stuck in structural problems.

While Bulgaria initiated structural reforms⁶⁸⁴ (as it lacked enough land to redistribute), in Yugoslavia social reforms (distribution of land) were enforced instead, but intensification remained limited. Similarly to Hungary or Romania, wheat output/hectare was the same in 1930–34 as in 1911–15. Although yields improved between 1924–29 exceeding the prewar values, the great crisis ruined this progress: the yields of wheat fell from the 1.1 ton in 1923 to 0.8 in 1932; in case of maize this was 1.7 and 1 respectively.⁶⁸⁵ That time maize yields were 2.3 tons/ha in Hungary, 3 tons in Germany, 2.8 in Austria. Internal regional differences were also great: in Zeta banovina the average yield/ha was 0.75 ton for the wheat

683 Romsics, I.: *Magyarország története a XX. században*, 168. In order to eliminate inflation and low accessibility to currency, barter trade (clearing-system) was installed (constituting 80% of trade) – as a consequence of this multilateral international trade became largely bilateral in this region. Southeast-Europe not only became dependant on Germany, but furthermore, the latter was unable to cover its imports with its exports. Germany's clearing-debt was 463 million DM before the second world war! Berend, T. I.–Ránki, Gy.: *Közép-Kelet-Európa gazdasági fejlődése a 19-20. században*. Budapest, 1976. 375–88.

684 Hungary took a similar turn, the number of fruit-trees doubled (4.6 million) compared to the 1900, the output increased fivefold to 50 000 tons. Wine consumption doubled, to compensate the decrease in beer consumption, and reached 40 litres per capita. Romsics, I.: *Magyarország története a XX. században*, 170.

685 Tomasevich, J.: *Peasants, Politics*, 476.

in 1931, while in Vojvodina it was 1.6 ton. (In Denmark wheat yield was 2.8 tons/ha, while in Czechoslovakia it was 1.6, in Hungary 1.3, in France 1.4).⁶⁸⁶

In Yugoslavia 1 ha produced three times less amount of wheat with three times greater labour force than in Denmark. In Denmark the index was 1373 pigs/1000 person, in Serbia it fell to 224. In Denmark a cow gave 3500 litres of milk a year, in Serbia it was 1000 litres. While in 1921 the number of cattle was 4.9 million it decreased further to 3.8 million in 1931. Milk exports decreased to 10% from 11 million litres.⁶⁸⁷ Denmark exported 6000 waggon eggs, while Serbia 2250, Denmark exported 2425 waggon cheese, Serbia only 200.⁶⁸⁸ These numbers indicate how productive farming could become under the right conditions, and how much it lagged behind in the Balkans compared to Western Europe.

The value of imported agricultural engines also decreased from 180 to yearly 10 million dinars as the result of the great crisis. The import of tractors fell from 500 thousand kgs to 50 thousand between 1929/33 and 1933/37. Anyway, half of the machine import contained mostly ploughs and not motorized engines. In 1925 there were 783 thousand iron and 326 thousand wooden ploughs in Yugoslavia, meaning a 60 thousand increase compared to 1921. By 1948 the number of iron ploughs grew to 1 million (50% of farms), but there were still 300 thousand wooden ploughs in service,⁶⁸⁹ and 33% of farms still had not any ploughs at all.⁶⁹⁰ In Primorje this was even 50%, and 75% of the remainder was wooden plough. While in the Vojvodina the ratio between iron and wooden ploughs was 23:1 and it was 10:1 in Slovenia, 7:1 in Croatia and 4:1 in Serbia, in Macedonia this was 1:1 and 1:4 in Montenegro even in the 1940s!

The extent of irrigated land was insignificant, 1% of the total cultivated. The total number of tractors were 2400 opposed to 1.2 million draft animals. In Vardar banovina 40% of cattle and oxen were

686 Vučo, N.: *Poljoprivreda Jugoslavije*, 63–65. Tobacco production per hectares was 1 ton in Yugoslavia, while 1.4 tons in Hungary and 2.4 tons in Germany.

687 Stojsavljević, B.: *Prodiranje kapitalizma u selo*, 186.

688 Krstić Dj.: *Veličina i snaga*, 100.

689 Tomasevich, J.: *Peasants, Politics*, 440–42.

690 Vučo, N.: *Poljoprivreda Jugoslavije*, 54–57.

used as draft animals, in Morava it was 33%, while in Sava and Vojvodina only 10%: here horses pulled the plough, while cows were used to produce milk referring to a different type of economy. In Drina banovina 43% of farms had no draft animal at all.⁶⁹¹ Even the total draft power of animals decreased from 41 oxen to 27 for 100 persons between 1921–31! In Yugoslavia the average was 0.6 oxen/ha, while in Austria this was twice as much, in Czechoslovakia 0.8.⁶⁹² Contrary to the fact that Yugoslavia produced only 33% of its fertilizer-needs, it was one of the greatest fertilizer exporting countries in Europe! The local consumption of phosphates was 3 kgs/ha, while in Germany this was 58 kg, in Denmark 139 kg and 6.6 kg in the USA.⁶⁹³ Natural manure was rather used to heat houses in winter in areas where deforestation became irreversible. Alternative cultures, like olive orchards were characterized by low outputs, 1 kg/tree (In Greece it was 2–4 oke/tree even in 1715). The spread of potato was hindered by its high need for seed: this was only 40 kgs in case of maize for a hectare, 160 kg in case of wheat, but 1000 kg in case of potato (the output was greater too, though the input/output ratio was similar to that of the wheat).

Hungarian yields were similarly stagnating. While in Germany the wheat yield/ha was 2 t, it remained 1.2 in Hungary – at the level of the prewar era (it was 1 ton Yugoslavia). Some improvement (cca. 10%) was only observable after 1930, but Austria, Bulgaria and France were catching up Hungary by then regarding per hectare outputs. While in 1910 Hungary was able to reach 70% of the yield/ha measured in Germany and Denmark, it decreased to 40–50% by the 1930s. The Czechoslovakian outputs even exceeded the Hungarian by 30%. Animal husbandry also collapsed. The animal population reached only 87% of the pre-war numbers even in 1929, although the milk production per cows increased from 1000 litres to 2000 litres.⁶⁹⁴ The proportion of agrarian income from the GDP fell from 45% to 40% during the Interwar period. Grain production remained dominant: 55% of the arable lands

691 Tomasevich, J.: *Peasants, Politics*, 458–59.

692 Vučo, N.: *Poljoprivreda Jugoslavije*, 61.

693 *Ibid.* 62.

694 Romsics, I.: *Magyarország története a 20. században...*

was sown with cereals. The consumption of fertilizers still did not exceed 10 kg/ha (while it was over 100–150 kgs in the West): only 20% of large estates used fertilizers, and this was 1.5% among smallholdings. Contrary to fertilizers, mechanization progressed further: the number of tractors increased from 1200 to 6800 within 4 years till 1929. The agrarian products (including processed food) still composed 66% of the export.⁶⁹⁵

After the crisis *state intervention* and *barter trade* (here the role of Germany providing artificial fertilizers, engines has to be mentioned) helped stabilize the situation. In Hungary the share of the neighboring countries from the exports fell from 71% in 1923 to 43% in 1931 showing the collapse of the traditional trade patterns as protectionism gained space, and the increasing role of Germany.⁶⁹⁶ In Yugoslavia the shift towards industrial plants was not so characteristic as in Bulgaria, but the number of factories processing agrarian products began to grow as an element of the reforms implemented by Milan Stojadinović. These also included a new, deflatory currency policy, the stabilization of agricultural revenues and exports through state intervention, a moderate tariff policy and industrial loans issued at low (5–10%) interest rate. Although most of the investments were realized in the industry, but as state purchases increased purchase power in these sectors, this helped the agriculture too (like in Turkey). The number of factories processing agricultural products increased to 1400 constituting 32% of all industrial units. After 1935 the increase of agrarian output was above yearly 6% – while animal husbandry showed a yearly 3% increase –, but this was still under the general average 7.8% (industry and mining showed a rate of 15% according to Stajić).

Although state intervention policies managed to give an impetus to the economy, but owing to the depletion of gold and currency reserves of the National Bank due to the overheated investments in the economy a huge price increase occurred, and by 1940 66% of the households sank back below the level of self-subsistence and minimum standard of living again.

⁶⁹⁵ *Ibid.* 163.

⁶⁹⁶ *Ibid.*

Conclusions

Southeast-Europe can be considered a distinct region of Europe based on its general level of development, but its agriculture showed a rather diverse pattern despite the common Ottoman heritage. This pattern neither showed stability throughout the investigated centuries, nor there was a general trend in the changes of agrarian structures (Greece never integrated into the great division of labour “wheat for manufactures” in the 19th century, Romania’s grain production was based on large estates then, etc.). Thus, from agro-economic aspect the investigated area cannot be considered a homogeneous region. However, there were general common trends, but these are rather in connection with demographic phenomena (population increase-overpopulation, conflict of husbandry and grain production, extensification as solution, lack of capital surplus in agriculture to finance industrial development, etc.) or with the general level (the lack) of development. Southeast-Europe rather functioned as a region with common patterns from this socio-agrarian aspect, than from agro-economic aspect.

Those sub-regions that shifted to grain production, either to utilize the temporarily favourable price trends, or to cope with the population pressure or because self-subsistence and smallholder society was chosen for the new political regimes to secure stability, failed to become prosperous and were unable to overcome geographic obstacles and the lack of capital. Most of the problems (showing great regional variety), like the unutilized labour force and low mechanization, high indebtedness, low participation in market processes, uniform production structure (as a consequence of self-subsisting smallholdings), unsustainable estate structure unfitting to production structure, fragmentation, landuse-conflicts, low resilience-flexibility, vulnerability owing to overspecified export structure, agriculture exposed to climatic anomalies or still determined by geographic features (lack of manure, intensification, etc.) and external circumstances (prices) – either be Ottoman heritage, or the consequence of the ‘first globalization’ – remained unresolved between the two World Wars. From this aspect (intensification, change in product structure, change in estate structure) the communist attempt is an interesting, but also dead-end experience.

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