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BULGARIA'S NATIONAL INCOME AND ECONOMIC GROWTH, 1913–45

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The article concerns Bulgarian statisticians' work on accounting of national income within the first half of the 20th century. Basic concepts of these authors are described, and aggregate data sets derived by them presented. The trend of economic growth in Bulgaria is analyzed, mainly from 1924 to 1945. The statistics of industrial and agricultural change, as well as the foreign trade activity are considered. An historical interpretation of that change is given.

1. INTRODUCTION

The historical national accounting in Bulgaria began and reached its bloom during the inter-war period, in particular from the mid–1920s until the end of World War II. In fact, attempts were made to give a definition of the indicator national income and to construct rough indices of the trend of economic growth in the period up to 1945.

During the first half of the 20th century the general concept of national income was in the process of clarifying on a global scale and there was no consensus among economists and statisticians about it. Besides, in the 1930s due to the circumstances of the time, economists concentrated on short-term analyses, following the sense of the Keynes's famous remark "In the long run we are all dead." As Clark (1951, p. 7) pointed out "The analysis remained almost entirely theoretical until, in the 1940s, when the "empty economic boxes" began to be filled and problems of employment and national income analyzed in concrete terms".[1]

During the inter-war period, the Bulgarian statisticians made efforts to ground the concept and data on the country's national income and derive estimates of macroeconomic indicators. In estimating national income, Bulgarian statisticians have been influenced by the ideas of Marshall, Fisher, Stamp, Bowley, and King. On the other hand, prominent economists who knew their work used some results.

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[1]In fact, the earliest attempts to create national accounting go back to the late 17th century with the works of Sir W. Petty and G. King. The major stimulus on an international scale was given during the first half of the 20th century. By the end of the 1930s there were reasonable national income estimates for a considerable number of countries, including many in Europe.

The basic historical time series for Bulgaria's national income were compiled in the mid-1920s and lasted for around twenty years. Despite the inevitable imperfection, they could compare well in quality with those of that time advanced in official statistics of European countries.[2]

After World War II, due to the change in the political and economic system in Bulgaria, and therefore in the system of national accounting, the inter-war statistics did not provide an adequate basis for the analysis of the long-term development of the country. Thus the experience and the advanced level of the Bulgarian statistics have been ignored in the following over four decades. Under the conditions of the present transition to a market economy the interest in Bulgaria to this statistical work increased.

2. National Income Definitions: Methodological Aspects

A number of statisticians in Bulgaria worked on the country's national income accounting and economic growth analysis in the first half of the 20th century.

Popov (1916) was the first Bulgarian statistician who made attempts to produce estimates of national income for individual years in the end of the 19th and the beginning of the 20th century. Since his calculations were general (rough) without explaining in detail the methods applied, they are difficult to interpret or compare with others' estimates. This author as well as Totev (1939) produced estimates for some years, comparing Bulgaria's performance with those of other countries.

Kiranov is known to have derived long-time series of national income. In fact, his first study published in 1933 concerned only 1929 and 1932. There he defined a concept of national income as income of newly-acquired goods in agriculture, industry, homework, trade and transport as well as small industry (crafts and manufacturing). He excluded capital income, real estate income, wages and salaries, administrative services and the so-called indirect or secondary income, e.g. of people with liberal professions, like writers, artists, etc. Therefore, his estimates cover the country's total goods production along with trade and communications. Later he expanded his understanding about national income and published a new study in 1946. Kiranov however more or less kept his opinion that national income could be generated only by goods production activity.

Chakalov adopted a broader concept of national income and elaborated long-term series of national income for Bulgaria. His first book on this subject contained estimates for 1924–35 and was published in 1937. The second revised

[2]The quality of the official statistics in Bulgaria before World War II was regarded near the level of the advanced countries both in terms of theory and practice, in particular in the area of agricultural, demographic, industrial and foreign trade statistics (Popov, 1916; Stefanov, 1938a; Stefanov, 1938b). This is very important taking into account that Bulgarian statistics developed in a very short time after the country had shaken off the Ottoman rule in 1878. Only three years later a statistical department at the Ministry of Finance was set up. At the beginning of the 20th century it was elevated to a self-dependent institution. The period of creative progress was under the leadership of Popov, in his capacity of Director. Beginning in 1908, annual statistical issues were published. The Bulgarian official statisticians were among the pioneers applying the representative technique to household surveys regularly carried out from 1925 as well as to the agriculture censuses in 1934–35 and 1944–45. These experiences have been used in other European countries.

edition in 1946 extended the coverage to include 1936–45. However it is not only the time horizon which is different in the two studies. Chakalov developed his idea about national income by expanding its scope. As he says the first study was an attempt, and like every attempt it was incomplete. Besides, at the time of publication of the first time series there were no available statistics for such sectors as dairy farming, joint-stock companies, and so on. Since 1928 regular industrial statistics (annual and monthly) have been introduced. With the inclusion of the new statistics, the second calculations gave 20–30 percent higher results than the first ones (Chakalov, 1946, p. 13).

According to Chakalov, the national income constitutes the aggregate of all net incomes produced and derived within the national economy during a given year. Thus the national income comprises: incomes from newly acquired economic goods, remuneration for all services rendered by individuals or juridical persons as well as interest on capital. It is expressed in:

- The aggregate of the incomes of all physical and juridical persons within a given territory;
- plus the incomes of physical and juridical persons, resident within the country, received and derived from abroad; and
- less the incomes earned and derived within the country, but transferred abroad.

This means that national income covers the income only of a given country, i.e. according to the modern understanding this is gross national product (GNP). These income flows determined the consumers' purchasing power as well as the ability to form new capital. Chakalov adopted the idea of Marshall that only labour which could find money value on the market, i.e. paid work, is part of the national income, e.g. labour of workers. Therefore housewives' work (cooking, washing, cleaning, etc.) or activities like men self-shaving were not considered income.

Nevertheless, Chakalov gave a broader definition of national income, which was closer to the dominant one in most countries of the world at that time. In this aspect the Derksen study (1941) is interesting. It reflects the on-going discussion in the world at that time on the concept of national income. Derksen discusses the methodological issues involved in measuring the "striking differences" in the methods used by statisticians in different countries. These differences concerned the accounting or disregarding of the following components: housewives' work, consumption of durables, self-sufficiency products, state administration incomes, changes in inventories, banking and insurance activity, and pensions. Some economists, the Hungarians Matolcsy and Varga (1938) among others, excluded the value of administrative services from national income, as well as the costs of military and education activities. They believed these activities did not contribute to an increase of goods and services, but only to ensuring security of production and increasing human capital. These arguments were not new. Chakalov however, realized that without security and knowledge, economic activities could not be performed, or expanded. Furthermore, Chakalov believed that paid activities of individuals should be included. For this reason administration and education should be included in the total "social fund" covering the income of all the people in the national economy. Concerning household services (homework activity)

which is informal unpaid work in the national income, Chakalov believed inclusion was incorrect because these activities had no monetary value and because they did not influence the well-being of the national economy.

While the two Hungarian authors might be the only supporters of the idea of exclusion of public services from national income, their idea about the unpaid homework was shared by other statisticians in the world such as the Swedish authors (Lindahl, Dahlgren, and Kock, 1932). However the proportion of informal home activity was about 20 percent of the national income in Sweden, and for Hungary it was only 4 percent (Kemilev, 1947, p. 8).

In fact, Chakalov's estimates started with income from agriculture and further proceeded to estimation of income from industry and crafts, transport and communications, trade, credit and insurance, services and liberal professions, real estate and finally income from salaries and public services, including pensions.

Chakalov (1946, 10–14) used two methods for estimating Bulgaria's national income borrowed by Stamp (1934):

- Personal (subjective) method based on statistics of income taxation.
- Real (objective) or inventory method based mainly on production statistics and/or special surveys on produced goods and earned incomes.

Computations using the real method are based on the value of production activity of estimated net income, i.e. deduction of production costs. First we speak about the present-day known income approach of deriving GDP, and second about the production approach. If there are no practical difficulties, the results computed by the two methods should be equal. The differences could be substantial if significant price changes occur throughout the period under review.

There were arguments among statisticians about which method was better. The following facts were treated as disadvantages of the real method: first, it was applied without taking into account whether the production had been sold; second, it was applied without taking into consideration the changes in inventories or prices (which is an advantage of the personal method); third, its application required more complicated calculations. At the same time the possibility for double accounting and other errors were less if the real method was used. Another advantage was the possibility of measuring the contribution of every sector or agent to national income. Because of the available statistics the main applicable method in Bulgaria was the real method, but in fact mixture of the two methods was used.

Chakalov's estimates relate to a long period from 1924 to 1945 and the changes, which have taken place. The author undertook a searching examination of all published and unpublished papers to carry out inquiries and to compile new statistics (data). All estimates are given in 124 tables in Bulgarian and English.

Kemilev (1946) made efforts to conceive a concept and derive a data set of the country's national income. He adopted Fisher's definition (1937) of income as "influx of services at their exchange money value for a given period." This implies net income, which is quite broad and according to Fisher, it could be divided into several types: national income, individual (personal) income, cash income, natural income (income in kind), disposable income. The latter could be real total net income of the nation or real income per capita.

Kemilev used a mixed method of the two already mentioned methods for estimating of national income, namely objective and subjective. The objective approach was the main method. The subjective method was used for discovering errors and discrepancies or where necessary, as the only possible method, which could be applied.

The objective method was used for deriving estimates of income in agriculture (except home livelihood), industry, trade, income of real estate (housing), credit and insurance. The subjective method was used to estimate the income of home livelihood, crafts, trade, and also as a second control calculation (along with the objective method) of some kinds of labour, like liberal professions, and so on.

Kemilev's study (1947) is devoted mainly to the economic performance of Bulgaria's agricultural sector in the period 1936–45. This study deserves special attention for at least four reasons:

- It concerns about 73 percent of the total population in the country and over 80 percent of its economically active population, producing about two-thirds of the national income and providing 85 percent of the national exports at that time (Totev, 1940, p. 7).
- It is based on reliable data, by taking into account the two agricultural censuses: the first time in 1934–35 and recognized as one of the most advanced in the world (Stefanov, 1938b), and second time in 1944–45.
- The decade under review was very important from an historical point of view because this was the period between the end of the Great Depression and the end of World War II.
- An interesting approach to estimating agricultural income was applied, and 185 tables in Bulgarian and French presented.

As we noted, Kemilev did not generate his own definition of national income, but adopted other authors' ideas. He however, ignored some elements of the borrowed definitions and added his own considerations. For example, accepting Clark's idea that goods and services having money value should be included in national income, Kemilev made an exception for part of agricultural activities like spinning and weaving because of the closed nature of Bulgaria's agriculture where about two-thirds of its production was for household consumption and only one-third for the market.

Kemilev estimated three types of income in agriculture; nominal, real, and cash (money) income. For calculations of the latter the author considered the so-called natural income used for food and calculated not in money but in calories, proteins, greases, etc.[3]

Comparing the Bulgarian authors' views presented, we conclude that Kiranov accepted a narrower concept of national income than those of the other statisticians. Although he included homework, his understanding was closer to

[3]These calculations have been aimed at showing to what extent the food consumed by the population is sufficient for satisfaction of their physiological needs making comparisons with the existence minimum per human being. According to Kemilev's estimations, the Bulgarian population suffered from shortage of calories in years of poor harvest; concerning proteins, people were almost always in shortage, and concerning greases, they suffered from chronic famine.

that of Net Material Product (NMP) as defined in the Material Product Accounting System (MPS). This system was used in the former centrally planned economies, in particular in Bulgaria (1950–90). It ignored important non-material service activities which were considered "non-productive," i.e. passenger transport, housing, health, education, entertainment, banking, insurance, personal services, government, party administration, and the military. A bilateral comparison between Bulgaria and Finland for 1982 showed that Bulgaria's GDP was 28.2 percent higher than the indicator for NMP. Chakalov used a concept more similar to that which became the GDP (in his case GNP) concept in the present-day system of national accounting (SNA) conventions.

The different authors used different concepts and approaches for compiling the time series of national income. This is why we cannot expect a simple coincidence for the individual years. The interpretation of the given estimates should be made very carefully and conditionally. In accordance with the given concepts it is explainable why Kiranov's estimates are relatively lower that those of Kemilev and Chakalov, as for the last author we could expect to have the highest estimates of Bulgaria's national income.

In computing indices during and after World War II the statisticians used as a benchmark the year 1939 because it was the closest to the beginning of World War II, as well as because it was treated as a normal and moderate year in terms of economic conjuncture. Chakalov also presented data using the average of the national income for the period 1937–39 = 100 as a benchmark. In this case he determined the probable divergences around the averages which were approximately ± 10 percent. For estimating the national income deflator (converter), Chakalov borrowed the King method (1930) using the retail price index separated for the two main sectors, as follows: to farm income for rural population he applied the retail price index for the goods bought, and for urban population—the retail price index for the costs made (Table 1).

The inevitable inaccuracy of the statistical data at that time should be taken into consideration, respectively estimates for the national income under the conditions of developing statistics, and the total destruction of economic relations

TABLE 1

NATIONAL INCOME PER CAPITA IN BULGARIA, 1939–45
(In Bulgarian Leva)

	According to Estimates of:			
			Chakalov	
Year	Kemilev at 1939 prices	Kiranov at 1939 prices	at 1939 prices	at 1937–39 prices
1939	5,753	6,992	9,448	9,218
1940	5,279	6,792	9,133	8,814
1941	5,652	7,017	8,798	8,587
1942	5,134	6,981	8,308	7,896
1943	4,431	7,018	8,502	8,209
1944	4,281	6,045	7,820	7,552
1945	3,727	4,811	6,065	5,856

Source: Kiranov, 1946, Table 37, p. 50; Kemilev, 1947, Table 183, p. 132; Chakalov, 1946, Table 105 and Table 106, 117–18.

during World War II. Trade for instance had a strongly abnormal and unstable character, including the black market. The distortion influence of free prices used in parallel with the normalized prices was very strong.

3. National Income and Economic Growth

3.1. *Macroeconomic Developments*

The earliest available systemic data for Bulgaria's economy during the 20th century come from foreign authors, who used estimates of Kiranov, Popov, and Chakalov (Bowley, 1944). They are presented in Table 2.

TABLE 2

Macroeconomic Indicators for Bulgaria, 1913–50,
(International Units, IU)

Year	Real Income Per Capita, Million	IU per Unit National Currency	Labour Force Million	Real Product per Man-Year
1913	163	0.3290	1,30	569
1926	126	0.0114	1,73	396
1929	137	0.0110	1,84	425
1932*	94	—	1,96	290
1935	194	0.0184	—	—
1939	211	0.0179	2,10	633
1940	196	0.0161	2,11	596
1941	201	0.0133	2,24	615
1942	195	0.0100	2,26	588
1943	182	0.0079	2,27	545
1944	167	0.0052	2,30	498
1945	152	0.0035	2,31	458
1946	167	0.0031	2,33	499
1949	197	—	2,39	590
1950	224	—	2,41	673

Source: Bowley (Ed.), 1944, p. 105–6.

Note: These are official estimates in international units (IU) at 1939 prices quoted by UNs.

*Real income per capita and real product per man-year for 1932 are derived on the basis of Kiranov's (1933) estimates.

On the basis of these estimates the following considerations could be made.

1. During the 1910s Bulgaria was engaged in three wars, consecutively: the Balkan War and the Inter-allies War in 1912–13, known as the Balkan wars as well as World War I. The devastation of the wars was enormous. The recovery was slow and uncertain. The 1913 level of real income per capita would not be reached again until somewhere in the early 1930s.

2. The wars badly influenced the national economic performance for different reasons. Under the Peace Treaty signed near Paris, France in November 1919 changes in the country's territory decreased areas under crops. After the wars (1912–18) Bulgaria lost about 380 thousand hectares arable land in the Dobrudja plain area which could not be compensated by the newly acquired mainly mountain land of which only 150 thousand hectares was cultivated land. Besides, rising prices, high inflation and devaluation of the Bulgarian currency affected the economic performance in the following years. For example in comparison with 1912

stable currency, the Bulgarian currency was devaluated 14.7 times in 1919, and 24.5 times in 1923. After that more or less it stabilized.

3. After 1939, i.e. during World War II, the real income per capita dropped and would not again reach the 1939 level until 1950.

Table 3 and Table 4 present the basic estimates of Bulgaria's national income from the mid-1920s to the mid-1940s by basic economic sector and activities. These data outline Bulgaria as a mainly agrarian country with underdeveloped industry.

TABLE 3

NATIONAL INCOME OF BULGARIA, 1924–45

Year	Million Leva at Current Prices				Total National Income	Index Number 1939 = 100	
	Rural Economy	Arts and Crafts	Industry	Other*		Total	Per Capita
1924	26,196	3,146	2,405	11,931	43,678	74	89
1925	31,244	3,270	2,504	12,477	49,495	83	99
1926	29,659	3,304	2,520	13,936	49,419	83	96
1927	30,826	3,476	2,751	15,409	52,462	88	101
1928	33,637	3,652	2,920	16,320	56,529	95	107
1929	32,247	3,810	3,017	17,133	56,207	95	105
1930	27,144	3,412	2,658	15,427	48,641	82	90
1931	24,354	2,968	2,683	14,556	44,561	75	81
1932	19,992	2,797	2,897	13,587	39,273	66	70
1933	17,700	2,637	2,852	12,444	35,633	61	63
1934	17,578	2,443	2,482	12,061	34,564	75	60
1935	19,565	2,287	2,272	12,445	36,569	62	63
1936	20,401	2,433	3,038	14,316	40,188	68	69
1937	24,339	2,686	3,895	15,645	46,565	77	78
1938	26,654	3,101	4,374	17,166	51,295	86	87
1939	30,936	3,816	5,103	19,575	59,430	100	100
1940	33,037	4,340	6,263	21,770	65,410	110	109
1941	46,872	4,940	7,685	29,461	88,958	150	140
1942	54,810	7,344	9,466	38,312	109,932	185	172
1943	76,710	9,053	11,575	48,845	146,183	246	227
1944	124,276	10,788	13,354	55,053	203,471	342	314
1945	131,035	14,835	22,628	73,764	242,262	408	372

Source: Chakalov, 1946, p. 114.

Note: *Including: transport and communications; trade; credit, insurance and capital; liberal professions and services; real estate; salaries, pensions and public enterprises.

In general, during the World War II period the real national income in Bulgaria declined, as the nominal income was nearly four times greater than the one in 1939 = 100, but at the same time national currency devaluation was nearly six times greater. The latter is more evident from the estimates for the national income in constant prices, deflated on the basis of the index of retail prices, 1939 = 100 (Table 4).

Chakalov (1946, p. 121) computed distribution between primary (produced) and secondary (derived) national income, as the latter increased from 19 percent in 1924 to 28–29 percent in the early 1930s, and after that declined to nearly 18 percent in 1945.

Shapkarev (1946) borrowed Chakalov's estimates of national income in Bulgaria to analyze cyclical developments and their influence on the national economy during 1929–45. It turned out that small in scale and underdeveloped

TABLE 4

REAL NATIONAL INCOME OF BULGARIA, 1924–45
Basis: Index Number of Retail Prices 1939 = 100

Year	Million Leva, at Constant Prices					Index Number	National Income	
	Rural Economy	Arts and Crafts	Industry	Other*	Total National Income	1939 = 100 (Total)	Per Capita (Leva)	Index Number 1939 = 100 (Per Capita)
1924	16,737	2,010	1,537	7,622	27,906	47	5,360	57
1925	18,763	1,502	1,146	7,494	28,905	49	5,440	58
1926	22,450	2,501	1,908	10,549	37,408	63	6,897	73
1927	23,959	2,702	2,138	11,977	40,776	69	7,394	77
1928	23,892	2,594	2,074	11,592	40,152	68	7,187	76
1929	22,593	2,669	2,114	12,004	39,380	66	6,958	74
1930	24,210	3,043	2,371	13,759	43,383	73	7,567	80
1931	27,189	3,313	2,995	16,248	49,745	84	8,565	91
1932	25,487	3,566	3,693	17,321	50,067	84	8,509	90
1933	25,289	3,768	4,075	17,780	50,912	86	8,541	90
1934	23,696	3,293	3,346	16,257	46,592	78	7,715	82
1935	23,784	2,780	2,762	15,127	44,453	75	7,285	77
1936	27,476	3,277	4,092	19,280	54,125	91	8,795	78
1937	29,889	3,299	4,783	19,213	57,184	96	9,212	98
1938	30,489	3,547	5,003	19,635	58,674	99	9,384	90
1939	30,936	3,816	5,103	19,575	59,430	100	9,448	100
1940	29,210	3,837	5,538	19,247	57,832	97	9,133	97
1941	31,082	3,276	5,096	19,536	58,990	99	8,798	93
1942	27,993	3,751	4,834	19,569	56,147	94	8,308	88
1943	30,392	3,587	4,588	19,351	57,918	98	8,502	90
1944	32,713	2,840	3,778	14,228	53,559	90	7,820	83
1945	22,588	2,557	3,901	12,716	41,762	70	6,065	64

Source: Chakalov, 1946, p. 117.

Note: *Including: communications and transport; trade; credit, insurance and capital; liberal professions and services; real estate in town; salaries, pensions and public enterprises.

rural Bulgaria was also affected by the Great Depression. Approximately, the following phases could be defined: crisis at the second half of 1929; economic recovery during 1930–35 and economic revival from 1936 until 1939 (Table 4). Afterwards the economic situation got obscure because of the influence of the war intensifying the state power in the economic activities. As a result there were fewer possibilities for natural behavior of the economy.

Due to the agricultural nature of the Bulgarian economy the country was hit by the Great Depression not directly but through the so-called price scissors, i.e. widening of the relative difference between the prices of industrial and agricultural products to the detriment of the latter. In other words, a sharp dropping of the agricultural product prices and at the same time a stable or minimal decrease of the industrial products' prices was observed (Anderson, 1935; Totev, 1938). As a result the purchasing power of the Bulgarian rural population decreased which was compensated to some extent by the rich crop due to the favorable climatic conditions for agriculture at that time.

The period 1939–45 was strongly influenced by World War II. Although the military operations were occurring out of Bulgaria's territory the country was in a permanent state of martial law. German troops were located in the country,

and Bulgaria took part in the military occupation of Greek and Yugoslav territories, which caused significant state expenditure (for construction, repairs, etc.). In September 1944—May 1945 Bulgaria took part in the final stage of the war against Germany. During the war a significant proportion of the Bulgarian population were maintained as military troops and so removed those people from economic activity. This situation involved a huge increase in state expenditure, i.e. increasing the fiscal burden for the population by creating high inflation and thus leading to a reliance on government credit. In addition international relations were broken off, and some towns, mainly Sofia were damaged from air bombings.

As a result a significant decrease in production leading to a deficit of civil consumption goods originated. This led to increased demand (caused also by increasing consumption, predominantly military), that in its own turn provoked higher inflation. In addition there was restricted capital investment. The common characteristics of the economic situation were instability.

In a comparative perspective, economic experience around the world in the 1920s and the 1930s was dominated by the post–1918 boom and slump and by the Great Depression. Until the 1930s all industrial countries were concerned with policy measures to combat widespread unemployment.

In the years after World War I the world economy faced the acute problems of recovery and adjustment, where problems were much more difficult for Western Europe than for the U.S. The common feature was four years of comparatively normal development, namely 1925–29. Then Europe reached the 1913 level of economic development or a little over it while the economic growth in the U.S. continued. In this context Bulgaria was a low-income country left far behind the advanced countries. The devastating wars brought two national catastrophes.

3.2. *Economic Growth by Sector*

In the first half of the 20th century the agricultural sector predominated in the Bulgarian economy (Table 5).

TABLE 5

DISTRIBUTION OF NET PRODUCTION REVENUES BY SECTOR, 1939–44

Sector	1939	1940	1941	1942	1943	1944
Total (total = 100)						
Agriculture	73.5	71.5	72.1	71.0	70.9	75.0
Industry and Construction	26.5	28.5	27.9	29.0	29.1	25.0
Agriculture (total = 100)						
Crops	49.9	42.5	50.6	42.3	57.1	60.0
Livestock	47.4	54.7	46.2	54.0	40.2	37.9
Forestry	2.3	2.3	2.7	3.0	2.3	1.7
Hunting and Fishing	0.4	0.5	0.5	0.7	0.4	0.4
Industry and Construction (total = 100)						
Industry	49.1	54.3	54.6	54.2	49.5	45.0
Crafts and Small industry	46.1	42.9	41.3	41.4	47.1	54.5
Construction	4.8	2.8	4.1	4.4	3.4	0.5

Source: Kiranov, 1945, p. 49.

Bulgaria was a backward agrarian country, suffering from overpopulated and overemployed land. In the 1930s the country was at the end of the possibilities of extensive growth of agriculture.[4] Over 80 percent of the actively engaged population in Bulgaria was rural: 82.7 percent in 1924 and 82.4 percent in 1945. The highest percentage was in the early 1930s, in particular 1935 (nearly 85 percent). The other three social groups: workers, employers and liberal professions, and administrative personnel and servants had almost equal participation. For the period under review the first two groups marked just a little decrease and only the third group marked an increase from 5.1 percent in 1924 to 6.5 percent in 1945 (Figure 1).

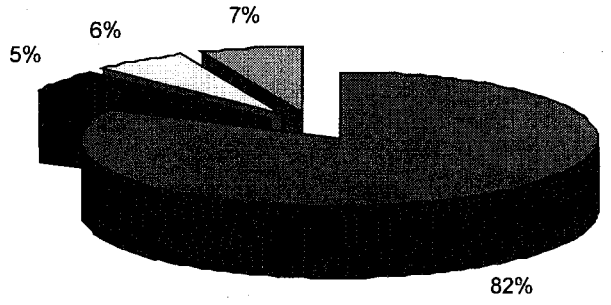

Figure 1. Distribution of Actively Engaged Population by Social Composition in Bulgaria in 1945
Source: Chakalov, 1946, p. 122.
Legend: 82 percent active rural population means all rural population at working age, i.e. persons engaged in agriculture, including hidden unemployment; 5 percent are workers, i.e. persons engaged in arts and crafts, industry, trade, services (credit and others); 6 percent are employers and liberal professions and 7 percent are administrative personnel and servants. It should be explained that rural women and children over 14 years of age were engaged in agriculture whereas most urban teenagers under 18 were students.

Data for the economic situation of this sector are available from two censuses of Bulgaria's agriculture undertaken twice: in 1934–35 and in 1944–45.[5] On the basis of the results from the two censuses, the following basic changes during the decade 1934–45 could be marked:

- Decrease of average farmland. In fact there was a negligible increase of the farmland by only 0.17 percent, whereas the number of farms increased by 15.84 percent. As a result the average area per farm decreased from 0.5 hectares in 1934 to 0.4 hectares in 1945. These phenomena illustrated the distinct process of fragmentation and consequently differentiation that was on going in Bulgaria's agriculture.

[4]In a comparative perspective the proportion of the population dependent on agriculture was about 75–80 percent in the Balkan countries and over half in Poland and Hungary. Population was growing much faster than in the West, so that there was a pressing need to provide land for the additional persons. Underemployment of the rural population was extensive, especially in the Balkans, where it accounted for 50 percent or more of the workforce in 1930. In many cases farm holdings were too small to ensure self-sufficiency (Aldcroft and Morewood, 1995, 17–20).

[5]The census covered 100 villages in the countryside and was carried out in March when farmers was not too busy due to the seasonal nature of agricultural activity. Besides, according to some estimates in the wintertime only about 30 percent of the active rural population were engaged in agricultural activity (Totev, 1939, p. 4).

- Farms' differentiation by size as the number of the smallest farms show the biggest increase, in particular those holding from 0.2 to 0.3 hectares, whereas the number of the biggest farm holdings between 40 and 50 hectares declined. That meant the biggest fragmentation was among the smallest farms and the biggest enlargement—among the largest farms. Until 1945 there were 1.2 million small-scale private farms, whereas the largest-scale farms possessed only 2 percent of total arable land in the country.

The traditional large Bulgarian family, including the manner of inheritance were steady factors causing further division of land, thence to lower productivity and profitability, leading to a further increase in impoverishment of the rural population (Kondov, 1946). An additional obstacle for rational farming was the scattered cultivated land. The small family farm in Bulgaria, as in other European countries, was much less efficient than a large estate in generating economic progress. At the end of the 1930s the yields per hectare in Bulgaria were twice lower than those in the developed countries under similar or worse soil and climatic conditions.

Due to slow industrialization the industry could absorb only a negligible proportion of the increasing rural population. The rest of the economic sectors played an even more modest role in employing the redundant rural labour force.

Emigration in the postwar years (after 1918) contrary to that in the prewar period (before 1912) decreased because of the restricted Bulgarian entry introduced in most developed countries. For that reason more and more rural people (due to the high positive natural increase of rural population) were urged to stay in agriculture. As a result the rural overpopulation increased further.

What about the industrial sector? By a number of legislative measures starting in 1895 and lasting up to 1928 Bulgaria gained a favored status for leading segments of its industry, namely manufacturing and mining. The benefits included long-term tax exemptions and reductions, duty-free imports of machinery, raw materials, and fuel, reduction of freight rates, gratis allocation of land for factory construction, and assured preference with regard to government contracts. Thus the government developed an interest in a number of industrial companies, also obliging them to supply statistical data on output, cost of raw materials, fuel and power, employment and capital.

For industrial progress to occur in a backward country like Bulgaria at that time we would assume production and processing of metals and chemicals to play the role of "new" industries. It is quite significant however, that neither metals nor chemicals constitute a higher proportion of output in the total. On the other hand, the more backward the country, the more appropriate it is to define its spurt of industrial development as a process where the textile industry loses its dominant position. However, in the case of Bulgaria the food processing industry is that which lost out in the course of industrialization, in particular the flour mills (Table 6).

After World War I until the beginning of the Great Depression (1929) the country's industrial production almost doubled. This progress occurred mainly after 1926, and it varied for the different sectors: comparatively good progress was marked in the production of electricity, vegetable oil, cotton and the textile industry. During 1927–29 a three-year period of standstill in industry could be

TABLE 6

DISTRIBUTION OF NET OUTPUT OF INDUSTRIAL BRANCHES IN 1909 AND 1937, AT 1909 PRICES
(Total = 100)

Industry	1909	1937
Metals	5.99	5.22
Pottery	6.38	13.56
Chemicals	4.12	6.75
Flour mills	23.08	8.87
Other foodstuffs	19.16	9.38
Textiles	25.27	35.20
Woodworking	5.31	1.05
Leather	5.43	3.66
Paper	1.10	2.20
Energy	4.15	14.11

Source: Gerschenkron, 1962, p. 207.

marked, while in the late 1930s and the early 1940s an upsurge of this activity was observed (Table 4). This progress however was mainly due to the increasing number of industrial enterprises, and the expansion of investment, not because of higher profitability of individual companies. Thus it was not on a scale to change the total economic performance. In retrospect the contribution of Bulgarian state policy to the country's industrialization was very modest.

Actually economic performance reflects economic policy with a certain lag. In 1931–32 some important benefits promoting industry in Bulgaria began to be negated. At the beginning it was done indirectly. A state of surfeit was declared in a number of industrial branches. In practice that meant that creation of new enterprises was prohibited. The old ones continued to function in a weak competitive environment. This led to lower productivity. A new law on industry adopted in 1937 abrogated the previous advantage of this sector.

In 1941 3,872 enterprises were functioning in Bulgaria, including 3,467 privately owned, 130 state-owned (providing 8–9 percent of the industrial product), and 275 cooperative (providing 6 percent of the industrial product). The average number of workers was 26 per enterprise with an average 110 horsepower installed capacity of engines.

What could be outlined about the relationship between agriculture and industry? Agriculture in a country like Bulgaria was too backward to be able to produce materials suitable for industrial processing. On the other hand, the hope that industry in a backward country can influence its agriculture is hardly realistic. With an appropriate lag through indirect stimulation, agriculture indeed might be expected to have modernized as a result of a sustained process of industrialization (Gerschenkron, 1962, p. 216).

The industrial progress was totally offset by the poor situation in the leading sector, i.e. agriculture. In 1944–45 a certain standstill in industry was observed. Due to the severe drought in 1945 the agricultural production strongly decreased.

In an international perspective the industrial output per capita in Bulgaria lagged behind those of leading industrial countries from 10 to 16 times, and was on the level of Romania and Yugoslavia (Berov, 1974, p. 133). As a backward

rural country Bulgaria however was not hit hard by the Great Depression. On the contrary, like other rural closed economies (Greece, Romania) it marked positive economic growth in the first half of the 1930s.

According to Kiranov's estimates the growth of nominal and real income in agriculture until 1943 lagged behind that in the group of construction and industry. In 1944 however, due to increasing agricultural production this situation changed. The net revenues per capita were calculated using the number of rural population for agriculture, the number of urban population for industry and the total number of population for total product. The trend of real revenues shows a slowing year-by-year change in comparison with the trend of the nominal revenues (Table 7).

TABLE 7

INDEX NUMBERS OF NET PRODUCTION REVENUES BY SECTOR, 1939–45, 1939 = 100

	1940	1941	1942	1943	1944	1945
Nominal Revenues—total						
Agriculture	115.5	150.4	191.0	247.0	434.2	—
Industry and Construction	127.7	161.5	216.8	280.7	401.0	—
Total	118.7	153.4	197.8	255.9	425.4	—
Nominal Revenues—per capita						
Agriculture	114.7	141.1	177.6	227.8	397.1	—
Industry and Construction	126.8	151.5	201.5	259.0	366.8	—
Total	117.9	143.9	183.9	236.1	389.0	—
Real Revenues—total						
Agriculture	88.1	103.3	92.2	76.3	76.8	60.6
Industry and Construction	104.1	108.7	106.4	103.5	94.0	100.2
Total	92.4	104.7	96.0	83.5	81.4	71.7
Real Revenues—per capita						
Agriculture	87.6	96.9	85.7	70.4	70.3	55.2
Industry and Construction	103.4	102.0	98.9	95.4	85.9	91.3
Total	91.8	98.2	89.2	77.0	74.4	64.8

Source: Kiranov, 1945, p. 49–50.

Judging by the distribution of real national income by sector it is evident that the small share of employed in urban crafts correspond to a comparatively high share of national income (Figure 2). This picture shows some progress in the early 1940s in terms of the industry. As to the agricultural sector, this is evidence about its lower profitability and closed nature.

Under the difficult economic conditions, including the war period, the rural population increased the share of products for the market. In the 1930s the share of real cash income in agriculture in the total agricultural income was about 33 percent, which showed the limited market and the closed nature of Bulgarian agriculture at that time. During World War II this proportion increased from 34.0 percent in 1942 to 44.6 percent in 1944.

3.3. *Foreign Trade Policy and Changes*

By the beginning of the 20th century Bulgaria exported primarily and almost exclusively agricultural products. In most of the years under review the country achieved a positive trade balance. In the 1920s however, it was negative and

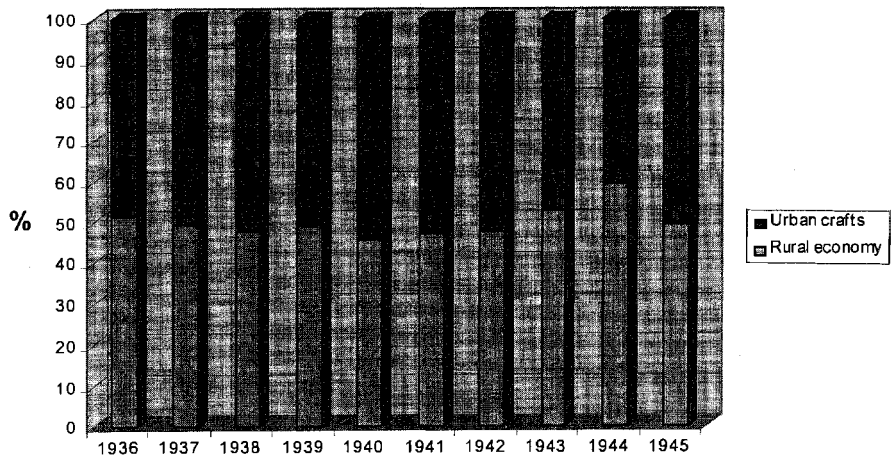

Figure 2. Real National Income in Bulgaria, 1936–45 (in National Currency, at 1939 prices)
Source: Kemilev, 1946, p. 14.

fluctuating annually. In the 1930s, in particular in the second half of the decade the balance became positive. This was due mainly to the active state control on Bulgaria's foreign trade orientation to Germany, as the latter did not cover the exports from Bulgaria with counter imports. In 1931–32 the average percentage of import duty reached 51 percent, which sharply contributed to the scarcity of competitive goods imports and stimulated some domestic activities.[6]

A useful study for the foreign trade in Bulgaria during the period 1919–37 is part of an international project on the Danubian basin countries.[7] The methods of calculation of the statistical data on exports and imports volumes and flows, as well as the trade balance for Bulgaria have been elaborated in the General Directorate of Statistics in Sofia (Stefanov, 1938a). The period 1919–37 was divided into four sub-periods: 1. reconstruction after the wars, respectively 1919–22 for the exports and 1919–23 for the imports; 2. relative stability after 1922, in particular from 1923 to 1929; 3. economic crisis and depression from 1930 to 1934; 4. recovery after 1934.

The import structure comprised the largest share of textile materials and articles, as well as metals, all kinds of machinery, wagons, and tools. Bulgaria imported 98 percent of the necessary machinery and transportation. Gradual replacement of foreign textile materials by domestic ones was observed, especially

[6]In fact, the promotion of the domestic industry described in the foregoing pages played its positive role for creating a system of artificial fabrication of manufacturers. However, these acts together with the increased import tax habituated the newly emerged bourgeoisie to inactivity and security. Thus it could be said the Bulgarian middle class became accustomed to work under the strong state protection (under hothouse conditions) without being forced to combat competition.

[7]It was undertaken in 1936 by the International Studies Conference at the International Institute for Intellectual Cooperation at the League of Nations, Geneva. Experts from the following countries were included in the project: Austria, Bulgaria, Czechoslovakia, Hungary, Romania, and Yugoslavia. The project was aimed at carrying out an objective statistical and economic study in detail on the Danubian countries, emphasizing on their mutual dependence and similarity of the structural development after World War I.

an increase in vegetal products. The export structure is divided into five groups: non-processed crop products, processed crop products, non-processed animal products, processed animal products and non-agricultural products. The first three groups were of the greatest importance for the country exports, which among other things was indicative of its backwardness. The group of processed animal products was of comparatively small importance, and non-agricultural products took a negligible place.

Another negative side of the agricultural structure of Bulgarian exports was that the economy, in particular its balance of payments was dependent to a great extent on the considerable conjuncture fluctuation of agricultural product prices in the international market. In the 1930s, especially during the Great Depression there was a tendency to a reduction of those prices. Bulgaria was hard hit by this phenomenon (Table 8).

TABLE 8

TERMS OF TRADE FOR SELECTED COUNTRIES, 1930–38

Country	1930	1934	1938
Bulgaria	83.4	52.0	82.6
Denmark	96.9	77.1	82.7
Hungary	98.0	102.8	104.9
Yugoslavia	93.6	67.4	85.4

Source: Berov, 1974, p. 137.

Note: This is ratio between the weighted average index of the prices of imported goods and indexes of the exported goods, as the index of the imported goods is 100.

The "feedback" of the relationship between agriculture and foreign trade was expressed in two aspects. First, increasing exports of processed tobacco and tinned fruit and vegetables at the expense of non-processed corn and animal products furthered intensification of the agriculture, thus decreasing hidden unemployment and slightly raising the cash income of the rural population. Second, duty-free imports of agricultural machinery increased. Its availability however was very small in comparison with those of the developed countries in the world.

The change in foreign trade by country was reflected mainly in the increasing role of Germany for Bulgaria. The share of this trade grew 2.25 times for the period under review at the expense of trade with the other Danubian countries. Bulgaria's foreign trade relations with Germany were connected mainly with exports and to a lesser extent with imports.

In the late 1930s further changes in Bulgaria's foreign trade orientation occurred. Foreign trade turnover with the other Western countries was decreased considerably in favor of a sharp increase of foreign trade relations with Germany, respectively up to 60 percent of imports and 56 percent of exports for the period 1936–39 (Berov, 1974, p. 138). Between the two world wars changes in the production structure of Bulgarian imports were also marked, particularly a significant increase in the proportion of the imported metals and ironware, machinery, appliances, tools, and vehicles. This was a sign for higher investment in the domestic industry, agriculture and transport.

During World War II, exactly from 1939 to 1945 the country annually recorded a positive trade balance. Taking into account the production structure of Bulgaria this was due mainly to agricultural products and raw-material products, which defined the role of Bulgaria as a raw material supplier of Germany.

5. Summary

A constellation of statisticians in Bulgaria worked on national income concepts during the first half of the 20th century and derived data sets for this indicator. Thus they prepared a good basis for economic history studies.

After the relatively stable and rapid economic growth in the end of the 19th and the beginning of the 20th century troubled times arrived in Bulgaria. The wars put an indelible stamp upon the economic development in the first half of the 20th century. However, they were only one external factor. The economic performance in Bulgaria was also limited and unsatisfactory. As the surveys presented show, over the period under consideration the small-family-farm nature of Bulgarian agriculture became pronounced. Being poor and inefficient, agriculture could serve neither as an adequate raw-material basis for industry nor as a source for an effective and growing demand for industrial products. The economic backwardness of Bulgaria at that time precluded its industrial development based upon the pattern of the advanced countries.

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* Denotes the publication is in Bulgarian.