

COAL AS AN ELEMENTARY, VITAL NECESSITY
TO THE POLISH STATE.

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Postulate. I/ The frontiers of the Polish State have not yet been fixed and this question will only be decided at the peace Congress. When considering an economic question we must accept certain postulates as to the extent and population of the Polish State, and then, besides the possession of the State itself we must take into consideration those provinces which either from a historic or economic point of view, will be within our sphere of action or of our influence. We take the area of the Polish state to be as stated in the following table:

	Area in sq.km.	Population	Population to 1 km.
Kingdom of Poland	250 117	24 601 000	98
Provinces under Polish influence	529 780	29 457 000	56
total	779 897	54 058 000	69

II/ Economic character of the Polish State.

As regards the occupation of the inhabitants. As regards occupation it is important to know what percentage is occupied in: a/ agriculture, fishing, forestry etc; b/ in industry, trade and work on railway etc; we shall also include here those who work privately, domestic servants and daily workers, since statistics are so ordered that most of them work at industry trade and communication /temporary workmen

Year	Province of the Polish State	Agriculture	Industry, trade, communication and domestic and other serv.	Remarks
1897	Kingdom of Poland	56,6	34,0	Those parts which are not included in the Polish State are not counted
1900	Galicia	76,6	17,85	
	Principality of Posen	63,2	29,8	
1895	West Prussia	57,3	33,7	
	East Prussia	61,9	30,6	
1912	Opolska Regency	28,9	57,6	

Compared with other countries:

Country	Agriculture	Industry, trade, communication and domestic and other service
England	13,0	76,6
United States	35,9	52,4
Germany	37,5	54,1
France	42,7	50,6

Russia	58,3	30,2
Austria	60,9	32,2
Hungary	69,7	22,1

Taking into account, that the number, working in industry, trade and communication should as regards Galicia be raised, and as regards East Prussia lowered a little, and in Cieszyn Silesia will come to about 50%, we may take for the whole area of the Kingdom of Poland an even 33-,3%. Hence we see that Poland stands below England, the United States, Germany and France, on the other hand in this respect it stands before other large countries. As concerns Russia, the figure 30,2% decreases, when Poland is substracted.

B. Emigration. Our country is one of the principal countries which supplies emigrants to America and Germany /permanent emigrants/ and season-emigrants to Germany, partly also to France and Denmark.

Emigration of Poles to the United States:

in 1907	80 000
1910	130 000
1911	73 000
1912	87 000

Season emigration to Germany, the Kingdom of Poland and Galicia, amounted to:

in 1909 - 10	323 000
1910 - 11	331 000
1911 - 12	348 000
1912 - 13	361 000

From the Prussian division the emigration is only to the west of Germany, and the yearly emigration amounted to only a few thousands yearly. To 100 000 of the population in the Kingdom of Poland and Galicia /with 12 000 000 of Polish population, those emigrated from 667 to 1 083 persons yearly, whilst:

in France	25
Germany	45
Holland	50
Italy	1190

not counting the season-emigration, which is three times the permanent emigration.

C/ Increase. Hence we see that the population cannot live either from agriculture or industry. Emigration is the more, the the increase of the population is very considerable:

in the Kingdom of Poland in 1908 it amounts to	1,65%
Galicia	" 1,61%
Cieszyn Silesia	" 1,66%

in the Prussian division although less, it yet amounts among Catholics to 0,96% /in the Posen district/ and to 1,31% /in the Opolski district/.

D/ Agriculture. Although in the Kingdom of Poland and Galicia, as regards the productivity of the earth much can be done, yet we must remark, that agricultural culture stands on a high level compared to that of our Eastern neighbours. By degrees as agriculture is improved the latter will need more machines which our home industry should supply. The Kingdom of Poland did not supply its own needs in agricultural products, and the balance as regards this showed about 49 000 000 rbs. on the debit side. Since Galicia and Posen are more agricultural countries, hence we may assert, that the Polish State will in any case be in a position to balance its agricultural accounts. As rural culture improves, those peasants will become better off who, especially in Galicia led a really miserable life. Thus we cannot count upon an export of agricultural products, since a greater production of agricultural products inevitably leads to a greater home demand. The Prussian division, as concerns agriculture, has reached a high standard of culture. Finally we must remark, that the development of our agriculture, because of the introduction of machines, leads to a number of people being without work in that branch of economic work, as for example, happened in Germany. Hence, not wishing these surplus people to emigrate we must employ them in industry.

E/ Industry. The modern views of economists are that a given nation should develop as far as possible in accordance with its natural wealth and economic conditions. Nature has endowed us universally: we have fruitful earth, and under it many natural sources of wealth. To have a sufficient number of workmen and men of the professional class. Polish "work" has given the best proofs, in the industrial district of Lodz, what

it can do. In spite of our lack of raw materials /cotton/ and of the considerable distance of this industrial centre from the coal district, in spite of the absolute lack of the water on the spot, and of any arrangement by the Russian government, which wished to hinder this industry, it continually increased and compelled, in spite of everything, with the strong weaving industry in Russia. Thanks to the good organization of this industry, manufactured goods were so cheap that they even obtained success in the distant Russian markets, in spite of the protective tariffs, which protected Russian industry in the Moscow district. The Germans understood this spirit of enterprise and industry in the Poles, and during their occupation of our country, they tried to destroy such a threatening competitor. We, however have not enough capital, which we must draw from our western allies. Hence we must have a balance on the credit side, so as to pay percentages on this capital. Since agriculture will not cover this, we shall be obliged to export some of our produce.

E/ Trade balance, trade and value of production. Although several branches of industry do not exist at all in our country, others exist and will figure in the balance of accounts on the debit side. In spite of this our industry should and will figure in the final result on the credit side, and chiefly the mining industry. This is indicated by our mineral riches and geographical position. Finally the increased trade which should develop in consequence of our central position in Europe, from which it follows, that we should be intermediaries between the west and the east, gives us the possibility to make up the deficit which has resulted from want of capital.

G. State budget. Tremendous financial difficulties, caused by long years of neglect of Galicia and the Kingdom of Poland by their respective governments, await the future Polish State. The rebuilding of our human dwellings, ruined by the war, the restoring of our industry, the accumulation of certain

stores of raw-materials necessary for industry and for the population, the building of neglected systems and lines of railway, the bringing of the country to an even relative condition of order as in sanitary respects, the organization of the national school-system, which, except in Galicia practically does not exist /in the Kingdom of Poland there are chiefly only private schools/ - all this will require from the State immense expenses, also the relief of the people from excessive taxes, the effort to put such sources of work as the land, the factories and the mines not only into working order, as before the war, but also to considerably increase their production. Agricultural production can only be increased within certain limits, marked out by calculation, for the cost of production would be increased should more be extracted from the earth than it normally produces. The development of industry is dependent only on natural conditions and upon a market for the surplus. If these are favourable, the increase of production saves on its own expenses. Besides the very development of agriculture is considerably dependent on industry, from which it receives the tools for improved work, and the vitalising fluid for the fields. Finally the condition of rural property in the greater part of our state, and also our social classification, create a suitable ground for increased industrial activity

Year	Province	Rural population	Remarks
1913	Kingdom of Poland	36,50	In the northern and western districts 44,4% Kingdom of Poland-Principality of Cieszyn, Opolska regency, with a population of 15,1 millions has a country population of 37,5%
1910	Galicia	17,30	
"	Silesia /Cieszyn/	38,20	
"	Principal. of Posen	24,38	
"	West Prussia	28,44	
"	East "	14,90	
"	Olsztyn regency	41,32	
	Total	31,00	

In comparison to other countries:

Country	Rural population
England	77,0
Germany	66,0
United States	41,5
France	41,2
Italy	26,4
European Russia	13,0

We see that the Polish State occupies in this respect, the fifth place in the world, among the larger countries. Besides the increase of industries in the Kingdom of Poland, Galicia and the principality of Cieszyn distinctly shows that it is indispensable and that it is suitable to the natural conditions of the country. We cannot in a short essay particularize the circumstances which hindered the growth of industries in Galicia and the Kingdom of Poland. We can only confidently assert that under other conditions the industries of the Kingdom of Poland and Galicia would have reached the high level of development which they did in western states, and would not have given rise to such considerable emigration as took place from our country.

II/ Coal

A/ Coal as the chief postulate of the development of trade.

Mining occupies the chief place among the departments of industrial economy, and the most important departments of mining are coal and iron-mining. But if industry in general, and especially iron metallurgy can be developed, and that without its own beds of iron ore, of which Upper Silesia is the proof, which, having only insignificant stores of iron-ore, imported it chiefly from abroad the development of a wide-spread industry without coal is inconceivable. Only particular branches of industry, which are brought into being by certain resources possessed by a given country, or by its absolute necessities, can be developed without coal.

B/ Production of coal

Production of stone-coal

Provinces	1909 1000T.	%	1910 1000T.	%	1911 1000T.	%	1912 1000T.	%	1913 1000T.	%
Kingdom of Poland	5,584	11,72	5,469	11,53	5,770	11,44	6,315	11,12	6,834	11,35
Galicia	1,176	2,47	1,346	2,84	1,637	3,24	1,911	3,36	1,971	3,33
Opolska Reg.			34,446	72,65			41,543	73,11		
Silesia /Cieszyn	34,657	72,73			36,623	72,58			43,801	72,76
	6,231	13,08	6,156	12,98	6,429	12,74	7,053	12,41	7,595	12,91
Total stone-coal	47,648	100	47,417	100	50,459	100	56,822	100	60,201	100

Production of brown-coal

Provinces	1909 1000T.	%	1910 1000T.	%	1911 1000T.	%	1912 1000T.	%	1913 1000T.	%
Kingdom of Poland	113	61,08	117	62,23	139	67,28	152	99,35	155	99,36
Galicia	-									
Silesia C.	2	1,08	1	0,53	1	0,49	1	0,65	1	0,64
Princ ⁴ of Posen	25	13,51	26	13,83	30	14,63				
West Prussia	4	2,16	4	2,13	0,1	0,04				
Opolska Reg.	41	22,17	40	21,28	36	17,56				
Total of brown coal	185	100,00	188	100,00	205,1	100,00	153	100,00	156,	100,00

Total of coal 47,833 47,605 50,664,1 56,975 60,357

Percentage of coal
 stone 99,61 99,61 99,60 99,73 99,74
 brown 0,39 0,39 0,40 0,27 0,26

A part of the Bohemian coal from Silesia A/ /Cieszyn/ is excluded
 1,558 1,539 1,607 1,763 1,899

There remains stone coal in the Kingdom of Poland after deductions
 46,090 45,878 48,852 55,059 58,302
 brown coal 185 188 205 153 156

Total 46,275 46,066 49,057 55,212 58,458

x/ In Galicia brown coal is found in the eastern part in the Stanislawow district, but since this district has been excluded from the Polish State, we have not counted this coal.

We see that we have only an insignificant quantity of brown coal, which is also the case with most states. The production of stone-coal in other countries was: /in some countries together with the brown-coal/.

Countries	1909	1910	1911	Remarks
	1000 tons			
England /not counting colonies/	268,000	268,677	276,242	Stone coal + brown
Germany	148,788	152,828	160,748	
France	37,116	37,635	38,644	
Belgium	23,518	23,917	--	
Russia and Asia	24,455	24,744	--	Stone coal + brown
Italy	0,555	0,562	--	
Spain	3,861		--	
Austro-Hungary	15,110	15,076	--	
Sweden	0,347	0,303	--	
Holland	1,121	1,292	--	
Total for Europe	522,878	525,034		
United States	418,044	455,041		Stone coal + brown
Canada	9,527	11,609	10,241	
Total for Ameri.	427,571	466,650		
Asia	28,130	27,972		
Africa	5,196			
Australia	10,259			
The whole world	994,034	1019,656		
England with their colonies	305,178	292,723	286,483	
France	37,500	37,635	38,644	
Holland	1,630	1,292		
Poland in comparison with Europe	7,38%	7,38%		
the whole world	4,21	4,10		

The production of brown coal where it is stated separately:

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Countries	1909	1910	1911	Remarks
Germany	68,658	69,547	73,761	
Austro-Hungary	34,398	33,574		
Spain	0,265			
France	0,724	0,715	0,706	
Total of coal	104,045	103,836		

Total of stone and brown coal produced:

England	268,007	268,677	276,242
Germany	217,446	222,375	234,509
France	37,840	38,350	39,350
Belgium	23,518	23,917	
Russia	24,455	24,744	
Italy	0,555	0,562	
Spain	4,126		
Austro-Hungary	49,508	48,650	
Sweden	347	303	
Holland	1,121	1,292	
Total for Europe	626,923	628,870	

United States	418,044	455,041	
Canada	9,527	11,609	10,241

Total for America 427,571 466,650

A-sia	28,130	27,972	
Africa	5,196		
Australia	10,259		

The whole world 1098,079 1123,492 560,342

England with their colonies	305,178	292,723	286,483
France	38,224	38,350	39,350
Holland	1,630	1,292	

Now we consider the production of the States which partitioned Poland excluding those provinces which we considered in Table I and which are to be included in the Po-

lish States. We must also make certain corrections as to our production because of the exclusion of a part of the Cieszyn coal-district which is ethnographically Bohemian. We have excluded the district and town of Frydek, as being Bohemian; on the other hand we have included the whole Frysztacki district, of which probably a very small part will be given to Bohemia. When reckoning the territory of the state and the population, it was of no significance that some parishes of the Frydecki district were separated from Poland, and the Bohemian parishes of the Frysztacki district were included. We shall be obliged to consider this when reckoning the production /the reduction is mentioned in section A/ on the table on p.6/ Production of Germany, Austro-Hungary and Russia in the years 1909-1911, not taking into account the political changes, caused by the war

		Stone coal	Brown coal	Total	Remarks
Germany	1909	148,788	68,658	217,446	
	1910	152,828	69,547	222,375	
	1911	160,748	73,761	234,509	
Russia	1909			24,455	
	1910			24,744	
	1911			-	
Austro-Hungary	1909	15,110	34,398	49,508	Included Bosnia and Herzogowina
	1910	15,076	33,574	48,650	
	1911				

Production of Germany, Austro-Hungary and Russia, taking into account the political changes caused by the war.

Countries		Stone coal	Brown coal	Total	Remarks
Germany	1909	114,131	68,588	182,719	
	1910	118,382	69,477	187,859	

Countries		Stone coal	Brown coal	Total	Remarks
Poland	1909			46,275	
	1910			46,066	
Bohemia	1909	7,803	21,866	29,669	
	1910	7,738	21,075	28,813	
Russia and	1909			18,780	
Ukraina	1910			19,192	
Hungary	1909	1,184	7,503	8,687	As we have not the necessary data we cannot classify the production of Hungary
	1910	1,085	7,579	8,664	
Austria	1909	61	2,672	2,733	
	1910	74	2,599	2,673	
Jugosławia	1909		2,178	2,178	The production rises on account of the inclusion of Hungary
	1910		2,130	2,130	

Production of stone coal per head of the population

Year	United States	England	Germany	France	Belgium	Russia	Austria	Hungary	Austria-Hungary
1909	4,47	5,31	2,25	0,92	3,06	0,16	0,46	0,08	0,30
1910	4,75	5,80	2,28	0,93	3,12	0,15	0,46	0,06	0,29
1911	4,64	5,91	2,37	0,94	2,97	0,15	0,48		

Year	Sweden	Japan	India	Canada	Australia	Poland	Kingdom of Poland	Galicja	Cieszyn	Opolska	Posen
1909	0,04	0,29	-	1,38	1,89	1,83	0,47	0,21	14,24	15,71	0,01
1910	0,04	0,30	-	1,64	2,19	1,87	0,46	0,24	14,17	15,72	0,01
1911	0,06	0,30	-	1,37	2,31	1,99	0,49	0,29	14,76	16,00	0,01

These data are not however authoritative, although we take them from the reliable "Annales des mines de Belgique" vol. XVIII 3 op. p.389-907. Some countries, as for example Germany, Austria and Hungary are given without counting brown coal, whilst other, like England and the United States include the whole production of coal. After making the necessary corrections

we get:

This relates to 4 countries				Table III		
Country	1909	1910	1911	Brown coal in relation to stone coal		
				1909	1910	1911
Germany	stone coal	148,788	152,828	-	46,14	45,51
	brown coal	68,658	69,547	-		
Austro-Hungary	stone coal	15,110	15,076	-	227,65	222,70
	brown coal	34,398	33,574	-		
France	stone coal	37,116	37,635		1,95	1,90
	brown coal	724	715			

Table A taking into account the corrections made in table B gives results

Table C.

Year	United States	England	Germany	France	Belgium	Russia	Austria-Hung.	Sweden	Japan	England	Canada	Australia	Poland
1909	4,47	5,31	3,29	0,94	3,06	0,16	0,98	0,04	0,29	-	1,38	1,89	1,8
1910	4,79	5,80	3,32	0,95	3,12	0,15	0,94	0,5	0,30	-	1,64	2,19	1,8
1911	4,64	5,91	-	-	2,97	0,15		0,6	0,30	-	1,37	2,31	1,8

Remark: In table A. and C. we have taken into account the normal production and not the so-called "long" production as in the Belgian account.

Hence we see that for production per head, Poland takes the 6-th place in the world, taking a lower place than England, the United States, Germany, Belgium and Australia. The figures given for the provinces are only valid until new monetary values are introduced.

G. Import and export of coal.

Before we come to the use of coal in our own country, we must glance at the particulars of import and export and that consumption of coal in other countries, which is connected with them. The chief suppliers on the worlds market are the following countries:

Year	Import	Export	Excess +or - A	Pro- duc- tion	Consumption with A	Total sec. consumption
1 0 0 0 t.						
1909	42 42 299	99 21 419	-377	5,597	-377	5,320
1910	48 48 351	97 6 454	-406	5,586	-406	5,180
1911	59 59 387	93 480	-421	5,908	-421	5,587
1909				1,176		1,176
1910				1,346		1,346 x
1911				1,637		1,637
1909		3,697 -	3,697-3,697	4,675-3,667		1,008
1910		3,641 -	3,641-3,641	4,618-3,641		0,977 x
1911		3,844 -	3,844-3,844	4,823-3,844		0,979
1909	343 - 343		+343	25	+343	368
1910	304 - 304		+304	26	+304	330 x
1911	273 - 273		+273	30	+273	303
1909	278 - 278		+278	4	+278	282
1910	255 - 255		+255	4	+255	259 x
1911	222 - 222		+222	0,1	+222	222
1909	89 - 89		+89		+89	89
1910	81 - 81		+81		+81	81 x
1911	71 - 71		+71		+71	71
1909	47 2,433 7,743	10,223	-10,223	34,698	-10,223	24,475
1910	65 2,198 7,646	9,909	- 9,909	34,486	- 9,909	24,577
1911	100 2,799 8,470	11,349	-11,349	36,659	-11,349	25,310
1909	710 42 752 346	6,229 7,764	14,339-13,587	46,275	-13,587	32,688
1910	640 48 688 416	5,936 7,652	14,004-13,316	46,060	-13,316	32,750
1911	566 59 625 487	6,716 8,470	15,673-15,048	49,057	-15,048	34,009

From the last table there are excluded excepted import and export for the sake of clearness.

Provinces	1 9 0 9			1 9 1 0			1 9 1 1		
	Import	Export	Difference + or -	Im- port	Ex- port	Dif- fer- ence +or -	Im- port	Ex- port	Dif- fer- ence +or -
1 0 0 0 t.									
Kingd.of Pol.	42	419	-377	48	454	-406	59	480	-421
Galicia	-	-	-	-	-	-	-	-	-
Princip.of Cieszyn		3,697	-3,697		3,641	-3,641		-3,844	-3,844

Provinces	1 9 0 9			1 9 1 0			1 9 1 1		
	Im- port	Ex- port	Diffe- rence +or -	Im- port	Ex- port	Diffe- rence +or -	Im- port	Ex- port	Diffe- rence +or -
Princ. of Posen	343	-	+343	304		+304	273	-	+273
West-Prussia	278	-	+278	255		+255	222	-	+222
Olsztyn Reg.	89	-	+ 89	81		+ 81	71	-	+ 71
Opolska "	10,223	10,223		9,909	9,909		11,349	-11,349	
Total	752	14,339	13,587	688	14,004	13,316	625	15,673	-15,048

Remarks

A/ Kingdom of Poland.

- 1/ English coal is imported to a very small extent which is not counted.
- 2/ The import of Moravian coal is not counted, that is, the coal from Moravian Ostaw. The amount is insignificant.
- 3/ The consumption in the 4 northern districts of the Suwalski government is not counted, as only a few hundred tons are sent there.
- 4/ The export to Austro-Hungary is counted as export abroad that is, that all the coal goes beyond the frontiers of the Polish State. In reality the Kingdom of Poland sent Galicia only an insignificant amount.

B/ Relates to Galicia.

- 5/ Galicia received /besides Upper Silesian coal/ only an insignificant amount from Moravia and England, and exported its coal outside the Kingdom of Poland to Ukraina, East Galicia /barely 5%/ and Austria.

The differences more or less make up for the import of foreign coal.

- 6/ The export of Upper-Silesian coal to Galicia is classified according to the receiving station into two parts. The first part, which remained within the boundaries of the Polish State and 2/ the remainder. The remainder includes ± 15%.

C/ The Principality of Cieszyn.

7/ The export from the Principality of Cieszyn is calculated theoretically on the principle of production per head /actual figures/ and the consumption is estimated as \pm the same as that of Belgium, and a little less than Germany's

D/ For Posen, West Prussia and East Prussia

8/ English coal is reckoned only in so far as it comes to these provinces. The total amount is classified according to the number of inhabitants, which will be somewhat to the disadvantage. The coal which is assigned to East Prussia is divided between the three regencies and only a part of what is assigned to the Olsztynska Regency is noted.

E/ For the Opolska Regency

9/ Import to East Prussia of Upper Silesian coal divided into two parts as on p.8

10/ Coal exported to Central Silesia and to Lower Silesia is excepted

11/ The figures represent the total of the export to Russia and to Eastern Galicia, which is excluded from the Polish State.

12/ General remark: coal exported from one province to another is not taken into account at all, being the subject of home trade.

B/ Consumption. We compute consumption by adding to the production of each country the imports and deducting the exports

Country	1909	1910	1911	Remarks
United States		437,716		
England		185,514	190,537	
Germany		202,646	210,171	
France		55,646	58,133	
Russia		29,476		
Austro Hung.		58,252		
Belgium		24,230		
Poland	32,688	32,750	34,009	

The consumption counted in this simple way is a very little different from the actual consumption, since it does not count the trade in stored supplies.

E. Capacity of the market.

Even without reckoning industrial development the capacity of our coal-market is considerable greater than our consumption, on account of our undeveloped railways, which, in the Kingdom of Poland, were not built for strategic reasons, and in Galicia from motives of economy.

From the table, given below we see:

Province or country	The railways given in versts	
	to 10 000 inhabitants	1000 versts
Kingdom of Poland	24,3	28,4
Posen	120,5	96,4
Galicia	51,5	52,6 in klm. which differ but
Government of Moscow	36,1	40,0 little from versts

that not only can we not compete with Western Europe, but even with Central Russia, which was in this respect in a better condition. When railways have been built, a part of the inhabitants, which now burns wood with burn coal, the more that the condition of the forests of the Kingdom of Poland is lamentable. When the new railways have been built, the effects of this change will at once be felt. Chiefly the consumption of house coal in any given locality will increase, for that is a potential necessity but industry must first arise and then develop.

The consumption of coal to one inhabitant of the Kingdom of Poland amounts to something more than 0,5 tons and in Galicia 0,3 tons.

The development of railway-systems will in itself raise the consumption of railways are one of the chief purchasers of coal.

The very fact of uniting the different provinces of Poland into one whole from the Dąbrowa coal-field must get there by a round about way, and if Kalisz received coal from Germany, it had to pay a duty, which meant that in this respect it was in worse circumstances than other localities which necessarily had a restraining influence upon the industrial development of this town.

Other frontier localities in the Kingdom of Poland and Galicia were in the same circumstances. The development of water-ways which do not actually exist, but are only projected within the boundaries of the Kingdom of Poland and Galicia, will have an immense influence upon the production of coal. The existing junctions are technically and economically almost useless, since they do not provide for the chief necessity of a branch of industry, which produces heavy products. Centres of this kind of industry must soon be united by water-ways, which in our country is a relatively easy matter, from a technical point of view.

Consumption per head of stone and other coal:

Year	United St.	England	Germany	France	Austria-Hungary	Belgium	Russia	Italy	Spain	Sweden	Canada	Japan	Poland
1909	4,34	3,93	2,00	1,36	0,50	2,96	0,19						
1910	4,66	3,95	1,98	1,37	0,49	3,16	0,17						
1911	4,47	4,02	2,00	1,42		3,16	0,17						
1909	4,47	4,01	3,27	1,40	0,98	3,12	-	0,27	2,37	0,24	1,33	0,53	

From the above table we see that we occupy the 6-th place in the world, lower than the United States, England, Germany, Belgium and Canada, but the consumption of the Kingdom of Poland and Galicia is very different from the average consumption for the whole country. There is a great difference between the consumption of coal in the Kingdom of Poland and Galicia and the average consumption for the whole country.

F/ Production and consumption in the nearest future.

We reckoned the production of coal in general in the Kingdom of Poland in 1913 at 58 458 000 tons.

Let us now consider the question how that estimated production will develop in the nearest future.

First of all, we shall give the production for 1914-16, remarking, that the figures are not exact, but do not greatly differ from the actual ones.

Province	1914	1915	1916	Remarks
Stone coal				
Kingdom of Poland	4 539 509	2 782 842	5 209 477	
Galicja	1 399 960	1,647 069	1 871 492	
Silesia /Ciesz./	6 668 844	7 179 573	8 173 102	
Opolska Reg.	37 408 740	38 408 740	40 000 000	
Total	50 037 053	50 018 224	55 254 071	Brown coal from
Brown coal	205 000	205 000	205 000	1911
Total	50 242 053	50 223 224	55 459 071	

We see that the production for 1916 fell by \pm 3 000 000 tons, when compared with that of 1913, or by more than 5%. The reason of this was almost altogether the want of workmen. This is not probable after the war. Other reasons, however, will conduce to a decrease in production, and namely next:

- a/ the decrease in most means of the number of working hours from 10 to 8 daily, and in some from 9 to 8 daily.
- b/ the neglect of preparatory work during the war.
- c/ with a few exceptions the almost complete cessation in the installation of mines with new and indispensable machinery.

We know from the experience of Western Europe that the change from 10 to 8 hours of work the production of the workman falls by 12%, and with a change from 9 to 8 hours, it falls by 4%.

It is true, that the fall in production may to a certain extent be compensated for by the greater number of workmen but that is not quite practicable in mines, and in any case cannot be counted upon. We shall assume a fall in production of 10% as a consequence of the shortening of the working-day. The second and third reasons cannot be calculated with numerical cer-

Taking the selling price of one ton as an average for the whole country of 14 marks, we get a balance to our credit

in 1911 a round 202 000 000 marks

" 1913 " " 295 000 000 "

in the course of a couple of years after the war 98 000 000 Mk. taking the prices of 1913.

Since the price of coal has considerably increased, hence the latter sum will be considerably raised.

H. Market for surplus.

The natural market for our surplus coal will first of all be the east. In table II we reckoned within our sphere of influence our former border - provinces with a population of \pm 30 000 000. We take the consumption in these countries of only 0,25 tons per head and we get 7 500 000 tons. These parts of the country have no coal at all /we do not count a part of Silesia /Cieszyn/ since the coal there will be consumed in its own country - Bohemia/. Then our coal will be required in Austria, Hungary and Yugo-Slavia and also in the border districts in Germany, on account of the cheaper rate for transport. Hence we see that the whole increase in production foreseen will go to the east and north, to countries, which will be in economic alliance with Poland. From the east we shall receive raw-materials, necessary country-produce, cotton, some metals and iron ore to improve our own. Should the predictions as to the decrease of our production not prove true for even later years after the war, the surplus production will not go principally to Hungary and Yugo-Slavia, for Austria will probably get her chief coal-supplies from Bohemia.

Even should the Germans close their frontiers for our coal, we need not be at all afraid.

We shall not here touch upon the subject of charcoal, on account of the brevity of this essay. It will find a surplus market at home, in the foundries existing and which will be founded for our immense stores of iron-ore. The surplus of charcoal will find a market in the western and southern countries bounding ours.

Number of workmen, value of production of coal and total earnings of the workman. In 1900 182 727 workmen were employed in coal mining. The total production amounted to 483 thousand crowns or 417 thousand marks.

Total earnings of the workmen - 173 000 000 marks.

If we take into account the brown coal, charcoal and brickets, the number of workmen amounts in this year to a round 300 000.

Foreach workman here in Poland, we count 3,3 members of the family, hence the coal-industry supports 660 000 inhabitants which amounts to nearly 3% of the population.

J. Production of the workmen.

The yearly production amounted in 1911 to:

	in the Kingdom of Poland	259,1 tons	
	" Galicia	240,0 "	
	" Austrian Silesia	211,0 "	
	" Opolska Regency	310,9 "	
	" the Don coal field	183,8 "	
	" Moravia	204,0 "	In the Kingdom of
	" United States	608,0 "	Poland the produc-
	" England	253,0 "	tion was less, than
1910	" Germany	239,0 "	in Upper Silesia on
	" France	186,0 "	account of the great
	" Belgium	162,0 "	number of festivals.

K. Cost of maintenance in working order for 1 ton in 1911 in different countries amounted to:

United States	6,23 marks
England	8,65 "
Germany	10,35 "
Belgium	12,75 "
France	13,05 "

We have not these data for the whole of Poland, in any case the respective figures with us will be considerably lower than in England and France, or rather they will be nearly like these of Germany and show a value for Upper Silesia lower than the average for the whole of Germany, specially lower in Galicia and higher in Si-

lesia /Cieszyn/. Data of production and costs of maintenance have been given to prove that our cost of production is within the limits of fixed competition.

III. Conclusions. A detailed analysis of the conditions in which coal mining is worked and will be worked in the future permits us to come to the following conclusions:

- 1/ coal will take a prominent place in the general national economic system of the Polish state, will give rise to lively trade and maintain a considerable part of the population.
- 2/ The foreseen production of coal after the war gives us a considerable increase, creating a considerable balance on the credit side in our commercial accounts. This means the more, that coal does not require the import of raw-materials from other countries, like other branches of industry.
- 3/ The surplus production can easily be disposed of in neighbouring countries, specially in those which in agricultural matters are connected with us, as not possessing coal of their own /Lithuania, White Russia and the border parts of Ukraina/.
- 4/ With a healthy development of the Kingdom of Poland, the cost of production of coal will be within the limits of competition, and the development of means of communication will make it easier and will lower the cost of transport.
- 5/ The consumption inside the country after the advent of normal conditions of life will develop immensely in Poland.
- 6/ The development of the coal industry will have a good influence upon other branches of industry and even on agriculture, thus generally increasing the wealth of the country and giving the State means to perform the great economic and other tasks, of which there are more in our neglected land, ruined by the war, than in other countries. The production of charcoal will play a great part in the development of this production. This production takes place only in a relatively insignificant area of Upper Silesia and the Principality of Cieszyn, Charcoal gives us the means to develop iron metallurgy, which forms one of the

fundamental factors in the economic life of the country.

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