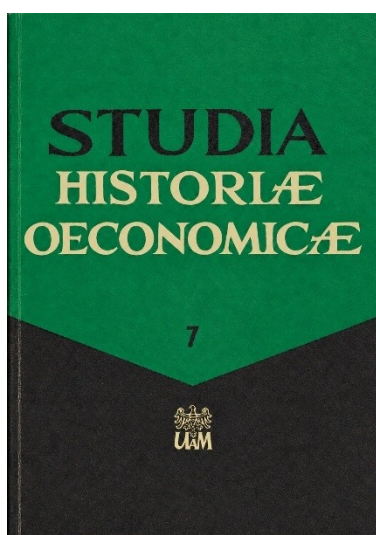




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Spółeczna
Odpowiedzialność
Nauki II

Józef Orczyk (Poznań)

PROFITABILITY OF AGRICULTURAL FARMS IN THE YEARS 1929 - 1937*

The economic crisis has brought the agriculture in Poland as well as in other countries of the world to a very difficult situation. Moreover, in Poland the crisis was overcome much later than elsewhere, a definite improvement of Polish agriculture could be observed not earlier than 1935. Thus we may assume that the present study covers a certain cycle of recess and prosperity, the cycle that was neither uniform nor even and which was characterized by large shifts in profitability of agricultural production. It is possible to observe how these changes were reflected in the financial position of agricultural farms, that is, to investigate the possibilities of these farms in adapting their production and supply according to the price variations.

The analysis of profitability is seriously handicapped by the unevenness of data on which the study is based. The materials were collected and then published by the Department of Economy of Small Farms in the Puławy Institute. Despite the fact that they were being collected systematically for many years they can hardly be recognized as representative for all peasant farms in Poland owing to the gaps in typology. It may be, however, assumed that they reflect correctly certain tendencies and structural changes in the financial position of those farms¹. Another source for the study was provided by data coming from more or less random questionnaires distributed among peasants. The material, however, is not very systematic and it was being collected according to varying criteria. That is why the propositions inferred are of supplementary value — they may corroborate certain regularities but they are worthless as regards the analysis of any changes in time². In

* The present article is a summary of a much more extensive study comprised in an unpublished doctor's dissertation of the author. The dissertation may be consulted in the library of the High School of Economics in Poznań.

¹ M. Sowiński, *Reprezentatywność zbiorowości próbnej gospodarstw włościańskich objętej badaniem opłacalności* (Representative character of a sample of peasant farms covered by the analysis of profitability). Biblioteka Puławska No. 40, Warszawa 1933, p. 86; M. Sowiński, *Rolnictwo włościańskie w zarysie statystyczno-terytorialnym* (Statistical and territorial study of peasant farms). Biblioteka Puławska No. 39, Warszawa 1933, p. 53; S. Skwareczyński, *Czynniki wzrostu produkcji rolniczej* (Factors of the development of agricultural production). Warszawa 1939, p. 82 - 83.

some cases, however, the questionnaires turned to be extremely helpful. They make it possible to compare the changes in the financial position between peasant farms and the manor farms, quite often during a long period of time. The sources concerning the manor farms are even more scanty than those on the peasant farms. The only satisfactory reliable materials come from Poznań Voivodship and several other districts of Poland. They were collected by the Chambers of Agriculture and may be considered as highly representative for both peasant and manor farms. Unfortunately, there are no similar sources that would cover other provinces of Poland. That is why all the regularities for the fluctuations of the financial position of manor farms refer, first of all, to the farms of Western Poland, where farming, as is well known, was on a much higher level than elsewhere³. The sources covering other provinces are incomplete, and they comprise either information gathered from questionnaires or else analyses of balance-sheets of particular estates published in newspapers or compiled in reports and preserved in the archives⁴.

² W. Krzysztofik, *Gospodarstwa karłowate w świetle ankiety losowej* (Undersized farms according to the random questionnaires). Biblioteka Puławska No. 84, Warszawa 1939; C. Bobrowski, *Analiza materiałów ankietowych dotyczących gospodarstw małorolnych* (An analysis of questionnaires concerning small holding farms). Archiwum Akt Nowych (quoted: AAN) Akta Centralnego Towarzystwa Rolniczego No. 1155; K. Chyrzakowski, *Prace dotyczące opłacalności gospodarstw małorolnych* (Studies concerning the profitability of small holding farms). AAN Akta Centralnego Towarzystwa Rolniczego No. 1155.

³ *Statystyka porównawcza dochodów i rozchodów gospodarstw wielkorolnych i małorolnych województwa poznańskiego za sześćdziesiąt lat 1930/31 do 1935/36* (Comparative statistics of large and small farms in Poznań voivodship for the years 1930/31 - 1935/36). ed. W. Tilgner et al. Poznań 1938; K. Pawłowski, *Niektóre dane statystyczne dotyczące wielkorolnych gospodarstw województwa poznańskiego* (Some statistical data concerning manor farms in Poznań voivodship). Roczniki Nauk Rolniczych i Leśnych, vol. 35, 1936, p. 306 - 320.

⁴ S. Antoniewski, *Z ekonomiki gospodarstw dużych i małych* (On the economics of large and small farms). Biblioteka Puławska No. 77, Warszawa 1938; W. Ponikowski, *Gospodarstwa włościańskie i folwarczne na tle materiałów rachunkowych z 3 województw środkowych w 1928/29 r.* (An analysis of peasant and manor farms on the basis of account data coming from three central voivodships in 1928/29). Biblioteka Puławska No. 46. Warszawa 1935; M. Trojanowski, *Analiza trzech wolińskich gospodarstw folwarcznych* (An analysis of three Volhynian manor farms). Roczniki Nauk Rolniczych i Leśnych, vol. 40, 1937, p. 168 - 173; *Statystyka porównawcza dochodów i rozchodów gospodarstw folwarcznych położonych w powiatach wrocławskim, nieszawskim i lipnowskim za lata gospodarcze 1930/31, 1931/32, 1932/33* (Comparative statistics of proceeds and expenditures in manor farms in the counties of Wrocław, Nieszawa and Lipno in the years 1930/31, 1931/32, 1932/33), ed. W. Gajowniczek. Wrocław 1935; W. Grodecki, *Położenie ekonomiczne gospodarstw folwarcznych w podokręgach kutnowsko-wrocławskim i płocko-łowickim w latach 1928/29 i 1932/33* (Economic situation of manor farms in Kutno-Wrocław and Płock-Łowicz districts in the years 1928/29 and 1932/33). Unpublished M. A. thesis. The library of Szkoła Główna Gospodarstwa Wiejskiego in Warsaw.

The profitability of a farm depends on four factors: its incomes, its expenses, their relation to one another and the amount of invested capital. The present article, due to its size, will be primarily devoted to the analysis of the first two factors and will rest on the assumption that the reader is well acquainted with the structure of agriculture in Poland before World War II⁵.

The study will not refer, however, to the farms estates as units but rather to the ratio of their receipts and expenditures per 1 hectare of arable land.

The total income of a farm depended first of all on the market price obtained for live stock and for agricultural products. In other words it depended on the degree in which the farmer could adapt his production to the fluctuations of prices. This, in turn, depended on the amount and form of capital invested on a given farm, on the farm's specialization, on the quality of soil, distance from the local markets and finally on the personal capabilities of the farmer. As regards the peasant farms it has to be remembered that some peasants also obtained money for hiring themselves for field labour. Furthermore, the total income of a farm would include all possible credits and loans and also the sale of capital (i.e. of land, mainly). This problem is illustrated on diagram No. 1. Yet the main part of the income proceeded from selling live stock and agricultural products and so, it seems worth recalling the wholesale prices for these products in the period in question.

The drop of prices for the main agricultural products and the growth of the intrinsic value of agricultural obligations have caused a widespread pursuit of the financial means and considerable alternation in the amount and structure of supply. These phenomena were reflected in the structure of income. The role of income from agricultural production, particularly from cereals has been increased, because their prices and conditions of sales were much more favourable than those of other products. (In spite of the official intervention of the Government the prices for cereals decreased more than those for live stock, poultry and dairy products, though the intervention made the selling of cereals much easier). It has to be added that in Poland, like in some other Baltic countries, the cash income from selling agricultural products equalled those for selling live stock. However, after 1931, the phenomenon of the increasing importance of cash income from agricultural products became common for all European countries.

⁵ W. Krzysztofik, *Gospodarstwa karłowate...*, p. 159 - 167; C. Bobrowski, *Analiza...*, p. 1 - 15, 51; Z. Kmita, *Zasadnicze kierunki produkcji rolnej* (Basic directions of agricultural production). *Życie Rolnicze*, 1937, No. 7; *Badania nad opłacalnością gospodarstw włościańskich w roku gospodarczym 1935/36* (An investigation of profitability of peasant farms in the year 1935/36), p. 158, 159; J. Orczyk, *Produkcja rolna Polski w latach wielkiego kryzysu gospodarczego (1929 - 1935)* (Agricultural production in Poland in the great economic crisis 1929 - 1935). Poznań 1971, p. 183 - 192.

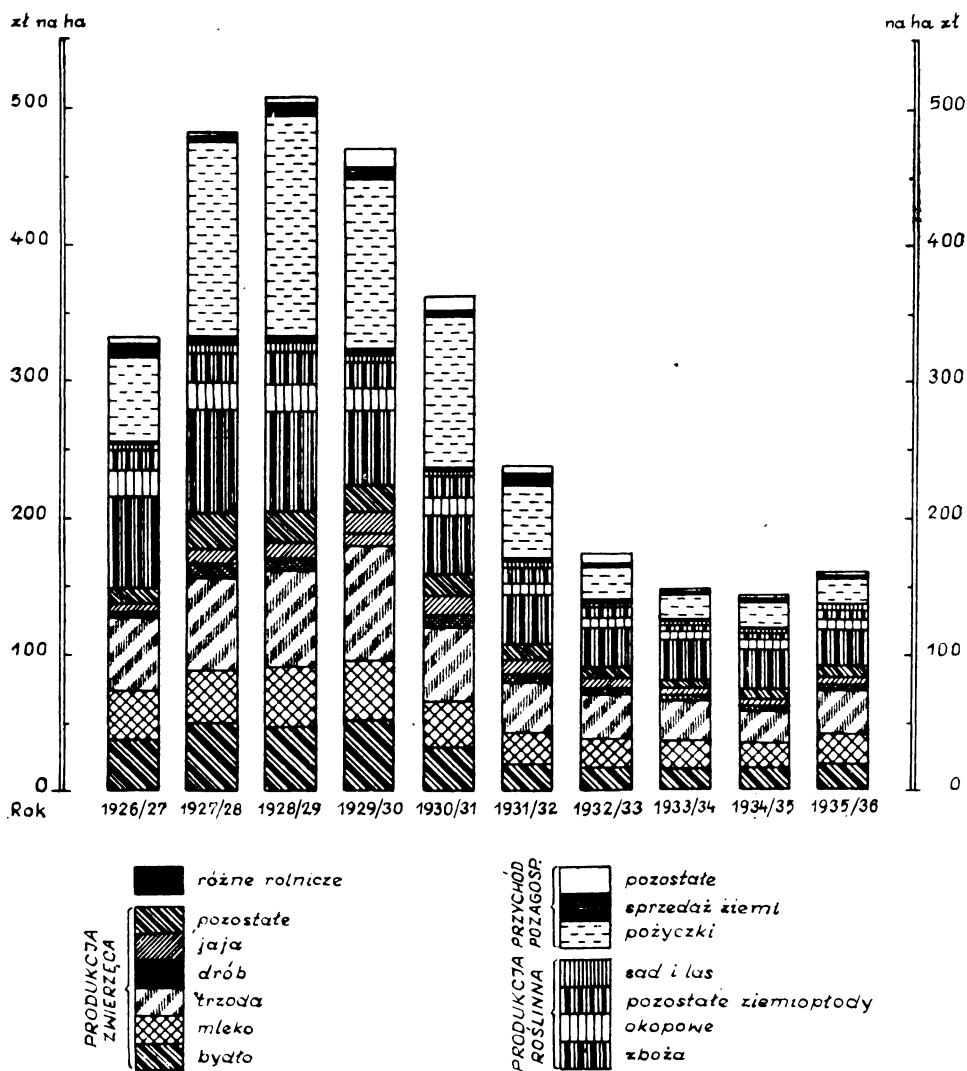


Diagram No 1
Cash receipts in peasant farms in the years 1926 - 1936
(an average from 2 to 50 ha)

Explanations: zł na ha - zł per ha, rok - year, Produkcja zwierzęca - live stock, rolnicze - agricultural, pozostałe - other, jaja - eggs, drób - poultry, trzoda - hogs, mleko - milk, bydło - cattle, Produkcja roślinna - agricultural production, Sad i las - orchard and forest, pozostałe ziemniaki - other agricultural products, okopowe - root crops, zboża - cereals, przychód pozagospodarczy - proceeds from other sources, sprzedaż ziemi - sale of land, pożyczki - loans.

Source: *Badania nad opłacalnością gospodarstw włościańskich w r. 1935/6*, p. 65.

Table No.1. Figures of prices of articles purchased and sold by the farmers

Years	Articles purchased by the farmers	Articles sold by the farmers			
		Total	Cereals	Live stock	Dairy pr.
1928	100	100	100	100	100
1929	100.7	89.5	73.8	105.5	98.0
1930	98.5	67.6	50.8	86.9	79.4
1931	90.4	59.5	56.5	56.7	70.1
1932	81.0	48.8	49.4	43.8	55.0
1933	72.6	42.6	42.0	42.5	46.7
1934	70.3	37.0	35.0	36.7	41.2
1935	66.3	35.8	32.8	35.5	41.2
1936	64.6	38.7	37.7	38.7	40.4
1937	66.2	49.2	55.8	43.5	48.2
1938	65.0	43.0	44.1	42.1	47.6

Source: Koniunktura Gospodarcza Polski 1938 [Economic conjuncture of Poland 1938], p. 22.

In Poland the situation was a little different. Small-holding farms of no more than 5 hectares were much more frequent, and there, the income depended to a much greater extent on the quality of soil and the distance from the market, and the selling of live stock was generally much more significant. In larger peasant farms during the crisis the higher income (per 1 hectare of arable land) generally resulted from the higher proceeds from field crops⁶.

At the time of the crisis the changes in the structure of large estates were much more conspicuous than those in the peasant farms. Large estates were naturally more closely connected with the market and were able to adapt their production and supply to its needs. These estates were also characterized by a much more differentiated structure of proceeds, depending on the quality of soil, location of the estate and its size. The last factor enables us to prove that the larger the estate was, the larger part of its income was supplied by field crops. It has to be added, however, that in the largest estates, of more than 1500 hectares, the role of the live stock sales in the total income was comparatively high. The owners of such estates were often engaged in pedigree horse and sheep breeding and they usually owned local food industry which obviously promoted cattle breeding and the processing of animal produce⁷. In manor farms the income from other sources than agricultural

⁶ *Indywidualne wyniki rachunkowe gospodarstw włościańskich (rejonami) za lata 1932/33* (Figures referring to particular peasant farms in the years 1932/33). Warszawa 1935; *Indywidualne wyniki rachunkowe... za 1936/37 r.* Warszawa 1939; *Badania nad opłacalnością... w roku gospod. 1928/29*, part 2, p. 4 and 5, *w roku gospod. 1932/33*, p. 66, 67, *w roku gospodarczym 1935/36*, p. 66, 67.

⁷ *Statystyka porównawcza...*; K. Pawłowski, *Niektóre dane statystyczne...* p.318/319; Z. Rusinek, *Zagadnienie likwidacji gospodarstw nadmiernie zadłużonych* (The problem of liquidation of over-mortgaged farms). *Rolnik Ekonomista* 1934, No. 16; W. Schramm,

production or live stock constituted about 10 per cent of the total money income. In large estates the ratio of proceeds from agriculture to those from live stock was more or less uniform throughout Poland. It has been added that agricultural industry played the more important role in Western voivodships and forestry — in Eastern and central voivodships. The largest proceeds from selling timber were gained by manor farms in the first years of the crisis⁸.

Generally speaking, the greatest changes in the structure of proceeds occurred in manor farms in the first years of the crisis, that is up to 1931. Pig and cattle breeding has grown considerably at that time. After 1931 most of the large estates switched over to the growing of cereals whose prices, owing to the intervention policy of the Government, remained above par in world standards and which could be sold fairly easily. This tendency remained valid until 1935 when the second shift occurred and the proceeds from live stock sales became once again more significant within the total money income⁹. In Northern and Eastern voivodships the increase of proceeds from live stock sales became noticeable as early as 1933. This was probably connected with the possibilities of selling meat and other products to the neighbouring countries.

The analysis of manor farms according to their size and the quality of soil showed that, in absolute numbers, the quality of soil influenced the field production in larger estates only. As regards the estates with soil of worse quality, the smaller ones tended to specialize in live stock breeding thus gaining advantage (per 1 ha of arable land) over larger estates with poor soil. In the estates farmed according to the most intensive methods the high level of income, per 1 hectare was determined, up to 1930, by the income from root crops. Restrictions on the contracts between the Government and the farmers for the supply of sugar-beets, and, after 1931, the decrease of profitability of live stock breeding, led to the reduction of income in these estates. These factors resulted in the increased significance of cereals as one of the main sources of income in manor farms; at the same time, it allowed a considerable reduction of expenditures¹⁰.

In peasant farms, irrespective of the fluctuations of the economic situation, live stock breeding remained all the time the main source of income.

Problem poznawania organizacji gospodarstwa ziemskiego (Problem of studying of land farms organization). *Roczniki Nauk Rolniczych i Leśnych*, vol. 47, 1939, p. 238 - 241.

⁸ W. Ponikowski, *Gospodarstwa włościańskie i folwarczne...*, p. 123; S. Antoniewski, *Z ekonomiki...*, pp. 16, 38, 54, 68.

⁹ *Statystyka porównawcza*; S. Antoniewski, *Z ekonomiki...*

¹⁰ J. Orczyk, *Produkcja rolna...*, p. 89 - 94, 192, 193; *Statystyka porównawcza...*; H. Romanowski, *Dochody gospodarstwa większego a kryzys* (The income of large farms during the crisis). *Rolnik* 1934, No. 46.

Generally speaking, the drop of prices during the crisis did not cause any substantial changes in the structure of proceeds in peasant or manor farms. The only exception to the rule were the estates administered according to the intensive farming methods.

During the crisis there also occurred a considerable reduction of disparities, in absolute numbers, between the incomes of larger and smaller peasant farms. The largest drop of income in peasant farms occurred after 1931¹¹.

The decrease of income in peasant farms was not uniform in all districts of Poland. The largest decrease of income, in absolute numbers, occurred in those voivodships which, in the period before the crisis, were characterized by the highest of average proceeds per 1 hectare. Summing it up, we may say that the crisis resulted in a certain equalization of the level of proceeds in farms situated in various districts of the country. Although the decrease of income in Eastern and also in some Southern and central voivodships was relatively smaller than it was in Western Poland, the farmers there faced an extremely difficult situation since their standard incomes were very low even before the crisis. In search of money needed for preserving their farms the owners were forced to sell their stock as well as those products which would otherwise serve their own needs¹².

Comparing the income of peasant and manor farms one can clearly observe that the shortening of income in manor farms occurred earlier and was checked, to some extent at least, after 1931. The peasant farms reacted first of all to the drop of prices on live stock; as a result the shortening of income was much more severe and lasted much longer. The improvement of the situation occurred not earlier than after 1935¹³.

The mutual relations between proceeds and expenditures are usually less distinct in the case of peasant farms than in the case of manor farms. To increase credit balance between proceeds and expenditures the owner of a farm tried to advance all possible inputs that did not involve money expenses.

While examining the changes in the level of expenditures, one has to take into consideration that the policy of Polish agriculture in the years 1927 - 1929 was based on their extension. The extension of expenditures was at that time highly profitable, owing to the intensification of farming methods. The attempts at the intensification of farming methods were undertaken in farms of various sizes, mainly of average soil quality, and most often on credit and not on the basis of private capital.

The total sum of cash expenses, per 1 hectare of arable land, was closely connected with the overall structure of expenditures. The expenditures of

¹¹ *Badania nad opłacalnością...*

¹² Ibidem, 1928/29 part 2, p. 8, 9; 1932/33, p. 70; 1935/36, p. 70, 71.

¹³ *Statystyka porównawcza...; Badania nad opłacalnością...*, 1935/36, p. 64, 65.

all peasant farms comprised a group of regular expenses which, at least nominally, did not undergo any larger alterations in the period in question. These expenses included, first of all, repayment of debts, payment of rents, taxes etc. Under the circumstances of decreasing income the burden of all these expenses was constantly growing. After 1932, owing to the legal acts on the reduction of liabilities, there occurred a certain relaxation of the expenses. However, it was only the last years of the period in question that brought about a considerable reduction of sums which had to be paid by farmers irrespective of the state of production or the level of prices. Consequently, the crisis was manifested first of all in the decrease of production expenses, since they were the only ones that depended directly on current decisions of the producer. This tendency has been expressed in the curtailment of purchases of fertilizers, fodder, seeds, machines and equipment, as well as in the reduction of investments. Relatively small alterations occurred among the expenses for farm buildings and live stock. However, the expenses for hogs fluctuated in the highest degree during the crisis¹⁴.

In peasant farms, the structure of cash expenses in relation to the farms' size did not undergo any larger alterations. During the crisis the differences were still diminished — the larger farms had to curtail expenses for hired labour and thus the structure of their total expenses became similar to that in small farms. Unfortunately, as it was mentioned above, the representative character of the investigated farms is rather low. On the basis of obtainable material and on the data concerning the purchases of fertilizers and other means of production we may say that alterations in the structure of farm expenditures occurred mainly in Western voivodships. In other districts of Poland the expenditures became totally diminished¹⁵. The level of total expenses still depended, particularly in Western Poland and in farms situated in the vicinity of big cities, on the quality of soil. This dependence was the weakest in South—Eastern voivodships¹⁶. Among manor farms, the production expenses depended also on the farms' size. It was characteristic for smaller manor farms that, during the crisis, the share of production expenses in the total of cash expenditures was considerably increased; the process, however, did not depend on changes in the structure of expenditures but rather, similarly to peasant farms, on a general reduction of expenses. Another characteristic feature of manor farm economy was the fact that the fluctuations of both

¹⁴ J. Orczyk, *The main features of the agricultural crisis in Poland in the years 1929 - 1935*. *Studia Historiae Oeconomicae*, vol 3, Poznań 1969, p. 222, 226 - 235.

¹⁵ cf. J. Orczyk, *Problemy techniki rolniczej w Polsce w latach wielkiego kryzysu 1929 - 1935* (Problems of agricultural technology in Poland during the great crisis of 1929 - 1935). *Roczniki Dziejów Społecznych i Gospodarczych*, vol. XXX, Poznań 1969, p. 139, 156 - 157; *Badania nad opłacalnością...*, 1935/36, p. 77 - 79.

¹⁶ *Indywidualne wyniki rachunkowe... za lata 1932/33*.

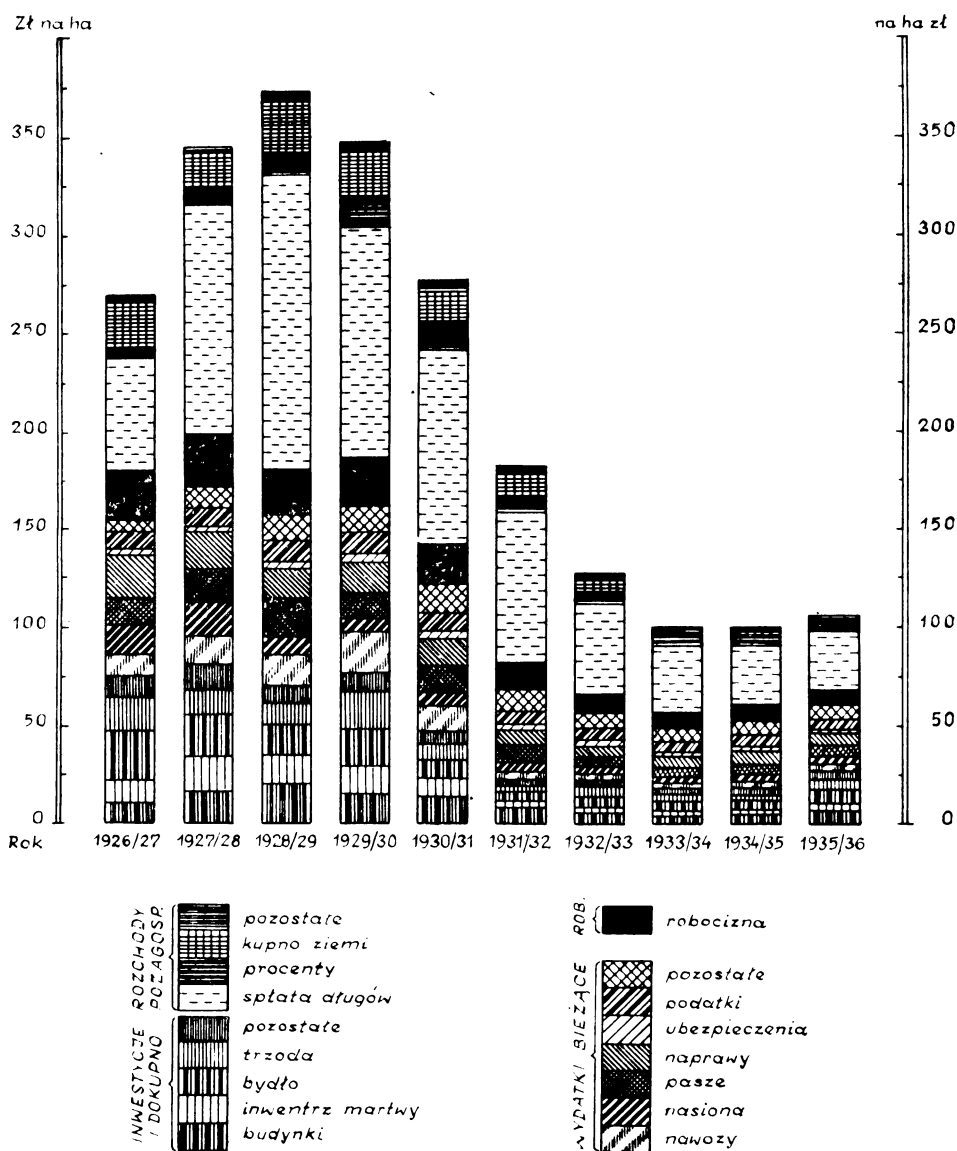


Diagram No 2
Cash expenditures in peasant farms in the years 1926 - 1936
(an average from 2 to 50 ha)

Explanations: zł na ha - zł per ha, rok - year, Rozchody pozagospodarcze - expenditures on external needs, pozostałe - other, kupno ziemi - purchase of land, procenty - interest, spłata długów - repayment of debts, Inwestycje i dokupno - investments and additional purchases, trzoda - hogs, bydło - cattle, inwentarz martwy - dead stock, budynki - farm buildings, Rob., robocizna - labour, Wydatki bieżące - current expenses, podatki - taxes, ubezpieczenia - insurance, naprawy - repairs, pasze - fodder, nasiona - seeds, nawozy - fertilizers.

Source: *Badania nad...*, p. 77.

cash receipts and expenditures were comparatively smaller than they were in peasant farms. In peasant farms the reduction of income and expenses came later. As late as 1929/1930 their expenditures for investments and hired labour still kept increasing. It was not earlier than in 1931/1932, that a sudden drop of prices on live stock and, what followed, the decrease of profits forced the owners of peasant farms to cut down their expenses for investments, fertilizers, seeds, etc. Since the sum of these expenses was not very high even before, the savings coming from the reduction were negligible. The owners were forced to look for new means of increasing their income and, very often, had to reduce the expenses for their private needs. The owners of the smallest farms found themselves in an extremely difficult situation owing to the low level of these expenditures before. In addition, quite often they were still charged with the earlier expenses for the purchase of land¹⁷.

The level of expenditures in particular districts of Poland depended to a great extent on the agrarian structure. The domination of small farms in some regions, like for example, Silesia, Cracow or Kielce voivodships, resulted in a high level of expenditures (per 1 hectare of land). During the crisis there occurred a certain levelling of cash expenditures per 1 ha in the whole country. The most negligible reduction of expenses occurred in districts where farms' expenditures were the smallest, e.g. in North-Eastern districts or in Białystok voivodship. As regards Western voivodships, the reduction of expenditures occurred much earlier.

The analysis of figures for the year 1932/1933 shows that in certain districts, and particularly in North-Eastern Poland, the dependence on the quality of soil was larger in the case of expenditures (per 1 ha) than gross income (per 1 ha). The closest dependence on the quality of soil could be observed in the case of expenses for hired labour. The quality of soil used to determine to a great extent the specialization of a given farm. The highest expenses were observed in farms of varied specialization and in animal breeding farms¹⁸.

The deflationary policy of the Government was often considered to be at the roots of a particularly severe curtailment of expenditures in peasant and manor farms. The policy led to a constant lack of cash in these farms. The owners were forced to spend their money to meet standing cash expenses.

¹⁷ *Statystyka porównawcza...*; *Badania nad opłacalnością w 1935/36*, p. 75, 78, 79, 84, 85; J. Curzytek, *Położenie gospodarstw włościańskich za rok gospodarczy 1934/35* (Economic situation of peasant farms in the year 1934/35). Warszawa 1935, p. 22.

¹⁸ K. Chyrczakowski, *Prace...*, S. Antoniewski, *Z ekonomiki...* p. 118; *Indywidualne wyniki rachunkowe... za 1932/33*, p. 23, 77, 125, 179, 227, 261; Z. Kobyłecka, *Formy organizacyjne gospodarstw włościańskich w trzech województwach środkowych w 1928/29 i 1932/33 r.* (Forms of peasant farm organization in three central voivodships in the years 1928/29 and 1932/33 Unpublished dissertation. The library of Szkoła Główna Gospodarstwa Wiejskiego in Warsaw, Warszawa 1937, p. 58.

The farmers were led to believe that the only way to survive the crisis was to decrease their expenditures. Owners of manor farms were the first to cut down their expenditures. Consequently, many farms, in Poznań voivodship for instance, managed to achieve credit balance at the end of 1931/32¹⁹. This refers, however, only to those farms which were clear of debts and which were administered according to the most intensive farming methods. Elsewhere the curtailment of total expenditures due to the reduction of production expenses caused the increase of sums devoted to repayment of loans and payment of taxes. Thus the situation was analogous to that of peasant farms, although generally, the owners of manor farms fulfilled these duties in a much lesser degree. The amount of cash expenses per 1 hectare of arable land was not uniform in all districts of Poland, yet the tendency to reduce expenditures was general throughout the country. The reduction could be observed first of all in the diminished expenses for hired labour. This was achieved by the development of services in kind and by dismissing permanent labourers, hiring casual labourers instead. The owners of manor farms managed to carry out a decision concerning a certain lowering of wages in the years 1932/33 and 1933/34. During the latter period the cuts in wages amounted to 20 - 40 per cent of the previous rates. Moreover, the owners very often suspended all kinds of cash payments (that is, they either put them off for some later date or paid only part of the wages). It has to be stressed that the greatest changes in standard cash expenses occurred in smaller manor farms. Similarly, after the economic situation had improved, the production expenses in those farms mounted at the highest rate²⁰.

Apart from the farm's size, the level of expenditures depended on its specialization and on the quality of soil. The expenditures were reduced primarily in farms with high quality soil which were administered according to the most intensive farming methods, i.e. the farms whose expenses were already fairly high before the crisis²¹.

By comparing the level and structure of expenditures in manor farms and in peasant farms, one may observe certain specific differences and simi-

¹⁹ *Statystyka porównawcza...*

²⁰ cf. notes No. 3 and 4; M. Rolbiecki, *Intensyfikacja czy ekstensyfikacja (uwagi na tle wyników dochodowości gospodarstw folwarcznych w roku 1933/34)* (Intensification or extensification — remarks on the basis of the analysis of remunerativeness of manor farms in the year 1933/34). *Roczniki Nauk Rolniczych i Leśnych*, vol. 36, 1936, p. 177 - 85; A. Ajnenkiel, *Położenie prawne robotników rolnych (1918 - 1939)* (Legal position of farmhands in 1918 - 1939). Warszawa 1962, p. 300 - 352; S. Warkoczewski, *Położenie robotników rolnych w Wielkopolsce w latach 1929 - 1939* (Position of farmhands in Great Poland in the years 1929 - 1939). Warszawa 1965, p. 210, 349, 351 - 352; *Badania nad opłacalnością...* 1928/29, p. 117; 1932/33, p. 92; 1935/36, p. 88.

²¹ *Statystyka porównawcza...*; S. Antoniewski, *Z ekonomiki...*, p. 16, 17, 38, 55, 68, 69, 88, 89.

larities. Manor farms devoted larger sums (per 1 ha) on current production expenses. Besides, they were more heavily encumbered with debts. As regards debts, the owners of manor farms often failed to fulfil the duties and, consequently, the absolute level of expenditures was more or less uniform. It has to be added that most of manor farms were encumbered with debts and overdue payments of taxes. The owners of peasant farms fulfilled these duties much better — only 30 per cent of all peasant farms have been mortgaged, although mortgage conditions were less favourable. The loans, often from private sources, were short termed and with high interest²².

As regards the financial position of the farm, its owner was interested most of all in balance between receipts and expenditures per 1 hectare. The balance included his own labour, as well as the amortization of invested capital and, sometimes, partial negotiation of reserves and property. The tables 2 - 4 illustrate the situation.

Table No. 2. Proceeds and expenditures per 1 hectare of arable land
in Poznań voivodship

Specification	Years:	1930/31	1931/32	1932/33	1933/34	1934/35	1935/36
Gross income per 1 ha							
manor farms		409.2	345.7	284.8	268.8	235.1	244.2
peasant farms		336.4	268.3	288.2	251.7	207.7	220.0
Total expenses per 1 ha							
manor farms		347.0	260.3	196.6	190.1	178.8	174.0
peasant farms		202.2	129.9	128.9	126.0	121.4	127.0
Balance between income and expenses							
in manor farms		62.2	85.4	88.2	78.7	56.3	70.2
in peasant farms		134.2	138.4	159.3	125.7	86.3	93.0

Remark: Expenses in peasant farms do not include labour supplied by the farmer himself.

Source: *Statystyka porównawcza dochodów i rozchodów gospodarstw wielkorolnych i malarolnych województwa poznańskiego za sześćciolecie 1930/31 do 1935/36* (Comparative statistics of proceeds and expenses of large and small farms in Poznań voivodship for the years 1930/31 - 1935/36). Poznań 1938.

One should pay attention to the fact that owners of the smallest farms faced a particularly difficult situation, because they could hardly balance their receipts against expenditures. It is obvious that they were forced to reduce their private expenses and to look for new means of earning money. A very low consumption among peasants increased the relative overproduction of agricultural produce and consequently prolonged the crisis.

²² cf. M. Mieszczankowski, *Zadłużenie rolnictwa Polski międzywojennej* (Liabilities of Polish agriculture between the wars). *Najnowsze Dzieje Polski 1914 - 1939*, vol. VI, p. 124 - 133; Z. Landau, *Kryzys rolny w Polsce (1929 - 1935)* (Agricultural crisis in Poland — 1929 - 1935). *Zeszyty Naukowe SGPiS*, Warszawa 1962, No. 37, p. 62.

Table No. 3

Cash income in peasant farms of 2 - 50 hectares of arable land in Poland

Specification	Years											
	1926/27	1927/28	1928/29	1929/30	1930/31	1931/32	1932/33	1933/34	1934/35	1935/36		
Total cash receipts	330.68	481.28	505.95	469.10	359.45	233.09	170.68	146.90	143.30	161.81		
Total cash expenses	268.87	344.00	373.66	347.79	274.93	181.13	126.60	100.11	100.11	107.37		
Balance	61.81	137.28	132.29	121.31	84.52	51.96	44.08	46.79	43.19	54.44		

Source: *Badania...*, (cf. Note 5) p. 65, 85.

Table No. 4

Cash income per 1 hectare of arable land and forest

Farm's category	1928/29			1932/33			1935/36		
	Receipts	Expenses	Balance	Receipts	Expenses	Balance	Receipts	Expenses	Balance
2 - 3 ha	577.05	402.40	167.65	273.23	277.45	- 1.22	238.78	200.86	37.92
3 - 5 ha	649.17	532.58	116.59	196.50	154.10	42.40	217.37	143.96	73.41
5 - 10 ha	586.33	441.29	145.04	201.70	148.85	52.85	173.73	114.70	59.03
10 - 15 ha	484.86	340.98	143.88	153.27	104.32	48.95	146.30	90.10	56.20
15 - 30 ha	379.21	272.49	106.72	134.24	93.75	40.49	126.08	84.73	41.35
30 - 50 ha	471.44	318.10	153.34	131.79	105.75	26.04	100.13	65.92	34.21
2 - 50 ha	505.95	373.66	132.29	170.68	126.60	44.08	161.81	107.37	54.44

Source: cf. Table No. 3 p. 65, 85.

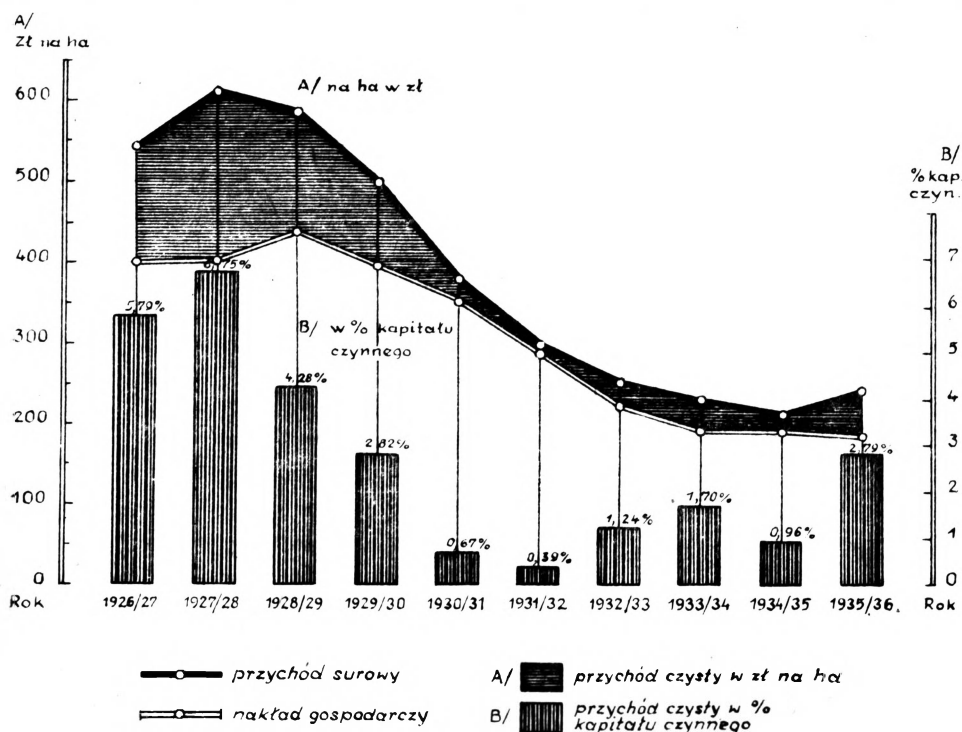


Diagram No 3
Net profit in peasant farms in the years 1926 - 36
(an average from 2 to 50 ha)

Explanations: zł na ha, na ha zł – zł per ha, % kapitału czynnego – percentage of working capital, rok – year, przychód surowy – gross receipts, nakład gospodarczy – farming expenditures, przychód czysty w zł na ha – net profit in zł per ha, przychód czysty w % kapitału czynnego – net profit in per cent of working capital.

Source: *Badania nad...*

The profitability of agricultural production may be best expressed in terms of net income, that is, the balance between gross income and expenditures, including amortization ²³. The figures of net income indicate that the most substantial drop of profit occurred in the smallest farms – net income of these farms turned to have been adverse. The owners not only failed to gain any profit from capital invested in their farms but they also failed to get any return for their own labour. Instead, they had to spend further sums

²³ *Badania nad opłacalnością...* 1928/29, p. 234. Gross income was assumed to comprise the sum of cash receipts, excluding proceeds from other sources than farming, and the total worth of produce consumed within the farm, by owner and his family. Production expenditures were assumed to comprise the sum of cash expenses, excluding external expenses, like repayment of debts, the value of labour, wearing off constant capital and expenses on administration.

to maintain the farm's production. During the crisis, the highest net profit per 1 ha was gained in farms of medium size, with no hired labour and with varied specialization. These farms could fully employ their own man power and they were protected against unexpected drops of prices on agricultural products.

An analysis of figures concerning peasant farms shows that during the crisis the dependence of net profit (per 1 ha) on the farm's size was much stronger than its dependence on the quality of soil. The relation between expenditures and net profit was most advantageous in large and medium farms. There, the situation was analogous to the period of good economy preceding the crisis²⁴.

Small farms gradually became not so much a good investment of the owner's capital, but rather a chance to provide employment for his family. The analysis published by W. Klonow seems to corroborate this assumption. It shows that the inter-dependence between the amount of capital invested in live stock and net profit of the farm, was comparatively close in the period preceding the crisis and became fairly loose in the years of the crisis. The dependence of net profit on the size of the farmer's family was similarly lessened²⁵.

As regards manor farms, the amount of net profit was closely connected, during the crisis, with the quality of soil. Irrespective of the economic situation, net profit in farms with better soil exceeded that in farms with worse soil by about 30 per cent. In 1932/33 the average net profit decreased, in comparison to the year 1928/29 by nearly 50 per cent. In Poznań voivodship, however, thanks to considerable reductions of expenditures, many farmers succeeded in improving their net profits after 1931. Among these, were farmers growing sugar beets. As a matter of fact, after 1932 a slight improvement of net profits could be observed in a majority of manor farms²⁶. Apart from the Western regions of the country, peasant farms gained higher net profits per 1 ha than manor farms, yet its decrease lasted much longer there.

The attempts to check the drop of prices, that were undertaken in both peasant and manor farms, manifested themselves in stimulating the sales

²⁴ *Badania nad opłacalnością... 1932/33*, p. 127; *1935/36*, p. 113.

²⁵ W. Klonow, *Z badań nad znaczeniem hodowli w ekonomice gospodarstw włościańskich* (A study of the significance of live stock breeding in the economics of peasant farms). Warszawa 1936, p. 74 - 77; K. Chyrczakowski, *Prace...*, p. 82.

²⁶ *Statystyka porównawcza...*; S. Antoniewski, *Z ekonomiki...*, p. 120 - 123; W. Grodecki, *Położenie...*, p. 52 - 56; S. Rylski, *Dochodowość gospodarstw wielkopolskich* (Profitableness of farms in Great Poland). Rolnik 1935, No. 5; W. Schramm, *Gospodarstwo, gospodarz i gospodarowanie* (The farmer, his farm and its administration). Rocznik PTE Oddział w Poznaniu za rok 1957/58. Poznań 1959, p. 41; J. Ślaski, *Gdzie można zmniejszyć kosztą prowadzenia gospodarstwa* (On how you can diminish the costs of farming). Gazeta Rolnicza 1933, No 5.

of cereals and in reducing expenditures. The owners of manor farms, however, were in a much more favourable situation, owing to the intervention policy of the Government (i.e., purchases of cereals and raising their prices above par in world standards). Growing cereals required fairly low expenditures which, in turn, made it possible to reduce their prices.

Owing to the intervention of the Government, it was possible to sell cereals with small losses. The majority of peasant farms, especially the small ones, with a surplus of man power and a small area of arable land reduced their expenditures, too; yet it did not guarantee any improvement of the situation, because the people on the farm (the farmer's family), no matter whether needed or not, had to be fed and the income kept decreasing. It shows, however, to what an extent the economic position of a larger part of peasant farms depended on the price variations²⁷.

In pre-war Poland the rent was usually reckoned according to the prices of cereals (most often of rye) in order to avoid the fluctuations of farm's profitability and variations of prices. If we take the farm's rent to represent its net profit, we may see then if Polish agriculture has been capable of developing, i.e. if there has been any possibility of accumulating capital. Part of the rent has been turned over by the farmers to the Government and to various departments of the national economy. If we assume that this act has not hindered further development of agricultural production, the remaining part of net profit should have provided the possibility of accumulation capital. In other words, it should have represented interest on capital, excluding profits coming from land monopoly.

We may also assume that, from the point of view of agricultural development, the sum of all kinds of debts, like repayment of long term loans and land taxes, should never exceed the value of rent. Otherwise, all kinds of basic expenditures on the development of production, like, for example, expenditures on meliorations, would become impossible. This necessary proportion between rent and expenditures broke down during the crisis. The total sum of debts (loans and taxes) exceeded the absolute, theoretical value of rent. The farmers not only failed to collect their rent, but they were denied any profit and a greater part of proceeds from their labour. This resulted in the insolvency of leasehold farms and in a general process of decapitalization of agriculture. In spite of reckoning the extent of rent according to the prices of cereals, the actual possibility of collecting it depended on a standard level of prices for agricultural produce. If the prices dropped below the level, the absolute rent became an abstract value. This was particularly true in Poland, where the policy of deflation of currency raised the rate of standing expenditures²⁸.

²⁷ J. Orczyk, *Produkcja rolna...*, p. 39 - 41, 184, 235.

²⁸ cf. J. Stecki, *Normy dochodowości jako podstawa wymiaru podatku dochodowego* (Standards of farms' profitability as the basis for income-tax assessment). Rolnik Eko-

The significance of this process for the growth of agricultural production in Poland was fairly small, owing to a limited participation of capitalist relations of production and the impossibility of withdrawing capital invested in agriculture. Another factor diminishing that significance, was the increasing role of family farms as the basic element in the structure of Polish agriculture.

The rent as well as the interests on mortgage debts were paid by the owners and leaseholders at the expense of proceeds coming from labour itself. The owners and leaseholders of farms employing hired labour could continue production with no profit only for a limited period of time. Otherwise they would lose the invested capital which could not be withdrawn. They continued the production as long as the prices covered the variable costs, although they did not have to cover the total costs. So they tried to organize the production in such a way as to achieve the possibly lowest variable costs. These costs in Poland were not very high even before the crisis. During the crisis they declined considerably and thus could be covered in all farms in Poland. That is why we may assume, that the prices depended not on the rent but on supply, which was increased during the crisis due to the necessity of paying debts and taxes. Besides, in the period before the crisis, the absolute rent constituted only a part of proceeds from agriculture, slightly exceeding the average profit²⁹.

Finally, it has to be added that the quality of soil, in conditions of low fertilization and growing worse cultivation of land, became one of the most important factors as regards productiveness of manor farms and profitability of production. Peasant farms were affected by this factor to a much lesser extent, because the poor quality of soil was compensated by the increased input of labour. The distance between farms and larger markets also influenced the prices and hence, indirectly, the profitability of production. The dependence on local markets resulted in the drop of prices and, consequently, in the reduction of income. As regards the effect of additional investments of capital in agricultural production on its costs, the high interest on capital did not encourage the farmers to invest in agriculture whose profitability was low. To a great extent, such an attitude resulted from the steadiness of prices

nomista 1933, No. 2; J. Stecki, *Problem dochodowości warsztatów rolnych w sensie wymagań ustawy o podatku dochodowym* (The question of profitableness of agricultural workshops as regards the rules of income-tax act). *Rolnik* 1935, No. 16; M. Wierusz-Kowalski, *Renta ziemiska wobec współczesnych potrzeb rolnictwa* (Rent of land and the current needs of agriculture). *Polska Gospodarcza* 1934, No. 26.

²⁹ *Przebudowa ustroju rolnego* (Reorganization of agricultural system). Papers delivered at the meeting of the Economical Section of the Association of Farmers and Foresters with Higher Education on June 18th 1936. *Gazeta Rolnicza* 1936, No. 29/30; cf. *Polska Wschodnia* 1931, No. 8. Assessments of profitableness of non-mortgaged farms varied from 2 to 5 per cent. The interest on capital placed in banks amounted to 6 per cent.

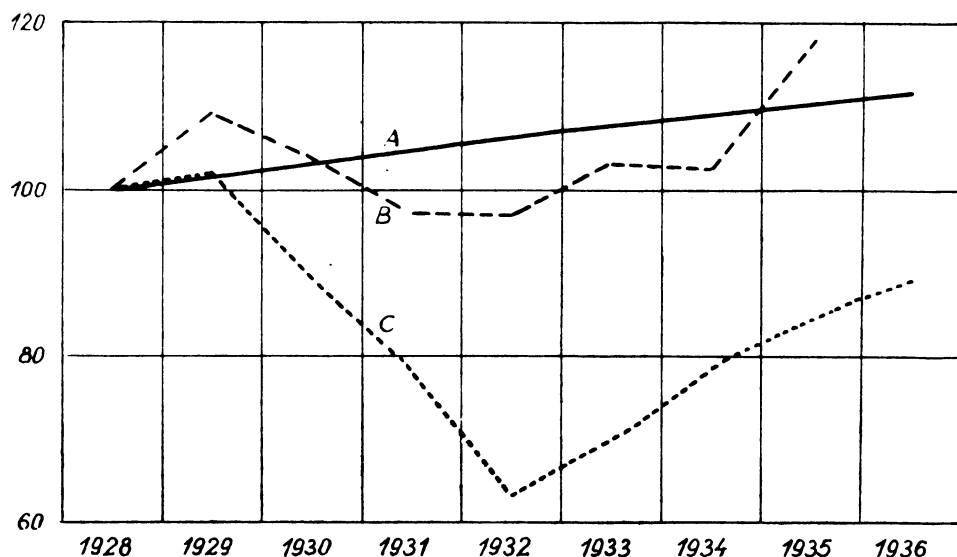


Diagram No 4

General characteristics of the situation of agriculture in Poland

The ratio of the population in Poland and the rate of agricultural and industrial production. A — number of people, B — agricultural production, C — industrial production.

Remark: Prices in the year 1928 were taken as the basis for measuring agricultural and industrial production.

Source: J. Orezyk, *Produkcja rolna...*, p. 24.

on industrial products purchased by the farmers³⁰. Expenditures on that kind of investments were extremely low and were undertaken only in cases of necessary reorganization of production. Polish agriculture as a whole belonged, in the period in question, to the least profitable branches of economy. The range of its production could not be regulated due to the dispersion of producers, diversity of natural conditions and unevenness of the costs of production. Without some external aid, Polish agriculture could not overcome the crisis.

³⁰ J. Orezyk, *Nożyce cen i akcja ich zwalczania w Polsce w latach 1929 - 35* (Price scissors and means of opposing them in Poland in the years 1929 - 1935). *Roczniki Dziejów Społecznych i Gospodarczych*, vol. XXVIII, 1967, p. 38, 46 - 49.