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FORECASTS OF THE POLISH ECONOMY 1983-1985

BASED ON THE W3S79 MODEL

The paper presents the results of an exercise in forecasting or rather in simulation, as it is showing the future development of the Polish economy in three variants. The reason was that we had to face great uncertainties both with regard to the outcome of the year 1982 and the main constraints of expected recovery in the next 3 years.

In October 1982, when the forecasts were prepared on the basis of the W3S79 model¹, we were not able to decide precisely what would be the point of departure of the forecast (today in December the outlook for 1982 is still not clear enough). So we tried to assume three different hypotheses with regard to the outcome of this year. The additional argument was, that the monthly statistics which was published for the year 1982 would probably undergo several revisions in the future. This is based on two remarks. The first one refers to the publication of several figures for 1981 which are hardly acceptable. For instance, the decline of net output in 1981 in mining industry was reported to be ca 40% and in foodstuff industry more than 50%, whereas the gross output declined by 11-9% only. It is rather difficult to understand how and why the inputs might have increased so enormously despite the decline of output. The second reason was that the monthly statistics of aggregates yields a different picture

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¹ The description of the W3S79 model can be found in Lubera, Potargowicz, Welfe 1982.

than that of production of individual commodities. The first shows that in a majority of manufacturing industries there was a decrease in the rate of decline of the total output in the first half of 1982, and then a slow increase in the output of those industries (the mining industry was growing from the beginning of the year 1982). On the other hand, the figures referring to the output of major products indicate that very few of them have shown an increase also in Autumn. It is possible that total increase was due to those items which do not appear in commodity statistics being produced in small quantities.

This explains why we were not sure about the outcome of the year 1982 and have postulated three different hypotheses with regard to the point of departure of our forecasts.

The forecasting or rather simulation scenarios were mainly based on different assumptions with regard to the external factors (foreign trade and weather conditions affecting results in agriculture) as well as to the efficiency of the economic system carrying out the economic reform in inflationary surroundings, and being affected by the mixed economic policy measures aimed at recovery and stabilization. It seems that the central planner preparing the proposal of the 3-year plan 1983-1985 was right in evaluating the uncertainties which occur in our balance of payments position on the one hand, and agricultural conditions, on the other hand². This gives us a right to make similar assumptions with regard to different scenarios. Our variants are, however, more deeply diversified. On the other hand, we introduced several specific assumptions (with regard to industrial efficiency, wages, prices etc.). Below we will indicate in some more detail where our assumptions differ from those made by the central planner. Otherwise, we would not have a good reason to present our forecast independently of the official 3-year plan proposal.

We do not claim that our forecast might be better. It has been an exercise based on a strong assumption that the economic structure observed in the 70s, being described by the model, will remain fairly constant. Of course, we had to relax the above assumption in the light of the changes in economic relations

² Cf.: Warianty koncepcji ..., 1982.

induced by the economic crisis, i.e. we had to introduce respective changes in the parameters of several equations of the model. Let me mention which of them were changed.

First of all, adjustments were made in equations for the production sector. We noticed that the initial forecasts have overestimated the working time in the manufacturing industries. The reason was that specifying the equations explaining the time worked we did not take into account that the number of working days might change. Thus we had to allow for two additional free Saturdays, i.e. the (constant) adjustment had to allow for a decline in the length of the working week by about 6-7%. Additionally, we also had to introduce relaxations because of the expected decline of the working time losses due to assumed improvement in supplies of materials and energy. On the other hand, with regard to the mining industry we had to assume that the working time of the miners in fact was enlarged in 1982 (by ca 14%) because of the introduction of incentives to work also on Saturdays and Sundays.

Secondly, the production functions mentioned previously do not take fully into account the impact of imports constraints, or generally speaking, of the bottle-necks generating raw material and energy supplies constraints - we mean both the direct (decline of output) and indirect impact resulting from forced substitution for inferior raw materials etc. (decline of efficiency, deterioration of quality of products). To make allowances for this impact we had to add constant adjustments to the production functions. This helped to reduce the overestimated levels of net output in the periods with prevailing decline of production and to correct upwards the predicted net output levels for the years of recovery 1984-1985 to allow for expected efficiency increase in those years. On the other hand, constant adjustments of the opposite sign have to be added to those equations which transform net output to the gross output, to compensate for the efficiency increase, i.e. for decrease in material (unit) inputs being the component of the gross output indicator. The induced changes in efficiency were differentiated mostly according to specific assumptions with regard to the availability of imported raw- and semi-finished materials. This leads us to the presentation of variants distinguished for the foreign trade.

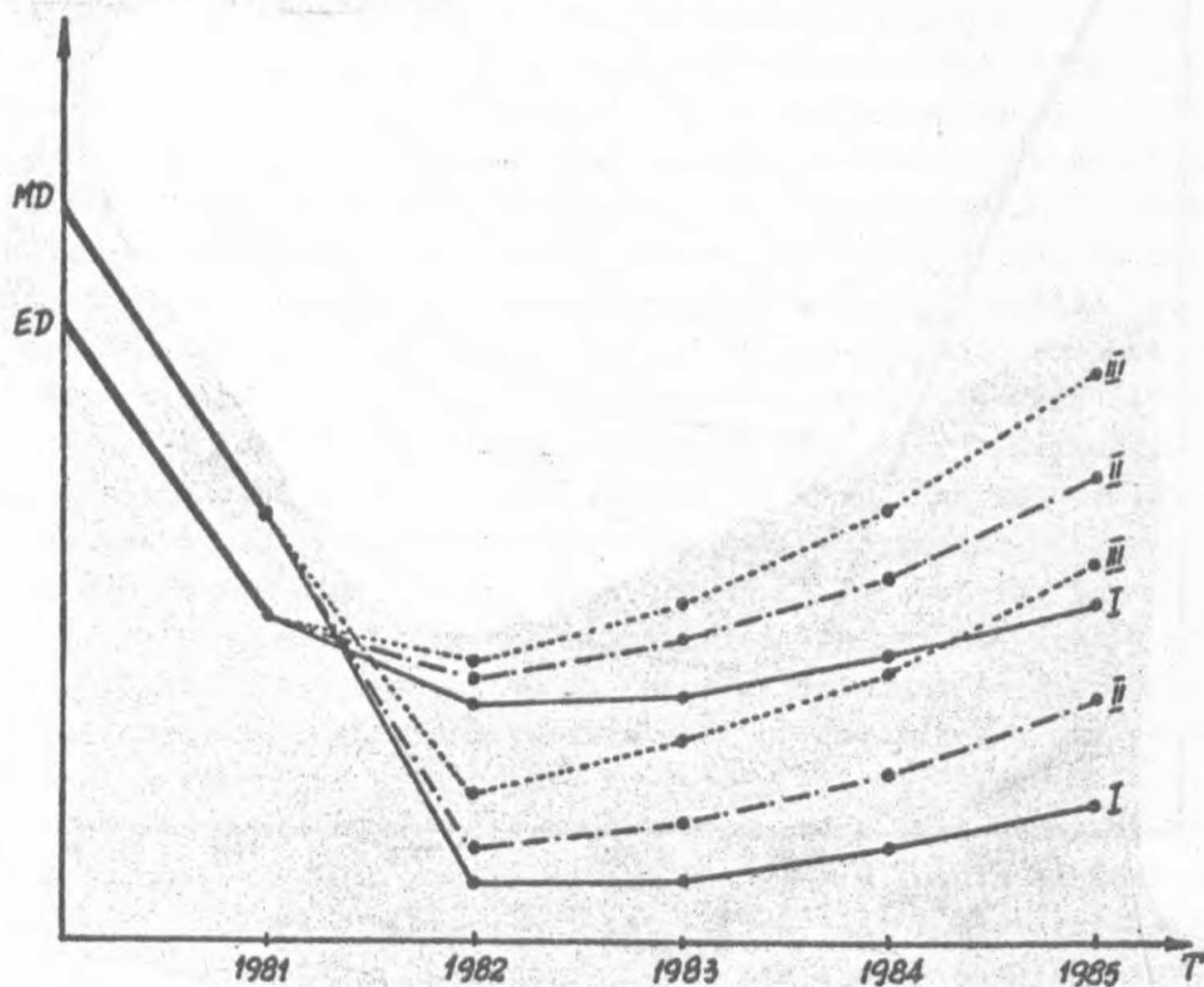
The assumptions with regard to the foreign trade sector are similar to those made by the central plan, and they envisage there are likely to happen three different situations. In the first case they are characterized by negligible possibilities of acquiring new credits, continuation of restrictions by some Western governments, secondly - a normalization of the financial foreign relations, i.e. of concluding agreements which would allow to postpone the repayment of the main body of credits and a substantial part of the interest rates. The third case is optimistic in that new (not only refinancing) credits will be available from the hard currency areas not less than half a billion of dollars a year, which is $1/4$ of that sum which has been estimated as a minimum to restore the full utilization of the existing capacities (if this sum is spent on the increased imports of raw materials, energy and spare parts). In all the above variants, the continuation of the supplies of raw materials from the USSR on credit terms was assumed.

It must be noted that our assumptions differ from those of the central plan proposal in that we analyse the options with regard to the imports from non-socialist countries in a much wider range, which does not seem unrealistic. The central planner assumes that the total volume of imports might increase within a 3-year period between 11 and 17%, the variant in-between being 16%. Our medium variant was practically the same, whereas we have been analysing the possibilities of imports increase by 8% at minimum and 22% at maximum³.

It has to be emphasized that the figures shown in Graph 1, which illustrates the forecasts of imports, reflect to a great extent the impact of the foreign trade - domestic output bottleneck multiplier. The assumption was made that an increase in imports especially from the hard currency areas will allow to increase, after a period of adjustment, the capacity utilization thus increasing the total output much quicker than it would be predicted from the classical production functions. The central planner has assumed an elasticity of production with regard to

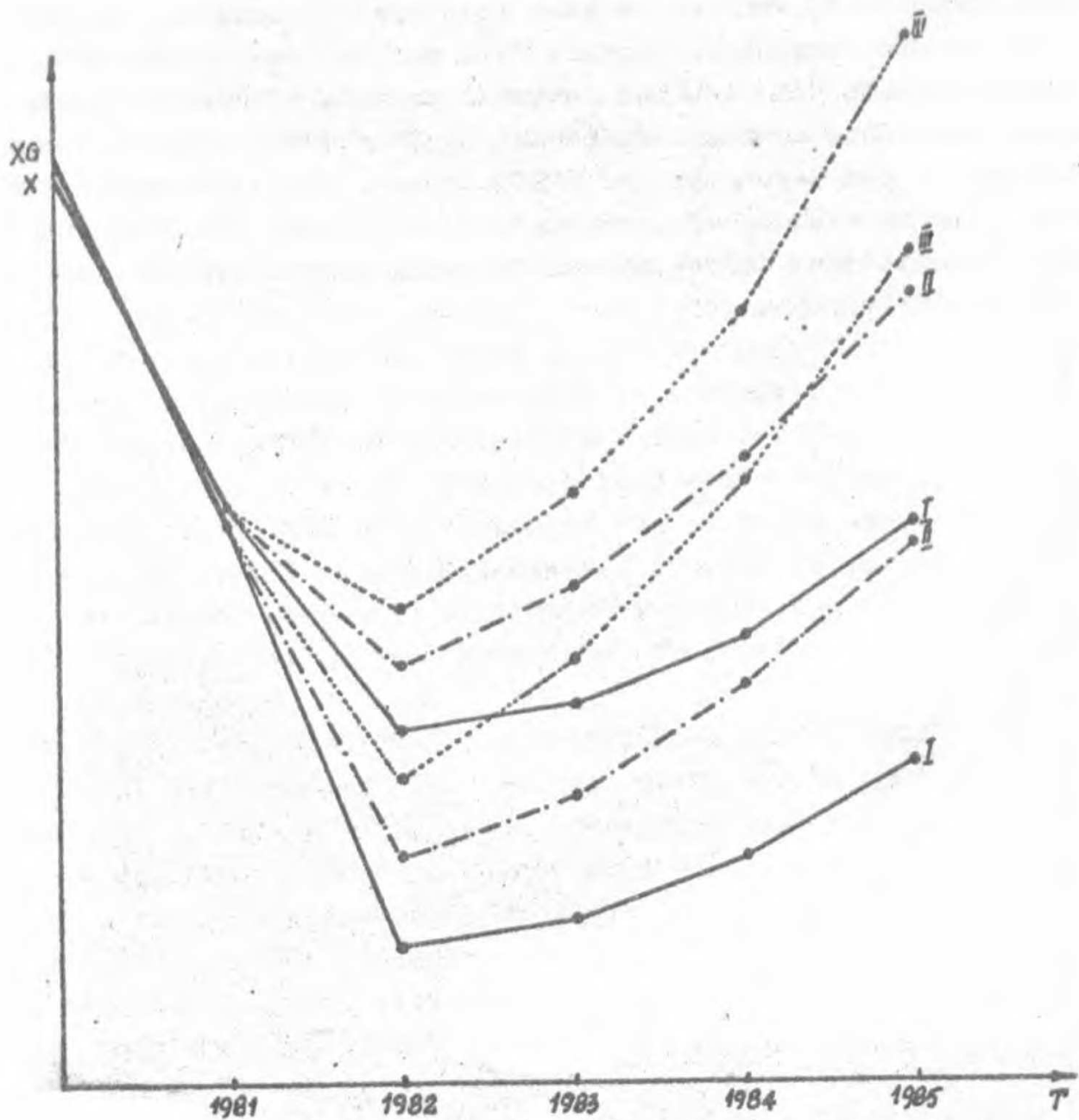
³ Our earlier forecast presented last September based rather on desk calculator computations yielded an expected increase by 18%. See: W e l f e, 1982.

imports close to 1, whereas we have been more optimistic, assuming it to be somewhat higher. This can be seen in Graph 2. It shows growth of the net material product (NMP). The lowest variant indicates an increase of NMP by 9% and the highest one by 24% within the 3-year period (1985 against 1982), whereas the central planner assumed an increase between 11 and 18%. The efficiency assumptions differ especially with respect to the medium and optimistic versions.



Graph 1

In general, it is argued that the increase in output offers a possibility of expanding exports. In this respect, we are not as optimistic as it might be originally expected. We have to acknowledge the tendency of the central planner to increase the "propensity" to export by means of strengthening the motivation of exporting industries, changing exchange rates etc. On the other hand, the persisting constraints in the world markets, especially the hard currency areas, have to be taken into account. This



Graph 2

might prevent from expanding the exports at very high rates. Thus, the expected rates of export growth appeared to be somewhat lower or only slightly above the rates of growth of output. According to the pessimistic version that exports will increase within the 3-year period by 6% totally, whereas the NMP by 10%; in the second version by 14% and NMP by 18%; while in the optimistic variant by 24%, which is slightly above the increase of the NMP.

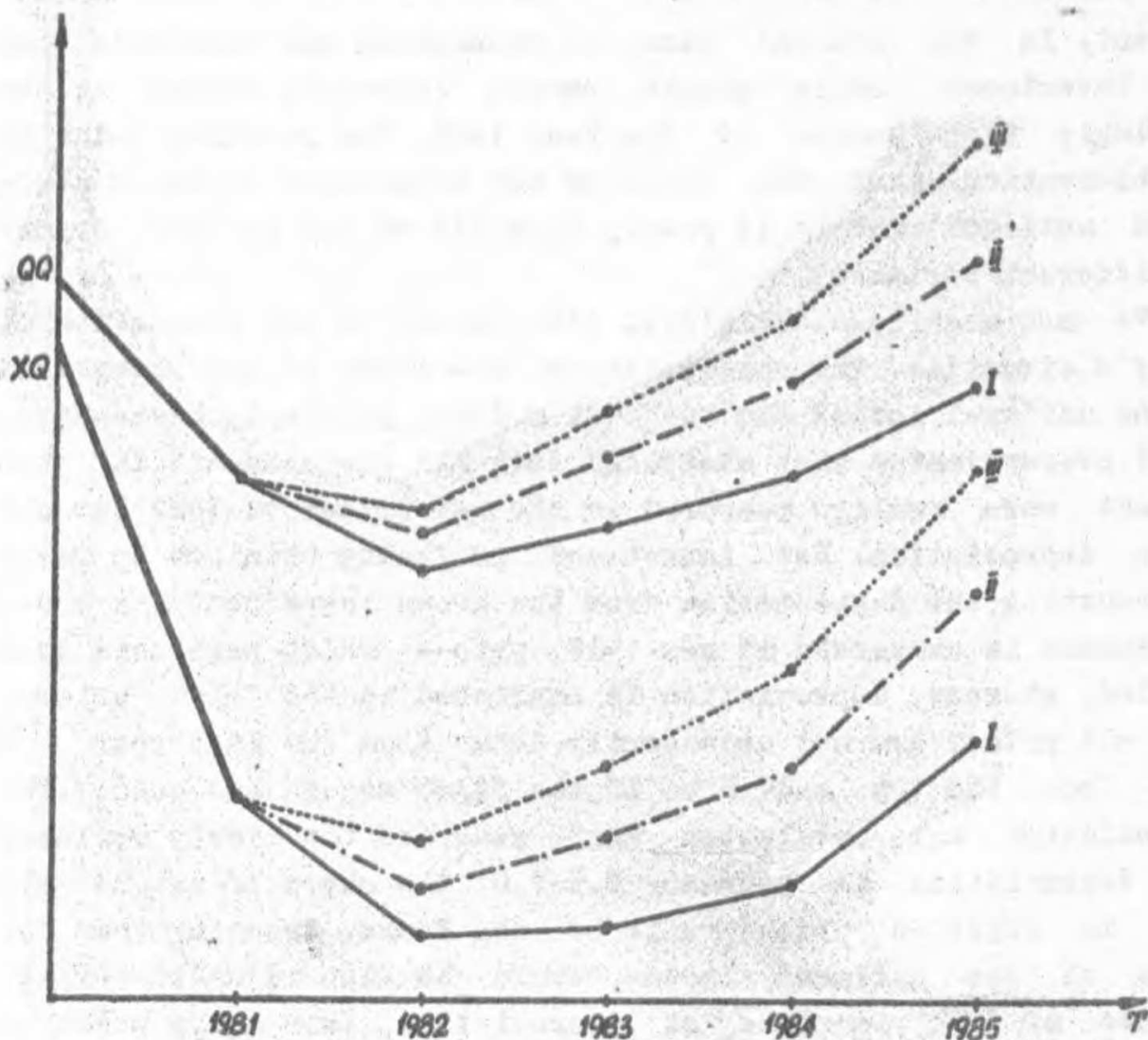
These figures show that according to our previously stated assumptions the export growth is in each case higher than the

growth of import and this means a positive balance of trade is expected (see Graph 1). In 1982, for the first time, a positive balance of trade was obtained and this result will probably continue until 1985. More specifically, this is a result of foreign trade with non-socialist countries. With regard to socialist countries, the negative balance of trade with the USSR is expected (an increase of deliveries on credit terms). The optimistic variant yields lower levels of (positive) balance of trade than the other variants and this is due to the (optimistic) assumption that new (mostly refinancing) credits will be available. The evaluation of the expected positive balance of trade may be quite diversified. It is positive from the point of view of restoring the creditability against the Western creditors as it creates an ability to maintain the foreign debt service. On the other hand, it is not too optimistic as it narrows the potential utilization of the national income bringing the rates of growth of the national income distributed XG below the income produced X. This is shown in Graph 2 for all the three variants. The third variant is the most optimistic from the last point of view, and it predicts an increase by 23% with regard to the national income distributed and 24% or more for the produced national income for the period of 1983-1985, whereas in the pessimistic variant the growth rates are 9% and by 10% respectively. These differences in macroproportions show the possible diversive path of development due to different assumptions with regard to foreign trade.

The forecasts of the industrial production were based on several assumptions with regard to the changes in inputs of the production factors - employment, capacities and their utilization, being dependent on material input and energy constraints. The main factor in the mining industry is the working time, i.e. both the number of employees and the duration of their working week. An increase in the working time has been assumed for 1982 and stabilization for the next years. For the other industries, we have assumed rather a stabilization of the working time. This is a result of a very small increase expected in employment and a further decrease in the average number of hours worked. It is, thus assumed that the number of free Saturdays (3 per month) will remain stable over the next years.

The capacities measured by the fixed capital levels continue to increase both in industry and other production sectors due to the implementation of investment projects started in the 70's. The forecasts are close in all 3 variants - the fixed assets tend to grow at an annual rate between 2 and 3% per year which results in an increase ranging from 8 to 9% within the 3-year period. Thus, we are facing the following situation: the employment, or rather labour input seems to be very stable, whereas the fixed capital might grow by less than 3%. The above longterm factors including the embodied technical progress, may make the capacities grow at an annual rate of no more than 2-2.5%, and bring their levels in 1985 to 6-8% above 1982 level. The difference between the predicted rates of growth and the estimated long-term growth results from an increase of utilization of capacities and a more efficient use of production factors. It mostly comes from the elimination of bottle-necks due to the expected increase in supplies of imported and domestic raw materials, semi-finished goods and spare parts. As a composite effect, we obtain an increase in the net output of industry characterized by Graph 3.

The increase of net output in mining and manufacturing industries (XQ) is being forecasted within the 3-year period from 8 to 20% in such a way that in 1982 a decline of the net output is assumed, for 1983 a slow increase, whereas for 1984-1985 an annual increase between 5 and 8%. The rates of growth are increasing from 2 to 8% in the optimistic variant for 1983-1985. The rates of growth of gross output (QQ) are rather similar to those of net output. It reflects a different assumption than that of the central planner, who predicts the gross output will grow slower than the net output due to the assumed higher efficiency in utilization of raw materials, invention of new technologies etc., and, to some extent, because of the increased import of raw materials and spare parts from developed market economies. Our forecast reflects a more or less pessimistic view that the efficiency due to those factors might grow rather slowly. First of all, the impact of import constraints imposed in 1981/1982 will be long-lasting because of restricted possibilities of substitution of imported raw materials, spare parts etc.; the increase of import of the above commodities expected in 1983 will, first of



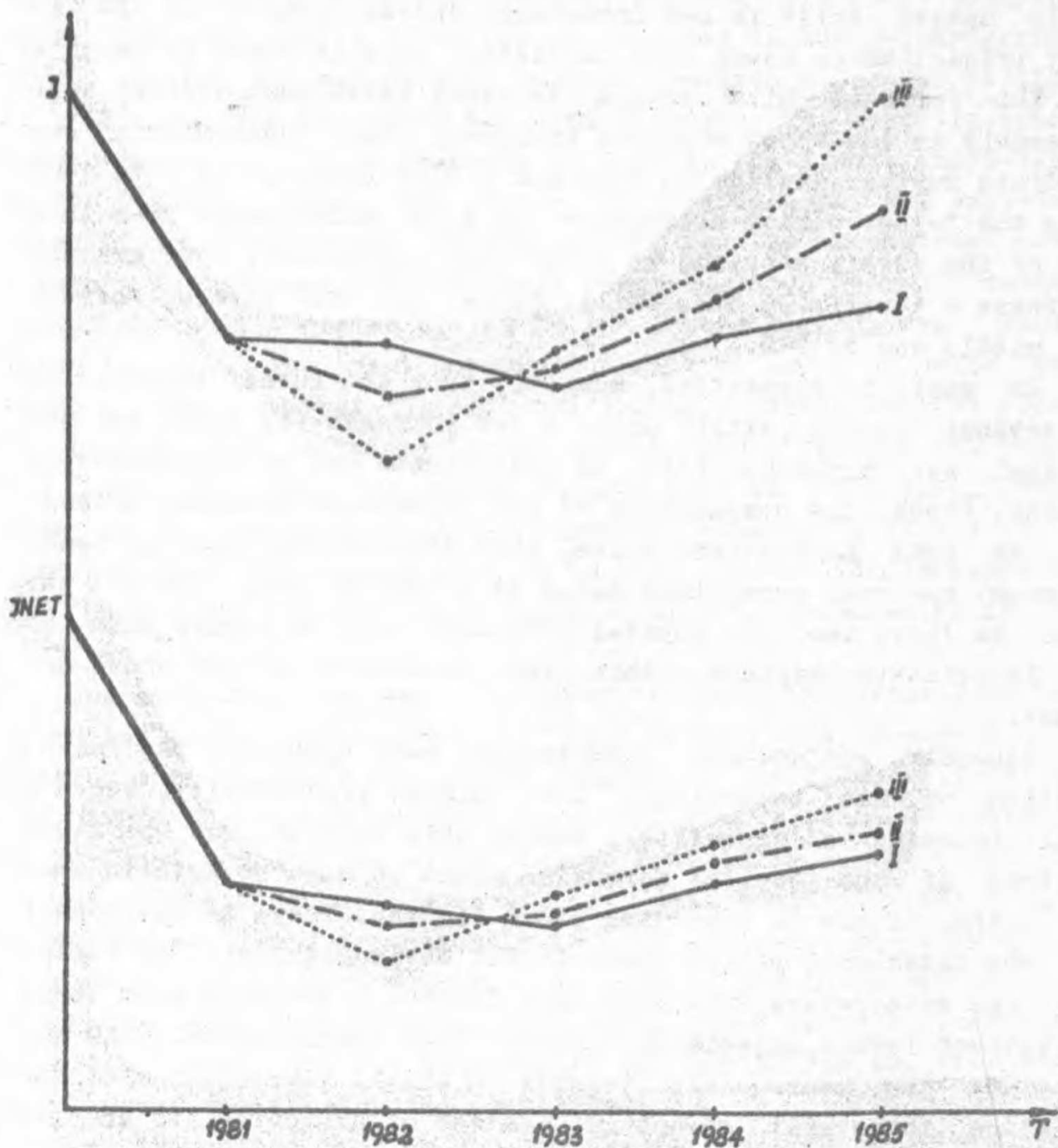
Graph 3

all, help in restoring the stocks of inventories, and despite the forecasted high rates of growth of imports their levels in 1985 will still lie deeply below the 1980 levels. From this point of view, a certain increase of efficiency in industry can be expected due to domestic factors, implementation of innovations, increase of discipline in the production process etc., but we do not expect the results to be at the levels as high as those assumed by the central planner.

The problems involved in the forecasting of the distribution of the national income are no less severe and serious. There was a public discussion with regard to the use of the national income i.e. how much devote to consumption and to investment purposes, the consumers' protection policy being the most advocated

variant. In the central plan, an assumption has been made that the investment levels should remain constant, frozen at the seemingly high levels of the year 1982. The starting point is an observation that the share of net investment in the distributed national income is pretty high (18 or 14% in 1982 prices in different variants).

We are much less optimistic with regard to the evaluation of today's situation. The computation of the share of net investment in the national income (in the 1982 prices) is simply misleading, as it overestimates that share. In fact all the elements in this account were really measured in the new prices of 1982 but one - the depreciation. Net investment is being obtained by means of deducting the depreciation from the gross investment. The gross investment is expressed in new 1982 prices which were more than doubled, whereas depreciation is expressed in the "old" prices. The old prices are not necessarily those from the last year but also from the 70's and 60's. If the fixed assets and hence the depreciation are revaluated next year and the likely deflator for depreciation is between 2.5-2.8, the share of net investment in adjusted prices will be much lower. Assuming that the value of the national income would be also adjusted (below) because of the increase of depreciation, this share would go down to 9% in 1982 which is much in line with its estimate in 1977 prices. The estimates according to different variants of forecast are from 9 to 10%. It seems that sooner or later it will be realized that the investment levels are in fact rather very low, bringing in some industries their decapitalization. We cannot disregard the possible pressures which will come from many sides. The most important is the apartment and communal construction (the pools said that that goal of the central plan was one of the most preferred and highly accepted by the population). On the other hand, if the economic reform is really implemented in the area of the investment decision making there might be pressures towards investment increase, in the first line replacement investments, coming from the decentralized economic units. This cannot necessarily occur as the observed tendencies in the distribution of surplus earned by the factories show that the direct payments of "dividend" are preferred to the increase of "development funds".



Graph 4

The above considerations justify our belief that the central planner's assumptions are much too pessimistic. They imply that the total level of investment would remain constant until 1985, and this means, allowing for an increase in the distributed national income and parallelly - depreciation, that the share of net investment in NID would further decrease. Our forecast yields mode-

rate increase of the investment levels which allows for a negligible upward shift in net investment shares (from 11 to 12% in 1977 prices), which seems more realistic. This is shown in Graph 4.

The forecast with regard to total investment differs considerably in the three variants analysed. The "pessimistic" one predicts further decline in 1983 and a slow increase in 1984-1985 - in the 3-year period altogether by 5.5%, which means less than 80% of the levels attained in 1980. The optimistic - a gradual increase - totally by 50%, still below the 1980 levels, whereas the middle one by 27%.

It must be emphasized, however, that the lowest increase of investment levels still means a net increase (by 5.2%) and the factual net increase both of investments and of capacities is higher. First, the computation of net investment assumes, according to some accountancy rules, that depreciation rate is 5-6%, whereas the real scrappings occur at a rate of only 1 or 2% per year. In fact, the net capital formation will be higher than the net investments obtained within the framework of the above account.

Secondly, replacement investments mean typically the introduction of new technology, i.e. higher productivity, hence a real increase of capacities. Taking this into account the final picture of the capital formation might be more optimistic than it looks, if one is regarding plain figures. There is one aspect of the investment policy which is not obvious enough. The factories and enterprises will have much freedom in deciding upon their investment levels, especially financed from depreciation. This may lead on the macro-scale towards a simple reproduction of the existing industrial structure, instead of promoting its changes towards the expansion of industries specializing in exports or being the bottle-necks.

Thus, we assume that either direct or indirect (via banking system offering credits) allocation of investment funds will take place towards implementation of the central plan goals. Hence, we assume that the allocation of investment outlays will follow the plan's proportions ensuring ca 1/3 for apartment and communal construction another 1/3 for agriculture, foodstuffs industry and other industries producing machinery equipment and materials (fertilizers) for agriculture.

The predicted increase of net investments has an impact on the rates of growth of personal consumption. They are lower than the whole NID but still allow for an increase in the 3-year period by 6 to 18%. The pessimistic variant predicts a further decline in 1983, whereas the other two - an increase. The next two years are characterized by an increase of 4-5% in the lowest and 5-7.5% in the highest variant. The above differences in the expected rates of increase depend, to some extent, on the assumptions concerning agriculture. The forecast being based on "normal" conditions shows an increase by 12% in the 3-year period. That means that in 1985 the real consumption will be about 8% below the level of 1980, whereas the national income produced will be close to the highest attained levels and the distributed - 11% below the level of 1980. Per capita figures will be 5-6 points lower. This is a pretty pessimistic forecast, especially if one takes into account that there will be no real consumption increase in the year 1983 but the whole increase will be accentuated in the next two years.

The optimistic variant is based on the improvement of the situation in the agriculture. If the agriculture showed a considerable increase of its output (which is hard to believe) by 23% within the 3-year period (instead of 12-17%), then an increase of personal consumption by 18% and of foodstuffs by 16% might be feasible. The hopes are, however, not well founded as the animal production declined dramatically in 1982. The above increase would be feasible if it were possible to rebuild the livestock and increase the meat production in 1983. This would require increased import of grain (not for consumption but for fodder) and increased supplies of fertilizers and pesticides.

On the other hand, there are several uncertainties with regard to the supplies of non-foodstuffs. The forecasts are based on the assumption that increased imports mostly from socialist countries will allow to increase the capacity utilization of light industries and the supplies to the households of textiles and apparel by 12-20% within the 3-year period (in the best case - to restore the 1980 level). On the other hand, the constraints in imports from developed market economies might prevent from quick recovery of industries producing durables - the

supplies of the above goods may increase by 1-14% in different variants (mostly due to the availability of hard currency), i.e. in 1985 they will be below the 1980 levels (between 65 and 85%).

The decline in consumption levels against the 1970 level is mostly due to a sharp decrease of real household expenditure in 1982. It is estimated between 15 and 22%. However, those figures might be misleading for two reasons. The first one, most important, is because of the expectations that disequilibria might spread all over the markets and price increases were ahead in 1981 and also in 1982 - anticipatory expenditures have been made especially for non-food items but also for foodstuffs, that increased inventories of households. Some of the products bought were spoiled but the majority of them were being used over 1982 during the period when consumer goods supplies fell dramatically down. This in fact means that the process of deterioration of consumption began already in 1981. The real expenditure in 1981, which have shown a small increase in comparison to 1980, increased the inventory levels in the households, whereas the real consumption might have declined between 5 and 10%. In 1982, especially after the huge price increase which took place in February, this process has been largely stopped. Thus, the real decline of consumption in 1982 is not as deep as might be inferred from the figures about the decline of real expenditures, it can be estimated at 8-15%.

The final remarks deal with the forecasts of the remaining components in the use of the national income - the social consumption and the inventory changes. These forecasts are a weak point as the equations explaining the above variables constitute a weak point in our model. This is because the equations explaining changes in inventories reveal high prediction errors, which is rather typical as the changes in inventories reflect hardly predictable changes in both demand and supply. The social consumption is explicitly determined as a residual, hence it accumulates all the errors that are in other components of the final use as well as in NID. To avoid the ambiguity we tried to exogenize the social consumption observing the results of the public discussion about the 3-year plan dilemma whether to proceed in the direction to increase the personal consumption

or rather the social consumption. The outcome of this discussion has shown that the public prefers higher rates of growth of personal than social consumption. This is not in line with the assumptions we have made. An increase in the 3-year period of social consumption is forecasted to be much higher in two variants and only in the "optimistic" variant the 16% increase is slightly below that of personal consumption (by 18%). This forecast does not seem realistic in the light of the already mentioned tendencies towards narrowing down the "protective function" of the state.

The forecast concerning the inventories is an outcome of a discussion held at the Institute of Econometrics and Statistics, University of Łódź, being a compromise solution. The first point of view was based on the assumption that it would be possible to reduce the disequilibria in a short period of time. In consumer goods markets it can be realized by means of a price increase being higher than the wage and income increases; this would mean that the inventories of the consumer goods will be rebuilt first. On the other hand, the imports increase and efficiency improvements, thus the narrowing down of bottle-necks, might bring an increase in inventories of raw materials, unfinished production etc., as the restoring of inventories is a prerequisite of a smooth production process and especially the increase of industrial production. Those who have been advocating this point of view claim that a rapid and big increase of inventories might be acceptable. This point of view was represented by W. Welfe in a forecast prepared for the LINK Meeting, Autumn 1982. However, after several discussions we had to take into account the more "pessimistic" point of view represented by Dr. W. Juszcak. It was based on more pessimistic assumptions with regard to the possibility of overcoming the disequilibria in the consumer markets, as the incomes tended to increase faster than generally expected and price increases were constrained. Secondly, with regard to the raw materials and semifinished materials, it should be taken into account that the stocks of inventories available at the end of 1982 were rather high in comparison with the output levels, and they did not necessarily contain those raw materials which were needed for the production process, given the product mix that has been accepted for production. We can observe some-

thing like an overflow of stocks of raw materials which are not indispensable and at the same time there is a lack of materials that are really necessary. If we assume, that the economic reform will be fully executed, we might expect a net decline in stocks of inventories due to a decline in those which are stored in the production system and will prove to be not necessary for the future production mix. As a result of the above discussion a slow increase of total inventories has been assumed. The above constrained increase of inventories made it possible to increase the investments in a way we described before.

The situation in the consumer goods markets deserves special attention as it is directly linked with the above discussed problem of inflation. Our forecast had been prepared in that period when it was believed that further high consumer goods price increases were still ahead (25% increase for 1983 announced in the project of the central plan). The latest announcements of the government rather indicate a determination towards restricting the inflation (15% increase was mentioned) and, at the same time towards, inhibiting the increase of wages by means of the prepared wage reform. Our forecast reflects a rather pessimistic point of view with regard to the efficiency of suggested measures. This is partly based on the past experience which says that it is extremely difficult to freeze wages or to constrain their growth, especially in the inflationary environment, and when the cost minimization principle advocated by the economic reform does not simply work. On the other hand, several decisions have been already made or announced which justify the expectations that the price increases will be quite considerable.

The retail prices of consumers' goods show that the average level of their increase in 1982 was ca 100% (they doubled). A further rise of 21-24% is expected in 1983, slowing down to 4-6% in 1985. Within the whole 3-year period 1982-1985 the forecast yields an increase between 30 and 50%.

The (exogenous) assumptions we have made with regard to average wages indicate, that the nominal incomes from wages increase by ca 22% in 1983, by ca 11% in 1984, and by ca 5% in 1985, i.e. slightly less than the rate of inflation. This means a decline in real wage funds and real incomes predicted at 4-5%

in 1983 and a stagnation in 1984-1985. It is hard to compare the total outcome with the real income levels in 1982 as for this year which has shown a deep decline in real incomes and a year before no figures have been published by the Statistical Office. We can still argue that the real incomes might be in 1985 2-4% below the 1982 levels and ca 20% below the 1980 levels. The per capita figures will be respectively lower.

The situation with respect to the real consumer expenditure differs considerably showing as we mentioned above, that the real value of expenditure is expected to increase by 6-18% in different variants during the 3-year period 1983-1985. There is no contradiction as it is expected that the price increase will reduce the inflationary gap (forced savings) to a negligible amount around 1985-1986. The price increase in 1983 higher than the expected nominal income increase might bring the inflationary gap (in real terms) down; it is not sufficient enough (the increase of supply of consumer goods being constrained) to reduce that gap accumulated during the last 3 years.

The above results indicate that additions to savings (including forced savings) will decline in real terms despite relatively high interest rates (current being 7%, long-term 13-15%). The net result is thus pessimistic, showing - which was pointed out by many economic experts - that the nominal increase of wages won during 1980-1982 was mostly fictitious - as factual possibilities of expenditure increase in real terms expressed by constrained (diminished in 1981-1983) supplies simply did not exist.

It will take more than 3 years to rebuild the per capita level of real consumption (certainly not identical with regard to its composition) and many more to arrive at the real levels of personal income (seemingly) achieved in 1981. This might be frustrating but it seems to be better to recognize the truth now.

The above results shown in some more detail in the attached tables were obtained in a series of computational games played on the computer ODRA 1305 in which the model W3S79 was used, confronted with a set of assumptions concerning exogenous variables as well as the changes in several parameters reflecting either the government actions (for instance price changes) or the not explicitly specified sources of change (for instance the changes in

efficiency of production factors or of some of their levels, i.e. decline in working time due to the introduction of 2 additional free Saturdays). Therefore the solutions based on the forecasts should be regarded as a compromise between the structure of the model itself and the extraneous information and the judgement being at our disposal, used to correct the initial model's output.

The inflow of new information about the real outcome of economic activities in 1982 and about the possible constraints in 1983 will help us to narrow the broad intervals within which lie the 3 variants of our forecast - and possibly bring it to one baseline forecast. It will make it possible to study in a classical way various scenarios of the antiinflationary policy, the policy of stimulating growth by means of domestic measures (efficiency increase) or/and foreign trade expansion. However, we cannot be too optimistic - the forecasting errors might still fairly exceed those experienced for stabilized economies.

T a b l e 1

MODEL W3S79. Forecast Dec. 1982

Macroproportions

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|-----------------------------|-------|-------|-------|-------|---------------------|---------------------|
| X | -8.8 | 0.3 | 5.5 | 4.1 | 110.1 | 88.2 |
| National income produced | -6.4 | 3.2 | 8.5 | 5.3 | 118.0 | 97.0 |
| | -3.7 | 6.9 | 8.8 | 6.4 | 123.6 | 104.7 |
| XG | -16.9 | 0.3 | 5.3 | 3.5 | 109.4 | 79.7 |
| National income distributed | -14.3 | 3.2 | 8.9 | 4.8 | 117.8 | 88.6 |
| | -10.2 | 7.0 | 8.7 | 5.7 | 122.9 | 96.8 |
| EP - MP | 3.743 | 5.165 | 5.413 | 5.587 | . | . |
| Foreign trade balance | 3.388 | 5.005 | 5.493 | 5.646 | . | . |
| (current prices) | 1.622 | 3.217 | 3.689 | 3.783 | . | . |

Table 1 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|-----------------|-------|------|------|------|---------------------|---------------------|
| ED | -5.5 | -1.1 | 3.7 | 3.4 | 106.1 | 80.5 |
| Exports total | -4.0 | 3.4 | 5.7 | 4.8 | 114.4 | 88.2 |
| | -2.4 | 5.3 | 8.4 | 8.5 | 124.0 | 97.2 |
| MD | -27.0 | -1.2 | 3.7 | 2.4 | 104.9 | 62.2 |
| Imports total | -25.1 | 3.3 | 5.4 | 3.9 | 113.0 | 68.7 |
| | -20.4 | 5.1 | 8.0 | 7.4 | 121.9 | 78.8 |
| JNET | -4.5 | -6.4 | 2.7 | 8.8 | 105.2 | 54.1 |
| Net investment | 10.3 | 1.6 | 11.1 | 12.5 | 126.9 | 61.8 |
| outlays | 21.3 | 17.5 | 14.2 | 16.8 | 156.7 | 66.9 |
| PCX | 97.0 | 23.9 | 13.2 | 6.2 | 149.0 | 357.2 |
| Price deflator | 96.7 | 22.5 | 12.1 | 5.0 | 144.1 | 344.9 |
| for private | 97.0 | 20.7 | 11.1 | 3.9 | 129.3 | 333.8 |
| consumption | | | | | | |
| PYPR | 100.7 | 24.7 | 13.3 | 6.7 | 150.6 | 375.8 |
| Living costs | 91.5 | 24.4 | 12.5 | 5.7 | 147.8 | 352.0 |
| index | 91.8 | 22.5 | 11.4 | 4.5 | 142.7 | 340.3 |
| NANSR | 12.8 | 13.0 | 13.2 | 13.4 | . | . |
| Professionally | | | | | | |
| active people | | | | | | |
| (excl. agricul- | | | | | | |
| ture) | | | | | | |

MODEL W3S79. Forecast Dec. 1982
 MAIN PROPORTIONS (prices of 1.01.1977)

| Categories | 1982 | 1983 | 1984 | 1985 |
|---|--------------|--------------|--------------|--------------|
| CX/XG | 71.2 | 69.0 | 67.8 | 68.7 |
| Private consumption in distributed national income | 71.9 71.6 | 70.4 69.9 | 68.6 69.1 | 68.7 68.6 |
| JNET/XG | 12.3 | 11.5 | 11.2 | 11.8 |
| Net investment outlays in distributed national income | 11.2 9.4 | 11.0 10.3 | 11.3 10.9 | 12.1 12.0 |
| IQ/X | 50.7 | 49.0 | 48.9 | 49.9 |
| Share of industry in national income | 50.5 50.4 | 48.8 48.2 | 48.1 48.0 | 49.0 48.8 |
| XR/X | 15.5 | 16.8 | 17.2 | 16.3 |
| Share of agriculture in national income | 15.5 15.5 | 16.8 18.0 | 17.9 18.5 | 16.9 17.7 |
| PED/PMP | | | | |
| Terms of trade | 0.921 | 0.945 | 0.942 | 0.926 |
| JM/J | | | | |
| Share of investment outlays for production sector | 55.0 | 56.0 | 58.0 | 60.0 |
| JR/JM | 29.0 | 29.1 | 29.1 | 29.1 |
| Share of investment outlays for agriculture | 29.0 29.1 | 29.1 29.1 | 29.3 29.5 | 29.5 29.9 |
| JQ/JM | 46.8 | 46.9 | 47.0 | 47.2 |
| Share of investment outlays for industry | 46.8 46.8 | 46.9 46.9 | 46.8 46.6 | 46.8 46.8 |
| (JR + JQR)/J | 18.2 | 18.7 | 19.5 | 20.1 |
| Share of investment outlays for agriculture and food-stuff industry | 18.3 18.3 | 20.0 20.0 | 21.0 21.1 | 21.8 22.1 |
| JKM/J | | | | |
| Share of investment outlays for apartment and communal construction | 35.6 | 35.0 | 33.6 | 32.1 |

Table 3

MODEL W3979. Forecast Dec. 1982
NET PRODUCTION

| Categories | 1982 | 1983 | 1984 | 1985 | 1985 1982 | 1985 1980 |
|----------------------------|-------|-------|------|------|--------------|--------------|
| I Total | -8.8 | 0.3 | 5.5 | 4.1 | 110.1 | 88.2 |
| | -6.4 | 3.2 | 8.5 | 5.3 | 118.0 | 97.0 |
| | -3.7 | 6.9 | 8.8 | 6.4 | 123.6 | 104.7 |
| XQ Industry | -5.1 | -3.0 | 5.2 | 6.1 | 108.3 | 86.4 |
| | -2.8 | -0.3 | 7.1 | 7.3 | 114.5 | 93.5 |
| | -0.2 | 2.2 | 8.2 | 8.1 | 119.6 | 100.3 |
| XQF Fuel and power | 9.4 | -0.4 | 0.2 | 3.0 | 102.9 | 68.9 |
| | 10.9 | 0.9 | 1.2 | 7.8 | 207.0 | 76.1 |
| | 12.5 | 1.6 | 1.9 | 1.8 | 105.4 | 72.6 |
| XQE Electro-engineering | -11.3 | -12.8 | 8.3 | 7.2 | 101.1 | 83.8 |
| | -9.3 | -10.8 | 11.1 | 8.3 | 107.2 | 90.8 |
| | -7.5 | -8.0 | 12.0 | 9.5 | 112.9 | 97.5 |
| XQM Raw material | -11.5 | -0.4 | 3.5 | 4.9 | 108.2 | 86.4 |
| | -8.9 | 2.4 | 4.0 | 5.4 | 112.2 | 92.2 |
| | -5.5 | 4.9 | 5.1 | 6.8 | 117.7 | 100.4 |
| XQL Light | -2.3 | 8.0 | 5.1 | 5.7 | 120.0 | 105.4 |
| | -0.1 | 9.8 | 5.8 | 6.2 | 123.4 | 110.8 |
| | 2.7 | 11.1 | 6.3 | 7.1 | 126.4 | 116.7 |
| XQR Food | 9.4 | -3.3 | 4.5 | 11.8 | 112.9 | 60.0 |
| | 13.6 | 9.0 | 12.7 | 15.9 | 142.4 | 78.6 |
| | 19.6 | 17.8 | 17.0 | 17.8 | 162.3 | 94.4 |
| XB Construction | -23.0 | -5.7 | -1.9 | 5.5 | 97.6 | 52.3 |
| | -20.4 | 3.5 | 7.6 | 10.3 | 122.7 | 68.1 |
| | -17.7 | 8.7 | 10.8 | 12.3 | 135.2 | 77.5 |

Table 3 (contd.)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|--------------------------------------|-------|------|------|------|---------------------|---------------------|
| XR Agriculture | -6.3 | 8.6 | 8.1 | -1.1 | 116.1 | 113.4 |
| | -3.7 | 12.0 | 15.3 | -0.4 | 128.6 | 129.2 |
| | -1.0 | 23.8 | 12.1 | 2.0 | 141.5 | 146.1 |
| XL Forestry | 11.7 | 0.5 | 1.1 | 1.4 | 103.0 | 119.3 |
| | 11.8 | 0.5 | 1.1 | 1.4 | 103.0 | 119.3 |
| | 11.8 | 0.5 | 1.1 | 1.4 | 103.0 | 119.3 |
| XT Transport and communication | -10.2 | 5.4 | 12.6 | 4.5 | 124.1 | 102.5 |
| | -6.1 | 7.8 | 13.3 | 5.4 | 128.7 | 111.2 |
| | -1.6 | 8.4 | 12.2 | 6.3 | 129.3 | 117.0 |
| XH Trade | -17.1 | 3.3 | 2.5 | 2.7 | 108.8 | 84.5 |
| | -14.9 | 4.3 | 3.6 | 3.5 | 111.9 | 89.1 |
| | -12.9 | 4.7 | 3.9 | 3.6 | 112.7 | 92.3 |
| XPO Other sectors | -12.5 | -3.8 | 3.8 | 5.7 | 105.5 | 93.6 |
| | -10.5 | 0.3 | 7.1 | 7.5 | 115.8 | 104.1 |
| | -8.2 | 2.7 | 9.0 | 6.4 | 119.1 | 110.8 |

Table 4

MODEL W3S79. Forecast Dec. 1982
GROSS OUTPUT

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|------------|------|------|------|------|---------------------|---------------------|
| Q Total | -2.2 | -0.2 | 3.9 | 4.1 | 107.9 | 96.0 |
| | -0.3 | 2.5 | 6.0 | 5.2 | 114.3 | 103.7 |
| | 2.0 | 5.1 | 6.7 | 6.0 | 118.9 | 110.3 |

Table 4 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | 1985 1982 | 1985 1980 |
|--------------------------------|-------|-------|------|------|--------------|--------------|
| QQ | 0.7 | -1.5 | 3.7 | 4.6 | 106.8 | 96.3 |
| Industry | 2.6 | 1.0 | 5.3 | 5.7 | 112.5 | 103.3 |
| | 4.7 | 3.4 | 6.4 | 6.6 | 117.2 | 109.9 |
| QQF | 16.6 | -0.2 | 0.1 | 1.6 | 101.5 | 106.2 |
| Fuel and power | 17.5 | 0.5 | 0.7 | 2.6 | 103.8 | 109.4 |
| | 18.4 | 0.9 | 1.0 | 1.0 | 102.9 | 109.3 |
| QQE | -3.4 | -12.5 | 8.0 | 6.9 | 101.1 | 86.0 |
| Electro-engin. | 2.6 | 1.0 | 5.3 | 5.7 | 107.1 | 88.4 |
| | 0.7 | -7.8 | 11.6 | 9.3 | 112.5 | 99.7 |
| QQM | -5.5 | -0.4 | 3.1 | 4.3 | 107.1 | 88.4 |
| Raw material | 3.1 | 2.1 | 3.5 | 4.7 | 110.6 | 93.6 |
| | 0.1 | 4.2 | 4.5 | 6.0 | 115.4 | 100.9 |
| QQL | -1.1 | 6.7 | 4.4 | 4.9 | 116.8 | 104.2 |
| Light | 0.8 | 8.3 | 4.9 | 5.4 | 119.7 | 108.9 |
| | 3.1 | 9.4 | 5.4 | 6.1 | 122.4 | 113.8 |
| QQR | 2.6 | 1.8 | 1.6 | 4.4 | 4.9 | 116.8 |
| | 4.1 | 7.8 | 5.0 | 6.7 | 120.8 | 114.4 |
| | 6.3 | 12.5 | 7.2 | 8.2 | 130.4 | 126.1 |
| QB | -10.7 | -4.1 | -1.3 | 3.9 | 98.3 | 69.2 |
| Construction | -8.5 | 2.5 | 5.6 | 7.7 | 116.6 | 84.2 |
| | -6.3 | 6.4 | 8.1 | 9.5 | 125.9 | 93.1 |
| QR | -2.9 | 4.6 | 4.6 | 2.4 | 112.0 | 109.2 |
| Agriculture | -1.3 | 6.7 | 7.0 | 2.7 | 117.4 | 116.4 |
| | 0.5 | 11.2 | 6.6 | 3.6 | 122.7 | 124.0 |
| QL | 2.7 | 2.5 | 2.7 | 3.0 | 108.5 | 112.1 |
| Forestry | 2.7 | 2.6 | 2.7 | 3.0 | 108.6 | 112.2 |
| | 2.7 | 2.5 | 2.7 | 3.0 | 108.5 | 112.1 |
| QT | -5.0 | 4.7 | 11.1 | 4.1 | 121.0 | 107.5 |
| Transport and communication | -1.2 | 6.9 | 11.8 | 4.9 | 125.2 | 115.7 |
| | 2.9 | 7.4 | 10.9 | 5.6 | 125.8 | 121.1 |

Table 4 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|---------------|-------|------|------|------|---------------------|---------------------|
| QH | -10.8 | 2.8 | 2.1 | 2.3 | 107.5 | 93.1 |
| Trade | -8.8 | 3.7 | 3.1 | 3.0 | 110.1 | 97.5 |
| | -6.7 | 4.0 | 3.3 | 3.1 | 110.8 | 100.4 |
| QPO | -12.3 | -4.5 | 4.5 | 6.7 | 106.6 | 84.9 |
| Other sectors | -9.9 | -0.4 | 8.4 | 8.8 | 117.5 | 96.2 |
| | -7.2 | 3.2 | 10.5 | 7.4 | 122.5 | 103.3 |

Table 5

MODEL W3S79. Forecast Dec. 1982
GROSS OUTPUT DEFLATORS

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|----------------------------|-------|------|------|------|---------------------|---------------------|
| PQQF | 297.4 | 19.7 | 15.0 | 4.7 | 144.1 | 601.3 |
| Fuel industry | 298.9 | 17.9 | 14.2 | 4.1 | 140.0 | 586.6 |
| | 299.6 | 16.5 | 13.7 | 4.2 | 138.0 | 579.1 |
| PQQE | 65.3 | 26.6 | 15.1 | 7.3 | 156.5 | 283.3 |
| Electro-engin. industry | 65.7 | 23.7 | 12.7 | 6.0 | 147.8 | 268.0 |
| | 65.7 | 20.6 | 11.2 | 4.8 | 140.6 | 255.2 |
| PQQM | 88.5 | 14.3 | 19.2 | 6.5 | 145.1 | 294.7 |
| Raw material industry | 88.9 | 11.8 | 18.4 | 6.0 | 140.3 | 285.4 |
| | 88.5 | 9.9 | 17.6 | 5.6 | 136.4 | 277.0 |
| PQQL | 71.6 | 14.0 | 23.4 | 9.7 | 154.2 | 289.0 |
| Light industry | 72.4 | 10.2 | 22.6 | 9.1 | 147.3 | 277.3 |
| | 72.0 | 7.3 | 21.8 | 8.5 | 141.9 | 266.4 |
| PQQR | 65.3 | 32.2 | 29.8 | 6.0 | 200.7 | 427.6 |
| Food industry | 66.6 | 27.4 | 26.3 | 12.4 | 181.0 | 361.3 |
| | 66.4 | 23.2 | 24.1 | 11.1 | 169.9 | 338.6 |
| PQB | 104.2 | 46.5 | 29.2 | 6.0 | 200.7 | 427.6 |
| Construction | 87.7 | 49.3 | 27.0 | 5.0 | 199.0 | 389.6 |
| | 102.6 | 36.5 | 23.6 | 3.9 | 175.4 | 370.6 |

Table 5 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|----------------|-------|------|------|------|---------------------|---------------------|
| PQR | 37.8 | 39.2 | 37.2 | 10.6 | 211.1 | 460.7 |
| Agriculture | 40.1 | 30.0 | 34.6 | 9.7 | 192.0 | 426.2 |
| | 39.6 | 22.5 | 34.3 | 8.9 | 179.0 | 396.0 |
| PQL | 128.3 | 41.8 | 42.4 | 23.0 | 248.2 | 566.6 |
| Forestry | 117.2 | 45.9 | 40.9 | 22.2 | 251.3 | 545.7 |
| | 135.8 | 31.5 | 39.6 | 21.5 | 223.1 | 526.0 |
| PQT | 4.1 | 89.7 | 15.2 | 3.5 | 226.0 | 247.3 |
| Transport and | 3.8 | 85.7 | 14.5 | 2.9 | 218.7 | 238.7 |
| communications | 2.6 | 84.5 | 14.6 | 2.5 | 216.7 | 233.7 |
| PQH | 80.3 | 24.9 | 15.0 | 2.1 | 146.6 | 299.7 |
| Trade | 80.7 | 21.2 | 14.0 | 1.5 | 140.3 | 287.5 |
| | 80.4 | 18.6 | 13.7 | 1.4 | 136.8 | 279.9 |
| PQPO | 62.7 | 80.9 | 46.0 | 33.1 | 351.5 | 614.1 |
| Others | 60.8 | 73.3 | 44.3 | 33.8 | 334.7 | 578.2 |
| | 58.8 | 67.3 | 43.6 | 35.0 | 324.3 | 553.1 |

Table 6

MODEL W3S79. Forecast Dec. 1982
AGRICULTURE

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|--------------|------|------|------|------|---------------------|---------------------|
| XR | -6.3 | 8.6 | 8.1 | -1.1 | 116.1 | 113.4 |
| Net output | -3.7 | 12.0 | 15.3 | -0.4 | 128.6 | 129.2 |
| | -1.0 | 23.8 | 12.1 | 2.0 | 141.5 | 146.1 |
| QR | -2.9 | 4.6 | 4.6 | 2.4 | 112.0 | 109.2 |
| Gross output | -1.3 | 6.7 | 7.0 | 2.7 | 117.4 | 116.4 |
| | 0.5 | 11.2 | 6.6 | 3.6 | 122.7 | 124.0 |
| QRA | -4.5 | 3.8 | 4.2 | 2.0 | 110.3 | 111.0 |
| Agriculture | -2.5 | 6.3 | 7.1 | 2.4 | 116.5 | 120.0 |
| output | -0.3 | 11.7 | 6.5 | 3.3 | 122.9 | 129.1 |

Table 6 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|----------------------|------|------|------|------|---------------------|---------------------|
| QRZ | -3.2 | -6.2 | 8.4 | 3.3 | 105.1 | 91.6 |
| Animal production | 1.2 | -5.6 | 15.0 | 3.2 | 112.1 | 102.2 |
| | 6.5 | 1.8 | 12.3 | 4.4 | 119.4 | 114.6 |
| QRR | -5.4 | 11.2 | 1.5 | 1.1 | 114.2 | 130.1 |
| Vegetable | -5.2 | 15.6 | 2.0 | 1.7 | 120.0 | 136.8 |
| production | -5.3 | 19.8 | 2.4 | 2.5 | 125.7 | 143.3 |
| PQRZ | 25.3 | 40.8 | 37.3 | 12.8 | 218.1 | 478.7 |
| Animal production | 27.8 | 31.8 | 34.0 | 11.8 | 198.5 | 442.1 |
| deflator | 28.8 | 23.4 | 32.8 | 10.9 | 181.7 | 409.7 |
| PQRR | 41.4 | 34.6 | 31.6 | 10.5 | 195.7 | 427.6 |
| Vegetable production | 41.6 | 24.2 | 26.2 | 9.4 | 179.4 | 375.1 |
| deflator | 39.9 | 12.5 | 26.1 | 7.7 | 152.8 | 330.3 |
| PXRS | 52.3 | 34.3 | 32.9 | 11.7 | 199.3 | 505.6 |
| Price deflators of | 54.8 | 26.8 | 29.8 | 10.7 | 182.1 | 470.0 |
| state purchase | 55.8 | 19.7 | 28.6 | 9.8 | 168.9 | 438.6 |
| PCHTA | 84.4 | 25.0 | 27.6 | 9.9 | 175.3 | 506.6 |
| Market prices | 87.0 | 18.8 | 24.7 | 9.0 | 161.6 | 472.6 |
| deflator | 87.5 | 12.7 | 24.0 | 8.0 | 150.9 | 442.4 |

Table 7

MODEL W3S79. Forecast Dec. 1982

EXPORTS, IMPORTS

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|-------------------|-------|------|------|------|---------------------|---------------------|
| ED | -5.5 | -1.1 | 3.7 | 3.4 | 106.1 | 80.5 |
| Total exports | -4.0 | 3.4 | 5.7 | 4.8 | 114.4 | 88.2 |
| | -2.4 | 5.3 | 8.4 | 8.5 | 124.0 | 97.2 |
| EN | -16.8 | -1.4 | 14.4 | 14.9 | 129.5 | 82.2 |
| Exports to non - | -14.2 | 2.0 | 16.4 | 13.6 | 134.8 | 88.5 |
| socialist country | -11.2 | 3.8 | 18.4 | 16.6 | 143.3 | 97.4 |

Table 7 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|----------------------------------|-------|-------|-------|-------|---------------------|---------------------|
| ES | 1.7 | -0.9 | -1.8 | -3.4 | 94.0 | 79.3 |
| Exports to socialist countries | 2.4 | 4.1 | 0.1 | 0.5 | 103.6 | 88.3 |
| | 3.2 | 6.2 | 3.2 | 3.5 | 113.5 | 97.1 |
| E1 | -41.3 | 1.3 | 23.0 | 14.9 | 143.1 | 52.1 |
| Exports of agricultural products | -39.1 | 11.8 | 33.1 | 50.5 | 224.0 | 84.5 |
| | -36.6 | 27.1 | 39.9 | 65.7 | 294.6 | 115.7 |
| E24 | 9.1 | 3.6 | -32.0 | -45.8 | 38.2 | 37.2 |
| Raw materials | -1.0 | -6.3 | -38.0 | -59.3 | 23.6 | 20.8 |
| | -9.9 | -18.4 | -45.2 | -9.2 | 40.6 | 32.6 |
| E3 | 26.8 | -4.5 | -4.6 | -3.7 | 87.7 | 67.9 |
| Fuels | 27.9 | -3.5 | -3.9 | -2.3 | 90.5 | 70.7 |
| | 29.1 | -1.6 | -12.6 | -3.5 | 92.5 | 72.9 |
| E7 | -16.3 | -8.6 | 10.0 | 7.7 | 108.2 | 72.6 |
| Machinery and equipment | -14.0 | 1.2 | 12.1 | 5.1 | 119.2 | 82.1 |
| | -11.9 | 4.3 | 16.5 | 7.0 | 130.0 | 91.8 |
| EPO | 2.1 | 6.7 | 4.4 | 5.2 | 117.3 | 109.3 |
| Others | 4.2 | 8.4 | 5.1 | 5.7 | 120.5 | 114.4 |
| | 6.7 | 9.6 | 5.6 | 6.5 | 123.3 | 120.0 |
| MD | -27.0 | -1.2 | 3.7 | 2.4 | 104.9 | 62.2 |
| Imports total | -25.1 | 3.3 | 5.4 | 3.9 | 113.0 | 68.7 |
| | -20.4 | 5.1 | 8.0 | 7.4 | 121.9 | 78.8 |
| MN | -35.5 | -0.5 | 12.3 | 10.9 | 123.9 | 51.5 |
| From non-socialist countries | -33.7 | 10.9 | 14.2 | 12.6 | 142.5 | 60.8 |
| | -29.5 | 20.0 | 16.9 | 16.4 | 163.3 | 74.0 |
| MS | -22.7 | -1.5 | -0.0 | -1.7 | 96.8 | 70.1 |
| From socialist countries | -20.7 | 0.0 | 1.2 | -0.7 | 100.4 | 74.6 |
| | -15.8 | -1.2 | 3.4 | 10.5 | 112.9 | 89.1 |
| M1 | -32.9 | -1.2 | -7.8 | 2.4 | 93.3 | 63.9 |
| Of agricultural products | -31.2 | 3.3 | -6.4 | 3.9 | 104.1 | 70.5 |
| | -26.9 | 5.1 | -4.0 | 7.4 | 108.4 | 80.9 |

Table 7 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | <u>1985</u> <u>1982</u> | <u>1985</u> <u>1980</u> |
|--|-------|------|------|------|----------------------------|----------------------------|
| M24 | -27.2 | 7.8 | 3.7 | 10.9 | 124.0 | 69.0 |
| Raw materials | -25.4 | 12.7 | 5.4 | 12.5 | 133.5 | 76.2 |
| | -20.7 | 14.7 | 8.0 | 16.4 | 144.1 | 87.4 |
| M3 | -24.2 | -1.2 | 3.7 | 2.4 | 104.9 | 64.6 |
| Fuels | -22.2 | 18.0 | 5.4 | 3.9 | 129.1 | 81.5 |
| | -17.4 | 20.2 | 14.7 | 7.4 | 148.1 | 99.3 |
| M7 | -24.5 | -1.2 | 3.7 | 2.4 | 104.9 | 64.6 |
| Machinery and equipment | -22.2 | 18.0 | 5.4 | 3.9 | 129.1 | 81.5 |
| | -17.4 | 20.2 | 14.7 | 7.4 | 148.1 | 99.3 |
| MPO | -26.8 | -5.3 | 3.7 | -2.1 | 96.2 | 68.0 |
| | -24.9 | 20.5 | 5.4 | 0.2 | 127.1 | 92.3 |
| | -20.2 | 22.7 | 8.0 | 3.6 | 137.2 | 105.8 |
| EP | -2.3 | 6.9 | 7.6 | 9.9 | 126.4 | 105.9 |
| Exports, current | -0.8 | 11.7 | 9.7 | 11.3 | 136.3 | 116.0 |
| foreign exchange złoty | 1.0 | 13.8 | 12.6 | 15.2 | 147.6 | 127.8 |
| ENP | -16.6 | 6.9 | 17.8 | 18.3 | 149.1 | 99.5 |
| To non-socialist | -13.9 | 10.7 | 19.9 | 17.0 | 155.3 | 106.9 |
| countries/current foreign exchange złoty, prices | -10.9 | 12.6 | 21.9 | 20.1 | 165.0 | 117.6 |
| MP | -23.5 | 4.0 | 8.0 | 10.7 | 124.2 | 84.7 |
| Imports/current | -21.6 | 8.7 | 9.7 | 12.3 | 133.8 | 93.6 |
| foreign exchange złoty, prices | -16.7 | 10.6 | 12.4 | 16.1 | 144.4 | 107.3 |

Table 8

MODEL W3S79. Forecast Dec. 1982
INVESTMENT OUTLAYS

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|-------------------------------|-------|-------|------|------|---------------------|---------------------|
| J Total | -3.8 | -5.3 | 4.1 | 7.0 | 105.5 | 78.4 |
| | -7.6 | -8.4 | 11.4 | 10.2 | 126.9 | 87.3 |
| | -17.0 | 12.5 | 16.9 | 14.0 | 150.0 | 96.1 |
| JM In production sector | -20.3 | -3.6 | 7.8 | 10.7 | 115.1 | 68.5 |
| | -23.4 | 1.4 | 15.4 | 14.0 | 133.4 | 76.3 |
| | -31.3 | 14.6 | 21.1 | 17.9 | 163.6 | 84.0 |
| JQ In industry | -25.4 | -3.4 | 8.1 | 11.2 | 116.0 | 63.8 |
| | -28.3 | 1.6 | 15.1 | 14.0 | 133.4 | 70.5 |
| | -35.7 | 14.8 | 20.3 | 18.4 | 163.6 | 77.6 |
| JQF Fuel and power | -21.6 | -2.3 | 8.4 | 11.5 | 118.0 | 65.7 |
| | -24.6 | 2.7 | 15.4 | 14.4 | 135.6 | 72.5 |
| | -35.5 | 17.5 | 23.1 | 21.0 | 175.0 | 87.0 |
| JQE Electro-engin. | -32.2 | -3.8 | 6.6 | 10.7 | 113.5 | 60.9 |
| | -34.8 | 1.1 | 13.6 | 13.5 | 130.4 | 67.3 |
| | -41.5 | 14.3 | 18.7 | 17.9 | 160.0 | 74.1 |
| JQM Raw materials | -15.6 | -5.4 | 6.7 | 10.2 | 111.2 | 58.3 |
| | -18.9 | -21.9 | 13.2 | 12.8 | 99.7 | 50.3 |
| | -27.2 | -11.7 | 17.1 | 15.1 | 118.9 | 53.8 |
| JQL Light | -25.2 | -1.2 | 10.5 | 13.7 | 124.1 | 71.6 |
| | -28.1 | -3.9 | 17.7 | 16.6 | 142.7 | 79.1 |
| | -35.5 | 17.5 | 23.1 | 21.0 | 175.0 | 87.0 |
| JQR Food | -39.0 | -2.3 | 11.6 | 11.2 | 121.2 | 75.0 |
| | 41.4 | 59.1 | 17.6 | 14.0 | 213.4 | 126.9 |
| | -46.8 | 77.9 | 24.6 | 20.8 | 267.9 | 144.6 |

Table 8 (contd.)

| Categories | 1982 | 1983 | 1984 | 1985 | <u>1985</u> <u>1982</u> | <u>1985</u> <u>1980</u> |
|---------------------------------------|-------|------|------|-------|----------------------------|----------------------------|
| JB Construction | -16.7 | -7.3 | 5.7 | 13.0 | 110.6 | 51.9 |
| | -19.9 | -2.5 | 13.1 | 16.4 | 128.2 | 57.8 |
| | -28.1 | 10.2 | 18.7 | 20.3 | 157.3 | 63.7 |
| JR Agriculture | -17.4 | -3.3 | 7.8 | 10.7 | 115.5 | 83.0 |
| | 20.6 | 1.7 | 16.2 | 14.8 | 135.7 | 93.7 |
| | -28.5 | 14.6 | 22.8 | 19.5 | 168.1 | 104.6 |
| JL Forestry | -36.0 | -3.6 | 7.8 | 10.7 | 115.5 | 83.0 |
| | -38.5 | 1.4 | 15.4 | -2.3 | 114.4 | 63.1 |
| | -44.8 | 14.6 | 21.1 | -15.8 | 116.8 | 57.8 |
| JH Trade | -32.1 | -3.6 | 7.8 | 10.7 | 115.1 | 73.0 |
| | -34.8 | 1.4 | 15.4 | 14.4 | 133.4 | 81.4 |
| | -41.4 | 14.6 | 21.1 | 6.1 | 147.2 | 80.6 |
| JT Transport and communications | -3.8 | -3.6 | 7.8 | 9.3 | 113.6 | 68.1 |
| | -7.5 | 1.4 | 15.4 | 12.5 | 131.6 | 75.8 |
| | -17.0 | 14.6 | 21.1 | 15.6 | 160.4 | 82.9 |
| JN Non-productive | 28.7 | -7.4 | -0.6 | 1.9 | 83.8 | 100.1 |
| | 23.7 | -2.7 | 6.3 | 5.0 | 108.7 | 111.5 |
| | 11.0 | 10.0 | 11.6 | 8.5 | 133.3 | 122.8 |

Table 9

MODEL W3S79. Forecast Dec. 1982

FIXED ASSETS

| Categories | 1982 | 1983 | 1984 | 1985 | <u>1985</u> <u>1982</u> | <u>1985</u> <u>1980</u> |
|-----------------------------|------|------|------|------|----------------------------|----------------------------|
| KM Production sectors | 2.5 | 2.7 | 2.0 | 3.0 | 107.9 | 114.7 |
| | 2.5 | 2.8 | 2.1 | 3.2 | 108.4 | 115.3 |
| | 2.4 | 2.7 | 2.3 | 3.4 | 108.7 | 115.4 |

Table 9 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|---------------------------------------|------|------|------|------|---------------------|---------------------|
| KQ Industry | 1.7 | 2.2 | 2.1 | 3.4 | 107.9 | 113.6 |
| | 1.7 | 2.3 | 2.3 | 3.5 | 108.3 | 114.1 |
| | 1.4 | 2.2 | 2.5 | 3.7 | 108.7 | 114.2 |
| KQF Fuel and power | 2.7 | 2.6 | 2.3 | 2.9 | 108.0 | 115.6 |
| | 2.7 | 2.6 | 2.2 | 2.9 | 108.0 | 115.6 |
| | 2.7 | 2.6 | 2.2 | 2.8 | 107.8 | 115.4 |
| KQE Electro-engin. | 0.6 | 2.1 | 1.8 | 3.3 | 107.3 | 112.2 |
| | 0.6 | 2.1 | 1.9 | 3.5 | 107.6 | 112.6 |
| | 0.6 | 2.0 | 1.9 | 3.6 | 107.7 | 112.6 |
| KQM Raw materials | 0.9 | 1.8 | 2.1 | 3.0 | 107.1 | 110.6 |
| | 0.9 | 1.6 | 1.9 | 2.8 | 106.5 | 109.9 |
| | 0.8 | 1.6 | 1.9 | 2.9 | 106.5 | 109.9 |
| KQL Light | 6.6 | 4.5 | 1.3 | 1.8 | 107.7 | 121.9 |
| | 6.6 | 4.5 | 1.3 | 1.8 | 107.8 | 122.0 |
| | 6.6 | 4.5 | 1.3 | 1.9 | 107.8 | 122.0 |
| KQR Food | 1.2 | 1.5 | 1.7 | 5.6 | 109.0 | 112.0 |
| | 1.3 | 3.2 | 3.9 | 6.9 | 114.6 | 117.8 |
| | 1.3 | 4.8 | 5.4 | 7.6 | 119.0 | 122.4 |
| KB Construction | 1.1 | 3.0 | 1.8 | 1.0 | 105.9 | 112.1 |
| | 1.2 | 3.1 | 1.7 | 1.0 | 106.0 | 112.3 |
| | 1.2 | 3.1 | 1.6 | 1.0 | 106.0 | 112.3 |
| KR Agriculture | 4.3 | 3.5 | 2.1 | 3.1 | 109.0 | 120.0 |
| | 4.5 | 3.7 | 2.2 | 3.4 | 109.6 | 120.9 |
| | 4.5 | 3.6 | 2.3 | 3.7 | 109.6 | 121.2 |
| KL Forestry | -0.4 | 3.0 | 5.4 | 6.4 | 115.4 | 116.5 |
| | -0.3 | 3.1 | 5.4 | 6.4 | 115.5 | 116.8 |
| | -0.3 | 3.0 | 5.3 | 6.3 | 115.3 | 116.5 |
| KT Transport and communications | 2.0 | 2.4 | 1.6 | 2.5 | 106.6 | 113.3 |
| | 2.1 | 2.5 | 1.6 | 2.7 | 107.0 | 113.8 |
| | 2.0 | 2.4 | 1.7 | 3.0 | 107.2 | 114.0 |

Table 9 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|------------|------|------|------|------|---------------------|---------------------|
| KH | 4.7 | 4.1 | 2.1 | 1.9 | 108.4 | 118.5 |
| Trade | 4.4 | 3.9 | 2.1 | 2.0 | 108.2 | 117.9 |
| | 4.4 | 3.8 | 2.0 | 2.0 | 108.1 | 117.8 |

Table 10

MODEL W3879. Forecast Dec. 1982

MARKET SUPPLIES

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|-------------------------|-------|-------|------|------|---------------------|---------------------|
| SR | -27.3 | 1.5 | 5.2 | 6.2 | 113.4 | 74.4 |
| Total | -22.3 | 8.1 | 8.0 | 6.0 | 123.7 | 86.7 |
| | -16.7 | 12.4 | 9.4 | 6.0 | 130.4 | 98.0 |
| SRQP | -51.3 | 2.9 | 6.8 | 6.0 | 116.6 | 50.9 |
| Fuel and power industry | -40.4 | 15.1 | 6.6 | 5.8 | 129.7 | 69.4 |
| | -27.9 | 13.5 | 11.2 | 7.0 | 135.0 | 87.2 |
| SRQE | -53.6 | -26.0 | 19.8 | 15.5 | 102.3 | 41.9 |
| Electro-engin. industry | -47.7 | -19.9 | 22.7 | 15.3 | 113.3 | 52.4 |
| | -47.8 | -13.4 | 21.5 | 15.7 | 121.7 | 62.6 |
| SRQM | -5.3 | -0.4 | 2.9 | 4.1 | 106.8 | 88.6 |
| Raw materials | -3.0 | 2.0 | 3.4 | 4.6 | 110.3 | 93.7 |
| | 0.1 | 4.1 | 4.4 | 5.8 | 114.9 | 100.7 |
| SRQR | -15.1 | 2.5 | 2.2 | 6.1 | 111.1 | 86.5 |
| Food industry | -10.7 | 10.5 | 6.6 | 5.0 | 123.7 | 101.3 |
| | -5.5 | 16.3 | 9.0 | 3.6 | 131.4 | 113.8 |
| SRQL | -38.1 | 7.1 | 5.9 | 5.5 | 119.7 | 67.1 |
| Light industry | -34.6 | 13.3 | 6.5 | 6.0 | 127.9 | 75.7 |
| | -30.4 | 14.5 | 7.3 | 7.2 | 131.7 | 83.0 |
| SRPO | -17.1 | 11.6 | 11.9 | 5.2 | 131.4 | 97.2 |
| Others | -3.5 | 16.9 | 17.2 | 5.2 | 144.2 | 124.2 |
| | 10.8 | 27.9 | 13.5 | 6.5 | 154.5 | 152.8 |

Table 11

MODEL W3S79. Forecast Dec. 1982
CONSUMPTION

| Categories | 1982 | 1983 | 1984 | 1985 | 1985 1982 | 1985 1980 |
|--------------------------|-------|-------|------|------|--------------|--------------|
| GZ | -8.3 | 0.3 | 0.8 | 3.1 | 104.3 | 94.6 |
| Foodstuffs | -6.0 | 4.2 | 3.4 | 2.9 | 110.9 | 103.2 |
| | -3.2 | 7.6 | 5.2 | 2.5 | 116.0 | 111.1 |
| CA | -19.5 | 3.3 | 3.0 | 8.2 | 115.1 | 64.1 |
| Alcohol | -13.8 | 14.1 | 8.5 | 6.4 | 131.7 | 78.5 |
| | -7.2 | 21.4 | 11.4 | 4.4 | 141.2 | 90.6 |
| CW | -8.9 | 1.1 | 1.0 | 2.7 | 104.8 | 107.6 |
| Tobacco | -6.9 | 4.7 | 3.1 | 2.4 | 110.5 | 116.0 |
| | -4.5 | 7.4 | 4.5 | 1.9 | 114.3 | 123.1 |
| CD | -40.9 | -15.6 | 10.4 | 8.8 | 101.4 | 65.4 |
| Durables | -36.4 | -12.6 | 13.0 | 9.6 | 108.4 | 75.3 |
| | -31.9 | -8.8 | 13.3 | 10.4 | 114.2 | 84.9 |
| CN | -35.1 | -12.2 | 7.8 | 6.8 | 101.1 | 71.6 |
| Non-durables | -31.2 | -9.0 | 10.1 | 7.6 | 106.6 | 80.1 |
| | -27.4 | -7.1 | 10.5 | 8.5 | 111.4 | 88.4 |
| CT | -26.8 | 4.2 | 3.6 | 3.4 | 111.7 | 88.3 |
| Clothing and footwear | 24.3 | 8.1 | 4.2 | 3.9 | 117.0 | 95.6 |
| | -21.4 | 9.0 | 4.8 | 4.8 | 119.8 | 101.7 |
| CR | -34.5 | -11.4 | 7.5 | 6.8 | 101.7 | 73.0 |
| Non-food excl. | -30.6 | -8.8 | 9.9 | 7.4 | 107.7 | 81.9 |
| | -26.7 | -5.7 | 10.5 | 8.2 | 112.6 | 90.5 |
| CS | -3.8 | 3.5 | 8.4 | 3.2 | 115.8 | 110.0 |
| Services | -0.9 | 5.2 | 9.1 | 3.8 | 119.2 | 116.6 |
| | 2.2 | 5.7 | 8.5 | 4.5 | 119.8 | 121.0 |

Table 11 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|----------------------------------|-------|------|------|------|---------------------|---------------------|
| CK | -31.3 | -9.6 | 6.3 | 5.9 | 101.8 | 76.7 |
| Consumption goods | -27.7 | -7.2 | 8.6 | 6.5 | 107.4 | 85.2 |
| | -24.1 | -4.4 | 9.3 | 7.2 | 111.9 | 93.3 |
| CI | -32.5 | -6.9 | 6.2 | 5.7 | 104.5 | 77.0 |
| Non-food goods | -28.9 | -4.0 | 8.0 | 6.1 | 110.3 | 85.5 |
| | -25.3 | -1.7 | 8.7 | 7.2 | 114.6 | 93.5 |
| PCZ | 119.7 | 23.1 | 10.6 | 5.3 | 143.3 | 407.2 |
| Deflator and food expenditure | 118.0 | 22.0 | 8.7 | 3.8 | 137.7 | 388.3 |
| | 118.3 | 19.9 | 7.2 | 2.4 | 131.6 | 371.5 |
| PCA | 103.3 | 26.1 | 13.9 | 7.5 | 154.4 | 471.6 |
| Deflator of alcoholic beverages | 104.0 | 24.0 | 12.4 | 6.4 | 147.8 | 453.3 |
| | 103.9 | 22.1 | 10.9 | 5.6 | 142.9 | 437.8 |
| PCW | 83.4 | 24.7 | 24.3 | 12.0 | 173.6 | 416.5 |
| Deflator of tobacco prod. | 84.5 | 21.1 | 21.3 | 10.4 | 162.2 | 391.6 |
| | 84.3 | 17.8 | 19.4 | 9.3 | 153.7 | 370.5 |
| PCD | 54.3 | 25.9 | 14.3 | 2.0 | 146.6 | 254.8 |
| Durables deflator | 57.6 | 23.0 | 14.1 | 1.9 | 143.0 | 253.9 |
| | 62.0 | 19.5 | 14.0 | 1.8 | 138.7 | 253.0 |
| PCN | 86.4 | 29.6 | 22.6 | 8.1 | 171.8 | 360.6 |
| Nondurables deflator | 87.1 | 26.0 | 21.7 | 7.5 | 164.8 | 347.2 |
| | 86.6 | 23.3 | 20.9 | 7.0 | 159.5 | 335.0 |
| PCT | 46.5 | 7.9 | 11.0 | 5.8 | 126.6 | 204.2 |
| Deflator for clothing and footw. | 46.8 | 6.0 | 10.4 | 5.3 | 123.2 | 199.1 |
| | 46.7 | 4.5 | 9.8 | 4.9 | 120.4 | 194.3 |
| PCS | 15.5 | 90.6 | 26.8 | 18.9 | 287.3 | 374.1 |
| Deflator for services | 15.5 | 90.0 | 23.9 | 18.0 | 278.2 | 361.9 |
| | 15.1 | 89.4 | 21.8 | 17.3 | 270.7 | 351.3 |

Table 12

MODEL W3S79. Forecast Dec. 1982
INCOMES

| Categories | 1982 | 1983 | 1984 | 1985 | 1985 1982 | 1985 1980 |
|--|-------|-------|------|------|--------------|--------------|
| Y | -21.0 | -4.3 | -0.2 | -1.2 | 94.3 | 78.6 |
| Real income | -18.1 | -5.0 | 0.2 | -0.5 | 94.7 | 81.8 |
| | -18.4 | -4.4 | 1.1 | 0.9 | 97.5 | 83.8 |
| YP | 55.9 | 23.1 | 16.5 | 7.1 | 153.7 | 315.3 |
| Nominal incomes | 56.5 | 21.6 | 15.8 | 6.7 | 150.2 | 309.2 |
| | 56.7 | 20.2 | 15.4 | 6.9 | 148.2 | 305.6 |
| PY | 97.3 | 28.6 | 16.8 | 8.5 | 162.9 | 401.2 |
| Income deflator | 91.0 | 28.0 | 15.6 | 7.2 | 158.7 | 378.4 |
| | 92.1 | 25.7 | 14.2 | 5.9 | 152.1 | 364.6 |
| YPR | -30.4 | -2.5 | -2.1 | -1.7 | 93.8 | 66.7 |
| Real incomes of employed in socialized enterprises | -27.1 | -2.3 | -1.3 | -1.0 | 95.5 | 71.1 |
| | -27.2 | -0.8 | -0.4 | 0.7 | 99.5 | 74.0 |
| YPRP | 39.7 | 21.5 | 10.9 | 4.8 | 141.3 | 250.6 |
| Nominal incomes of employed in socialized enter- prises | 39.7 | 21.5 | 11.0 | 4.6 | 141.1 | 250.2 |
| | 39.7 | 21.5 | 11.0 | 5.3 | 142.0 | 251.8 |
| PYPR | 100.7 | 24.7 | 13.3 | 6.7 | 150.6 | 375.8 |
| Living cost index | 91.5 | 24.4 | 12.5 | 5.7 | 147.8 | 352.0 |
| | 91.8 | 22.5 | 11.4 | 4.5 | 142.7 | 340.3 |
| YR | -7.1 | -7.6 | 4.8 | -1.6 | 95.3 | 115.2 |
| Real incomes of farmers | -7.5 | -12.3 | 4.3 | -1.1 | 90.5 | 108.9 |
| | -9.0 | -15.0 | 5.3 | -0.8 | 88.8 | 105.1 |
| YRP | 71.2 | 34.0 | 34.1 | 12.0 | 201.3 | 558.0 |
| Nominal incomes of farmers | 74.3 | 26.5 | 31.2 | 11.1 | 184.3 | 520.2 |
| | 75.6 | 19.6 | 30.1 | 10.2 | 171.4 | 487.2 |

Table 12 (contd)

| Categories | 1982 | 1983 | 1984 | 1985 | $\frac{1985}{1982}$ | $\frac{1985}{1980}$ |
|------------------|------|------|------|------|---------------------|---------------------|
| PYR | 84.1 | 45.1 | 27.9 | 13.8 | 211.2 | 484.2 |
| Deflators of | 88.4 | 44.2 | 25.8 | 12.3 | 203.7 | 477.7 |
| farmers' incomes | 92.9 | 40.8 | 23.6 | 11.0 | 193.1 | 463.5 |

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PROGNOZY ROZWOJU GOSPODARCZEGO POLSKI W LATACH 1983-1985 NA PODSTAWIE MODELU W3S79

W artykule zaprezentowane zostały prognozy rozwoju ekonomicznego Polski w latach 1983-1985 sporządzone na podstawie wyników symulacji - omówionego szczegółowo w poprzedniej pracy - modelu W3S79. Autorzy przedstawili trzy możliwe warianty rozwoju sytuacji ekonomicznej Polski, różniące się założeniami dotyczącymi m. in. sytuacji w handlu zagranicznym, polityki płac, struktury nakładów inwestycyjnych, warunków rozwoju produkcji rolnej. Na podstawie analizy wykorzystywanych przy sporządzaniu prognoz "constant adjustment" podjęta została także próba określenia dodatkowych warunków, których spełnienie jest konieczne dla realizacji każdego z wariantów.