JPRS 83488

18 May 1983

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2400

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CONTENTS

'NEPSZABADSAG' INTERVIEWS BOGOMOLOV ON CEMA ECONOMY

AU221414 Budapest NEPSZABADSAG in Hungarian 16 Apr 83 p 9

[Istvan Gabor Benedek and Tibor Kis interview with Oleg Timofeyevich Bogomolov, director of the Economics of the World Socialist System Institute of the Soviet Academy of Sciences--in Budapest, date not given: "Interview With Academician Oleg Bogomolov on the Development of Socialist Integration"]

[Text] Academician Oleg Bogomolov, director of the Economics of the World Socialist System Institute of the Soviet Academy of Sciences, participated this spring in the theoretical conference in Budapest at which representatives of Hungarian and Soviet scientific life discussed how specialization and joint ventures in agricultural production come into play between the two countries and how modern forms of cooperation can be expanded within the framework of CEMA. The Karl Marx University of the Economic Sciences has bestowed an honorary doctorate on Professor Bogomolov. On that occasion, Istvan Gabor Benedek and Tibor Kis asked the scientist of international repute about his opinion about the economic position of the socialist countries and their role and cooperation in the world economy of eighties.

[Bogomolov] Despite all their problems with production and the disposal of products, the CEMA socialist countries have considerable potential for development. Although only 10 percent of the world's population lives in our regions, we produce here 30 percent of the world output of many vitally important products, such as, for instance, oil, natural gas, coal, steel and cement. The socialist countries participate in large-scale successful joint programs of which there are not many in international practice. Regarding their impact and significance, the joint construction and integration of natural gas and oil pipelines and electricity grids, the development of a system of nuclear power plants and the creation of various combines go far beyond the CEMA countries' boundaries. Even if it has slowed down to some extent, the rate of our development is indicative of further progressive possibilities. Between 1972 and 1982, the gross national income of the CEMA countries has increased 1.7-fold and that of the common market countries 1.3-fold. Of course, many other factors also must be taken into account when one analyzes these figures and ratios and makes realistic comparisons. However, our resources are certain to guarantee our progress in the long term.

Obviously, one encounters contradictions as well. For instance, the dynamism of the socialist countries' industrial and agricultural output still considerably exceeds the rate of increase of our share in world trade. This, on the one hand, is indicative of an additional development potential--which depends, among other things, on the quality and modernity of our products--and, on the other hand--and this is not a bit heartening--it illuminates the open discrimination of the most advanced capitalist countries, as well as their protectionist treatment appearing in covert and diverse forms.

Common Interests

[Question] As you know, the main problem of the Hungarian economy is how to respond to the challenges of the world market, that is, how it can overcome with the least jolt the impact of the protracted capitalist economic crisis, which is affecting us as well. Other socialist countries have similar problems. Under these circumstances, what resources can the socialist partner countries mobilize to develop their economies?

[Answer] The crisis of the capitalist world is much more profound than we had surmised it to be from the first indications, because its cyclical crisis has been immensely strengthened by a structural crisis coincidental with it. The uncertainty of demand has restrained production, the drop in investments has shaken the financial-foreign currency system and the number of unemployed people has broken all records, and this, accompanied by inflation, has closed the circle: it has made demand further decline. There is no question that, under these circumstances, the socialist countries, both individually and collectively, must revise their foreign economic strategy. And if it is now reported that there is a certain animation in the Western world, that, for instance, the disposition to invest is growing and the production of durable consumer goods is increasing in the United States and that this may affect other sectors and even other Western countries, we should still realize that this motion does not affect the roots of the crisis. There is no harmony between some elements of the capitalist economy, and these disproportions remain.

We often hear that the problems that prevent us from accelerating the rate of our development within our borders have little in common with the present problems of modern capitalism--the stagnation of production, inflation and increasing unemployment. Admittedly, irrespective of the capitalist crisis, we should have modernized production methods, perfected the methods of macromanagement and coordinated sector development more effectively. I would say that our shortcomings have become more obvious as a result of the Western crisis and that we cannot delay an appropriate response.

The development of socialist economic integration is a fundamental interest of all member countries, because the advantages of cooperation are just as obvious as the disadvantages of the omission of concerted action are tangible. Let us consider only the fact that, while the common market satisfies 40-50 percent of its energy requirements outside of the community, the CEMA countries can cover 90-95 percent of their requirements from within their borders. Similarly significant is the council's role in the member countries' raw material supplies and in its creation of favorable conditions for the disposal and acquisition of finished products. For instance, the European socialist countries sell 30-40 percent of the machines they produce on the CEMA market.

If we realize this and experience the advantages day after day, it is obvious that we must reappraise both the opportunities inherent in our cooperation and the intensity of our cooperation from the viewpoint that the deterioration of the terms of trade in several countries as a result of the energy crisis, the increase in interest rates and the situation that has developed with regard to credits on the whole call for a new attitude form all of us.

An Important Realization

[Question] What solutions would have been possible? To be sure, essentially--and, admittedly, there are historical reasons for this--the partner countries with an average industrial development have traveled the same path of development, there are many parallel elements in their production and really outstanding technical products are increasing only slowly in what they can offer.

[Answer] Even so, the Western embargo policy places barriers in the way of highly efficient technology. In addition, the technology that is delivered is not the latest and, on top of it, the voracity of such imports for replacement components and units is conspicuously great, which then--beyond the credit burdens--places a great strain on the CEMA countries' balance of payments. Perhaps it is true that things would have developed differently if the boom had continued. However, it has not continued, indeed, the investments made from convertible loans did not always produce the expected quick results and the adaptation of the purchased technology was slow at times.

It should also be realized, on the other hand, that we, to, have had and have some significant technical successes. Our partners are using energetics equipment and metallurgical processes elaborated in the Soviet Union eminently effectively. Hungary has achieved splendid results, among other things, in seed refinement and the production of plant protection agents. We are enjoying the benefits of them throughout the CEMA. In a like manner, other countries have also made progress, but we can by no means be satisfied with the pace of innovation. Time urges a change and making changes.

[Question] Are you not concerned that the continuation of the crisis of the capitalist world economy would strengthen communal autarkic endeavors within CEMA?

[Answer] Even so far, the CEMA countries have participated, to varying degrees, in trade with the West, so that they were affected differently by the effects of the crisis. Apart from the fact that there are many common features in the socialist countries' reaction, neither the similarities, nor the peculiarities of the responses to the challenge reveal any introversion. On the contrary, the partner countries regard the development of cooperation with the advanced capitalist countries as being in their fundamental interest and disapprove of endeavors aimed at weakening East-West relations. Also the cause of peace and security calls for an expansion of trade and, in the last analysis, this is an interest of mankind as a whole. It goes without saying, however, that these relations can be based only on equality and mutual advantage, without discrimination. Nevertheless, one should not disregard the good experience, either, that only while relying on the results of socialist integration and enjoying the protection of the community can a genuine and realistic benefit be expected from these contacts.

That is why I am pleased that the socialist countries continuously correct their action programs. This promises to be an effective method of parrying further negative consequences of the crisis. A new aspect of an example that has already been mentioned is the fact that in the CEMA countries' trade with capitalist countries, the ratio of spare-part-and component-intensive equipment is diminishing and the purchase of complete technologies and mainly licenses and productive processes is increasing. It has also been proven that improving the quality of commodities and services guarantees success in every market and, therefore, it pays to make temporary sacrifices, abandoning the application of outdated technology. Of course, this program, too, is inconceivable without an expansion of joint ventures within CEMA, because only this system of relations can be the basis for a structural transformation.

Strategic Objectives

[Question] You have noted that there are certain differing characteristics of the socialist countries' development. Still, what is the common hallmark that indicates that the prevalence of integrative interests have reached a new phase?

[Answer] By the beginning of the eighties, not only had East-West economic relations changed, but processes within the socialist countries as well. It is not difficult to find a common motivation, because numerous signs indicate that a change is indeed taking place. The extensive period has ended once and for all. Although it had brought enormous results and radically changed the countenance of the socialist countries, functional troubles would soon illuminate our error if we wanted to continue the old methods. However, the transformation, the definition of new, intensive development plans, requires great circumspection.

Because of the fact that the inner conditions of individual member countries are not identical and differ with respect to the depth of the economic reforms that have been introduced, as well as with respect to the dimension of relations put into effect with each other, I think that, of subsequent tasks, I must mention first the development of a common long-term economic strategy and the adaptation of inner structures to each other. The sides concerned possess a suitable material and intellectual capacity for a correct selection of objectives and a fulfillment of coordinated plans.

However, we must explore new resources consistent with the requirements of the intensive phase and handle the existing ones much more thriftily. It is no use for us to produce more electricity and energy than our competitors if we use them wastefully. Economy is decisive also from another viewpoint. The production of the raw materials at our disposal has become more difficult and costly. We make a great mistake if we fail rationally to compensate for the losses that arise through it.

New resources are also being released through the modernization of the mechanisms of the operation of our economies and the enhancement of the role of economic regulators. The latest congresses of the CEMA countries' communist and workers parties dealt extensively with this sphere of questions, stressing that intensive-type development calls for an appropriate macromanagement and incentive system and a correct selection of priorities, that is, a more responsible apportioning of investment resources among sectors than ever before. This presupposes improving adherence to the plan and an intensifying the independence of individual

economic units simultaneously. The transformation of the structures of the people's economies must, of course, be accompanied by a division of labor put into effect within CEMA. This was broached also by Comrade Yuriy Andropov at the November CPSU plenum and he pointed it out in his essay "the teaching of Karl Marx and a few aspects of socialist construction in the Soviet Union," which was published in KOMMUNIST, as well.

A correct determination of strategic objectives calls for more exacting plans based on new principles. There is a good example for this in the Soviet Union, where the infrastructure development plan is an expressly strategic goal, because modernization of the highway and railroad system, river and air transportation and telecommunications requires complex planning from the building materials industry, the machine and communications technology industry and the producers of transportation means alike. If this strategic goal were built on slipshod partial programs that fitted poorly together with one another, our general development would be the loser. And, as we have seen, strategic objectives are inseparable from international implications.

The Hungarian structural policy, which, regarding its general guideline, no longer promotes the development of material and energy-intensive industrial sectors, but places the main emphasis on sectors that require high-degree intellectual work, is so consistent with the interests of CEMA partners that they could contribute to the success of these programs both as suppliers and outlets. Similar illustrative examples could be cited from other socialist countries as well, for they all intend to develop their economic potentials. And the last decades have shown what each CEMA country "can do" best. In elaborating a long-term strategy, also this must be taken into consideration. Efforts pay more rapid dividends if they truly correspond to national traditions.

More Joint Enterprises

[Question] You link transition to intensive economic development to the need for a reform of the mechanisms of operation. What possibilities are there, in your opinion, for expanding integrative cooperation in this connection?

[Answer] Every sign indicates that--learning from each other's experiences as well, not easily and not without conflicts--we will succeed in finding a new dialectic harmony between centralized state planning, medium-level direction and enterprise independence. So much is already clear that the previous recipe, the formula characteristic of the extensive period--finished products for raw materials--will hardly dynamize production now. I am not saying that it is no longer possible to increase turnover in this way, but it will definitely lose its determining role.

Thus, as far as the future is concerned, the modern concept of the international division of labor will assert itself with increasing weight. Accordingly, planning and financial and economic stimulation, among so many other things, will have to expressly urge the integrative cooperation of enterprises. Of course, it should not be forgoteen, either, that only thus can we adapt ourselves rapidly and flexibly to world economic changes, while taking cognizance of the requirements of the technical-scientific revolution.

Let us admit that we have as yet few experiences with regard to new methods, and that is why I regard as important increasing the number of joint enterprises on the basis of modern operational principles. I am convinced that the example of their activity would have a stimulating impact on other spheres as well. On the basis of joint agreement, one should tackle as soon as possible, for instance, small agricultural machines that could be used advantageously at household and ancillary farms. I see a great future also in the cooperative production of various building industry machines and in paving the way for the joint development of closed agricultural production systems. Hungary leads the way in corn production and poultry and hog breeding, while the Soviet Union has acquired great experience in the production of sunflowers and sugar beet. I would define the coordination and joint further development and expansion of results as one of the main aspects of strategic planning.

Everything points to the fact that the integration of the socialist countries imparts increasing scope for the economies of individual member countries and leads their inner development to new dimensions. The question is one of mutual interdependence, an all-embracing interrelationship of complex systems of planning, macromanagement and implementation, but, at the same time, also of a resource that is capable of revitalizing, in all circumstances, the productive capacity of us all.

[Interviewers] Thank[s] for the discussion.

CSO: 2500/236

HEAT-ELECTRIC ENERGY INTEGRATION DISCUSSED

Prague HOSPODARSKE NOVINY in Czech 25 Mar 83 pp 8-9

[Article by Eng Miroslav Kubin, Csc, general manager, Czech Power Plants: "The Still Uncontemplated Potential: Integration of a System of Electrification and Thermification--Source of New Economic Effects"]

[Text] Readers of HOSPODARSKE NOVINY were familiarized by the author of the article (No 49/1979, 6/1982, 29/1982) with the basic problems attendant to supplying the national economy and the populace with heat. This final contribution clarifies the linkage between the systems for distribution of electricity and heat, in which thermal engineering represents a pioneering component with impact on the thermofication as well as the electrification system. Attention is focused primarily on a new factor--the potentially improved utilization of heating plants for covering the variable component of load on electrification systems that is being worked out at the present time in the USSR. It represents for them a potential source of acquisition of the missing semipeak output in a more economical way than, e.g., through construction of special power plants burning fuels of a type which are in shortage. For these reasons, it is imperative that the CSSR also reassess some of the existing views pertaining to these problems.

The existing concept of centralized heat supply using combined generation of electricity and heat is tied primarily to achieving the following advantages:

--reduced consumption and utilization of low-grade fuels;

--possibility of formation of regional thermofication systems as the prerequisite for future use of nuclear sources of heat;

--potential use of existing condensing power plants (after conversion to thermal plants for heat distribution;

--reduced demand on construction capacities, manpower, imports and replacement of old boiler facilities, etc.

Ecological and Economic Aspects

One of the indisputable advantages offered by centralized heat distribution is its positive effect on maintenance and/or improvement of the environment:

--reduced emission of solid pollutants as the result of using high efficient separators;

--reduced pollution (fallout of flue ashes and concentration of gaseous pollutants, particularly SO_2 and NO_x in ground layers of the atmosphere) either by locating the heat source outside of conurbations or by construction of tall smokestacks;

--secondary reduction of pollutants by reduced transportation and storage of low-grade fuels, removal of ashes, etc.;

--potential use of complete or partial desulfurization of combustion products;

--potential use of fluid combustion, both in new facilities and, primarily, in converted power and heating plants. This solution provides for efficient desulfurization directly in the combustion process.

Analysis of the results of long-term measurements and conputations indicates the unequivocally high positive effects of elimination of low-emission sources and incorporation of subscribers into regional systems for heat distribution on improving the environment. However, an exact specification of the effects (particularly economic effects) in comparing the variant using centralized heat distribution with the variant of the decentralized type is very difficult. At the present time, ecological factors can be taken into consideration in optimization calculations in the form of limiting conditions (e.g., maximum limits that must not be exceeded) delineating the number of admissible solutions, or they can be expressed indirectly by means of the difference in the cost of the variants which mutually differ in their effects on the environment. The latter case involves the so-called shadow projection of the extra-economic factor whose effects must be assessed in the decisionmaking process itself.

Computations of economic effectiveness conducted in accordance with FMTIR [Federal Ministry for Technical and Investment Development] Guideline No 17/81 use from among the mentioned advantages only factors that can be economically quantified. Some appear in qualitative analysis--or in formulation of a decisionmaking table--comparing the individual variants as neutral (e.g., encroachment on agricultural land resources). Some factors do not lend themselves for the time being to direct economic projection, even though all of them would tend to favor centralized over decentralized systems.

The concept of isolated generation of electricity and heat survives at the present to the point where it obstructs efficient formation of regional systems for future distribution of heat from nuclear power plants. Even in cases where there is an adequate heat load for a region in MW_t/km^2 [thermal

megawatts per square kilometer] (i.e., in industrial centers and conurbations) and combined generaiton of electricity and heat is clearly of advantage, there is still encountered implementation of calls for gasification and construction of decentralized sources of heat burning residue from refining of crude oil. Assessments in the form of calculations of economic efficiency are not sufficiently instrumental in overcoming the mentioned problems. While the methodology valid in the past 5-year plan has lost its validity in point of fact, it has been impossible to this day to work out normative calculation methods that would comprehensively (factually and economically) take into consideration and evaluate all the factors given by the new function of heating plants in the electrification system (particularly the potential for their increased participation in providing coverage for the variable part of the electric load impedance diagram elaborated upon in the subsequent paragraphs).

An unresolved problem is also constituted by determination of the real level of electric power and energy from condensing thermal power plants lost, as a rule, partially through their conversion into thermal operation. Little recognition is given to the fact that conversion of a condensing power plant into a heating plant considerably prolongs its service life, provides an adequate electricity output, leads to improved efficiency of generation of electric power and a continued use of the structural part of operational facilities with a long real and potential useful life expectancy (two to three times longer in the case of machinery equipment, e.g., the plant's railroad siding, water management, auxiliary operations, etc.) and also utilization of the experience of existing operational personnel.

For these reasons it is necessary to reassess past approaches and comprehensively assess efficiency by taking into consideration the following factors:

--heat distribution must be assessed from the viewpoint of all three types of planning (sectorial plan which provides for development of the fuel and energy complex, which includes also the area of heat and electricity distribution (N_1); the regional plan which provides for transformation of this national economy plan into a spatial dimension (N_2); and the territorial plan designed to protect the ecological system soil-water-air (N_3). Only a solution which provides for achieving a minimum of transferred costs can be effective.

$$(N_1 + N_2 + N_3) = \text{minimum}$$

--heat distribution is a component part of the development of the entire fuel and energy complex and its effectiveness cannot be judged in isolation, i.e., without its relation to the effectiveness of generation of electric energy. As long as the components N_2 and N_3 can be kept at an equivalent level, then for the sum of costs for heat distribution (N_{TS}) and the costs for power distribution (N_{ES}) it is necessary to meet the condition

$$N_1 = N_{TS} + N_{ES} = \text{minimum}$$

Costs for the thermofication system N_{TS} are in essence an updated sum of costs for construction of a heating plant (N_{TS1}), costs for supplementary heating resources (N_{TS2}) and costs for construction of thermal distribution networks and their operation (N_{TS3}).

$$N_{TS} = N_{TS1} + N_{TS2} + N_{TS3}$$

In the costs for an electrification system N_{ES}, as will be shown in closer detail later, consideration must be given to the advantages offered by a lower demand on the control output of special power plants that would have to be built if the interlinkage between the thermofication and electrification system were not used for the advantage it offers. In optimization of N_1 consideration must further be given to:

--the factor of complexity of changes characterizing the losses occurring throughout the chain of energy transformation (mining, transportation of fuel, conversion and consumption of energy); these losses must be minimized;

--the factor of complexity of energy utilization which, contrary to the preceding aspect, evaluates utilization of the performance capacity of primary sources from the viewpoint of their potential use in performance of labor and minimizes the volume of unusable heat, eventually maximizing the degree of utilization of waste heat for space heating (involving maximum use of the effectiveness of energy);

--the factor of utilization of recoverable sources which can be constituted by, e.g., the ratio of recoverable sources to overall sources.

In the system of criteria for evaluation must be created prerequisites for expressing:

--continuity in the dynamics of development of power management which can be characterized by the degree (or percentage) of preliminary or subsequent investments into future development. If, e.g., we start out with the assumption that 25 percent of heat in the future will be provided from nuclear sources, then there is a need for creating the requisite conditions (a process lasting through several 5-year plans), i.e., establish regional thermofication systems in such a manner as to make the entire program technically feasible for implementation (which also makes it seemingly more demanding on investments);

--The share of centralized distribution in the overall distribution of heat and changes in the quality of domestic fuels and the resulting need for conversion of existing systems in power engineering as well as in other sectors and the effect of these factors on formation of additional systems.

Additional partial factors affecting the technical solution of a variant and the costs of N_{TS} in the compared variants (e.g., selection of site) are known, their consideration in effectiveness calculations has been worked out and, thus, there is no need for discussing them in closer detail.

Any comparison of variants can serve a useful purpose only if those variants provide an equal level of innovation and are related to a common point in time. A failure to do this produces results that are always antithetical to viable future solutions.

Changes in the Structure of Sources

One of the key problems in electric power engineering is coverage* of the variable component of the daily diagram of electric load. As shown by prognoses compiled in the framework of CEMA, no reductions can be expected in the coming years in the imbalance in power consumption. On the contrary, as the result of structural changes there will be an even higher need for control output in comparison to the status quo (roughly 22 percent, and in summertime, up to 26 percent).

Coverage of Peak Loads in the Electrification System

The basic electric load is covered by condensing, nuclear, hydroelectric power plants and, in part, by heating plants in which generation of electric power is essentially necessitated by heat distribution for specific purposes. Peak load is covered from special sources, such as, pumped-storage hydroelectric power plants, base-load hydroelectric power plants (in the CSSR primarily the Vltava and Vah cascade systems) and gas turbo-sets with the proviso that these sources are operated for only several hours a day.

Coverage of Semipeak Loads in the Electrification System

For coverage of semipeak loads we have essentially at our disposal no other sources than basic thermal power plants, which creates the necessity for making wide use of basic power-generation equipment in an operational mode that is alien to them and for which they, for the most part, were not designed (rapid changes in load and frequent shutdowns for reserve cause problems with fatigue of materials, increased accident rate, etc). As long as the blocks of condensing power plants are not designed for operating in the mode of daily shutdown into reserve, their control output corresponds merely to the difference between the maximum and minimum output; this is the output range in which blocks are used for coverage of loads. The output of our blocks can technically be reduced only to a level corresponding approximately to 70 percent of their rated output, or at the expense of stabilization of coal-burning boilers with supplemental combustion of residue from refining of crude oil (by means of

*Load coverage in electric power engineering is an activity resulting in specifying the share of individual sources in providing a balance between consumption and sources of electric output in the course of the entire period under examination. The control range of sources must be higher or at least equal to the difference between maximum and minimum load occurring in the course of a day; the control coefficient specifies the relation of the control range of sources to the load at its maximum point (subject to changes in the course of a year). Some CEMA countries envision a need in excess of 30 percent.

startup and stabilizing burners) down to a level of approximately 60 percent which is a value corresponding to the technical minimum.

Coverage of Minimum Loads in the Electrification System

At nighttime and on public holidays, the load on the electrification system is decreased to the point that large power blocks must be unloaded to provide relief. Because (as mentioned in the previous point) the control range load of these blocks is inadequate, some of them must be shut down into reserve. Shutdowns can be implemented on public holidays, but technically and economically they cannot be effectively implemented in the course of 24 hours, i.e., on workdays. The mentioned problem will become significantly aggravated by an increased share of blocks of nuclear power plants, the unloading of which does not provide a suitable solution either technically (low control adaptability) or, particularly, economically (economy of nuclear fuel burnout); for that reason they are used for coverage of the basic load. In this context, comes to the fore the problem of construction of new, or adaptation of existing sources to the operational mode which will provide the requisite extent of control output.

Coverage of Sudden Emergency Outages of Sources and Overload in the Electrification System

In these unplanned extraordinary cases, there is a need for immediate acquisition (during overload and dropping frequency) of additional electric output. That can be provided only by unplanned utilization of uneconomical peak sources, output boost from a connected electrification system, use of reserve facilities, etc. After all possibilities have been exhausted the only thing that can be done is to take recourse to regulatory measures affecting consumption, by means of which decreases in the consumption of electric power have been achieved through known methods used now as before (areal outages in the past, announcing of control steps at the present time).

Coverage of Electricity Output During Major Overhaul of Large Blocks

As the load on thermofication systems decreases faster in summer than that on electricity, a part of the difference in outputs (in heat sources) can be used for covering electric output. Construction of peak sources and conversion of existing blocks of condensing power plants for acquisition of additional control output is costly (and with deteriorating quality of the burned coal technically difficult to accomplish). An idea was proposed as to whether it might not be more effective to use for these purposes the existing heat sources or power plants which are currently undergoing conversion into the heat-generation mode. This involves sources that still for the major part are thought of as producing an insignificant control output. First considerations regarding wider utilization of heating plants for acquiring additional control output cropped up several years ago in the USSR. New possibilities are also being opened up in our country in connection with construction of large thermofication systems. In the Czech Power Engineering Plants Concern, we have also dealt with this problem and already from basic technical and economic considerations it is obvious that at the present time it is imperative to implement

measures that would affect technical contract specifications for the construction of new heating plants, particularly for conversion of 50, 100 and 200 MW blocks, because this new factor has not received any consideration as yet.

Principles of Using Interface

Mutual interlinkage between thermofication and electrification systems (see graph) offer an addition to the already mentioned advantages also the potential for achieving (through changing the degree of interface between the two systems):

Graph

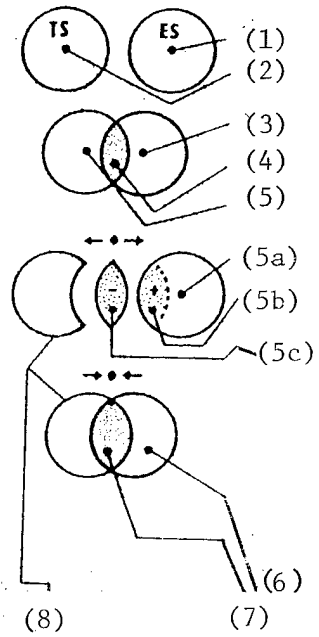
The Principle of Changes in Interface Between a Thermofication (TS) and an Electrification (ES) System

1. Isolated systems for heat and power distribution

2. Optimum interlinkage of TS and ES through combined heat and power generation

3. Combined production limited to periods demanding addit, output in ES--morning and evening power peaks (TS is discharging)

4. Increased combined generation. Increased heat consumption, TS charging, lower power generation (beyond power peak/night)



Key:

1. Power generation by condensing only
2. Only conventional heat generation
3. Power generation by condensing
4. Combined heat and power generation
5. Conventional heat generation
   a. Power generation by condensing
   b. Additional power generation after heat distribution cutoff from turbo-set
   c. Deficit heat generation, loss covered by:

--Heat accumulation in the system (heat ducts, etc.) system is being discharged

--Additional source of heat

--Chronol. Shift of heat and power peaks in source (through heat transportation lag)
6. Reduced power generation by condensing
7. Increased heat generation for charging the system
8. Both operations represent an increase in control output

--supplementary power output, both planned and unplanned (during multiple breakdown of large blocks, increased load or overload on electrification system, during major overhaul of large blocks, etc.);

--use of heating plant to provide coverage for the variable component of the power load diagram (particularly in the semipeak region);

--relieving output of sources during minimum power load, i.e., at night (the so-called minimum load span).

Combined generation of heat and power is optimized in the thermofication system. The heat generation coefficient delineates the share of heat produced in the combined cycle by steam processed by the turbo-set and the total generated heat (to include hot water, steam distributed directly from boilers and/or through reduction). If we make a change in this ratio (which is technically feasible by changing the distribution of heat from the turbo-set), we obtain additional power output (at decreased heat distribution), or, conversely, we decrease power output (at increased distribution of heat); and all this can be done with an equivalent amount of heat (steam) fed into the turbo-set; thus, there is no need for limiting the output of boilers, which can be done effectively only to 70 percent of the rated output anyway.

Change in the power output of thermal turbo-sets can technically be accomplished by one of the below-specified methods:

--change in output at the condensing part of the turbine (at less than full load on heat distribution from turbines--the mode of natural increase or relief in output);

--change in heat distribution from the turbine with a simultaneous change in feeding of steam into the condensing part of the turbo-set (technical description of the types of interlinkage between power output and heat distribution and their specific consumption exceeds the scope of this article);

--uncoupling the high-pressure feedwater heaters and using the thus released thermal output for increasing the power output by roughly 6 to 10 percent (this method can be used only by meeting certain technical prerequisites).

The first two methods produce a change in the distribution of thermal output; the deviation from the required amount of distribution, i.e., the missing thermal output, must be compensated for by other sources of heat, namely by:

--improved utilization of the thermal output of these boilers which, particularly during the summer periods, are not subjected to full load (or are kept in reserve);

--using heat accumulation, e.g., by using the heat accumulation capacity of buildings and thermal networks with the proviso that heat distribution will occur at times other than during peak power load. The current structural designs used in construction of residential housing projects allow for an approximately 2-hour interruption of heat supply at an average outdoor temperature of 3°C. It is also possible to install special heat accumulators, specifically by adding heat reservoirs to thermal networks (e.g., in the USSR) or steam accumulators (e.g., in the GDR). However, of decisive importance for potential heat accumulation is formation of regional thermofication systems with thermal output on the order of 300-1,000 MW with high accumulation properties.

An important role is played herein by the thermal feeder from the basic source. The technical aspects of heat transfer, e.g., through hot water pipelines of 1,200 mm diameter, have already been solved. For economic considerations the distance for heat transfer was limited to approximately 20 to 40 km, depending on the thermal output being transferred, its utilization, etc. However, consideration must be given to the fact that the feeder simultaneously performs the function of a heat accumulator, which is cheaper than one in the form of a vessel-type container, or a generator-type heat source. Once the system in which the heating plant (converted power plant) also delivers control output has been computed, dimensioning of feeders merely from the aspect of heat transfer poses no problem. What counts is computation of heat accumulation, which can eventually lead to making a change in pipeline diameter. This simultaneiously does away with the current problem of lower economy of operation during startup of the heat feeder (in the first years of operation) when the thermal load is lower. This is of special significance to utilization of nuclear power plants in thermofication systems, where the distance from the center of consumption is relatively longer and the demand on consumption of materials (metal for pipelines) is high;

--use of transportation lag which occurs during heat transfer from the source to the consumer (depending on the distance involved, the time lag ranges from 0.5 to 6 hours). Under the assumption (which is invariably met in all of our thermofication systems) that the peak of heat and power consumption almost overlaps in time, at the source there occurs a chronological shift in the thermal and electric peak load as the consequence of the lag in heat transportation. This phenomenon can be used for increasing the power output of the thermal plant during peak demand on power and decreasing it at nighttime, i.e., to increase the control power output of the thermal plant. Another possibility is increasing the temperature of water at the input into the network in evening hours and, thus, also of the return water flow during periods of minimal power load. For example, computation of the system Melnik - Prague (conduit diameter 1,200 mm, length 33 km), or the system nuclear power plant Temelin - Ceske Budejovice (diameter 700 mm, length 25 km) shows that the accumulation property of the pipeline and the transportation lag will be fully adequate for making it possible to use these sources for acquisition of control output.

Paths to a Higher Output

Until recently it was assumed that control output would be obtained through special sources (hydroelectric pumped-storage power plants with a control factor of 1.8-2.1, gas turbo-sets with a control factor of 0.8-0.9) and continued use of existing condensing power plants with a control factor of 0.2-0.3. This approach is very costly and demanding on high-grade fuels; for that reason, detailed analyses oriented toward verifying the possibility of using for these purposes at least a part of thermal plants' output are now being conducted. The problem can be divided into:

--Contemporary Heating Plants and Newly Constructed Heating Plants:

Layout of thermal plants in the past was optimized in linkage to the progress of annual duration of heat consumption and the configuration of the daily diagram of heat consumption. Combination of back-pressure turbines and bleeder turbines was designed to facilitate use of back-pressure turbines in the basic part of the load diagram, since from the viewpoint of reducing specific consumption, this solution appeared to be most economical. The layout of bleeder turbines and the extent of condensation (from suppressed to full) depended on the configuration of the daily diagram of heat consumption and on local conditions. The objective was to suppress the condensing-type generation in heating plants, because it leads to higher specific consumption than in the blocks of modern, large condensing power plants. This technical solution made it possible to use heating plants for generation of "cheap" electric power "imposed" by heat consumption in the basic load range and, in part, also for providing coverage for semipeak loads. Last year a compilation of the control characteristics of CSSR heating plants (which were unknown up to that time) was undertaken. The theoretical control output of the so-called replacement turbo-set amounts to approximately 900 MW under the assumption that the missing thermal load will be covered by one of the above specified methods. Of that, some 300 MW are today already used in the so-called "operational variants" of individual thermal plants. The main criterion here is specific consumtion of fuel per kilowatt-hour, not the output aspect. Full utilization of this output (aside from the mentioned replacement source of heat) calls in many cases for full, or auxiliary, condensation where it is technically feasible. Nevertheless the fact remains that during approval proceedings of the concept of new thermal plants (e.g., heating plant Plzen II), auxiliary condensation was deleted from the installation layout as late as 1980, even though we provided documentation attesting to the economic nature of the solution. It also points out the current lack of clear orientation in technical and economic thinking and unresolved problems in the methodology for computation of economic effectiveness.

--Power Plants Converted To Heating Plant Mode of Operation:

In the CSSR, conversion of existing power plants (Melnik, Porici, Optovice, Hodonin, Tisova, Novaky) started with 50-55 MW condensing turbines into bleeder types in compliance with the task of the Presidium of CSSR Government No 147/1981. However, the overall concept still envisions a permanent decrease in power output by roughly 750 MW (i.e., not counting on using these

heating plants as a semipeak load source). The concept will have to be reviewed once more and modified with the objective of maintaining the maximum power output.

--Nuclear Power Plants With Heat Distribution:

Purely condensing nuclear power plants have a low control capacity, but nuclear power plants with heat distribution can be used for control purposes, because by incorporation of heat distribution the power output of the block can be considerably reduced. However, there is no significance change in the reactor output and nuclear power plants with heat distribution then essentially operate under any partial power load more economically than purely condensing nuclear power plants. As in conversion of conventional power plants into heating plant-type of operation, use must be made of heat accumulation. These problems have technically been worked out in detail, but development of thermofication systems in connection with nuclear power plants is very slow. With increasing nuclear power output, the requirement on electric control output also increases and, for that reason, even in this case, the concept of isolated generation of electric power in nuclear power plants and heat distribution from nuclear-powered heating plants is generally not an optimal solution (it can offer advantage only in the case of small thermal systems).

Advantages Offered by Use of Heating Plants

Economic problems relevant to computation of economic effectiveness of acquisition of control output have not been worked out in the CSSR. Nevertheless, it is possible to use as a basis some of the computation carried out in the USSR and adopt the methodology used in them to conditions which apply in the CSSR, as their basis is formed by assessment of economic effectiveness according to the criterion of annual transferred costs. The problems dealt with in the USSR are concentrated primarily into the area of acquisition of an adequate control output which, with an increase in the share of nuclear power plants in the sources of the electrification system, will facilitate the economically most favorable span of its minimum load.

Thus, technical and economic computations were oriented toward assessment of the basic variant for acquisition of control output from heating plants and its comparison with the following variants:

--unloading nuclear power plants to a minimum (which is difficult to accomplish with blocks of the VVER series);

--construction of semipeak condensing power plants burning coal and gas;

--construction of hydroelectric pumped-storage power plants in which their consumption for repumping would be covered by power supply from heating plants that are incapable of reducing output during minimum load.

In all cases (even though at the expense of a partial loss in combined generation) it was possible to show the advantage offered by use of heating plants for control output acquisition.

A comprehensive verification of the possibility for increased participation of heating plants and/or thermofication systems in providing coverage for semipeak load of the CSSR electrification system was launched last year. The objective is not only to mobilize for these purposes all hidden resources and variably delineate the conditions for their increased utilization, but primarily to create the prerequisites for participation of power plants converted to heating plants (or of new heating plants) in covering the variable component of the daily power load diagram. Changes in operational mode will, of course, call for considerably higher demands on management, particularly components engaged in preparation and actual operational control of both systems. Systematic implementation of a systemic approach thus leads to reassessment of the concept of "traditional" limits not only between individual elements, but also within systems (from the viewpoint of their single-purpose function, spatial layout, organizational arrangement, etc.).

Responsible determination of the share of individual types of sources in acquisition of control output, on the one hand, and measures to be implemented by consumers toward balancing the consumption of electric power, on the other hand, calls for:

--implementing measures for increased utilization of heating plants and power plants converted to a heating plant mode of operation in such a manner as to compensate for reduced control output of condensing power plants, particularly after 1990, due to their considerably reduced utilization and other technical reasons;

--optimizing the structure of control output sources on the basis of assessment of consumption of primary sources (involving particularly optimum use of heat accumulation and positional accumulation in the case of hydroelectric pumped-storage power plants) and determining the economic effectiveness (of transferred costs), because there is a great variance in investment costs and the differing price of electric power also plays a considerable role in individual modes of operation;

--assessing the effects of increments in the number of accumulated power consumers and their control by means of mass remote-control with centralized automation to achieve balanced consumption. Programmed control of such consumers can gradually bring about significant balancing, a fact borne out by results achieved abroad (e.g., the GDR), as well as by our own experience from the East Bohemian region, where with a relatively limited set of small-scale consumers (approximately 30,000 subscriber locations--predominantly the populace) it became possible to reduce the requisite control coefficient in this region by approximately 8 percent. Mass remote control serves primarily for balancing the diagram in periods other than peak loads, with lesser effects on its absolute level, whereby the control capability is considerably reduced during summer. However, by a combination of methods and use of interface as proposed, it is possible to achieve targeted influencing of the daily load diagram in such a manner as to minimize the need for control output throughout the year.

It ought to be pointed out in this context that the dynamic function of hydroelectric pumped-storage power plants cannot be replaced in their suitability for handling certain operational modes and emergency situations.

To put it briefly--flexible use of interface between the electrification and thermofication system by means of combined generation of electricity and heat in conjunction with other methods opens up new possibilities and represents a potential source of effects that have never before received due consideration.

Development of the Control Output of Heating Plants of the Concern Czech Power Plants

1980

Thirty-eight back-pressure and 13 bleeder turbo-generators with an output of 436 + 262 = 698 Mw, with condensing output of approximately 115 MW.

1990

After conversion of the 50 MW set, the output of back-pressure units will be 690 MW and that of bleeder units 650 MW for a total of 1,340 MW with a condensing (control) output of approximately 500 MW.

8204
CSO: 2400/223

ELECTRONIC INDUSTRY PROGRESS SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech 1 Apr 83 p 2

[Article by Jindrich Masa, CPCZ Central Committee employee: "The Electrotechnical Industry"]

[Text] In the electrotechnical industrial sector, 1982 meant the assurance of planned growth targets in accordance with the tasks of the 5-year plan, limitation on inputs, and the needs of the national economy. We were successful in speeding up certain innovative products for export and for consumer electronics. Material incentives were provided for those employees who played the largest role in this. It has been shown that this is one of the ways for accelerating the introduction of new products. It must also be evaluated positively that in 1982 delivery targets were met for state target programs in electronics, high-voltage distribution boards, and technical equipment for automated control systems for technical procedures.

Adjusted value added was the basic indicator for evaluating this growth. We were successful here in exceeding not only state plan targets, but also the counterplan targets of VHJ [economic production units]. Out of seven VHJ, only the High-Voltage Electrical Engineering Plants did not fulfill the plan (they fulfilled only 98.7 percent of the plan because they exceeded materials costs guidelines and failed to fulfill profit targets). The other VHJ overfulfilled the plan by amounts ranging from 0.6 to 4.6 percent.

The electrotechnical industrial sector substantially exceeded its targets in the utilization of production, with the exception of deliveries for export to nonsocialist states.

Investment deliveries were exceeded by the largest amount (126.8 percent), with the best performance being that of the Prague Automation and Computer Technology Plants VHJ, which exceeded its targets by Kcs 945 million. These excess deliveries for investment represent firm orders. Nothing was produced for warehousing only.

The sector fulfilled delivery targets for the domestic market, in retail prices, by 107 percent. In comparison with 1981, deliveries for the domestic market increased 111.9 percent. All VHJ fulfilled their plan targets. This is the second year of the favorable implementation of sectorial measures, the objective of which is to achieve by 1985 a volume of deliveries to consumer goods inventories equal to the volume of wage resources paid out in the sector.

However, in spite of the overall positive fulfillment in terms of volume, certain organizations in this sector are not providing deliveries with the proper product mix, and are not delivering explicitly specified products. This is primarily the case with automobile radios, black-and-white television receivers, batteries, and single-cell batteries.

In 1982, targets for deliveries for export to the socialist countries were very favorably fulfilled (by 109.4 percent in f.o.b. prices). All VHJ met all their export targets and achieved projected levels of efficiency. Targets for exports to the USSR, which make up 51 percent of total exports were exceeded by 107.7 percent in f.o.b. prices, and the goal was successfully met of speeding up deliveries to the maximum extent.

Favorable plan fulfillment was not obtained in the area of exports to nonsocialist countries, despite a number of measures that were taken, including a substantial increase in material incentives for both individuals and collectives. In comparison with 1981, there was even a decline in deliveries tied to exports. This performance urgently requires the adoption of more effective measures, in cooperation with the appropriate foreign-trade agencies, to speed up innovations in the commercial area as well.

The growth achieved in the production of goods for 1982 was 2.1 points higher than plan targets, with a semiannual growth of 5.7 percent. This increased growth was achieved through the implementation of approved counterplans and their overfulfillment by Kcs 541 million. On the whole, production targets for goods for 1982 were exceeded by Kcs 737 million. All VHJ with the exception of the High-Voltage Electrical Engineering Plants met their goods production targets, with the greatest overfulfillment being achieved by the Prague Automation and Computer Technology Plants VHJ. In the High-Voltage Electrical Engineering Plants goods production stagnated in comparison with 1981. The reason may be found primarily in restricted exports to nonsocialist countries and in the failure to carry out necessary structural changes in production.

Favorable results were also achieved in the outputs of the technical development plan, which were 141.1 percent fulfilled by this sector, or overfulfilled by Kcs 60 million. Only the production of CMOS circuits by the Tesla Electronics Components factory at Roznov fell short of its target by Kcs 1.3 million.

Targets of the state plan for the production of technically highly sophisticated products were also fulfilled. Technically advanced products and products of the first-quality category increased their share of total goods production by Kcs 92 million, or by more than one-half. All of this increase came from the Bratislava Tesla Consumer Electronics VHJ, which in 1982 placed 25 percent of its total production in the first-quality category. This positive development for the sector was tempered by the fact that in 1982 the production of technically obsolete third-quality products also increased moderately.

In terms of planned profit formation, the plan was fulfilled at a level Kcs 308 million higher than planned, with a semiannual increase of 23.2 percent. Profit targets were not met only by the High-Voltage Electrical Engineering Plants in Prague. The source of increased profits were reduced costs, particularly for materials. In accordance with this, a substantial overfulfillment of

the plan was achieved in return on capital-asset targets, which increased by 119.3 percent in comparison with the 1981 plan. With better management in VHJ and enterprises, especially of inventories, this rate of growth could have been still higher. What is positive is the fact that, with the exception of the High-Voltage Electrical Engineering factories, all VHJ and their directly managed organizations fulfilled the established target for return on assets.

If one were to evaluate the overall managerial performance in the electrotechnical industrial sector for 1982, it would be possible to state that the adopted guidelines are being met. In the consumption of motor and heating oils, savings of 241 tons were achieved, as well as savings of 124 tons of gasoline. Comprehensive travel expenses turned in an unfavorable performance, with the target for the sector exceeded by Kcs 16.7 million. This was caused by an increase in assembly work at important construction projects where the volume of output is substantially higher; costs associated with this are allocated to travel allowances.

A second area in which the electrotechnical industry did not fulfill its 1982 targets was in the area of inventories. Total inventories as of 31 December 1982 were exceeded by Kcs 639 million, representing an increase of Kcs 516 million in comparison with 1 January 1982 levels. Regulated inventories showed more favorable development over 1982, in that targets were exceeded by only Kcs 204 million. The planned limit was adhered to by the Chirana Stara Tura VHJ, the Prague Tesla Investment Electronics Plant, the Brno Tesla Measurement and Laboratory Instruments Plant and the Bratislava Tesla Consumer Electronics Plant.

Counterplans, which were adopted in 1982 by most VHJ, are a significant contributor to the mobilization of underutilized capacity. The results which have been achieved, however, attest to the fact that enterprises and VHJ have been underestimating employee initiative. This may also be documented by the fact that the adopted counterplans which provided for a speeding up of the growth of adjusted value added by 0.8 percent, were exceeded by 1 percent. At the same time the largest degree of overfulfillment was achieved at the Bratislava Tesla Consumer Electronics Plant (104.6 percent). The Prague Automation and Computer Technology Plants followed with a figure of 102.8 percent, as did the Chirana Stara Tura VHJ, which did not even adopt a counterplan, yet fulfilled its adjusted value added indicator by 101.8 percent.

It may be presumed that VHJ and enterprises have learned from this development in the presentation of counterplans. By their attitude in 1982 they deprived themselves of a substantial component of wage resources which could have been used for incentives and the accelerated introduction of new products, for exports and consumer goods inventories, and last but not least, to resolve several pressing wage issues.

9276
CSO: 2400/239

KYZLINK STARTS DEBATE ON MEASURING ENTERPRISE WORTH

Prague HOSPODARSKE NOVINY in Czech 18 Mar 83 pp 4-5

[Article by Dr Eng Vladimir Kyzlink, Candidate for Doctor of Science, Prague College of Economics: "The Objective Is Known, Criteria Are Being Sought"]

> [Text] One of the key tasks established by the 16th CPCZ Congress for improving the management system concerned the need "to implement consistently in the compensation system the merit principle in the fulfillment of concrete tasks related to the growth of effectiveness and quality." If this principle is to be implemented consistently in the compensation of individuals, it is essential that it also be consistently applied in the evaluation of the performance of individual enterprises and organizations. Only in this way will there be certainty that the portion of compensation that is based on bonuses for the management performance of an organization will actually be awarded according to the merit principle. This principle should be implemented in evaluating the results achieved by an organization. It must also become the basis for annual comprehensive analyses, for the evaluation of leading enterprises, etc. The consistent application of the merit criteria for its measurement. The article "The Objective Is Known, Criteria Are Being Sought: is of a preliminary character. In conjunction with it, we are publishing one of the first reactions to it, an article entitled "The Springboard: Creating the Conditions"

In a socialist economy, the sole criterion for evaluating the merit of organizations in the fulfillment of tasks related to increasing effectiveness and quality must be plan fulfillment. The plan is the most comprehensive expression both of the tasks whose fulfillment is assigned to organizations by the center, and of the general social conditions under which this fulfillment will take place, as well as of the specific conditions under which each organization operates.

The Plan

The level of planned task fulfillment determines the degree of merit due an organization over a given period in relation to economic development, how

effectively it utilized capital assets, raw materials, materials, energy and labor at its disposal, and its participation in economic development, in the growth of national wealth, in national income formation.

Not any kind of plan, however, can serve as the criterion for determining the merit of specific organizations. Under current conditions, and in view of the above-cited requirement of the 16th CPCZ Congress, it must be a plan that very precisely sets out the tasks for organizations with the objective of achieving the greatest possible efficiency and quality in production.

The plan of every organization must represent a symbiosis of the specific and public conditions within which the organization functions. This is why both the organization and central organs participate in the setting of the objectives.

In order to provide for public interests, central organs assign binding tasks to organizations which must be fulfilled over a given period of time. Such binding tasks include objectives related both to efficiency and quality, which are expressed in a system of binding indicators.

Current practice dictates that tasks related to effectiveness be assigned to every organization on an individual basis, taking into account the specific conditions in which the organization functions. A plan established in this way, however, will not motivate organizations to achieve the desired increase in effectiveness. The magnitude of plan indicators is influenced by considerations of the planning organs concerning the performance that an organization should achieve and the behavior of the organization which is being assigned the tasks. An organization attempts to obtain for itself the most favorable possible tasks. Thus, it never makes known all of its potential and tries to exert maximal influence on the base upon which the planning organ establishes its binding tasks. It accepts favorable tasks without objection, and protests against tasks which are excessive with the objective of effecting a change in the plan. The result is an overall reduction in the efficiency of planned tasks for the year in question, because the adversarial activity of organizations is only one-sided.

This individualized approach to the determination of planned tasks for specific organizations is undesirable for a number of reasons:

1. If the planned tasks take account of the conditions of each organization, they will force it to uncover underutilized assets only on those occasions when the potential of the organization is assessed accurately;

2. Conditions are not created for the effective functioning of economic mechanisms. The incentives achieved through their functioning do not necessarily lead to the fulfillment of tasks related to quality and effectiveness from the perspective of the economy as a whole or in comparison with foreign standards. In addition, taking into account individual conditions negates the impact of economic mechanisms because the economic pressure exerted by the latter is, as a rule, calculated in terms of an achieved level of efficiency.

3. The method for assigning tasks is very complex, because the planning organs must determine the production parameters for every organization. The sheer number of products that are produced dictates that these parameters must be generalized for entire product groupings, or perhaps for certain organizational units. This, however, means that they will have little impact, because they make it possible for organizations to evade them.

The need for objective criteria for establishing plans leads to the question: Where one is to find them? Price and production costs are the decisive criteria influencing the work of every organization. Performance in these areas may be measured by profit. Production costs are the outcome of the specific activities of each organization, and depend on the sophistication of the work of a given organization. As such they should represent the outcome of its actual planning activity.

Price

Profit is the resultant category of the relationship between costs and price. As such, it represents the result of planning techniques in both of these categories. Given firm prices, an influence may be exerted only on production costs.

The interests of society, as a third critical factor, interact in the price with the interests of the specific organization. In contrast to production costs, however, price must be set uniformly for all organizations producing a given product, and must reflect socially necessary costs. It represents an instrument that may be used by central organs to focus the activity of specific organizations. As such, price must become the objective criterion for organization activity.

If prices are to fulfill this task, they must become an external indicator of the efficiency to be achieved by an organization. We have, therefore, no alternative but to set them on the basis of world market developments. This solution, however, is not a simple one. Several studies have been devoted to this problem in our country, but so far no technique for determining such prices has been developed. To the extent, for example, that we would choose the prices which we are obtaining in foreign trade with capitalist states this would mean, given the current developmental state of the capitalist economy, that we would be shifting from a policy of relatively stable prices to a policy of gradually increasing prices. If, given the current inflation in the capitalist countries, we would choose their prices for only a few products, then we would disrupt internal price relationships. This would mean that the increase of some prices would in the end force the increase of all prices, if we were to retain rational relationships between all prices.

The foregoing implies that to form prices on the basis of the world market it will be necessary to monitor the price relationships on these markets with special attention to the relationship between prices and the technical sophistication of products, and to use these coordinate domestic prices. Objectivized prices, however, should also reflect the interests which we pursue in the sale of various goods, and must take into consideration that the lion's share of foreign trade is with socialist states, etc.

A shift to world prices, therefore, is not a short-term matter, because it requires careful preparation by the organs which set prices. On the other hand, the one-step implementation of such prices without allowing a certain period for adaption could cause severe difficulties in some organizations.

In this regard, the thought presents itself that the socialist states might gradually want to create a unified price level for the socialist camp.

With prices set in this manner, profit would be a measure of the productive efficiency of every individual organization. The greater the realized profit, the better the management of production. Low profits of a loss would be evidence of low production efficiency for the organization in question.

Because prices established in this way would not be based on historical costs, organizations would have to manage themselves in such a way as to conform its costs to these prices. Thus, leeway would be created for the functioning of economic mechanisms, and organizations would be able much more independently to make decisions concerning the solving of production problems without having to neglect the public interest.

The utilization of prices as a criterion for efficiency and production quality would necessitate a change in the current managerial mechanisms of the economic sphere. Above all, it would be necessary and possible to reduce substantially the number of indicators established as binding.

The Economic Mechanism

Profit would have to be the fundamental indicator by means of which the central organs would influence enterprise activity. This follows from its position as the resultant of the interaction of two sides, organizations and the center. The center would, by establishing prices, determine the fundamental parameter for the activity of every organization. The organization would show, through its operations, how it would come to terms with this parameter. Profit, as the outcome of the functioning of both forces, would characterize the successfulness of the activities of individual organizations. In an appropriate form, therefore, profit would have to become the basic binding indicator directing the activity of organizations. In addition, it would have to become the basic indicator for measuring the merit of an organization. Organizations, then, would determine their own merit in terms of increments in the total resources available to society.

The absolute profit level would stimulate organizational efforts to increase the volume of production. This level would be limited by the possibilities for obtaining raw materials and other inputs, on occasion other factors of production, and the possibilities for turning out product. For this reason, the basis would have to be profit on goods actually produced.

The creation of conditions for the functioning of transfers and other payments which organizations would cover through profits would necessitate that net profit be the operative figure. Profitability would have to serve as a relative indicator of organizational success.

The system of transfers could be used for directing the distribution process. The transfers would have to depend on the magnitude of committed capital assets, the level of ongoing demands for working capital, the number of employees, and the size of lot occupied.

The tax requirement on every koruna invested in capital assets or amortized in ongoing working-capital requirements should increase pressure on organizations to reduce demands for new investments or inventory increases. The same role would be fulfilled by a levy tied to the number employees and the size of lot occupied. In order to control temporary needs for working capital, use should be made of the banking system and its instruments: credit and interest.

In addition, depreciation policy must be better focused. To increase responsibility for capital-asset replacement, there should be a centralization only of depreciation on capital assets with shorter useful lives.

There would also have to be an improvement in the regulation wage resource formation, which should not be tied to an indicator whose magnitude may be influenced by individual organizations. Therefore, wage resource formation should be determined based on an indicator whose magnitude is unrelated to organizational activity, so that organizations may not influence it according to their requirements. Objectivized price is such an indicator.

An increase in materials or wage costs should not change the base for the formation of wages payable. Therefore, even though we are dealing here with a quantitative indicator, the shortcomings of the heretofore utilized techniques for directing the formation of wages payable should not be evident. For an organization as a whole this indicator would have to be derived from sales of produced goods.

Because the regulation of wage resource formation influences in a critical manner the material incentives of each employee, it is essential that the standard for the formation of wages payable be dependent on achieved profitability. This could not, in other words, be determined as a mere percentage of the price of specific products, but rather on a scale coordinated with achieved profitability levels.

Profitability should be determined as the relationship of net profit to operating assets. This would allow a qualitative indicator to be included in the regulation of wages payable.

A wage fund determined in this manner would include resources both for the payment of basic wages and all forms of personal material incentives such as premiums, shares and the like.

This kind of regulation of wages payable formation would assure that the growth of wage funds would be simultaneously accompanied by an increase in resources for the society. The results of their functioning could not then be exhausted by them, even if it led to an above-average increase in average wages.

It cannot be hidden, moreover, that this technique for regulating the formation of wages payable will lead differentials in worker compensation. But this must be counted on if we intend to incorporate the merit principle in compensation. This will also, however, increase responsibility for the quality of price formation, because the objectiveness of such a differentiation will depend on the price.

Interest in meeting profit targets also leads to attempts to fulfill targets for a more attractive product mix. The lead may be taken here by establishing binding targets for the production of certain products.

Binding indicators in relation to foreign markets would also have to play an important role. This relationship could be defined by the volume of foreign-currency korunas which an organization must generate. To the extent that production were dependent on imports of raw materials, equipment, components, licenses, etc., then there would have to be a net balance in foreign-currency koruna formation.

This article has not set as its objective the resolution of the foregoing set of problems. Its objective has been solely to point to certain fundamental principles by means of which it would be possible to incorporate the merit principle in the evaluation of the work performance of individuals, collectives and organizations. The further specification of these thoughts would require much broader documentation and reworking, both of which exceed the framework of a single article.

The shift to the system described above is not a one-time affair. It is a question of a long-range target which will have to be approached gradually. The Set of Measures for Improving the Planned Management System of the National Economy After 1980 was the first step. At present, and in accordance with the resolutions of the 16th CPCZ Congress, consideration is being given to a further improvement in the system of management, planning and financing. These further modifications should be based on a clear targeted solution. Otherwise they will not be systemic, and the achievement of the final objective will be put off further.

9276
CSO: 2400/235

CONFUSION, PROBLEMS IN ENTERPRISE MANAGEMENT CRITICIZED

Bratislava PRAVDA in Slovak 29 Mar 83 p 2

/Article by Jozef Krsko: "The Tone of Criticism Was Justified"/

/Text/ The approach of Communist Party members at the recent plantwide CPSL conference in the Bratislava Automobile Plants (BAZ) to problems, inasmuch as this enterprise is characterized by many of its own irreproducible peculiarities, still can serve in many aspects as an example for communists in other of our plants and enterprises.

The development of this enterprise was accompanied by a number of difficulties. One of the most basic of them can be considered vagueness in regards to its production program. The BAZ was originally slated to turn out passenger cars. At present, as pointed out by Peter Colotka, member of the Presidium of the CPCZ Central Committee, premier of the SSR Government who took part in the conference, the concept of the plant's development had to be defined in closer detail. That called for taking into consideration the changed conditions in the demand for passenger cars from the viewpoint of demand on the domestic market as well as from the viewpoint of possibilities for exports, and also changes in the prerequisites for planned international cooperation. In the current year BAZ is to produce 2,000 S 743 - Garde vehicles. Launching of production of four-wheel-drive Avia cars is planned for next year, transition of production of Praga V3S trucks to a second generation is planned for 1985-1986 and in 1987 there should be production startup for passenger cars of the series S 781 type. The key program--production of medium trucks--is being readied for 1989. All of this was unknown to BAZ employees until recently, which in many respects was an objective cause for their concern.

The enterprise has been struggling, practically ever since its foundation, with a shortage of manpower. Yet, over the past 10 years, in spite of the problem, it was left by over 8,000 (!) employees--many of whom were assigned housing. Was it caused by the mentioned objective problem? A number of discussion participants at the conference stated that it was not. Behind the so-called objective shortcomings there often lurk subjective shortcomings as well. Plant manager Stanislav Kovacik even stated that 60 to 70 percent of problems in BAZ is of a subjective nature! People familiar with conditions in BAZ can object--now it comes into the open, when the plant is headed by new management. However, the discussion at the conference did not involve past mistakes, but

those occurring currently--such as that the performance of some plan management personnel still showed a tendency toward managing without assuming responsibility, that there is a current lag in meeting the plan for production of S 743 vehicles, that to this day the organizational structure of the plant's development still has not been approved, etc.

Exemplary of the orientation of BAZ communists primarily toward elimination of subjective shortcomings is also the fact that, as problems are discussed, they can point their finger at the right spot. This was vividly pointed out by C. Colotka when he stated: "It is only correct that you see establishment of your own developmental base as one of your foremost tasks." He further emphasized the importance of holding such posts as foremen, heads of workshops and operations, in consolidation of the situation, conditions for improved output and preservation of order. It is admissible to let harmful leveling dampen the motivational nature and incentive-promoting effects of wages. He expressed appreciation of the critical tone of the conference and of the fact that the party's organization was assisting the plant management by asserting its right of control and by its influence on political indoctrination of the plant's cadre.

8204
CSO: 2400/233

CORRESPONDENT COMMENTS ON HUNGARIAN ECONOMIC INCENTIVES

Bratislava PRAVDA in Slovak 10 Feb 83 p 6

/Article by V. Vesely, permanent PRAVDA editor in Budapest: "Management Tools Stimulate Efficiency"/

/Text/ Considerable changes occurred as of 1 January 1983 in the effects of the tools of economic management in Hungary. Their objective is to make enterprises pursue and implement goals that coincide with the interests of the society as a whole--improved effectiveness of the national economy.

The most pronounced changes occurred in generation of wage resources. Control up to now consisted in progressive taxation of the increment in the volume of wages in comparison with the previous year. This increment was derived from the increment in profit in the form of an average share accruing to each employee. That might have been satisfactory for enterprises posting average and weaker results, while in better faring enterprises such egalitarian tendencies led to an undesirable hiding of unused resources. From now on, generation of wage resources depends on the measures of return on production assets. For each percent of the achieved return, the volume of wages payable can be increased by 0.12 percent. For example, an enterprise with a 25 percent--i.e., relatively high--return on investments is entitled to expend 3 percent more on wages and salaries, an enterprise with a low, e.g., 5 percent, return only 0.6 percent. Another new element in remuneration is introduction of the possibility for using 30, and in cases of measures involving a long-term concept--just as we have seen from the example of the Shchekino chemical workers in the Soviet Union--and up to 60 percent of savings in wages, brought about by reductions in manpower, for wages payable. This system of wage control stimulates the efforts of enterprises in the right direction--toward maximum utilization of material and human resources. Those who make the largest contribution to the national income are thus afforded higher earnings, which was not the case until now. It also provides an incentive for management personnel by removing the existing limit on the upper limit of premium payments.

It is envisioned that these changes will make it possible--within the framework of possibilities offered by the budgeted growth in national personal earnings in 1983 up to a maximum of 3.8 percent--to initiate a desirable differentiation of remunerations systematically on the basis of the principle of merit. Namely, there will be some who will not earn a single forint more, but there will also be those to whom it will be possible to give a raise of 6 to 7 percent.

Other changes in the effects of the tools of economic management are designed to promote effective exports. Preferential treatment in setting of prices for the domestic market will be given to enterprises which increase, or at least maintain the level of their exports. Effective export goals receive preferred credit and, if investments are called for, also various other preferences.

Enterprises with an unsatisfactory level of management will be facing hard times. Tightened standards will force them to cancel without delay any ineffective operations and those that will delay doing so without a justifiable reason will lose part of their production assets. A new element in generation of the technical development fund is a higher obligatory payment to centralized funds, from which resources will be redistributed through a competitive process to programs of key interest to the society as a whole.

A contribution to efficient management of working capital is expected from a measure making it possible to take away up to 10 percent of working capital from enterprises accumulating stockpiles in excess of applicable standards.

In agriculture, there have been changes in the state's allocation practices. Price intervention up to now was on various "input" elements--industrial fertilizers, chemicals, machinery and power and fuel resources--which sapped the incentive for achieving high economy in management of these materials. It is deemed more expedient to apply allocations to "outputs," i.e., procurement prices, which have been increased by an average of 3.7 percent. At the same time, allocations for chemical protective agents have been decreased by one-half and allocations have been canceled completely for all types of power and fuels, as well as for imported protein fodders. Bonuses for cultivation of sugar beet will also be canceled, as will subsidies for the price of tractors up to 15 percent and up to 40 percent for special machinery. Differentiated reductions will be made in state contributions to establishment of fruit orchards, e.g., cherry and apply, from 40 to 20 percent of costs.

Economic instruments are assuming key importance in the Hungarian system of management. The mentioned changes reinforce their function as incentives for achieving higher efficiency. And there is one more important aspect: they transfer a part of statewide concerns with problems directly onto the shoulders of members of enterprise and plant collectives. The real key to their solution lies there.

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CSO: 2400/233

ASSISTANT RECTOR ON NEW GENERATION OF ECONOMISTS

Bratislava NOVE SLOVO in Slovak No 12, 24 Mar 83 p 8

/Interview with Prof Dr Cenek Novotny, candidate for Doctor of Science, assistant rector of the College of Economics in Bratislava by Josef Luc: "The Utility of Knowledge..."; date and place not given/

/Text/ /Question/ I would like to begin our interview, comrade assistant rector with a somewhat untraditional consideration: If you and I are living in the year 2000 we will be looking at, and no doubt critically evaluating, what is being done by our children, in other words your students, who at that time will be middle aged. Do you think that you are training them well at the College of Economics, for the current difficult period of the eighties?

/Answer/ That is a complicated matter because the current younger generation thinks in different dimensions than we did when we were their age. We began immediately after the war, demands for a certain standard of living were more modest, we knew less, the economy had developed only as far as the industrialization phase which our party implemented. National economic development, thinking and practical activity in the preceding decades had all taken extensive paths...

/Question/ ...But it appears, comrade professor, that we continue to be in the grip of an extensive mindset in all respects. The younger generation has grown up and become accustomed to the fact that our society has been developing at a rapid rate, that production has increased commensurately. Our youth has been raised to think of all of this as a given, that development will forge ahead automatically. And it is possible that many are not aware that for the past 8 years the development of our economy, and therefore increases in the standard of living, have not come from the fruits of our work, but that we have achieved this development at the price of some indebtedness, and that we have, therefore, lived well at the expense of the future, that is, at the expense of the young people themselves.

/Answer/ I would second what you have just said with the comment that loans and credit obligations are easily entered into and paid off only with difficulty. I would also add that at the 16th CPCZ Congress it was stated that at the end of the Seventh 5-Year Plan we would have to pay off the credits themselves. We do not live in a closed environment; the problems of world development are

becoming our problems as well and are multiplying our own difficulties, which stem from the extensive mindset mentioned above. This must be seen as something new to be considered for the eighties. In our thoughts and actions we remain bound to the extensive view, and the shift to an intensive development path, which was the subject of all of the discussions at the 16th CPCZ Congress, is taking us a little longer than it should. The truth, I guess, lies in the proverb that a habit is like an iron shirt, a suit of armor that is difficult to shed, because it covers not only the surface of the body, but is also within us, permeating our thinking, our imaginations, our habits, and is therefore manifested in our deeds as well...

/Question/ In other words, it is not as if our problems are not connected with the profound developmental processes of a mature socialist society and its economy, not as if they were only accidental and would not demand a substantial increase in the quality of managerial procedures, new approaches and a more rapid development of subjective factors. It is not, that is, a matter simply of muddling through to a time when everything can be as it was... In part, it is possible to blame the younger generation for not committing itself wholeheartedly to progress, particularly under the conditions demanded by the party and for which the party is continually creating the conditions. It suffices to read the speeches of comrades Husak, Lenhart, Bilak and others. All of them take every opportunity to lobby for support, for a commitment from the young and upcoming generation to the implementation of the resolutions of the 16th CPCZ Congress. Why is it, comrade professor, that today's pedagogs are not able (or do not know how) to motivate, inspire, or train the young person so that immediately after beginning work he will wrestle with problems and not give up in the face of difficulties.

/Answer/ I would like to put these difficult questions into a theoretical context. Socialism conceives of its economy not only as a mechanism providing for the effective satisfaction of needs, but also for the cultivation of existing and the formation of new socialist requirements. It views in the economy resources for human development, resources for the satisfaction of its socialist and communist objectives. And just as a socialist society becomes richer in the course of its development, at the same time this wealth comes to depend less on the sheer volume of simple work expended on productive activity, and knowledge comes to play an ever greater role in social development. And it is precisely this development of knowledge that is the outcome of the activity of people liberated from work, and directly connected with the production of life. New forces are thus incorporated into the production of human life, forces whose effectiveness does not depend directly on the amount of time and work expended in their production, but on the status of knowledge and the scope of its implementation. This means the appearance of a new type of economy which Marx foresaw in the form of an economy of time. Communism represents its most highly developed state.

/Question/ I would like to second this point with a thought from an article by Jurij Andropov, published in the journal KOMMUNIST, which is as if tailormade for our conditions, "...the economic law, which Marx considered to be the primary law for collective production, is not yet fully applicable in our country. This is because there still exist many physically exhausting, unattractive, routine jobs, and a slow rate of mechanization and particularly automation."

/Answer/ This is true, but I would just add that revolutionary changes in economic, class and political relationships do not automatically reform social consciousness. And this is also true in the area of a socialist economy. The fact that the private ownership of productive resources has been eliminated means that in the period of the building of a socialist society the human factor increases in importance, or more precisely the conscientious activity of people focused on the achievement of established objectives. The human factor, however, may represent a transforming force only when it bases its actions on the objective laws of social development and a profound awareness of them. For the individual this means developing a multitude of interests and a cultivated character, deepening and developing his own consciousness, being innovative, precise and thorough in his work. It may be said that socialism is linked with the development of the personality, in the same way that the potential for satisfying human needs is conditioned by the development of the socialist society.

And now to address your previous difficult question. All of the above implies that important demands are placed precisely on the economists practicing during the stage of the development of a developed socialist society. This society rquires the existence of a human factor which will successfully resolve ever more complex and complicated problems of social development and the fulfillment of the main objectives of the economic and social policy of the party. Without the proper training and constant improvement, this human factor cannot fulfill its mission.

/Question/ I have read the analysis of the world views of the students of the College of Economics, their economic views and positions. You put very interesting questions to them. For instance, what are the attitudes of the students to the problems of our society, how do they follow and evaluate foreign-policy processes, how they evaluate their own activity in the sociopolitical area, and the like. What were the results of this analysis?

/Answer/ It may be unambiguously stated that the students of the College of Economics are in general agreement with the principles of the economic policy of the CPCZ and with certain basic economic principles of the period of building a developed socialist society. The students follow the overall economic situation domestically and worldwide attentively and take a critical view of the problems which exist in both areas. They see shortcomings not in the impropriety of the economic policy of the party, but in its improper implementation--inadequate managerial work, poor attitudes to work, and see further shortcomings in the existing situation and resultant difficulties in the factors which exert an external influence on our economy--raw materials and energy. These results pointed the way to our role, namely to support and effectively take advantage of the interest of the students at the College of Economics in concrete politicoeconomic problems and issues; to devote attention to the concrete formulation and practical implementation of the basic CPCZ documents in the economic area; to react flexibly to real problems, above all to the set of issues surrounding the raw materials and energy crises, problems of the international division of labor, etc.

To train a young economist in this way requires, above all, the development of comprehensive educational and training activity. This is the personal role of us, the faculty in the school system for economics. The building of a developed socialist society brings with it a number of new problems, namely problems connected with intensive economic development, structural changes, the implementation of scientific and technical progress, etc. And all of this requires a new type of training system. The positive aspect of this is that the objectively arising trends in socialism may be completely predictable, thanks to the existence of socialist production relationships and the leading role of the party, and therefore may be fully controlled, implemented and utilized, and this is true as well for the educational and training sector. It is important that a socialist school create a person who functions as a unit in its entirety, as a social person, and designed for society. It creates within a student a value orientation, leads him to the internalization of the moral principles of a person who understands the role of society and feels a joint responsibility for its fulfillment and realization.

/Question/ Comrade professor, it is said that the work of an economist is of an interdisciplinary character, incorporating significant aspects of economics, sociology, mathematics, statistics, law and psychology. The training of a socialist economist is oriented toward the formation of a person who has gained an overview of the national economy, mastered an awareness of the relationships and connections between economics, politics and knowledge, who has a comprehensive understanding of the economy as a whole...

/Answer/ Yes, this is the case. This focus results also from an understanding of education and training which is contained in the document entitled "The Future Development of the Czechoslovak Educational and Training System." This document describes the demanding and ever-growing requirements flowing from the dynamic development of socialist society, and from demands for the multifaceted development of the personality of the socialist person. It also emphasizes the active, conscious participation of people in comprehensive social changes which grow out of training for work and for life. The document emphasizes the need for a broad base as well as for proper specialization. These requirements apply fully to the training of socialist economists. They lead not only to the possibility for broader practical application, but also to the ability to conceptualize specific problems at one's place of work in the context of the entire complex of economic and additional noneconomic relationships.

Training of economists conceived in this way is being gradually implemented through a change in the content of an economics education. Within this framework, links are being created between individual subjects in such a way that they interact with each other and yield findings concerning the laws governing economic life. At the same time, however, this training is gradually deepened and developed according to an intentional architecture which forms and cultivates at the same time the ideas of each student as well as their thought processes, and prepares them for the qualified, conscientious and methodologically correct conceptualization of practical situations under new conditions. It is in this regard that one must view the importance of training in mathematical economics disciplines and in modern computer science, in both of which it is

not only a question of direct, professional "armament" for a portion of the future professionals in this field, but of a broader, more targeted methodological preparation for all future economists.

This approach is an outcome of the reality that the new technical sophistication and equipment available to production demand that a new repertoire be created for its "intellectual" equipment. In its aggregate this means the linking up of scientific, technical, and organizational capabilities at a new level.

/Question/ As the Soviet sociologist Volkov pointed out in one of his works, knowledge in and of itself has no value, just as accumulated energy has no value until it is utilized. In the period of a developed socialist society, this becomes a matter of the rational utilization of accumulated knowledge, and this is precisely the task for education and training, that is, for college level training. What is your view on this?

/Answer/ Important in the building of a developed socialist society and its economy are intensification processes, which we have already mentioned in this interview. This means, above all, the conservation of resources, the assurance of a high qualitative level for all valuational processed, but also a production orientation to the qualitative side of the production process and the corresponding organization of socioeconomic relationships, the economic mechanism and the system of planned management. At the same time, a general characteristic of intensification is the conservation of time. In the process of intensification, it is precisely this economy of time that acquires a critical significance.

In conjunction with this objective process taking place in the economy of developed socialism, there must be a corresponding sophistication by the human factor, the managing individual. The importance of this connection between the task of building a developed socialist society and the development of the human factor was pointed out concisely by Jozef Lenhart in a PRAVDA editorial of 1 February 1980: "...We are building a mature socialist society, that is, a society with highly developed forces of production, with mature sociopolitical relations which are to appear among classes and between nations and nationalities, and which are to be reflected in the content and forms of social consciousness, in a broader intellectual outlook of people, the development of socioalist democracy and refined interpersonal relationships. All of these efforts are directed at more fully satisfying the material and spiritual needs of the people. And it is, therefore, necessary to create the preconditions for achieving high productive efficiency and high quality of all work."

/Question/ To train an economist in a developed socialist society means, then, comrade rector, to strive for a unity between the educational and training functions of the school and society. In this process, it is clear that there is a need for purposefulness, a planned and systematic approach, and a comprehensive attitude. This is especially true for the joint approach of the schools and the SZM /Socialist Youth League/ as a youth organization.

/Answer/ The principle of linking school with the practical tasks of society through the educational and training process is essential precisely in the

current stage, and especially for economists. After all, new processes and trends in economics and changed conditions have brought to the fore the need for a continuing flow of innovation, new solutions and revolutionary approaches. Continual practical verification is not only a source of suggestions and impulses for conceptual thinking, but also a school for the will, character, and socialist collectivism.

Education through practice and in practice at the College of Economics, while far from perfect at present, is already stimulating the creative thinking of students in its current form. It identifies those questions which it is necessary to solve scientifically, but also that which must be taught, which young economists must know and master. It is not, at the same time, a question of a routine to be acquired; the utility of knowledge is that it be converted into a way of thinking and of taking practical actions, into a process for the training of economists as creative personalities, serving socialistically on ongoing practical endeavors. The purpose and content of the link between schools and social practice must be understood on the basis that practice conditions consciousness and is the general condition of theory. This means, at the same time, that this consciousness is only realized at such a time, i.e., the known bases and laws of motion are only realized, if interpreted Marxistically, when they are consciously acted upon and formed.

/Question/ From what we have discussed here, comrade professor, one may conclude that the graduate of an economics curriculum should be trained to contribute an element of innovation to practice, a desire to improve things, to make things more effective and intensive, to change practice both in a qualified manner and effectively...

/Answer/ Yes, and in this sense practice and its contradictions represent a direct challenge for the economist. They challenge him to intervene in the existing order of things and to resolve them communistically. And this is the essence and end result of the training of economists in a developed socialist society.

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CSO: 2400/218

MINISTER QUESTIONS EFFICIENCY OF LABOR UTILIZATION

Bratislava PRACA in Slovak 25 Mar 83 pp 1, 4

/Interview with first deputy minister of labor and social affairs of the CSSR, Eng P. Tomasek, by L. Stoupova: "Are We Utilizing Labor Efficiently?"; date and place not given/

/Text/ At the present stage of economic development and intensive preparations for the formulation of long-term concepts of economic and social development through the year 2000, an answer is being sought for the question of how to use potential labor resources most efficiently, how to assign labor more rationally, above all in the interest of meeting social requirements, and how to fully employ its background and qualifications. We requested an interview on this topic with the first deputy minister of labor and social affairs of the CSSR, Eng Premysl Tomasek.

/Question/ First of all, what are we to understand by the concept of rational labor utilization?

/Answer/ It is that utilization which creates the conditions for the maximum economic efficiency of the entire reproduction process, assuming a balance between the supply and demand for labor throughout the economy, standard work output/intensity, and the optimal utilization of the work day. An important measure of the effective utilization of workers is the level and growth rate of labor productivity.

When one evaluates this indicator from this viewpoint it must be stated that beginning in the mid-seventies we have seen a continuing decline which became most pronounced in the first 2 years of the current 5-year plan. At the same time it must be emphasized that the 16th CPCZ Congress assumed that national incomes would increase by 14-16 percent and that 90-95 percent of this increase would be accounted for by increased labor productivity. In the Seventh 5-Year Plan, however, there has been a significant correction in this indicator, which has meant that the projected increase in labor productivity, and therefore national income per employee in the production sphere, has declined 7.9 percent, or roughly 1.5 percent annually.

Purely for comparative purposes, I will note that labor productivity (expressed as gross domestic product per capita) in our country at the beginning of this

5-year plan was 10-15 percent lower than in the GDR, 30-40 percent lower than in France, 40-50 percent lower than in the FRG, and less than half that of the United States. These figures are based, true, on an intersectorial comparison of labor productivity for selected products, primarily machinery.

/Question/ What are the reasons for this unfavorable situation?

/Answer/ The decline in labor productivity, above all in the early years of the Seventh 5-Year Plan, may be accounted for by the exceptionally poor performance of our agriculture in 1981, the sharp curtailment in raw-material sources, worsened conditions on foreign markets and the like. There are, in other words, objective causes. Naturally, we should not conceal from ourselves subjective reasons either--mistakes, shortcomings, errors, and a lack of sophistication in managerial and organizational work.

Shortcomings in the development of labor productivity, however, also result in a serious departure from the projected growth of employment which the plan has established and which had assumed an increase in the work force of 160,000 during the 5-year plan. What has been the actual experience, though? Employment has already increased significantly in the first 2 years. It is furthermore expected that the work force will increase, in contrast to the plan, by an additional 110,000 to 140,000 individuals. Problems are increased further by the fact that almost 90 percent of the people who will be entering the work force are youths, meaning that in the 1981-1985 period we must find appropriate positions for 1.1 million youths: for 131,000 college graduates, 241,000 graduates of secondary professional schools, 51,000 graudates of vocational schools and high schools, for 624,000 youths from various fields of study, and for about 91,000 young men and women with no professional or vocational training or who have not completed their studies.

/Question/ Practice has shown, however, that many qualified young people have not been able to find positions appropriate to their education. What means are being sought to assure that they will work in those fields where society needs them the most?

/Answer/ The placement of young people is a serious matter, despite the fact that the real growth of people in their productive years is substantially reduced by the normal retirement of others, and that "that wave" is quite strong because we are dealing with the generation of the twenties.

Many pressing and often conflicting problems arise in this regard. For instance, in the Seventh 5-Year Plan there has been a significant increase in the number of potential employees trained in white-collar professions, so that the final balance for the 5-year period shows an excess of 320,000 people. On the other hand, the number of people trained in manual occupations is declining and the overall balance for 5 years in the working occupations shows a shortage of 250,000 employees.

Given this situation, many managers of the khozraschet sphere, for whom in many sectors there is a shortage of workers and who, in addition, must reduce the administrative and managerial staffs by 10 percent by 1985, have been

discussing whether the training of experts at professional and college level schools has not been overemphasized at the expense of working youth.

Alternatives are naturally being sought for the employment of graduates of colleges and professional schools. This is not only a matter of their activities and functions in the technical-managerial apparatus, but also of the possibility of their assignment to positions which have so far required skilled worker qualifications. Supplements and alterations are, therefore, rapidly being prepared for the wage scale and qualifications catalogs, in which are listed several positions for the servicing of production equipment for youths from professional and college-level schools. Bear in mind that these assignments need not be permanent, but rather temporary.

The resolution of these problems has focused attention on two further questions: the general requirement for continuing education which applies not only to the white-collar sphere, but also to blue-collar workers; and the ever-increasing problem of filling unskilled or semiskilled positions in our national economy. Interest in these positions, which in addition are not very inspiring, lessens over time. Not even the application of the newest equipment, such as robots for heavy, tiring, and dangerous tasks, has yet to resolve this situation. Nevertheless, 320,000 such positions must be filled in the interest of the smooth flow of production. It must be stated openly that this will happen, to a certain extent, at the cost of violating wage-policy principles, because these jobs require a wage evaluation.

A no less pressing issue is the economic activity of people of a postproductive age. At present, almost 880,000 retirees out of a total fo 3.3 million are working, or about one in four. About 130,000 of these work in management, administration and other technical-managerial functions. In certain instances, this is a matter of employment out of inertia, false friendship and the like. This is not a question of persecuting retirees, but simply of seeing to it that only those people work whose physical and intellectual abilities are most applicable to economic development. Not long ago, and with this in mind, the Presidium of the CPCZ Central Committee evaluated proposed approaches to this issue. The resolution which will be adopted meets directly the basic requirement, namely to employ, under all circumstances and without promotion, all newly applying working youth as well as all graduates of professional and college level schools. This is nothing more nor less than a planned resolution of the generational problem, of a planned exchange of personnel.

/Question/ It follows from our interview that labor resources, and particularly the qualifications of the labor force, are not always utilized effectively. What losses arise from this for our whole society?

/Answer/ You are correct, many experts now work at positions which do not utilize their high qualifications. This is true of perhaps 10 percent of college-educated people. In the fuel and energy, and especially in the machinery sectors, only 83 percent of the college-educated experts are being employed, and in foreign trade the figure is only 70 percent. Of the 607,000 positions requiring college-level qualifications, 215,000 are currently filled by people who do not have them.

Studies in industrially advanced countries of the world have indicated that the most effective investments are those made in producing highly qualified workers, no matter what their field of specialty. When fully utilized, they return on the average four times more than the resources expended on other investments. When the training of a single college graduate costs us Kcs 600,000, and 10 percent or 50,000 graduates are not being utilized in their professions, this implies a loss to the national economy of Kcs 30 billion.

There are also certain problems related to the colleges themselves. In some, there has been a chronic deviation from the target figures established for the training of experts by the 5-year or annual implementational plans. One might also compalin about the quality of the instruction in our departments. Of the total number of 14- and 15-year-olds, currently more than 40 percent continue their studies at professional schools, and a relatively large percentage of them at colleges as well. The quality of applicant has worsened, many of the accepted students often do not have the prerequisites to finish their studies successfully.

The question arises of whether these curricula should be made so rigrous that college credentials could be achieved only by the most talented and educable young people. Put in an exaggerated manner, a large number of college students could be accepted, but in the first semesters they could be passed through a stiff "screening" process which would allow only those with the background for study to continue. Every college student would have to accept the opportunity to undertake an expensive program of study with the risk that its successful completion depends primarily on him and on how well he carries out his student's responsibilities and tasks.

And finally, one more remark addressed to the students themselves. Many college graduates focus their interest in job hunting primarily on the large cities. However, it is not only Prague or Bratislava or other industrial centers that are in need of experts. There are many interesting positions that are not currently filled, but which are not of interest to college graduates even though the social worth of the jobs, as well as the housing and wage conditions are better for young people than anywhere else. We must not support the unhealthy attitude that work must follow people and not the opposite. With all due regard for the free choice of employment, this is not possible even in socialism.

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CSO: 2400/213

MINISTER VIEWS GENERAL ENGINEERING OUTLOOK IN 1983

Prague RUDE PRAVO in Czech 21 Mar 83 p 3

/Article by Pavol Bahyl, minister of general engineering of the CSSR: "Fulfillment Calls for Skilled Work--General Engineering Is Meeting the Tasks of the Plan for 1983"/

/Text/ This is already the third month that we have been implementing the tasks of the plan for 1983. Proceeding from the achievements of 1982 and available prognoses of results projected for the first quarter of 1983 or for the whole year, we wish to acquaint our whole engineering public objectively and critically not only with the positive phenomena in our engineering production, with the approaches and solutions of vital problems in our ministry, but also with persisting management and production weak spots and shortcomings which must be eliminated at all costs.

Although it is difficult to obtain certain types of materials, the fulfillment of the plan for the production of goods proceeded more smoothly in 1982 than in past years. Within stipulated conservation of fuels and energy the plan for the production of goods and adjusted value added were exceeded and materials were saved according to the plant. In production, we delivered almost Kcs 1.2 billion of goods above the plan.

We exceeded deliveries for investment by more than Kcs 400 million and met all our contractual obligations for machinery and equipment delivered for mandatory tasks of the state plan for capital investment.

We exceeded the deliveries for our domestic market by Kcs 310 million in retail prices. Programs for innovation of engineering consumer products were successfully fulfilled during the year.

We exceeded the deliveries for exports to socialist countries by Kcs 1.22 billion in wholesale prices. The plan for exports to the USSR, which represents almost 48 percent of our total exports to socialist countries, was distinctly exceeded (5.6 percent). We overfulfilled exports to nonsocialist countries by Kcs 466 million in wholesale prices.

Savings of material costs also affected profitmaking, which was exceeded by approximately Kcs 400 million and thus helped exceed planned profitability by 3.6 percent.

What Needs Improvement Above All

From the preceding data one may conclude that everything is in the best order. That is not true; many lessons derived from the fulfillment of tasks for 1982 must be expeditiously applied. Which shortcomings need to be corrected?

1. The inferior quality of construction and technological treatment of goods, technical conditions, approval and technical control of products beginning with input, through junctions, up to output. In this respect, our government and our ministry have adopted tasks with deadlines. The results have not met our needs and thus, we often lag behind the top world products. In the coming weeks we shall check the efficiency of the adopted measures. The lack of conflicts concerning this fundamental issue in enterprises and general directorates is entirely intolerable. It is not normal that in fact for a whole year we have not closed any factory, department, shop or production line anywhere because of inferior quality.

2. Insufficient concern about the planning of new or modernized productions and products. Deadlines are being ignored and unprofessional work and irresponsibility abound on every level of management. The management of our ministry in its supervisory capacity particularly stresses this issue.

3. The manufacturers fail to demonstrate proper responsibility for sales of products for export and for our domestic market under acceptable economic conditions. Repeated old machinations and buckpassing between production and the market, both foreign and domestic, must not go on in this area. Manufacturing enterprises and general directorates must be more determined in their approach and concern about objective solutions for cooperation of production with trade in accordance with the principles and experiments approved by the CSSR Government.

4. Another factor which will help resolve the preceding problems involves international cooperation and collaboration, particularly with the USSR. In our country we lack adequate forces, brains and funds for desirable solutions. Cooperation advanced us considerably, but still not far enough. Some production departments, products and individual VHJ /economic production units/ offer good examples. Our cooperation with the USSR must be a systematic, dynamic, long-range program. The USSR is a partner with an enormous wealth of technical and technological solutions and long-term approaches to world competition; our side must provide the initiative, as shown by our recent negotiations with the USSR about the automobile industry, tractors and agricultural machinery. We must also step up our efforts to seek viable solutions with other socialist countries and cooperate and collaborate in an appropriate fashion with nonsocialist states, otherwise our problems with exports will grow year after year.

5. We are not satisfied with the economy of production, with high production costs and with the whole wage rationale. Processing costs and wholesale and retail prices must correspond with fundamental economic criteria. It is disturbing that enterprises are indifferent about the way the situation of our products has been developing.

How We Are Fulfilling This Year's Plan

We have not the slightest intention of recounting the lessons drawn from the shortcomings in the past. Every enterprise and VHJ must discuss them at their comprehensive annual reviews of 1982.

In comparison with the tasks of the Seventh 5-Year Plan, the resources created in the economic part of the ministry's plan demonstrate greater dynamism. As compared with the directives for 1982, adjusted value added was upgraded by about Kcs 600 million and profitmaking by Kcs 580 million as a result of counterplanning in enterprises and VHJ. More dynamic creation of economic resources promotes--within stipulated norms and regulations--their growth in enterprises and VHJ, mainly of wage funds which will be used to put more than 2,000 employees on the payroll and also to raise total average wages by Kcs per month above the projection of the 5-year plan for 1983.

We discussed in detail the vital tasks of the plan for 1983, including the procedures and means of their fulfillment, with general directorates of individual VHJ and syndicates.

Nevertheless, certain risks are inherent in the implementation of the plan, first of all, the start of the production of model TATRA 815 truck in the CAZ /Czechoslovak Automobile Works/ VHJ in Prague and the already fifth stage of updating model UR I tractors in the Agrozet VHJ in Brno, as well as the fulfillment of export plans for both foreign currency areas and the achievement of planned economic returns. As for our domestic market, continuous innovations and improvement of the technical standard of delivered goods are called for. Main Directives for the Development of Labor Initiative and Creativity for Promotion of the Fulfillment of the 1983 Plan in organizations of metal-processing ministries were drafted in cooperation with the UV /central committee/ of the Trade Union Association of Metalworkers. Measures for the Fulfillment of the Plan for 1983, including detailed specifications of the decisions issued by the Seventh Plenum of the CPCZ Central Committee were prepared by our ministry.

The production of goods worth almost Kcs 111 billion in 1983 represents a semiannual increase to 104.5 percent. In material production, for example, we are manufacturing more than 45,000 trucks, of which almost 12,000 are TATRA 815 vehicles, 170,000 passenger cars, more than Kcs 4 billion worth of machining equipment, Kcs 4 billion worth of textile machinery, etc. In our production plan we specified 51 scientific and technical output programs, among them 15 tasks of the state plan.

Our Contribution to the Domestic Market

We are manufacturing about 1,000 types of goods in 26 production branches. About 40 percent of the production of engineering consumer goods is designated for consumption, another 20 percent for our domestic nonmarket area, and about 40 percent of the production goes to the foreign market. In most cases, the technical standard od Czechoslovak consumer goods is comparable to the standards of foreign products. However, we are lagging behind world progress in the

application of automation and control elements and various accessories. For that reason, we are focusing our technological development and innovation of engineering consumer products on improving the functional and useful qualities of goods, their dependability, reducing their bulk and their energy consumption, and lowering their noise level.

The volume of deliveries for our domestic market will rise in 1983 more than 10 percent as compared with the actual results of 1982; individual lines will deliver for consumers about 90,000 passenger automobiles, 26,000 motorcycles, 260,000 bicycles, 123,000 automatic washing machines, 220,000 compression and 18,000 absorption refrigerators, 80,000 freezers, 118,000 meat and fruit grinders, and equipment, tools, etc., worth about Kcs 660 million in retail prices. In addition to conventional goods designated for our domestic market, our production of engineering consumer goods has been expanded by new types of products manufactured by organizations which had not produced such lines before. This added production represents now about Kcs 80 million in retail prices; we shall produce a volume of Kcs 450 million in retail prices before the end of this 5-year plan.

In 1983, we shall add a total of 56 new products, such as the new M 070 refrigerator and model TM 120 chest freezer which conforms to the demands in the market for freezers with greater capacity than the current 50-liter model; 3 additional models of automatic washing machines, of which 2, the T 500.1 and T 500.2, are frontloading, with miniload setting, optional filling with warm water, reduced detergent sudsing after the wash cycle and with lower specific electricity consumption. We shall begin the production of two models of C 250 S refrigerators with modifications of internal and external design and with electric consumption reduced to 1.9 kW/24 hours, and model CM 350 K which combines the C 280 monoclimatic refrigerator and the M 070 freezer, and furthermore, ETA 0172 electric coffeemaker with contents up to 8 cups and a heating element which keeps the beverage warm, infrared electric grill with a timer for up to 120 minutes and many other appliances.

Responsibility for Export Tasks

The Ministry of General Engineering is one of the main contributors toward a positive foreign trade balance in exports to socialist and nonsocialist countries. The share of deliveries to socialist countries amounts to about 40 percent of the total consumption of final products for exports, of which almost one half is exported to the USSR; a major share of exports consists of aircraft technology, passenger automobiles, trucks, ships, machining and shaping equipment, textile machinery, construction and roadbuilding machines.

The deliveries to the nonsocialist countries amount to an additional 17 percent of our production, but the situation in sales of some of our goods remains unfavorable because of the declining investments in advanced capitalist states and trade and political regulations in those countries. We are, therefore, cooperating closely with appropriate foreign trade organizations and taking joint steps toward nonconventional transactions in exports; we are trying to expand our export trade to new, thus far uncultivated territories; with companies in nonsocialist states, we are preparing proposals for cooperation

which will help improve the technical economic parameters of our products and thus, foster efficient integration in international division of labor.

Our Concern About Agriculture

Agricultural technology is affected by the need to find ways how to achieve self-sufficiency in food production and simultaneously to conserve materials, raw materials and motor fuels. We manufacture annually about 35,000 tractors, of which about 33,000 are the conventional ZETOR agricultural tractors. We have a constant export rate of more than 28,000 tractors, two-thirds of them for nonsocialist countries. We are trying to maintain the export rate by distinctly updating the general technical-economic standard of our tractors. the development of our agricultural machinery is and will be focused mainly on the satisfaction of Czechoslovak agrotechnical and capacity requirements.

In addition to the task to develop better machinery and complex technological systems, we began to consolidate the technical production base of agricultural engineering. We are introducing the production of new types of machinery for better soil treatment, more precise and economical sowing, planters of presprouted potatoes, and machinery for harvesting fodder in the mountains and on hillsides.

In 1983, we expect to expand the deliveries of grain sowers by about 250 units to a total of 1,200 units. As compared with 1981, we have succeeded in doubling the manufacture of fork-type and side-delivery rakes; in 1983, we anticipate the delivery of at least 1,300 such machines. We have begun the production of 400 units of disc spreaders for better soil treatment in the Agrozet in Roudnice. In 1983, we plan to manufacture 1,500 plows; however, the projected delvieries call for 2,500 to 2,700 units, including hoeing plows, while the plan for combines calls for 200 units and the projected deliveries of all types for at least 800 units.

The production of small tractors does not cover the demands of our domestic consumers nor our export potential. Small tractors, including accessories, are needed for mechanized operations, particularly in the cultivation of gardens, orchards and vineyards. In addition, it will facilitate the production of private gardeners and livestock keepers. Because the demand for small tractors is also steadily increasing in other CEMA countries, we are now considering mutual cooperation and collaboration with some CEMA states.

Our Automobile and Aircraft Industries

The current concept of passenger automobiles has been resolved by the modernization program in 1983-1984. The presidium of the CSSR Government approved last autumn a new model of a passenger car which complies with the requirements of the second half of the 1980's. It is a five-door automobile with the engine in the front of the car, front drive, separately suspended wheels and other modern equipment in compaliance with the demands of active and passive safety regultions and with ecological requirements. The automobile will be manufactured in the most basic modifications from which lines of special vehicles will be derived, such as delivery, sanitation and other cars.

The Ministry of General Engineering is planning to expand the line of automobile accessories and improve their quality in direct proportion with this development. More plastics and electronic modules will be used.

We are manufacturing about 45,000 units of trucks in every tonnage category, including special models. Because they require considerable metallurgical materials, we do not plan to increase their production. We have designed an engine which should run 400,000 to 500,000 km before general overhaul. Our most important task is the begin continuous production of Tatra 815 trucks. The schedule for launching production in 1983 has been met despite numerous difficulties; the production during the first quarter will serve as a test run and mass production will be gradually introduced. The target is about 16,000 trucks in 1985. We are working on a study of more dynamic increases in the production of AVIA trucks due to their brisk sales in foreign markets.

We are planning to update fundamentally PRAGA V3S trucks with a new production program to begin in 1984 in the BAZ national enterprise in Bratislava; we are working on a design of a medium-size truck. The quality of LIAZ trucks manufactured by the Skoda enterprises will be improved; first of all, we shall attempt to unify individual models and make them more dependable and thus, to achieve a product of superior quality equal to world makes and enter with it the markets in nonsocialist countries. Another important program is the organization of the production technological base in the LIAZ national enterprise in Jablonec nad Nisou and the expansion and intensification of international division of labor with the MADARA enterprises of Bulgaria. We are introducing a broad supplier network into these processes and, therefore, we call for the development and production of top-quality components that are thus far imported or, as the case may be, we are solving this problem with licensed production which is now being introduced.

Without any doubt, our aircraft industry is one of the most progressive branches of production and the mainstay of progress in construction design and in the application of technological processes of new materials, computer and testing methods. In this branch, we are implementing specialization within the CEMA countries and in close cooperation with the USSR aircraft industry; we are focusing on the development and production of training systems and small transport craft. At the same time our aircraft industry has begun to deal very dynamically with the urgent needs of Czechoslovak agriculture and is developing on a short schedule a new type of airplane for agricultural services which will utilize the experience of the successful Cmelak /Bumblebee/ Z 37 model.

Other Vital Branches

Our manufacture of machining and shaping equipment has the value of Kcs 9 billion; it includes tools, measuring instruments, grinders, handling machinery and other equipment for engineering production. Our machinery is comparable with the products of the most prominent enterprises in the world. However, we lack above all production modules. In harmony with developments in the world, we must plan more dynamic designs, furnish the machines directly with robots and handling equipment, and emphasize integrated control mechanisms. In view of the generally declining capital investment in the world, we adopted programs to accelerate changes in the structure of production aimed at a

greater share of semiautomatic and automatic control mechanisms, major increases of the current share of machinery and production lines with special construction, building-block systems and modules attached to users' technology. We have to manufacture machining equipment to be attached to automated or flexible systems. The first automated flexible system will be put into operation in 1984 in the TOS /machine tool/ communal enterprise in Olomouc.

Czechoslovak engineering manufactures textile machinery with low consumption of energy and materials. More than 80 percent of all sources of production are manufacturing for export. The profitable foreign trade guarnatees that our production capacities will be efficiently used in the future. In order to maintain the overall technical standard of our textile machinery on a level comparable to the advances in the world, we intend to improve the technical standard of assembly modules in terms of automation, higher technical parameters, dependability and service life.

Currently we are in the planning stage of a new generation of spindleless spinning machines, model SI, and of a second ED SIA line which will be fully automated; this will place us ahead of our world competition. In the first years of the Eighth 5-Year Plan we shall finalize the design of a new spindleless spinning machine whose technical parameters will again give us world primacy. Another innovation of our textile technology involves the Jettis type of pneumatic looms; we are beginning to manufacture jet looms with central picking and planning to introduce new automated modules for small-diameter knitting machines with feeding in the whole system in textile mills.

Automation of production processes with the use of industrial robots and handling equipment is becoming one of the basic, vital trends in the period of transition to intensification of our whole national economy. At present, 634 industrial robots and handling machines are in operation in our country. The Research Institute for Metal-Processing Industry in Presov safeguards the development, production and deployment of industrial robots and handling equipment and the ZTS national enterprise in Detva, the BAZ national enterprise in Bratislava, the TOS national enterprise in Trencin, Slovenska armaturka /Slovak Fittings Manufacture/ in Myjava, the TST Kovofinis communal enterprise, the CZM national enterprise in Strakonice and others in our department are involved in the production.

Last year we adopted a policy to promote a dynamic development in this sector and to specify the tasks for research, production and deployment of industrial robots and handling equipment. We set up a program for individual VHJ for individual periods and for the entire five-year plan. There is much that needs to be done in the production of advanced centers and components for the construction of robots and initially financial assistance must be provided to enterprises facing problems in terms of application. Selected planning organizations must plan automation of technological workplaces with industrial robots in view of their economic contribution and focus on their group deployment.

During the Seventh 5-Year Plan we shall manufacture a total of 1,560 industrial robots and handling machinery.

*

The increasingly more complex and demanding standard of technical and economic solutions of engineering problems needs on all levels of management and in every operation workers with excellent qualification and high moral standards. Aware of these correlations, we are trying to improve markedly the scientific research base, planning and construction units. Our future technical progress depends primarily on our know-how, inventiveness, creative inspiration and technical imagination of persons in the scientific research base who are creating new products and methods, and last but not least, on their dedication and initiative.

It is obvious that the tasks we are facing are very demanding. According to our assessment the fulfillment of the state plan for 1983 is realistic and feasible, however, it calls for skilled daily work performed by every work--from the shop to the ministry.

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SHIPBUILDING STATISTICS, HARBOR ACTIVITIES FOR 1982 REVIEWED

East Berlin SEEWIRTSCHAFT in German Vol 15 No 2, Feb 83 pp 58-66

[Report by D. Strobel: "GDR Shipbuilding 1982"]

[Text] In 1982 the GDR shipbuilding industry produced 58 oceangoing or oceangoing/inland-waterway vessels and performed 330 repairs, thus increasing its output by approximately 106 percent and its export to the USSR by 106 percent in comparison with the previous year. Its export to non-socialist countries also continued to climb. The gross tonnage of new construction totaled 355,433 BRT [gross register tons], 96 percent of which were exported (Tables 1-4). The USSR was the principal customer, taking delivery of 41 new ships--24 fishing and processing vessels of the "Atlantic Supertrawler" series from the VEB People's Shipyard, Stralsund; 3 refrigeration and transport ships of the "Crystal" series from the VEB Mathias-Thesen Shipyard, Wismar; 3 container ships of the "Mercury II" class and 3 other special bulk freighters of the UL-ESC-II series from the VEB Warnow Shipyard, Warnemuende; 2 more bucket-conveyer dredges from the VEB Neptune Shipyard, Rostock; and 6 inland passenger/freight ships from the VEB Elbe Shipyard, Boizenburg/Rosslau. Altogether 12 GDR-built freighters were registered in Liberia, Indonesia, (its first purchase of a new GDR-built vessel), Yugoslavia, Panama and Libya. The following ships were manufactured for registration in the German Democratic Republic:

--Three "Atlantic Supertrawlers" for the Rostock VEB Fishery;

--MS "Gleichberg," the first of a series of 6,700 tdw [dead weight (metric) tons] roll-on roll-off [Ro/Ro] ships of the Ro 15 class for the Rostock VEB Deutfracht/Ocean Shipping Line (an axial 2-track stern ramp, 2 hoisting platforms and an automatic heeling compensation mechanism guarantee an efficient load turnover on a total runway length of 1090 meters and 3 decks);

--The firefighting boat FLB-40-2 for the Wismar Harbor.

The product line was subject to consistent and determined innovation, so that in 1983 new products make up half of the total production volume. This is due in large measure to the combine's operations in charge of naval mechanical engineering and naval equipment construction, which developed a new energy-saving, 2-stroke diesel power plant; gears, lifts, ramps and trailers for the

Ro/Ro vessel; and microelectronic steering and course monitoring systems. In 1982 the following vessel classes were first introduced into production and delivered:

--The container vessel "Mercury II" with 938/1084 container stowage places (VEB Warnow Shipyard, Warneumuende);

--Ro/Ro vessel of the Ro 15 class with 6700 tdw (VEB Mathias-Thesen Shipyard, Wismar);

--The tugboat 220 kW, able to push up to 4 barges with a cargo capacity of 1,720 tons (VEB Shipyard for Yacht Building, Berlin).

The following were launched or laid down in 1982:

--The first refrigerator transport vessel of the "Crystal II" class with 9,350 tdw and 4 deep-freeze cargo rooms totaling 13,184 cubic meters (VEB Mathias-Thesen Shipyard, Wismar);

--The refrigerated trawler-seiner (GTS) in series production (VEB People's Shipyard, Stralsund);

--The first Project 302 inland passenger ship with 340 cabin spaces (VEB Elbe Shipyard, Boizenburg/Rosslau).

The proportion of soundness-tested production achieving the quality class "Q" increased to 77.7 percent. This was largely the result of the award of the highest GDR quality class for additional products:

--Container ship "Mercury II" of the Warnow Shipyard, Warnemuende;

--Bucket-conveyor floating dredger of the 101 class of the VEB Neptune Shipyard, Rostock;

--Fishmeal facility VFMO 3/1 12t/d of the VEB Naval Facilities Construction, Barth, for refrigerated trawler-seiners;

--Combined refrigeration and cargo space equipment of VEB Refrigeration Automation, Berlin, for refrigerated trawler-seiners;

--Main switchpanel of VEB Naval Electronics, Rostock, for refrigerated trawler-seiners; and

--Seiner hoist SW-140 and multireel auxiliary hoist 1 MHW of the VEB Klement-Gottwald Works, Schwerin, for refrigerated trawler-seiners.

For the first time, the VEB Mathias-Thesen Shipyard, Wismar, and the VEB Elbe Shipyard, Boizenburg/Rosslau, attained the title "Factory of Distinguished Quality Work." The VEB Klement-Gottwald Works, Schwerin--the combine's specialty factory for shipbuilding facilities, loading and fishery equipment--was awarded the ASMW [Standardization, Measurement and Commodity Testing

Office] Certificate of Honor, after successfully defending its title for 5 consecutive years. Due to product specialization, GDR shipbuilding in 1981 (the Lloyd's Register figures for 1982 are not available until March 1983) attained 1st place in the construction of fishing vessels, 6th place in multipurpose freighters and 10th place in total production worldwide. Serial production enabled GDR shipbuilding to react more rapidly and economically to customer demands, as long as they did not deviate too much from the basic design.

Table 1. 1982 construction by shipyard*

Shipyard	Number of vessels	Gross tonnage	Dead weight tonnage (tdw)
VEB Warnow Shipyard, Warnemuende	11	152,901	192,390
VEB People's Shipyard, Stralsund	27	87,401	57,219
VEB Mathias-Thesen Shipyard, Wismar	6	55,493	79,288
VEB Neptune Shipyard, Rostock	7	46,368	61,301
VEB Elbe Shipyard, Boizenburg/Rosslau	6	13,040	6,630
VEB Shipyard for Yacht Building, Berlin	1	240	-----
Total	58	355,443	396,828

*Only oceangoing or oceangoing/inland-waterway vessels

Table 2. 1982 construction by type of vessel

	Number of vessels	Gross tonnage	Dead weight tonnage (tdw)
Freighters	23	230,855	308,533
--Container ships	3	53,130	47,700
--Ro/Ro ships	1	4,692	6,700
--Multipurpose container ships	12	129,233	190,713
--Special bulk cargo ships	3	40,560	57,900
--Refrigeration ships for inland and coastal shipping	4	3,240	5,520
Fishing vessels	30	111,236	86,019
--fishing and processing ships	27	87,401	57,219
--Refrigeration ships	3	23,835	28,800
Others	5	13,835	2,276
--Inland passenger ships	2	9,800	1,110
--Bucket-conveyor floating dredges	2	3,312	1,166
--Firefighting boats	1	240	-----
Totals	58	355,443	396,828

Table 3. Percentage of 1982 construction by type of vessel

Type of vessel	Number of vessels	Gross tonnage	Percentage of gross tonnage
Freighters	23	230,855	65%
Fishing vessels	30	111,236	31%
Others	5	13,352	4%
Totals	58	355,443	100%

Table 4. Export percentages of 1982 construction

	Number of vessels	Gross tonnage	Percentage
Total exports	53	340,842	96%
--USSR	41	211,609	60%
--Other countries	12	129,233	36%
Construction for GDR shipping lines	5	14,601	4%
Totals	58	355,433	100%

VEB Warnow Shipyard (VEB Warnowwerft), Warnamuende

With a total of 152,901 gross tonnage, the Warnow Shipyard built more new ships than ever before. All 11 new vessels, including the first 3 container ships of the "Mercury II" class and 3 additional specialized bulk freighters of the UL-ESC-II class, were exported to the Soviet Union. The container vessels registered to the Leningrad-based Baltic Shipping Line have 25 percent more efficiency value than the "Mercury I" class (840 TEU) and over 938 container places, an extremely large crusing radius (21,000 nautical miles) and are rated for class L1 ice. They are used on the Baltic-Orient Line C.S. between Western Europe and the Far East--as are some vessels of the "Mercury I" class--and serve the ports of Hamburg, Bremerhaven, Antwerp, Rotterdam, Le Havre, Tilbury, Jiddah, Singapore, Bangkok and Manila. The MS "Captain Gavrilov," for instance, took 66 days on its maiden voyage to Hamburg and back with an average cargo load of 9,600 tons and a maximum container load of 1,084 TEU and a fourth layer of empty containers. The ship command wrote to the shipyard that the ship satisfied in all respects the present-day demands of container transport and transfer and that the schedule was kept to the exact day as planned.

The "Mercury II" class was awarded the GDR's highest certificate of quality on 19 November last year, confirming the good performance of the yard collective.

With the five 17,330 tdw multipurpose freighters of the "Monsun" series, the series size was increased to 7. The ship class, to be included in the production program in the coming years as well, has many uses and contains a high-performance loading harness for packaged cargo weighing from 5 to 125 tons and a container load capacity of 642 TEU, enlarged by using the stern space behind the superstructure.

VEB People's Shipyard (VEB Volkswerft), Stralsund

The year's production of new fishing and processing vessels of the "Atlantic Supertrawler" series also represents a unique world-class record for the shipyard on the Strelasund. After 10 years of serial production and ongoing product improvement, 195 units have left the yard. The series will be ended this year with the 201st vessel, when the last 6 ships are delivered in April and will be replaced by the serial production of refrigerated trawler-seiners. Of the 24 supertrawlers placed in the service of the Soviet High-sea Fishery in 1982, 5 work out of Kaliningrad, 3 out of Riga, 2 each out of Tallinn, Kertsch, Vladivostock, Sevastopol, Ilyichovski and Leningrad, and 1 each out of Murmansk, Klaipeda, Nakhodka and Novorossisk. The supertrawler "Nicholai Afanasev" (home port in Kaliningrad) is the 1,200th vessel built for the Soviet Union by the People's Shipyard.

With the addition of the supertrawlers ROS 336 "Hans Marchwitze," ROS 337 "Ludwig Renn" and ROS 338 "Bruno Apitz" to the fleet of the VEB Fishery, Rostock, the GDR High-sea Fishery now has eight modern ships of this class, the last several of which profited from performance experience and the latest technical advances (e.g., improved energy saving by running on heavy oil and cooling performance reduced by 200 kW, equipment with modern environmental protection devices, ability to stay at sea for several years without returning to home port, cabins for no more than two men each).

The new supertrawlers began their maiden runs to South-west Africa and are passing performance tests off Namibia. This is verified in a communication signed by Captain D. Meissner to the People's Shipyard from the crew of the ROS "Ludwig Renn," an excerpt of which reads: "After 50 days at sea, we believe that we have completed our assignment, and our ship has not failed us in any way. It has been demonstrated that our 'Ludwig Renn' is a high-performance vessel and from its first day out in the fishing waters of Namibia has proven itself in efforts at high-production results and will continue to do so in the future. The crew, at least, is firmly convinced of this. Our ship--and the Soviet and Rumanian supertrawlers fishing here with us--render a far-from-home testimony to the high performance and quality workmanship of the GDR shipbuilders."

But the year 1982 was marked also by the readiness for serial production of the refrigerated trawler-seiner and the adjustment of the suppliers to the 7-day production output rhythm of the yard. The crews of the experimental ships which returned to the People's Shipyard for warranty dry docking were able to provide us with valuable experience. The crew of the GTS "Orlyonok" (Kaliningrad) in early 1982 caught 1,100 tons of fish and processed them to 660 tons of frozen food and 80 tons of fishmeal. The crew of the "Omul" totally satisfied its scheduled assignments and highly praised the performance and seaworthiness of the GTS that virtually combines the technical fishing facilities of large supertrawlers into a much smaller space.

VEB Mathias-Thesen Shipyard, Wismar

With the delivery of six new vessels to three client countries, the Wismar Shipyard Collective again confirmed its reputation as a dependable trade partner. The last 3 refrigerator transport vessels of the "Polar" and "Chrystal" series--produced since 1970 and considerably modernized several times--were produced for the USSR, thus closing out the series at 34 units: 29 flying the Soviet flag, 4 the Rumanian and 1 the flag of the GDR. As the first ship of the considerably advanced successor class "Chrystal II" (9,350 tdw and refrigerated cargo space of 13,184 cubic meters), the KTS "Komsomolets Primorya" was launched on 2 October under the yard number 222 for the Vladivostok fishing base.

The series 6 of the all-waters, multipurpose container ship was closed out with delivery of the MBC "Dagmar Reeckmann" (21,894 tdw, home port Monrovia).

The first roll-on/roll-off vessel of GDR manufacture, the MS "Gleichberg," was delivered to the coastal and specialty fleet of the VEB Deutfracht/ Shipping Line, Rostock, on 27 July. This vessel class is especially suited for short hauls, having 3 decks with a total runway length of 1,090 meters holding about 170 rolling trailers. The sister ships MS "Auersberg" (yard number 151) and MS "Kahleberg" were launched on 21 August and 22 December, respectively.

VEB Neptune Shipyard (VEB Schiffswerft "Neptun"), Rostock

The yard built seven new vessels. The Soviet Union took delivery of the second and third dredgers in the bucket-conveyer series; the SLAVJ (Libya) received the MS "El Hashaishi," the last of a series of three 9,420 tdw multipurpose freighters; and customers from Liberia and the Republic of Indonesia--the latter's first purchase from us--each took delivery of two 12,700 tdw freighters of the "Neptune-421" series, running the number of registered units in this series to 43.

MS "Skadovsk," the first dredger of the o.g. series sailed under its own power from Rostock to Odessa in 50 days, where in April it began operating in Odessa's South Harbor, dredging 1.5 million tons in just four and a half months! It thus confirmed the performance of the microcomputer-automated dredging operation which guarantees optimal bucket filling through programmed warping and positioning of the dredger. The German Democratic Republic has the only shipbuilding industry in the RGW [CEMA] that manufactures dredgers in this performance range (750 cubic meters/hour from a water depth of 12 meters, maximum dredger depth of 24 meters).

VEB Elbe Shipyards (VEB Elbewerften) Boizenburg/Rosslau

The workers of the Elbe Yard finished six vessels for their biggest customer, the Soviet Union: two additional inland passenger ships, the "Aleksandr Radiscev" (Volga Shipping Line, Gorki) and the "Alexandr Griboedov" (Moscow Inland Shipping Line, Khlebnikovo), the 20th and 21st of the Project 301 series; and four KBK refrigeration ships in the inland and coastal vessel

class. These ships left the final construction site in Wismar, sailing 2,500 km to Moscow and over 7,000 km (in about 20 days) to Kiev. The home port of Kiev, for instance, can be reached only by passing the Volga, the Don, the Azov Sea, the Black Sea and the Dnieper. New areas are being opened all the time for the 360-passenger vessels. PRAVDA of 24 June 1982 reported that the "Nicholai Dobrolyubov" of the Ukrainian Inland Shipping Line in Kiev attempted first in the summer of 1982 a river-sea crossing from the Dnieper by way of the Black Sea to Bulgarian and Rumanian ports.

The same is true of the inland freighters. The "Biriuchki," an inland-coastal container ship of the CBK-1600 series that was delivered October 1979, last year opened nonstop shipping between Finnish and Soviet ports. The route from Karelia's inland seas through the Baltic was traversed without costly and time-consuming reloading. The ships perform in the tricky waters of the Karelian sea and canal region as well as on the open sea. Previously, the cargo had to be transferred before passing from the inland waters to the Baltic. Most goods are still transferred between Finland and the Soviet Union by rail. The plan gradually to shift this transport from rails to waterways will result in considerable energy savings.

VEB Shipyard for Yacht Building (VEB Yachtwerft), Berlin

Nine class III inland passenger ships were delivered last year. On 6 December, the 35th vessel of this series, produced here since 1976, was launched and became the first of the series to be sold abroad. It is registered as the MS "Praha" and is the first of several ships from this ongoing series to be placed in service with the "White Fleet," in Prague. The others are scheduled for delivery in 1983 by this yard. They have over 124 seats, a length of 28.5 meters and a width of 5.4 meters and, because of a mere 9.9-meter draft, are especially suited for use on quiet inland waters. They possess high-performance characteristics and reasonable comfort. Thirty-two of them have been delivered so far to customers in 11 GDR districts.

On 13 December the first unit of a new series of canal tugs 220 kW was launched for the VEB Inland Shipping Line. It is a canal tug designed for use on canals, lakes and rivers with slow-moving currents and is planned for transporting up to four normal barges bound together in a double tandem train, each barge having a displacement of 470 cubic meters, and for pushing K3 tankers. The deck superstructures, preassembled in container form, rest on steel shock-absorbing springs. A triple-surface rudder (Jenckel model) provides good maneuverability. The ship is built according to GDR classification codes as a DSEK KM VEGE 3 "ice" tug. Technical data: overall length = 16.5 meters, L_L = 15.85 meters, overall width = 8.15 meters, width (spt.) = 7.94 meters, height = 2.5 meters, draft = 1.5 meters, displacement = 114.6 cubic meters, draft (max/100% available) = 1.57 meters, displacement at draft (max) = 124.5 cubic meters, elevation of vision at extended control post = 6.35 meters over water (KWL). The power unit is a diesel engine type 6 VD36/24-1U with a performance of 224 kW at 500 rpm.

Ablieferungsdatum (2)	Bau-Nr. (3)	Schiffsname (4)	Schiffstyp (5)	Flaggenstaat (6)	Vermessung in BRT (Tragfähigkeit in t) (7)	L_L in m (8)	B in m (9)	H in m (10)	T in m (11)	Antriebsanlage (12)	Antriebsleistung in kW (13)	v in kn (14)	Beschreibung in „Seewirtschaft" (15)
VEB Volkswerft Stralsund													
10. 01. 1982	541	Arkadiy Chernyshev	Atlantik-Supertrawler	UdSSR (23)	3090 (2117)	91,80	15,20	9,70	5,70	8 ZD 72/48 Al-1	2855	14,6	6/1978
31. 01. 1982	542	Yaroslav Iosseliani											
15. 02. 1982	543	Elva											
28. 02. 1982	544	Novorossiyskiy Rabochiy											
16. 03. 1982	545	Gnevnyj											
30. 03. 1982	546	Grom											
31. 03. 1982	547	Astan Kesaev											
22. 04. 1982	548	Boris Alekseev											
30. 04. 1982	549	Nikolay Pustovoytenko											
20. 05. 1982	550	Nevskaya Dubrovka											
31. 05. 1982	551	Fedor Yerozidi											
14. 06. 1982	552	Telshyay											
28. 06. 1982	553	Aleksey Grachev											
14. 07. 1982	554	Maksim Khomyakov											
27. 08. 1982	206	Hans Marchwitza		DDR (24)	3223 (2137)								
31. 08. 1982	207	Ludwig Renn		DDR	3223 (2137)								
29. 09. 1982	254	Pelagial		UdSSR (23)	3090 (2117)								
30. 09. 1982	555	Kauguri											
30. 09. 1982	556	Kharku											
20. 10. 1982	208	Bruno Apitz		DDR (24)	3223 (2137)								
27. 10. 1982	557	Petropavlovskaya Krepost		UdSSR (23)	3090 (2117)								
31. 10. 1982	558	Vasiliy Grechishnikov			3090 (2117)								
16. 11. 1982	559	Misa			3090 (2117)								
29. 11. 1982	560	Nikolay Afanasev			3983 (2117)								
30. 11. 1982	561	Borodinskoe Pole			3983 (2117)								
20. 12. 1982	562	Evgeniy Polyakov			3983 (2117)								
29. 12. 1982	563	Prostor			3983 (2117)								
Insgesamt 27 Neubauten mit zusammen 87401 BRT (57219 tdw) (21)													
VEB Elbewerften Boizenburg/Roßlau													
05. 01. 1982	362	Refrizherator-603	KBK	UdSSR (23)	810 (1380)	78,10	11,60	4,00	3,25	2 × 8 VDS 36/24 A-1	2 × 444	20,7 km/h	7/1982
31. 03. 1982	363	Refrizherator-604	KBK		810 (1380)	siehe „Refrizherator-603"							
21. 05. 1982	375	Aleksandr Radiscev	Binnenfahrgastschiff		4900 (555)	118,00	16,00	4,50	2,80	3 × EG 70-5	3 × 735	26,0 km/h	2/1976
31. 05. 1982	364	Refrizherator-605	KBK (25)		810 (1380)	siehe „Refrizherator-603" (16)							
30. 06. 1982	356	Refrizherator-606	KBK		810 (1380)	siehe „Refrizherator-603"							
23. 07. 1982	376	Aleksandr Griboedov	Binnenfahrgastschiff (25)		4900 (555)	siehe „Aleksandr Radiscev"							
Insgesamt 6 Neubauten mit zusammen 13040 BRT (6630 tdw) (22)													
VEB Yachtwerft Berlin													
23. 10. 1982	1312	FLB-40-2	Feuerlöschboot Küste (26)	DDR (24)	240	35,84	7,20	3,52	2,20	3 × 12 KVD 21 Al-4	3 × 900	16,0	12/1982

Schiffsablieferungen des DDR-Schiffbaus im Jahre 1982 (1)

(2) Ablieferungsdatum	(3) Bau-Nr.	Schiffsname (4)	Schiffstyp (5)	Flaggenstaat (6)	Vermessung in BRT (Tragfähigkeit in t) (7)	L_L in m (8)	B in m (9)	H in m (10)	T in m (11)	Antriebsanlage (12)	Antriebsleistung in kW (13)	v in kn (14)	Beschreibung in „Seewirtschaft" (15)
VEB Warnowwerft Warnemünde													
(month and day)													
22. 01. 1982	201	Durmitor	Monsun	Jugoslawien	11730 (17400)	146,00	23,05	13,40	10,18	K 7 Z 70/120 E	6690	17	9/1978
19. 02. 1982	147	Kapitan Bochek	UL-ESC II	UdSSR	13520 (19300)	154,88	22,86	13,50	9,88	K 8 Z 70/120 E	8235	16	10/1982
30. 04. 1982	202	Lovcen	Monsun	Jugoslawien	11730 (17400)	siehe „Durmitor"							
01. 06. 1982	471	Kapitan Gavrilov	Mercur II	UdSSR	17710 (15900)	163,57	25,40	15,90	9,82	9 DKRN 80/160-4	15882	22	
30. 06. 1982	148	Kapitan Sviridov	UL-ESC II	UdSSR	13520 (19300)	siehe „Kapitan Bochek"							
31. 08. 1982	243	Wadai	Monsun	Panama	11917 (17330)	siehe „Durmitor" (16)							
20. 09. 1982	472	Kapitan Kanevskiy	Mercur II	UdSSR	17710 (15900)	siehe „Kapitan Gavrilov"							
30. 09. 1982	149	Kapitan Vodenko	UL-ESC II	UdSSR	13520 (19300)	siehe „Kapitan Bochek"							
30. 11. 1982	473	Kapitan Kozlovskiy	Mercur II	UdSSR	17710 (15900)	siehe „Kapitan Gavrilov"							
22. 12. 1982	244	Wahehe	Monsun	Panama	11917 (17330)	siehe „Wadai"							
30. 12. 1982	245	Wangoni	Monsun	Panama	11917 (17330)	siehe „Wadai"							

Insgesamt 11 Neubauten mit zusammen 152901 BRT (192390 tdw) (18)

VEB Mathias-Thesen-Werft Wismar

31. 03. 1982	219	Bereg Nadezhdy	Kristall	UdSSR	7945 (9600)	142,00	22,25	13,61	7,45	K 9 Z 60/105 E	6620	17,2	10/1979
30. 06. 1982	124	Stephan Reeckmann	MBC	Liberia	13483 (21894)	167,40	22,90	14,03	10,09	K 8 Z 70/120 E	8240	15,7	2/1981
27. 07. 1982	150	Gleichberg	Ro 15	DDR	4692 (6700)	123,03	20,49	14,60	7,23	2 × 12 VD 48/42 AL-2	5295	18,6	2/1983
31. 08. 1982	220	Bereg Mechty	Kristall	UdSSR	7945 (9600)	siehe „Bereg Nadezhdy"							
30. 10. 1982	128	Dagmar Reeckmann	MBC	Liberia	13483 (21894)	siehe „Stephan Reeckmann"							
10. 12. 1982	221	Tambov	Kristall	UdSSR	7945 (9600)	siehe „Bereg Nadezhdy"							

Insgesamt 6 Neubauten mit zusammen 55493 BRT (79288 tdw) (19)

VEB Schiffswerft „Neptun" Rostock

28. 02. 1982	303	El Hashaishi	301	Libyen	7696 (9420)	133,79	19,00	10,50	8,11	MH K 7 Z 60/105 E	5150	16,2	7/1981
31. 03. 1982	440	Merkur Lake	Neptun-421	Liberia	8840 (12720)	150,17	21,00	11,30	9,05	MH K 9 Z 60/105 E	6620	16,6	2/1980
22. 06. 1982	441	Saxonia	Neptun-421	Liberia	8840 (12665)	siehe „Merkur Lake"							
30. 09. 1982	442	Binantara Satu	Neptun-421	Indonesien	8840 (12665)	siehe „Merkur Lake"							
30. 11. 1982	102	Belomorskaya	EKS 101	UdSSR	1656 (583)	80,17	14,40	5,20	3,75	2 elektr. Fahrmotoren	2 × 570	9,0	
22. 12. 1982	443	Binantara Dua	Neptun-421	Indonesien	8840 (12665)	siehe „Merkur Lake" (17)							
30. 12. 1982	103	Genitchesk	EKS 101	UdSSR	1656 (583)	siehe „Belomorskaya"							

Insgesamt 7 Neubauten mit zusammen 46368 BRT (61301 tdw) (20)

PHOTO CAPTIONS

2. p. 59. Container vessel of the "Mercury" series in Bremerhaven (Photo: Bremen Warehouse Company. Bremerhaven Industrial and Aerial Photos/H. Engler)

3. p. 60. Compared with the first five "Atlantic Supertrawlers"--of which the ROS "Ludwig Turek" is one (purchased by the VEB Fishery, Rostock, on 29 November 1976)--their successors' performance has been improved considerably (Photo: Welke)

4. p. 60. In 1982, VEB Fishery, Rostock, placed in service three "Atlantic Supertrawlers"--e.g., the "Ludwig Renn" (Photo: H. Volster)

5. p. 60. View of the stowage space for 40-foot containers of a "Mercury II" container vessel (Photo: J. Sindermann)

7. p. 60. Multipurpose freighter of the "Monsun" class

9. p. 61. "Nicholai Afanasev"--the 1,200th vessel produced by the VEB People's Yard for the Soviet Union (Photo: E. Schult)

11. p. 61. Twenty-four refrigerated trawler-seiners will be built in 1983 by the People's Shipyard for their principal customer, the Soviet Union (Photo: H. Volster)

12. p. 61. Repairs were performed last year on 330 units, including 21 warranty and 2 general repairs (Photo: L. Willmann)

13. p. 62. Multipurpose container freighter of the MBC class built by the VEB Mathias-Thesen Shipyard, Wismar (Photo: H. Volster)

14. p. 62. In its home port Murmansk, the refrigeration-transport vessel "Mathias Thesen," built by the Mathias-Thesen Shipyard

15. p. 63. For the first time, new GDR vessels left a GDR yard flying the Indonesian flag: the two 12,665 tdw multipurpose freighters "Bimantara Satu: and "Bimantara Dua" (Photo: KSR/Seemann)

16. p. 63. The bucket-conveyer dredger "Belomorskaya" built by the VEB Neptune Shipyard, Rostock (Photo: J. Sindermann)

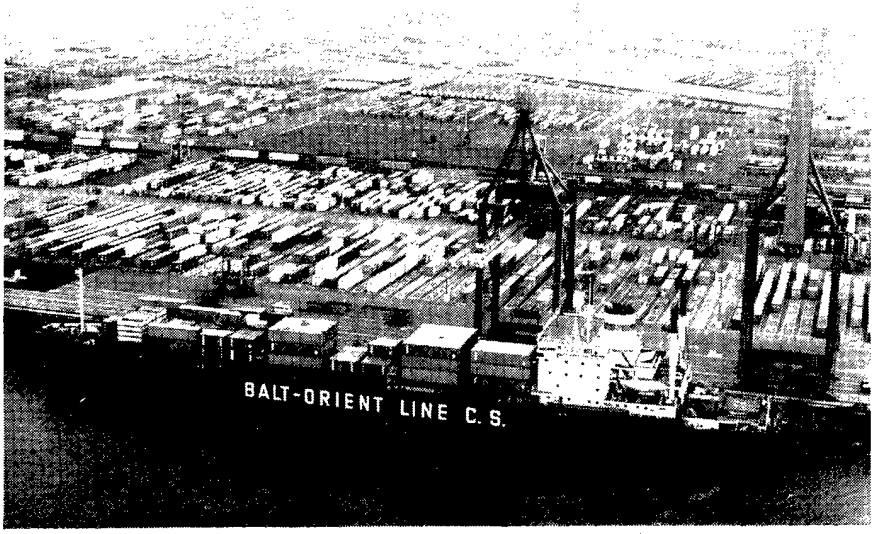
19. p. 64. At the terminal in Rostov on Don, the "Sovetskaya Ukraina," an inland passenger ship from the VEB Elbe Shipyard, Boizenburg/ Rosslau (Photo: H. Buchmann)

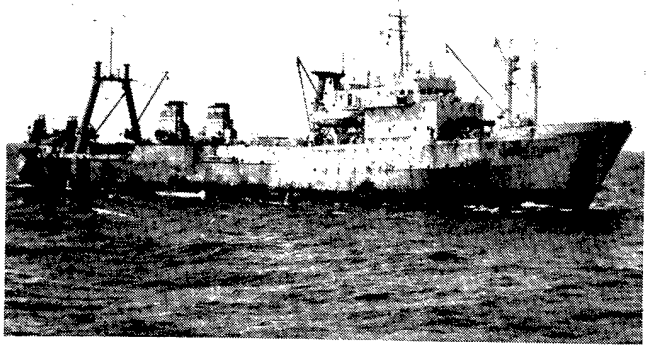
21. p. 64. At the outfitting pier of the Rosslau Yard, the refrigerated and containerized, inland/coastal vessels destined for use on the Ob, Irtish and Lena Rivers

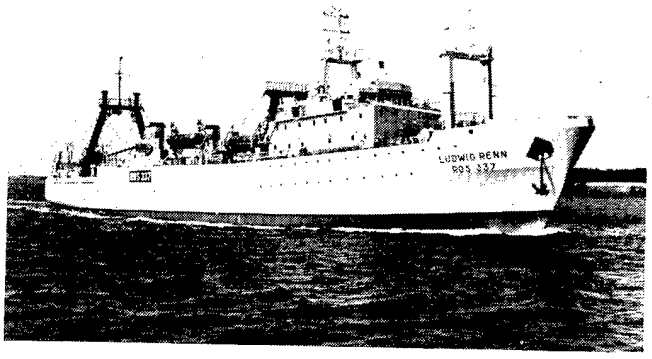
23. p. 64. Making a harbor tour in Rostock/Warnemuende, the MS "Breitling" out of the inland passenger series of the Berlin Shipyard for Yacht Building (Photo: H.-J. Mehl)

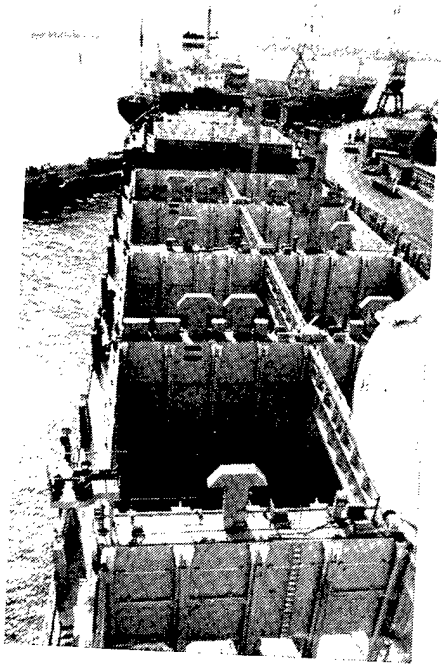
Key for pages 65 and 66:

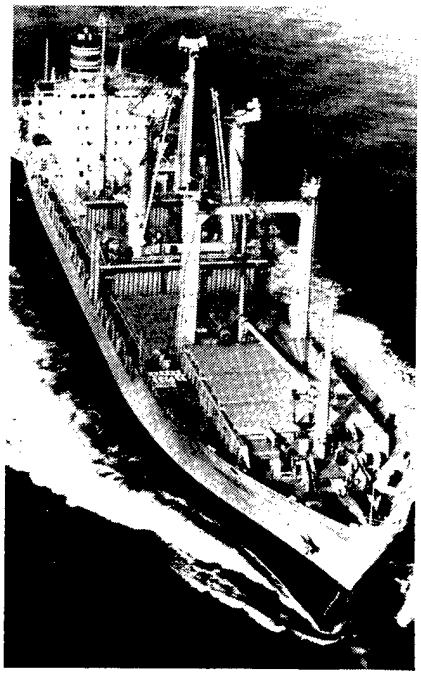
1. Deliveries of GDR-built vessels in 1982
2. Delivery date
3. Yard number
4. Name of vessel
5. Class of vessel
6. Registration
7. Gross tonnage (tdw)
8. Length in meters
9. Width in meters
10. Height in meters
11. Draft in meters
12. Power plant
13. Power in kW
14. Vel. in kn
15. Described in SEEWIRTSCHAFT
16. see
17. 2 electric traction motors
18. a total of 11 new vessels at 152,901 gross tons (192,390 tdw)
19. a total of 6 new vessels at 55,493 gross tons (79,288 tdw)
20. a total of 7 new vessels at 46,368 gross tons (61,301 tdw)
21. a total of 27 new vessels at 87,401 gross tons (57,219 tdw)
22. a total of 6 new vessels at 13,040 gross tons (6,630 tdw)
23. USSR
24. GDR
25. inland passenger ship
26. firefighting boat


BALT-ORIENT LINE C. S.




LUDWIG RENN



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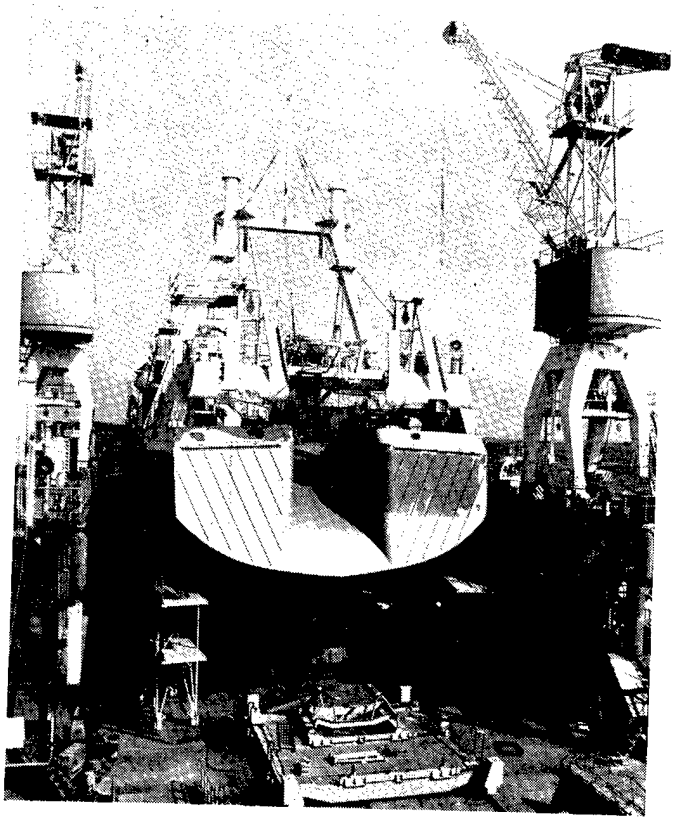

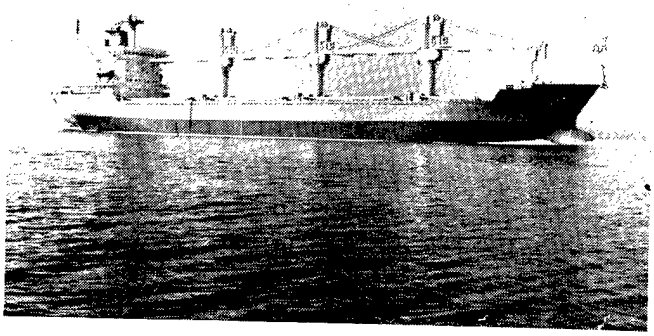

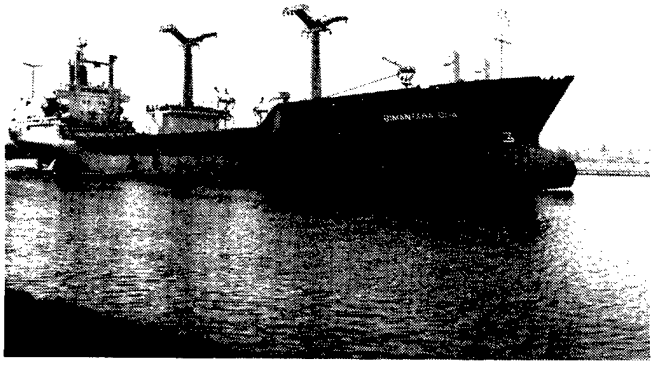

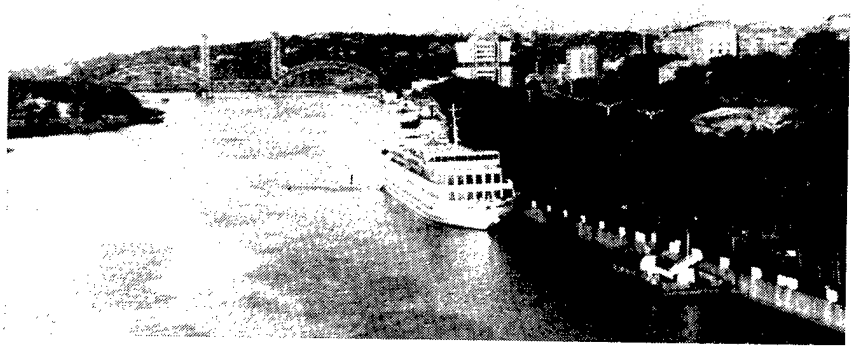

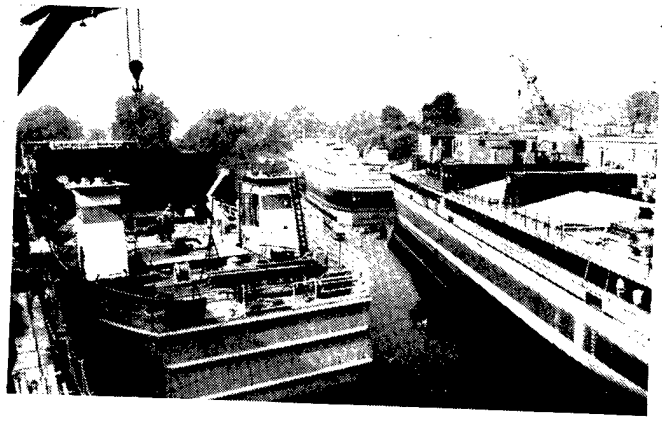

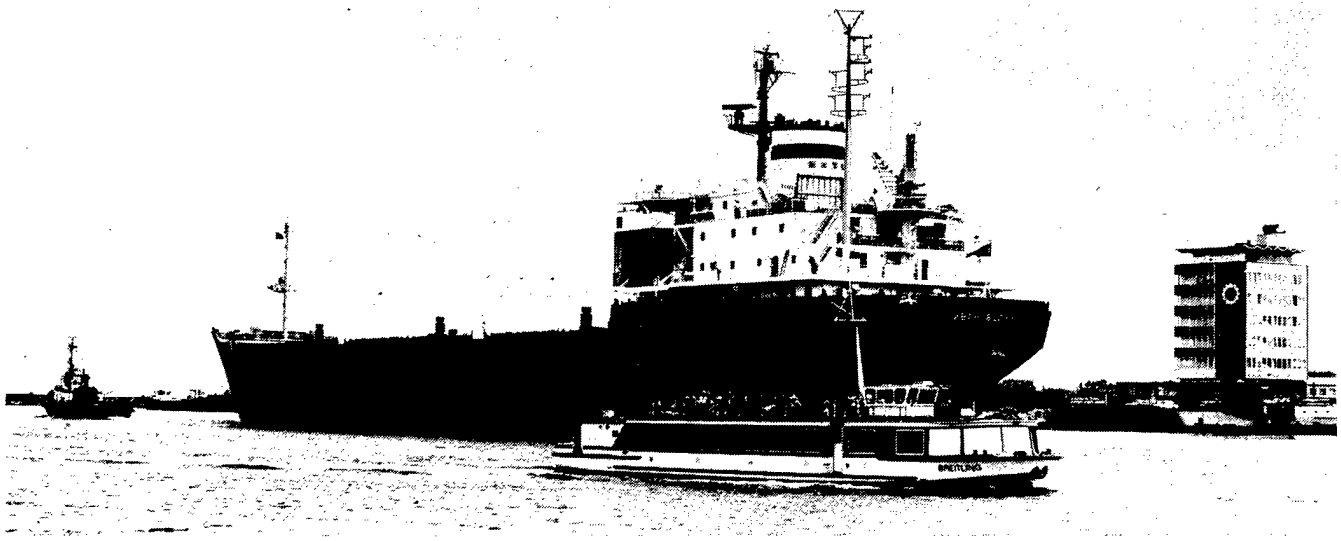

9992

CSO: 2300/203

ECONOMIST SAYS REFORM AT ENTERPRISE LEVEL 'SHAM'

Budapest HETI VILAGGAZDASAG in Hungarian 2 Apr 83 p 38

[Article by Otto Pirityi: "A Fable About the Internal Mechanism of Enterprises"]

[Text] About 20 years ago, the spirit of reform swept our country. Reading and hearing about reform stirred us as stories of the exploits of knighthood stirred Don Quixote. And, emotionally stirred like him who rushed to aid the weak and defenceless, so we rushed to reform everything within our purview.

We occupied all areas on our road to conquest with the exception of the fortresses, the enterprises.

The reform mechanism stopped short at the doors of the enterprises. It is still standing there. The internal mechanism of the enterprise has remained unreformed.

We increased enterprise dependence and were surprised that the reigning lords of enterprises forbade reform to enter: my house [enterprise] is my castle. The reform can do anything but invade the privacy of my house.

The practice and then the concept of the "enterprise of and for itself" developed. Many enterprises became enterprises of and for themselves: they do what is inherent in their nature. This is like Kant's "Ding an sich" a thing unto itself; in other words, unknowable in its internal essence. In order to gain insight we must introduce external frames of reference. While Kant adopted the categories of space and time, we adopted profit, the market, enterprise interests and independence as enterprise frames of reference. But this failed to produce order from chaos.

Our enterprises accepted the concepts, the frames of reference with understanding and good will. It is only right and proper to accept directives from above in this spirit. However, since they were unable to conform to the frames of reference without violating their internal system, they began to simulate: the shop simulated the plant; the plant, the factory; the factory, the enterprise; the enterprise, the trust; and the trust, the branch of the economy. If the entire economy simulated the market, free competition, flow

of capital, profit, why shouldn't a self-accounting unit simulate an enterprise? Why shouldn't it behave as though it had its own results, profits, commodity prices and enterprise type of interest?

Something good should not be resisted. If this is what the state wants, so be it. Not actually, but seemingly. In the meantime the real internal mechanism of the enterprise continues to function as usual. It establishes programs, manages inventories, prepares for production, sets material and work norms, makes estimates and final evaluations as it has for decades. The band plays on. Some people, especially sensitized for this purpose, break down enterprise interests which barely exist any longer, increase enterprise independence on paper, report profits, and crown them with indices and elements of market competitiveness. Because not only things and facts are real; principles are real as well.

CSO: 2500/231

FUNDING SOURCES FOR PUBLIC SECTOR CAPITAL SPENDING ANALYZED

Warsaw FINANSE in Polish No 1, Jan 83 pp 43-48

[Article by Waldemar Manugiewicz: "Sources of Funding for Capital Investments in Socialized Sector of Economy During 1976-1981"]

[Text] The structure of sources for the funding of capital investments depends primarily on the size of investment outlays, on the direction of investments and on the principles governing the funding of investments at a given time.

In the beginning of the 1970's, the subsequent phase of development of the system of investment funding began. On the basis of past experiences, it was felt that the most proper form of investment funding is through interest-bearing bank credit. In connection with this, nearly all of capital investment building, i.e., the dominant part of investment outlays, was and still is funded with bank credit. An exception to this were capital investments of budget-financed units and plants which depend on the building industry and which during the period under discussion were financed with budget funds and in a supplementary way with nonbudget funds. Investment purchases and major repairs of these units were funded with budget funds as well as those enterprise investments which for reasons of low profitability or type of production could finance their own investments with budget funds (through reinforcement of investment funds of associations and of local investment funds with funds from the budget). On the other hand, an enterprise's own investments (renovation-modernization investments) as well as investments of cooperative organizations were financed with, above all, their own funds.

The principles of financing investments and repairs in units of the socialized economy have been described in resolution no 45 of the Council of Ministers dated 6 March 1976 (MONITOR POLSKI no 15, item 69).

1. The Structure of Sources for Financing Investment Outlays

In addition to the size of investment outlays, a change in the direction of investing also had a significant effect on the structure of the sources of investment funding during the period under discussion. As a result of the so-called economic maneuver the share of investment outlays in housing

construction increased as did the share of outlays in the food sector of the economy, thereby increasing the share of bank credits in the funding of investment outlays. The structure ol the sources of funding for investment outlays during 1976-1981 is presented in Table 1.

The structure of the sources of funding for investment outlays during the discussed period was stable and only the indicators for 1980 arranged themselves differently than in the remaining years. This was caused by the increased share of bank credit in the funding of investment outlays with a concurrent reduction in the share of one's own funds (this resulted from the increased share of one's own funds in the repayment of bank credits in 1980--see Table 2).

Table 1

(1) Wyszczególnienie	1976	1977	1978	1979	1980	1981
	(8) w mld zł					
(2) Nakłady inwestycyjne ogółem	572,1	593,2	602,1	556,4	524,5	405,5
Źródła finansowania (3)						
1. Kredyt bankowy (4)	335,6	328,7	334,3[1]	315,0	327,2	219,2[2]
2. Środki własne (5)	157,7	199,1	200,9	173,8	135,9	134,2
3. Środki z budżetu (6)	78,8	65,4	66,9	67,6	61,4	52,1
Struktura źródeł bezpośredniego finansowania nakładów inwestycyjnych w %% (7)	100,0	100,0	100,0	100,0	100,0	100,0
1. Kredyt bankowy	58,7	55,4	55,5	56,5	62,4	54,1
2. Środki własne	27,5	33,6	33,4	31,2	25,9	33,1
3. Środki budżetowe	13,8	11,0	11,1	12,3	11,7	12,8

Key:

1. Specifics [year]
2. Total investment outlays
3. Sources of funding
4. Bank credit
5. Own funds
6. Budget funds
7. The structure of sources of direct funding of investment outlays in percentages
8. In billions of zlotys

Source: Data from the Ministry of Finance

[1]Amount determined through assessment does not include payments for work performed up to 31 December 1977 and invoiced according to the rules and prices in effect in 1977.

[2]Amount determined through assessment does not include payments for other investment expenditures (with the exception of outlays) which are subject to financing with bank credit.

Table 2

(1) Wyszczególnienie	1976	1977	1978	1979	1980	1981
	(7) w mld zł					
Spłata kredytów bankowych ogółem *: (2)	133,4	163,9	153,6	183,4	198,3	176,4
z tego: (3)						
1. ze środków własnych (4)	109,1	140,0	141,5	161,7	186,3	161,3
2. ze środków budżetowych (5)	24,3	23,9	12,1	21,7	10,0	15,1
Struktura źródeł spłaty kredytów w procentach (6)	100,0	100,0	100,0	100,0	100,0	100,0
1. Środki własne	81,8	85,4	92,1	88,3	95,0	91,5
2. Środki budżetowe	18,2	14,6	7,9	11,8	5,0	8,5

Key:

1. Specifics [year]
2. Total repayment of bank credit *
3. Including
4. From own funds
5. From budget funds
6. The structure of sources of credit repayment in percentages
7. In billions of zlotys

Source: Data from the Ministry of Finance

*Without amortization of credit for cooperative housing construction (during 1976-1981) and in farming (during 1978-1981) but including repayment of credit with local housing funds (during 1978-1981).

The data presented in Table 1 reveal that as in the previous 5-year period, bank credit has retained a dominant position among sources of funding for investment outlays. This resulted from the application of the principles of mandatory crediting for developmental investments (investments aimed at developing the national economy) and for housing construction. The exception to this rule pertained only to low-profit areas in which developmental investments were financed with investment funds (local investment funds and investment funds of associations).

Own funds made up the second source, in terms of size, of funding for investment outlays. The following, among others, were financed from a firm's or institution's own funds: renovation-modernization investments, investments which do not directly have a production character and which constitute separate investment tasks, those which are not included in developmental investments as well as a cooperative, social or trade organization's own investments. Also of significance for increasing the share of a firm's own funds in the financing of investment outlays was the possibility of financing from those developmental investment funds which involve general modernization (instead of financing them [investment outlays] exclusively with interest-bearing credit) as well as, beginning in 1977, highly effective and quick-return modernizing undertakings and technical innovations.

Budget funds were utilized, primarily, for financing investments of budget-financed units and plants and also for certain investments of economic organizations, including mainly investments of the municipal and housing economy. This was done by reinforcing local investment funds and investment funds of associations which due to the low profitability or the specific type of production or services financed developmental and renovation-modernization investments in accordance with the rules in force and according to rules similar to those which were in effect before 1976, i.e., without the contribution of bank credit. Budget funds were also allocated for the financing of investments which do not directly have a production character and which did not constitute developmental investments but independent investment tasks, such as investments connected with the protection of the natural environment, the building of plant-connected schools and boarding schools, plant health care facilities, etc. In addition, budget funds were allocated for the cultivation of farmlands which were taken over from private farmers by units of ths socialized economy.

2. Sources of Bank Credit Repayment

The shape of the structure of sources of bank credit repayment depends on the profitability of enterprises and on the ability to repay debts from the investor's own funds, the degree of state aid in the repayment of bank credits and changes in the direction of investing between areas with differing profitability. The dimensions of the sources of repayment of bank credits, which were drawn for investment financing, and their structure are presented in Table 2.

The dominant source of bank credit repayment were a firm's or investor's own funds with a concurrent reduction in the share of budget funds for this purpose. This was the result of applying the principle of credit self-repayment, to an increasingly wider extent, with funds obtained as a result of making capital investments abailable for use. The share of [one's] own funds in the repayment of credits came to 81.1 percent in 1976 and 91.5 percent in 1981. The share of own funds in the repayment of credit decreased in 1979 and in 1981 as a result of, among other things, an increase in repayments of this credit by units which did not have their own funds at their complete disposal and as a result of a worsening of the financial results of enterprises (this pertains, particularly, to 1981).

Budget aid for the repayment of credit was given to units which did not have adequate funds at their disposal for this purpose. This concerned, in particular, the ministries of mining, metallurgy, construction power engineering and transportation. Credit drawn for financing developmental investments dominated repayments of investment credits. Their share in the overall sum of repayments during 1976-1981 vacillated between 70-75 percent.

3. The Capital Accumulation of Own Funds for Investment Financing

The basic sources of one's own funds for the purpose of financing investments and for the repayment of bank credit were amortization and profit allowances. Their dimensions and growth rate are illustrated by data contained in Tables 3 and 4.

Table 3. Amortization and its Distribution

(1) Wyszczególnienie	1976	1977	1978	1979	1980	1981
	(7) w mld zł					
Amortyzacja [1] (2)	128,4	133,2	152,1	178,5	210,2	221,1
w tym: (3)						
— na spłatę kredytów bankowych (4)	29,7	38,6	46,8	55,9	64,4	67,4
— na bieżące finansowanie inwestycji [2] (5)	7,9	10,9	13,6	17,3	15,2	22,3
— na fundusze przedsiębiorstw i zjednoczeń [3] (6)	65,6	66,7	78,5	92,2	113,7	119,3
	(8) Dynamika (rok poprzedni = 100)					
Amortyzacja	100,0	103,7	114,2	117,3	117,7	105,2
w tym:						
— na spłaty kredytów bankowych	100,0	129,9	121,2	119,4	115,2	104,6
— na bieżące finansowanie inwestycji	100,0	137,9	124,8	127,2	87,9	146,7
— na fundusze przedsiębiorstw i zjednoczeń	100,0	101,8	117,7	117,4	123,3	104,9

Key:

1. Specifics [years]
2. Amortization
3. Including:
4. For the repayment of bank credit
5. For current financing of investments
6. For funds of enterprises and associations
7. In billions of zlotys
8. Growth rate (previous year = 100)

Source: [pertaining to Table3] Data from the Ministry of Finance

[1] Without amortization for budgetary revenues.

[2] Amortization from building structures which were made available before settling accounts for investment credit with the bank.

[3] Investment, investment-repair and development funds.

Table 4. Profit Allowances for Investment Financing and for the Repayment of Investment Credit.

(1) Wyszczególnienie	1976	1977	1978	1979	1980	1981
	(5) w mld zł					
Odpis z zysku * (2)	113,1	125,3	120,4	100,4	105,7	63,7
w tym: (3) na spłatę kredytów bankowych (4)	26,0	31,6	35,9	32,8	39,4	27,7
	(6) Dynamika (rok poprzedni = 100)					
Odpis z zysku	100,0	110,8	96,1	83,4	105,2	60,3
w tym: na spłatę kredytów bankowych	100,0	121,5	113,6	91,4	120,1	70,3

Key:

1. Specifics [year]*
2. Profit allowance
3. Including:
4. For the repayment of bank credit
5. In billions of zlotys
6. Growth rate (previous year = 100)

Source: Data from the Ministry of Finance

*Together with profits allocated for the development fund for investment financing.

The dynamic growth of amortization during 1976-1981 resulted to a significant degree, from changes in the structure of fixed assets which occurred as a result of completing and making capital investments ready for use and as a result of the elimination of worn-out fixed assets. New fixed assets have a higher initial value than old fixed assets, thus the reason for accordingly higher amounts of amortization allowances. The average annual growth rate of amortization during the period under discussion came to 9.7 percent. In accordance with the rules in force, amortization allowances from the fixed assets of enterprises and from building structures and construction in research units [jednostki badawcze] were allocated primarily for the repayment of investment credit. The remaining amount of amortization (after repayment of credit) was allocated for:

--the budget income (amortization allowances from fixed assets which existed before 1 January 1976 and which were not weighted down with the repayment of investment credits; amortization allowances of enterprises and research units, to which complex economic-financial principles were introduced before 1 January 1976, and which [amortization allowances] were obtained from fixed assets existing before the day of introduction of these principles and which [fixed assets] were not weighed down with the repayment of investment credits);

--enterprise development funds (investment funds) and association development funds (the remaining part of amortization allowances).

In certain areas (mining, power engineering and metallurgy), amortization allowances from fixed assets existing before 1 January 1976, which were not weighed down with the repayment of investment credit, were appropriated for centralized accounts instead of for the budget income. The funds accumulated on these accounts were appropriated for the supplementation of the development funds of given branches and for the repayment of bank credits drawn for the financing of development investments. However, amortization allowances from the fixed assets of plant social activity were appropriated for the Central Social Investment Fund.

In contrast to amortization, allowances from profits during 1976-1981, demonstrated a downward trend. This was related to, above all, a worsening of the financial results of the economic activity of enterprises in many subsectors of the socialized sector of the economy and lower allowances from profits for developmental purposes. The increase in profit allowances destined for the repayment of investment credits resulted from using the principle of credit self-repayment primarily from funds obtained as a result of placing capital investments in commission [przekazac do eksploatacji].

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For the purpose of a more complete description of capital spending (i.e. expenditures for investment financing and for major repairs) during the period under discussion, Table 5 presents the growth rate of the total demand for funds for the financing of these expenditures and for the repayment of bank credits as well as their sources of financing. The demand for funds deviates from the amount of outlays for investments and for major repairs because the following, amont other things, have an effect on the magnitude of the need: the amount of bank credit repayment, changes in the state of undertakings and work in progress in the beginning and at the end of the year as well as other expenditures (for example, for financing the costs of drawing up the working plans for future investments).

During 1976-1981, the rate of growth of demand for funds was very differentiated (alternating decline and increase in demand).

Besides the amount of outlays, an increase in the amount of repayment of bank credit, which was drawn in previous years for investment financing, had a decisive influence on the volume of demand for funds. A significant increase in the demand for funds in 1976 and in 1980 resulted from the necessity of repaying financial obligations for work carried out until the end of 1977 and invoiced according to the prices and principles in effect that year (this concerns the demand for funds in 1978) as well as due to an increase in the amount of bank credit repayment (1980).

Table 5.

(1) Wyszczególnienie	1976	1977	1978	1979	1980	1981
	(10) rok poprzedni = 100					
I. Zapotrzebowanie na środki finansowe (2)	100,0	97,6	110,5	86,9	107,1	87,6
(4) w tym: (3) — nakłady inwestycyjne	100,0	103,7	101,5	92,4	94,3	77,3
— nakłady na remonty kapitalne (5)	100,0	99,4	112,3	97,4	106,6	97,5
II Źródła pokrycia (6)	100,0	97,6	110,5	86,9	107,1	87,6
1. kredyt bankowy (7)	100,0	97,9	127,0	75,5	103,9	85,4
2. środki własne (8)	100,0	99,8	100,5	93,7	118,8	87,4
3. środki budżetowe (9)	100,0	90,9	93,0	109,5	85,7	95,2

Key:

1. Specifics [years]
2. Demand for funds
3. Including:
4. Investment outlays
5. Outlays for major repairs
6. Sources of funding
7. Bank credit
8. Own funds
9. Budget funds
10. Previous year = 100

Source: Data from the Ministry of Finance

The growth rate of the particular sources of financing was very differentiated much the same as the growth rate of the demand for funds. The extent to which bank credit and own funds were utilized in respective years changed at a rate similar to that of the growth rate of demand. On the other hand, the share of budget funds decreased from year to year (with the exception of 1979).

It is anticipated that from 1982, the structure of the sources of investment financing will undergo changes as a result of, among other things, the rather substantial changes in the directions of investing and the reform of the financial system and thereby the system of financing investments in the socialized sector of the economy.

9853
CSO: 2600/547

COAL, CRUDE OIL PRICES ASSESSED

Warsaw RZECZPOSPOLITA in Polish 5 Apr 83 p 3

[Article by Marian Twarog: "Coal and the Price of Crude Oil; Less Attractive but Indispensable"]

[Text] After a week of exceptionally difficult negotiations among the oil ministers from 13 OPEC countries, an understanding was arrived at in mid-March regarding new prices for crude oil. This event renewed discussions here about the eventual consequences of that understanding on our economic situation.

Will this first reduction since 1973 of the basic price of crude oil from $34.00 to $29.00 per barrel also reduce the price of coal, of which we intend to sell this year approximately 33 million tons? And maybe this 15-percent reduction will help to break the economic recession and contribute to improving general conditions in foreign trade? In a word: will we win or lose as a result of cheaper oil? As is typical in such situations, it is difficult to give an unequivocal and precise prognosis.

In an interview with PAP, Dr Jacek Dembowski from the Institute of Trends and Prices in Foreign Trade confirmed that the current shift in the world's crude oil market and the emergence of a crude oil surplus will not have a direct influence on the economic situation in Poland. These processes also should not have much influence on the situation existing in the coal markets. The two fuels are tied to each other only to a small degree, which is proved by the fact that during the past few years, an increase in the price of crude oil has not had much effect on the price of coal," concluded Dr Dembowski, "are not dependent now on those of crude oil, but rather on the price of competitive American coal."

A similar opinion to the one expressed above also can be heard in the Foreign Trade Center WEGLOKOKS. Crude oil is not a substitute for coal as a fuel for energy. On the other hand, a substitute is heavy fuel oil, which is less influenced by the price of crude oil than by its own demand and sale. In order to confirm this statement, let us examine price levels during the past 2 years. Even though the price of crude oil increased from $32.50 in 1981 to $34.00 per barrel in 1982, the price of heavy fuel oil fell during the same period from $182.53 to $164.34 per ton.

According to CIECH experts, one also must take into consideration the fact that for a long time, the price of crude oil has been high compared to oil product costs. Therefore, one cannot overlook the fact that despite the fall in crude oil prices, there may come a certain price increase in oil products to overcome financial difficulties in the refineries.

"Simply stated," says Henryk Cygan, director of WEGLOKOKS's economic section, "from an economic point of view, coal can be a substitute for oil if its price is not higher than 50 percent of that of heavy fuel oil. This results from differences in fuel value, burning efficiency and so forth. The current quotation for heavy oil--$163.00 per ton in February 1983--gives a marginal price for coal of $81.50 per ton. And after all, the real price level stands on West European markets at $36.00-$45.00 per ton of coal, so the margin is still large. In these conditions, it seems that a decrease in the price of crude oil will not have a direct effect on the level of coal prices."

However, all of this does not mean that it will be easier for us to sell Polish coal in the next few years nor that we shall be able to make more and more money. Remembering the psychological aspects raised at WEGLOKOKS of a price decrease for crude oil, and thus the halting of the trend to transfer the burning of oil to coal; remembering also the pressures of customers taking advantage of the moment of reduced prices, and even disregarding the connection between these two energy sources, one thing is certain--as a result of an oversupply of coal, its price will not increase in the next few months.

The economic recession, and the decline of a general need for energy in all economic sectors, the reduction of steel production, conservation programs and greater use recently of hydroelectric and nuclear energy all have contributed to a consumer market in the world. This also was influenced by the situation existing in the Polish export of coal, when during the period 1980-81, our deliveries to the West dropped by 70 percent. Coal fever at that time was also triggered by the strike among American miners and the increase in the price of crude oil, which contributed to an artificial need for coal and caused its purchase in bulk for future sales. But because the consumption of coal did not increase, speculation stopped and from the middle of 1981, prices began to decline sharply.

On 1981, the price of American coal in West Europe stood at over $70.00 per ton; today, the price is in the neighborhood of $40.00-$45.00 per ton. It is estimated that stored coal supplies in countries of the European Common Market stand at 49 million tons, and together with supplies held by suppliers, there are about 100 million tons of coal available.

In a recent edition of RYNKI ZAGRANICZNE, Jadwiga Druzynska cites the JOURNAL OF COMMERCE, in which American specialists confirm that current "possibilities for coal cannot be worse." As a result, Americans have cut their coal exports from 100 million tons in 1981 to 82-90 millions tons this year. In Great Britain, there has been a stop to a previous export increase, while the West Germans are talking about a great crisis. Japan is buying less coal.

On the other hand, the European Parliament has stated the following: "coal stands as the key to the European Economic Community's energy future."

It is certain that coal will be less attractive to buyers as a result of cheaper oil, but that does not mean that it should be placed on a side track. Experiences from the 1973 oil embargo are still fresh. And if the prognoses of many experts come true concerning the relationship between a reduced price for crude oil and the breaking of the economic recession in the West, then competition must improve and protectionist tendencies must be erased. This will have significant meaning for Poland and her foreign trade.

9807
CSO: 2600/771

WORK OF BANK FOR INTERNATIONAL ECONOMIC COOPERATION DISCUSSED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16-18 Apr 83 p 1

[Article by Slobodan Tanovic, PRIVREDNI PREGLED editor, based on interview of Toma Granfil, chairman of the business board of the Yugoslav Bank for International Cooperation: "The Plan Can and Must Be Fulfilled"]

[Text] The annual plan for carrying out the medium-term plan of the Yugoslav Bank for International Economic Cooperation in 1983 is truly ambitious. The value planned for export of equipment and ships and for work done on capital investment projects abroad on credit is $950 million, or 70.6 percent more than last year's accomplishments. I would like to emphasize that the plan is realistic, since it is based on firm contracts of Yugoslav manufacturing and export-import organizations with foreign trading partners. The realism of the plan can be questioned, then only from the standpoint of furnishing production materials--domestic and foreign--to the exporting economy, and then from the standpoint of performance of obligations under industrial cooperation and also various factors related to the behavior of foreign trading partners in view of cases of canceling of contracts or requests submitted for postponement of their performance.

The Effort To Fulfill the Bank's Plan Is a Struggle To Augment Exports to the Convertible Market

The plan to export more than $900 million worth of equipment on credit represents 13 percent of the total Yugoslav plan for exports to the convertible area. To that extent the effort we are making to carry out the bank's plan is also a struggle to augment exports to the convertible market, which gives it particular importance.

It is possible, to be sure, under altogether exceptional circumstances, that some successful move by Yugoslav exporters will have an adverse impact on fulfillment of the bank's plan. There was a recent example of this. A customer who was purchasing ships on credit was unable to take them by the date specified, and so a way out of the situation was sought together with the Yugoslav shipyard. The solution was found by reselling the ships to another customer, and that for cash. The ships were turned over to the new customer at the beginning of this year. They will not figure in fulfillment of the plan for the bank, which extended additional credit financing, but the operation is undoubtedly constructive from the standpoint of the inflow of foreign exchange.

Transactions of Major Significance This Year?

There are several examples which truly deserve attention. They indicate the successful conduct of business by Yugoslav organizations of associated labor, above all in the developing countries, but also in other areas. I would thus mention the construction of two footwear factories in Algeria contracted for by "Rudis" of Trbovlje, which involves not only project planning and the export of equipment, but also the transfer of technology, running to a total value of $24 million. And then we certainly should point to construction of the hotel and convention center in Zimbabwe. The total value of the transaction amounts to more than $90 million, and the contractor is "Energoprojekt." "Monting" of Zagreb is taking part in building a paper mill in Tanzania for a value of $29.8 million. "Energoinvest" of Sarajevo has concluded a contract for building a long-distance power transmission line and substations in Zaire, a transaction involving more than $12 million.

"Ingra" of Zagreb will deliver 11 substations to Egypt. The manufacturer is "Rade Koncar" of Zagreb, and the value of the transaction, which includes supervision over construction as well as erection, is $14.1 million. Construction will continue on the copper mine in Burma--the contractor is RTB Bor [Bor Copper Mine and Smeltery]. In 1983 the remaining equipment is to be delivered in the amount of $7.6 million.

In Peru construction of the second phase of the Chira Piura irrigation system will continue. The total value of this transaction, in which "Energoprojekt" is the contractor, is $109 million.

The shipyards which belong to the business community "Jadranbrod" of Zagreb will deliver 13 ships worth about $300 million. They will be paid for in convertible currencies.

Transactions have also been concluded in other areas. Thus "Nikola Tesla" of Zagreb will deliver to Czechoslovakia equipment for telephone offices worth $17.7 million, and "Potisje" of Ada will deliver 360 lathes to the United States for $4.3 million.

A Solution Is Still Being Sought for Furnishing Funds for Additional Credit Financing

We asked about the furnishing of funds for additional credit financing of exports, which has been a constant problem of the bank. Recently there have been optimistic tones. Are they justified?

The optimism in this regard expressed in the press and other news media is premature. Attention is still focused on the furnishing of funds, and the effort to solve the problem is still under way, although it was promised that this issue would be settled at the end of last year or the beginning of this year. The law on conversion of the National Bank's short-term credits which have come due into a long-term loan has a bearing on the inflow of funds to the Yugoslav Bank for International Economic Cooperation and represents a constructive solution. However, at the same time the National Bank Board of

Governors has issued an internal circular specifying that only 50 percent of the planned funds are to be furnished for granting new short-term credits for 1983. This means that 6.5 billion will be furnished instead of 13 billion dinars. Further discussions are needed to reach agreement on bringing the amount up to the necessary level.

The amount of 21 billion dinars was planned from the credit potential of the commercial banks for supplemental credit financing of exports. This amount was provided for in the resolution for this year. An appropriate solution has not yet been found for this amount, and it represents half of the total resources needed for the credit financing of exports. That is, a law has been passed prohibiting use of a certain portion of the resources of the commercial banks, but provision has not yet been made for the practical matter of channeling the funds through the Yugoslav Bank and for the stated purposes. Additional efforts will have to be made on the part of the banks, the Association of Banks, and ultimately the Federal Executive Council and also the republics and provinces so that as a practical matter these funds are actually channeled through the Yugoslav Bank for International Economic Cooperation, as explicitly provided for in the resolution and the bank's plan for 1983.

Limits on bank credits represent a special problem. In practical activity the present system of limits of the commercial banks constitutes a great hindrance in getting the resources for supplemental credit financing which the Yugoslav Bank ... lends through the commercial banks all the way to the exporters, since often the banks are in a situation where they do not have room under their limits to lend the funds. In view of the absolute priority which the export of equipment is supposed to enjoy, regulations should be enacted so that these credits of the Yugoslav Bank ... are exempted from the limit and exporters can thus be furnished the credit funds they need for the contracts which they have.

I should mention that we would release these credits to the exporters only at the moment when the export takes place, and they must accordingly have absolute priority over all others.

Collaboration With Latin America Should Be Developed

In conclusion we should also point up the need to settle the question of compensating differences in rates of interest to put Yugoslav credit transactions at the level of those of other countries. As is well known, current rates of interest have jumped way up in Yugoslavia, and that also applies to rates of interest on export credits. On the international monetary market, by contrast, interest rates have dropped significantly from last year. All countries in the world are compensating the difference between market rates of interest and those at which they grant export credits. We must do the same thing if we want to be competitive under the conditions of keen international competition.

At the end of the conversation we asked Toma Granfil about his recent visit to Latin America.

I went to Panama to attend the annual meeting of the Inter-American Bank. This was an occasion to see to what extent Latin America, that large region of developing countries, has been affected by the world crisis, to what extent the development of that region has been slowed down and its inflow of foreign exchange damaged by the drastic drop in the prices of raw materials, excessive indebtedness and repayment of very large foreign credits.

Nevertheless, it should be noted that this is a very sound and vigorous region of the world economy. Yugoslavia has a great interest in developing cooperation with that region, in both directions, on the basis of equality and mutual benefit.

Yugoslavia is a significant purchaser of Peruvian products, and, as is well known, "Energoprojekt" is working on capital investment projects in Peru. Negotiations are now under way for delivery of Yugoslav freight cars, buses and other products. During our visit there, and on the basis of a protocol on financial cooperation between the two governments, a specific contract was signed on a credit of $150 million between the Yugoslav Bank for International Economic Cooperation and the Peruvian financial institutions Banco de la Nacion and Cofide. This credit will be used to finance new deliveries and to carry out work on capital investment projects by Yugoslav enterprises in Peru, so that it will contribute significantly to the financial and capital investment cooperation between the two countries.

7045
CSO: 2800/256

JOINT ECONOMIC PROJECTS IN UNDERDEVELOPED AREAS

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 16-18 Apr 83 p 2

[Article by D. Brdar: "Could It Have Been Even Better"]

[Text] Organizations of associated labor in the advanced republics and Vojvodina at this moment have a share of about 125 billion dinars in construction of 255 economic projects in Macedonia, Bosnia-Hercegovina, Kosovo and Montenegro. The largest number of joint programs are being carried out in Macedonia--108, and then in Bosnia-Hercegovina (98), Kosovo (36), and Montenegro (13). At present the sum total of capital committed is highest, however, in Bosnia-Hercegovina--69 billion dinars, in Macedonia (25.7), Kosovo (24), and Montenegro (6.7 billion dinars).

In a breakdown by lines of activity, the largest number of joint programs are in industry and mining--182, and then in farming and fishing--44, hostelry and tourism--17, and the remainder in other sectors. Within industry and mining agreements predominate on construction of capacities in the metal manufacturing branch--39, and then in production of electric machines and appliances--17, the manufacturing of finished textile products--14, the food processing industry--13, and so on.

Incidentally, common interest is found most often in construction of new plants. The number of agreements on building new economic projects is 128, which is 50.2 percent of the total number of agreements. In all, 88 agreements were concluded to finance reconstruction and modernization of existing plants, and there are 39 agreements on programs to cover cost overruns on projects already begun. The estimated cost of the new projects is 56.7 billion dinars, and that of the projects for reconstruction and modernization 47.3 billion, and the cost overruns 20.9 billion dinars.

In all, 92 of all these joint projects are based on income sharing, 135 on credit, 5 on a combined arrangement, and the form of association has not yet been decided on for the other 23. Ties based on income sharing account for 39.4 percent of the total estimated cost of all the programs, credit arrangements 42.8 percent, and the other five 2.6 percent.

An Incomplete Picture

These data, which one would say is the basic information on implementing the policy of faster development of the economically underdeveloped republics and provinces, shows, as indicated at the last meeting of the executive board of the Economic Chamber of Yugoslavia, offers only a partial picture of what has been done over the last 2 years. After all, their figures do not say everything, even if they could, whether it be more or less than what is concluded from them at first glance.

Taking the 2-year results in implementing the policy of faster development of the economically underdeveloped republics as an example, the figures do not offer a precise answer to the first question which is put: has enough been done in this period or not. It seems at first glance that it has. The number of agreements on financing joint projects is rather high, especially when we recall that in the period 1976-1980 only 13 similar agreements were concluded. The progress is truly great.

The same conclusion can be drawn by analyzing other data. For example, the policy of faster development of these regions and the agreement on pooling a portion of the resources of the Federal Fund ... in this medium-term period call for a portion of the resources formed through pooling to be committed to construction of projects which guarantee a faster growth of employment and income. It seems that that will be achieved by carrying out the agreements which have been concluded, since they envisage creation of 33,500 new jobs.

An equally encouraging circumstance is the ever more pronounced tendency on the part of organizations of associated labor to assume a very important role and obligation themselves in development of these regions, which until recently were the concern of the government and were performed by force of law. This is also evident from the fact that 22.4 percent of the total resources envisaged for those projects have been pooled through the Federal Fund for stimulating the faster development of those regions. Economic organizations themselves from the two regions, then, have an interest in establishing ties aimed at faster development of the underdeveloped, and they are thus proving in the best possible way that accomplishment of that goal cannot be in the hands of the government. And when we also bear in mind the kind of economic difficulties in which this joint interest is being pursued, then what has been achieved is more than encouraging.

Buffeted by Measures

These 2-year results in implementing the policy of faster development of the economically underdeveloped regions, however, also contain circumstances that encourage different assessments. The number of agreements is indeed great, especially compared to the previous period, but it is not satisfactory. The capital invested is also large, but it is not at the level planned. In other words, the plan for the current medium-term period calls for direct pooling of 114 billion dinars, and the same amount is to be loaned out through the compulsory loan. The self-management accords which have been concluded cover only 28 billion through pooling, which is far less than was planned.

Credit is still dominant in relations among organizations, with all the consequences resulting from it. It seems that there are still large obstacles toward firmer establishment of ties on the basis of a sharing of income and risk.

It is a particularly unfavorable fact that all the republics and Vojvodina have still failed to fulfill their obligation from the last medium-term period to build at least one economic project each in Kosovo. Organizations of associated labor have offered a sizable number of concrete programs, but so far only two self-management accords have been concluded--with Bosnia-Hercegovina and with Serbia. It is significant, however, that none of the republics nor Vojvodina has yet adopted specific measures to encourage organizations of associated labor to discharge this obligation. Nor has the most essential problem in this case been solved--the source of the funds for financing construction of the projects has not been settled.

These and certain other facts rightly and undoubtedly encourage adverse assessments of what has been done so far in implementing the policy of faster development of the economically underdeveloped regions. However, one can hardly agree with the assessment to the effect that what has been done is not even up to what could have been done in a very difficult economic situation. The problems confronted by the entire economy drastically limits the involvement of organizations in the advanced areas in efforts to speed up the development of the underdeveloped regions. Actually the problem is not so much within organizations of associated labor. The undifferentiated and unselective stabilization measures, especially those involving intervention, affect the less developed regions first of all. Numerous inconsistencies and contradictions in the system and the absence of economic laws in the conduct of economic activity are having the same effect. That is why the pathways to faster development of those regions should be sought in removing obstacles of that kind.

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